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FINAL PRELIMINARY ASSESSMENT/SITE INSPECTION REPORT FOR MILITARY MUNITIONS RESPONSE SITE UNEXPLODED ORDNANCE UXO-21 FOREMER D-AREA GAS CHAMBER MCB CAMP LEJEUNE NC

11/1/2011

CH2M HILL

Final

Preliminary Assessment/Site Inspection Report MMRP Site UXO-21 Former D-Area Gas Chamber (2D MARDIV) (ASR#2.204)

Marine Corps Base Camp Lejeune
Jacksonville, North Carolina

Contract Task Order 040

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Executive Summary

A Preliminary Assessment/Site Inspection (PA/SI) was conducted at Site Unexploded Ordnance (UXO)-21, former D-Area Gas Chamber (2nd Marine Division [2D MAR DIV]) (Archive Search Report [ASR] #2.204), Marine Corps Base Camp Lejeune (MCB CamLej), Jacksonville, North Carolina. Investigation activities were conducted to evaluate the presence and nature of munitions constituents (MC) contamination and potential subsurface munitions and explosives of concern (MEC) that may be present due to historical site use and to determine if additional investigation is warranted.

Site UXO-21 is located along Sneads Ferry Road, south of Lyman Street and southeast of the Hadnot Point area of MCB CamLej. Site UXO-21 covers approximately 17 acres of mixed, generally undeveloped woodland on rolling terrain with Sneads Ferry Road crossing north-south along the east side of the site. The site boundary of Site UXO-21 encompasses the location of the former D-Area Gas Chamber.

The investigation at Site UXO-21 was completed in two phases. Phase I included investigation of a 5-acre area in the center of the site with environmental sampling of surface soil, subsurface soil and groundwater and a geophysical survey of approximately 6% of the 5-acre area, followed by a geophysical survey of 100% of accessible portions of the 5-acre area. An intrusive investigation of the anomalies identified within the Phase I investigation area was performed. Phase II investigation activities were performed to assess an additional 9.5-acres of Site UXO-21 with environmental sampling of surface soil, groundwater, sediment and surface water and a geophysical survey of approximately 10% of the 9.5-acre area. No intrusive investigation of the Phase II investigation area has been performed to date.

The Phase I and Phase II environmental sampling efforts were performed in 2007 and 2010, respectively. Phase I investigation area samples were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), tear gas constituents, and metals, while Phase II investigation area samples were analyzed for VOCs, SVOCs, explosives residues, perchlorate and metals. Analytical results were screened against applicable regulatory criteria and Base background concentrations and were compared to human health and ecological screening values to evaluate impacts to human health and ecological receptors. No unacceptable risk was identified for human or ecological receptors at Site UXO-21.

The 2007 Phase I investigation area geophysical survey identified 143 anomalies within 0.6 acres of surveyed transects. The 2009 geophysical survey resurveyed the entirety of the accessible portions of the Phase I investigation area and identified 569 geophysical anomalies within a 4.2-acre area. An intrusive investigation of those 569 anomalies was performed in 2010. Two suspected MEC/material potentially presenting an explosive hazard (MPPEH) items were identified during the investigation and disposed of by MCB CamLej Explosive Ordnance Disposal (EOD). Approximately 6 percent of the 569 anomalies were identified as MPPEH. The MPPEH was inspected and classified as material documented as safe (MDAS). MDAS was removed from the Phase I investigation area for

off-site disposal. Approximately 10.8 lbs of MDAS were recovered from UXO-21. Scrap metal was also recovered from the Phase I investigation area. The 2010 Phase II investigation area geophysical survey identified 738 anomalies within the 1.06 acres of surveyed transects. No intrusive investigation of the anomalies identified during the 2010 survey has been conducted.

The geophysical survey and intrusive investigation were completed throughout all accessible portions of the Phase I investigation area; therefore, no further investigation is recommended for the Phase I investigation area. However, the geophysical survey for the Phase II investigation area identified 738 anomalies that have not been investigated; therefore, an intrusive investigation of the identified Phase II geophysical anomalies is recommended. The need for additional investigation within the Phase I investigation area and the portion of Site UXO-21 located east of Sneads Ferry Road should be re-evaluated following an intrusive investigation of the Phase II geophysical anomalies.

Because no unacceptable human health or ecological risks were identified from exposure to surface and subsurface soil, groundwater, surface water and sediment, no further environmental sampling is recommended at this time for Site UXO-21. The need for additional sampling of munitions constituents will be re-evaluated based on the results of the Phase II intrusive anomaly investigation.

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Acronyms and Abbreviations

2D MARDIV	2nd Marine Division
amsl	above mean sea level
ASR	Archive Search Report
bgs	below ground surface
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CLEAN	Comprehensive Long-term Environmental Action—Navy
CN	chloroacetophenone
COPC	constituent of potential concern
CS	2-chlorobenzalmalononitrile
CTO	Contract Task Order
°F	degrees Fahrenheit
DO	dissolved oxygen
DoN	Department of the Navy
DPT	direct-push technology
DRMO	Defense Reutilization and Marketing Office
ECLS	EC Land Surveying
EOD	Explosive Ordnance Disposal
ERS	Ecological Risk Screening
ESS	Explosives Safety Submission
FFA	Federal Facilities Agreement
ft/ft	feet per foot
HHRS	Human Health Risk Screening
HMX	cyclotetramethylenetetramine
IDW	investigation-derived waste
JV	joint venture
m	meter
MC	munitions constituents
MCB CamLej	Marine Corps Base Camp Lejeune
MDAS	material documented as safe
MEB	Marine Expeditionary Brigade
MEC	munitions and explosives of concern
MILCON	military construction
MMRP	Military Munitions Response Program
MPP	Master Project Plans
MPPEH	material potentially presenting an explosive hazard

MRP	Munitions Response Program
NAVFAC	Naval Facilities Engineering Command
NC 2B Standards	NCAC Title 15A, Subchapter 2B Surface Water Quality Standards
NC 2L Standards	NCAC Title 15A, Subchapter 2L Groundwater Quality Standards
NCAC	North Carolina Administrative Code
NCDENR	North Carolina Department of Environment and Natural Resources
NC SSL	North Carolina Soil Screening Level
NOAA	National Oceanic and Atmospheric Administration
NPL	National Priorities List
NRWQC	National Recommended Water Quality Criteria
OD	outer diameter
OP	Ordnance Pamphlet
ORP	oxidation reduction potential
PA/SI	Preliminary Assessment/Site Inspection
PETN	pentaerythritol tetranitrate
PID	photoionization detector
PPE	personal protective equipment
PVC	polyvinyl chloride
QA	quality assurance
QC	quality control
RCRA	Resource Conservation and Recovery Act
RDX	cyclotrimethylenetrinitramine
RSL	Regional Screening Level
RTS	Robotic Total Station
SVOC	semi-volatile organic compound
TAL	Target Analyte List
TCL	Target Compound List
TO	Task Order
USEPA	United States Environmental Protection Agency
UXO	unexploded ordnance
VOC	volatile organic compound

SECTION 1

Introduction

Marine Corps Base Camp Lejeune (MCB CamLej) is planning the 4th Marine Expeditionary Brigade (MEB) military construction (MILCON) Area as an approximately 100-acre development consisting of an operation and housing complex, mess hall, and parking area. One proposed location for this MILCON development is west of Sneads Ferry Road, south of Lyman Road and overlapping portions of Military Munitions Response Program (MMRP) Site Unexploded Ordnance (UXO)-21. Due to the overlap of the proposed MILCON area and Site UXO-21, a Preliminary Assessment/Site Inspection (PA/SI) was conducted. This document presents the findings and conclusions for the PA/SI conducted at UXO-21, the former D-Area Gas Chamber (2D MAR DIV) (Archive Search Report [ASR] #2.204).

This PA/SI was conducted under the Naval Facilities Engineering Command (NAVFAC) Mid-Atlantic, Comprehensive Long-term Environmental Action—Navy (CLEAN) Contract N62470-02-D-3052 (CLEAN III), Contract Task Order (CTO) 169; Joint-Venture (JV) II Contract N62467-03-D-0260, Task Order (TO) 029; and CLEAN Contract N62470-08-D-1000 (CLEAN 1000), CTO 040. Site investigation activities were conducted in accordance with the following documents:

- *Final Focused Site Inspection Work Plan MILCON Environmental, Marine Corps Base Camp Lejeune, North Carolina* (Focused SI Work Plan) (CH2M HILL, 2007)
- *Focused Site Inspection Work Plan Addendum, Former Tear Gas Chamber, 2nd Marine Division* (Focused SI Work Plan Addendum) (AGVIQ-CH2M HILL Joint Venture, 2009)
- *Explosives Safety Submission for Munitions Response Activities Site UXO-01 Former D-Area Gas Chamber (2nd MAR DIV) (ASR #2.204)* (Site UXO-21 ESS) (CH2M HILL, 2009)
- *Site-specific Work Plan Addendum for Preliminary Assessment/Site Inspection at Site UXO-21, Former D-Area Gas Chamber (2D MAR DIV) (ASR #2.204), Marine Corps Base Camp Lejeune, Jacksonville, North Carolina* (PA/SI Work Plan) (CH2M HILL, 2010b)
- *Explosives Safety Submission (ESS) Amendment, Munitions Response Activities at Site UXO-21, Former D-Area Gas Chamber (2nd MAR DIV) (ASR #2.204), ESS-109, Marine Corps Base Camp Lejeune (MCB CamLej), North Carolina.* (CH2M HILL, 2010a)
- *Munitions Response Program (MRP) Master Project Plans* (Munitions Response Program [MRP] Master Project Plans [MPP]) (CH2M HILL, 2008b)
- *Master Project Plans, Marine Corps Base Camp Lejeune* (CH2M HILL, 2005).

1.1 Objective and Approach

The objective of this PA/SI was to evaluate potential contamination of environmental media and to evaluate the nature and extent of potential subsurface munitions and explosives of concern (MEC) at Site UXO-21 that may have resulted from former gas chamber activities. The technical approach employed to meet the stated objectives included:

- Identifying historical activities that may have resulted in environmental contamination
- Evaluating environmental media for the presence and nature of munitions constituent (MC) contamination that may exist
- Assessing the potential risk to ecological and human receptors under a residential use scenario
- Evaluating accessible areas of Site UXO-21 for the potential presence of subsurface MEC

The investigation at Site UXO-21 was completed in two phases. Phase I included investigation of a 5-acre area in the center of the site with environmental sampling of surface soil, subsurface soil and groundwater and a geophysical survey of approximately 6% of the 5-acre area, followed by a geophysical survey of 100% of accessible portions of the 5-acre area. An intrusive investigation of the anomalies identified within the Phase I investigation area was performed.

Phase II investigation activities were performed to assess the surrounding 9.5 acres with environmental sampling of surface soil, groundwater, sediment and surface water and a geophysical survey of approximately 10% of the 9.5-acre area. No intrusive investigation of the Phase II investigation area has been performed to date. The Phase I and Phase II investigation areas were located west of Sneads Ferry Road. No investigation was performed within the Site UXO-21 boundary east of Sneads Ferry Road as the site boundaries indicate that the former gas chamber was likely located to the west of Sneads Ferry Road.

1.2 Report Organization

The PA/SI report includes the following sections:

- Section 1—Introduction
- Section 2—Background
- Section 3—Physical Characteristics
- Section 4—Field Investigation Activities
- Section 5—Investigation Results
- Section 6—Human Health Risk Screening
- Section 7—Ecological Risk Screening
- Section 8—Conclusions
- Section 9—References

SECTION 2

Background and Physical Characteristics

This section presents a brief summary of the regional and site-specific information, including location, site setting, physical characteristics, and history.

2.1 Facility-wide Description and History

MCB CamLej was commissioned in 1942 as a training area to prepare Marines for combat. The Base and surrounding community is currently home to an active duty, dependent retiree, and civilian population of approximately 180,000 people. MCB CamLej provides housing, training facilities, logistical support, and administrative supplies for Fleet Marine Force units and other assigned units.

The Base encompasses approximately 236 square miles of land in Onslow County, North Carolina adjacent to the southern boundary of the City of Jacksonville. Jacksonville is the largest city near MCB CamLej and contains approximately half of the county's total population. Since 1990, much of the MCB CamLej complex has been part of Jacksonville. The Base is bordered by the Atlantic Ocean to the east, U.S. Route 17 to the west, and State Route 24 to the north, and is bisected by the New River, which flows into the Atlantic Ocean in a southeasterly direction. A regional location map of MCB CamLej, located in Jacksonville, North Carolina, including the location of Site UXO-21 is provided as **Figure 2-1**.

The Base was placed on the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) National Priorities List (NPL) effective November 4, 1989. Subsequent to this listing, United States Environmental Protection Agency (USEPA) Region IV, the North Carolina Department of Environment and Natural Resources (NCDENR), the United States Department of the Navy (DoN), and the Marine Corps entered into a Federal Facilities Agreement (FFA) for MCB CamLej. The primary purpose of the FFA was to ensure that environmental impacts associated with past and present activities at the Base are thoroughly investigated and that appropriate CERCLA response and Resource Conservation and Recovery Act (RCRA) corrective action alternatives are developed and implemented, as necessary, to protect public health and welfare and the environment.

2.2 Site Description and History

Site UXO-21 is located along Sneads Ferry Road, south of Lyman Street and southeast of the Hadnot Point area of MCB CamLej as shown on Figure 2-2. Site UXO-21 covers approximately 17 acres of mixed, generally undeveloped woodland on rolling terrain with Sneads Ferry Road crossing northeast-southwest along the eastern side of the site. The site boundary of Site UXO-21 encompasses the location of the former D-Area Gas Chamber. The Site UXO-21 boundary is presented on **Figure 2-2**. No investigation was performed within the Site UXO-21 boundary east of Sneads Ferry Road as the site boundaries indicate that the former gas chamber was likely located to the west of Sneads Ferry Road.

In May 2007, CH2M HILL conducted an archive review related to historical activities at Site UXO-21. The results of the archive search are presented in **Appendix A**. The exact location of the former gas chamber could not be identified during the archive search. Historical maps dated between 1946 and 1984 showed no structures in the immediate area of Site UXO-21. The *Closed Range List and Maps for MCB Camp Lejeune Report (*Lowder, 2005*)* indicated that this site was in use as the former gas chamber in 1970.

Because this facility was used as a gas chamber, only chemical warfare training agents such as tear gas would have been used for gas mask confidence drills. However, other chemical training items including war gas identification sets and hand grenades may have been used in the area surrounding the gas chamber.

No previous investigations have been performed at Site UXO-21 for MC or potential subsurface MEC.

2.3 Regional Geology, Hydrogeology, and Climate

MCB CamLej is located within the Tidewater region of the Atlantic Coastal Plain Physiographic Province. The area is underlain by an eastward thickening wedge of marine and non-marine sediments ranging in age from early Cretaceous to Holocene. This wedge of sediments begins at the western boundary of the Atlantic Coastal Plain Physiographic Province, known as the Fall Line, and dips and thickens southeastward towards the coast. The sediments occur as layered interfingered beds and lenses of sands, silts, clays, calcareous clays, shell beds, sandstone, and limestone that were deposited over pre-Cretaceous crystalline basement rock. Sedimentary units are often distinguished by minor amounts of detrital carbonate shells, and secondary minerals (Cardinell, Berg, and Lloyd, 1993). Elevations range from sea level at the waterways to 72 feet above mean sea level (amsl) between the New River and U.S. Route 17.

Within the MCB CamLej area, approximately 1,500 feet of a sedimentary sequence overlies the basement rock and is composed of seven aquifers and their associated confining units. These aquifers include the Surficial, Castle Hayne, Beaufort, Peedee, Black Creek, and Upper and Lower Cape Fear aquifers (Cardinell, Berg, and Lloyd, 1993). Confining units associated with specific aquifers are composed of less permeable beds of clay and silt.

The Surficial aquifer, Upper Castle Hayne Confining Unit, and Castle Hayne Aquifer at MCB Camp Lejeune have all been described (Cardinell, Berg, and Lloyd, 1993). The Surficial aquifer resides within the Undifferentiated Formation of Holocene and Pleistocene age sediments, and the Castle Hayne aquifer resides locally within the River Bend Formation. The upper portion of the River Bend Formation is composed of sands, silts, shell and fossil fragments, and trace amounts of clay. The Belgrade Formation, where present, typically acts as a confining unit between the Surficial and the Castle Hayne aquifers.

Interstream areas generally provide the recharge for aquifers within the Coastal Plain region and have been estimated to have a yearly infiltration range of 5 to 21 inches (Heath, 1989). In general, natural discharge of groundwater from the Coastal Plain aquifer system is into streams, swamps, and lakes. Evapotranspiration from the vadose zone and upward leakage through confining units into streams, estuaries, swamps, and even the ocean also contribute to groundwater discharge. Within the vicinity of MCB CamLej, the New River estuary

serves as the principal discharge area for groundwater from the Castle Hayne aquifer (Harned et al., 1989).

Mild winters and hot, humid summers generally characterize climatic conditions within southeastern NC and at MCB CamLej. Winters are usually short and mild, with occasional brief cold periods. Average annual net precipitation is approximately 54 inches. Ambient air temperatures generally range from 37 to 60 degrees Fahrenheit (°F) in the winter months and 71°F to 88 °F during the summer months; summertime humidity averages 75 percent. Winds are generally south-southwesterly in the summer and north-northwesterly in the winter (National Oceanic and Atmospheric Administration [NOAA], 2002).

2.4 Site Topography, Drainage, and Surface Features

The topography at Site UXO-21 is rolling terrain with surface elevations ranging from approximately 7 feet to 33 feet amsl across the site. Surface water drainage in the project vicinity flows into an unnamed tributary of Cogdels Creek, shows on **Figure 2-2**, that crosses the site and flows to the west-southwest toward the New River. Jurisdictional wetlands are also present onsite and cover approximately 5 percent of the site.

Paved and unpaved roads are present onsite, and Sneads Ferry Road is located in a northwest-southeast orientation through the eastern portion of the site. During March 2010, construction began on the Gonzales Boulevard Extension Roadway. The future roadway extends in a northeast-southwest orientation through the southern portion of the site to Sneads Ferry Road. No other cultural features are present within the Site UXO-21 boundaries.

2.5 Site Geology and Hydrogeology

This section presents the geological and hydrogeological characteristics of Site UXO-21, as indicated by the environmental sampling activities conducted in 2007 and 2010. These activities were limited to a depth of approximately 25 feet below ground surface (bgs). Soil boring logs are presented in **Appendix B**.

Given the relatively shallow depths of intrusive investigation activities, this discussion of site-specific geology is limited to the Undifferentiated Formation that overlies the Belgrade and River Bend Formations. Inspection of the soil cores recovered from Site UXO-21 indicates that the underlying sediments consist of fine to medium-grained sands with varying amounts of silt and clay consistent with those of the surficial aquifer (Cardinell, Berg, and Lloyd, 1993). Particle sizes noted from soil boring logs indicate sediments ranging from clay and silt to cobble size stones. The predominant lithology directly underlying Site UXO-21 consists of poorly graded, silty sand interbedded with a lesser amount of clayey and gravelly sands.

Site-specific hydrogeologic information was derived from the installation of ten shallow temporary monitoring wells in 2010. The monitoring wells were screened above the Castle Hayne confining unit in the undifferentiated surficial aquifer. Groundwater elevations ranged from 3.38 to 18.80 feet amsl, as shown in **Table 2-1**. **Figure 2-3** depicts the potentiometric surface on April 10, 2010 and indicates that groundwater mimics surface topography and generally flows to the west-southwest. Horizontal hydraulic gradients observed at the site ranged from 0.008 feet per foot (ft/ft) to 0.012 ft/ft.

TABLE 2-1
Groundwater Elevation and Well Construction Information
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)
PA/SI Report
MCB CamLej, North Carolina

Well ID	**Date Installed** (mm/dd/yy)	**Screened Interval** (ft bgs)	**Bottom of Well** (ft btoc)	**Surveyed Top of Casing Elevation** (ft msl)	**Depth to Water April 10, 2010** (ft btoc)	**Groundwater Elevation April 10, 2010** (ft msl)
GC-TW02	07/25/07	10-15	15	NA	NA	NA
GC-TW05	07/25/07	4-9	9	NA	NA	NA
GC-TW08	07/25/07	7-12	12	NA	NA	NA
MR21-MW01	03/10/10	2-12	14.32	22.19	5.90	16.29
MR21-MW02	03/10/10	3-13	16.20	20.78	6.23	14.55
MR21-MW03	03/09/10	6-16	19.15	25.59	9.09	16.50
MR21-MW04	03/09/10	6-16	18.83	29.06	11.17	17.89
MR21-MW05	03/10/10	2-12	14.65	15.75	3.38	12.37
MR21-MW06	03/09/10	10-20	23.46	32.96	18.80	14.16
MR21-MW07	03/08/10	4-14	16.15	23.38	4.22	19.16
MR21-MW08	03/09/10	6-16	16.00	24.06	9.21	14.85
MR21-MW09	03/09/10	7-17	19.85	29.43	10.62	18.81
MR21-MW10	03/09/10	7-17	16.99	27.78	12.51	28.42

Notes:
NA = Not applicable/information not available
ft bgs = feet below ground surface
ft btoc = feet below top-of-casing
ft msl = feet above mean sea level
Generated by: David Seed
Checked by: Erin Twamley

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Legend

- Highways
- UXO-21
- Installation Boundary

N

0 7,500 15,000 30,000 Feet

1 inch = 15,000 feet

Figure 2-1
Base Location Map
Site UXO-21 Former D-Area Tear
Gas Chamber (2nd Division) (ASR#2.204)
PA/SI Report
MCB CamLej
North Carolina

CH2MHILL

Erin Twamley/RDU Checked by Dan Tomczak/RDU

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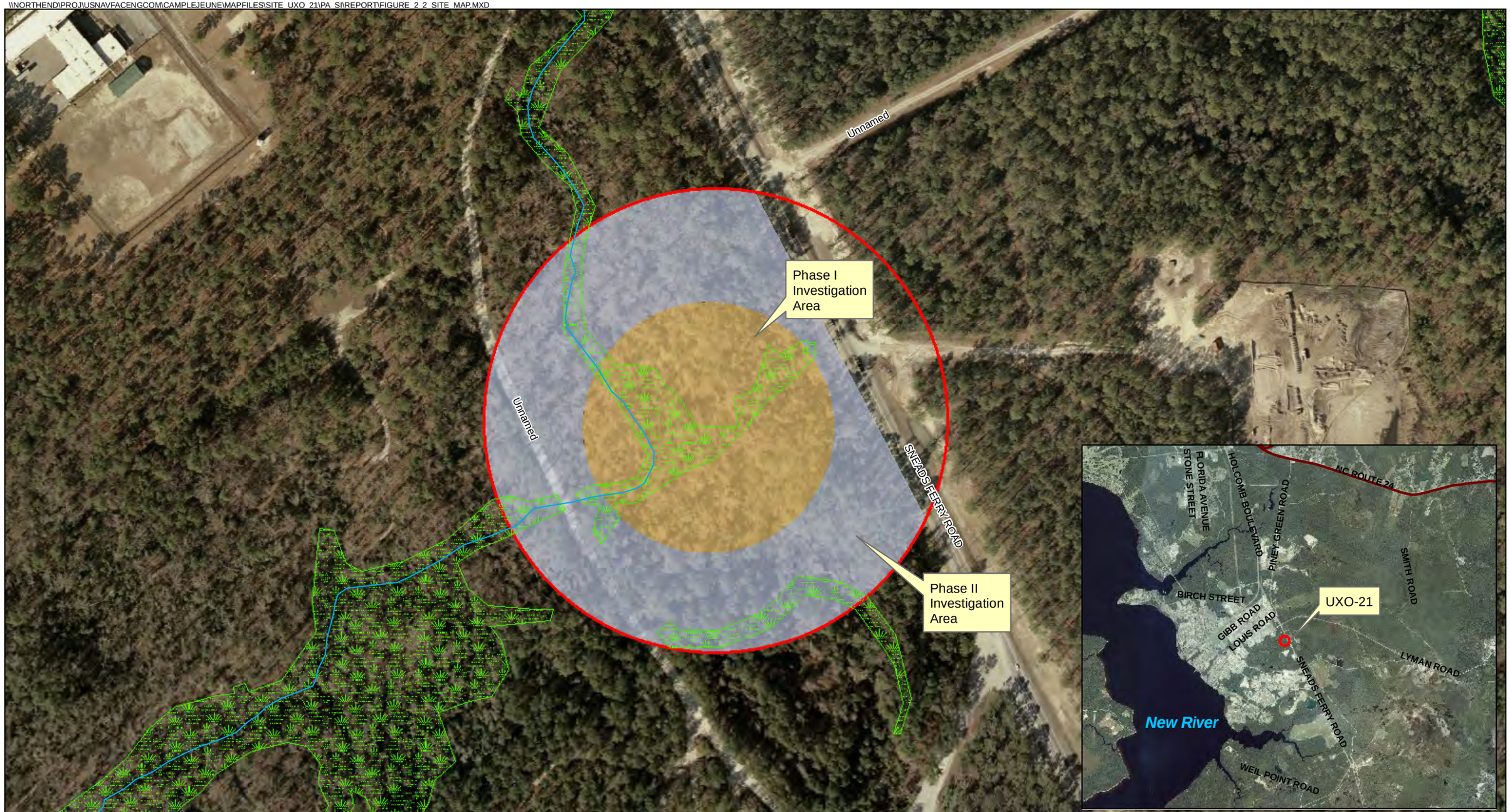

Legend

- Creek
- Jurisdictional Wetlands
- UXO-21
- Phase I Investigation Area
- Phase II Investigation Area
- Base Boundary

N

0 100 200 400 Feet

1 inch = 200 feet

Figure 2-2
Site Map
Site UXO-21 Former D-Area Tear
Gas Chamber (2nd Division) (ASR#2.204)
PA/SI Report
MCB CamLej
North Carolina

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Generated by: Erin Twamley/RDU Checked by: Dan Tomczak/RDU

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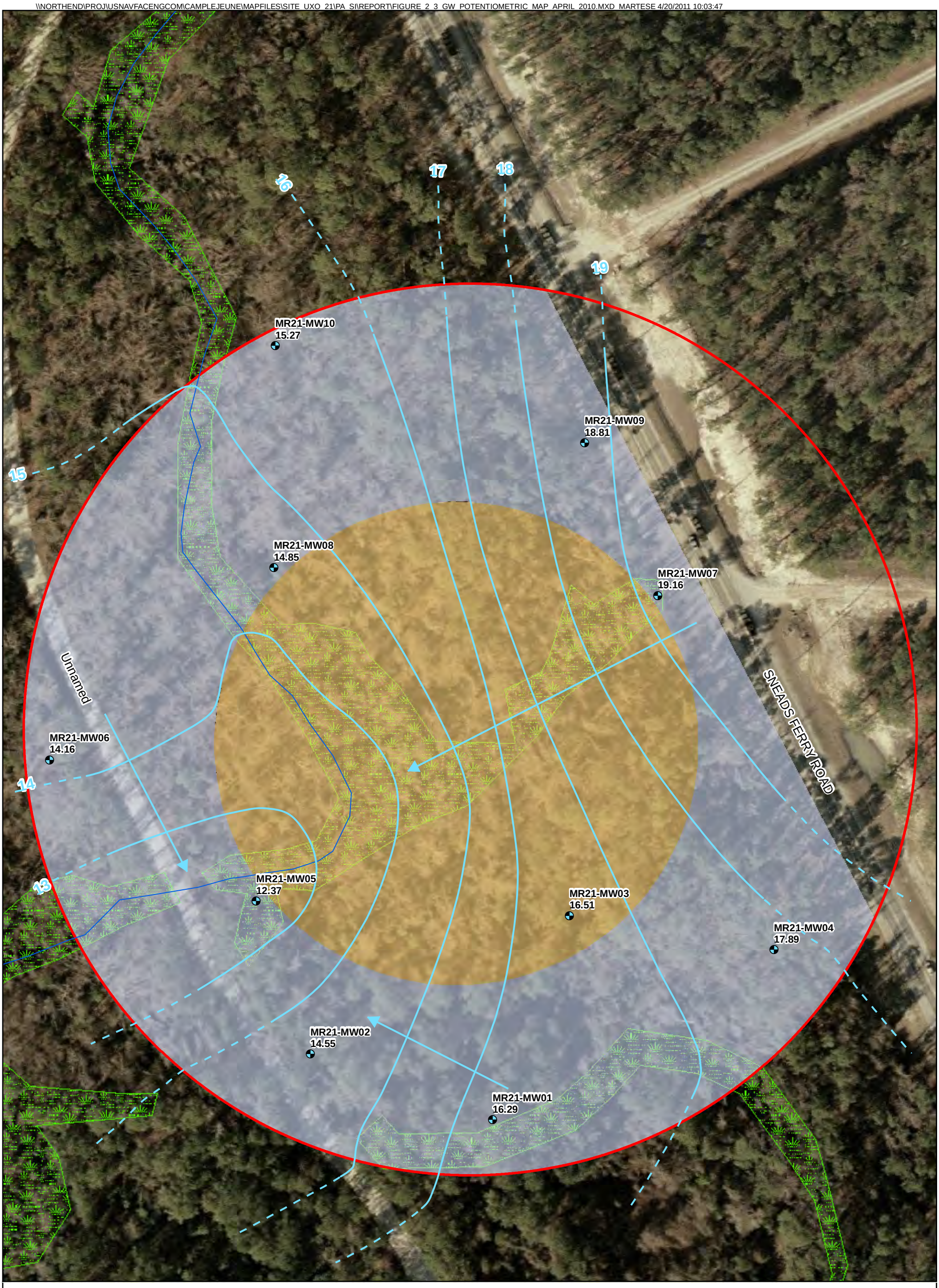


Legend

- PA/SI Monitoring Wells
- Estimated Direction of Groundwater Flow
- 15 Potentiometric Groundwater Contour
- Potentiometric Groundwater Contour (inferred)
- Creek
- UXO-21
- Phase I Investigation Area
- Phase II Investigation Area
- Jurisdictional Wetlands

Groundwater elevations in ft msl are presented for each groundwater monitoring well

N

0 50 100 200 Feet

1 inch = 100 feet

Figure 2-3
Groundwater Potentiometric Map (April 2010)
Site UXO-21 Former D-Area Tear
Gas Chamber (2nd Division) (ASR#2.204)
PA/SI Report
MCB CamLej
North Carolina

CH2MHILL

Generated by: David Seed/RDU Checked by: Erin Twamley/RDU

SECTION 3

Field Investigation Activities

The Site UXO-21 investigation was performed in two phases. Phase I included investigation of a 5-acre area in the center of the site with environmental sampling of surface soil, subsurface soil and groundwater and a geophysical survey of approximately 6% of the 5-acre area, followed by a geophysical survey of 100% of accessible portions of the 5-acre area. Phase II investigation activities were performed to assess the surrounding 9.5-acres with environmental sampling of surface soil, groundwater, sediment and surface water and a geophysical survey of approximately 10% of the 9.5-acre area. Intrusive investigation of selected anomalies was performed following the geophysical survey.

3.1 Phase I Investigation Activities

The Phase I investigation area addressed a 5-acre area in the central portion of Site UXO-21, as shown on **Figure 2-2**. The Phase I investigation area activities were conducted in 2007 and 2009 and included site preparation activities; environmental sampling of surface soil, subsurface soil and groundwater; and a geophysical survey of approximately 6% of the 5-acre area, followed by a geophysical survey of 100% of accessible portions of the 5-acre area.

3.1.1 Land Surveying

Land surveying within the Phase I investigation area of Site UXO-21 was performed by Lanier Surveying, a North Carolina-licensed surveyor from Cedar Point, North Carolina. The Phase I investigation area boundary and vegetation clearance transects were flagged at the site in August 2007. Phase I QC seeds were surveyed in January 2009. Land surveying data is presented in **Appendix C**.

3.1.2 Vegetation Clearance

East Coast Land Improvement of Swansboro, North Carolina cleared vegetation transects across throughout the 5-acre Phase I investigation area to facilitate environmental sampling and geophysical survey activities. In 2009, East Coast Land Improvement cleared 100% of the accessible portion of the Phase I investigation area to facilitate additional geophysical activities. The central portion of the site adjacent to the tributary of Cogdels Creek was inaccessible due to low-lying wetland areas. Vegetation and trees less than 6 inches in diameter were cleared to within six inches of the ground surface during all vegetation clearing activities. No clearing was conducted within observed wetland areas of the site.

3.1.3 Environmental Sampling Activities

Environmental samples within the Phase I investigation area were collected in accordance with the Focused SI Work Plan (CH2M HILL, 2007). Samples collected from within the Phase I investigation area were analyzed by GPL Laboratories, LLLP of Frederick, Maryland.

Surface and Subsurface Soil Sampling

Surface and subsurface soil samples within the Phase I investigation area were collected in July 2007. Ten surface samples, co-located with 10 subsurface soil samples, (GR-IS01 through GR-IS10) were collected at the locations shown on **Figure 3-1**. Surface soil samples were collected from 0 to 1 foot bgs, and subsurface soil samples were collected immediately above the water table at depths ranging from 2 to 12 ft bgs. Soil samples were collected using direct-push technology (DPT) sampling methods with disposable acetate liners. Down-hole sampling equipment was decontaminated between each sampling location and a new liner was used in collecting each continuous sample from the ground surface to the bottom of the borehole. Samples for volatile organic compound (VOC) analysis were collected from the acetate liners using Encore® samplers. The remainder of the soil samples were collected from the acetate liners and homogenized in accordance with Appendix C of the MRP Master Project Plans, *Homogenization of Soil and Sediment Samples* (CH2M HILL, 2008b).

Surface and subsurface soil samples were analyzed for the following constituents:

- Target Compound List (TCL) VOCs (USEPA Method OLM04)
- TCL semi-volatile organic compounds (SVOCs) (USEPA Method OLM04)
- Target Analyte List (TAL) metals (USEPA Method ILM04)
- Tear gas constituents - 2-chlorobenzalmalononitrile (CS) and chloroacetophenone (CN) (USEPA Method 8270C)

Field screening of the soil samples was performed using a photoionization detector (PID).

Temporary Monitoring Well Installation and Groundwater Sampling

Three temporary groundwater monitoring wells (GC-TW02, GC-TW05, and GC-TW08) were installed within the Phase I investigation area at the locations shown on **Figure 3-1**. The wells were installed to depths ranging from 12 to 19 feet bgs using DPT. Well installation details are presented in **Table 2-1**. Well construction activities were performed by American Environmental Drilling of Aberdeen, North Carolina, a North Carolina-licensed driller. Temporary monitoring wells were constructed from 1-inch outer diameter (OD), Schedule 40 polyvinyl chloride (PVC) risers with 0.010-inch screen size. Top-of-casing elevations of the Phase I temporary wells were not surveyed.

Groundwater samples from the temporary wells within the Phase I investigation area were collected in July 2007. Groundwater samples were collected using a peristaltic pump with disposable polyethylene tubing and low-flow purging and sampling techniques in accordance with the Focused SI Work Plan (CH2M HILL, 2007). Water quality parameters (specific conductance, pH, turbidity, temperature, dissolved oxygen [DO], and oxidation-reduction potential [ORP]) were monitored during the purging phase using a Horiba U-22® water quality meter. Field parameter measurements are summarized in **Table 3-1**. Groundwater sampling data sheets are provided in **Appendix D**.

Groundwater samples were analyzed for the following constituents:

- TCL VOCs (USEPA Method OLM04)
- TCL SVOCs (USEPA Method OLM04)
- Total and dissolved (filtered) TAL metals (USEPA Method ILM04)
- Tear gas constituents (CN and CS) (USEPA Method 8270C)

Upon completion of groundwater sampling, the temporary wells were removed and all DPT boreholes were abandoned in accordance with North Carolina Administrative Code (NCAC) Title 15A, Subchapter 2C Groundwater Quality Standards (NC 2C Standards) by grouting from the bottom of the boring to the ground surface.

Quality Assurance/Quality Control Sampling

Quality assurance/quality control (QA/QC) sampling was performed in accordance with Navy CLEAN and CH2M HILL protocols, including the collection of field blanks, equipment blanks, duplicates, and matrix spike/matrix spike duplicates.

3.1.4 Investigative-derived Waste Management

Investigation-derived waste (IDW) generated during the Phase I investigation area activities included soil, groundwater and decontamination fluids. IDW was disposed of off-site following characterization of the waste. Disposable equipment, including personal protective equipment (PPE), DPT soil sleeves, sample tubing, polyvinyl sheeting, paper towels, and aluminum foil, was disposed of in a separate 55-gallon drum as solid waste.

3.1.5 Geophysical Survey

Geophysical survey activities were performed within the Phase I investigation area in 2007 and 2009 by NAEVA Geophysics of Charlottesville, Virginia. The 2007 survey activities included a geophysical survey of transects across approximately 0.6 acres of the 5-acre investigation area. The geophysical survey was performed using a single-coil EM61-MK2. The 2009 survey activities included a geophysical survey of 100% of the accessible portions of the Phase I investigation area, an area of approximately 4.2 acres out of the 5-acre area, including a re-survey of the areas covered during the 2007 survey. The 2007 and 2009 geophysical survey areas are shown on **Figure 3-2**. The 2009 geophysical survey was also performed using a single-coil EM61-MK2. Portions of the site could not be accessed during the geophysical surveys due to the presence of creek and wetland areas. The geophysical investigation reports are presented in **Appendix E**.

Geophysical survey activities were performed in accordance with the Focused SI Work Plan (CH2M HILL, 2007) and the Focused SI Work Plan Addendum (CH2M HILL, 2009). Six QC seeds were placed within the Phase I investigation area prior to the 2007 geophysical survey. An additional four QC seeds were placed within the Phase I investigation area prior to the 2009 geophysical survey. QC seeds consisted of three-centimeter diameter steel pipes, approximately 10 centimeters in length. All QC seeds were identified during the geophysical survey activities as anomalies potentially representing MEC at the site.

3.1.6 Intrusive Investigation Activities

A total of 569 subsurface anomalies were identified as representing potential subsurface MEC within the Phase I investigation area. The intrusive investigation activities within the Phase I investigation area commenced in March 2009. Intrusive investigation activities were performed by USAE of Tampa, Florida. Based on an ESS Determination by MARCORSYSCOM, no Explosives Safety Submission (ESS) was required for the planned site activities. After encountering two suspected MEC/MPPEH items, intrusive investigation activities ceased. Because an Explosives Safety Submission (ESS) had not been prepared for Site UXO-21, the MCB CamLej Explosive Ordnance Disposal (EOD) team conducted an emergency response to dispose of the two suspected MEC/MPPEH items.

Following the preparation and approval of the *Explosives Safety Submission for Munitions Response Activities Site UXO-01 Former D-Area Gas Chamber* (CH2M HILL, 2009*),* intrusive activities resumed at Site UXO-21 in November 2009.

The geophysical anomalies identified for investigation were reacquired with a Trimble S6 Robotic Total Station (RTS) and an EM61-MK2. Each identified anomaly was excavated using hand tools. Each excavated item was classified as MEC, material potentially presenting an explosive hazard (MPPEH) or other metallic debris. MPPEH and other debris were segregated and place at the MPPEH collection point and scrap metal collection point, respectively. Excavation areas were then rechecked with the EM61-MK2 to ensure that additional metallic debris was not present beneath the removed item.

Anomaly investigation activities and material inspections were conducted in accordance with Ordnance Pamphlet (OP) 5 Volume 1 (NAVSEA, 2010). MPPEH underwent two 100 percent visual inspections by two UXO Technician IIIs, who were not under the same command structure and who were authorized to sign the DD Form 1348-1A. After the two independent inspections indicated that there was no explosive hazard associated with the MPPEH, the material was classified as material documented as safe (MDAS). The DD Form 1348-1A was used to document the certification/verification (**Appendix F**). The MDAS removed from Site UXO-21 was verified and certified as inert and/or free of explosives or related material.

3.2 Phase II Investigation Activities

The Phase II investigation area addressed a 9.5-acre area of Site UXO-21, as shown on **Figure 2-2**. The Phase II investigation area activities were conducted in 2010 and included site preparation activities, environmental sampling of surface soil, groundwater, sediment and surface water and a geophysical survey of approximately 10% of the 9.5-acre area.

3.2.1 Land Surveying

Land surveying within the Phase II investigation area of Site UXO-21 was performed by EC Land Surveying (ECLS), a North Carolina–licensed surveyor from Erwin, North Carolina. The Phase II investigation area boundary and vegetation clearance transects were flagged at the site and environmental sampling locations were surveyed in March 2010. Land surveying data is presented in **Appendix C**.

3.2.2 Vegetation Clearance

East Coast Land Improvement of Swansboro, North Carolina cleared approximately 10% of the 9.5-acre Phase II investigation area in 2010 to facilitate environmental sampling activities and geophysical survey activities.

3.2.3 Environmental Sampling Activities

Environmental samples within the Phase II investigation area were collected in accordance with the Focused SI Work Plan Addendum (AGVIG-CH2M HILL Joint Venture, 2009) and the PA/SI Work Plan (CH2M HILL, 2010b).

Surface Soil Sampling

Surface soil samples within the Phase II investigation area were collected in March 2010. Thirty surface soil samples (MR21-SS11 through MR21-SS40) were collected at the locations shown on **Figure 3-3**. Surface soil samples were collected by compositing a minimum of 30 sample aliquots from random locations within each 1-meter (m) by 1-m sampling location at an interval of 0 to 2 inches bgs in accordance with the TR-02-1 approach (Thiboutot, et al, 2002). Samples for VOC analysis were collected prior to sample homogenization. The remainder of the soil samples were homogenized in accordance with Appendix C of the MRP Master Project Plans, *Homogenization of Soil and Sediment Samples* (CH2M HILL, 2008b).

Surface soil samples were analyzed for the following constituents:

- TAL metals (USEPA Method 6010B)
- TCL VOCs (USEPA Method 8260B)
- TCL SVOCs plus CS and CN (USEPA Method 8270C)
- Explosives residues including Pentaerythritol tetranitrate (PETN) and Nitroglycerin (USEPA Method 8330)
- Perchlorate (SW-846 USEPA Method 6850)

Soil samples were analyzed by Empirical Laboratories of Nashville Tennessee. Field screening of soil samples was performed using a PID.

Permanent Monitoring Well Installation and Groundwater Sampling

Ten permanent groundwater monitoring wells (MR21-MW01 through MR21-MW10) were installed within the Phase II investigation area at the locations shown on **Figure 3-4** The wells were installed to depths ranging from 12 to 22 feet bgs using DPT. Well installation details are presented in **Table 2-1**. Well construction activities were performed by Probe Technologies Incorporated of Concord, North Carolina, a North Carolina-licensed driller.

Boreholes were advanced with a track mounted Geoprobe® Model 6620DT drill rig using 4.25-inch inner diameter hollow-stem augers. Each monitoring well was constructed using 2-inch-diameter, Schedule 40 PVC with 0.010-inch machine slotted screen and bottom cap. Wells were screened in 10-foot intervals to bracket the water table. A sand pack was placed in the annular space between the borehole and monitoring well screen and extended a minimum of 1 foot above the screens. A minimum of 1 foot of bentonite pellets was placed above the sand pack. The bentonite was hydrated with potable water prior to grouting. Cement-bentonite grout was placed above the bentonite pellets to within 1 foot of the ground surface (when possible) and left to cure 24 hours before development. The monitoring wells were developed by surging and over pumping prior to sampling. Soil boring logs and well completion diagrams are presented in **Appendix B**.

Groundwater samples from the permanent monitoring wells within the Phase II investigation area were collected in April 2010. Water quality parameters (specific conductance, pH, turbidity, temperature, DO, and ORP) were monitored during the purging phase using a YSI 556® water quality meter and Hanna® turbidity meter. Field parameters are summarized in **Table 3-1**. Groundwater sampling data sheets are provided in **Appendix D**.

Groundwater samples were analyzed for the following constituents:

- TCL VOCs (USEPA Method OLM04)
- TCL SVOCs (USEPA Method OLM04)
- Total and dissolved (filtered) TAL metals (USEPA Method ILM04)
- Tear gas constituents (CN and CS) (USEPA Method 8270C)
- Explosives residues (USEPA Method 8330)
- Perchlorate (USEPA Method 6850)

Surface Water and Sediment Sampling

Six co-located surface water and sediment samples (MR21-SW01 through MR21-SW06 and MR21-SD01 through MR21-SD06) were installed within the Phase II investigation area at the locations shown on **Figure 3-5** in April 2010. The samples were collected from the unnamed tributaries to Codgels Creek in the northern and southern portions of Site UXO-21. At each location, the surface water samples were collected before the sediment samples. Sediment samples were collected by advancing a trowel approximately 6 to 12 inches into the sediment.

Surface water samples were analyzed for the following constituents:

- TCL VOCs (USEPA Method 8260B)
- TCL SVOCs including CS and CN (USEPA Method 8270C)
- TAL Metals (USEPA Method 6010B) total and dissolved
- Explosives residues (USEPA Method 8330)
- Perchlorate (USEPA Method 6850)

Sediment samples were analyzed for the following constituents:

- TCL VOCs (USEPA Method 8260B)
- TCL SVOCs including CS and CN (USEPA Method 8270C)
- TAL Metals (USEPA Method 6010B) total
- Explosives residues (USEPA Method 8330)
- Perchlorate (USEPA Method 6850)

Quality Assurance/Quality Control Sampling

QA/QC sampling was performed in accordance with Navy CLEAN and CH2M HILL protocols, including the collection of field blanks, equipment blanks, duplicates, and matrix spike/matrix spike duplicates.

3.2.4 Investigative-derived Waste Management

IDW generated during the Phase II investigation area activities included groundwater and decontamination fluids. IDW was disposed of in accordance with the **Base Waste Management Plan (CH2M HILL, 2008a).** Soil cuttings from the borings were spread on the ground surface around the borehole. The purge water and decontamination fluids were placed in labeled 55-gallon drums, staged at the storage facility on Parachute Tower Road, and properly disposed of offsite by an IDW management subcontractor. Disposable equipment, including PPE, polyethylene sheeting, paper towels, and aluminum foil, was placed in black contractor's trash bags and disposed of in an on-Base trash receptacle.

3.2.5 Geophysical Survey

Geophysical survey activities were performed within the Phase II investigation area in 2010 by NAEVA Geophysics of Charlottesville, Virginia. The 2010 survey activities included a geophysical survey of transects across approximately 1 acre of the 9.5-acre investigation area, as shown on **Figure 3-6.** The geophysical survey was performed using a single-coil EM61-MK2. The geophysical investigation report is presented in **Appendix E**.

Geophysical survey activities were performed in accordance with the PA/SI Work Plan (CH2M HILL, 2010b). Two QC seeds were placed within the Phase II investigation area prior to the 2010 geophysical survey. QC seeds consisted of three-centimeter diameter steel pipes, approximately 10 centimeters in length. All QC seeds were identified during the geophysical survey activities as anomalies potentially representing MEC at the site.

TABLE 3-1
Summary of Groundwater Quality Parameters
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)
PA/SI Report
MCB CamLej, North Carolina

Station ID	Sample Date	Field Parameters					
		Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	pH	Specific Conductance (mS/cm)	Temperature (C)	Turbidity (NTU)
GC-TW02	7/25/2007	1.23	116	4.68	0.061	21.14	12.99
GC-TW05	7/25/2007	6.58	0.98	7.15	0.422	19.79	9.53
GC-TW08	7/25/2007	0.38	57	4.81	0.069	19.31	99.86
MR21-MW01	4/10/2010	1.03	110	4.42	0.152	14.26	8.6
MR21-MW02	4/10/2010	3.28	238.6	4.45	0.054	15.09	75
MR21-MW03	4/10/2010	0.68	310.2	4.61	0.054	17.31	8.2
MR21-MW04	4/10/2010	2.91	183.5	4.89	0.118	16.17	8.3
MR21-MW05	4/10/2010	0.8	-107.4	6.81	0.389	15.64	13.1
MR21-MW06	4/10/2010	4.73	325.6	4.56	0.071	16.02	8.4
MR21-MW07	4/10/2010	0.31	-4.9	6.5	0.328	15.4	9.8
MR21-MW08	4/10/2010	3.31	367.4	4.31	0.065	15.19	8.7
MR21-MW09	4/10/2010	4.51	183.1	5.4	0.106	15.02	10
MR21-MW10	4/10/2010	5.37	302.1	4.3	0.077	15.4	10.5

Notes:

mg/L - milligrams per liter

mV - millivolts

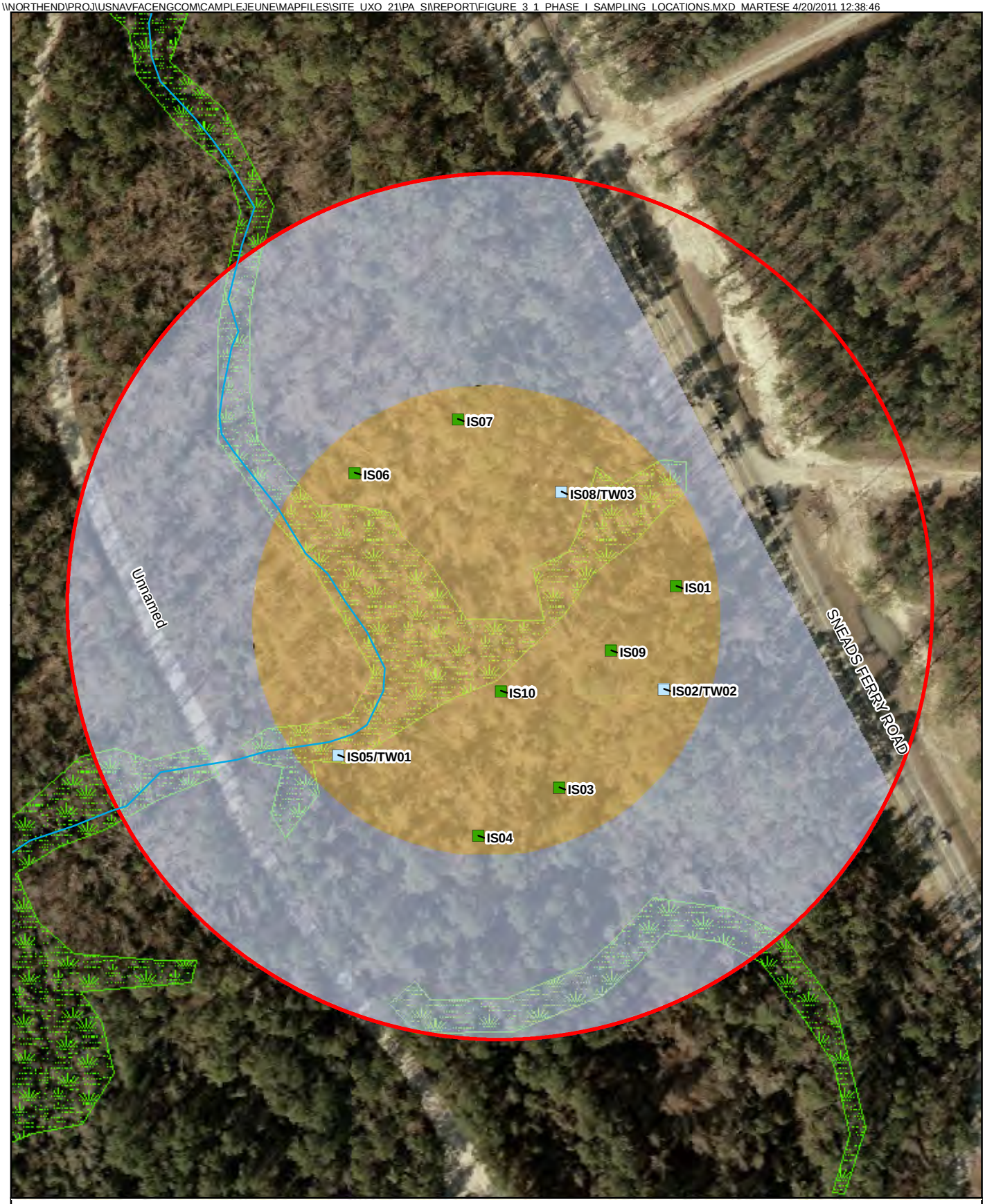
mS/cm - millisiemens per centimeter

C - degrees Celsius

NTU - nephelometric turbidity unit

Generated by: David Seed

Checked by: Erin Twamley



Legend

- Surface and Suburface Soil Samples / Temporary Well
- Surface and Subsurface Soil Samples
- Creek
- UXO-21
- Phase I Investigation Area
- Phase II Investigation Area
- Jurisdictional Wetlands

N

0 75 150 300 Feet

1 inch = 150 feet

Figure 3-1
Phase I Sampling Locations
Site UXO-21 Former D-Area Tear
Gas Chamber (2nd Division) (ASR#2.204)
PA/SI Report
MCB CamLej
North Carolina

CH2MHILL

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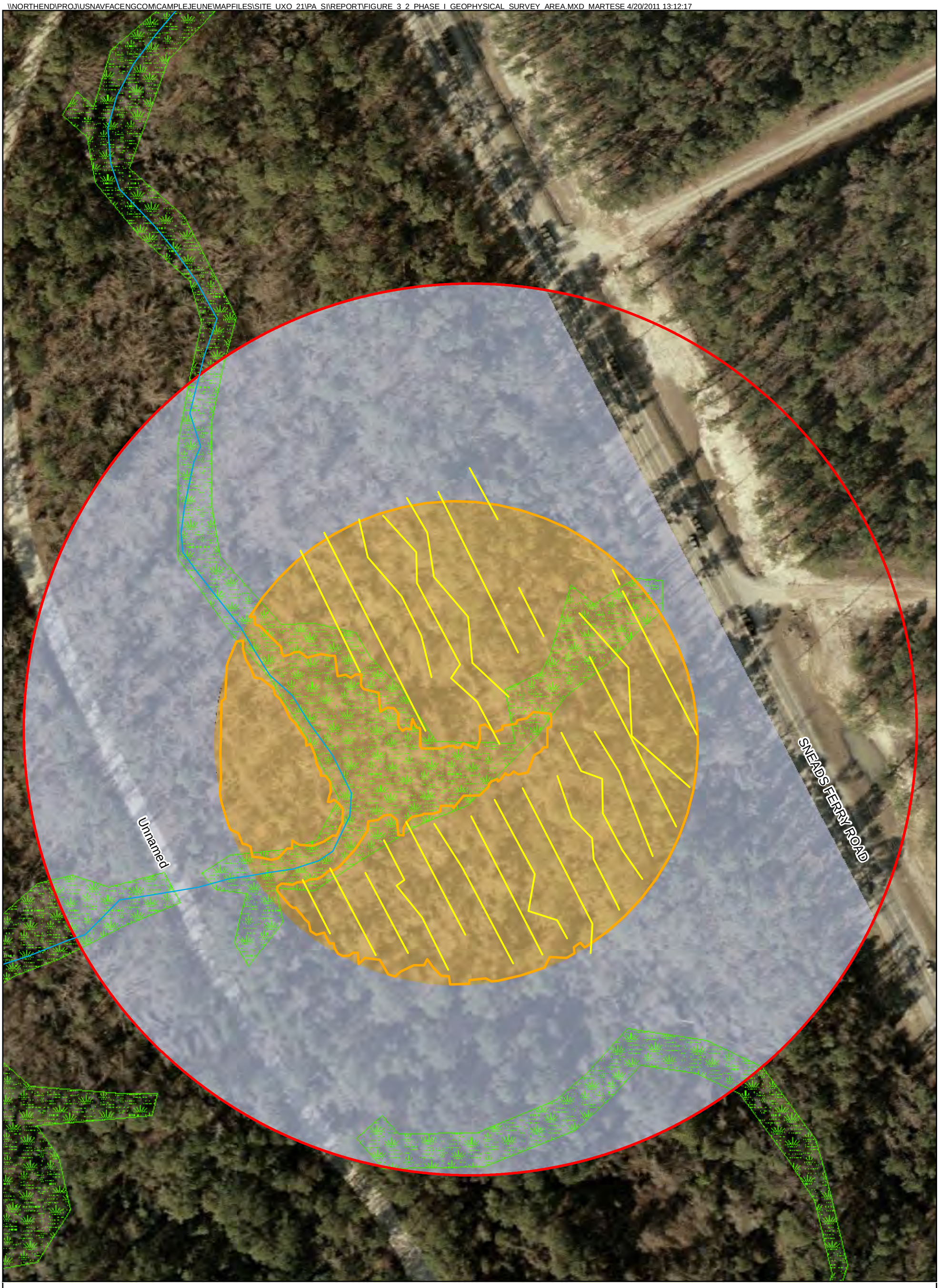

Legend
- Creek
- Geophysical Survey Transects (2007)
- Geophysical Survey Area (2009)
- UXO-21
- Phase I Investigation Area
- Phase II Investigation Area
- Jurisdictional Wetlands

N

0 50 100 200 Feet

1 inch = 100 feet

Figure 3-2
Phase I Geophysical Survey Area
Site UXO-21 Former D-Area Tear
Gas Chamber (2nd Division) (ASR#2.204)
PA/SI Report
MCB CamLej
North Carolina

CH2MHILL

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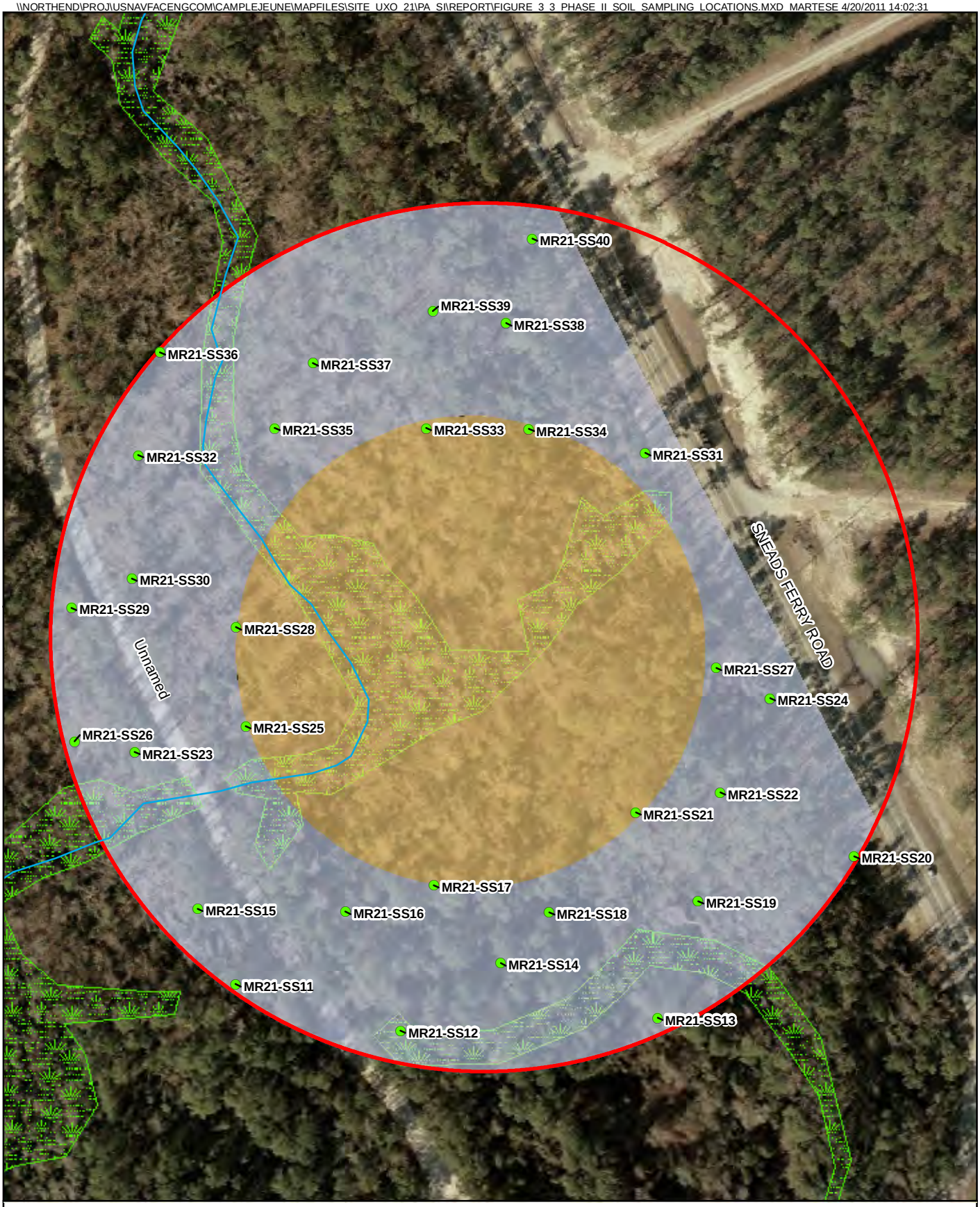

Legend

- Surface Soil Sampling Location
- Creek
- UXO-21
- Phase I Investigation Area
- Phase II Investigation Area
- Jurisdictional Wetlands

N

0 75 150 Feet

1 inch = 150 feet

Figure 3-3
Phase II Soil Sampling Locations
Site UXO-21 Former D-Area Tear
Gas Chamber (2nd Division) (ASR#2.204)
PA/SI Report
MCB CamLej
North Carolina

CH2MHILL

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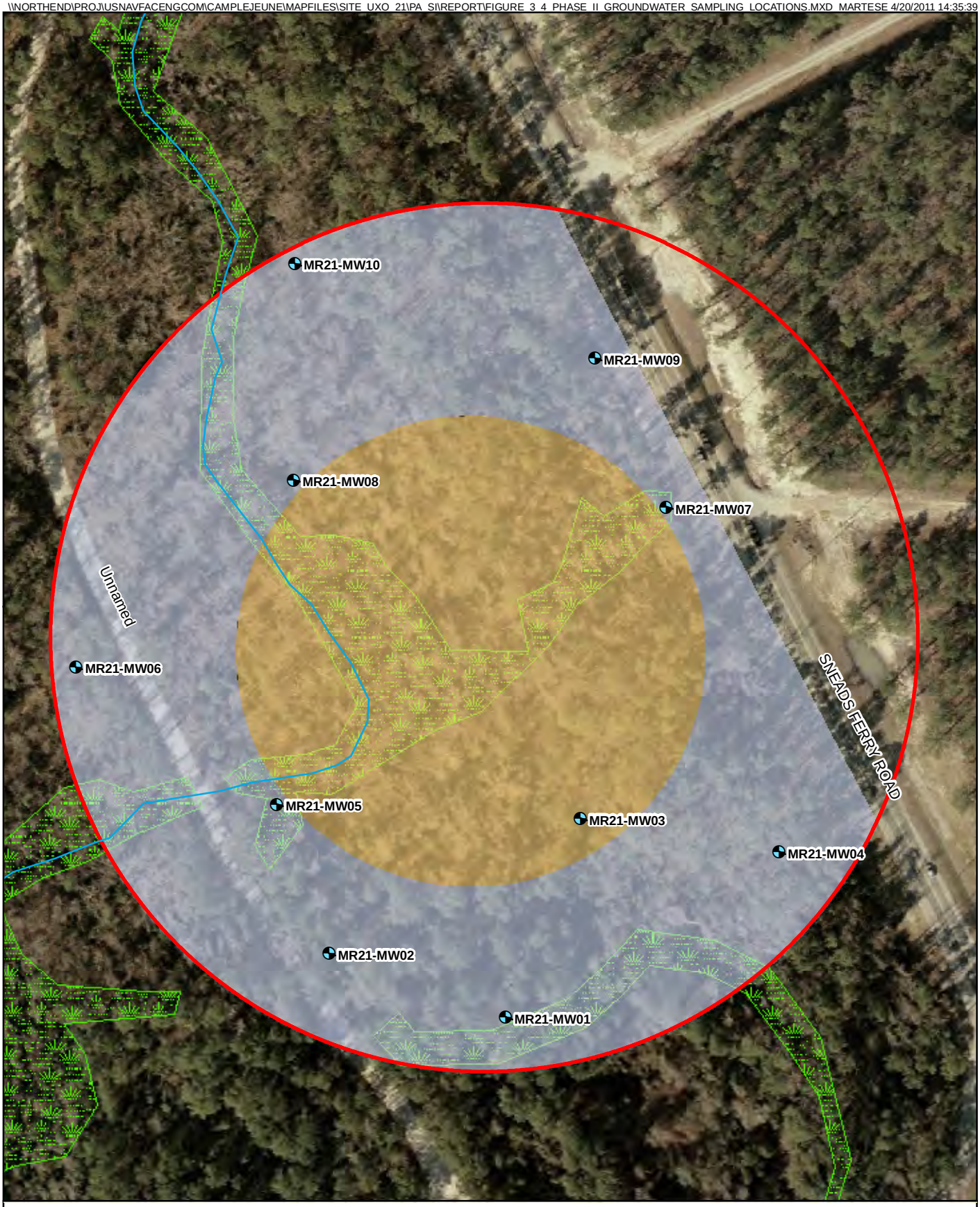

Legend

- Permanent Monitoring Well Location
- Creek
- UXO-21
- Phase I Investigation Area
- Phase II Investigation Area
- Jurisdictional Wetlands

N

0 75 150 Feet

1 inch = 150 feet

Figure 3-4
Phase II Groundwater Sampling Locations
Site UXO-21 Former D-Area Tear
Gas Chamber (2nd Division) (ASR#2.204)
PA/SI Report
MCB CamLej
North Carolina

CH2MHILL

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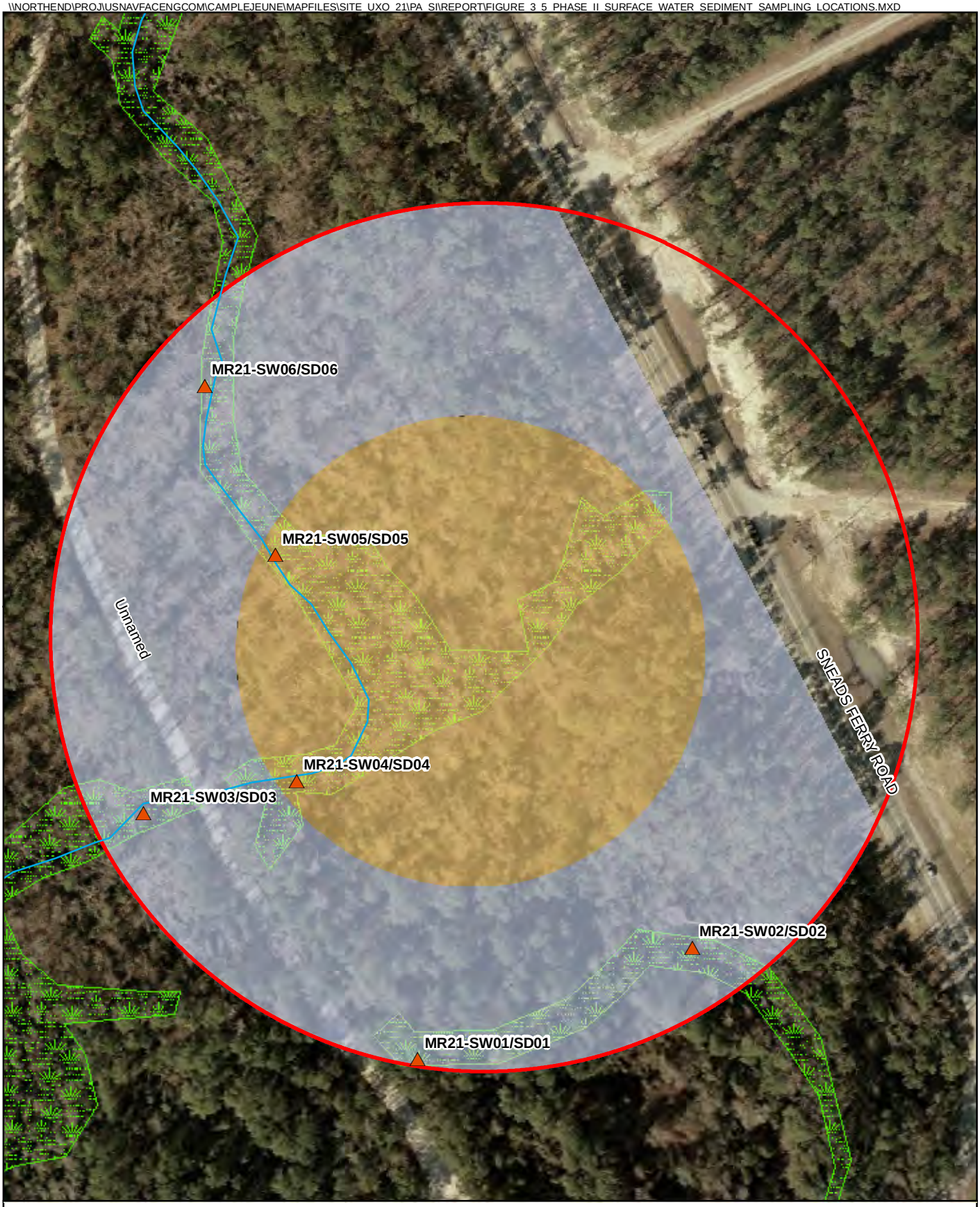

Legend

- PA/SI Surface Water/Sediment Sample Locations
- Creek
- UXO-21
- Phase I Investigation Area
- Phase II Investigation Area
- Jurisdictional Wetlands

N

0 75 150 Feet

1 inch = 150 feet

Figure 3-5
Phase II Surface Water and Sediment Sampling Locations
Site UXO-21 Former D-Area Tear
Gas Chamber (2nd Division) (ASR#2.204)
PA/SI Report
MCB CamLej
North Carolina

CH2MHILL

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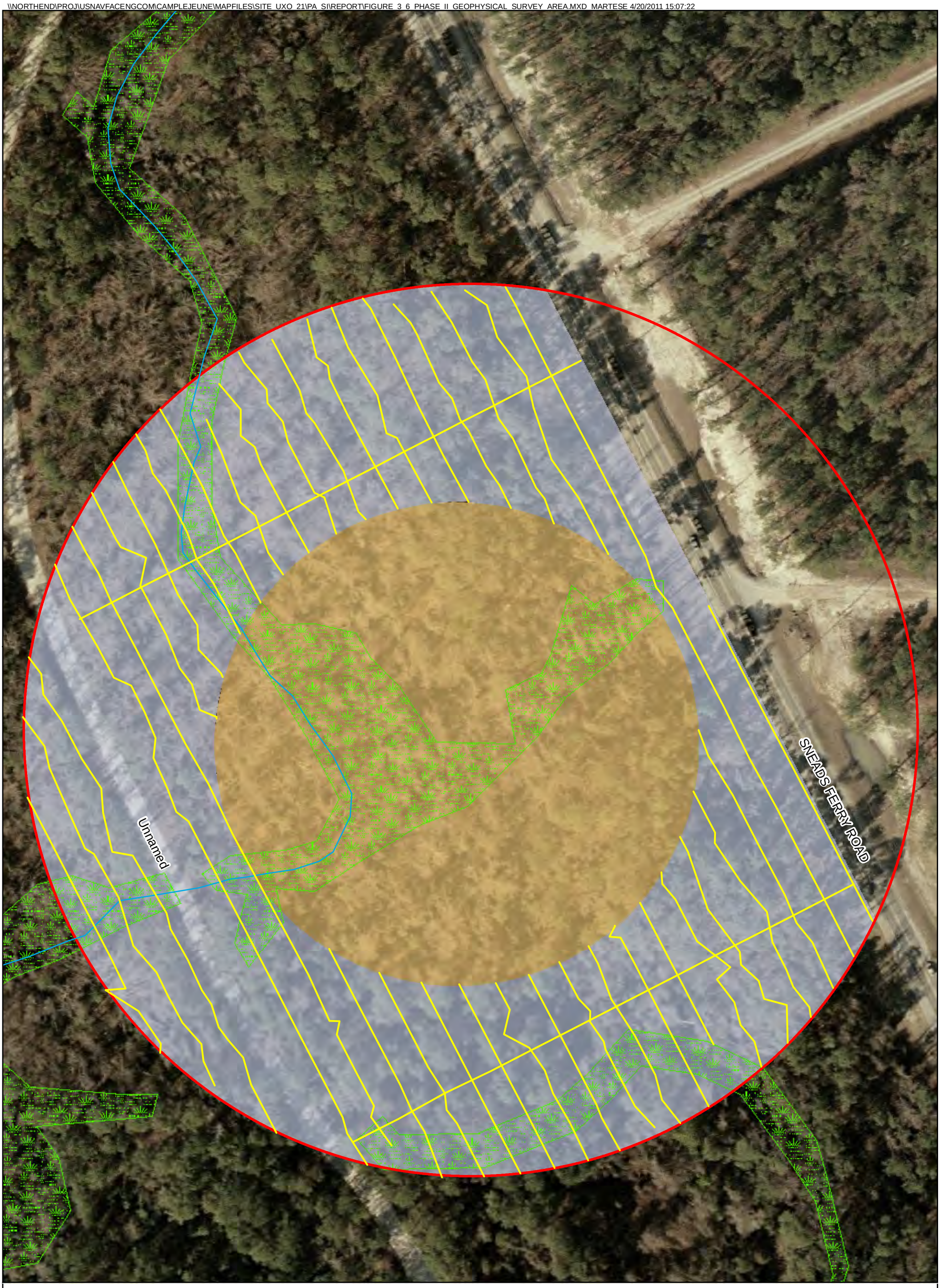

Legend
- Geophysical Survey Transects (2010)
- Creek
- UXO-21
- Phase I Investigation Area
- Phase II Investigation Area
- Jurisdictional Wetlands

N

0 50 100 200 Feet

1 inch = 100 feet

Figure 3-6
Phase II Geophysical Survey Area
Site UXO-21 Former D-Area Tear
Gas Chamber (2nd Division) (ASR#2.204)
PA/SI Report
MCB CamLej
North Carolina

CH2MHILL

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SECTION 4

Investigation Results and Data Evaluation

The following sections present and summarize the findings of the Phase I and Phase II field investigation activities.

4.1 Phase I Investigation Results

A discussion of the surface soil, subsurface soil and groundwater results is presented below. Analytical services were provided by GPL Laboratories, LLLP of Frederick, Maryland, a North Carolina-certified, Navy-approved laboratory. Raw analytical data are presented in **Appendix G**. Analytical results were validated by a CH2M HILL chemist with data validation reports provided in **Appendix H**.

4.1.1 Surface and Subsurface Soil Results

A total of 10 co-located surface and subsurface soil samples were collected for laboratory analysis of VOCs, SVOCs, metals, and tear gas constituents. Surface soil concentrations were screened against the North Carolina Soil Screening Levels (NC SSLs) (NCDENR, 2010b), the Adjusted USEPA Industrial and Residential Regional Screening Levels (RSLs) for Chemical Contaminant Tables (USEPA, 2010), and MCB CamLej background soil data from the *Final Base Background Soil Study Report* (Baker, 2001).

Surface and subsurface soil analytical results were as follows:

- Several VOC and SVOC compounds were detected in surface and subsurface soil but did not exceed regulatory screening criteria.
- Several metals compounds were detected in surface and subsurface soil but did not exceed both regulatory screening criteria and applicable Base background concentration in any sample.
- Tear gas constituents (CS and CN) were not detected in surface and subsurface soil samples.

Phase I investigation area surface and subsurface soil analytical results are presented in **Table 4-1 and 4-2**, respectively.

4.1.2 Groundwater Results

A total of three groundwater samples were collected for laboratory analysis of VOCs, SVOCs, total and dissolved metals, and tear gas constituents. Groundwater concentrations were screened against the NCAC Title 15A, Subchapter 2L Groundwater Quality Standards (NCDENR 2010a) and MCB CamLej background groundwater data (Baker, 2001).

Groundwater analytical results were as follows:

- Several VOC compounds were detected in groundwater but did not exceed regulatory screening criteria.

- One groundwater sample contained the SVOC bis(2-ethylhexyl)phthalate at a concentration exceeding both the NC 2L standard and Base background concentration. No other SVOCs were detected in groundwater samples.
- One groundwater sample contained total chromium and thallium concentrations exceeding both their NC 2L standard and applicable Base background concentration. Additional metals compounds were detected in groundwater but did not exceed both regulatory screening criteria and applicable Base background concentration.

Phase I investigation area groundwater analytical results are presented in **Table 4-3**. Groundwater exceedances are presented on **Figure 4-1.**

4.1.3 Geophysical Survey and Intrusive Investigation Results

During the 2007 Phase I investigation area geophysical survey, 143 anomalies potentially representing MEC were identified within the 0.6 acres of surveyed transects. However, it was determined that this area may be utilized for military construction activities, so a geophysical survey of the entirety of the Phase I investigation area was performed in 2009, with the exception of inaccessible wetland areas. A total of 569 geophysical anomalies representing potential subsurface MEC were identified within the 4.2-acre survey area. The identified anomalies from the 2009 survey are presented on **Figure 4-2.** Detailed results of the 2007 and 2009 geophysical investigations are presented in **Appendix E**.

The Phase I investigation area intrusive investigation was performed on the anomalies identified during the 2009 geophysical survey. Two suspected MEC/MPPEH items, a M22A1 Ground Illumination Signal and a M27A1B1 Projectile Air Burst Simulator, were identified and the MCB CamLej EOD team conducted an emergency response for these items.

Manual digging and identification was performed for 569 geophysical anomalies identified within the Phase I investigation area. Data collected during the anomaly investigation is provided in **Appendix I**. Expended MPPEH items were recovered during the Phase I investigation area activities:

- (14) Grenade, Rifle, Star, Cluster, Green, M20A1
- (2) Grenade, Hand, Practice, Standard, MKII
- (1) Projectile, 40mm, Ground Marker, Green Smoke, M715
- (2) Expended rifle grenade
- (3) Expended rifle grenade body
- (12) Tail Boom

Approximately 6 percent of the 569 anomalies investigated were identified as MPPEH. Following two independent inspections indicating that there was no explosive hazard associated with the MPPEH, the material was classified as MDAS. Approximately 10.8 pounds of MDAS was generated at Site UXO-21 during the Phase I investigation area intrusive investigation and logged on a 1348 Form with MDAS from Site UXO-3. On January 22, 2010 the MDAS removed from Site UXO-21 was destroyed through shredding and smelting at the Bedford Recycling facility in Bedford, Indiana with material removed from other MCB CamLej sites, as documented in **Appendix F**. Scrap metal were also recovered from Site UXO-21.

4.2 Phase II Investigation Results

4.2.1 Surface Soil Results

A total of 30 surface and subsurface soil samples were collected for laboratory analysis of VOCs, SVOCs, metals, explosives residues and perchlorate. Surface soil concentrations were screened against the NC SSLs (NCDENR, 2010a), the Adjusted USEPA Industrial and Residential RSLs for Chemical Contaminant Tables (USEPA, 2010), and MCB CamLej background soil data from the Final Base Background Soil Study Report (Baker, 2001).

Surface soil analytical results were as follows:

- Several VOCs were detected in surface soil but did not exceed regulatory screening criteria.
- Three surface soil samples contained SVOCs at concentrations exceeding the Adjusted USEPA Residential RSLs. Benzo(a)pyrene and nitrobenzene were the only SVOCs exceeding screening criteria in surface soil samples. Additional SVOCs were detected in surface soil but did not exceed regulatory screening criteria.
- Four surface soil samples contained explosives residue at concentrations exceeding the Adjusted USEPA Residential RSLs. 3-Nitrotoluene and nitroglycerin were the only explosives residues exceeding screening criteria. Additional explosives residues were detected in surface soil but did not exceed regulatory screening criteria.
- Eight surface soil samples contained metals exceeding both regulatory screening criteria and the applicable Base background concentration. Aluminum, arsenic, chromium and manganese were the metals exceeding screening criteria. Additional metals compounds were detected in surface soil but did not exceed both regulatory screening criteria and applicable Base background concentration.

Phase II investigation area surface soil analytical results are presented in **Table 4-4**. Surface soil exceedances are presented on **Figure 4-3**.

4.2.2 Groundwater Results

Ten groundwater samples were collected for laboratory analysis of VOCs, SVOCs, total metals, explosives residues and perchlorate. Groundwater concentrations were screened against the NC 2L Standards (NCDENR, 2010b), Adjusted USEPA Tap Water RSLs (USEPA, 2009), and MCB CamLej background groundwater data (Baker, 2001).

Groundwater analytical results were as follows:

- Three groundwater samples contained the VOC chloroform at a concentration exceeding the Adjusted USEPA Tap Water RSL. Toluene was also detected in groundwater but did not exceed regulatory screening criteria.
- SVOCs were not detected in groundwater samples.
- Several metals compounds were detected in groundwater but did not exceed regulatory screening criteria and applicable Base background concentration.
- Perchlorate was detected in groundwater but did not exceed regulatory screening criteria.

Phase II investigation area groundwater analytical results are presented in **Table 4-5**. Groundwater exceedances are presented on **Figure 4-4**.

4.2.3 Surface Water and Sediment Results

Six co-located surface water and sediment samples were collected for laboratory analysis of VOCs, SVOCs, metals, and explosives residues. Surface water concentrations were screened against the Adjusted USEPA Tap Water RSLs (USEPA, 2010), NCAC Title 15A, Subchapter 2B Surface Water Quality Standards (NCDENR 2007) for human health and water supply, and the National Recommended Water Quality, Criteria (USEPA, 2009) for human health organisms and water organisms. Sediment concentrations were screened against Adjusted USEPA Industrial and Residential RSLs (USEPA, 2010).

Surface water analytical results were as follows:

- VOCs and perchlorate were detected in surface water but did not exceed regulatory screening criteria.
- No explosives residues were detected in surface water.
- One surface water sample contained the SVOC bis(2-ethylhexyl)phthalate at a concentration exceeding regulatory screening criteria. No other SVOCs were detected in surface water.
- All six surface water samples contained metals concentrations exceeding regulatory screening criteria. Arsenic, chromium, iron, and manganese were the metals exceeding screening criteria. Additional metals compounds were detected in surface water but did not exceed regulatory screening criteria.

Phase II investigation area surface water analytical results are presented in **Table 4-6**. Surface water exceedances are presented on **Figure 4-5**.

Sediment analytical results were as follows:

- VOCs, SVOCs and explosives residues were detected in sediment but did not exceed regulatory screening criteria.
- All six sediment samples contained chromium concentrations exceeding regulatory screening criteria. Additional metals compounds were detected in sediment but did not exceed regulatory screening criteria.

Phase II investigation area sediment analytical results are presented in **Table 4-7**. Sediment exceedances are presented on **Figure 4-6**.

4.2.4 Geophysical Survey

During the 2010 Phase II investigation area geophysical survey, 738 anomalies potentially representing MEC were identified within the 1.06 acres of surveyed transects. The identified anomalies from the 2010 survey are presented on **Figure 4-7.** The highest concentrations of anomalies were identified near Sneads Ferry Road and along the unpaved service road crossing the southwestern portion of the site. Detailed results of the geophysical investigation are presented in **Appendix E**. No intrusive investigation of the anomalies identified during the 2010 survey has been conducted.

TABLE 4-1
Surface Soil Analytical Results - Phase I Investigation Area
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)
PA/SI Report
MCB CamLej, North Carolina

Sample ID	Camp Lejeune Background SS 2X Mean	NC SSL (January, 2010)	Adjusted Industrial Soil RSLs (May, 2010)	Adjusted Residential Soil RSLs (May, 2010)	GC-IS01-0-1-07C	GC-IS02-0-1-07C	GC-IS03-0-1-07C	GC-IS04-0-1-07C	GC-IS05-0-1-07C	GC-IS06-0-1-07C	GC-IS07-0-1-07C	GC-IS08-0-1-07C	GC-IS09-0-1-07C	GC-IS10-0-1-07C
Sample Date					7/24/07	7/24/07	7/24/07	7/24/07	7/24/07	7/24/07	7/24/07	7/24/07	7/25/07	7/25/07
Chemical Name														
Volatile Organic Compounds (ug/kg)														
2-Butanone	--	16,000	20000000	2800000	14 U	14 U	13 U	12 U	10	11 U	5.7 J	11 U	12 U	11 U
Acetone	--	24,000	63000000	6100000	40 J	17 J	7.5 J	12 J	280 J	16 J	83	33 J	12 U	23
Methyl acetate	--	--	29000000	7800000	14 U	14 U	13 U	12 U	9.1 U	11 U	10 U	11 U	12 U	11 U
Methylene chloride	--	23	53000	11000	15	8.6 J	8.5 J	12 U	5.7 J	11 U	10 U	7.6 J	12 U	11 U
Toluene	--	5500	820000	500000	14 U	14 U	13 U	12 U	9.1 U	4.6 J	10 U	11 U	12 U	11 U
Semivolatile Organic Compounds (ug/kg)														
bis(2-Ethylhexyl)phthalate	--	7200	120000	35000	370 U	47 J	360 U	70 J	410 U	380 U	400 U	420 U	390 J	140 J
Di-n-butylphthalate	--	19,000	6200000	610000	37 J	410 U	360 U	350 U	410 U	380 U	400 U	43 J	77 J	370 U
Total Metals (mg/kg)														
Aluminum	5487	--	99000	7700	489	519	296	4,760	3,550	273	3,060	1,070	336 J	970 J
Antimony	0.447	--	41	3.1	4.9 U	5.2 U	4.9 U	4.7 U	5.6 U	4.9 U	5.4 U	5.8 U	5.5 U	4.8 U
Arsenic	0.626	5.8	1.6	0.39	0.24 J	0.86 U	0.81 U	**0.43 J**	0.36 J	0.81 U	**0.62 J**	0.35 J	0.91 U	0.20 J
Barium	14.5	580	19000	1500	7.4 J	3 J	3.7 J	4.3 J	13.5 J	4.2 J	7.4 J	9 J	2.9 J	4.2 J
Beryllium	0.103	--	200	16	0.017 J	0.43 U	0.41 U	0.044 J	0.13 J	0.41 U	0.032 J	0.48 U	0.46 U	0.40 U
Cadmium	0.033	3	80	7	0.037 J	0.021 J	0.023 J	0.39 U	0.089 J	0.035 J	0.45 U	0.033 J	0.46 U	0.40 U
Calcium	6360	--	--	--	430	105 J	67.9 J	37.5 J	476	111 J	194 J	209 J	78.1 J	71.8 J
Chromium	6.05	3.8	5.6	0.29	**0.92**	**0.92**	**0.67 J**	**3.5**	**3.7**	**0.66 J**	**2.6**	**1.5**	**0.8 J**	**1.2**
Cobalt	0.294	--	30	2.3	0.0041 U	4.3 U	4.1 U	3.9 U	0.34 J	4.1 U	4.5 U	4.8 U	4.6 U	4.0 U
Copper	4.83	700	4100	310	0.74 J	0.42 J	0.23 J	0.52 J	2.3 J	0.22 J	0.49 J	0.77 J	0.1 J	0.2 J
Iron	3245	150	72000	5500	300	290	88.1	1,350	1,320	109	1,630	542	226 J	155 J
Lead	12.3	270	800	400	13.3	2.5	1.4	2.9	4.9	1.6	5.1	4.7	3.1	2.4
Magnesium	238	--	--	--	74.9 J	24 J	22 J	61 J	80 J	18.1 J	74.7 J	61.6 J	20.2 J	29.1 J
Manganese	13.7	65	2300	180	4.3	3.5	2.6	4.3	3.2	3.3	6.8	5.5	4.0	2.0
Mercury	0.081	1	31	2.3	0.038	0.0063 J	0.04	0.013 J	0.021 J	0.032 J	0.026 J	0.098	0.01 J	0.04
Nickel	1.21	130	2000	150	0.26 J	3.5 U	3.2 U	0.85 J	1.2 J	3.2 U	0.79 J	0.14 J	3.70 U	0.10 J
Potassium	116	--	--	--	40.5 J	28.8 J	19.4 J	37.9 J	66.8 J	21 J	58.7 J	57.5 J	27.8 J	28.6 J
Selenium	0.563	2.1	510	39	0.49 J	3 U	0.44 J	0.4 J	1 J	0.36 J	0.36 J	0.6 J	3.2 U	2.8 U
Sodium	80.9	--	--	--	68.5 J	66.3 J	60.5 J	56.5 J	63.2 J	57.4 J	63.9 J	64 J	58.6 J	65.7 J
Vanadium	8.9	--	520	39	2.1 J	1.4 J	0.78 J	4.1	4.1 J	0.86 J	5.1	2.7 J	1.3 J	1.2 J
Zinc	10.8	1200	31000	2300	5.8	1.9 J	1.4 J	1.9 J	6.8	1.7 J	2.8 J	4 J	3.1 J	3.0 J
Wet Chemistry (PCT)														
% Solids	--	--	--	--	91	81	92	94	80	89	83	79	84	91

Notes:
Shading indicates exceedance of two times the mean base background concentration for surface soil
Bold box indicates exceedance of NC SSL
Bold text indicates exceedance of Adjusted Residential Soil RSLs
J - Analyte present; value may not be precise
U - Analyte not detected
PCT - Percent
ug/kg - Micrograms per kilogram
mg/kg - Milligrams per kilogram
RSLs were adjusted for noncarcinogens to account for exposure to multiple constituents
Generated by: Gwen Buckley
Checked by: Erin Twamley

TABLE 4-2
Subsurface Soil Analytical Results - Phase I Investigation Area
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)
PA/SI Report
MCB CamLej, North Carolina

Sample ID	Camp Lejeune Background SB 2X Mean	NC SSL (January, 2010)	Adjusted Industrial Soil RSLs (May, 2010)	Adjusted Residential Soil RSLs (May, 2010)	GC-IS01-5-8-07C	GC-IS02-5-10-07C	GC-IS03-5-8-07C	GC-IS04-6-8-07C	GC-IS05-2-4-07C	GC-IS06-3-5-07C	GC-IS07-10-12-07C	GC-IS08-6-8-07C	GC-IS09-8-10-07C	GC-IS10-3-5-07C
Sample Date					7/24/07	7/24/07	7/24/07	7/24/07	7/24/07	7/24/07	7/24/07	7/24/07	7/25/07	7/25/07
Chemical Name														
Volatile Organic Compounds (ug/kg)														
2-Butanone	--	16,000	20,000,000	2,800,000	10 U	10 U	11 U	9.8 U	59 J	11 U	11 U	11 U	10 U	7.5 U
Acetone	--	24,000	63,000,000	6,100,000	7.2 J	10 U	13 J	7.3 J	190 J	11 U	11 U	11 U	24	7.7
Methyl acetate	--	--	29,000,000	7,800,000	10 U	10 U	11 U	9.8 U	11 U	11 U	11 U	11 J	10 U	7.5 U
Methylene chloride	--	23	53,000	11,000	7.3 J	8.6 J	8.5 J	9.8 U	11 U	11 U	11 U	8 J	10	6.8 J
Toluene	--	5,500	820,000	500,000	10 U	10 U	11 U	9.8 U	11 U	11 U	11 U	11 U	10 U	7.5 U
Semivolatile Organic Compounds (ug/kg)														
bis(2-Ethylhexyl)phthalate	--	7,200	120,000	35,000	360 U	380 U	370 U	390 U	500 U	350 U	350 U	370 U	41 J	67 J
Total Metals (mg/kg)														
Aluminum	10,369	--	99,000	7,700	8,080	9,160	3,630	7,200	9,710	2,250	1,220	5,290	7,100 J	1,110 J
Antimony	0.36	--	41	3.1	4.5 U	5.1 U	4.6 U	4.8 U	6.4 U	4.7 U	4.5 U	4.7 U	0.27 J	5.2 U
Arsenic	2.12	5.8	1.6	0.39	0.8	0.52 J	0.2 J	0.4 J	0.69 J	0.78 U	0.22 J	0.35 J	0.3 J	0.87 U
Barium	16.6	580	19,000	1,500	9.8 J	13 J	6.9 J	8.4 J	43.7	4.8 J	2.7 J	7.8 J	10 J	2 J
Beryllium	0.165	--	200	16	0.062 J	0.066 J	0.024 J	0.071 J	0.49 J	0.025 J	0.017 J	0.048 J	0.057 J	0.44 U
Cadmium	0.023	3	80	7	0.38 U	0.42 U	0.025 J	0.4 U	0.083 J	0.39 U	0.38 U	0.4 U	0.41 U	0.44 U
Calcium	441	--	--	--	62.1 J	60.9 J	38.5 J	38.7 J	4110	35.1 J	29.2 J	50.1 J	60.7 J	35.4 J
Chromium	14.5	3.8	5.6	0.29	**8.1**	**9.1**	4.3	**10**	**7.7**	2.9	2	**6.5**	**8.5**	1.5
Cobalt	0.822	--	30	2.3	0.14 J	0.11 J	3.9 U	0.089 J	0.41 J	3.9 U	3.8 U	0.039 J	0.66 J	4.4 U
Copper	2.56	700	4100	310	1.2 J	1.2 J	0.75 J	1.7 J	1.1 J	0.43 J	0.29 J	0.75 J	1.4 J	0.24 J
Iron	5,439	150	72,000	5,500	2,310	1,730	523	1,460	4,440	389	356	1,010	1,800 J	166 J
Lead	8.49	270	800	400	4.3	3.7	3.1	4.1	7.2	2.7	2.1	3.5	3.6	1.9
Magnesium	363	--	--	--	209 J	215 J	117 J	217 J	152 J	78.1 J	58.7 J	156 J	197 J	40.9 J
Manganese	9.25	65	2,300	180	4.1	3.5	2.4	4.3	12.5	2.1	2.1	2.8	13.8	1.6
Mercury	0.071	1	31	2.3	0.03 J	0.01 J	0.029 J	0.011 J	0.084	0.033 U	0.016 J	0.03 J	0.021 J	0.026 J
Nickel	2.27	130	2,000	150	1.2 J	1.2 J	0.5 J	1.1 J	3.4 J	0.28 J	0.14 J	0.72 J	1.2 J	3.5 U
Potassium	361	--	--	--	233 J	270 J	112 J	333 J	83.5 J	121 J	97.9 J	249 J	243 J	44.2 J
Selenium	0.505	2.1	510	39	0.41 J	0.42 J	0.36 J	2.8 U	1.2 J	0.27 J	2.6 U	0.41 J	2.9 U	3.1 U
Sodium	68.3	--	--	--	67.8 J	59.4 J	57.2 J	63 J	86.5 J	55 J	53.6 J	59.7 J	82.3 J	75.3 J
Vanadium	17.2	--	520	39	10.1	10.2	4.9	11	5 J	2.9 J	2.3 J	8.7	9.1	1.4 J
Zinc	6.59	1,200	31,000	2,300	3.5 J	4 J	2.4 J	3.9 J	4.8 J	2.3 J	2.2 J	3.2 J	4.2 J	2 J
Wet Chemistry (PCT)														
% Solids	--	--	--	--	93	87	90	85	67	94	94	89	88	85

Notes:
Bold text indicates exceedance of Adjusted Industrial Soil RSLs
Shading indicates exceedance of two times the mean base background concentration for surface soil
Bold box indicates exceedance of NC SSL
Underline indicates exceedance of Adjusted Residential Soil RSLs
RSLs were adjusted for noncarcinogens to account for exposure to multiple constituents
J - Analyte present; value may not be precise
U - Analyte not detected
PCT - Percent
ug/kg - Micrograms per kilogram
mg/kg - Milligrams per kilogram
Generated by: Gwen Buckley
Checked by: Erin Twamley

TABLE 4-3
Groundwater Analytical Results - Phase I Investigation Area
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)
PA/SI Report
MCB CamLej, North Carolina

Sample ID	**Camp Lejeune Background GW 2X Mean**	**NC2LGW (January, 2010)**	GC-TW02-07C	GC-TW05-07C	GC-TW08-07C
Sample Date			7/25/07	7/25/07	7/25/07
Chemical Name					
Volatile Organic Compounds (ug/L)					
Toluene	--	600	6.1 J	10 U	10 U
Xylene, total	--	500	10 J	10 U	10 U
Semivolatile Organic Compounds (ug/L)					
bis(2-Ethylhexyl)phthalate	--	3	3.3 J	2.9 J	2 J
Total Metals (mg/L)					
Aluminum	1.886	--	5.71 J	0.203 J	0.563 J
Arsenic	0.00577	0.01	0.01 U	0.0029 J	0.01 U
Barium	0.0862	0.7	0.0268 J	0.0225 J	0.0331 J
Calcium	69.078	--	0.846 J	67.2	1.03 J
Chromium	0.00313	0.01	0.0103	0.01 U	0.0012 J
Cobalt	0.0034	--	0.05 U	0.00063 J	0.0012 J
Copper	0.00276	1	0.0022 J	0.0018 J	0.0017 J
Iron	5.999	0.3	5.75	3.37	1.62
Lead	0.0028	0.015	0.0051 J	0.01 U	0.01 U
Magnesium	6.363	--	1.38 J	1.86 J	0.906 J
Manganese	0.214	0.05	0.0045 J	0.0098 J	0.0076 J
Mercury	0.0001	0.001	0.000042 J	0.0002 U	0.000035 J
Nickel	0.00797	0.1	0.04 U	0.04 U	0.0012 J
Potassium	3.277	--	1.21 J	1.07 J	1.03 J
Sodium	22.508	--	5.71	6.80	6.07
Thallium	0.00378	0.002	0.0056 J	0.025 U	0.025 U
Vanadium	0.00472	--	0.0094 J	0.05 U	0.0012 J
Zinc	0.0421	1	0.0126 J	0.0091 J	0.0119 J
Dissolved Metals (mg/L)					
Aluminum	1.886	--	0.0713 J	0.2 U	0.2 U
Arsenic	0.00577	0.01	0.0032 J	0.01 U	0.01 U
Barium	0.0862	0.7	0.0152 J	0.0217 J	0.0322 J
Calcium	69.078	--	0.877 J	69.1	0.985 J
Cobalt	0.0034	--	0.00098 J	0.05 U	0.05 U
Copper	0.00276	1	0.00096 J	0.002 J	0.001 J
Iron	5.999	0.3	4.67	2.66	1.24
Magnesium	6.363	--	1.19 J	1.94 J	0.895 J
Manganese	0.214	0.05	0.0021 J	0.0091 J	0.0065 J
Mercury	0.0001	0.001	0.000057 J	0.000023 J	0.000033 J
Potassium	3.277	--	0.787 J	1.19 J	0.986 J
Sodium	22.508	--	6.15	7.33	6.27
Vanadium	0.00472	--	0.0022 J	0.05 U	0.05 U
Zinc	0.0421	1	0.0093 J	0.016 J	0.01 J

Notes:

Shading indicates exceedance of two times the mean base background concentration for Groundwater

Bold box indicates exceedance of NC2LGW or the more conservative MCL

J - Analyte present; value may be imprecise

U - Analyte not detected

ug/L - Micrograms per liter

mg/L - Milligram per liter

Generated by: Gwen Buckley

Checked by: Erin Twamley

TABLE 4-4
Surface Soil Analytical Results - Phase II Investigation Area
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204,
PA/SI Report
MCB CamLej, North Carolina

Station ID	Camp Lejeune Background SS 2X Mean	NCSSLs (January, 2010)	Adjusted Industrial Soil RSLs (May, 2010)	Adjusted Residential Soil RSLs (May, 2010)	MR21-SS11		MR21-SS12	MR21-SS13	MR21-SS14	MR21-SS15	MR21-SS16	MR21-SS17	MR21-SS18		MR21-SS19	MR21-SS20
Sample ID					MR21-SS11-10A	MR21-SS11D-10A	MR21-SS12-10A	MR21-SS13-10A	MR21-SS14-10A	MR21-SS15-10A	MR21-SS16-10A	MR21-SS17-10A	MR21-SS18-10A	MR21-SS18D-10A	MR21-SS19-10A	MR21-SS20-10A
Sample Date					03/03/10	03/03/10	03/03/10	03/03/10	03/03/10	03/03/10	03/03/10	03/03/10	03/03/10	03/03/10	03/03/10	03/03/10
Chemical Name																
Volatile Organic Compounds (µg/kg)																
1,2-Dichlorobenzene	--	240	380,000	190,000	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	1.02 J	19.4 UJ	13.6 U
1,4-Dichlorobenzene	--	70	12,000	2,400	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	1.65 J	19.4 UJ	13.6 U
2-Butanone	--	16,000	20,000,000	2,800,000	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	16.2 UJ	19.4 UJ	13.6 U
2-Hexanone	--	1,200	140,000	21,000	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	16.2 UJ	19.4 UJ	13.6 U
Acetone	--	24,000	63,000,000	6,100,000	159 J	267 J	214 J	549 J	274 J	600 J	284 J	303 J	355 J	550 J	213 J	82.6 J
Benzene	--	7.3	5,400	1,100	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	16.2 UJ	19.4 UJ	0.766 J
Carbon disulfide	--	3,800	370,000	82,000	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	16.2 UJ	19.4 UJ	2.13 J
Chloroform	--	340	1,500	290	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	16.2 UJ	1.3 J	13.6 U
Ethylbenzene	--	8,100	27,000	5,400	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	1.28 J	1.46 J	19.4 UJ	1.26 J
Methyl acetate	--	--	29,000,000	7,800,000	3.75 J	87.4 J	384	118 J	5.09 J	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	16.2 UJ	8.36 J	13.6 U
Toluene	--	5,500	820,000	500,000	15 UJ	20.9 UJ	2.55 J	2.73 J	14.3 UJ	16.2 UJ	3.32 J	4.91 J	4.02 J	16.2 UJ	19.4 UJ	3.23 J
Xylene, total	--	6,000	260,000	63,000	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	1.93 J	2.56 J	3.62 J	6 J	3.47 J	3.14 J
Semivolatile Organic Compounds (µg/kg)																
2,4-Dinitrotoluene	--	--	5,500	1,600	300 U	300 U	300 U	302 J	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U
2,6-Dinitrotoluene	--	--	62,000	6,100	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U
Benzaldehyde	--	--	1,200,000	780,000	182 J	155 J	83.8 J	102 J	322 R	77.4 J	287 R	185 J	165 J	310 J	260 J	298 R
Benzo(a)pyrene	--	59	210	15	6.7 U	6.8 U	6.6 U	7.2 U	6.4 U	6.6 U	5.7 U	6.4 U	6.8 U	6.8 U	7.7 U	9.8
Benzo(b)fluoranthene	--	600	2,100	150	67 U	14 J	66 U	72 U	64 U	66 U	57 U	64 U	11 J	68 U	77 U	18 J
Nitrobenzene	--	--	24,000	4,800	300 U	300 U	300 U	820 J	300 U	300 U	300 U	300 U	300 U	300 U	300 U	396 J
Pyrene	--	220,000	1,700,000	170,000	337 U	342 U	330 U	361 U	322 U	331 U	287 U	319 U	340 U	342 U	385 U	298 U
Explosives (µg/kg)																
1,3,5-Trinitrobenzene	--	--	2,700,000	220,000	101 J	300 U	300 U	390 J	300 U	300 U	300 U	211 J	117 J	166 J	300 U	100 J
1,3-Dinitrobenzene	--	--	6,200	610	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	223 J	206 J
2,4,6-Trinitrotoluene	--	--	42,000	3,600	300 U	632 J	300 U	750 J	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U
2-Amino-4,6-dinitrotoluene	--	--	200,000	15,000	300 U	300 U	300 U	351 J	300 U	300 U	300 U	300 U	300 U	113 J	300 U	300 U
2-Nitrotoluene	--	--	13,000	2,900	300 U	300 U	300 U	243 J	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U
3-Nitrotoluene	--	--	6,200	610	300 U	300 U	109 J	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	117 J
4-Amino-2,6-dinitrotoluene	--	--	190,000	15,000	300 U	300 U	163 J	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U
4-Nitrotoluene	--	--	110,000	24,000	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	132 J	300 U	300 U
HMX	--	--	4,900,000	380,000	300 U	300 U	300 U	647 J	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U
Nitroglycerin	--	--	6,200	610	968 J	750 U	750 U	750 U	750 U	457 J	750 U	750 U	1,870 J	750 U	750 U	750 U
PETN	--	--	--	--	500 U	500 U	500 U	500 U	500 U	500 U	500 U	500 U	500 U	500 U	500 U	500 U
RDX	--	--	24,000	5,500	472 J	198 J	1,020 J	300 U	767 J	135 J	258 J	300 U	300 U	300 U	382 J	176 J
Tetryl	--	--	250,000	24,000	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	408	482	106 J	300 U
Total Metals (mg/kg)																
Aluminum	5,487	--	99,000	7,700	1,170	1,160	3,310	6,270	864	687	387	884	804	790	1,410	3,190
Arsenic	0.626	5.8	1.6	0.39	0.356	0.348	0.781	0.921	0.393	0.435	0.276 U	0.283 J	0.397	0.482	0.475	0.595
Barium	14.5	580	19,000	1,500	10.8	10.5	15.7	29	8.67	18.2	5.74	21.1	31.8	28.9	23.2	14.4
Beryllium	0.103	--	200	16	0.337 U	0.334 U	0.332 U	0.0758 J	0.325 U	0.323 U	0.276 U	0.301 U	0.338 U	0.326 U	0.389 U	0.0695 J
Cadmium	0.033	3	80	7	0.337 U	0.334 U	0.0883 J	0.104 J	0.325 U	0.323 U	0.276 U	0.301 U	0.338 U	0.326 U	0.0913 J	0.26 J
Calcium	6,360	--	--	--	553	550	2,150	841	327	517	270 J	338	372	354	752	6,690
Chromium	6.05	3.8	5.6	0.29	1.77	1.73	3.13	5.02	1.37	0.996	0.569	0.929	0.848	0.877	1.53	4.95
Cobalt	0.294	--	30	2.3	0.843 U	0.835 U	0.829 U	0.898 U	0.813 U	0.809 U	0.691 U	0.752 U	0.845 U	0.815 U	0.973 U	0.525 J
Copper	4.83	700	4,100	310	0.856	0.873	0.988	3.54	0.906	1.11	0.406 J	1.46	1.64	1.68	2.23	4.74
Iron	3,245	150	72,000	5,500	341	364	823	1,110	499	389	152	381	314	306	478	1,870
Lead	12.3	270	800	400	5.19	5.75	5.84	9.68	6.29	4.72	2.72	8.43	12.7	11.9	17.7	15
Magnesium	238	--	--	--	95 J	96.9 J	153 J	179 J	325 U	80 J	276 U	301 U	85.1 J	81 J	115 J	251 J
Manganese	13.7	65	2,300	180	2.89 J	2.86 J	19.2 J	60	4.28	1.97	4.55 J	4.91 J	4.14	4.47	3.3 J	30.8 J
Mercury	0.081	1	31	2.3	0.0384 J	0.0282 J	0.0241 J	0.07	0.0235 J	0.0544	0.0345 U	0.0265 J	0.0348 J	0.0352 J	0.0428 J	0.0645
Nickel	1.21	130	2,000	150	0.551 J	0.574 J	1.01	1.32	0.443 J	0.51 J	0.553 U	0.608	0.794	0.748	1.17	2.67
Potassium	116	--	--	--	81 J	84.6 J	142 J	187 J	325 U	67.5 J	276 U	301 U	338 U	326 U	96.5 J	190 J
Selenium	0.563	2.1	510	39	0.285 J	0.296 J	0.318 J	0.66	0.213 J	0.291 J	0.332 U	0.231 J	0.362 J	0.38 J	0.419 J	0.201 J
Silver	0.14	3.4	510	39	0.337 U	0.334 U	0.332 U	0.359 U	0.325 U	0.323 U	0.276 U	0.301 U	0.338 U	0.326 U	0.389 U	0.371
Vanadium	8.9	--	520	39	2.18	2.23	4.14	5.63	2.25	1.16	0.659 J	1.22	1.41	1.41	2.94	5.38
Zinc	10.8	1,200	31,000	2,300	1.75	1.91	4.32	7.53	2.39	2.83	1.24	2.31	3.57	3.64	4.66	26.9

Notes:
Bold text indicates exceedance of Adjusted Industrial Soil RSLs
Shading indicates exceedance of two times the mean base background concentration for surface soil
Bold box indicates exceedance of NCSSL
Underline indicates exceedance of Adjusted Residential Soil RSLs
RSLs were adjusted for noncarcinogens to account for exposure to multiple constituents
J - Analyte present, value may or may not be accurate or precise
R - Unreliable Result
U - The material was analyzed for, but not detected
UJ - Analyte not detected, quantitation limit may be inaccurate
mg/kg - Milligrams per kilogram
µg/kg - Micrograms per kilogram
Generated by: Rebekah Shaw
Checked by: Erin Twamley

TABLE 4-4
Surface Soil Analytical Results - Phase II Investigation Area
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204,
PA/SI Report
MCB CamLej, North Carolina

Station ID	Camp Lejeune Background SS 2X Mean	NCSSLs (January, 2010)	Adjusted Industrial Soil RSLs (May, 2010)	Adjusted Residential Soil RSLs (May, 2010)	MR21-SS21	MR21-SS22	MR21-SS23	MR21-SS24	MR21-SS25	MR21-SS26	MR21-SS27		MR21-SS28	MR21-SS29	MR21-SS30	MR21-SS31
Sample ID					MR21-SS21-10A	MR21-SS22-10A	MR21-SS23-10A	MR21-SS24-10A	MR21-SS25-10A	MR21-SS26-10A	MR21-SS27-10A	MR21-SS27D-10A	MR21-SS28-10A	MR21-SS29-10A	MR21-SS30-10A	MR21-SS31-10A
Sample Date					03/03/10	03/03/10	03/03/10	03/03/10	03/04/10	03/03/10	03/03/10	03/03/10	03/04/10	03/03/10	03/04/10	03/03/10
Chemical Name																
Volatile Organic Compounds (µg/kg)																
1,2-Dichlorobenzene	--	240	380,000	190,000	19.3 UJ	14.4 UJ	11.8 U	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	14.7 UJ	13.9 U	12.4 U
1,4-Dichlorobenzene	--	70	12,000	2,400	19.3 UJ	14.4 UJ	11.8 U	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	14.7 UJ	13.9 U	12.4 U
2-Butanone	--	16,000	20,000,000	2,800,000	19.3 UJ	14.4 UJ	11.8 U	43.2 J	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	14.7 UJ	13.9 U	12.4 U
2-Hexanone	--	1,200	140,000	21,000	19.3 UJ	14.4 UJ	11.8 U	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	10.3 J	13.9 U	12.4 U
Acetone	--	24,000	63,000,000	6,100,000	691 J	206 J	22.5 J	275 J	421 J	316 J	149 J	177 J	31.9 J	492 J	249 J	270 J
Benzene	--	7.3	5,400	1,100	19.3 UJ	14.4 UJ	11.8 U	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	14.7 UJ	13.9 U	12.4 U
Carbon disulfide	--	3,800	370,000	82,000	19.3 UJ	14.4 UJ	11.8 U	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	14.7 UJ	13.9 U	12.4 U
Chloroform	--	340	1,500	290	19.3 UJ	14.4 UJ	11.8 U	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	0.996 J	14.7 UJ	13.9 U	12.4 U
Ethylbenzene	--	8,100	27,000	5,400	19.3 UJ	14.4 UJ	11.8 U	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	14.7 UJ	13.9 U	12.4 U
Methyl acetate	--	--	29,000,000	7,800,000	19.3 UJ	14.4 UJ	11.8 U	11.4 J	17.6 UJ	2.22 J	21.7 J	23.8 J	11.5 U	14.7 UJ	13.9 U	12.4 U
Toluene	--	5,500	820,000	500,000	6.62 J	14.4 UJ	11.8 U	8.85 J	17.6 UJ	2.87 J	15 UJ	17.9 UJ	11.5 U	14.7 UJ	13.9 U	1.08 J
Xylene, total	--	6,000	260,000	63,000	19.3 UJ	14.4 UJ	11.8 U	3.57 J	17.6 UJ	12.7 UJ	3.38 J	3.64 J	1.79 J	14.7 UJ	13.9 U	12.4 U
Semivolatile Organic Compounds (µg/kg)																
2,4-Dinitrotoluene	--	--	5,500	1,600	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U
2,6-Dinitrotoluene	--	--	62,000	6,100	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U
Benzaldehyde	--	--	1,200,000	780,000	314 R	293 R	289 R	189 J	1,210 J	312 R	316 R	311 R	290 R	249 J	331 R	86.3 J
Benzo(a)pyrene	--	59	210	15	6.3 U	5.9 U	5.8 U	30	6.9 U	6.2 U	14	11	5.8 U	7.3 U	6.6 U	20
Benzo(b)fluoranthene	--	600	2,100	150	63 U	59 U	58 U	53 J	69 U	62 U	35 J	21 J	58 U	18 J	66 U	31 J
Nitrobenzene	--	--	24,000	4,800	300 U	300 U	300 U	11,700 J	300 U	300 U	300 U	300 U	300 U	1,270 J	300 U	300 U
Pyrene	--	220,000	1,700,000	170,000	314 U	293 U	289 U	59.1 J	344 U	312 U	316 U	311 U	290 U	364 U	331 U	342 U
Explosives (µg/kg)																
1,3,5-Trinitrobenzene	--	--	2,700,000	220,000	152 J	300 U	300 U	300 U	300 U	300 U	300 U	310 J	300 U	280 J	180 J	349 J
1,3-Dinitrobenzene	--	--	6,200	610	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U
2,4,6-Trinitrotoluene	--	--	42,000	3,600	300 U	169 J	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U
2-Amino-4,6-dinitrotoluene	--	--	200,000	15,000	300 U	300 U	300 U	300 U	300 U	116 J	300 U	300 U	300 U	300 U	300 U	300 U
2-Nitrotoluene	--	--	13,000	2,900	300 U	300 U	300 U	300 U	300 U	209 J	300 U	300 U	300 U	122 J	300 U	300 U
3-Nitrotoluene	--	--	6,200	610	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	2,690 J
4-Amino-2,6-dinitrotoluene	--	--	190,000	15,000	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U
4-Nitrotoluene	--	--	110,000	24,000	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	3,770 J	300 U	300 U
HMX	--	--	4,900,000	380,000	300 U	300 U	300 U	292 J	300 U	300 U	300 U	300 U	300 U	277 J	300 U	300 U
Nitroglycerin	--	--	6,200	610	750 U	750 U	750 U	616 J	750 U	750 U	750 U	750 U	750 U	522 J	750 U	750 U
PETN	--	--	--	--	500 U	500 U	500 U	500 U	500 U	500 U	500 U	500 U	500 U	500 U	500 U	500 U
RDX	--	--	24,000	5,500	300 U	300 U	107 J	300 U	230 J	153 J	543	616 J	300 U	2,730 J	452 J	300 U
Tetryl	--	--	250,000	24,000	300 U	300 U	300 U	300 U	300 U	696 J	300 U	300 U	300 U	300 U	300 U	300 U
Total Metals (mg/kg)																
Aluminum	5,487	--	99,000	7,700	542	435	2,330	5,330	1,830	1,790	600	632	2,000	3,510	3,980	3,300
Arsenic	0.626	5.8	1.6	0.39	0.241 J	0.293 U	0.472	1.17	0.504	0.35	0.303 J	0.325	0.415	0.816	0.689	0.765
Barium	14.5	580	19,000	1,500	7.63	5.22	6.25	23.8	32.8	13.5	7.07	8.06	6	64.2	50.8	26.5
Beryllium	0.103	--	200	16	0.31 U	0.293 U	0.29 U	0.114 J	0.0907 J	0.299 U	0.31 U	0.309 U	0.298 U	0.121 J	0.126 J	0.329 U
Cadmium	0.033	3	80	7	0.31 U	0.293 U	0.29 U	0.264 J	0.17 J	0.299 U	0.31 U	0.309 U	0.298 U	0.139 J	0.0851 J	0.118 J
Calcium	6,360	--	--	--	534	227 J	425	4,530	3,610	689	557	629	144 J	2,700	3,430	3,500
Chromium	6.05	3.8	5.6	0.29	0.989	0.792	2.8	**7.98**	1.7	2.39	0.998	1.03	2.29	2.55	2.41	4.04
Cobalt	0.294	--	30	2.3	0.774 U	0.733 U	0.725 U	0.668 J	0.882 U	0.747 U	0.774 U	0.773 U	0.745 U	0.909 U	0.826 U	0.821 U
Copper	4.83	700	4,100	310	0.694	0.509 J	0.883	6.1	2.67	1.12	0.954	1.11	0.539 J	2.86	2.84	3.31
Iron	3,245	150	72,000	5,500	358	236	977	2,640	641	676	320	338	990	1,400	1,250	1,660
Lead	12.3	270	800	400	6.91	9.55	2.91	27.2	9.39	4.21	12.3	14.9	6.86	15.6	8.5	15
Magnesium	238	--	--	--	71.7 J	293 U	109 J	388	244 J	116 J	310 U	309 U	78.4 J	238 J	282 J	245 J
Manganese	13.7	65	2,300	180	18.9	2.97	7.45 J	65.6 J	43.5 J	20 J	4.5	4.63	5.57 J	118 J	120 J	60.1 J
Mercury	0.081	1	31	2.3	0.0155 J	0.0142 J	0.0369 U	0.0854	0.0553	0.0198 J	0.0247 J	0.029 J	0.0142 J	0.052	0.0361 J	0.0346 J
Nickel	1.21	130	2,000	150	0.345 J	0.586 U	0.667	3.24	1.08	0.563 J	0.496 J	0.532 J	0.511 J	1.83	2.1	1.4
Potassium	116	--	--	--	310 U	293 U	110 J	351 J	149 J	107 J	310 U	309 U	77.2 J	205 J	173 J	177 J
Selenium	0.563	2.1	510	39	0.371 U	0.352 U	0.348 U	0.403 J	0.388 J	0.248 J	0.187 J	0.279 J	0.357 U	0.294 J	0.208 J	0.204 J
Silver	0.14	3.4	510	39	0.31 U	0.293 U	0.29 U	0.44	0.353 U	0.299 U	0.31 U	0.309 U	0.298 U	0.364 U	0.331 U	0.329 U
Vanadium	8.9	--	520	39	1.76	1.37	3.51	9.96	2.71	2.92	1.76	1.78	3.41	4.55	3.74	5.78
Zinc	10.8	1,200	31,000	2,300	5	1.47	2.95	41.9	9.49	4.18	4.73	5.23	2.74	12.5	16.9	18.3

Notes:
Bold text indicates exceedance of Adjusted Industrial Soil RSLs
Shading indicates exceedance of two times the mean base background concentration for surface soil
Bold box indicates exceedance of NCSSL
Underline indicates exceedance of Adjusted Residential Soil RSLs
RSLs were adjusted for noncarcinogens to account for exposure to multiple constituents
J - Analyte present, value may or may not be accurate or precise
R - Unreliable Result
U - The material was analyzed for, but not detected
UJ - Analyte not detected, quantitation limit may be inaccurate
mg/kg - Milligrams per kilogram
µg/kg - Micrograms per kilogram
Generated by: Rebekah Shaw
Checked by: Erin Twamley

TABLE 4-4
Surface Soil Analytical Results - Phase II Investigation Area
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204,
PA/SI Report
MCB CamLej, North Carolina

Station ID	Camp Lejeune Background SS 2X Mean	NCSSLs (January, 2010)	Adjusted Industrial Soil RSLs (May, 2010)	Adjusted Residential Soil RSLs (May, 2010)	MR21-SS32	MR21-SS33	MR21-SS34	MR21-SS35	MR21-SS36	MR21-SS37	MR21-SS38	MR21-SS39	MR21-SS40
Sample ID					MR21-SS32-10A	MR21-SS33-10A	MR21-SS34-10A	MR21-SS35-10A	MR21-SS36-10A	MR21-SS37-10A	MR21-SS38-10A	MR21-SS39-10A	MR21-SS40-10A
Sample Date					03/04/10	03/04/10	03/04/10	03/04/10	03/04/10	03/04/10	03/04/10	03/04/10	03/03/10
Chemical Name													
Volatile Organic Compounds (µg/kg)													
1,2-Dichlorobenzene	--	240	380,000	190,000	13.3 UJ	13.7 UJ	20.1 UJ	18.7 UJ	16.6 UJ	15.5 UJ	17.6 UJ	20.9 UJ	16.1 UJ
1,4-Dichlorobenzene	--	70	12,000	2,400	13.3 UJ	13.7 UJ	20.1 UJ	18.7 UJ	16.6 UJ	15.5 UJ	17.6 UJ	20.9 UJ	16.1 UJ
2-Butanone	--	16,000	20,000,000	2,800,000	13.3 UJ	13.7 UJ	20.1 UJ	18.7 UJ	16.6 UJ	15.5 UJ	17.6 UJ	20.9 UJ	16.1 UJ
2-Hexanone	--	1,200	140,000	21,000	13.3 UJ	13.7 UJ	20.1 UJ	18.7 UJ	16.6 UJ	15.5 UJ	12.8 J	20.9 UJ	16.1 UJ
Acetone	--	24,000	63,000,000	6,100,000	174 J	201 J	272 J	495 J	346 J	143 J	146 J	77 J	310 J
Benzene	--	7.3	5,400	1,100	13.3 UJ	13.7 UJ	20.1 UJ	18.7 UJ	16.6 UJ	15.5 UJ	17.6 UJ	20.9 UJ	16.1 UJ
Carbon disulfide	--	3,800	370,000	82,000	13.3 UJ	13.7 UJ	20.1 UJ	18.7 UJ	16.6 UJ	15.5 UJ	17.6 UJ	20.9 UJ	16.1 UJ
Chloroform	--	340	1,500	290	13.3 UJ	13.7 UJ	6.48 J	18.7 UJ	102 J	1.07 J	17.6 UJ	20.9 UJ	16.1 UJ
Ethylbenzene	--	8,100	27,000	5,400	13.3 UJ	1.18 J	2.26 J	18.7 UJ	16.6 UJ	15.5 UJ	17.6 UJ	20.9 UJ	16.1 UJ
Methyl acetate	--	--	29,000,000	7,800,000	4.53 J	5.59 J	16.3 J	29.9 J	306 J	15.5 UJ	4.5 J	20.9 UJ	15.6 J
Toluene	--	5,500	820,000	500,000	13.3 UJ	5.04 J	1.86 J	1.95 J	4.92 J	15.5 UJ	5.83 J	2.27 J	2.07 J
Xylene, total	--	6,000	260,000	63,000	13.3 UJ	4.85 J	3.89 J	3.37 J	16.6 UJ	15.5 UJ	2.68 J	3.58 J	2.99 J
Semivolatile Organic Compounds (µg/kg)													
2,4-Dinitrotoluene	--	--	5,500	1,600	300 U	300 U	300 U	300 U	140 J	300 U	300 U	300 U	300 U
2,6-Dinitrotoluene	--	--	62,000	6,100	300 U	322 J	300 U	300 U	300 U	300 U	300 U	300 U	300 U
Benzaldehyde	--	--	1,200,000	780,000	300 R	326 R	277 J	381 R	326 R	94 J	103 J	315 R	152 J
Benzo(a)pyrene	--	59	210	15	4.5 J	6.5 U	9.7 UJ	7.6 U	6.5 U	6.5 U	6.8 U	6.3 U	23
Benzo(b)fluoranthene	--	600	2,100	150	60 U	14 J	13 J	12 J	65 U	65 U	22 J	63 U	34 J
Nitrobenzene	--	--	24,000	4,800	690 J	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U
Pyrene	--	220,000	1,700,000	170,000	300 U	326 U	484 UJ	381 U	326 U	325 U	338 U	315 U	373 U
Explosives (µg/kg)													
1,3,5-Trinitrobenzene	--	--	2,700,000	220,000	300 U	114 J	226 J	300 U	300 U	300 U	300 U	300 U	300 U
1,3-Dinitrobenzene	--	--	6,200	610	300 U	300 U	300 U	300 U	300 U	199 J	300 U	300 U	300 U
2,4,6-Trinitrotoluene	--	--	42,000	3,600	300 U	300 U	300 U	300 U	129 J	300 U	300 U	133 J	300 U
2-Amino-4,6-dinitrotoluene	--	--	200,000	15,000	300 U	242 J	300 UJ	126 J	300 U	300 U	300 U	300 U	300 U
2-Nitrotoluene	--	--	13,000	2,900	300 U	202 J	300 U	112 J	300 U	300 U	300 U	300 U	355 J
3-Nitrotoluene	--	--	6,200	610	270 J	300 U	300 U	300 U	300 U	300 U	300 U	117 J	300 U
4-Amino-2,6-dinitrotoluene	--	--	190,000	15,000	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U
4-Nitrotoluene	--	--	110,000	24,000	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U
HMX	--	--	4,900,000	380,000	300 U	300 U	1,130 J	300 U	300 U	294 J	300 U	300 U	300 U
Nitroglycerin	--	--	6,200	610	1,010 J	750 U	750 U	750 U	750 U	750 U	750 U	543	750 U
PETN	--	--	--	--	500 U	500 U	500 U	500 U	1,480	523 J	639 J	500 U	500 U
RDX	--	--	24,000	5,500	435 J	857 J	615	917 J	300 U	300 U	300 U	300 U	300 U
Tetryl	--	--	250,000	24,000	300 U	108 J	300 U	300 U	300 U	300 U	300 U	300 U	300 U
Total Metals (mg/kg)													
Aluminum	5,487	--	99,000	7,700	739	2,280	1,680	2,130	2,110	1,700	679	1,110	9,090
Arsenic	0.626	5.8	1.6	0.39	0.248 J	0.598	0.555	0.409	0.542	0.492	0.367	0.427	1.6
Barium	14.5	580	19,000	1,500	7.96	15	37.8	35.8	18.2	15.3	12.6	16.7	27.4
Beryllium	0.103	--	200	16	0.295 U	0.309 U	0.481 U	0.368 U	0.326 U	0.327 U	0.336 U	0.303 U	0.0971 J
Cadmium	0.033	3	80	7	0.295 U	0.309 U	0.16 J	0.129 J	0.326 U	0.327 U	0.336 U	0.303 U	0.13 J
Calcium	6,360	--	--	--	259 J	988	3,580	4,110	828	769	929	881	4,210
Chromium	6.05	3.8	5.6	0.29	0.948	2.32	1.69	1.91	1.71	1.68	1.37	1.54	**8.84**
Cobalt	0.294	--	30	2.3	0.738 U	0.772 U	1.2 U	0.92 U	0.816 U	0.816 U	0.84 U	0.757 U	0.6 J
Copper	4.83	700	4,100	310	0.814	1.41	2.63	3.17	1.89	1.86	1.38	1.95	6.54
Iron	3,245	150	72,000	5,500	287	1,150	754	648	605	648	454	592	3,040
Lead	12.3	270	800	400	6.07	9.64	11	8.76	10.1	8.68	12.6	10.8	28.9
Magnesium	238	--	--	--	295 U	138 J	310 J	232 J	117 J	143 J	102 J	94.6 J	335 J
Manganese	13.7	65	2,300	180	3.75	53.4	135	38.3	22.8 J	37.7 J	21.7 J	29.2 J	25.1 J
Mercury	0.081	1	31	2.3	0.0235 J	0.0401	0.0516 J	0.058	0.0575	0.0347 J	0.0315 J	0.0257 J	0.07
Nickel	1.21	130	2,000	150	0.438 J	0.934	0.986	1.25	1.06	0.848	0.618 J	0.587 J	3.88
Potassium	116	--	--	--	295 U	126 J	252 J	190 J	126 J	111 J	85.2 J	83 J	278 J
Selenium	0.563	2.1	510	39	0.354 U	0.199 J	0.432 J	0.278 J	0.339 J	0.208 J	0.278 J	0.198 J	0.244 J
Silver	0.14	3.4	510	39	0.295 U	0.309 U	0.481 U	0.368 U	0.326 U	0.327 U	0.336 U	0.303 U	0.212 J
Vanadium	8.9	--	520	39	1.49	4.26	3.02	2.84	2.61	2.93	2.75	2.98	11.8
Zinc	10.8	1,200	31,000	2,300	1.61	5.62	13.3	8.83	2.55	6.91	5.03	3.28	33.9

Notes:
Bold text indicates exceedance of Adjusted Industrial Soil RSLs
Shading indicates exceedance of two times the mean base background concentration for surface soil
Bold box indicates exceedance of NCSSL
Underline indicates exceedance of Adjusted Residential Soil RSLs
RSLs were adjusted for noncarcinogens to account for exposure to multiple constituents
J - Analyte present, value may or may not be accurate or precise
R - Unreliable Result
U - The material was analyzed for, but not detected
UJ - Analyte not detected, quantitation limit may be inaccurate
mg/kg - Milligrams per kilogram
µg/kg - Micrograms per kilogram
Generated by: Rebekah Shaw
Checked by: Erin Twamley

TABLE 4-5
Groundwater Analytical Results - Phase II Investigation Area
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)
PA/SI Report
MCB CamLej, North Carolina

Station ID	**Camp Lejeune Background GW 2X Mean**	**NC2LGW (January, 2010)***	**Adjusted Tap Water RSLs (May, 2010)**	MR21-MW01		MR21-MW02	MR21-MW03	MR21-MW04	MR21-MW05	MR21-MW06	MR21-MW07	MR21-MW08	MR21-MW09	MR21-MW10
Sample ID				MR21-GW01-10B	MR21-GW01D-10B	MR21-GW02-10B	MR21-GW03-10B	MR21-GW04-10B	MR21-GW05-10B	MR21-GW06-10B	MR21-GW07-10B	MR21-GW08-10B	MR21-GW09-10B	MR21-GW10-10B
Sample Date				04/10/10	04/10/10	04/10/10	04/10/10	04/10/10	04/10/10	04/10/10	04/10/10	04/10/10	04/10/10	04/10/10
Chemical Name														
Volatile Organic Compounds (µg/l)														
Chloroform	--	70	0.19	1 U	1 U	1 U	**2.12**	**4.07**	1 U	**8**	1 U	1.05 U	1 U	**28**
Toluene	--	600	230	3.64	3.91	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Semivolatile Organic Compounds (µg/l)														
No Detections				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Explosives (µg/l)														
Perchlorate	--	--	2.6	0.2 U	0.2 U	0.2 U	0.0843 J	0.0821 J	0.2 U	0.292	0.2 U	0.0866 J	0.627	0.316
Total Metals (µg/l)														
Aluminum	1,886	--	3,700	629 J	675 J	1,980 J	155 J	378 J	107 J	176 J	203 J	226	301 J	266 J
Arsenic	5.77	10	0.045	1.5 U	1.5 U	**2.07**	1.5 U	1.5 U	**0.886 J**	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
Barium	86.2	700	730	145	146	35.1	24	80.1	16	32.1	13.4	51.3	23.6	43.2
Calcium	69,078	--	--	490 J	512 J	1,260	810 J	1,760	76,300	1,280	58,300	1,300 J	9,310	1,200 J
Chromium	3.13	10	0.043	**1.12**	**1.19**	**2.74**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cobalt	3.4	--	1.1	**1.99 J**	**1.97 J**	3.12 U	3.12 U	3.12 U	3.12 U	3.12 U	3.12 U	3.12 U	3.12 U	3.12 U
Iron	5,999	300	2,600	**2,830**	**2,820**	1,830	164	44.1	1,490	101	490	42.4 UJ	82.8	99
Lead	2.8	15	15	0.75 U	0.75 U	0.651 J	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U
Magnesium	6,363	--	--	3,820	3,840	623 J	1,130 J	3,100	1,620	1,730	1,510	1,660	2,150	2,190
Manganese	214	50	88	12.1	12.2	5.05	3.77	7.66	20.1	3.08 J	2.31 J	5.24	3.22 J	7.22
Nickel	7.97	100	73	3.45	3.48	0.929 J	2.5 U	1.14 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Potassium	3,277	--	--	660 J	670 J	964 J	613 J	1,020 J	1,010 J	585 J	1,250 U	1,110 J	704 J	758 J
Selenium	3.14	20	18	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.2 J	1.5 U
Sodium	22,508	--	--	14,400	14,500	6,140	5,970	10,800	6,070	7,730	2,290	5,530	3,400	6,260
Vanadium	4.72	--	18	1.8 J	1.77 J	3.22	3.12 U	3.12 U	3.12 U	3.12 U	1.82 J	3.12 U	3.12 U	3.12 U
Zinc	42.1	1,000	1,100	5.37	5.53	2.26 J	2.17 J	2.49 J	2.46 J	1.85 J	5 U	5.34	5 U	1.41 J

Notes:

Bold text indicates exceedance of Adjusted Tap Water RSLs

Shading indicates exceedance of two times the mean base background concentration for Groundwater

Bold box indicates exceedance of NC2LGW or the more conservative MCL

RSLs were adjusted for noncarcinogens to account for exposure to multiple constituents

NA - Not analyzed

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

U - The material was analyzed for, but not detected

UJ - Analyte not detected, quantitation limit may be inaccurate

µg/l - Micrograms per liter

Generated by: Rebekah Shaw

Checked by: Erin Twamley

TABLE 4-6
Surface Water Analytical Results - Phase II Investigation Area
Site UXO-21 Former Area D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)
PA/SI Report
MCB CamLej, North Carolina

Station ID	**NC2B-SW-Human Health & Water Supply [1]**	**NRWQC-Human Health - Organisms & Water + Organisms [2]**	**Adjusted Tap Water RSLs (May, 2010)**	MR21-SW01		MR21-SW02	MR21-SW03	MR21-SW04	MR21-SW05	MR21-SW06
Sample ID				MR21-SW01-10B	MR21-SW01D-10B	MR21-SW02-10B	MR21-SW03-10B	MR21-SW04-10B	MR21-SW05-10B	MR21-SW06-10B
Sample Date				04/11/10	04/11/10	04/11/10	04/11/10	04/11/10	04/11/10	04/11/10
Chemical Name										
Volatile Organic Compounds (µg/l)										
Toluene	--	1,000	230	1.99	2.44	3.58	1 U	1 U	1 U	1 U
Semivolatile Organic Compounds (µg/l)										
bis(2-Ethylhexyl)phthalate	--	1.2	4.8	**2.53 J**	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
Explosives (µg/l)										
Perchlorate	--	--	2.6	0.2 U	0.2 U	0.2 U	0.0772 J	0.2 U	0.2 U	0.17 J
Total Metals (µg/l)										
Aluminum	--	--	3,700	393 J	453 J	292 J	479 J	478 J	617 J	634 J
Arsenic	10	0.018	0.045	**2.55**	**2.75**	**1.13 J**	1.5 U	1.5 U	1.5 U	1.5 U
Barium	1,000	1,000	730	19.7	22	27.6	34.3	32.6	36.5	34.9
Calcium	--	--	--	21,500	24,200	21,000	34,200	31,300	22,500	20,700
Chromium	--	100	0.043	1.01	1.09	0.792 J	0.573 J	0.53 J	0.629 J	0.756 J
Copper	--	1,300	150	2.5 U	1.3 J	2.06 J	2.5 U	2.5 U	2.5 U	2.5 U
Iron	--	300	2,600	**2,540**	**3,270**	**409**	**844**	**784**	**696**	**726**
Magnesium	--	--	--	1,030 J	1,140 J	1,430	1,450	1,380	1,370	1,330
Manganese	200	50	88	**60**	**72**	**178**	21.3	19.7	18.9	19.1
Nickel	25	610	73	1.39 J	1.53 J	1.37 J	1.2 J	1.18 J	1.37 J	1.49 J
Potassium	--	--	--	757 J	929 J	1,450	839 J	808 J	721 J	705 J
Sodium	--	--	--	6,180	7,000	8,330	8,030	7,740	7,770	7,650
Vanadium	--	--	18	1.31 J	1.61 J	3.12 U	3.12 U	3.12 U	3.12 U	3.12 U
Zinc	--	7,400	1,100	5.98	9.62	4.75 J	6.55	5.91	8.19	8.47

Notes:

Bold text indicates exceedance of NRWQC-Human Health - Water+ Organisms

Shading indicates exceedance of Adjusted Tap Water RSLs

1 - NC2B-SW-Human Health and NC2B-SW-Water Supply were combined to show the most conservative criteria

2 - NRWQC-Human Health - Water+ Organisms and NRWQC-Human Health Organisms were combined to show the most conservative criteria

RSLs were adjusted for noncarcinogens to account for exposure to multiple constituents

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

U - The material was analyzed for, but not detected

µg/l - Micrograms per liter

Generated by: Rebekah Shaw

Checked by: Erin Twamley

TABLE 4-7
Sediment Analytical Results - Phase II Investigation Area
Site UXO-21 Former Area D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)
PA/SI Report
MCB CamLej, North Carolina

Station ID	**Adjusted Industrial Soil RSLs**	**Adjusted Residential Soil RSLs**	MR21-SD01	MR21-SD02		MR21-SD03	MR21-SD04	MR21-SD05	MR21-SD06
Sample ID			MR21-SD01-10B	MR21-SD02-10B	MR21-SD02D-10B	MR21-SD03-10B	MR21-SD04-10B	MR21-SD05-10B	MR21-SD06-10B
Sample Date			04/11/10	04/11/10	04/11/10	04/11/10	04/11/10	04/11/10	04/11/10
Chemical Name									
Volatile Organic Compounds (µg/kg)									
2-Butanone	20,000,000	2,800,000	9.01 J	21.7	27.8	12 U	11.6 U	11.1 U	10.3 U
2-Hexanone	140,000	21,000	11.3 U	13.2 U	3.25 J	12 U	11.6 U	11.1 U	10.3 U
4-Methyl-2-pentanone	3,400,000	530,000	1.97 J	13.2 U	12.8 U	12 U	11.6 U	11.1 U	10.3 U
Acetone	63,000,000	6,100,000	153	355 J	368 J	83.9	28.7 U	40.6 U	22.9 U
Carbon disulfide	370,000	82,000	11.3 U	13.2 U	12.8 U	4.45 J	11.6 U	11.1 U	10.3 U
Toluene	820,000	500,000	26.4	661 J	694	1.95 J	11.6 U	11.1 U	10.3 U
Semivolatile Organic Compounds (µg/kg)									
2,4-Dinitrotoluene	5,500	1,600	100 U	41.6 J	72 J	38.5 J	100 U	100 U	100 U
4-Methylphenol	310,000	31,000	338 U	211 J	295 J	369 U	336 U	347 U	316 U
Benzaldehyde	1,200,000	780,000	338 R	90.8 J	108 J	369 R	336 R	347 R	316 R
Benzo(a)anthracene	2,100	150	67.6 U	3.31 J	4.02 J	7.06 J	67.3 U	69.3 U	63.3 U
Benzo(b)fluoranthene	2,100	150	67.6 U	8.17 J	7.94 J	11.5 J	5.86 J	7.99 J	63.3 U
bis(2-Ethylhexyl)phthalate	120,000	35,000	338 U	365 U	248 J	369 U	336 U	227 J	316 U
Nitrobenzene	24,000	4,800	100 U	100 U	82.5 J	62 J	100 U	46.4 J	100 U
Explosives (µg/kg)									
1,3,5-Trinitrobenzene	2,700,000	220,000	100 U	200 J	103 J	45.8 J	100 U	100 U	100 U
2,4,6-Trinitrotoluene	42,000	3,600	100 U	100 U	100 U	61.3 J	100 U	45.6 J	100 U
2-Nitrotoluene	13,000	2,900	100 U	67.2 J	100 U	51.2 J	100 U	100 U	100 U
4-Amino-2,6-dinitrotoluene	190,000	15,000	100 U	687 J	100 U	100 U	100 U	100 U	100 U
4-Nitrotoluene	110,000	24,000	100 U	60.3 J	100 U	100 U	100 U	100 U	100 U
HMX	4,900,000	380,000	100 U	68.3 J	100 U	100 U	100 U	100 U	100 U
RDX	24,000	5,500	100 U	310 J	129 J	90.6 J	100 U	65.9 J	113 J
Tetryl	250,000	24,000	100 U	74.9 J	141 J	222 J	100 U	125 J	64.7 J
Total Metals (mg/kg)									
Aluminum	99,000	7,700	1,440	2,030	2,030	1,280	729	657	382
Arsenic	1.6	0.39	0.235 J	0.232 J	0.31 J	0.355 U	0.328 U	0.336 U	0.312 U
Barium	19,000	1,500	8.22	11.4	11.6	8.35	3.5	3.2	1.99 J
Beryllium	200	16	0.322 U	0.351 U	0.362 U	0.0796 J	0.328 U	0.336 U	0.312 U
Calcium	--	--	898 J	1,770 J	1,850 J	968 J	242 J	487 J	116 J
Chromium	5.6	0.29	**1.78**	**2.57**	**2.44**	**1.72**	**1.3**	**1.39**	**1**
Copper	4,100	310	0.742	1.07	1.02	0.973	3.67	0.534 J	0.624 U
Iron	72,000	5,500	660	606	609	1,050	355	312	182
Lead	800	400	3.9	6.69	6.73	3.66	3.05	3.11	2.09
Magnesium	--	--	72.6 J	100 J	97.3 J	355 U	328 U	336 U	312 U
Manganese	2,300	180	3.15	8.69	8.83	2.04	1.62	1.15	1.65
Mercury	31	2.3	0.0432 U	0.0241 J	0.0215 J	0.0487 U	0.036 U	0.0361 U	0.0348 U
Nickel	2,000	150	0.987	0.935	0.917	0.672 J	0.331 J	0.429 J	0.624 U
Potassium	--	--	66.4 J	99.9 J	97.8 J	355 U	328 U	336 U	312 U
Selenium	510	39	0.386 U	0.242 J	0.435 U	0.425 U	0.394 U	0.404 U	0.374 U
Vanadium	520	39	2.69	2.78	2.7	2.04	1.36	1.23	0.957
Zinc	31,000	2,300	3.23	4.08	3.85	11	6.82	7.46	3.43

Notes:

Bold text indicates exceedance of Adjusted Residential Soil RSLs

RSLs were adjusted for noncarcinogens to account for exposure to multiple constituents

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

R - Unreliable Result

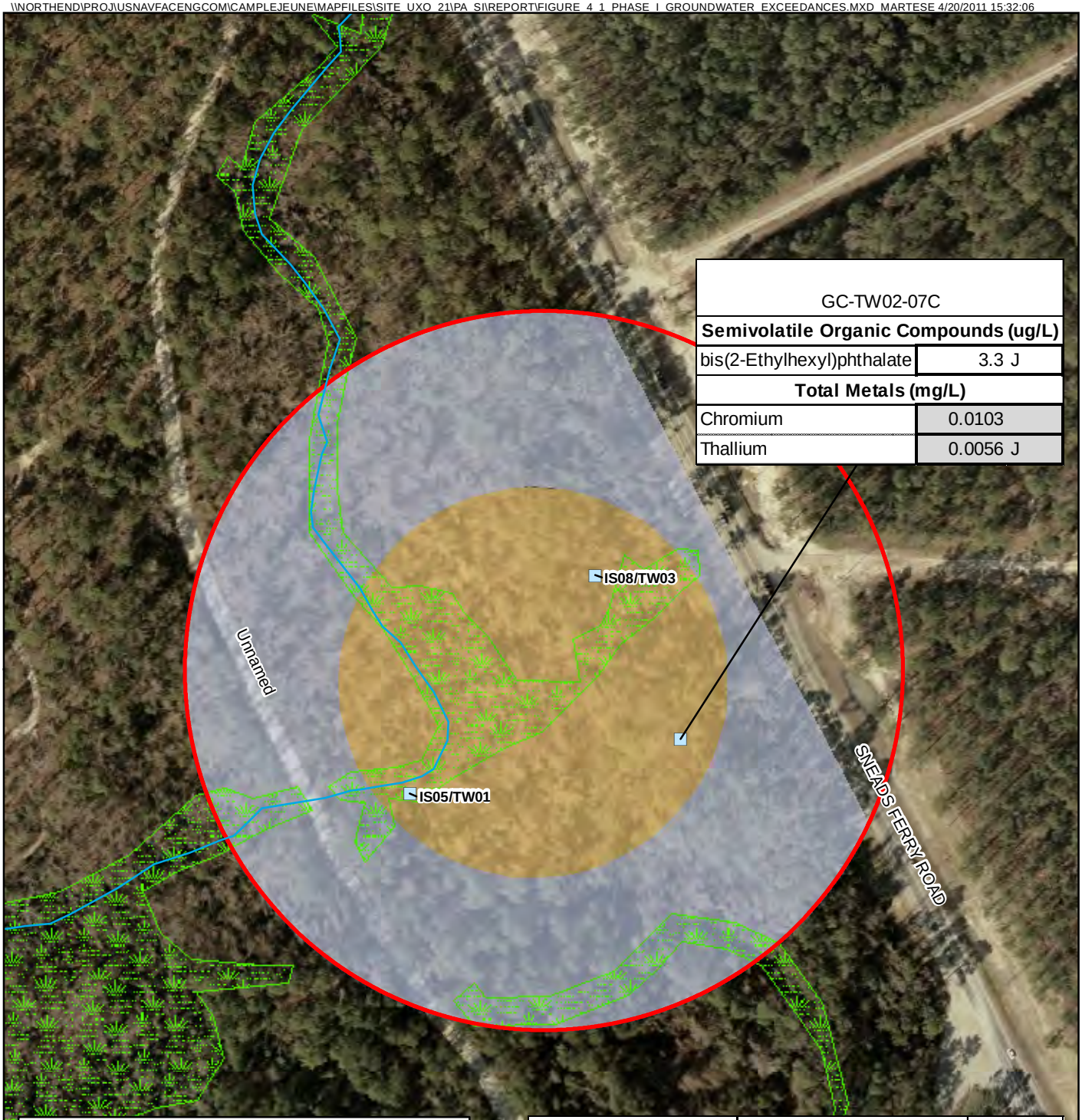
U - The material was analyzed for, but not detected

mg/kg - Milligrams per kilogram

µg/kg - Micrograms per kilogram

Generated by: Rebekah Shaw

Checked by: Erin Twamley



GC-TW02-07C	
Semivolatile Organic Compounds (ug/L)	
bis(2-Ethylhexyl)phthalate	3.3 J
Total Metals (mg/L)	
Chromium	0.0103
Thallium	0.0056 J

Notes:
Shading indicates exceedance of two times the mean base background concentration for Groundwater
Bold box indicates exceedance of NC2LGW (January 2010) or the more conservative MCL
J - Analyte present; value may be imprecise
ug/L - Micrograms per liter
mg/L - Milligram per liter
If an analyte is found above screening critera, but falls below base background it is not noted.

Chemical Name	Camp Lejeune Background GW 2X Mean	NC2LGW
Semivolatile Organic Compounds (ug/L)		
bis(2-Ethylhexyl)phthalate	--	3
Total Metals (mg/L)		
Chromium	0.00313	0.01
Thallium	0.00378	0.002

Legend
- Surface and Suburface Soil Samples / Temporary Well
- Creek
- UXO-21
- Phase I Investigation Area
- Phase II Investigation Area
- Jurisdictional Wetlands

N
0 50 100 200 Feet
1 inch = 200 feet

Figure 4-1
Phase I Groundwater Exceedances
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR#2.204)
PA/SI Report
MCB CamLej
North Carolina

CH2MHILL

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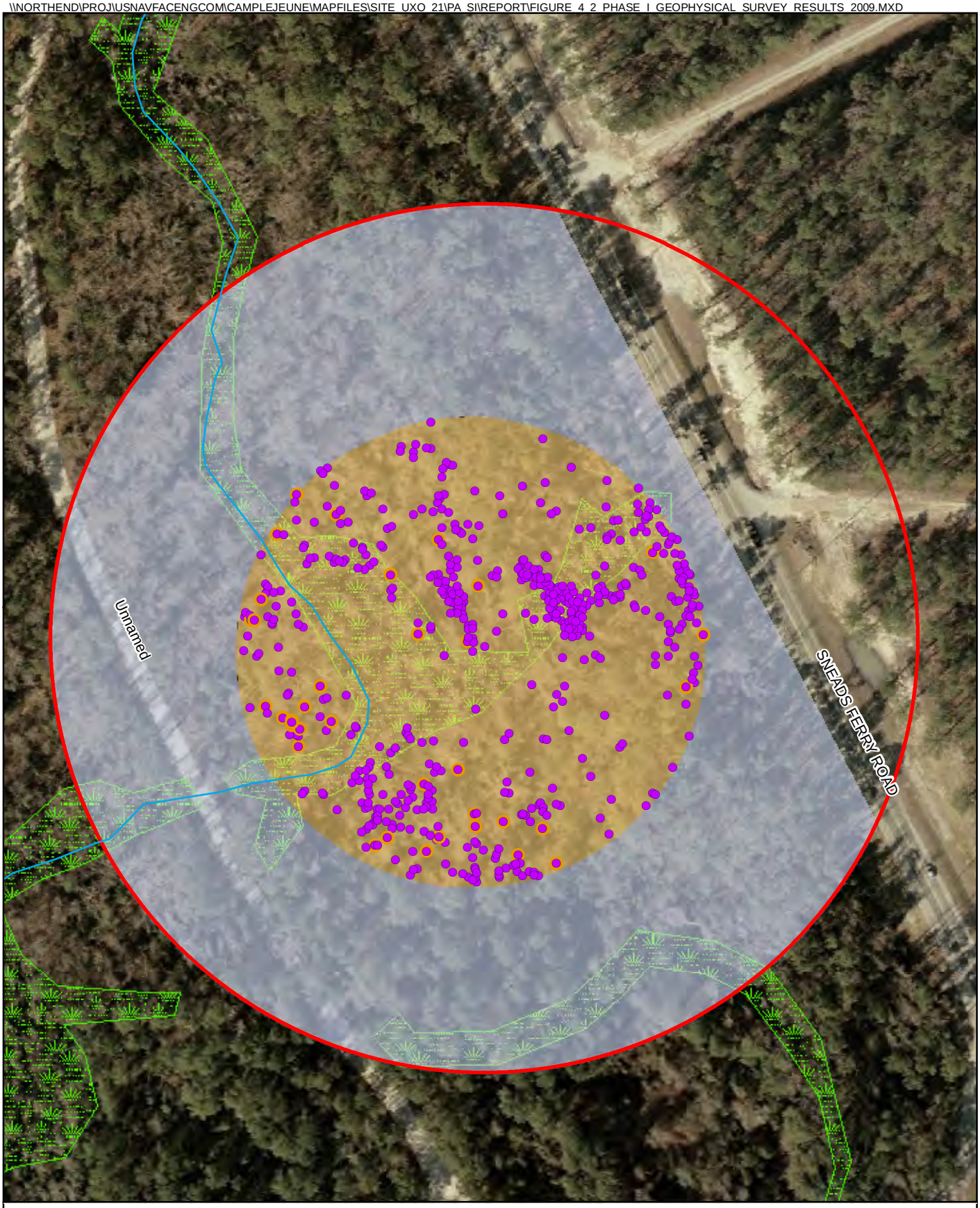
\\NORTHEND\PROJ\USNAVFACENGCOM\CAMPLEJEUNE\MAPFILES\SITE_UXO_21\PA_SI\REPORT\FIGURE_4_2_PHASE_I_GEOPHYSICAL_SURVEY_RESULTS_2009.MXD



Legend

- Investigated Anomaly
- Investigated Anomaly-MPPEH
- Creek
- UXO-21
- Phase I Investigation Area
- Phase II Investigation Area
- Jurisdictional Wetlands

N

0 75 150 Feet

1 inch = 150 feet

Figure 4-2
Phase I Geophysical Survey Results (2009)
Site UXO-21 Former D-Area Tear
Gas Chamber (2nd Division) (ASR#2.204)
PA/SI Report
MCB CamLej
North Carolina

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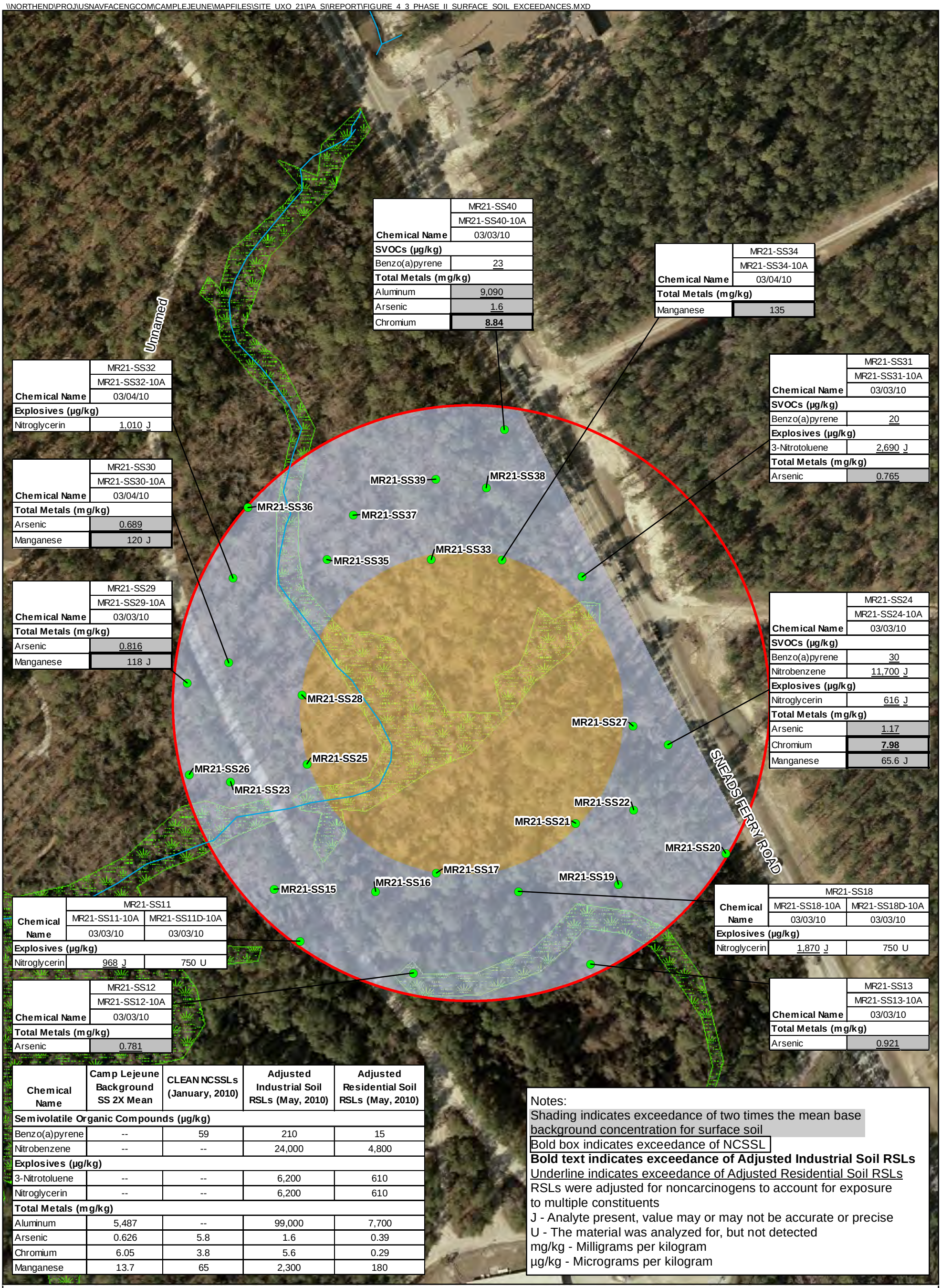
\\NORTHEND\PROJ\USNAVFACENGCOM\CAMPLEJEUNE\MAPFILES\SITE_UXO_21\PA_SI\REPORT\FIGURE_4_3_PHASE_II_SURFACE_SOIL_EXCEEDANCES.MXD



Chemical Name	MR21-SS40
	MR21-SS40-10A
	03/03/10
SVOCs (µg/kg)	
Benzo(a)pyrene	23
Total Metals (mg/kg)	
Aluminum	9,090
Arsenic	1.6
Chromium	**8.84**

Chemical Name	MR21-SS34
	MR21-SS34-10A
	03/04/10
Total Metals (mg/kg)	
Manganese	135

Chemical Name	MR21-SS32
	MR21-SS32-10A
	03/04/10
Explosives (µg/kg)	
Nitroglycerin	1,010 J

Chemical Name	MR21-SS31
	MR21-SS31-10A
	03/03/10
SVOCs (µg/kg)	
Benzo(a)pyrene	20
Explosives (µg/kg)	
3-Nitrotoluene	2,690 J
Total Metals (mg/kg)	
Arsenic	0.765

Chemical Name	MR21-SS30
	MR21-SS30-10A
	03/04/10
Total Metals (mg/kg)	
Arsenic	0.689
Manganese	120 J

Chemical Name	MR21-SS29
	MR21-SS29-10A
	03/03/10
Total Metals (mg/kg)	
Arsenic	0.816
Manganese	118 J

Chemical Name	MR21-SS24
	MR21-SS24-10A
	03/03/10
SVOCs (µg/kg)	
Benzo(a)pyrene	30
Nitrobenzene	11,700 J
Explosives (µg/kg)	
Nitroglycerin	616 J
Total Metals (mg/kg)	
Arsenic	1.17
Chromium	**7.98**
Manganese	65.6 J

Chemical Name	MR21-SS11	
	MR21-SS11-10A	MR21-SS11D-10A
	03/03/10	03/03/10
Explosives (µg/kg)		
Nitroglycerin	968 J	750 U

Chemical Name	MR21-SS18	
	MR21-SS18-10A	MR21-SS18D-10A
	03/03/10	03/03/10
Explosives (µg/kg)		
Nitroglycerin	1,870 J	750 U

Chemical Name	MR21-SS12
	MR21-SS12-10A
	03/03/10
Total Metals (mg/kg)	
Arsenic	0.781

Chemical Name	MR21-SS13
	MR21-SS13-10A
	03/03/10
Total Metals (mg/kg)	
Arsenic	0.921

Chemical Name	Camp Lejeune Background SS 2X Mean	CLEAN NCSSLs (January, 2010)	Adjusted Industrial Soil RSLs (May, 2010)	Adjusted Residential Soil RSLs (May, 2010)
Semivolatile Organic Compounds (µg/kg)				
Benzo(a)pyrene	--	59	210	15
Nitrobenzene	--	--	24,000	4,800
Explosives (µg/kg)				
3-Nitrotoluene	--	--	6,200	610
Nitroglycerin	--	--	6,200	610
Total Metals (mg/kg)				
Aluminum	5,487	--	99,000	7,700
Arsenic	0.626	5.8	1.6	0.39
Chromium	6.05	3.8	5.6	0.29
Manganese	13.7	65	2,300	180

Notes:
Shading indicates exceedance of two times the mean base background concentration for surface soil
Bold box indicates exceedance of NCSSL
Bold text indicates exceedance of Adjusted Industrial Soil RSLs
Underline indicates exceedance of Adjusted Residential Soil RSLs
RSLs were adjusted for noncarcinogens to account for exposure to multiple constituents
J - Analyte present, value may or may not be accurate or precise
U - The material was analyzed for, but not detected
mg/kg - Milligrams per kilogram
µg/kg - Micrograms per kilogram

Legend
- PA/SI Soil Sample Location
- Creek
- UXO-21
- Phase I Investigation Area
- Phase II Investigation Area
- Jurisdictional Wetlands

N

0 75 150 300 Feet

1 inch = 150 feet

Figure 4-3
Phase II Surface Soil Exceedances
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR#2.204)
PA/SI Report
MCB CamLej
North Carolina

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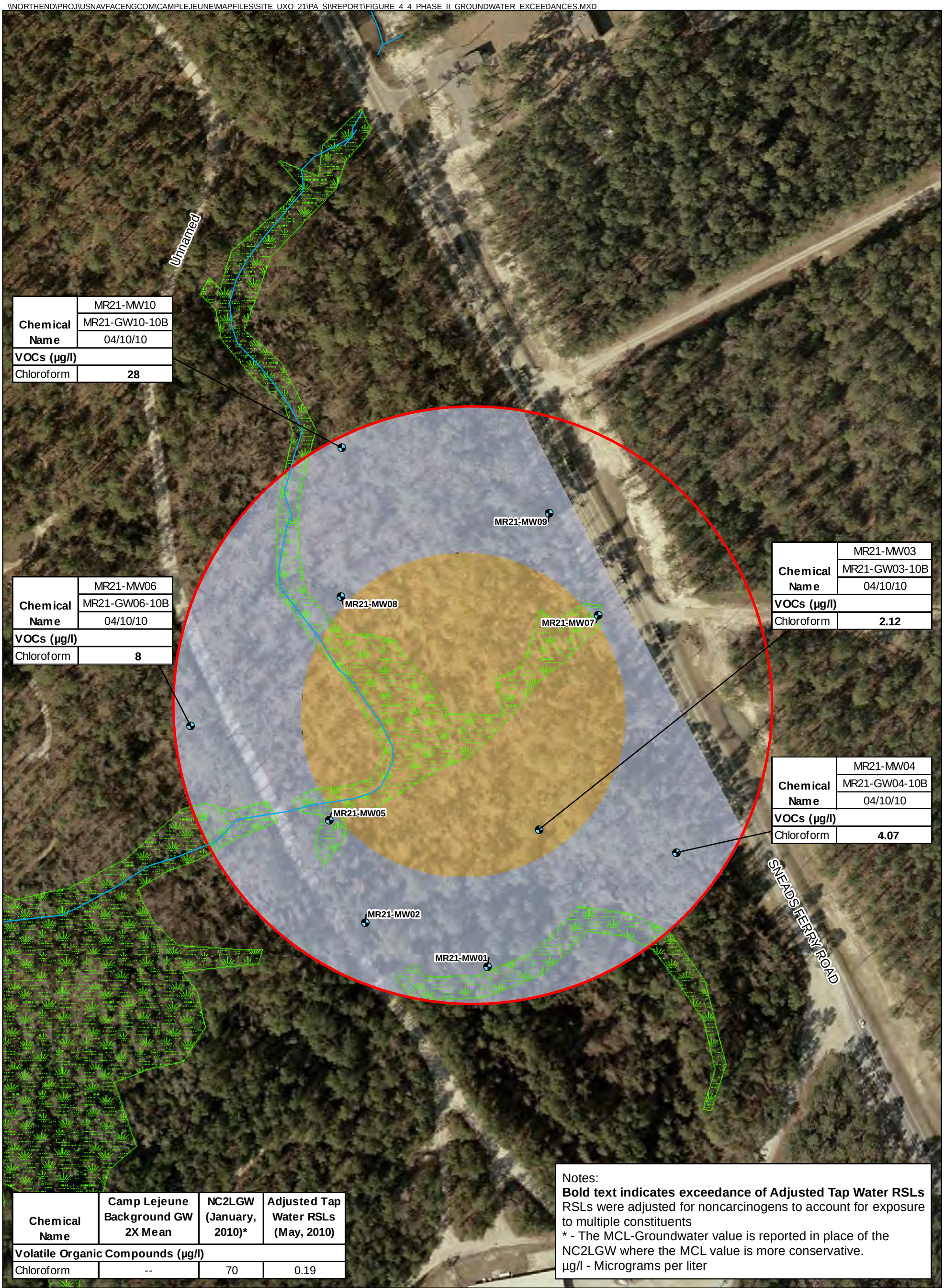

Chemical Name	MR21-MW10
	MR21-GW10-10B
	04/10/10
VOCs (µg/l)	
Chloroform	**28**

Chemical Name	MR21-MW06
	MR21-GW06-10B
	04/10/10
VOCs (µg/l)	
Chloroform	**8**

Chemical Name	MR21-MW03
	MR21-GW03-10B
	04/10/10
VOCs (µg/l)	
Chloroform	**2.12**

Chemical Name	MR21-MW04
	MR21-GW04-10B
	04/10/10
VOCs (µg/l)	
Chloroform	**4.07**

Chemical Name	Camp Lejeune Background GW 2X Mean	NC2LGW (January, 2010)*	Adjusted Tap Water RSLs (May, 2010)
Volatile Organic Compounds (µg/l)			
Chloroform	--	70	0.19

Notes:
Bold text indicates exceedance of Adjusted Tap Water RSLs
RSLs were adjusted for noncarcinogens to account for exposure to multiple constituents
* - The MCL-Groundwater value is reported in place of the NC2LGW where the MCL value is more conservative.
µg/l - Micrograms per liter

Legend
- Permanent Monitoring Well Location
- Creek
- UXO-21
- Jurisdictional Wetlands
- Phase I Investigation Area
- Phase II Investigation Area

N

0 75 150 300 Feet

1 inch = 150 feet

Figure 4-4
Phase II Groundwater Exceedances
Site UXO-21 Former D-Area Tear
Gas Chamber (2nd Division) (ASR#2.204)
PA/SI Report
MCB CamLej
North Carolina

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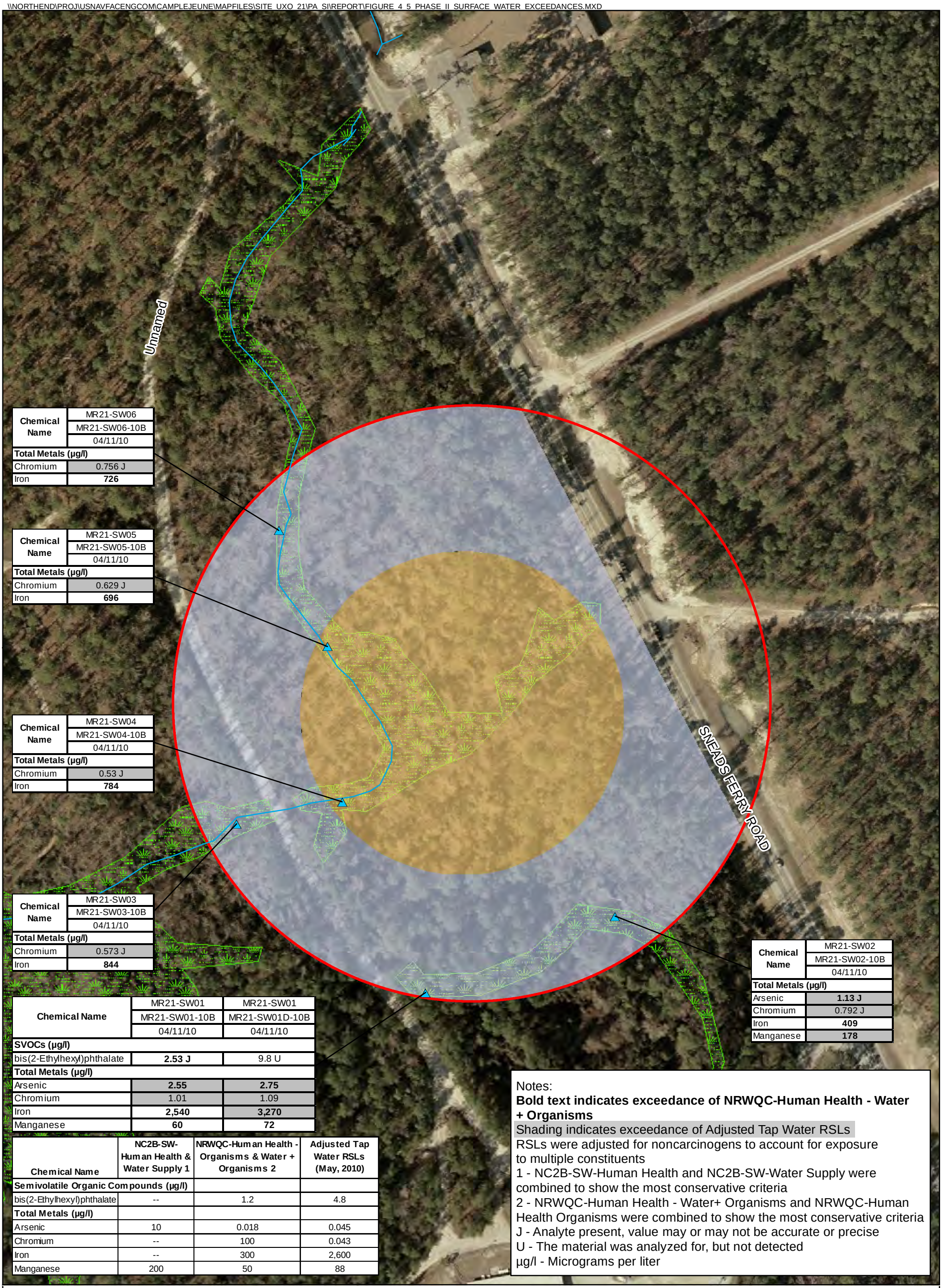
\\NORTHEND\PROJ\USNAVFACENGCOM\CAMPLEJEUNE\MAPFILES\SITE_UXO_21\PA_SI\REPORT\FIGURE_4_5_PHASE_II_SURFACE_WATER_EXCEEDANCES.MXD



Chemical Name	MR21-SW06
	MR21-SW06-10B
	04/11/10
Total Metals (µg/l)	
Chromium	0.756 J
Iron	**726**

Chemical Name	MR21-SW05
	MR21-SW05-10B
	04/11/10
Total Metals (µg/l)	
Chromium	0.629 J
Iron	**696**

Chemical Name	MR21-SW04
	MR21-SW04-10B
	04/11/10
Total Metals (µg/l)	
Chromium	0.53 J
Iron	**784**

Chemical Name	MR21-SW03
	MR21-SW03-10B
	04/11/10
Total Metals (µg/l)	
Chromium	0.573 J
Iron	**844**

Chemical Name	MR21-SW01	MR21-SW01
	MR21-SW01-10B	MR21-SW01D-10B
	04/11/10	04/11/10
SVOCs (µg/l)		
bis(2-Ethylhexyl)phthalate	**2.53 J**	9.8 U
Total Metals (µg/l)		
Arsenic	**2.55**	**2.75**
Chromium	1.01	1.09
Iron	**2,540**	**3,270**
Manganese	**60**	**72**

Chemical Name	MR21-SW02
	MR21-SW02-10B
	04/11/10
Total Metals (µg/l)	
Arsenic	**1.13 J**
Chromium	0.792 J
Iron	**409**
Manganese	**178**

Chemical Name	NC2B-SW-Human Health & Water Supply 1	NRWQC-Human Health - Organisms & Water + Organisms 2	Adjusted Tap Water RSLs (May, 2010)
Semivolatile Organic Compounds (µg/l)			
bis(2-Ethylhexyl)phthalate	--	1.2	4.8
Total Metals (µg/l)			
Arsenic	10	0.018	0.045
Chromium	--	100	0.043
Iron	--	300	2,600
Manganese	200	50	88

Notes:
Bold text indicates exceedance of NRWQC-Human Health - Water + Organisms
Shading indicates exceedance of Adjusted Tap Water RSLs
RSLs were adjusted for noncarcinogens to account for exposure to multiple constituents
1 - NC2B-SW-Human Health and NC2B-SW-Water Supply were combined to show the most conservative criteria
2 - NRWQC-Human Health - Water+ Organisms and NRWQC-Human Health Organisms were combined to show the most conservative criteria
J - Analyte present, value may or may not be accurate or precise
U - The material was analyzed for, but not detected
µg/l - Micrograms per liter

Legend
- PA/SI Surface Water Sample Locations
- Creek
- UXO-21
- Phase I Investigation Area
- Phase II Investigation Area
- Jurisdictional Wetlands

N

0 75 150 300 Feet

1 inch = 150 feet

Figure 4-5
Phase II Surface Water Exceedances
Site UXO-21 Former D-Area Tear
Gas Chamber (2nd Division) (ASR#2.204)
PA/SI Report
MCB CamLej
North Carolina

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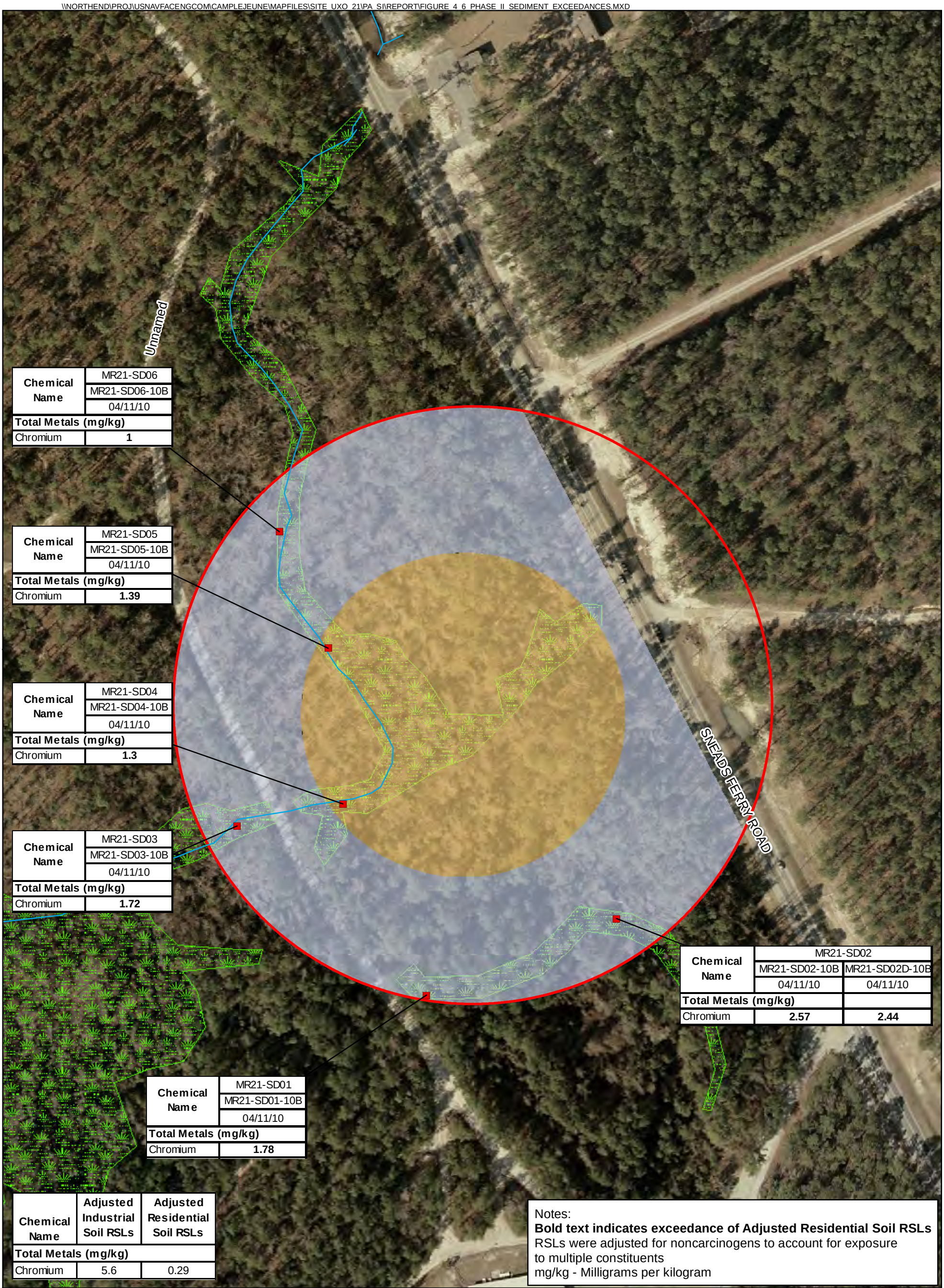

Chemical Name	MR21-SD06
	MR21-SD06-10B
	04/11/10
Total Metals (mg/kg)	
Chromium	**1**

Chemical Name	MR21-SD05
	MR21-SD05-10B
	04/11/10
Total Metals (mg/kg)	
Chromium	**1.39**

Chemical Name	MR21-SD04
	MR21-SD04-10B
	04/11/10
Total Metals (mg/kg)	
Chromium	**1.3**

Chemical Name	MR21-SD03
	MR21-SD03-10B
	04/11/10
Total Metals (mg/kg)	
Chromium	**1.72**

Chemical Name	MR21-SD02	
	MR21-SD02-10B	MR21-SD02D-10B
	04/11/10	04/11/10
Total Metals (mg/kg)		
Chromium	**2.57**	**2.44**

Chemical Name	MR21-SD01
	MR21-SD01-10B
	04/11/10
Total Metals (mg/kg)	
Chromium	**1.78**

Chemical Name	Adjusted Industrial Soil RSLs	Adjusted Residential Soil RSLs
Total Metals (mg/kg)		
Chromium	5.6	0.29

Notes:
Bold text indicates exceedance of Adjusted Residential Soil RSLs
RSLs were adjusted for noncarcinogens to account for exposure to multiple constituents
mg/kg - Milligrams per kilogram

Legend
- PA/SI Sediment Sample Locations
- Creek
- UXO-21
- Jurisdictional Wetlands
- New Road
- Phase I Investigation Area
- Phase II Investigation Area

N

0 75 150 300 Feet

1 inch = 150 feet

Figure 4-6
Phase II Sediment Exceedances
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR#2.204)
PA/SI Report
MCB CamLej
North Carolina

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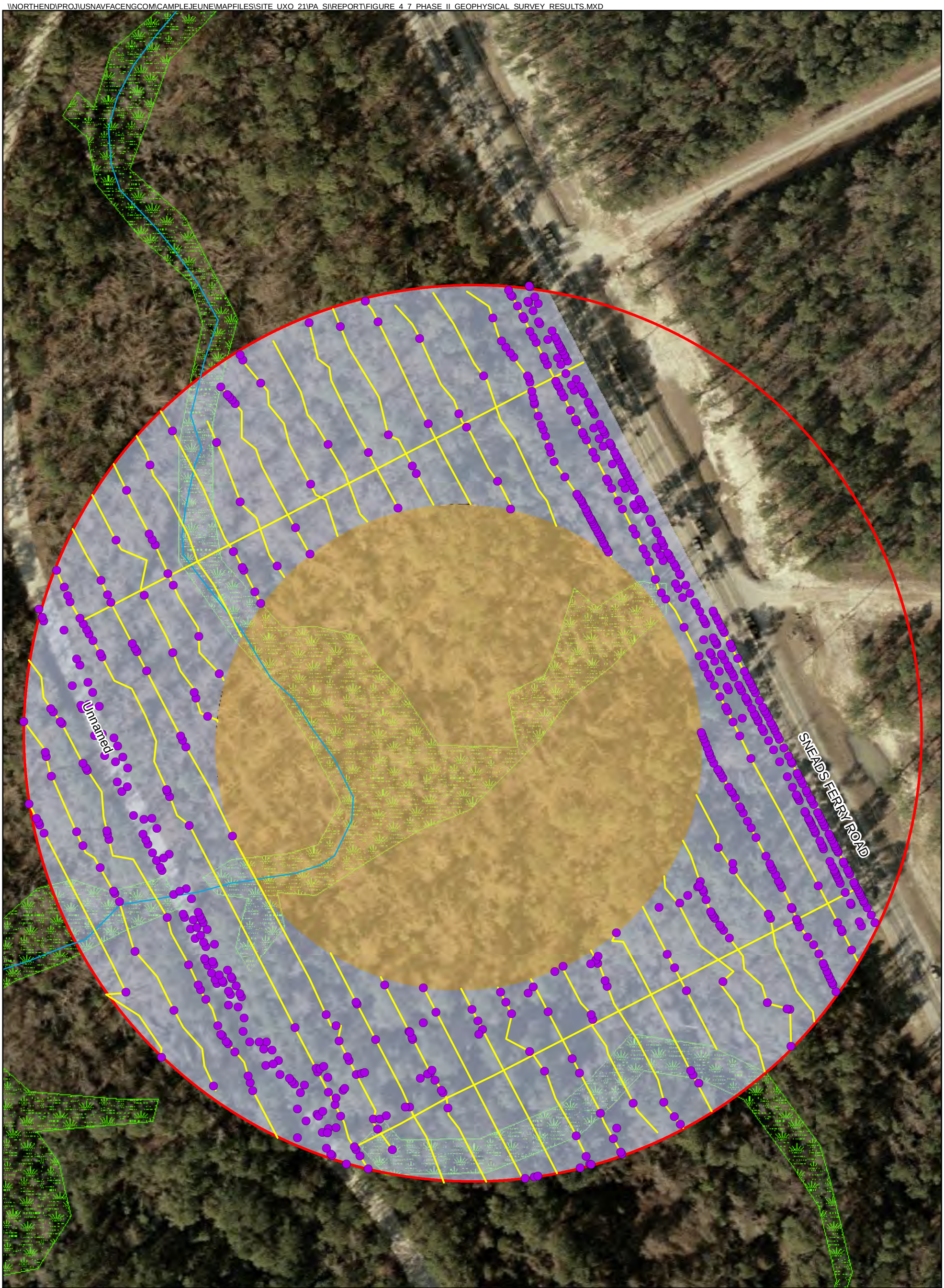
\\NORTHEND\PROJ\USNAVFACENGCOM\CAMPLEJEUNE\MAPFILES\SITE_UXO_21\PA_SI\REPORT\FIGURE_4_7_PHASE_II_GEOPHYSICAL_SURVEY_RESULTS.MXD



Legend

- Geophysical Anomaly
- Geophysical Survey Transects (2010)
- Creek
- UXO-21
- Phase I Investigation Area
- Phase II Investigation Area
- Jurisdictional Wetlands

N

0 50 100 200 Feet

1 inch = 100 feet

Figure 4-7
Phase II Geophysical Survey Results (2010)
Site UXO-21 Former D-Area Tear
Gas Chamber (2nd Division) (ASR#2.204)
PA/SI Report
MCB CamLej
North Carolina

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SECTION 5

Human Health Risk Screening

A Human Health Risk Screening (HHRS) was conducted for Site UXO-21 for Phase I and Phase II of the investigation to evaluate potential risks associated with exposure to site media by potential current and future receptor populations. Soil and groundwater were evaluated for the Phase I investigation area, and soil, groundwater, surface water, and sediment were evaluated for the Phase II investigation area. The results of the HHRS provide a preliminary indication of potential risks from constituents of potential concern (COPCs) and are used to help determine whether the site requires further evaluation to assess human health risks. The HHRS is presented in **Appendix J**. The HHRS results indicated that there were no significant risks to potential human receptors.

SECTION 6

Ecological Risk Screening

An ecological risk screening (ERS) was conducted for Site UXO-21 for Phase I and Phase II of the investigation to evaluate potential risks associated with exposure to site media by potential current and future receptor populations. Soil and groundwater were evaluated for the Phase I investigation area, and soil, groundwater, surface water and sediment sampling were evaluated for the Phase II investigation area. Results for constituents in soil, sediment, surface water, and groundwater were screened against benchmarks intended to be protective of ecological receptors. The ERS is presented in **Appendix K**. The ERS results indicated that there were no significant risks to ecological receptors identified within Site UXO-21.

SECTION 7

Conclusions and Recommendations

This section presents the conclusions and recommendations for the Site UXO-21 PA/SI.

7.1 Conclusions

7.1.1 Digital Geophysical Mapping and Intrusive Investigation

The 2009 geophysical survey was performed over the entirety of the accessible portions of the 4.2-acre Phase I investigation area and identified 569 geophysical anomalies representing potential subsurface MEC. An intrusive investigation of those 569 anomalies was performed in 2010. Two suspected MEC/MPPEH items were identified during the investigation and disposed of by MCB CamLej EOD. Approximately 6 percent of the 569 anomalies were identified as MPPEH.

The 2010 geophysical survey was performed over approximately 10% of the 9.5-acre Phase II investigation area and identified 738 anomalies within 1.06 acres of surveyed transects. No intrusive investigation of the anomalies identified during the 2010 survey was conducted and therefore the nature of the identified anomalies was not determined.

7.1.2 Environmental Investigation

The PA/SI involved collection of environmental media samples (i.e., surface soil, subsurface soil, groundwater, sediment, and surface water) from several locations within Site UXO-21. Subsequent laboratory analysis of these samples detected explosives residues, SVOCs, VOCs, and metals in exceedance of their respective screening criteria. A summary of the detected target analytes is provided below.

Surface Soil

Thirteen VOCs (1,2-dichlorobenzene, 1,4-dichlorobenzene, 2-butanone, 2-hexanone, acetone, benzene, carbon disulfide, chloroform, ethylbenzene, methyl acetate, methylene chloride, toluene, and xylenes) were detected in surface soil below regulatory screening criteria. Nine SVOCs (2,4-dinitrotoluene, 2,6-dinitrotoluene, benzaldehyde, benzo(a)pyrene, benzo(b)fluoranthene, bis(2-ethylhexyl)phthalate, di-n-butylphthalate, nitrobenzene, and pyrene) were detected in surface soil with only benzo(a)pyrene and nitrobenzene reported to exceed regulatory screening criteria. Thirteen explosives residues (1,3,5-trinitrobenzene, 1,3-dinitrobenzne 2,4,6-trinitrotoluene, 2-amino-4,6-dinitrotoluene, 2-nitrotoluene, 3-nitrotoluene, 4-amino-2,6-dinitrotoluene, 4-nitrotoluene, Cyclotetramethylenetetramine [HMX], nitroglycerin, PETN, cyclotrimethylenetrinitramine [RDX], and tetryl) were detected in surface soil with only 3-nitrotoluene and nitroglycerin reported to exceed regulatory screening criteria. Twenty-two metals were detected in surface soil with only four metals (aluminum, arsenic, chromium, and manganese) reported to exceed regulatory screening criteria.

Subsurface Soil

Five VOCs (2-butanone, acetone, methyl acetate, methylene chloride, and toluene) were detected in subsurface soil below regulatory screening criteria. One SVOC (bis(2-ethylhexyl)phthalate) was detected in subsurface soil below regulatory screening criteria. Twenty-one metals were detected in subsurface below regulatory screening criteria.

Groundwater

Three VOCs (chloroform, toluene, and xylene) were detected in groundwater with only chloroform reported to exceed regulatory screening criteria. One SVOC (bis-(2-ethylhexyl)phthalate) was detected in groundwater at concentration exceeding regulatory screening criteria. One explosives residue (perchlorate) was detected in groundwater below regulatory screening criteria. Nineteen total metals were detected in groundwater with only chromium and thallium reported to exceed regulatory screening criteria. Fourteen dissolved metals were detected in groundwater below regulatory screening criteria.

Sediment

Six VOCs (2-butanone, 2-hexanone, 4-methyl-2-pentanone, acetone, carbon disulfide, and toluene) were detected in sediment below regulatory screening criteria. Seven SVOCs (2,4-dinitrotoluene, 4-methylphenol, benzaldehyde, benzo(a)anthracene, benzo(b)fluoranthene, bis(2-ethylhexyl)phthalate, and nitrobenzene) were detected in sediment below regulatory screening criteria. Eight explosives residues (1,3,5-trinitrobenzene, 2,4,6-trinitrotoluene, 2-nitrotoluene, 4-amino-2,6-dinitrotoluene, 4-nitrotoluene, HMX, RDX, and tetryl) were detected in sediment below regulatory screening criteria. Seventeen metals were detected in sediment samples with only chromium reported to exceed regulatory screening criteria.

Surface Water

One VOC (toluene) was detected in surface water below regulatory screening criteria. One SVOC (bis(2-ethylhexyl)phthalate) was detected in surface water at a concentration exceeding regulatory screening criteria. One explosives residue (perchlorate) was detected in surface water below regulatory screening criteria. Fifteen metals were detected in surface water with only four metals (arsenic, chromium, iron, and manganese) reported to exceed regulatory screening criteria.

7.1.3 Human Health and Ecological Risk Screening

Human health and ecological risk screening results indicate that there are no unacceptable risks to human or ecological receptors from any media at Site UXO-21.

7.2 Recommendations

Based on the DGM results within the Phase II investigation area, it is recommended that an intrusive investigation be performed to assess the nature of the identified geophysical anomalies. The need for additional investigation within the Phase I investigation area and the portion of Site UXO-21 located east of Sneads Ferry Road should be re-evaluated following an intrusive investigation of the Phase II geophysical anomalies.

Because no unacceptable human health or ecological risks were identified from exposure to site media, no further environmental sampling is recommended at this time. The need for additional sampling of munitions constituents will be re-evaluated based on the results of the Phase II intrusive anomaly investigation.

SECTION 8

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Appendix A
Archival Records Search Report

Draft

Archival Records Search Report for the Expanded Site Investigation

MCB Camp Lejeune, NC

Contract Task Order 169
May 2007

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

Chantilly, Virginia

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A-3 Site UXO-06, Master Shore Station Development Plan, Hadnot Point Area "B", Camp Lejeune, NC – May 3, 1961
A-4 Site UXO-06, Magazine Area, Camp Lejeune, NC – June 30, 1964
A-5 Site UXO-06, Force Troops Complex- Site Plan, Camp Lejeune, NC – June 1, 1966
A-6 Site UXO-06, French Creek Area, Camp Lejeune, NC – June 30, 1979
A-7 Site UXO-06, Overlay of Maneuver, Danger, Impact Areas & Ranges – Range D-27, Camp Lejeune, NC – February 1966
A-8 ASR Site 2.204, Division Training Area, Camp Lejeune, NC – June 30, 1946
A-9 ASR Site 2.204, Division Training Area, Camp Lejeune, NC – June 30, 1951
A-10 ASR Site 2.204, Hadnot Point Area, Camp Lejeune, NC – June 30, 1964
A-11 ASR Site 2.204, Hadnot Point Area, Camp Lejeune, NC – June 30, 1979
A-12 ASR Site 2.204, Hadnot Point Industrial Area & Lyman Road, Camp Lejeune, NC – June 30, 1984
A-13 Site 2.78, Division Training Area, Camp Lejeune, NC – June 30, 1946
A-14 Site 2.78, Division Training Area, Camp Lejeune, NC – June 30, 1951
A-15 Site 2.78, Master Shore Station Development Plan, Hadnot Point Area "A", Camp Lejeune, NC – May 5, 1961
A-16 Site 2.78, Hadnot Point Area, Camp Lejeune, NC – June 30, 1964
A-17 Site 2.78, Hadnot Point Area, Camp Lejeune, NC – June 30, 1979
A-18 Site 2.78, Hobby Shop Complex, Construction Drawing, Camp Lejeune, NC, 1997

A-19 IR Site 25, Division Training Area, Camp Lejeune, NC – June 30, 1946
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A-21 IR Site 25, Master Shore Station Development Plan, Hadnot Point Area "A" – May 5, 1961
A-22 IR Site 25, Hadnot Point Area, Camp Lejeune, NC – June 30, 1964
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A-24 IR Sites 19 and 20, Division Training Area, Camp Lejeune, NC – June 30, 1946
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A-26 IR Sites 19 and 20, Master Shore Station Development Plan, Hadnot Point Area "A", Camp Lejeune, NC – May 5, 1961
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Exhibits

A-1 Naval Energy and Environmental Support Activity Letter – "Status of Health Physics Support At Insect Vector Compound and Hazardous Waste Disposal Pit; interim report of"

Acronyms and Abbreviations

AOC	Area of Concern
°F	degrees Fahrenheit
asl	above sea level
CTO	Contract Task Order
DRMO	Defense Reutilization Management Office
EOD	Explosive Ordnance Disposal
HTW	hazardous and toxic wastes
IR	Installation Restoration
LANTDIV	Atlantic Division
LNAPL	light non-aqueous phase liquid
MCB	Marine Corps Base
MILCON	Military Construction
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
RCRA	Resource Conservation Recovery Act
SWMU	Solid Waste Management Unit
TNT	2,4,6-trinitrotoluene
TPH	total petroleum hydrocarbon
UST	underground storage tank
UXO	unexploded ordnance
WWII	World War II

SECTION 1

Introduction, Purpose, and Scope

Marine Corps Base (MCB) Camp Lejeune, North Carolina is planning military construction (MILCON) projects at various locations at Camp Lejeune. Many of the sites within the MILCON areas have been identified as sites that require environmental investigation prior to construction. The MILCON environmental site investigations included under CTO-0169 will be conducted at the following sites:

Site UXO-06 – Armory MILCON area/Former Beach Assault Area
ASR Site 2.204 – Former Gas Chamber 2nd Marine Division
ASR Site 2.78 – Area north of the Former Practice Hand Grenade Range
IR Site 25 – Former Base Incinerator
IR Site 20 – Former Naval Research Lab Incinerator
IR Site 19 – Former Naval Research Lab Dump
Active Base Skeet Range

The results of the environmental investigations will determine if any mitigation is required at each of the MILCON locations prior to construction. To support site investigation effort, this archival records search report has been prepared to provide a narrative of the historical activities at the project areas that may have resulted in environmental contamination with munitions of explosive concern (MEC) and/or hazardous and toxic wastes (HTW).

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. 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).
- 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 at Quantico, 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

Site Information

2.1 Facility Information

MCB Camp Lejeune is located on the Atlantic coast in Jacksonville, North Carolina. The city of Jacksonville in Onslow County is the principal support community for the base. MCB Camp Lejeune occupies 153,000 acres including more than 450 miles of roads, approximately 6,800 buildings and facilities, and 14 miles of beach on the Atlantic Ocean for amphibious training (Global Security Website, May 2007). Approximately 14,000 acres of land have been developed for administrative, maintenance, logistics and personnel support facilities (Global Security Website, May 2007). 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 150,000 people, to include active duty military and dependants, retirees and civilian employees (Global Security Website, May 2007).

2.1.1 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.

2.1.2 Topography, Geology and Hydrology

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 Camp Lejeune 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, May 2007).

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.

2.2.2 Site UXO-06

Site UXO-06 (Range D-27) first appears on the Camp Lejeune base maps after 1964 and is referenced as a "Fortified Range" on the 1979 Camp Lejeune Existing Conditions Map for the French Creek Area. Based on the 1966 *Regulations Governing Use of Firing Range 5, Field Training and Facilities and Maneuver Areas*, Range D-27 was classified as a "Fortified Beach Assault Range" where service rifles, 3.5" rocket launchers (practice), flamethrowers, and flametanks were used. The types of ammunition used included blanks, 3.5" rocket (practice), light/heavy fuel, demolitions (1 lb. TNT or equivalent), rifle grenades (practice) The types of targets included concrete pill boxes and double apron barbed wire fence. The Base Safety Range Officer (Mr. Duane Richardson) noted that cleaning solvents/solutions may have been used at the site to clean equipment at the site. Based on records located at the National Archives II (NARA II) in College Park, Maryland, Palma Compound was used

at Camp Lejeune in the 1940's and 1950's to clean small arms (nitro-solvent and ordnance preservative).

The three L-shaped buildings located in the northwest corner of Site UXO-06 were known as the "Force Troops Complex" in the late 1960's and early 1970's. These buildings were used as barracks to house troops. The building located to the east of the barracks is Building P-116 and is currently used as an operation, storage and maintenance facility. The building located southeast of P-116 has been referenced as the Parachute and Survival Equipment Building in 1973 drawings. The building located east of the Parachute and Survival Equipment building is the 2d Supply and 2d Medical Battalion, the base medical and dental clinic. Based the review of historic drawings, this building appears to have been built in the mid-1980's.

Currently, the eastern side of Site UXO-06 is currently being used as a borrow pit (Richardson, 2007). A 1984 drawing for the combat vehicle maintenance shops, references the Site UXO-06 area as a borrow pit to be used for borrow soil and disposal of tree tops and stumps.

Refer to Figures A-1 through A-7 for the historic land use for Site UXO-06. The location of Range D-27 is depicted on Figures A-6 and A-7.

2.2.3 ASR Site 2.204 (Former Gas Chamber 2nd Marine Division)

ASR Site 2.204 (Former Gas Chamber 2nd Marine Division) is located along Sneads Ferry Road and southeast of Lyman Road in the Hadnot Point Area of MCB Camp Lejeune. The *Closed Range List and Maps for MCB Camp Lejeune Report* only identifies a period of use for this site of 1970. Since this facility was used as a gas chamber, only Chemical Warfare Training Agents (Tear Gas) would have been used for gas mask confidence drills. However, other chemical training including War Gas Identification Sets and Riot Control Hand Grenades may have been used in the area surrounding the gas chamber.

A map showing the exact location of the former gas chamber was not located. Historic maps dating between 1946 and 1984 showed no structures in the immediate area of Site 2.204. Please refer to Figures A-8 through A-12 for the historic land use of ASR Site 2.204.

2.2.4 ASR Site 2.78 (Area North of the Former Practice Hand Grenade Range)

ASR Site 2.78a and 2.78b (Former Practice Hand Grenade Range) is located near Building 1249 along Birch Street and north of the Hadnot Point area of MCB Camp Lejeune. It is assumed that practice hand grenades were used at ASR Site 2.78 within the vicinity of throwing pits and targets. According to the Base Safety Range Officer (Mr. Duane Richardson), because no ordnance was used in the practice hand grenades, they had no explosive charge (Richardson, 2007). Therefore, there is low probability of UXO contamination at the site, since the metal canisters used for the practice grenades did not have an explosive charge (Richardson, 2007). Based on the time frame of use, the range was used during the Korean War time period (1953 to approximately 1959).

Based on review of historic maps, no structure was built on the site until the recent construction of the Hobby Shop Complex. Buildings 17 (Catholic Chapel) and 41 (Red Cross

Building) have been located south of the site since the 1940's. Refer to Figures A-13 through A-18 for the historic land use of ASR Site 2.78.

The area of Site 2.78 on the 1946 Camp Lejeune Existing Conditions map (Figure A-13), is shown as undeveloped and located adjacent to the Women's Reserve Area (to the east), and north of the Catholic Chapel (Building 17) and Red Cross Building (Building 41) and their associated parking lots. Beaver Dam Creek and the Parachute Training Area were located north of the site.

On the 1951 Camp Lejeune Existing Conditions map (Figure A-14), recreational fields are shown to be located to the east of the site within the area of the Women's Reserve Area. All other conditions of the site are similar to the 1946 map.

On the 1961 Master Shore Station Development Plan map of Hadnot Point Area "A" (Figure A-15), the area of Site 2.78 is referred to as Area "A-1". This map shows a small stream extending south from Beaver Dam Creek to just north of Building 41. Based on current GIS maps, this stream no longer exists. The Naval Research Laboratory is located north of the site, north of Beaver Dam Creek. Two proposed buildings are shown to be located in the area of Site 2.78 (AH-170, located adjacent to the Catholic Chapel and AH-193, located west of the chapel parking lot). However, based on subsequent maps, these proposed buildings were not constructed.

There are no noticeable changes to the area of Site 2.78 on the 1964, and 1979 Camp Lejeune Existing Conditions Maps (Figures 16 and 17) as compared to the 1961 Master Shore Station map, sans the proposed buildings and roads. The current layout of the Hobby Shop buildings are depicted on Figure A-18. The use of the buildings south of Site 2.78 remained the same.

According to Camp Lejeune's Range Control Standard Operation Procedures (2006), grenade ranges are checked by the Explosive Ordnance Disposal (EOD) every day by 1200, even if the unit is using the range multiple days. EOD response teams stand by, during the use of the ranges, to take immediate action with dud grenades (Range Control SOP, 2006). Grenade impact areas contain aiming posts (fixed targets) for throwers to use as targets.

Other rules for use of grenades on Camp Lejeune training areas include the following (Range Control SOP, 2006) -

- Live grenades will not be thrown into standing water, snow, or dense vegetation, since duds in such areas cannot be cleared and will result in closure of the range.
- White phosphorous grenades will not be thrown on any grenade ranges.
- Practice grenades are not to be thrown from the live fire pits and practice Grenades will only be thrown from the practice pits.
- After all hand grenades are thrown and EOD has swept the area, the using unit must pick up all ammunition dunnage (i.e., pins, spoons, clips), fill in all holes and level out the impact area before calling for inspection by a Range Inspector.
- EOD must be "on call" when high explosive hand grenades are thrown on any hand grenade range for the safe disposal of unexploded ordnance incurred during training .

High explosive fragmentation grenades are not authorized on the Practice Grenade Range. Practice Hand Grenades are not authorized on the live grenade impact area or in the pits (Range Control SOP, 2006).

2.2.5 IR Site 25

IR Site 25 is located off of McHugh Boulevard south of Wallace Creek and north of the Hadnot Point area of MCB Camp Lejeune. The Former Base Incinerator (Site 25) was located on approximately 0.5 acres and operated during the period of 1940 to the mid 1960's as an incinerator. The building was then used as a radio repair building, as indicated on a 1979 Existing Conditions map.

The building was completely enclosed during its use as an incinerator (Richardson, 2007). Materials that were disposed of at the facility included burned trash (including sensitive/classified documents) and melted glass. Documents that were disposed of at the incinerator were first shredded and then burned and the residue was disposed of (Richardson, 2007). The exact year the building was demolished was not located.

Refer to Figures A-19 through A-22 for the historic land use of Site 25.

2.2.6 IR Sites 19 and 20

IR Site 20 is located off of Parachute Tower Road and north of the Hadnot Point area of MCB Camp Lejeune. The Former Naval Research Lab Incinerator (Site 20) was located on approximately 0.5 acres and operated during the period of 1956-1960. Materials that were disposed of at the facility included ash and debris from the research lab. No Further Action was recommended for this facility in the RCRA Facility Assessment Report (1996); however, no prior environmental sampling has been conducted at the site.

IR Site 19 is located off of Parachute Tower Road and north of the Hadnot Point area of MCB Camp Lejeune. The site is located on approximately 2-3 acres and operated during the period of 1956-1960. Materials that were disposed of at the facility included radioactive dosed animals (iodine-131), empty tanks, and scrap metal. The boundary of Site 19 also encompasses SWMU 43 (Pesticide Control Shop) which has undergone an RFI. No Further Action was recommended for this dump in the RCRA Facility Assessment Report (1996); however, no prior environmental sampling had been conducted at the site.

Site 19 and 20 areas were used as a parachute training area in the 1940's and early 1950's. Between 1951 and 1960, the Naval Research Laboratory was constructed and appears on maps dating back to 1960. Refer to Figures A-23 through A-27 for the historic land use of Sites 19 and 20.

Based on the 1960's historic maps (1961 and 1964), the Naval Research Laboratory was located in two locations, Buildings PT-7 and PT-4. Building PT-7 is located at Site 19 (Figures A-25 and A-26). Other buildings located in this area included the animal facility (Building PT-8), and the incinerator (Building S-PT-26). The other buildings in this area were used for storage.

Based on the 1979 historic map (Figure A-27), the building numbers for the research laboratory and the incinerator changed to PT-37 and PT-38, respectively. Building PT-39 is also labeled as a research building.

According to a Naval Energy and Environmental Support Activity letter dated May 22, 1981 (Exhibit A-1), in December 1980 and April 1981, the NEESA conducted a health physics support visit to evaluate and collect samples at the Naval Field Research Laboratory Site, adjacent areas and a hazardous waste disposal pit at Camp Lejeune. During the evaluation, beta buttons containing 207,200 micro curies (uCi) of strontium-90, two animal carcasses contaminated with strontium-90, and 160 pounds of soil contaminated with strontium-90 were recovered from the burial site located in the northwest corner of the Insect Vector Compound (NEESA, 1981). The contaminated material was stored in Building PT-26 until it was transported to the Nuclear Regulatory Commission for disposal. The results of additional soil samples (75) were collected from the burial site and these results did not provide conclusive evidence that the site could be released for unrestricted use. Final sampling results and release of the site was expected in July 1981. The letter also noted that a comprehensive detailed report containing background information would follow the 1981 interim report.

The NEESA letter also indicated the following, from personnel interviews (NEESA, 1981):

- The rooms formerly used as the laboratories in Building PT-37 may be contaminated.
- An incinerator adjacent to Building PT-37 may be contaminated from burning of animal carcasses injected with strontium-90.
- Radioactive material may be present in a man-made pit located in the hazardous material dump site.
- Wet rag and paint samples were collected from PT-37 and the adjacent incinerator and the incinerator ash dump site. Analysis of the samples indicated that strontium-90 and cesium-137 were not present.

2.2.7 Active Base Skeet Range

The Active Base Skeet Range is located off of Parachute Tower Road and north of the Hadnot Point area of MCB Camp Lejeune. The site is located on approximately 149 acres. The skeet range is also referred to as Range D-9 (trap and skeet range). The range began operation in 1965-66 and, based on a 1979 map, was originally located north of Parachute Tower Road, north of the current location. Refer to Figures A-28 through A-31 for the historic land use of the Active Skeet Range site.

Range D-9 is one of four live-fire ranges within the Area D Training Area (Figure A-7). The range is used for recreational shooting and is operated by the base MCCS. The weapons accommodated include 12, 16, 20, 28, and 410 Gauge shot guns. The sizes of lead shots used on the range include 7.5, 8, 8.5 and 9 lead shots. Although the total amounts of ammunition used on the skeet ranges are not available, the skeet range manager noted that several 100,000 are fired each year.

There are 10 firing points and 8 skeet houses on the range. White Flyer clays and biodegradable targets are the types of clay pigeons used on the skeet range. The White Flyer

clays are purchased through Parks & Son (www.whiteflyer.com). The fields are raked every 6 months to clear the clay pieces. The raked pieces are disposed of off site. Camp Lejeune prisoners also rake the inner fields throughout the year and dispose of the clay pieces in the nearby dumpsters. The biodegradable clays will biodegrade by 95% into elements found in nature within 2 years depending on rainfall or contact with moisture (Whiteflyer, 2007). Accumulation of these elements in one specific area can affect the soil pH and vegetation growth (Whiteflyer, 2007).

Materials present in the surface soils at the site would include small-arms such as buckshot. Limited soil sampling in the vicinity of the Skeet Range was conducted during the AOC (Area of Concern) Background Study in 2001 and reported Lead concentrations in the surface soil as high as 120 mg/kg at location AOC5-BG04.

2.2.7.1 Previous Investigations in the Vicinity of Active Skeet Range

SWMU 38 – Environmental and Safety Designs, Inc. *RCRA Facility Assessment Report for Marine Corps Base, Camp Lejeune, North Carolina, Final Submittal*. July 25, 2996.

Solid Waste Management Unit 38 (SWMU 38) is located adjacent to the skeet range to the west. SWMU 38 is a soil/waste pile that sits on a 30 x 15 feet concrete pad and is surrounded on three sides by concrete walls and covered with a steel shelter. The soils are disposed to this site through DRMO contracts and contained in this location for subsequent shipping and treatment. Although the hazardous constituents in the soil are unknown, the soil may be contaminated with petroleum, oils, and lubricants. The SWMU has not history of release and was recommended for No Further Action.

SWMU 43 – CH2M HILL, Inc. and Baker Environmental, Inc. *Final SWMU 43 Corrective Measures Study, RCRA Program, Marine Corps Base, Camp Lejeune, North Carolina*. November 2006.

SWMU 43 is a former oil/water separator located at the Pesticide/Herbicide Management Area on Parachute Road, west of Holcomb Boulevard in the area of IR Site 19, which is located in the northwest corner of the Skeet Range trajectory. The former oil/water separator collected runoff from a wash pad (Building PT 39) located within a pesticide/herbicide management area. This area is used for storage, mixing, filling, cleaning, and maintenance of equipment used for application purposes.

A Phase I and II Confirmatory Sampling Investigation indicated a need for an RCRA Facility Investigation (RFI) at the site. The RFI report (Baker, 2006) determined that there were potential ecological and human health risks present at the site and that a Corrective Measures Study (CMS) was required and recommended.

A CMS was performed for SWMU 43 in 2006. Based on data collected during the Phase I and II CSIs, and the SWMU 43 RFI, soils and groundwater at the site have been impacted by past operations. Organic constituent contamination includes pesticides 4,4′-Dichlorodiphenyldichloroethane (4,4′-DDD), 4,4′-Dichlorodiphenyldichloroethylene (4,4′-DDE), 4,4′-Dichlorodiphenyltrichloroethane (4,4′-DDT), alpha-chlordane, gamma-chlordane, heptachlor epoxide, and dieldrin. 4,4′-DDD, 4,4′-DDE are likely biodegradation products of 4,4′-DDT (Spectrum, 2003). 4,4′-DDT, alphachlordane, and gamma-chlordane

are the most prevalent in terms of concentration and distribution. Detections of organic pesticides in groundwater are limited in extent and concentration.

A baseline human health risk assessment indicated that there was risk to future adult and child receptors from dieldrin and heptachlor epoxide in the groundwater. In addition, ecological risk is present to upper trophic receptors due to the presence of 4,4'-DDT, 4,4'-DDE, 4,4'-DDD, alpha-ES-1 chlordane, and gamma-chlordane in the surface soil.

The focused remedy for the soil contamination at SWMU 43 is excavation and off site disposal. Soil will be removed from five hot spot areas where pesticide contaminant concentrations greatly exceed the established ecological CAO. This removal will lower the mean concentrations of the contaminants of concern (COCs) to below the CAOs.
The focused remedy for the groundwater contamination at SWMU 43 is institutional controls and long term monitoring. The concentrations of the COCs in the groundwater are low, but fairly widespread. They are only located in the surficial aquifer which is not used as a drinking water source, nor are ever likely to be developed for that purpose due to its low yield. Institutional controls would protect human health of future adult and child residents. Long term monitoring is ongoing at MCB Camp Lejeune, and would be used at SWMU 43 to evaluate any change in concentrations of dieldrin and heptachlor epoxide. It is possible that once the soil removal occurs as described above, concentrations in groundwater would drop, since some of the locations of soil hot spots and groundwater detections are co-located.

SWMU 310 - Baker Environmental, Inc. *Revised Final, Phase I SWMU Confirmatory Sampling Report, Text – Volume I of II, MCB Camp Lejeune, North Carolina*. Contract Task Order 0371. November 2001.

SWMU 310 is located on Parachute Tower Road near Holcomb Boulevard, adjacent to the skeet range to the west. The SWMU consists of several earthen impoundments that are used to dewater cooking grease prior to its disposal at an approved landfill. The grease contained in the ponds is not petroleum based. The SWMU was removed from operation in 2000. The area surrounding the SWMU is grass covered.

A Confirmatory Investigation was conducted at the SWMU in September 1997 to determine if the waste introduced into the impoundments had impacted surface and subsurface soils in the vicinity of the SWMU. Six soil borings collected from around the impoundment and analyzed for VOCs (EPA Method 8020), SVOCs (EPA Method 8270), pesticides/PCBs (EPA Method 8080) and RCRA metals (EPA Method 6010/7410). No PCBs were detected and three VOCs, two SVOCs, and two pesticides were detected; however none of the concentrations exceeded the applicable screening criteria.

Three metals were detected, chromium, arsenic and lead. Chromium exceeded AOC background screening criteria in one or more samples but were below the NC NENR soil to groundwater and USEPA Region IX residential soil PRGs. Arsenic exceeded the USEPA Region IX residential soil PRGs in subsurface soils, but did not exceed AOC or base background values.

Based on these results it was concluded that no additional investigation at SWMU 310 was warranted. In 2001, soils from SWMU 310 were removed and confirmatory soil sampling was conducted to ensure "clean" soils remain.

PT-5 - J.A. Jones Environmental Services. *Site Characterization Summary, UST PT-5, Camp Lejeune Marine Corps Base, North Carolina.*

Building PT-5 is located in the southeast area of the active skeet range. Diesel fuel from an adjacent 500-gallon underground storage tank (UST) was used to heat the building. A release was recorded on June 3, 1994 when presence of hydrocarbon material was identified during the removal of the diesel fuel dispensing UST and its associated piping. A Petroleum-Impacted Soil Assessment was performed in February 1995. Thirty-two soil samples from 16 locations were collected and analyzed for gasoline-range and diesel-range total petroleum hydrocarbons (TPH) using USEPA Method 3350 and 5030, respectively. Gasoline-TPH was not detected and diesel-TPH was detected in two soil samples, both at 3.5-5 ft bgs (MW-15 - 22 mg/kg and MW-16 - 21 mg/kg and 19 mg/kg (duplicate)).

Groundwater samples were also collected from 16 groundwater monitoring wells and analyzed for volatile aromatic hydrocarbons and semi-volatile organic compounds using USEPA Methods 602 and 625, respectively. Petroleum hydrocarbon contaminants were detected in monitoring wells MW-1 and MW-12 through MW-16. ***See report for maximum concentrations (µg/L) of these constituents.***

Historically, LNAPL has been present in monitoring wells MW-1, MW-16, MW-18 and recovery well RW-1. Approximately 298 gallons of LNAPL was recovered through September 30, 1999.

PT-37- Catlin Engineers and Scientists. *Leaking Underground Storage Tank (LUST) Soil Assessment Report and Request for "No Further Action" Status for Building PT-37, Marine Corps Base, Camp Lejeune, North Carolina*. December 28, 2000.

Building PT-37 is located in IR Site 19 in the northwest corner of the skeet range trajectory. A 550-gallong heating oil UST had previously been utilized at this building to supply fuel to a furnace. The property is used as a dog training facility for the military police.

A preliminary investigation was conducted during the UST removal in February 1999 and the results suggested that residual concentrations of petroleum hydrocarbons released were present in soil subsequent to over-excavation.

A "No Further Action Status" investigation was conducted in 2000. Four hand-augured soil boring samples were collected and analyzed for BNA Extractable, volatile petroleum hydrocarbons, extractable petroleum hydrocarbons, and VOCs using EPA Methods 8270, MADEP VPH, MADEP EPH, and 8620B, respectively. All results were less than the Residential, Industrial/Commercial, and Soil-to-Groundwater MSCCS. The site was identified for closure under NCAC T15A:02L.)115 (h). Building PT-37 was recommended for "No Further Action" status.

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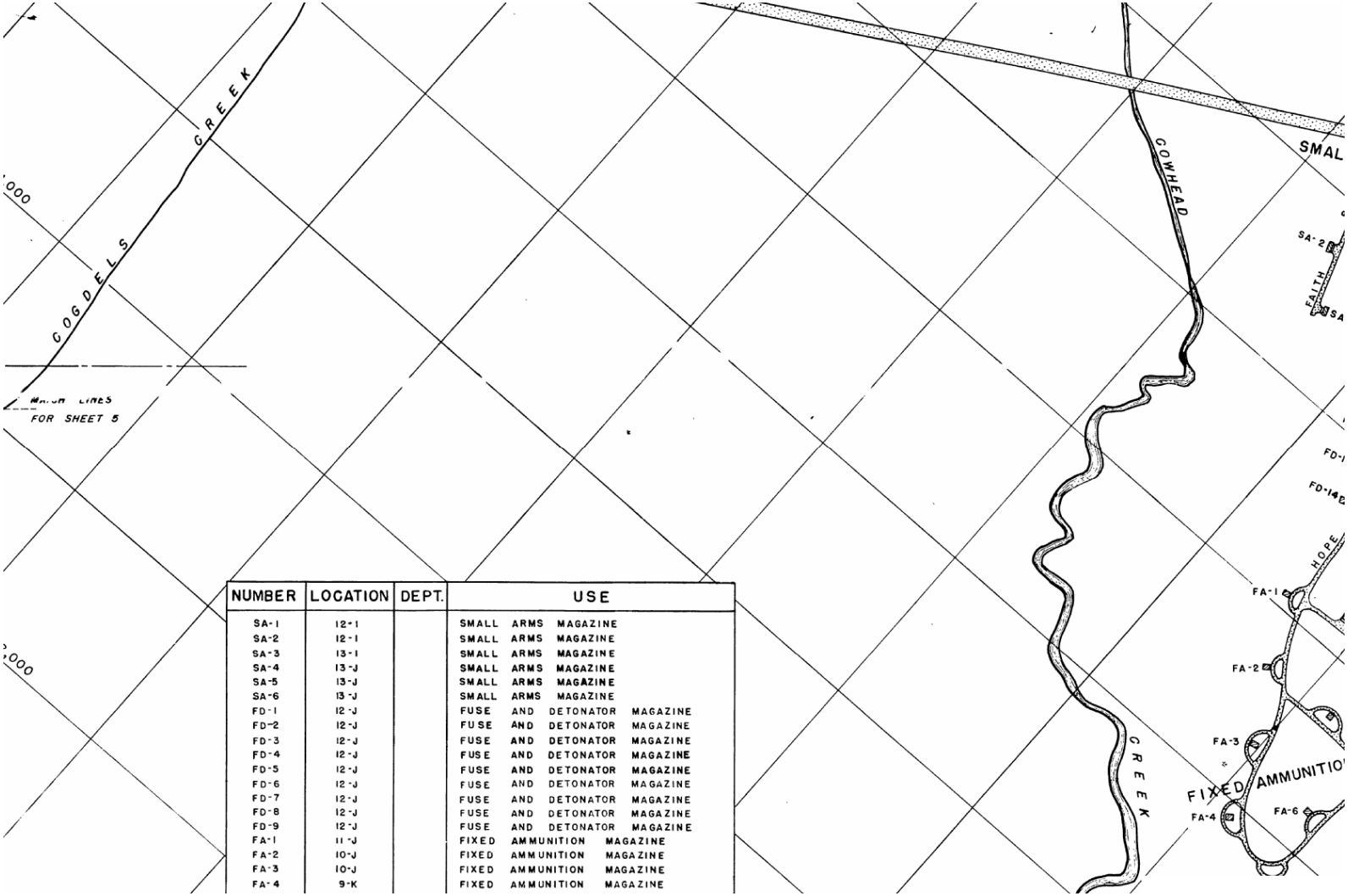
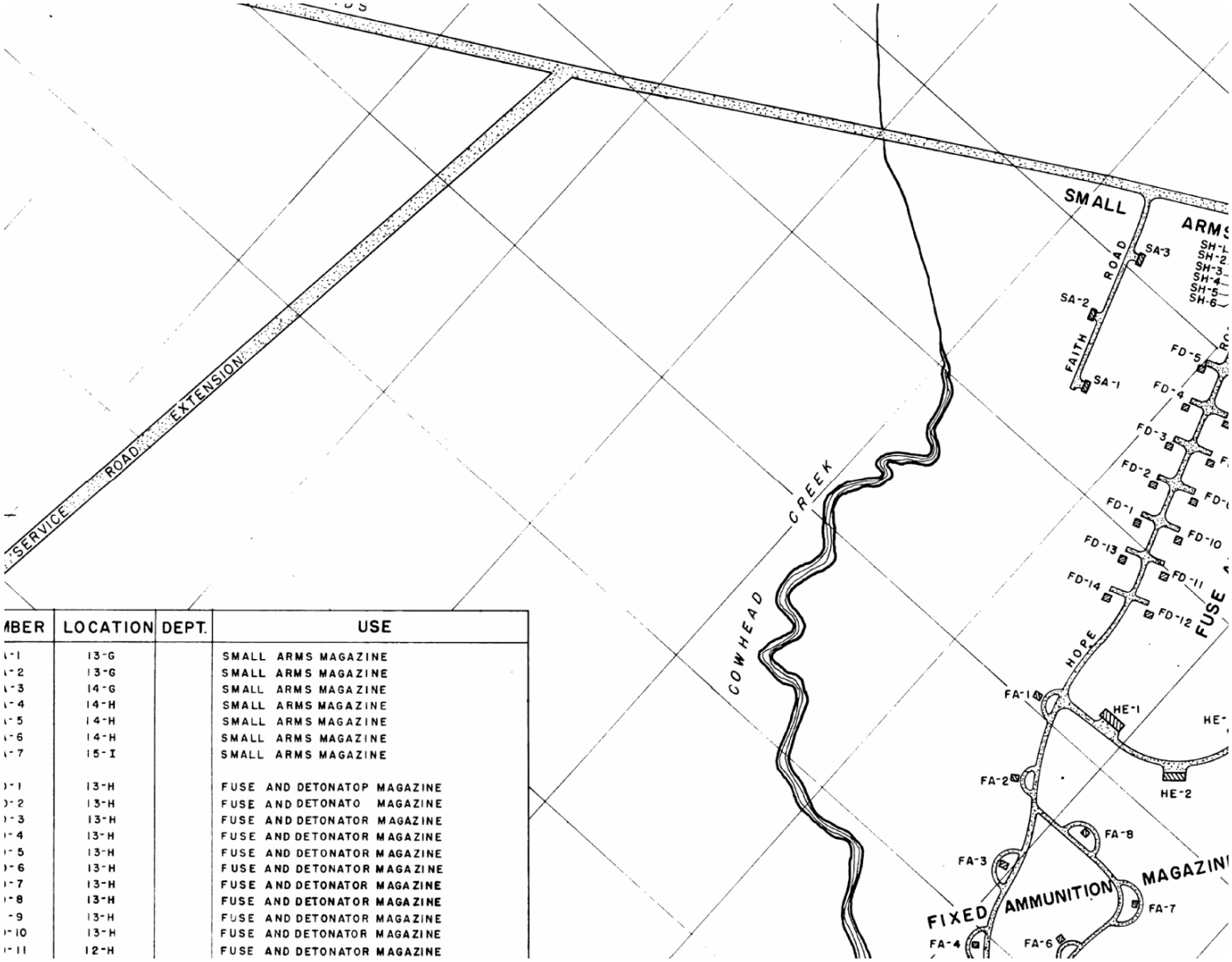
Figures



NUMBER	LOCATION	DEPT.	USE
SA-1	12-I		SMALL ARMS MAGAZINE
SA-2	12-I		SMALL ARMS MAGAZINE
SA-3	13-I		SMALL ARMS MAGAZINE
SA-4	13-J		SMALL ARMS MAGAZINE
SA-5	13-J		SMALL ARMS MAGAZINE
SA-6	13-J		SMALL ARMS MAGAZINE
FD-1	12-J		FUSE AND DETONATOR MAGAZINE
FD-2	12-J		FUSE AND DETONATOR MAGAZINE
FD-3	12-J		FUSE AND DETONATOR MAGAZINE
FD-4	12-J		FUSE AND DETONATOR MAGAZINE
FD-5	12-J		FUSE AND DETONATOR MAGAZINE
FD-6	12-J		FUSE AND DETONATOR MAGAZINE
FD-7	12-J		FUSE AND DETONATOR MAGAZINE
FD-8	12-J		FUSE AND DETONATOR MAGAZINE
FD-9	12-J		FUSE AND DETONATOR MAGAZINE
FA-1	11-J		FIXED AMMUNITION MAGAZINE
FA-2	10-J		FIXED AMMUNITION MAGAZINE
FA-3	10-J		FIXED AMMUNITION MAGAZINE
FA-4	9-K		FIXED AMMUNITION MAGAZINE

Figure A-1
Site UXO-06
Magazine Area
Camp Lejeune, NC
June 30, 1946

CH2MHILL



MBER	LOCATION	DEPT.	USE
-1	13-G		SMALL ARMS MAGAZINE
-2	13-G		SMALL ARMS MAGAZINE
-3	14-G		SMALL ARMS MAGAZINE
-4	14-H		SMALL ARMS MAGAZINE
-5	14-H		SMALL ARMS MAGAZINE
-6	14-H		SMALL ARMS MAGAZINE
-7	15-I		SMALL ARMS MAGAZINE
-1	13-H		FUSE AND DETONATOP MAGAZINE
-2	13-H		FUSE AND DETONATO MAGAZINE
-3	13-H		FUSE AND DETONATOR MAGAZINE
-4	13-H		FUSE AND DETONATOR MAGAZINE
-5	13-H		FUSE AND DETONATOR MAGAZINE
-6	13-H		FUSE AND DETONATOR MAGAZINE
-7	13-H		FUSE AND DETONATOR MAGAZINE
-8	13-H		FUSE AND DETONATOR MAGAZINE
-9	13-H		FUSE AND DETONATOR MAGAZINE
-10	13-H		FUSE AND DETONATOR MAGAZINE
-11	12-H		FUSE AND DETONATOR MAGAZINE

Figure A-2
Site UXO-06
Magazine Area
Camp Lejeune, NC
June 30, 1951

CH2MHILL

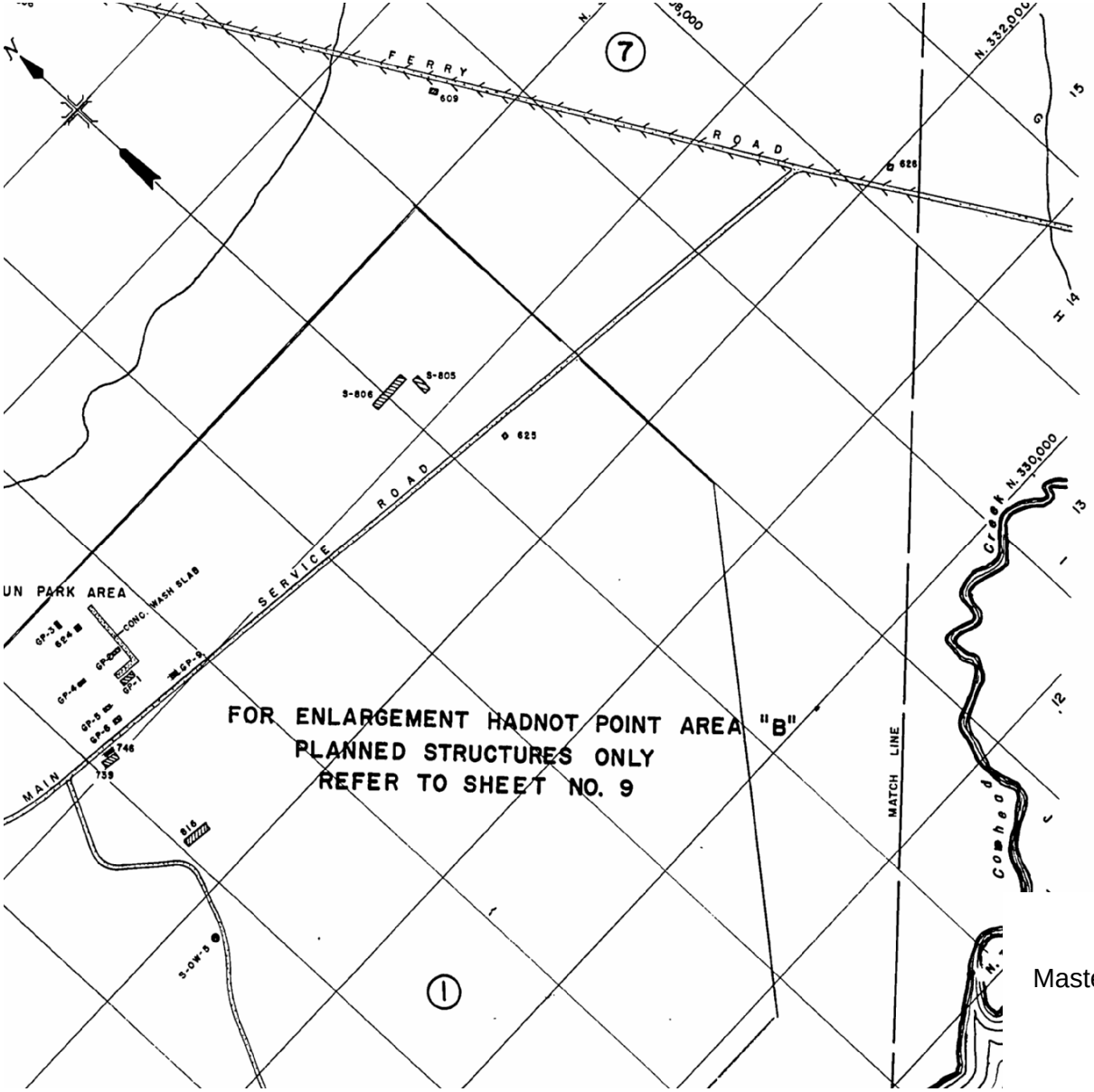
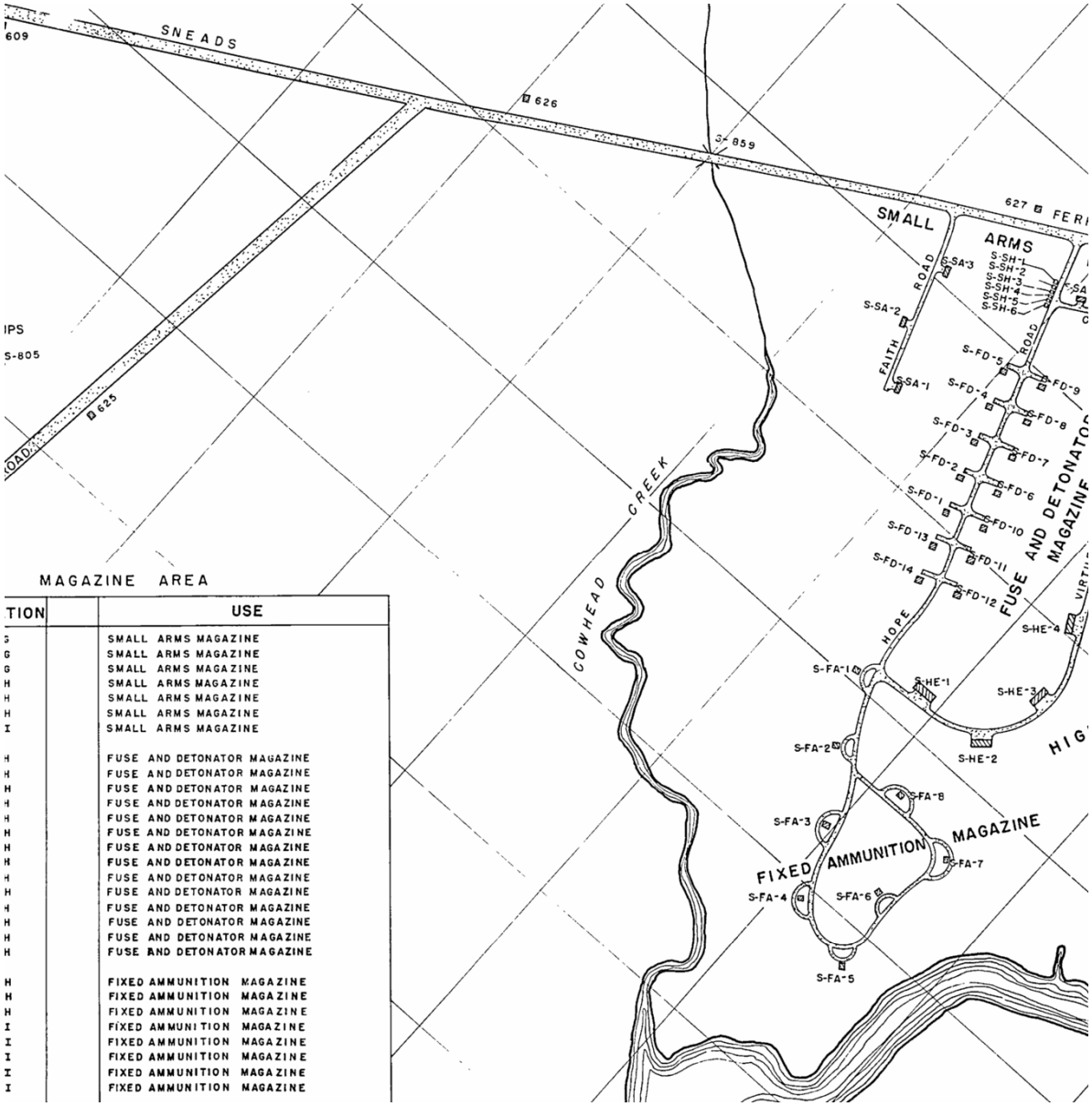


Figure A-3
Site UXO-06
Master Shore Station Development Plan
Hadnot Point Area "B"
Camp Lejeune, NC
May 3, 1961

CH2MHILL



MAGAZINE AREA

TION		USE
G		SMALL ARMS MAGAZINE
G		SMALL ARMS MAGAZINE
G		SMALL ARMS MAGAZINE
H		SMALL ARMS MAGAZINE
H		SMALL ARMS MAGAZINE
H		SMALL ARMS MAGAZINE
I		SMALL ARMS MAGAZINE
H		FUSE AND DETONATOR MAGAZINE
H		FUSE AND DETONATOR MAGAZINE
H		FUSE AND DETONATOR MAGAZINE
H		FUSE AND DETONATOR MAGAZINE
H		FUSE AND DETONATOR MAGAZINE
H		FUSE AND DETONATOR MAGAZINE
H		FUSE AND DETONATOR MAGAZINE
H		FUSE AND DETONATOR MAGAZINE
H		FUSE AND DETONATOR MAGAZINE
H		FUSE AND DETONATOR MAGAZINE
H		FUSE AND DETONATOR MAGAZINE
H		FUSE AND DETONATOR MAGAZINE
H		FUSE AND DETONATOR MAGAZINE
H		FIXED AMMUNITION MAGAZINE
H		FIXED AMMUNITION MAGAZINE
H		FIXED AMMUNITION MAGAZINE
I		FIXED AMMUNITION MAGAZINE
I		FIXED AMMUNITION MAGAZINE
I		FIXED AMMUNITION MAGAZINE
I		FIXED AMMUNITION MAGAZINE
I		FIXED AMMUNITION MAGAZINE

Figure A-4
Site UXO-06
Magazine Area
Camp Lejeune, NC
June 30, 1964

CH2MHILL

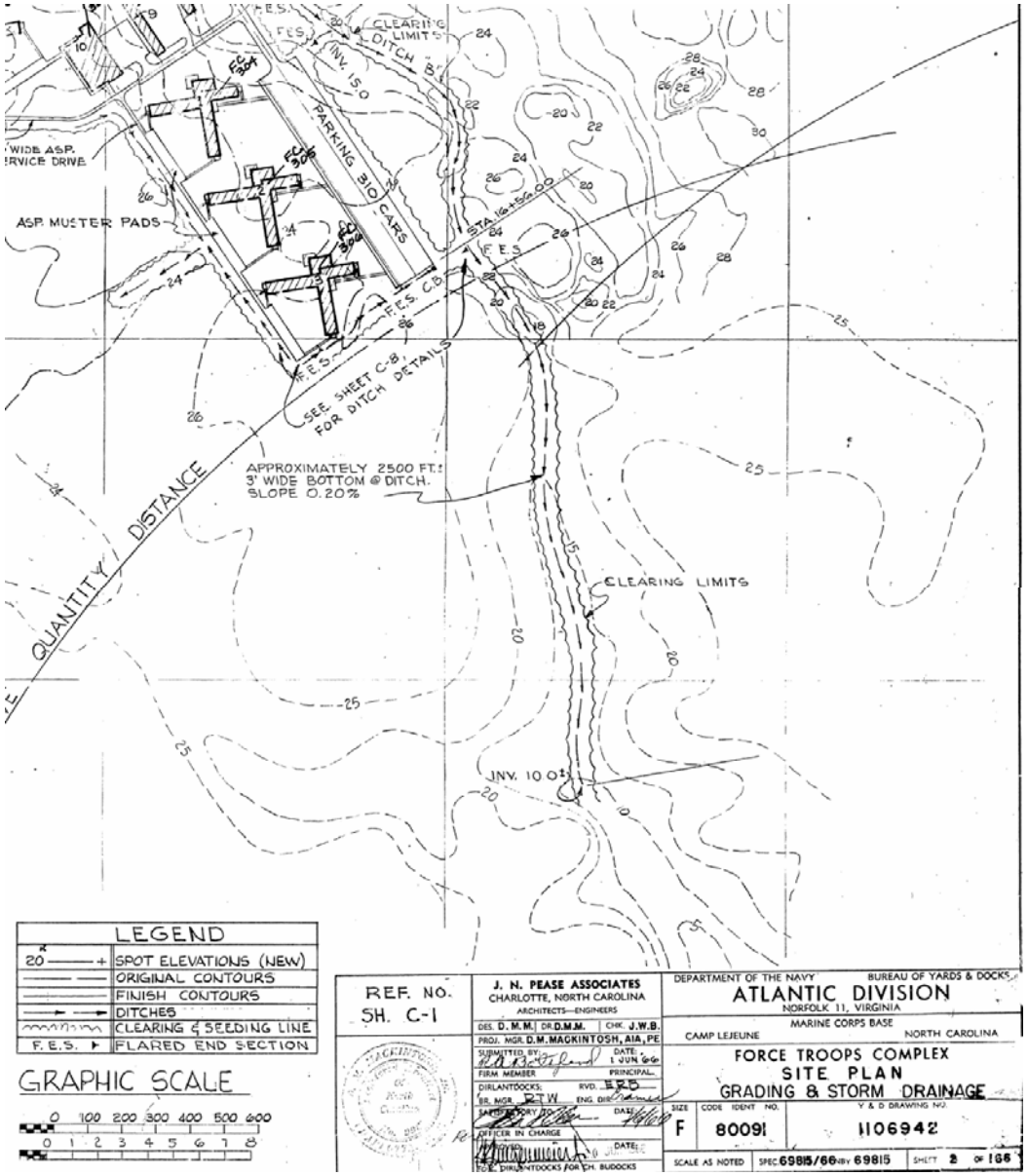


Figure A-5
Site UXO-06
Force Troops Complex – Site Plan
Camp Lejeune, NC
June 1, 1966

CH2MHILL

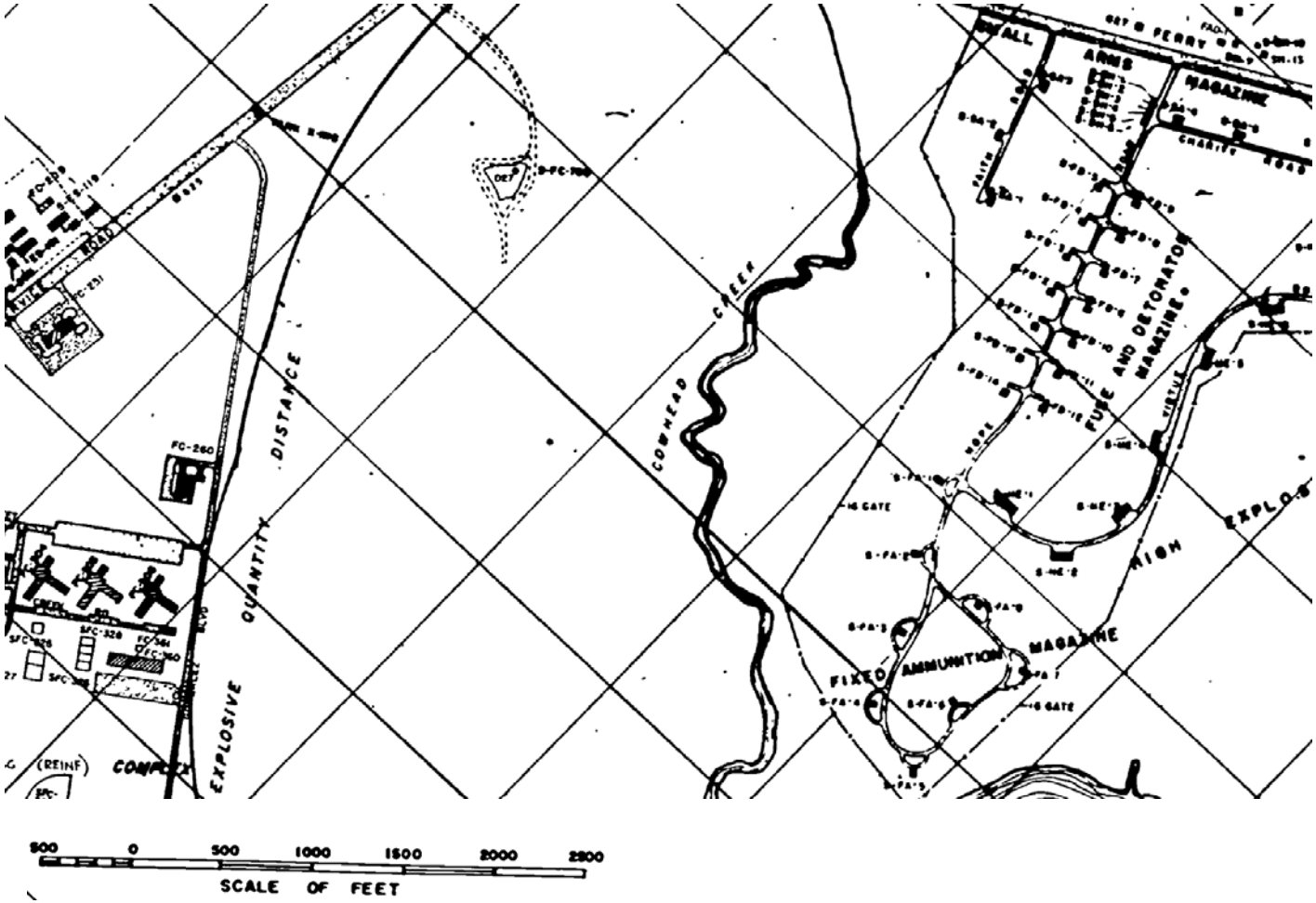


Figure A-6
Site UXO-06
French Creek Area
Camp Lejeune, NC
June 30, 1979

CH2MHILL

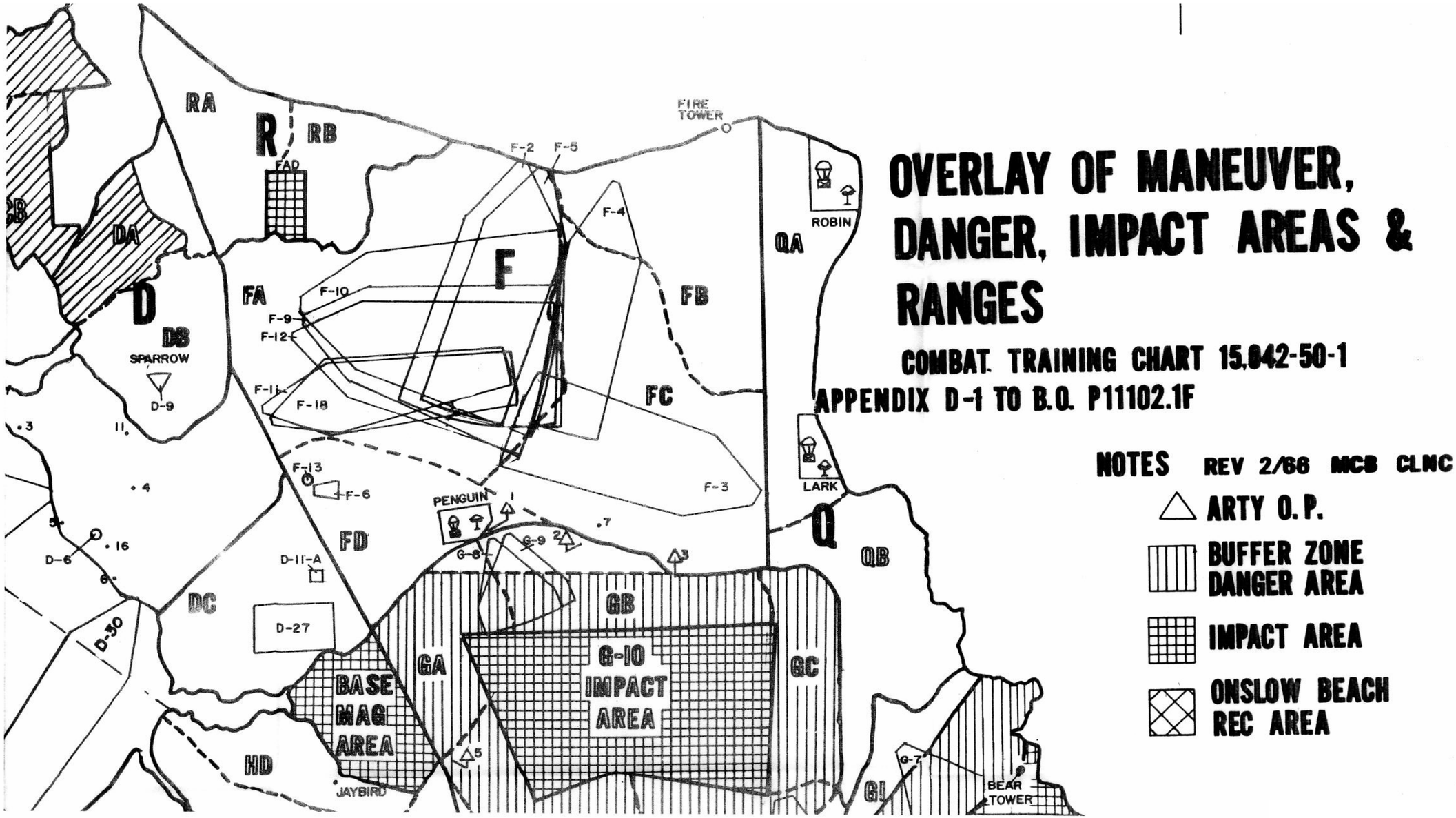
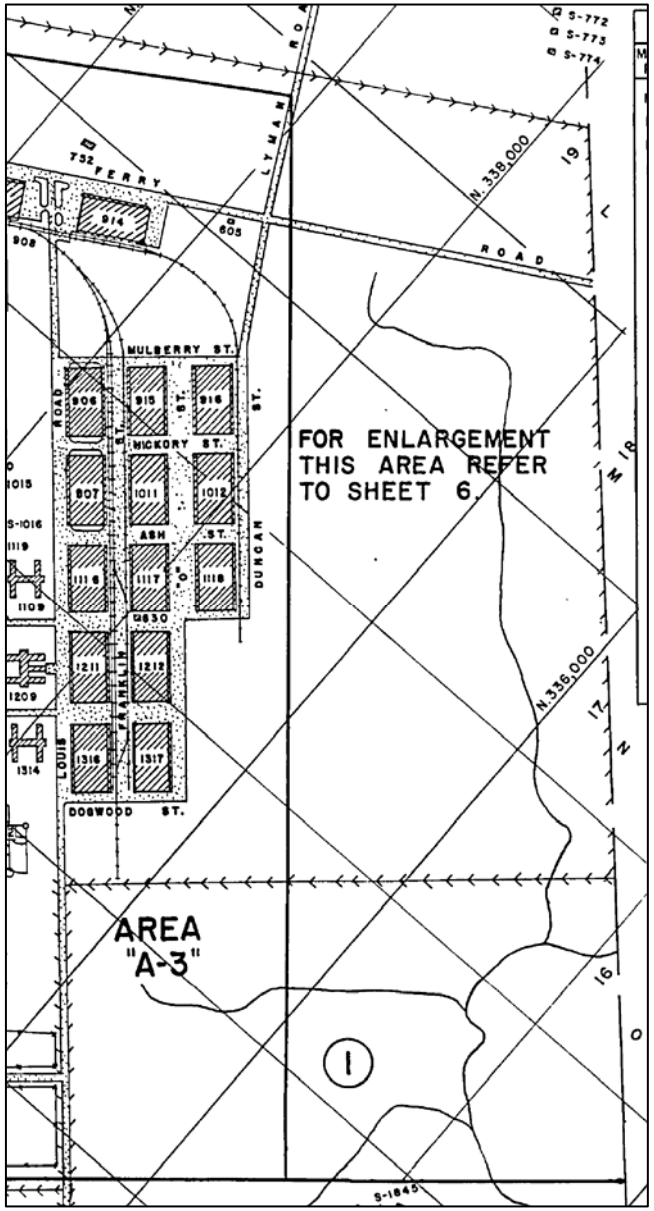
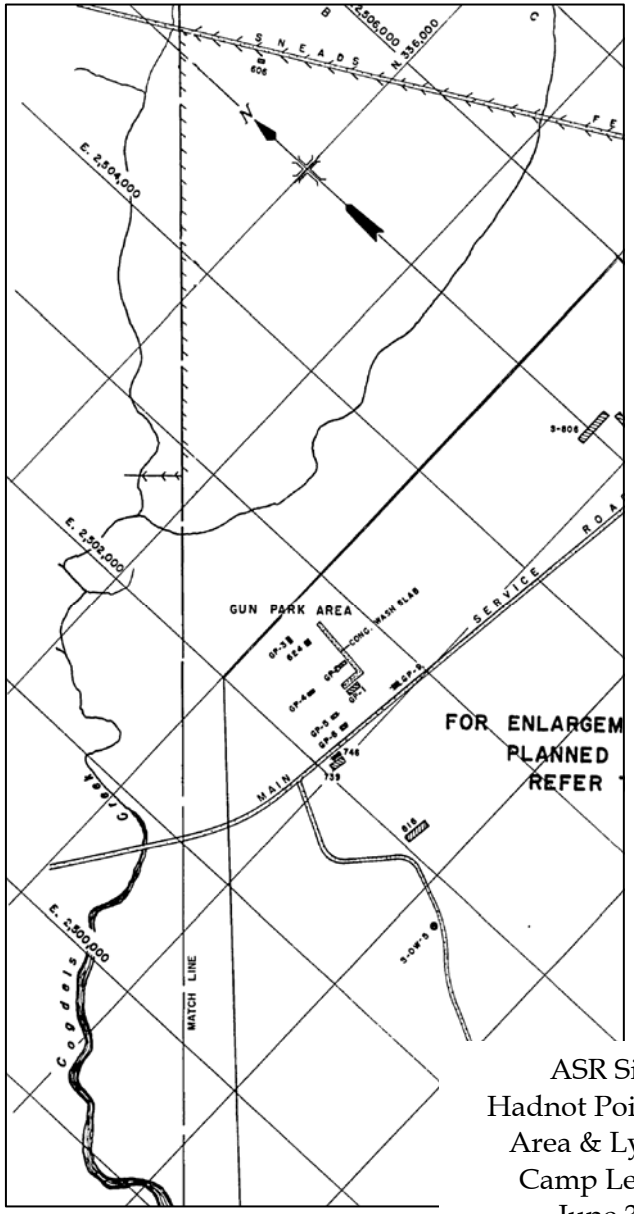


Figure A-7
Site UXO-06
Overlay of Manuever, Danger, Impact Areas & Ranges - Range D-27
Camp Lejeune, NC
February 1966

CH2MHILL





ASR Site 2.204
Hadnot Point Industrial
Area & Lyman Road
Camp Lejeune, NC
June 30, 1984

CH2MHILL

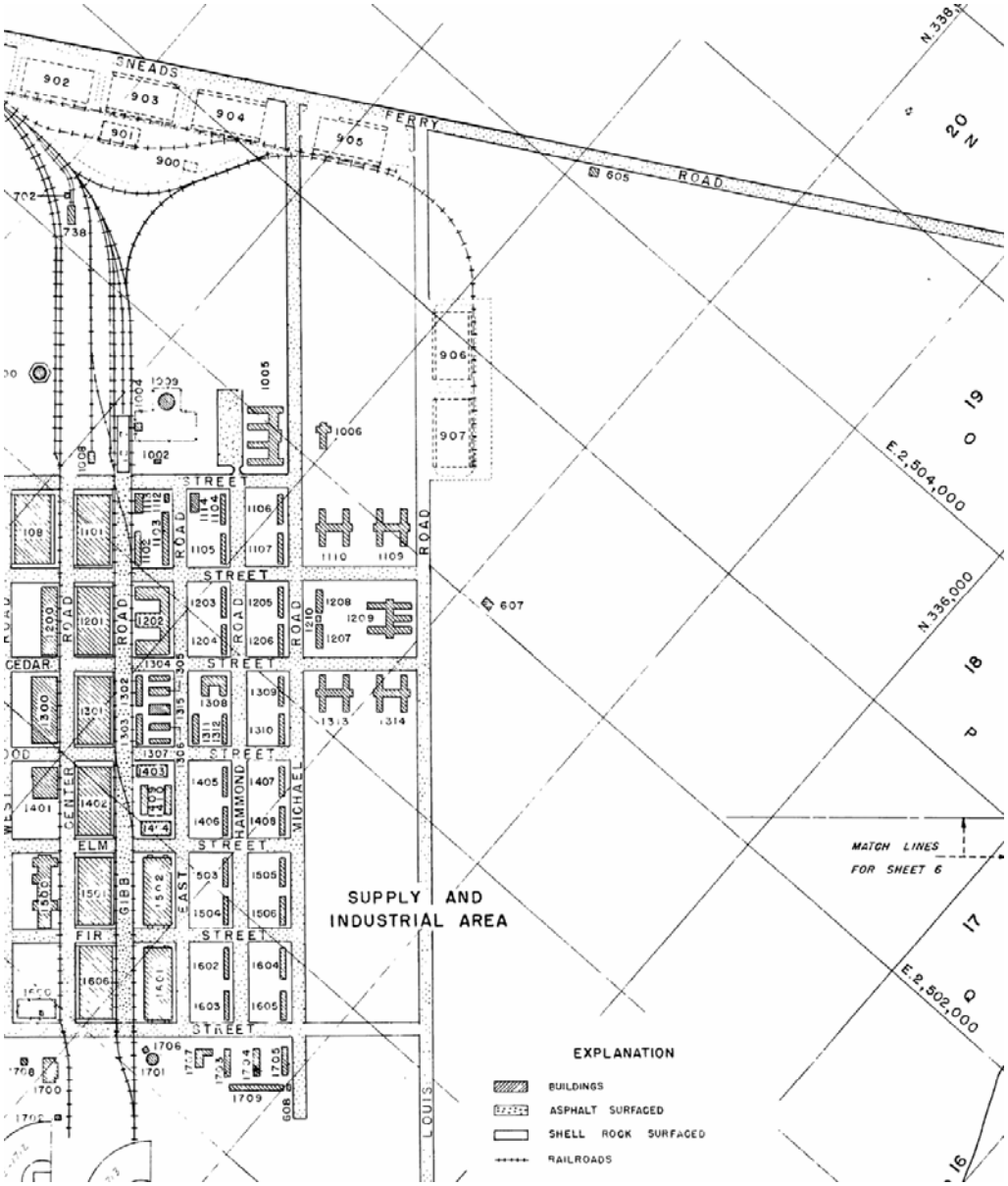


Figure A-8
ASR Site 2.204
Division Training Area
Camp Lejeune, NC
June 30, 1946

CH2MHILL

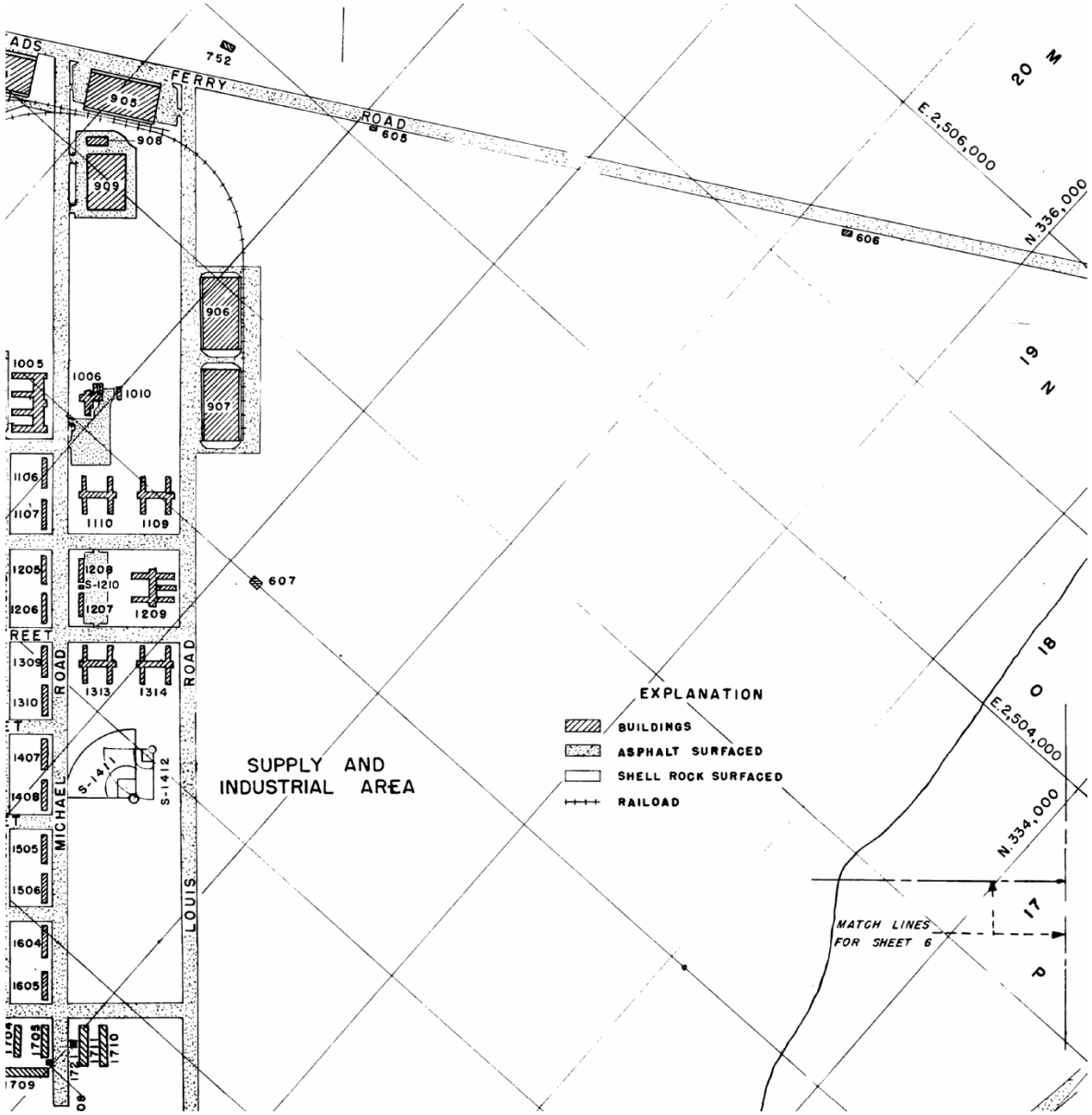


Figure A-9
ASR Site 2.204
Division Training Area
Camp Lejeune, NC
June 30, 1951

CH2MHILL

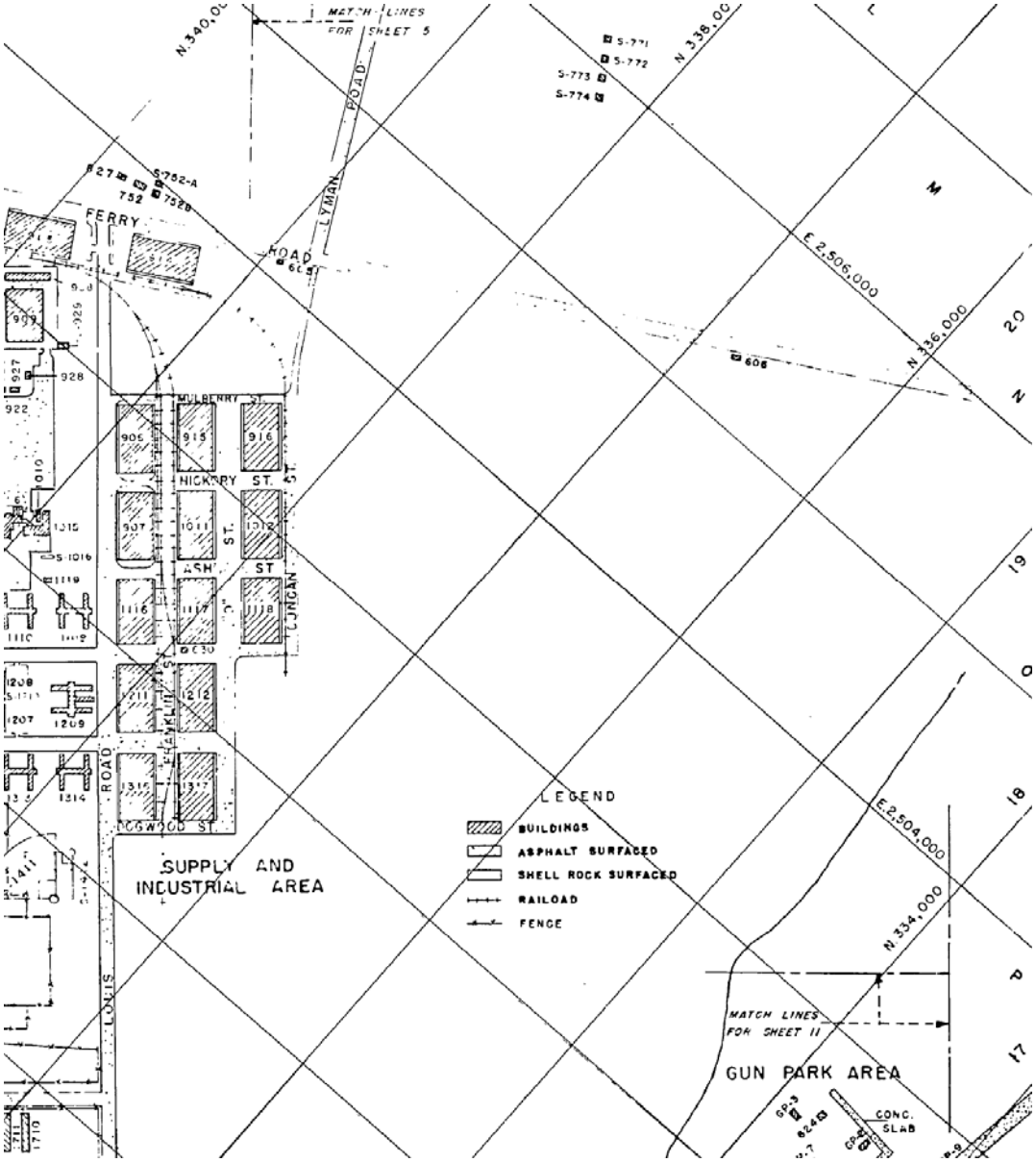


Figure A-10
ASR Site 2.204
Hadnot Point Area
Camp Lejeune, NC
June 30, 1964

CH2MHILL

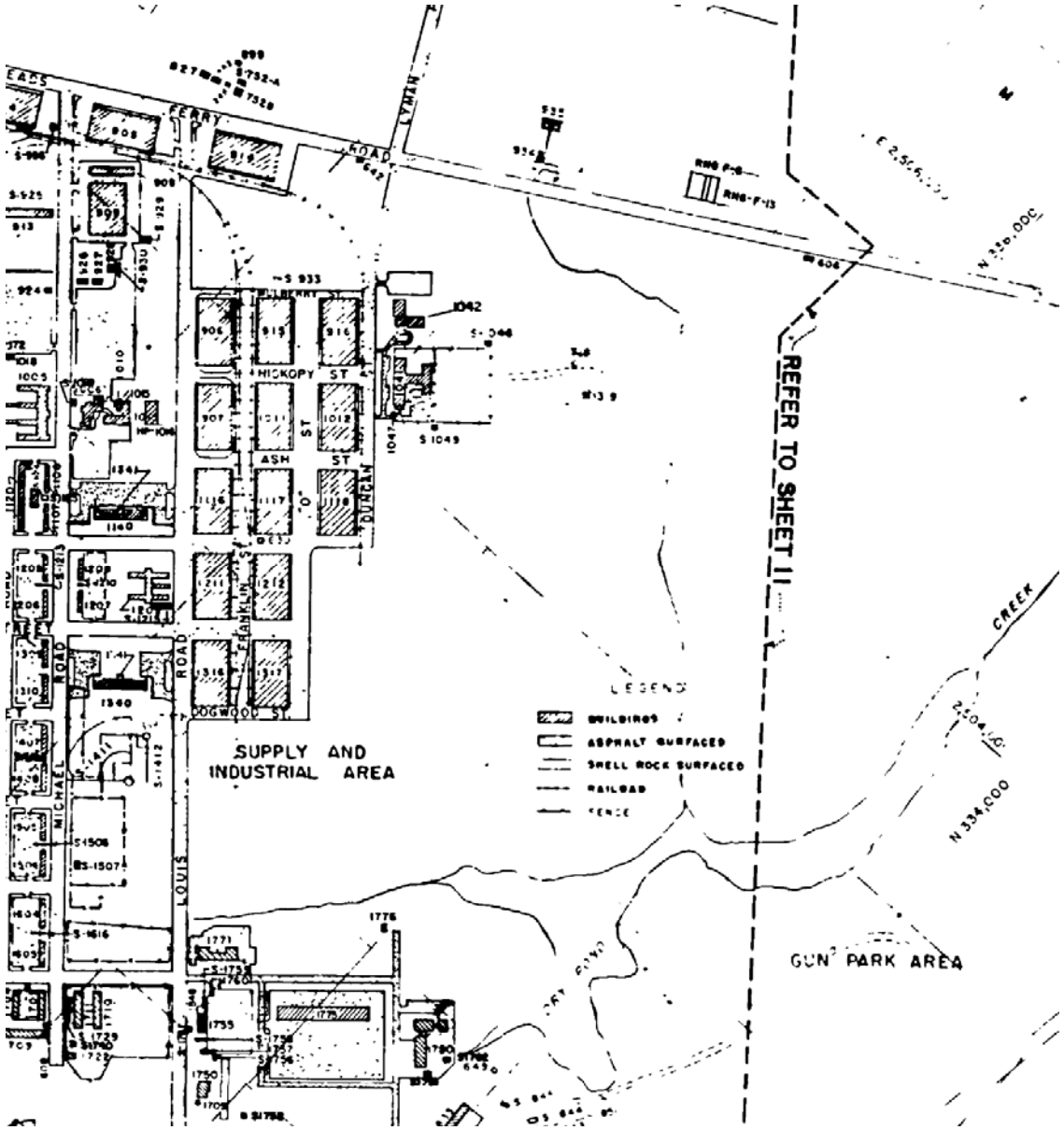


Figure A-11
ASR Site 2.204
Hadnot Point Area
Camp Lejeune, NC
June 30, 1979

CH2MHILL

Figure A-12
ASR Site 2.204
Hadnot Point Industrial Area
& Lyman Road
Camp Lejeune, NC
June 30, 1984

CH2MHILL

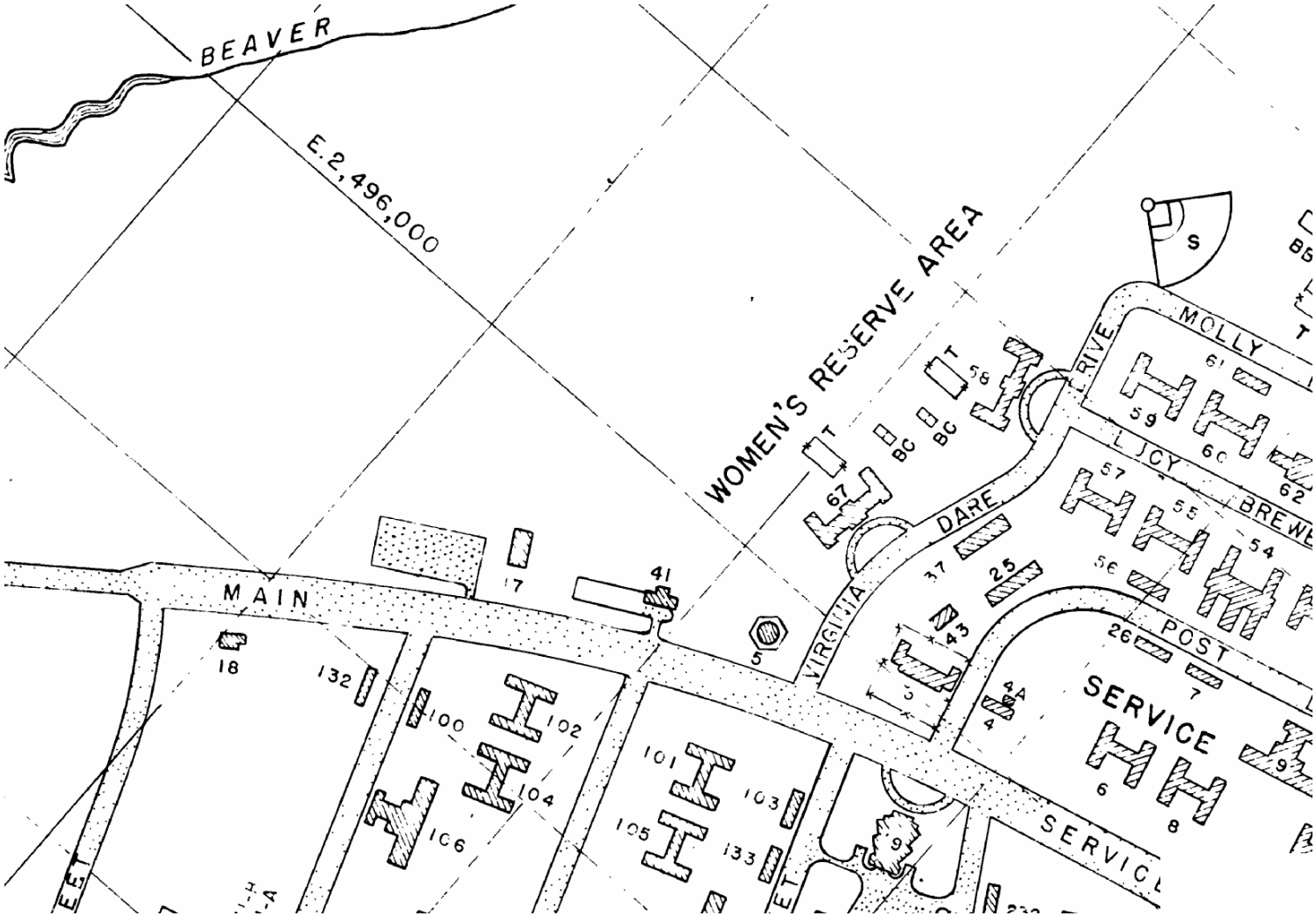


Figure A-13
Site 2.78
Division Training Area
Camp Lejeune, NC
June 30, 1946

CH2MHILL

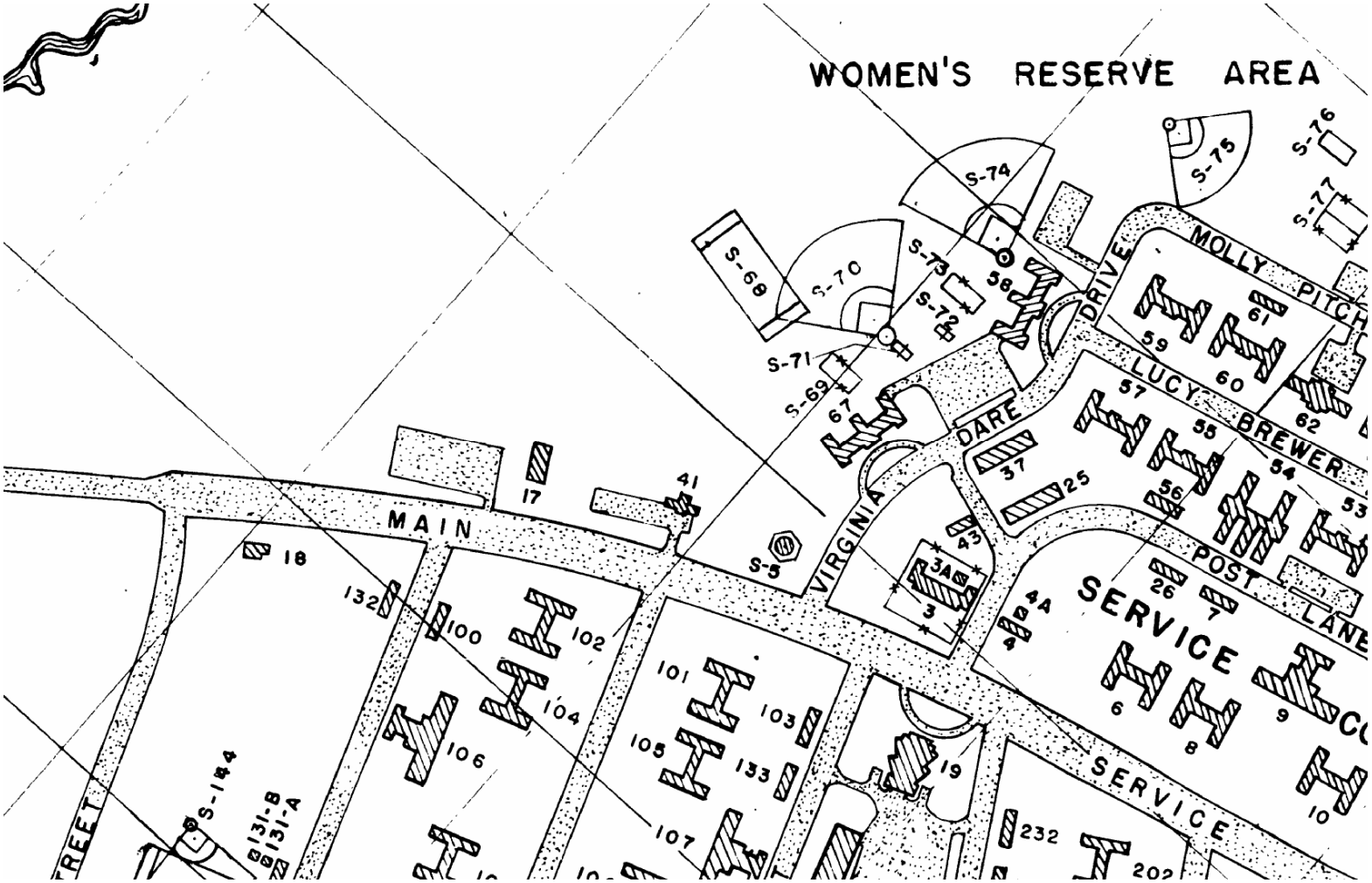


Figure A-14
Site 2.78
Division Training Area
Camp Lejeune, NC
June 30, 1951

CH2MHILL

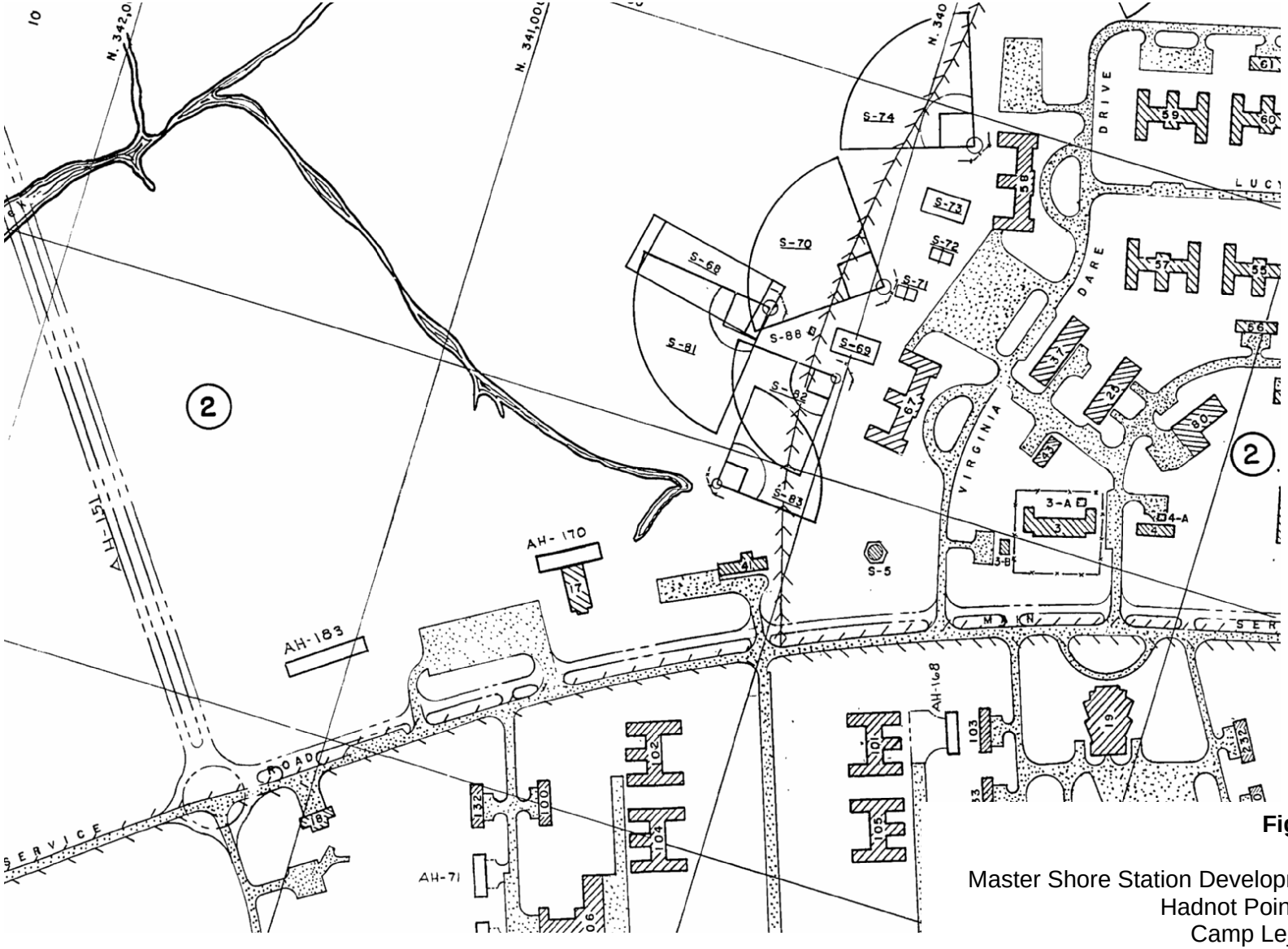


Figure A-15
Site 2.78
Master Shore Station Development Plan
Hadnot Point Area "A"
Camp Lejeune, NC
May 5, 1961

CH2MHILL

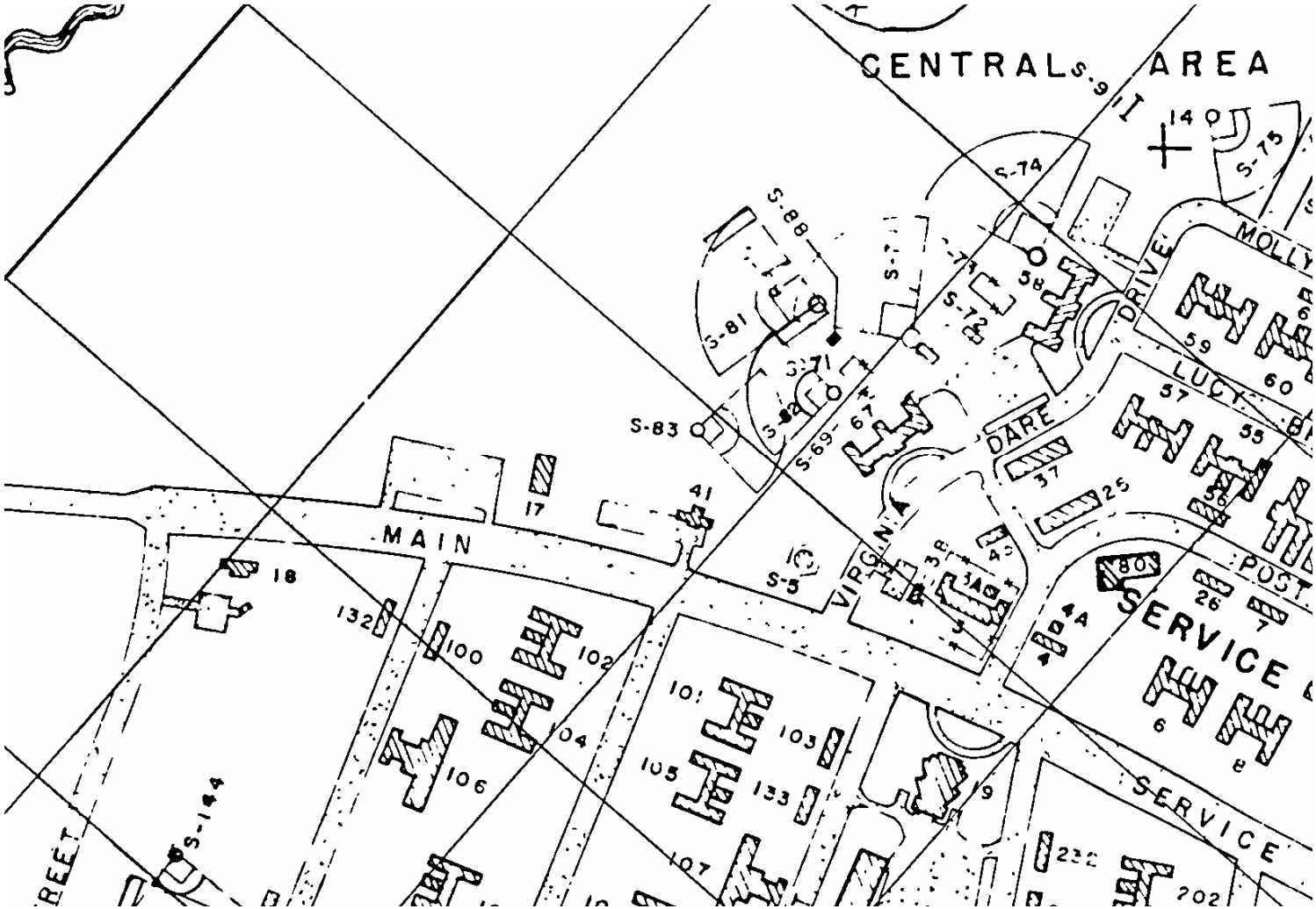


Figure A-16
Site 2.78
Hadnot Point Area
Camp Lejeune, NC
June 30, 1964

CH2MHILL

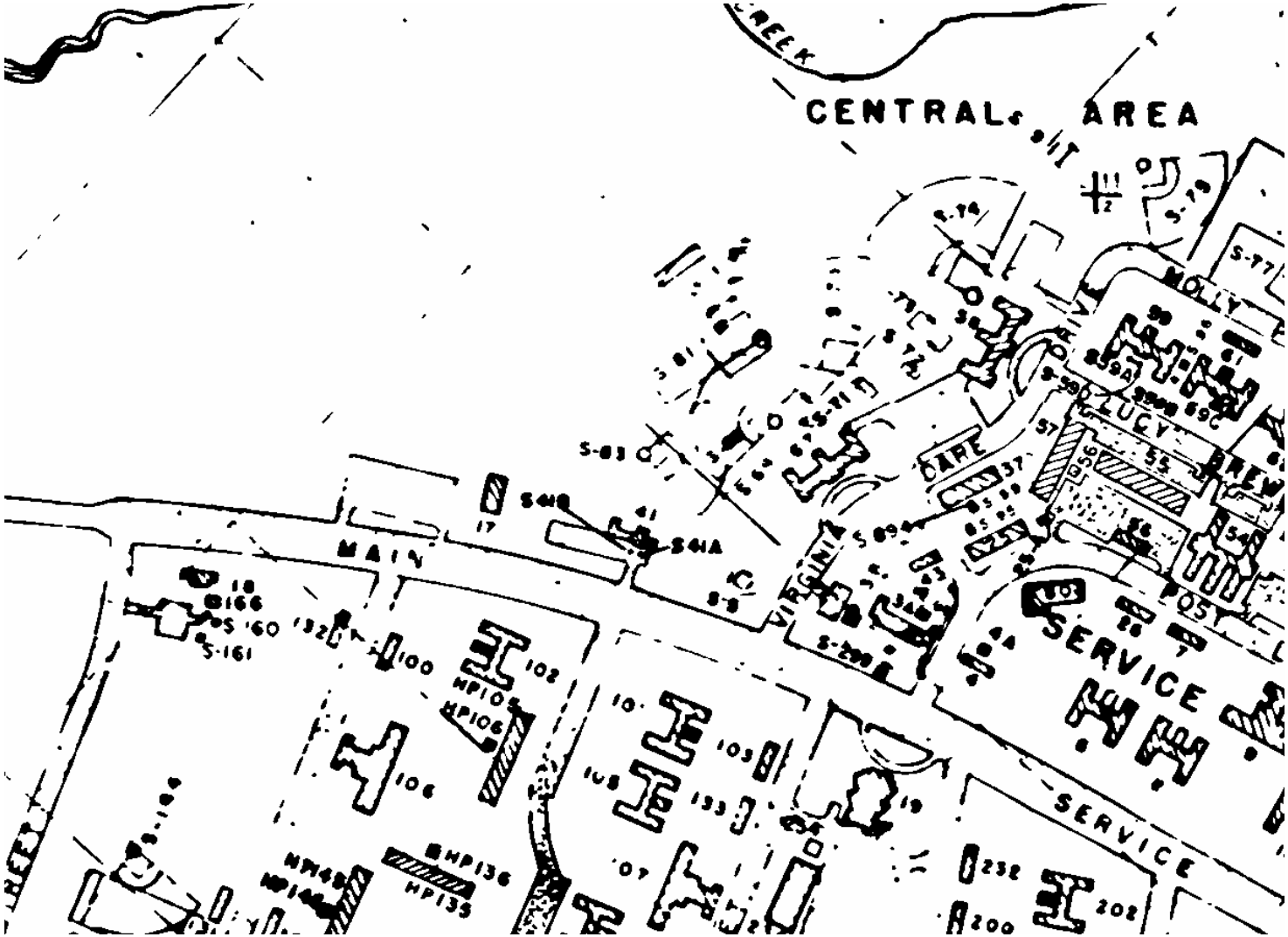


Figure A-17
Site 2.78
Hadnot Point Area
Camp Lejeune, NC
June 30, 1979

CH2MHILL

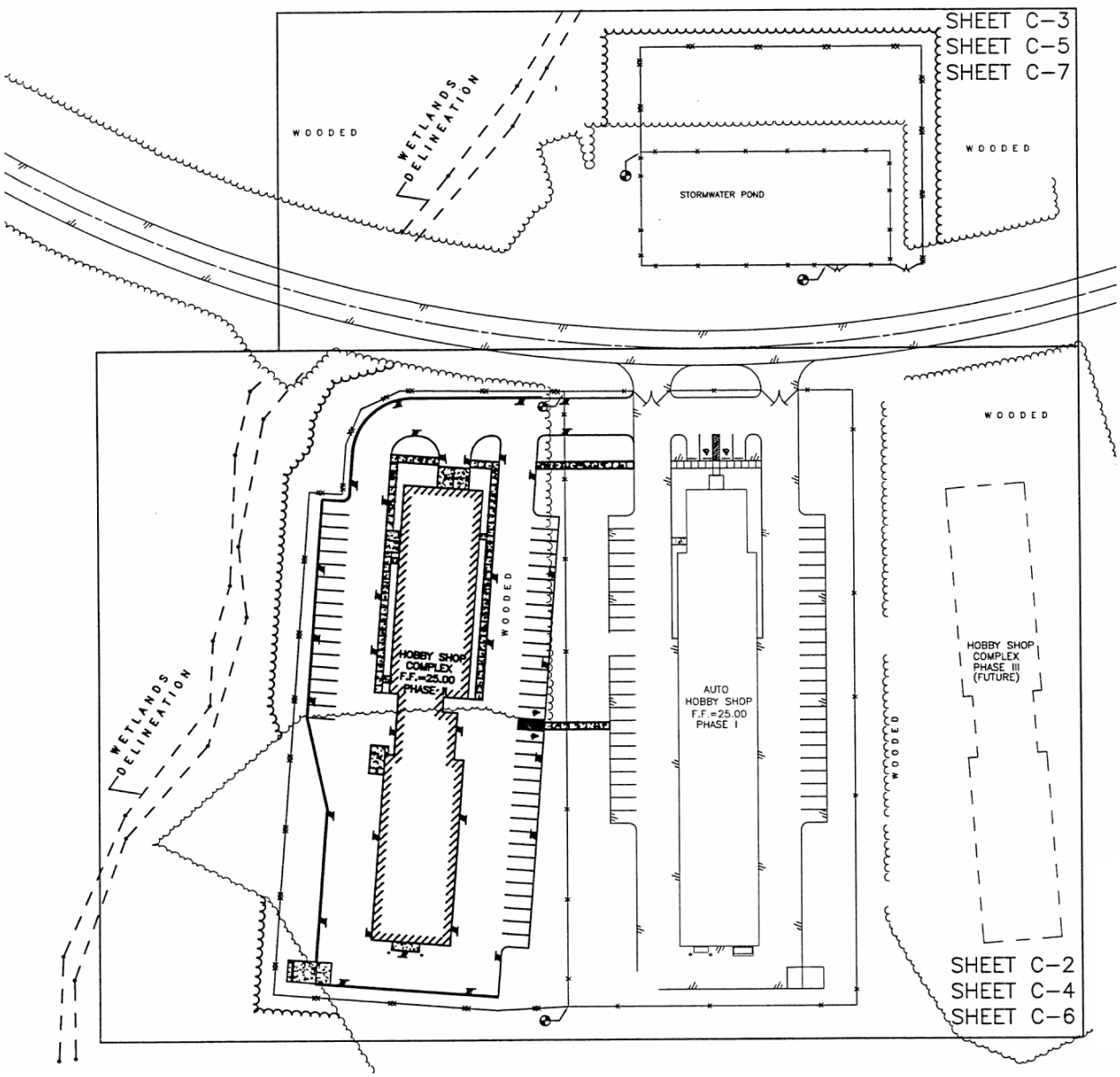


Figure A-18
Site 2.78
Hobby Shop Complex
Construction Drawing
Camp Lejeune, NC
1997

CH2MHILL

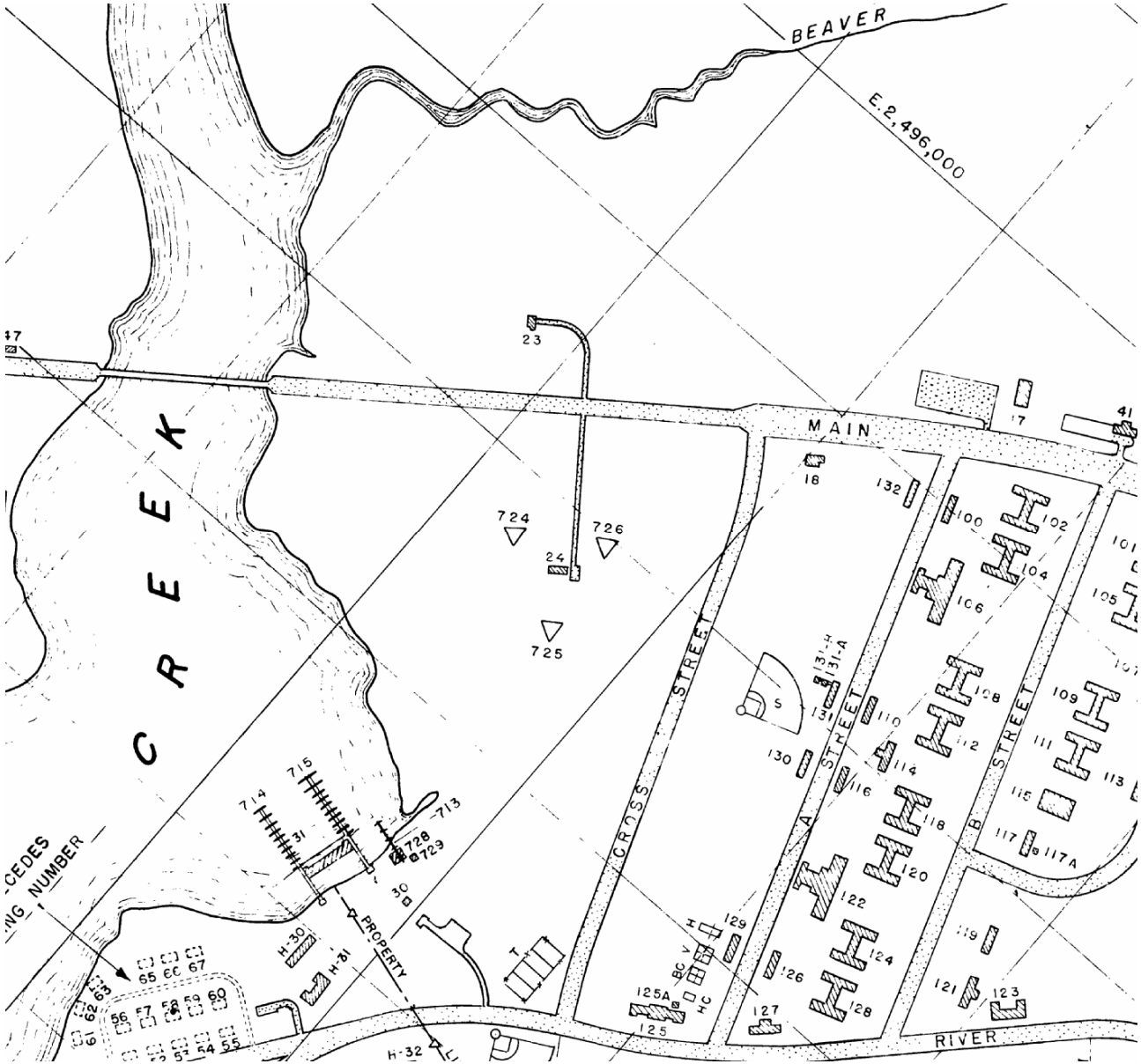
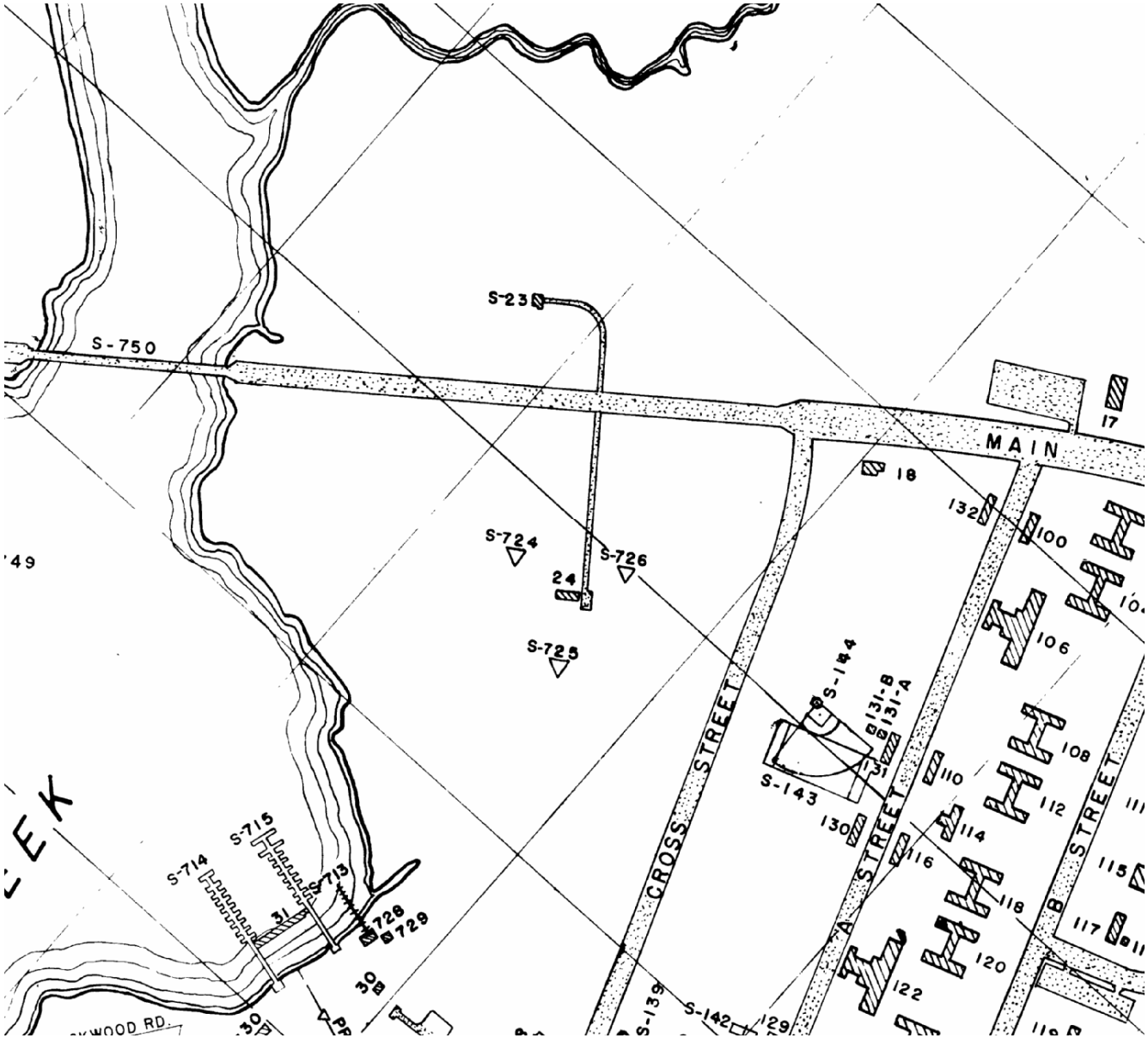


Figure A-19
IR Site 25
Division Training Area
Camp Lejeune, NC
June 30, 1946

CH2MHILL



NUMBER	LOCATION	USE
S-23	8-G	INCINERATOR

Figure A-20
IR Site 25
Division Training Area
Camp Lejeune, NC
June 30, 1951

CH2MHILL

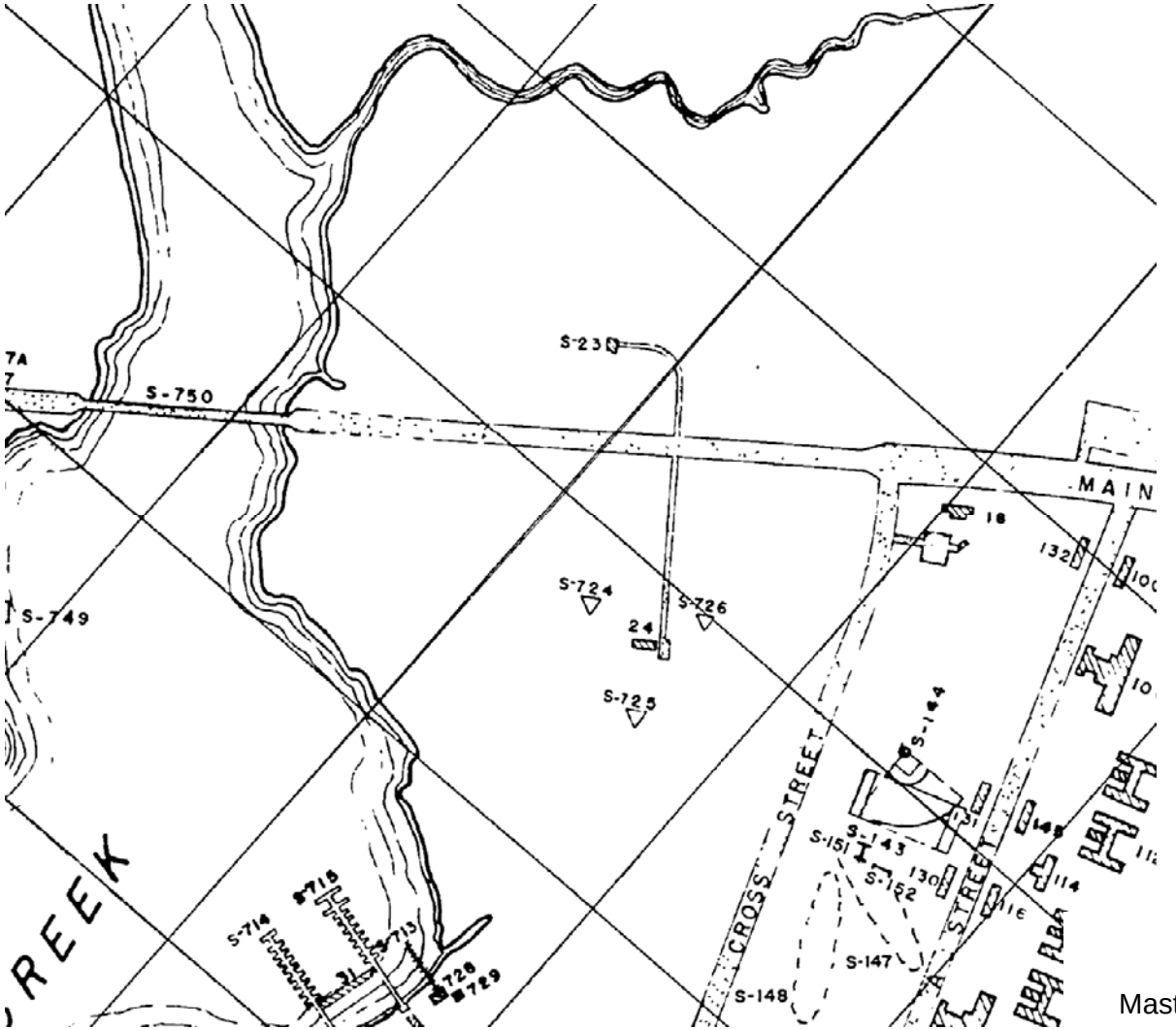
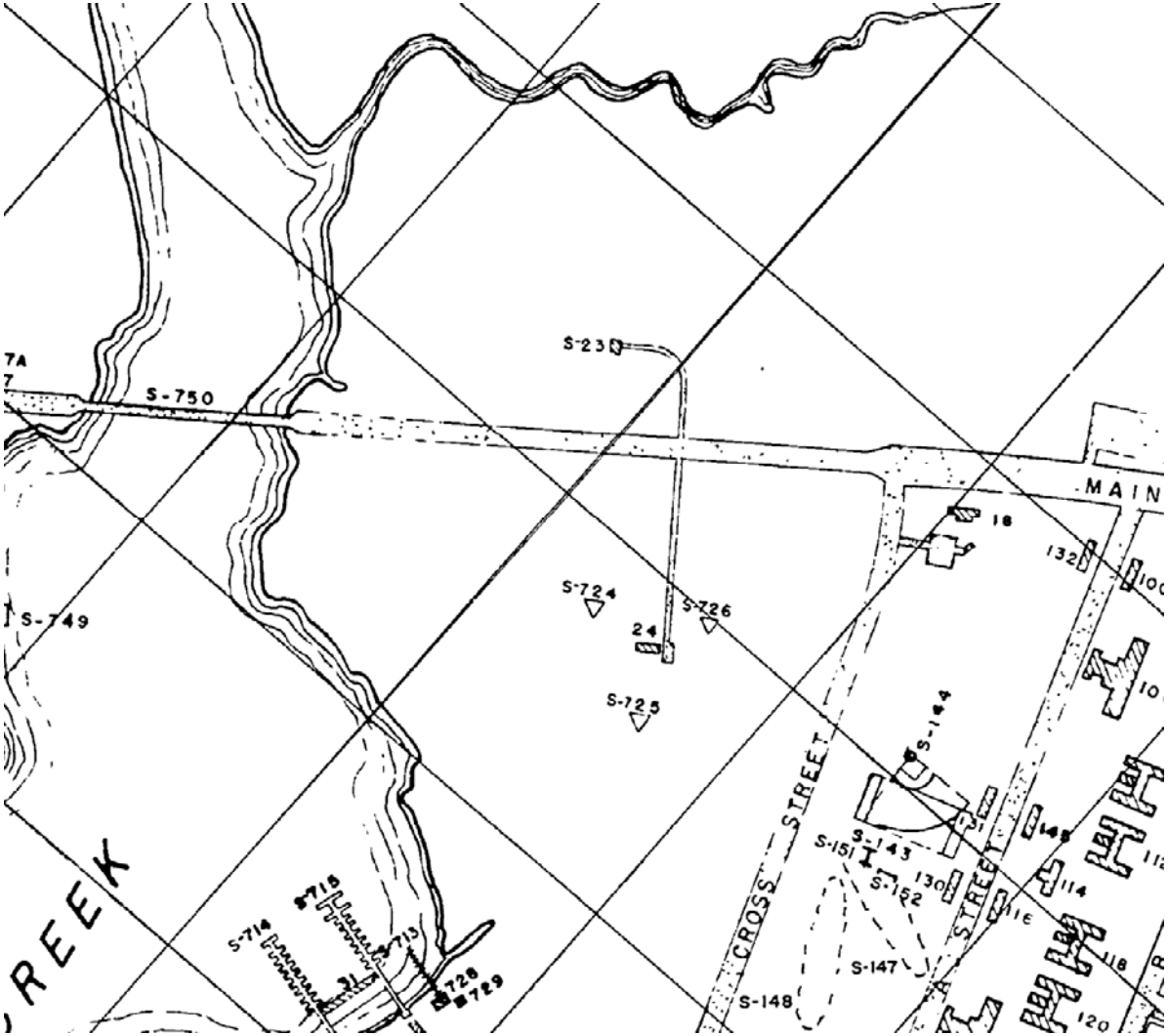


Figure A-21
IR Site 25
Master Shore Station Development Plan
Hadnot Point Area "A"
Camp Lejeune, NC
May 5, 1961

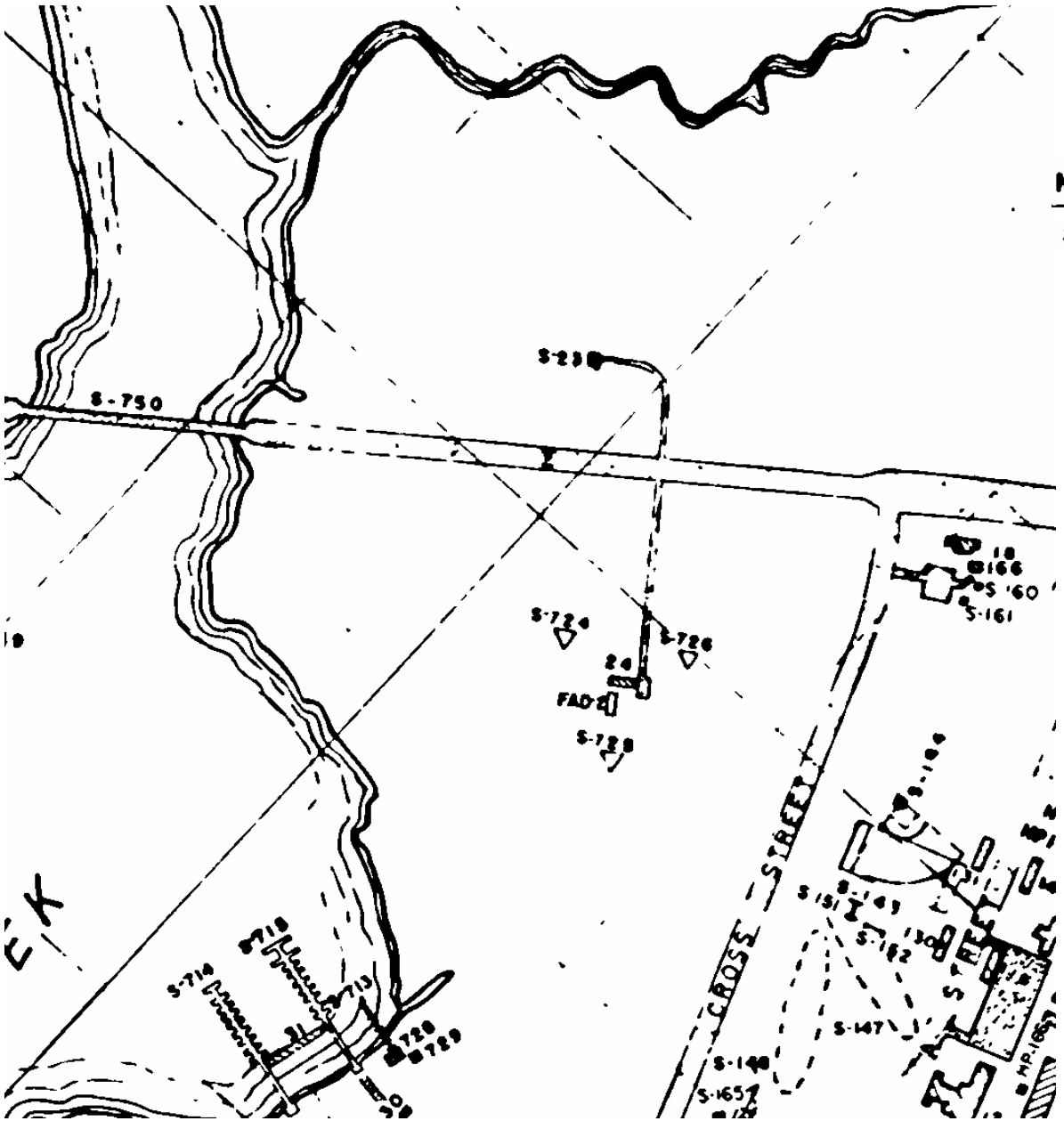
CH2MHILL



NUMBER	LOCATION	USE
S-23	8-G	INCINERATOR

Figure A-22
IR Site 25
Hadnot Point Area
Camp Lejeune, NC
June 30, 1964

CH2MHILL



NUMBER	LOCATION	USE
S-23	8-G	RADIO REPAIR

Figure A-23
IR Site 25
Hadnot Point Area
Camp Lejeune, NC
June 30, 1979

CH2MHILL

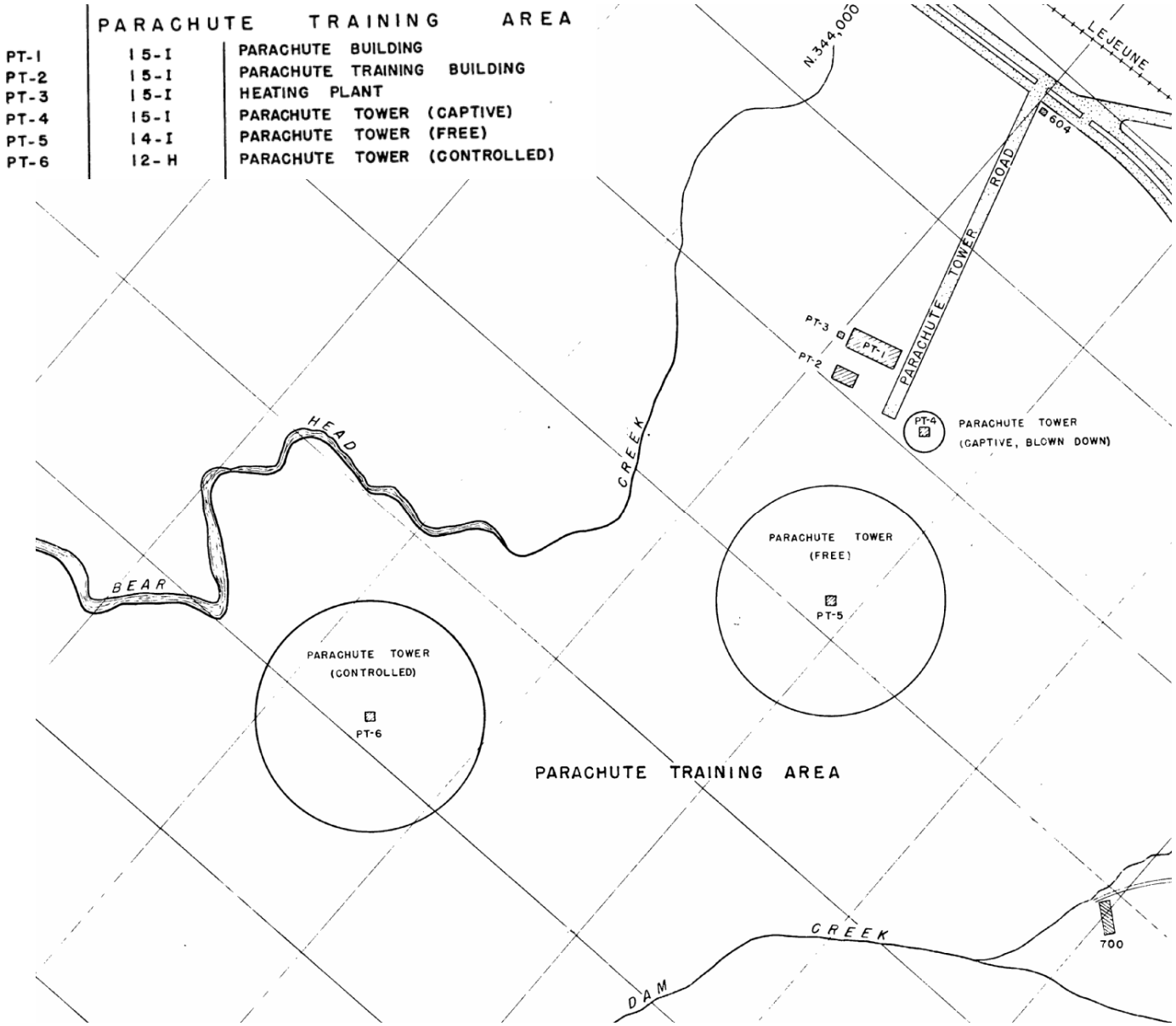


Figure A-24
IR Sites 19 & 20
Division Training Area
Camp Lejeune, NC
June 30, 1946

CH2MHILL

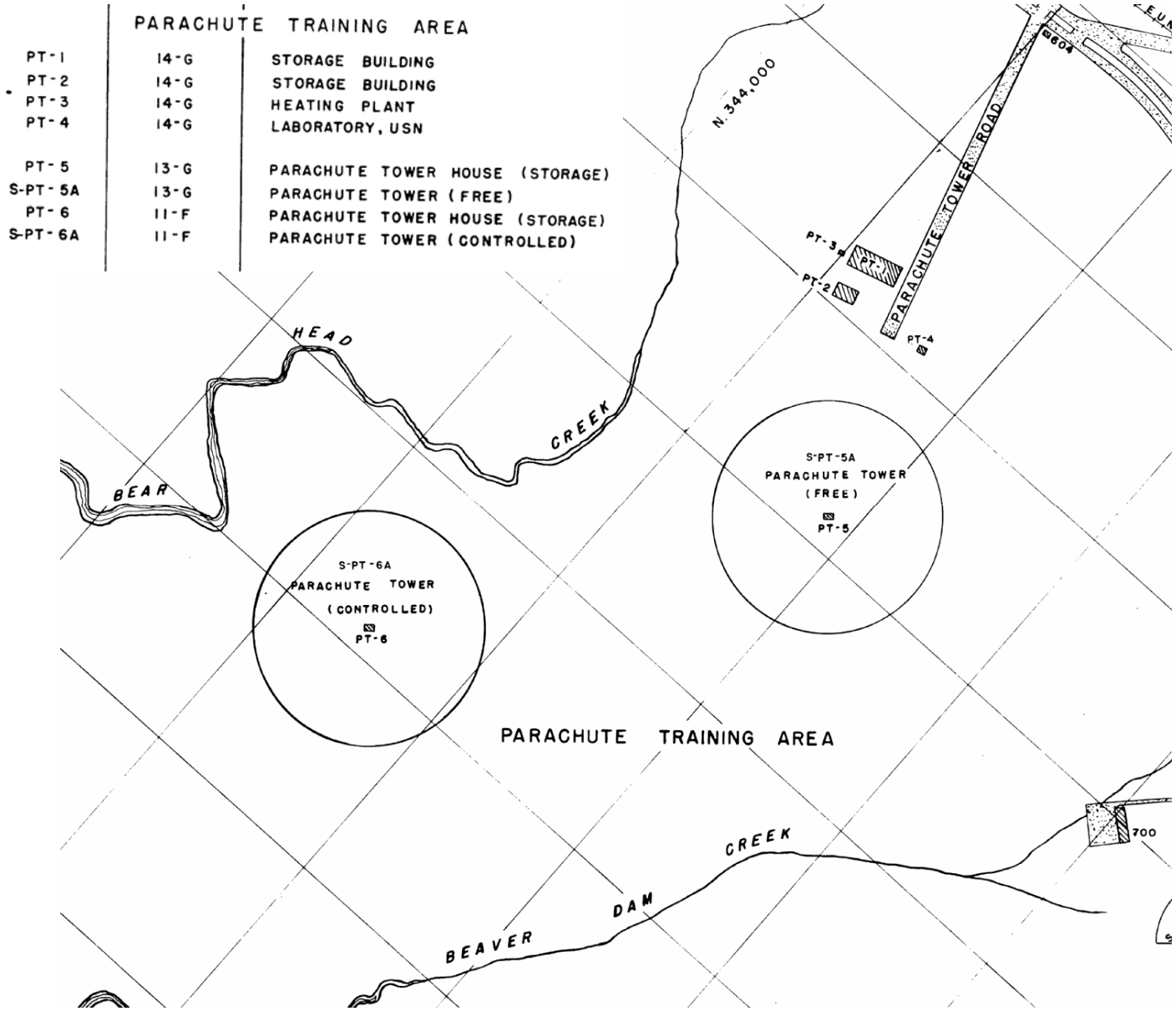


Figure A-25
IR Sites 19 & 20
Division Training Area
Camp Lejeune, NC
June 30, 1951

CH2MHILL

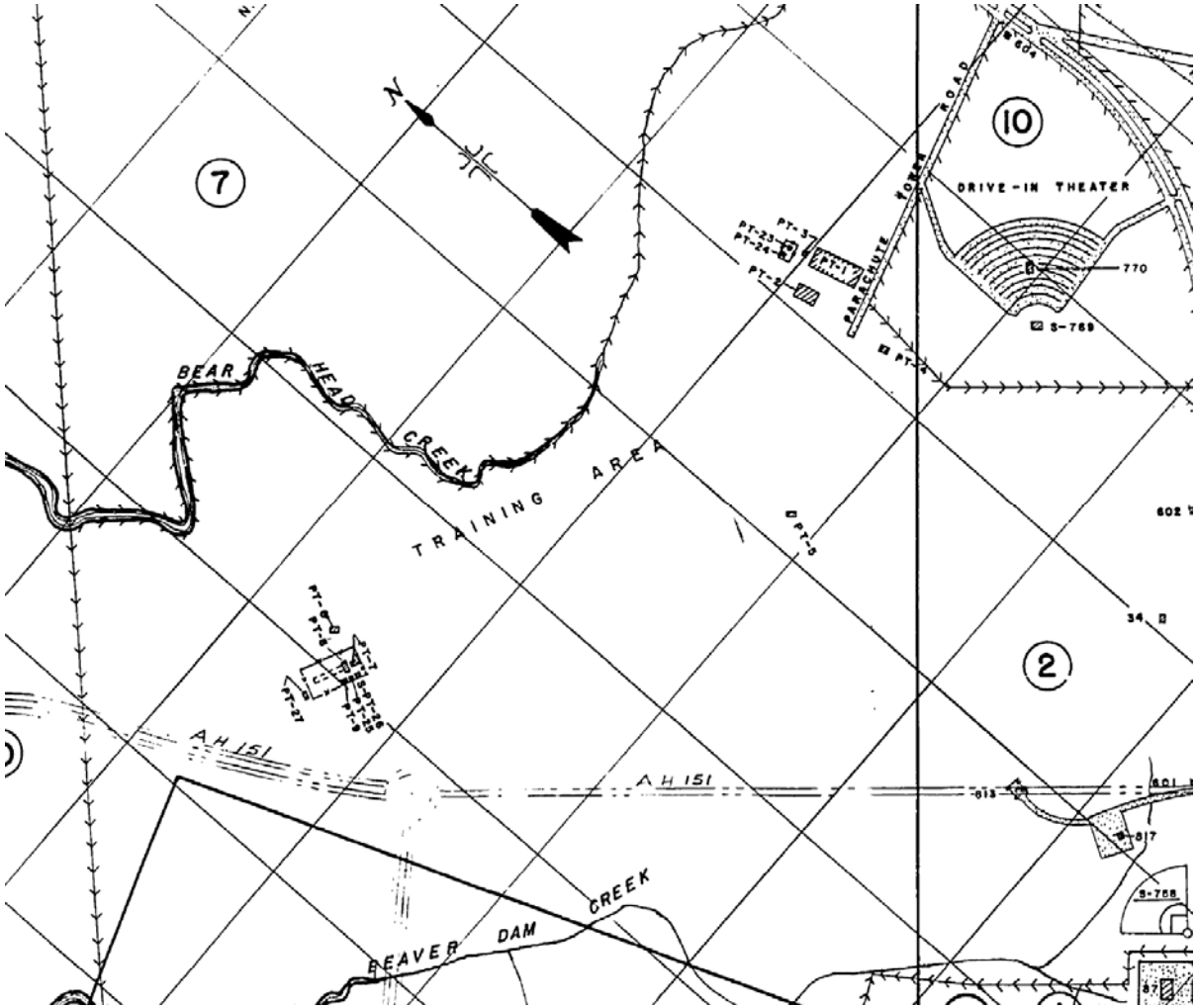
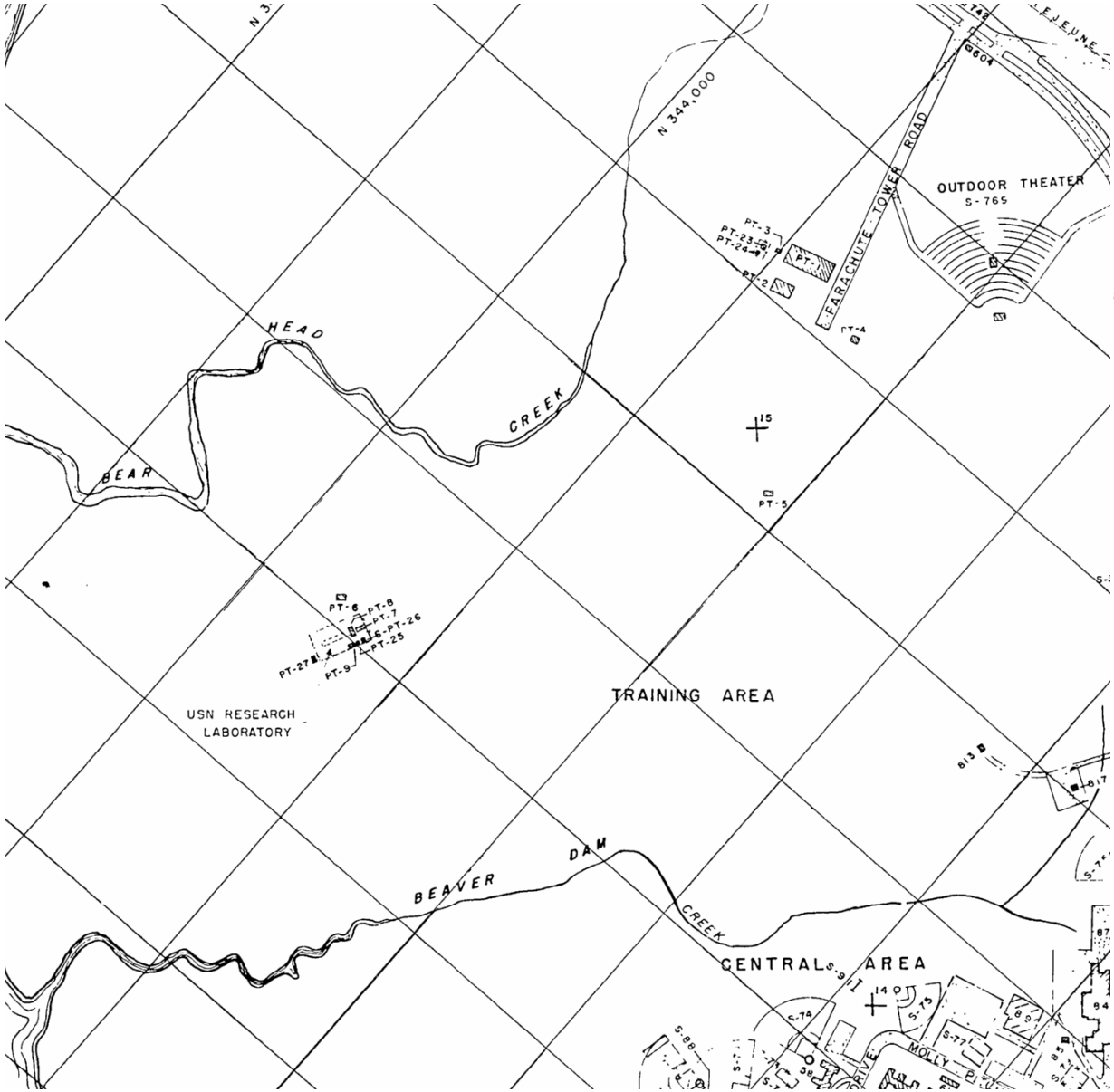


Figure A-26
IR Sites 19 & 20
Master Shore Station Development Plan
Hadnot Point Area "A"
Camp Lejeune, NC
May 5, 1961

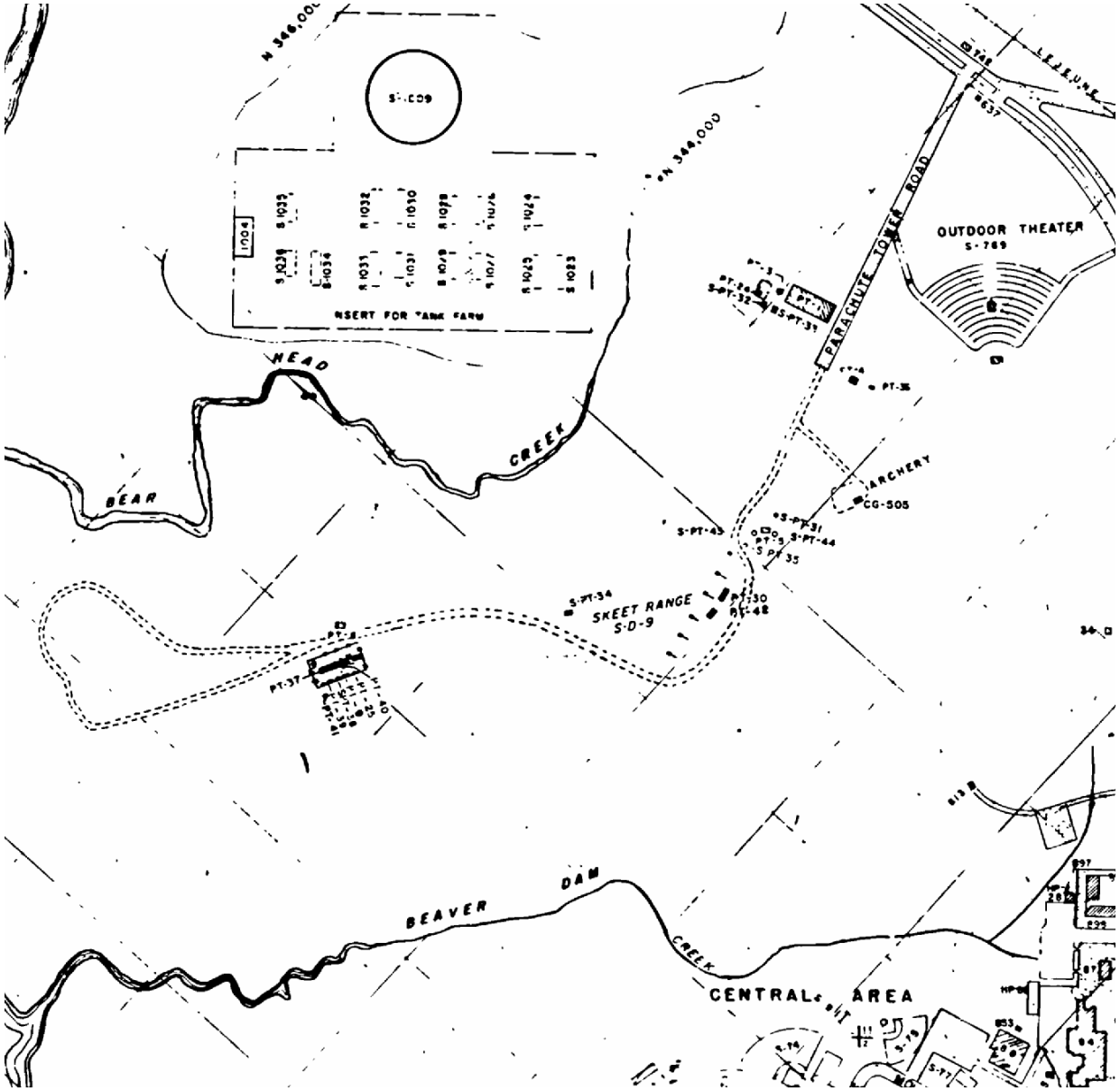
CH2MHILL



TRAINING AREA		
PT-1	14-G	STORAGE
PT-2	14-G	"
PT-3	14-G	HEATING PLANT
PT-4	14-G	LABORATORY (USN)
PT-5	13-G	STORAGE
PT-6	11-F	"
PT-7	11-F	USN RESEARCH LABORATORY
PT-8	11-F	ANIMAL FACILITY
PT-9	10-F	STORAGE
PT-23	14-F	DOG POUND
PT-24	14-F	FEED ROOM
PT-25	11-F	STORAGE
S-PT-26	11-F	INCINERATOR
PT-27	10-F	STORAGE

Figure A-27
IR Sites 19 & 20
Hadnot Point Area
Camp Lejeune, NC
June 30, 1964

CH2MHILL



TRAINING AREA		
PT-1	14-G	PARACHUTE SHOP
PT-3	14-G	HEATING PLANT
PT-4	11-G	LABORATORY (USN)
PT-5	13-G	AMATEUR RADIO STATION
PT-6	11-F	RD-T BLD/OTH
PT-9	10-F	STORAGE
PT-24	14-F	KENNEL
PT-25	11-F	STORAGE
PT-27	10-F	STORAGE
PT-30	12-G	RANGE HOUSE
SPT-31	13-G	ANTENNA
SPT-32	14-F	ANIMAL POUND
SPT-33	14-F	ANIMAL POUND
SPT-34	12-G	HELICOPTER MOCKUP
SPT-35	13-G	ANTENNA
PT-36	14-G	STORAGE
PT-37	10-F	APPLIED RESEARCH LAB
SPT-38	10-F	INCINERATOR
PT-39	10-F	RESEARCH BLDG
PT-40	10-F	WASH ROOM
PT-41	10-F	SEWAGE LIFT STATION
PT-42	12-G	STORAGE
CG-505	13-H	TRAILER
SPT-43	12-G	COMMUNICATIONS ANTENNA
SPT-44	12-G	COMMUNICATIONS ANTENNA

Figure A-28
IR Sites 19 & 20
Hadnot Point Area
Camp Lejeune, NC
June 30, 1979

CH2MHILL

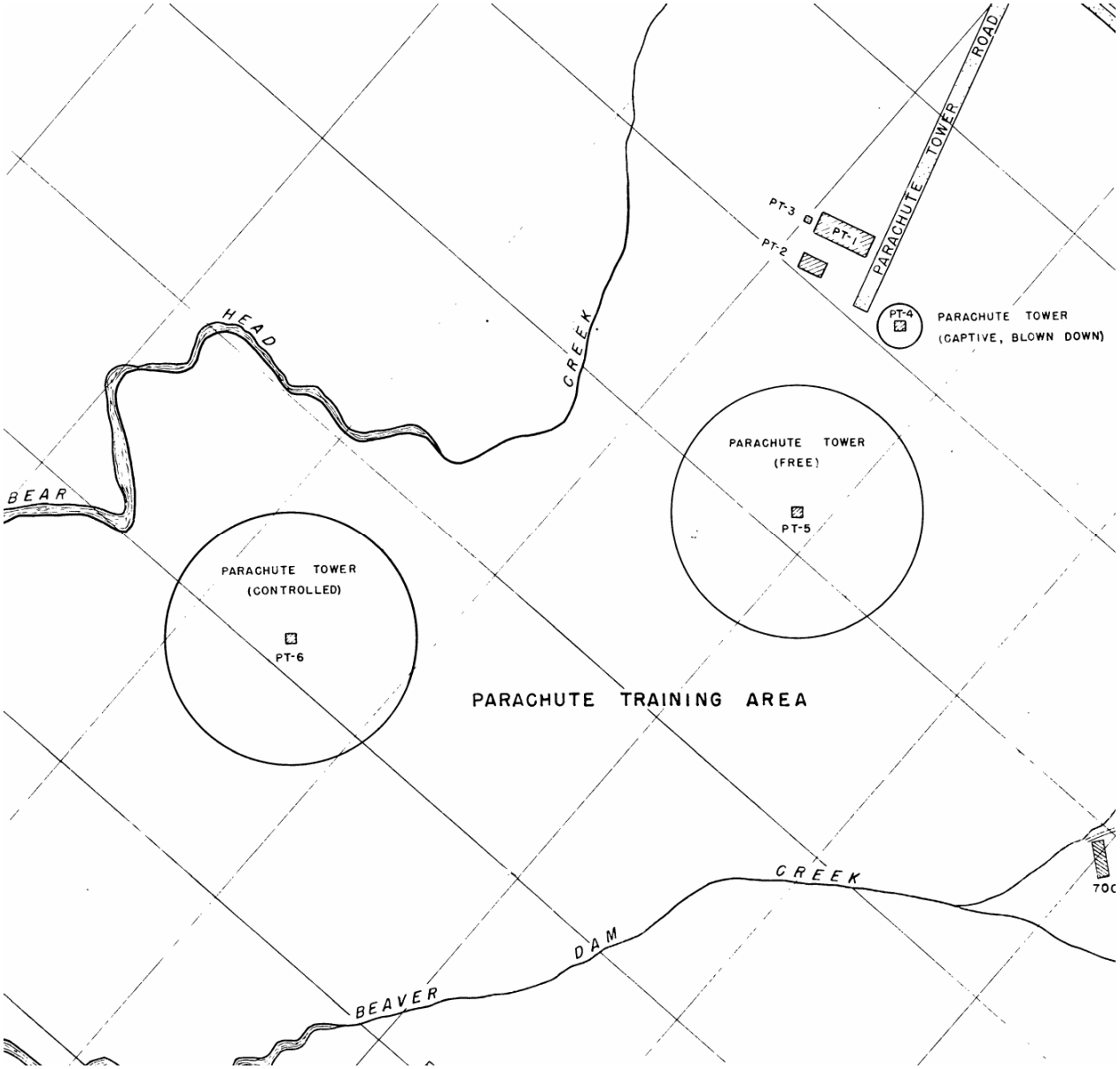


Figure A-29
Active Skeet Range
Division Training Area
Camp Lejeune, NC
June 30, 1946

CH2MHILL

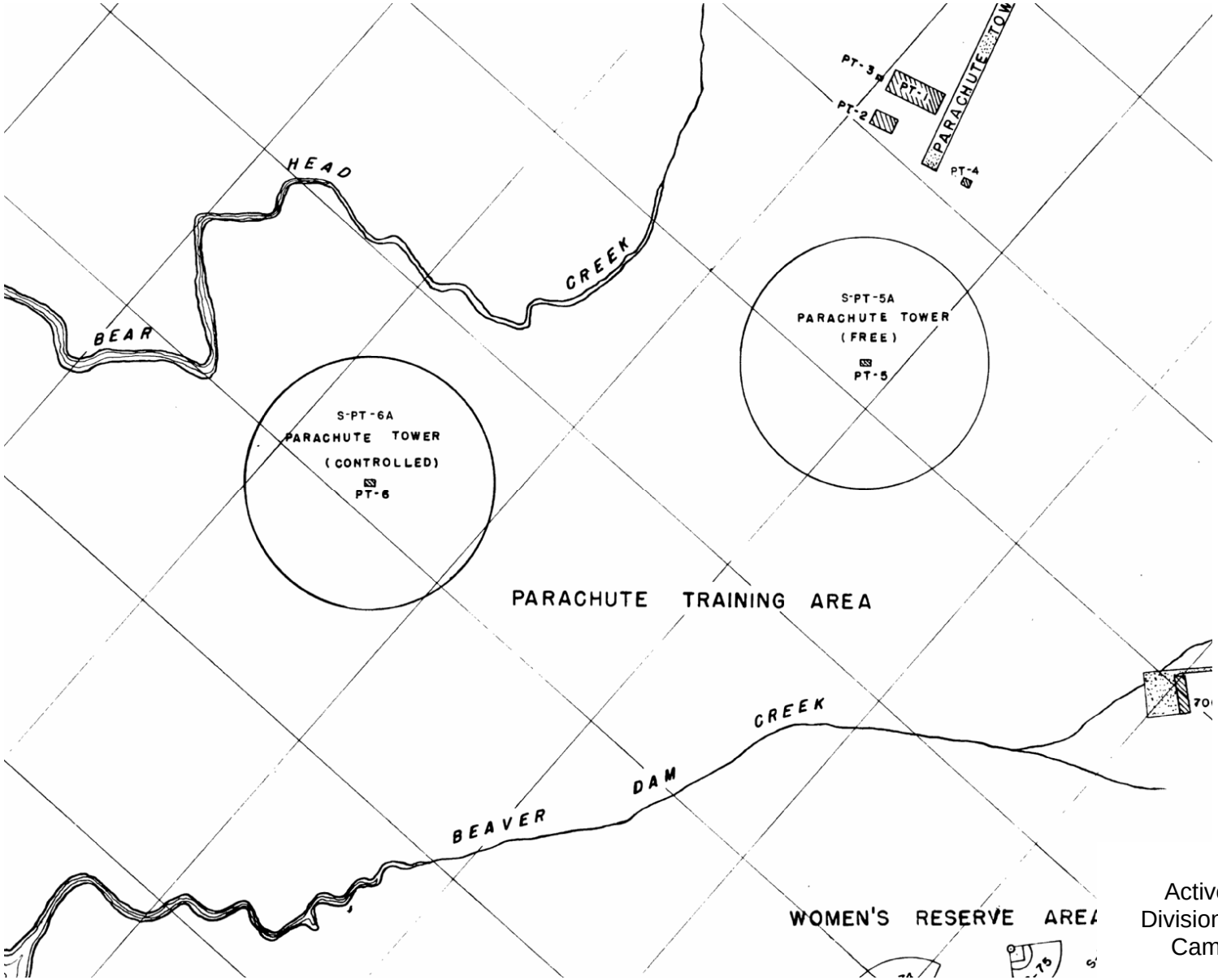


Figure A-30
Active Skeet Range
Division Training Area
Camp Lejeune, NC
June 30, 1951

CH2MHILL

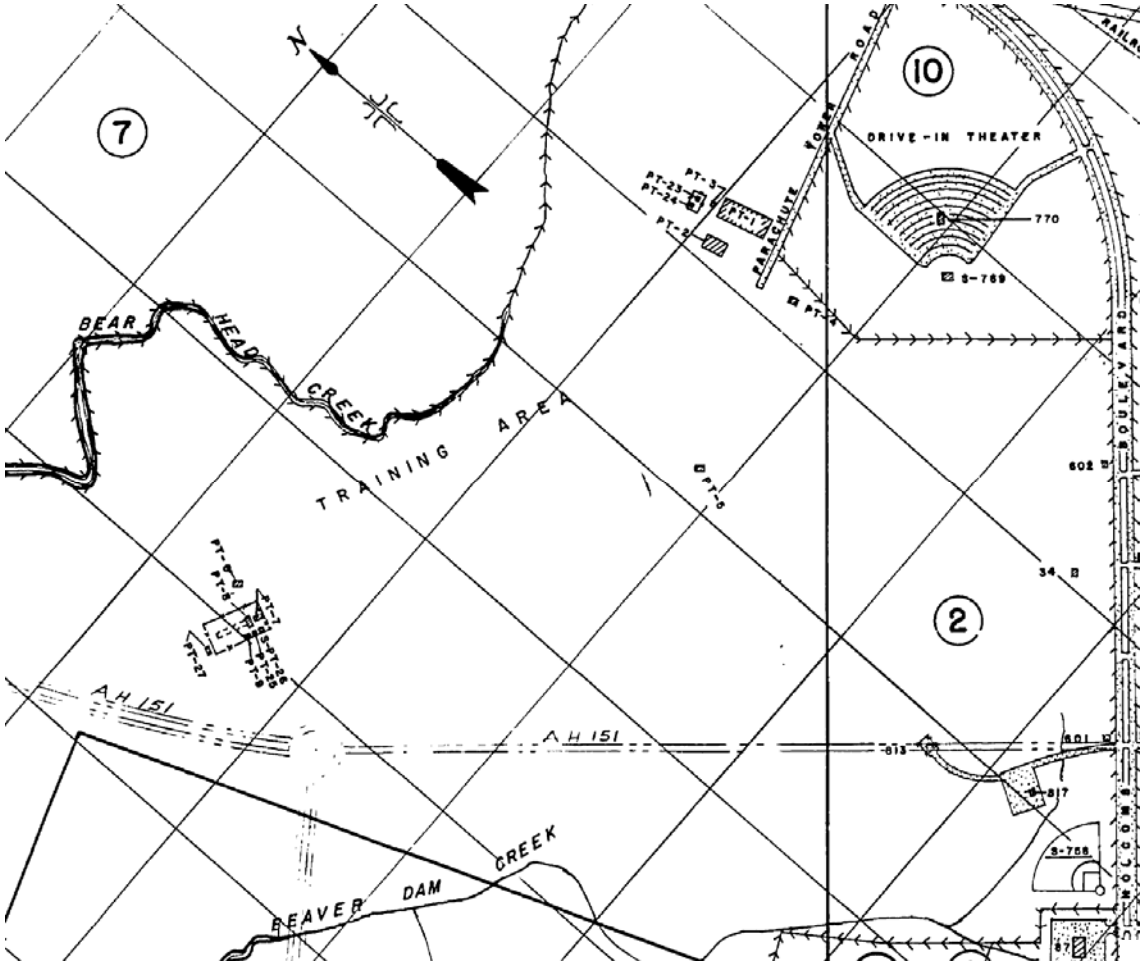


Figure A-31
Active Skeet Range
Master Shore Station Development Plan
Hadnot Point Area "A"
Camp Lejeune, NC
May 5, 1961

CH2MHILL

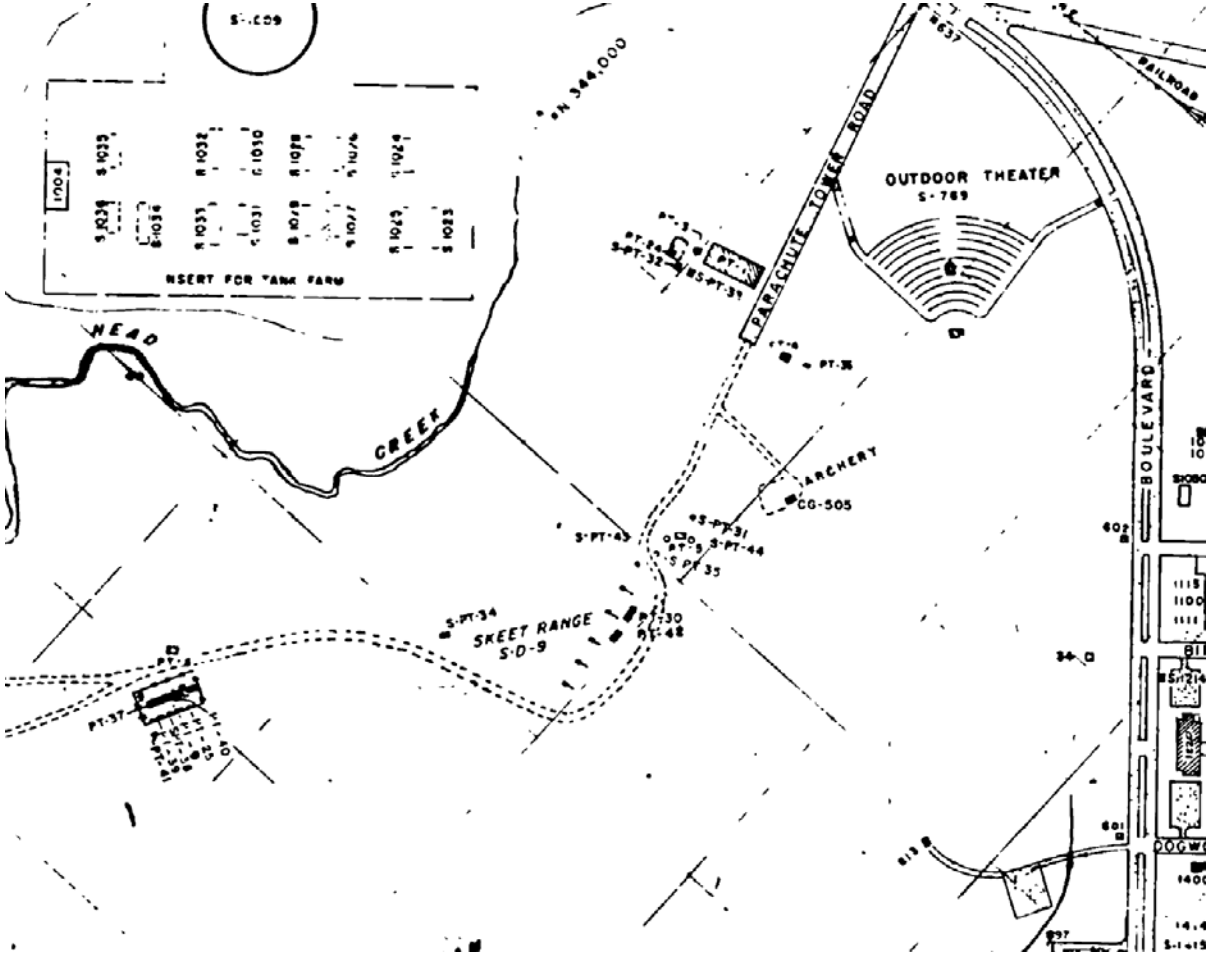


Figure A-32
Active Skeet Range
Hadnot Point Area
Camp Lejeune, NC
June 30, 1979

CH2MHILL

Exhibits

6240
Sharp

OFFICER IN CHARGE
NAVAL ENERGY AND ENVIRONMENTAL SUPPORT ACTIVITY
PORT HUENEME, CALIFORNIA 93043

IN REPLY REFER TO:
113S:KR:lm
3263.3A
Ser: 893

22 MAY 1981

From: Officer in Charge
To: Commanding General, Marine Corps Base, Camp Lejeune, NC 28542

Subj: Status of Health Physics Support At Insect Vector Compound and Hazardous Waste Disposal Pit; interim report of

Ref: (a) FONECON btwn Industrial Hygiene Officer (NRMC Camp Lejeune) and J. Orr (NEESA) on 1 Dec 80
(b) NAVSUPINST 5101.9B

1. As requested by reference (a), the Naval Energy and Environmental Support Activity (NEESA), Port Hueneme, California conducted a health physics support visit during the period 11-13 December 1980 to evaluate the Naval Field Research Laboratory site, adjacent areas, and a hazardous waste disposal pit. A follow-up visit was made during 9-11 April 1981 to conduct additional sampling.

Not right. 491 according to Kalisch.

2. Five-hundred-eighteen beta buttons containing 207,200 uCi of strontium-90, two ~~animal carcasses~~ contaminated with strontium-90, and 160 pounds of soil contaminated with strontium-90 have been recovered from the burial site located in the northwest corner of the Insect Vector Compound. The contaminated material has been safely stored in Building PT-26 awaiting containerization and shipment to an Nuclear Regulatory Commission (NRC) approved burial site at Barmwell, South Carolina. The material is expected to be placed in Department of Transportation authorized shipping containers before 1 July 1981. Actual shipment of the material will depend on coordination with the Naval Supply Center, Norfolk, Virginia in accordance with reference (b). No health hazard exists to Marine Corps Base (MCB), Camp Lejeune personnel under the current storage conditions.

3. Seventy-five soil samples have been taken from the burial site. Results of laboratory analysis of these samples has not provided conclusive evidence that the site may be released for unrestricted use. Additional sampling from one portion of the burial site is required and currently is underway. Final sampling results and release of the site is expected before 1 July 1981.

4. Personnel interviews generated concern that:

a. Rooms formerly used as laboratories in Building PT-37 may be contaminated.

b. An incinerator adjacent to Building PT-37 may be contaminated from burning of animal carcasses injected with strontium-90.

c. Radioactive material may be present in a man-made pit located in the hazardous material dump site.

CLW
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5. Wet rag and paint samples were taken from rooms in Building PT-37. Ash samples were taken from the incinerator and the incinerator ash dump site. Soil and water samples were taken from the dump site pit and adjacent areas. Analysis of samples indicated that strontium-90 and cesium-137 were not present.

6. A comprehensive detailed report containing background information, actions taken, results of soil samples and recommendations will follow this interim report.

William J. Morris
W. J. MORRIS
By direction

Copy to:
NAVFACENGCOM (112N)
NRMC Camp Lejeune

CLW
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Appendix B
Soil Boring Logs and Well Completion Diagrams

Boring Number: GC-IS01

Client: MCB Camp Lejeune
Project: MILCON
Location: Former Gas Chamber
Project Number: 356052

Driller: American Environmental Drilling
Drilling Method: DPT-6610
Sampling Method: Macro-core
Logged by: G. Salomone/VBO
Start/Finish Date: 7/24/07 0820-0900

Depth (ft)	Sample Information: Sample #	Sample Type	Recovery (%)	SPT (6"-6"-6")	Soil Log	Soil Description	Depth / Elev (ft)	Comments
						Ground Surface	0	
0						Brown, leaf, treebark, roots, moist	0	
	1	MC		NA		**SP-Sand** f/g sand, well sorted with 5% root/wood loose sand brown 7.5 YR 5/1, dry, no odor	-2	GC-IS01-01-07C at 0820
						SP-Sand 10 YR 6/6 brownish, yellow f/g loose sand, no odor	2 / -4	
						SC-Clayey Sand 10 YR 6/8 brownish yellow, f/g med-dense sand, with 15% clay, dry, no odor	4 / -5	
5	2	MC	83	NA		**SC-Clayey Sand** 2.5 Y 7/1 lt gray, f/g well sorted, med-dense with 10% clay, dry, no odor	5 / -8	
						SM-Silty Sand 2.5 Y 7/1, lt gray f/g loose sand 20% fines, moist 8', wet 9', no odor	8 / -10	GC-IS01-5-8-07C at 0850
10	3	MC	100	NA		**SM-Silty Sand** 2.5 Y 7/1, same as above, wet, no odor	10 / -13	
						SM-Silty Sand 10 YR 6/6 brownish yellow, same as above, wet, no odor	13 / -15	
15						End of Log	15	
20								

Boring Number: GC-IS02

Client: MCB Camp Lejeune
Project: MILCON
Location: Former Gas Chamber
Project Number: 356052

Driller: American Environmental Drilling
Drilling Method: DPT-6610
Sampling Method: Macro-core
Logged by: G.Salomone/VBO
Start/Finish Date: 7/24/07 0920-0955

Depth (ft)	Sample Information: Sample #	Sample Type	Recovery (%)	SPT (6"-6"-6")	Soil Log	Soil Description	Depth / Elev (ft)	Comments
						Ground Surface	0	
0						Brown, leaf/tree bark, decomposed, moist	0	GC-IS02-0-1-07C at 0920
						SP-Sand 7.5 YR 5/1 Gray f/g, loose sand, well sorted, with 5% roots/wood, dry, no odor	-2	
	1	MC		NA		**SP-Sand** 10 YR 7/6 Yellow, f/g, loose sand, dry, no odor	2 -4	
						SC-Clayey Sand 10 YR 7/6 Yellow, f/g, med dense sand with 15% clay, dry, no odor	4 -5	
5						**SC-Clayey Sand** 10 YR 6/4, Lt yellowish brown, f/g med dense, sand with 10% clay, dry, no odor	5	
	2	MC	75	NA			-8	
						SP-Sand 10 YR 6/4, Lt yellowish brown, f/g med dense, moist, no odor, moist at 10'	8 -10	
10						**SC-Clayey Sand** 10 YR 6/8 Brownish yellow f/g, well sorted, med dense, with layers of clay, very soft, saturated at ~12'	10	GC-IS02-8-10-07C at 0945
	3	MC	83	NA			-15	
15						End of Log	15	TMW-0.010" slot screen-10-15 1" pvc sch 40
20								

Boring Number: GC-IS03

Client: MCB Camp Lejeune
Project: MILCON
Location: Former Gas Chamber
Project Number: 356052

Driller: American Environmental Drilling
Drilling Method: DPT-6610
Sampling Method: Macro-core
Logged by: G.Salomone/VBO
Start/Finish Date: 7/24/07 1010-1035

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		NA		**SP-Sand** Roots, leaves, tree bark/wood decay 7.5 YR 5/1, Gray, f/g, loose sand, well sorted, 5% roots, wood, dry, no odor	0 -2	GC-IS03-0-1-07C at 1010
						SM-Silty Sand 7.5 YR 2/2, V dk brown, f/g loose sand with 20% fines, dry, no odor	2 -3	
						SP-Sand 10 YR 7/2, Lt gray, f/g loose sand, dry, no odor	3 -5	
5	2	MC	75	NA		**SC-Clayey Sand** 10 YR 7/1, Lt gray, f/g, med-dense sand, well sorted with 10% clay, moist 8", wet ~9'	5 -10	GC-IS03-5-8-07C at 1025
10						End of Log	10	
15								
20								

Boring Number: GC-IS04

Client: MCB Camp Lejeune
Project: MILCON
Location: Former Gas Chamber
Project Number: 356052

Driller: American Environmental Drilling
Drilling Method: DPT-6610
Sampling Method: Macro-core
Logged by: G.Salomone/VBO
Start/Finish Date: 7/24/07 1215-1250

Depth (ft)	Sample Information: Sample #	Sample Type	Recovery (%)	SPT (6"-6"-6")	Soil Log	Soil Description	Depth / Elev (ft)	Comments
						Ground Surface	0	
0						Roots, decaying leaves, tree bark	0	GC-IS04-0-1-07C at 1215
						SP-Sand 10 YR 6/3, Pale brown, f/g, well sorted loose sand, few <5% fines, dry, no odor	-2	
	1	MC		NA		**SC-Clayey Sand** 10 YR 6/3, Pale brown, fine-med grained, well sorted sand ~10% clay, dry, no odor	2	
5							-5	
	2	MC	75	NA		**SC-Clayey Sand** 10 YR 6/3, Pale brown, fine-med grained, well sorted sand, ~10% clay, dry, no odor, moist at 8', wet at 9'	5	GC-IS04-6-8-07C at 1240
10							-10	
						End of Log	10	
15								
20								

Boring Number: GC-IS05

Client: MCB Camp Lejeune
Project: MILCON
Location: Former Gas Chamber
Project Number: 356052

Driller: American Environmental Drilling
Drilling Method: DPT-6610
Sampling Method: Macro-core
Logged by: G.Salomone/VBO
Start/Finish Date: 7/24/07 1305-1340

Depth (ft)	Sample Information: Sample #	Sample Type	Recovery (%)	SPT (6"-6"-6")	Soil Log	Soil Description	Depth / Elev (ft)	Comments
						Ground Surface	0	
0						leaves, tree/wood decaying	0	GC-IS05-0-1-07C at 1305
						SM-Silty Sand 7.5 YR 2.5/1, Black, f/g, well sorted, med-dense sand, with 20% silts, moist, no odor	-2	
	1	MC		NA		**OL-Organic** 10 YR 2/1, Black, organic, wet at 4'	2	GC-IS05-2-4-07C at 1330
5							-5	
						End of Log	5	Set TMW: 1" sch 40 pvc=0-4' riser
10								
15								
20								

Boring Number: GC-IS06

Client: MCB Camp Lejeune
Project: MILCON
Location: Former Gas Chamber
Project Number: 356052

Driller: American Environmental Drilling
Drilling Method: DPT-6610
Sampling Method: Macro-core
Logged by: G. Salomone/VBO
Start/Finish Date: 7/24/07 1400-1425

Depth (ft)	Sample Information: Sample #	Sample Type	Recovery (%)	SPT (6"-6"-6")	Soil Log	Soil Description	Depth / Elev (ft)	Comments
						Ground Surface	0	
0						leaves, decaying tree roots	0	
	1	MC		NA		**SM-Silty Sand** 7.5 YR 3/2 Dk brown f/g, well sorted, med-dense, with 10-20% silts, dry, no odor	-4	GC-IS06-0-1-07C at 1400
						SP-Sand 10 YR 7/1 Lt gray f/g, well sorted, med-dense, sand, dry no odor, <10% fines	4 -5	
5							5	GC-IS06-3-5-07C at 1415
	2	MC	50	NA		**SC-Clayey Sand** Gley 2, 7/10 G Lt greenish gray, f/g, sand, well sorted, med-dense, 15% clay moist ~8', wet ~ 9.5' bls	-10	
10						End of Log	10	
15								
20								

Boring Number: GC-IS07

Client: MCB Camp Lejeune
Project: MILCON
Location: Former Gas Chamber
Project Number: 356052

Driller: American Environmental Drilling
Drilling Method: DPT-6610
Sampling Method: Macro-core
Logged by: G. Salomone/VBO
Start/Finish Date: 7/24/07 1435-1500

Depth (ft)	Sample Information: Sample #	Sample Type	Recovery (%)	SPT (6"-6"-6")	Soil Log	Soil Description	Depth / Elev (ft)	Comments
0						Ground Surface	0	
						leaves, decaying tree roots	0	
						SM-Silty Sand 10 YR 5/6, Yellowish brown, f/g, well sorted, med-dense sand, 15% silts/fines, dry, no odor, 5% fine gravel (5-20 mm)	-2	GC-IS07-0-1-07C at 1435
	1	MC	30	NA		**SC-Clayey Sand** 10 YR 4/6, Dk yellowish brown, f/g, well sorted, dense sand with 40% med-stiff clay, dry, no odor	2 -5	
5						**SC-Clayey Sand** Same as above -5.75' bls	5	
	2	MC	83	NA			-8	
						SM-Silty Sand 2.5 Y 7/2, lt gray f/g, well sorted, loose sand with 10% fines, dry, no odor	8 -10	
10						**SM-Silty Sand** 2.5 Y 7/2, same as above, moist 13', wet at 14'	10	
	3	MC	83	NA			-15	GC-IS07-10-12-07C at 1450
15						End of Log	15	
20								

Boring Number: 25-IS08

Client: MCB Camp Lejeune
Project: MILCON
Location: Former Gas Chamber
Project Number: 356052

Driller: American Environmental Drilling
Drilling Method: DPT-6610
Sampling Method: Macro-core
Logged by: G.Salomone/VBO
Start/Finish Date: 7/24/07 1515-1540

Depth (ft)	Sample Information: Sample #	Sample Type	Recovery (%)	SPT (6"-6"-6")	Soil Log	Soil Description	Depth / Elev (ft)	Comments
0						Ground Surface	0	
						Dry, decaying leaves, tree roots	0	GC-IS08-0-1-07C at 1515
						SM-Silty Sand 10 YR 4/2 Dk grayish brown, f/g, well sorted, med-dense, 20% silts/fines, dry, no odor	-2	
	1	MC	30	NA		**SP-Sand** 10 YR 5/6 Yellowish brown, f/g, well sorted, med-dense, <10% fines, dry, no odor	2 / -4	
						SP-Sand 7.5 YR 8/2 Pinkish white, f/g, well sorted, loose sand, <10% fines, dry, no odor	4	
5	2	MC	50	NA			-8	GC-IS08-6-8-07C at 1530
						SC-Clayey Sand 10 YR 4/1 Lt gray, f/g, well sorted, med-dense, sand, 30% med-stiff clay, moist 8', wet 9.5'	8 / -10	
10						End of Log	10	TMW: 0-7' sch 40-1" PVC riser; 7-12' 0.010" slot screen, 1" sch 40 PVC
15								
20								

Boring Number: GC-IS09

Client: MCB Camp Lejeune
Project: MILCON
Location: Former Gas Chamber
Project Number: 356052

Driller: American Environmental Drilling
Drilling Method: DPT-6610
Sampling Method: Macro-core
Logged by: G.Salomone/VBO
Start/Finish Date: 7/25/07 0910-0940

Depth (ft)	Sample Information: Sample #	Sample Type	Recovery (%)	SPT (6"-6"-6")	Soil Log	Soil Description	Depth / Elev (ft)	Comments
						Ground Surface	0	
0						Moist, decaying leaves, tree bark, roots	0	GC-IS10-0-1-07C at 0910
	1	MC		NA		**SP-Sand** 7.5 YR 5/2 Brown, f/g, well sorted, loose sand, with <10% fines/silts, (few 5% roots), dry, no odor	-2	
						SP-Sand Same as above	2	
						SC-Clayey Sand 7.5 YR 5/2 Brown mottled with 20% 7.5 YR 6/8 reddish yellow, f/g, med-dense sand, 40% med-stiff clay, dry, no odor	-4 4	
5	2	MC		NA		**SC-Clayey Sand** 10 YR 7/2 Lt gray, f/g, well sorted, dense sand, with 40% med-stiff clay, dry-moist, no odor	-5 5	GC-IS10-3-5-07C at 0925
10	3	MC		NA		**SC-Clayey Sand** Same as above, wet at 11'	-10 10	
						SM-Silty Sand 7.5 YR 6/8 Reddish yellow, f/g, well sorted, med-dense sand, with 20% silts, wet, no odor	-14 14	
15						End of Log	-15 15	
20								

Boring Number: GC-IS10

Client: MCB Camp Lejeune
Project: MILCON
Location: Former Gas Chamber
Project Number: 356052

Driller: American Environmental Drilling
Drilling Method: DPT-6610
Sampling Method: Macro-core
Logged by: G. Salomone/VBO
Start/Finish Date: 7/25/07 0910-0940

Depth (ft)	Sample Information: Sample #	Sample Type	Recovery (%)	SPT (6"-6"-6")	Soil Log	Soil Description	Depth / Elev (ft)	Comments
0						Ground Surface	0	
						leaves, decaying tree roots, branches	0	
						SM-Silty Sand 7.5 YR 3/2 Dk brown, f/g, well sorted, med-dense sand, 30% silts, moist-dry, no odor	-2	GC-IS10-0-1-07C at 0910
	1	MC		NA		**SM-Silty Sand** 10 YR 5/3 brown, f/g, well sorted, loose sand, 10% fines, moist at 4.5', wet at 5', no odor	2	
5							-5	GC-IS10-3-5-07C at 0925
	2	MC		NA		**SM-Silty Sand** 10 YR 6/1 Gray, f/g, well sorted, med-dense, 10% fines, wet, no odor	5	
						SC-Clayey Sand 10 YR 6/1 Gray, f/g sand, well sorted, med-dense, 25% soft clay, wet, no odor	-8	
10						End of Log	-10	
15							10	
20								

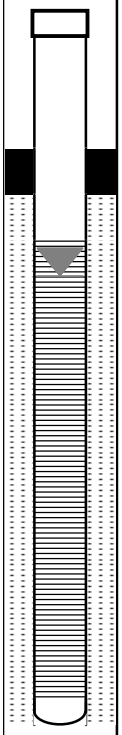
CH2MHILL

Well Number: MR21-MW01

Client: NAVFAC
Project: UXO-21
Location: Camp Lejeune, NC
Project Number: 380666.FI.FK.07

Driller: Probe Technologies
Drilling Method: HA and HSA (Geoprobe 6620 DT)
Sampling Method: Macro-Core
Logged by: L. Petty/CLT
Start/Finish Date: 3/10/2010

Depth (ft)	Sample Info: Sample #	Sample Type	Recovery (in)	Soil Log	Soil Description	PID (ppm)	Comments	Well Construction
-5					Ground Surface			
0	HA-1	DPT	60		**ORGANIC TOPSOIL** **Organic Rich SILTY SAND (OL)** black, poorly graded, moist to saturated, no odor		Hand augered to 5' bgs. Subsurface saturated between 2.5' and 3' bgs	
5	MC-1	DPT	12		**SILTY SAND (SM)** light gray, poorly graded, saturated, no odor **NO RECOVERY**			
10	MC-2	DPT	42		**SILTY SAND (SM)** light gray, poorly graded, saturated, no odor **NO RECOVERY**			
15					End of Log			
20								



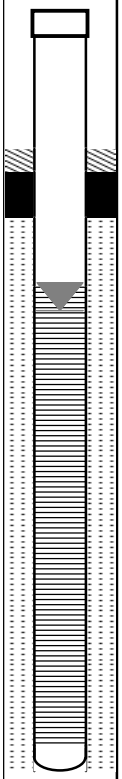
CH2MHILL

Well Number: MR21-MW02

Client: NAVFAC
Project: UXO-21
Location: Camp Lejeune, NC
Project Number: 380666.FI.FK.07

Driller: Probe Technologies
Drilling Method: HA, DPT, HSA (Geoprobe 6620DT)
Sampling Method: Macro-Core
Logged by: L. Petty/CLT
Start/Finish Date: 3/10/2010

Depth (ft)	Sample Info: Sample #	Sample Type	Recovery (in)	Soil Log	Soil Description	PID (ppm)	Comments	Well Construction
-5					Ground Surface			
0					**ORGANIC TOPSOIL**			
	HA-1	HA	60		**SILTY SAND (SM)** gray, poorly graded, moist to saturated, no odor		Hand augered to 5' bgs, subsurface saturated between 3' - 4' bgs.	
5	MC-1	MC	36		**SILTY SAND (SM)** dark brown/gray grading to light gray, poorly graded, saturated throughout, no odor			
					NO RECOVERY			
10	MC-2	MC	60		**SILTY SAND (SM)** light brown grading to gray, poorly graded, saturated throughout, no odor			
15					End of Log			
20								



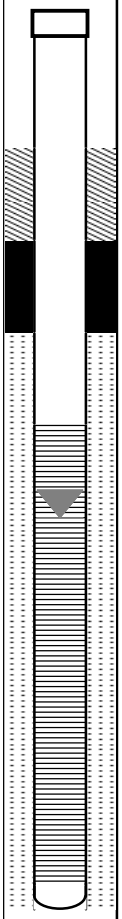
CH2MHILL

Well Number: MR21-MW03

Client: NAVFAC
Project: UXO-21
Location: Camp Lejeune, NC
Project Number: 380666.FI.FK.07

Driller: Probe Technologies
Drilling Method: HA, DPT, HSA (Geoprobe 6620DT)
Sampling Method: Macro-Core
Logged by: L. Petty/CLT
Start/Finish Date: 3/10/2010

Depth (ft)	Sample Info: Sample #	Sample Type	Recovery (in)	Soil Log	Soil Description	PID (ppm)	Comments	Well Construction
-5					Ground Surface			
0	HA-1	HA	60		**ORGANIC TOPSOIL** **SILTY SAND (SM)** light tan to very light tan (almost white), poorly graded, moist, no odor			
5	MC-1	MC	48		**SILTY SAND (SM)** light gray w/orange, poorly graded, moist, no odor **NO RECOVERY**			
10	MC-2	MC	30		**SILTY SAND (SM)** light gray w/orange, poorly graded, saturated, no odor **NO RECOVERY**			
15	MC-3	MC	48		**SILTY SAND (SM)** w/clayey sitly sand stringers, light gray w/orange, poorly graded, saturated, no odor **NO RECOVERY**			
20					End of Log			



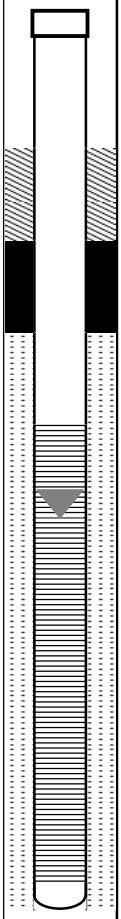
CH2MHILL

Well Number: MR21-MW04

Client: NAVFAC
Project: UXO-21
Location: Camp Lejeune, NC
Project Number: 380666.FI.FK.07

Driller: Probe Technologies
Drilling Method: HA, DPT, HSA (Geoprobe 6620DT)
Sampling Method: Macro-Core
Logged by: L. Petty/CLT
Start/Finish Date: 3/9/2010

Depth (ft)	Sample Info: Sample #	Sample Type	Recovery (in)	Soil Log	Soil Description	PID (ppm)	Comments	Well Construction
-5								
					Ground Surface			
0					**ORGANIC TOPSOIL**			
	HA-1	HA	60		**SILTY SAND (SM)** dark brown to tan, poorly graded, moist, no odor			
5								
	MC-1	MC	36		**SILTY SAND (SM)** w/ clayey silty sand stringers, tan to light gray w/ tan mottling, poorly graded, (clay is not plastic), moist, no odor			
					NO RECOVERY			
10								
	MC-2	MC	30		**SILTY SAND (SM)** w/ clayey silty sand stringers, tan to light gray w/ slight tan mottling at 10'bgs, poorly graded, (clay is not plastic), saturated, no odor			
					NO RECOVERY			
15					End of Log			
20								

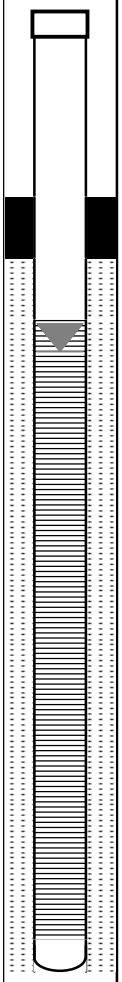


Well Number: MR21-MW05

Client: NAVFAC
Project: UXO-21
Location: Camp Lejeune, NC
Project Number: 380666.FI.FK.07

Driller: Probe Technologies
Drilling Method: HA, DPT, HSA (Geoprobe 6620DT)
Sampling Method: Macro-Core
Logged by: L. Petty/CLT
Start/Finish Date: 3/9/2010 - 3/10/2010

Depth (ft)	Sample Info: Sample #	Sample Type	Recovery (in)	Soil Log	Soil Description	PID (ppm)	Comments	Well Construction
-5					Ground Surface			
0	HA-1	HA	60		**SILTY SANDY ORGANIC SOILS (OL)** dark brown to black, well graded, saturated, no odor		Hand augered to 5' bgs, subsurface saturated at 2.5' bgs.	
5	MC-1	MC	24		**Organic rich SILTY SAND (SM)** black to dark gray, poorly graded, saturated, no odor			
					COBBLES w/ SILTY SAND matrix (GM) black to dark gray, moderately graded, saturated, no odor			
	MC-2	MC	24		**NO RECOVERY**			
10					**COBBLES w/ SILTY SAND matrix (GM)** black and dark gray, well graded, saturated, no odor			
					End of Log			
15								



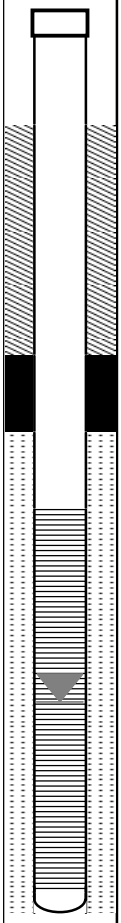
CH2MHILL

Well Number: MR21-MW06

Client: NAVFAC
Project: UXO-21
Location: Camp Lejeune, NC
Project Number: 380666.FI.FK.07

Driller: Probe Technologies
Drilling Method: HA, DPT, HSA (Geoprobe 6620DT)
Sampling Method: Macro-Core
Logged by: L. Petty/CLT
Start/Finish Date: 3/9/10

Depth (ft)	Sample Info: Sample #	Sample Type	Recovery (in)	Soil Log	Soil Description	PID (ppm)	Comments	Well Construction
-5					Ground Surface			
0					**ORGANIC TOPSOIL**			
	HA-1	HA	60		**SILTY SAND (SM)** dark brown to gray w/ tan mottling, poorly graded, moist, no odor			
5					**SILTY SAND (SM)** light gray w/ light tan and orange mottling, poorly graded, moist, no odor			
	MC-1	MC	30		**NO RECOVERY**			
10					**SILTY SAND (SM)** light gray w/ tan mottling, poorly graded, moist, no odor			
	MC-2	MC	36		**NO RECOVERY**			
15					**SILTY SAND (SM)** light gray grading to tan w/ orange, poorly graded, saturated, no odor		Subsurface saturated in 15' to 17.5' bgs interval	
	MC-3	MC	30		**NO RECOVERY**			
20					**SILTY SAND (SM)** light gray w/ orange mottling, poorly graded, saturated, no odor			
	MC-4	MC	~30		**NO RECOVERY**			
25					End of Log			



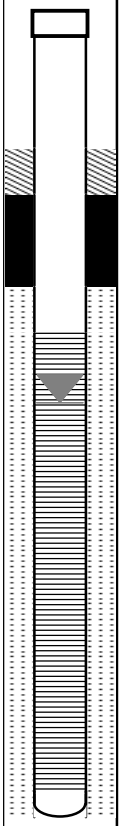
CH2MHILL

Well Number: MR21-MW07

Client: NAVFAC
Project: UXO-21
Location: Camp Lejeune, NC
Project Number: 380666.FI.FK.07

Driller: Probe Technologies
Drilling Method: HA, DPT, HSA (Geoprobe 6620DT)
Sampling Method: Macro-Core
Logged by: L. Petty/CLT
Start/Finish Date: 3/8/2010

Depth (ft)	Sample Info: Sample #	Sample Type	Recovery (in)	Soil Log	Soil Description	PID (ppm)	Comments	Well Construction
-5								
					Ground Surface			
0					**ORGANIC TOPSOIL**			
	HA-1	HA	60		**SILTY SAND (SM)** w/ trace sandy clay stringers, gray to tan, poorly graded, moist to very moist, no odor			
5							Subsurface very moist to saturated between 5' and 6' bgs	
	MC-1	MC	60		**SILTY SAND (SM)** gray, well graded, saturated, no odor			
10					**SILTY SAND (SM)** dark gray grading to light gray, well graded (very fine to fine), saturated, no odor			
	MC-2	MC	60		**SILTY SAND (SM)** light gray, poorly graded, saturated, no odor			
15					**CLAYEY SILTY SAND (SC)** orangy gray, not plastic, very moist, no odor			
					End of Log			
20								



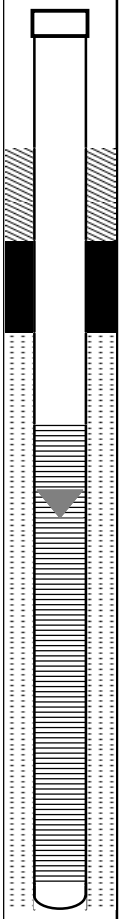
CH2MHILL

Well Number: MR21-MW08

Client: NAVFAC
Project: UXO-21
Location: Camp Lejeune, NC
Project Number: 380666.FI.FK.07

Driller: Probe Technologies
Drilling Method: HA, DPT, HSA (Geoprobe 6620DT)
Sampling Method: Macro-Core
Logged by: L. Petty/CLT
Start/Finish Date: 3/9/2010

Depth (ft)	Sample Info: Sample #	Sample Type	Recovery (in)	Soil Log	Soil Description	PID (ppm)	Comments	Well Construction
-5								
					Ground Surface			
0					**ORGANIC TOPSOIL**			
	HA-1	HA	60		**SILTY SAND (SM)** light gray w/ tan mottling, poorly graded, moist, no odor			
5								
	MC-1	MC	36		**SILTY SAND (SM)** light gray and tan w/ bright orange at ~ 7' bgs, poorly graded, saturated, no odor		Subsurface saturated at 8' bgs	
					NO RECOVERY			
10								
	MC-2	MC	30		**SILTY SAND (SM)** light gray w/ tan mottling, poorly graded, saturated throughout, no odor			
					NO RECOVERY			
15								
					End of Log			
20								



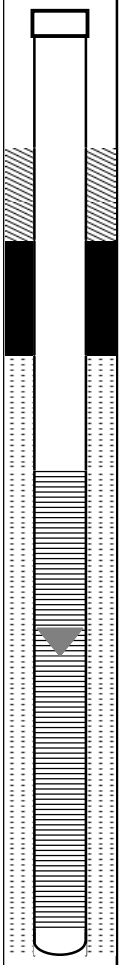
CH2MHILL

Well Number: MR21-MW09

Client: NAVFAC
Project: UXO-21
Location: Camp Lejeune, NC
Project Number: 380666.FI.FK.07

Driller: Probe Technologies
Drilling Method: HA, DPT, HSA (Geoprobe 6620DT)
Sampling Method: Macro-Core
Logged by: L. Petty/CLT
Start/Finish Date: 3/9/2010

Depth (ft)	Sample Info: Sample #	Sample Type	Recovery (in)	Soil Log	Soil Description	PID (ppm)	Comments	Well Construction
-5								
					Ground Surface			
0					**ORGANIC TOPSOIL**			
	HA-1	HA	60		**SILTY SAND (SM)** gray grading to tan, poorly graded, moist, no odor			
5								
	MC-1	MC	30		**SILTY SAND (SM)** w/ clayey sitly sand stringers @ 7.5' bgs, light gray w/ light tan and orange mottling throughout, poorly graded (clay not plastic), moist, no odor			
					NO RECOVERY			
10								
	MC-2	MC	60		**SILTY SAND (SM)** light gray w/ light tan mottling throughout, poorly graded, very moist to saturated throughout, no odor		Subsurface saturated at 11' bgs	
15								
					End of Log			
20								



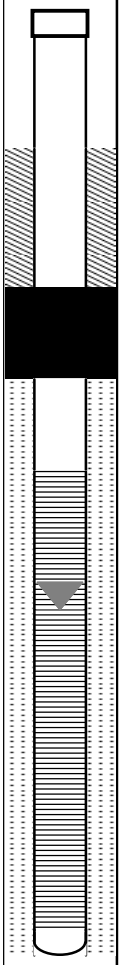
CH2MHILL

Well Number: MR21-MW10

Client: NAVFAC
Project: UXO-21
Location: Camp Lejeune, NC
Project Number: 380666.FI.FK.07

Driller: Probe Technologies
Drilling Method: HA, DPT, HSA (Geoprobe 6620DT)
Sampling Method: Macro-Core
Logged by: L. Petty/CLT
Start/Finish Date: 3/9/2010

Depth (ft)	Sample Info: Sample #	Sample Type	Recovery (in)	Soil Log	Soil Description	PID (ppm)	Comments	Well Construction
-5								
					Ground Surface			
0					**ORGANIC TOPSOIL**			
	HA-1	HA	60		**SILTY SAND (SM)** dark brown grading to light gray w/ some orange mottling, poorly graded, moist, no odor			
5								
	MC-1	MC	30		**SILTY SAND (SM)** w/ clayey silty sand stringers, light gray w/ tan mottling, poorly graded, moist throughout, no odor			
					NO RECOVERY			
10							Subsurface saturated between 10' and 11' bgs	
	MC-2	MC	48		**SILTY SAND (SM)** w/ clayey silty sand stringers, light gray w/ tan mottling w/ bright orange @ 13.5' to 14' bgs, poorly graded, saturated, no odor			
					NO RECOVERY			
15					End of Log			
20								



Appendix C
Land Surveying Data

GAS CHAMBER SAMPLE LOCATION POINTS

POINT ID	NORTING	EASTING	GROUND
IS01	3838338.325	287397.303	
IS08	3838370.571	287357.839	6.850
IS02	3838303.008	287393.076	7.766
IS09	3838316.192	287374.895	
IS07	3838395.62	287322.163	
IS10	3838302.353	287336.969	
IS06	3838377.17	287286.671	
IS04	3838252.661	287329.105	
IS05	3838280.276	287281.027	3.842
IS03	3838269.176	287357.045	

UTM ZONE 18 NORTH NAD 83 METERS
ELEVATION DATUM NAVD 88
REFERENCE MONUMENT PICKETT

NORTH CAROLINA PROFESSIONAL SEAL L-3611 LAND SURVEYOR BRENT A. LANIER

8/21/07

LANIER
SURVEYING COMPANY

134 Cedar Point Boulevard
Cedar Point NC, 28584

QC SEED ITEMS: FORMER TEAR GAS CHAMBER
Date:01-23-09

Datum: UTM ZONE 18 NORTH NAD 83 (NSRS 2007) METERS
Control Reference: North Carolina Geodetic Network
JACKSONVILLE CORS
CASTLE HAYNE CORS
MOREHEAD CITY CORS

SEED ID	NORTHING	EASTING
QC SEED 3	3838300.105	287282.319
QC SEED 2	3838336.225	287263.888
QC SEED 5	3838383.668	287285.031
QC SEED 6	3838297.104	287357.242
QC SEED 4	3838264.842	287315.495
QC SEED 1	3838340.804	287391.810

NORTH CAROLINA PROFESSIONAL SEAL L-3611 LAND SURVEYOR BRENT A. LANIER

Brent A. Lanier
1/23/09

UX021_transect_survey_data_QC seeds_030110

Reference Number	Northing	Easting	Elevation (m)	Stake ID
301	3838267.698	287470.144	8.385	TL-1-1
302	3838284.788	287461.267	8.298	TL-1-2
303	3838301.906	287452.375	8.167	TL-1-3
304	3838318.841	287443.597	8.001	TL-1-4
305	3838335.823	287434.749	7.881	TL-1-5
306	3838352.118	287426.286	7.891	TL-1-6
307	3838368.627	287417.711	7.795	TL1-7
308	3838372.633	287415.674	7.783	TL1-8
309	3838255.893	287463.91	7.626	TL2-1
310	3838272.671	287455.209	7.987	TL2-2
311	3838289.344	287446.538	8.2	TL2-3
312	3838305.075	287438.379	7.506	TL2-4
314	3838338.552	287420.959	7.617	TL2-6
315	3838355.965	287411.937	7.425	TL2-7
316	3838371.963	287403.624	6.929	TL2-8
317	3838389.022	287394.786	6.739	TL2-9
318	3838406.086	287385.908	7.817	TL2-10
319	3838423.142	287377.028	7.925	TL2-11
320	3838245.28	287457.062	7.598	TL3-1
321	3838260.478	287450.116	7.851	TL3-2
323	3838276.2	287440.979	8.425	TL3-3
324	3838293.416	287432.034	8.165	TL3-4
325	3838279.823	287463.87	8.333	TX1-1
326	3838271.535	287447.792	8.269	TX1-2
327	3838264.552	287434.285	8.118	TX1-3
328	3838256.857	287419.37	7.76	TX1-4
329	3838249.928	287405.937	7.251	TX1-5
330	3838243.185	287392.866	6.792	TX1-6
332	3838309.527	287423.688	7.826	TL3-5
334	3838331.704	287412.171	7.656	TL3-7
335	3838235.694	287449.667	7.424	TL4-1
336	3838251.351	287441.533	7.643	TL4-2
338	3838280.948	287426.155	7.928	TL4-4
339	3838296.985	287417.824	8.325	TL4-6
342	3838310.705	287410.67	8.063	TL4-7
343	3838227.016	287441.89	7.219	TL5-1
344	3838241.646	287434.231	7.607	TL5-2
345	3838257.256	287426.106	7.933	TL5-3
347	3838290.661	287408.765	8.439	TL5-5
348	3838295.787	287406.101	8.334	TL5-6
349	3838219.119	287433.314	6.486	TL6-1
350	3838232.919	287426.401	6.746	TL6-2
351	3838248.182	287418.488	7.387	TL6-3
352	3838260.847	287411.885	7.744	TL6-4
353	3838274.796	287404.623	8.315	TL6-5
354	3838283.887	287399.923	8.317	TL6-6
355	3838226.477	287417.307	5.961	TL7-1
356	3838243.133	287408.749	6.845	TL7-2
357	3838259.087	287400.42	7.559	TL7-3

NORTH CAROLINA PROFESSIONAL SEAL L-3729 LAND SURVEYOR G. DARRELL TAYLOR

358	3838274.101	287392.629	8.195	TL7-4	
360	3838205.84	287415.72	6.418	TL8-1	
361	3838220.607	287408.036	5.405	TL8-2	
362	3838237.417	287399.344	6.179	TL8-3	
363	3838254.009	287390.69	7.07	TL8-4	
364	3838265.967	287384.494	7.658	TL8-5	
366	3838200.283	287406.242	6.785	TL9-1	
367	3838216.342	287397.915	6.027	TL9-2	
368	3838229.53	287391.042	5.835	TL9-3	
370	3838259.284	287375.6	7.072	TL9-5	
371	3838236.073	287379.078	6.454	TX1-7	
372	3838228.58	287364.525	6.211	TX1-8	
373	3838224.272	287356.203	6.101	TX1-9	
374	3838217.571	287343.152	6.287	TX1-10	
375	3838209.728	287327.966	5.787	TX1-11	
376	3838201.76	287312.581	5.658	TX1-12	
377	3838194.095	287297.666	5.376	TX1-13	
380	3838205.958	287391.138	6.099	TL10-2	
381	3838215.159	287386.323	5.537	TL10-3	
382	3838224.792	287381.331	5.729	TL10-4	
383	3838227.395	287380.792	5.839	TL10-5	
385	3838241.765	287372.329	6.593	TL10-6	
386	3838253.96	287366.001	6.534	TL10-7	
387	3838191.293	287386.181	7.334	TL11-1	
388	3838206.533	287378.274	5.274	TL11-2	
389	3838217.615	287372.506	5.652	TL11-3	
390	3838218.833	287372.23	5.721	QCC-1	QC Seed #1
391	3838233.681	287364.183	6.231	TL11-4	
392	3838249.958	287355.715	6.021	TL11-5	
394	3838187.947	287375.572	6.043	TL12-1	
395	3838200.422	287369.53	5.326	TL12-2	
397	3838210.175	287364.016	6.156	TL12-3	
398	3838225.44	287356.099	6.158	TL12-4	
399	3838238.106	287349.522	5.736	TL12-5	
400	3838247.372	287344.686	5.853	TL12-6	
402	3838185.328	287364.552	6.257	TL13-1	
403	3838201.787	287356.021	5.85	TL13-2	
404	3838216.999	287348.12	6.316	TL13-3	
405	3838232.663	287339.946	5.875	TL13-4	
406	3838246.374	287332.847	6.177	TL13-5	
408	3838183.518	287353.126	6.201	TL14-1	
409	3838199.056	287345.044	5.746	TL14-2	
410	3838215.03	287336.759	5.974	TL14-3	
411	3838229.919	287329.018	6.404	TL14-4	
412	3838247.24	287320.034	6.307	TL14-5	
415	3838182.516	287341.034	5.927	TL15-1	
416	3838200.242	287332.038	5.387	TL15-2	
417	3838204.699	287328.542	5.514	TL15-3	
419	3838218.957	287322.353	6.339	TL15-4	
420	3838226.324	287318.534	6.563	TL15-5	
421	3838243.455	287309.645	6.384	TL15-6	
422	3838250.711	287305.866	6.007	TL15-7	

425	3838197.317	287321.224	5.3	TL16-2	
426	3838212.98	287313.091	6.371	TL16-3	
427	3838225.619	287306.526	6.308	TL16-4	
428	3838241.683	287298.206	6.335	TL16-5	
429	3838258.486	287289.464	5.856	TL16-6	
432	3838205.95	287304.394	5.703	TL17-2	
433	3838217.894	287298.208	6.002	TL17-3	
434	3838234.319	287289.658	5.949	TL17-4	
438	3838186.431	287302.156	5.389	TL18-1	
439	3838202.218	287293.954	5.191	TL18-2	
440	3838216.052	287286.799	5.321	TL18-3	
441	3838231.819	287278.578	5.411	TL18-4	
442	3838247.017	287270.684	4.302	TL18-5	
445	3838213.15	287263.553	4.831	TL20-2	
446	3838228.082	287255.801	4.958	TL20-3	
447	3838244.538	287247.171	4.498	TL20-4	
448	3838212.807	287251.396	4.779	TL21-1	
450	3838242.569	287235.856	5.229	TL21-3	
451	3838223.631	287233.369	4.806	TL22-1	
452	3838237.572	287226.157	5.271	TL22-2	
454	3838254.756	287217.196	5.744	TL22-4	
456	3838264.93	287236.666	4.656	TL20-5	
462	3838289.954	287211.299	4.68	TL21-5	
464	3838281.133	287203.496	3.653	TL22-5	
465	3838296.546	287195.498	6.346	TL22-6	
466	3838308.727	287189.19	8.703	TL22-7	
468	3838318.583	287196.413	9.137	TL21-7	
469	3838335.27	287187.759	9.038	TL21-8	
470	3838335.603	287187.59	9.019	TL21-9	
471	3838321.644	287207.193	6.588	TL20-9	
472	3838334.151	287200.721	9.079	TL20-10	
474	3838355.563	287189.599	9.329	TL20-12	
475	3838300.795	287242.732	5.124	TL18-6	
476	3838311.676	287235.627	6.451	TL18-7	
480	3838358.799	287212.648	8.302	TL18-10	
482	3838386.411	287198.301	8.906	TL18-12	
484	3838296.658	287257.283	5.295	TL17-6	
486	3838326.416	287241.813	8.479	TL17-8	
487	3838342.147	287233.654	8.701	TL17-9	
488	3838358.486	287225.187	7.702	TL17-10	
489	3838374.388	287216.895	6.841	TL17-11	
490	3838377.455	287215.888	6.843	QCC-2	QC Seed #2
491	3838390.195	287208.711	7.75	TL17-12	
492	3838399.053	287204.099	8.594	TL17-13	
493	3838331.377	287251.604	8.405	TL16-7	
494	3838346.497	287243.765	7.592	TL16-8	
496	3838368.195	287206.52	8.571	TX2-1	
497	3838373.735	287217.201	6.83	TX2-2	
498	3838362.928	287235.239	6.721	TL16-9	
499	3838379.318	287226.708	5.427	TL16-10	
500	3838394.891	287218.634	6.258	TL16-11	
501	3838410.34	287210.604	8.349	TL16-12	

502	3838378.972	287227.36	5.422	TX2-3
503	3838335.584	287252.052	7.775	TL16-7A
504	3838338.014	287246.495	7.787	TL16-7B
505	3838351.88	287239.768	7.669	TL16-8A
506	3838388.657	287228.669	4.711	TL16-10A
507	3838392.257	287220.221	6.016	TL16-10B
509	3838350.282	287253.414	5.673	TL15-8
510	3838358.064	287246.057	5.805	TL15-9
511	3838366.244	287245.612	4.598	TL15-10
512	3838376.266	287239.195	4.49	TL15-11
513	3838393.11	287231.67	4.663	TL15-12
514	3838409.737	287222.959	6.488	TL15-13
515	3838420.539	287217.67	7.741	TL15-14
516	3838383.646	287236.412	4.166	TX2-4
518	3838369.193	287256.875	3.382	TL14-6
519	3838380.398	287250.774	3.507	TL14-7
520	3838387.923	287245.569	3.395	TL14-8
521	3838396.959	287242.308	3.481	TL14-9
522	3838411.11	287235.049	4.295	TL14-10
523	3838416.725	287230.91	5.495	TL14-11
524	3838424.287	287228.459	6.258	TL14-12
525	3838429.772	287225.316	6.852	TL14-13
526	3838388.343	287245.485	3.346	TX2-5
528	3838373.841	287266.649	5.29	TL13-6
529	3838390.174	287258.338	6.241	TL13-7
530	3838395.874	287254.46	5.859	TL13-8
531	3838412.506	287247.3	5.199	TL13-9
532	3838431.175	287237.28	5.077	TL13-10
533	3838438.077	287233.291	5.812	TL13-11
534	3838393.635	287255.703	6.011	TX2-6
537	3838382.941	287274.303	6.206	TL12-7
538	3838390.419	287269.191	6.993	TL12-8
539	3838402.661	287264.903	7.488	TL12-9
540	3838407.169	287259.938	6.857	TL12-10
541	3838423.486	287253.61	5.511	TL12-11
542	3838434.656	287248.652	5.057	TL12-12
543	3838399.14	287266.381	7.528	TX2-7
545	3838390.47	287282.743	7.23	TL11-6
546	3838406.751	287273.689	8.425	TL11-7
547	3838419.747	287266.734	7.617	TL11-8
548	3838425.533	287264.732	7.006	TL11-9
549	3838429.327	287260.061	6.252	TL11-10
550	3838438	287260.056	6.157	TL11-11
551	3838446.612	287252.837	5.648	TL11-12
552	3838403.945	287275.648	8.345	TX2-8
554	3838396.57	287291.94	7.763	TL10-8
555	3838408.78	287287.932	8.292	TL10-9
556	3838410.277	287284.606	8.486	TL10-10
557	3838427.319	287275.759	8.211	TL10-11
558	3838433.965	287274.068	7.795	TL10-12
559	3838440.184	287269.019	7.006	TL10-13
560	3838444.789	287268.647	7.029	TL10-14

561	3838453.576	287261.284	6.231	TL10-15
562	3838457.068	287259.43	5.744	TL10-16
563	3838409.578	287286.57	8.326	TX2-9
565	3838401.348	287301.808	8.077	TL9-6
566	3838403.974	287299.306	8.148	TL9-7
567	3838417.516	287294.299	8.117	TL9-8
568	3838433.623	287284.67	8.319	TL9-9
569	3838436.874	287281.947	8.222	TL9-10
570	3838444.446	287279.659	8.093	TL9-11
571	3838461.338	287270.556	7.344	TL9-12
572	3838414.421	287295.92	8.091	TX2-10
573	3838420.2	287304.168	8.269	TL8-7
574	3838436.34	287295.62	8.381	TL8-8
575	3838448.26	287289.744	8.52	TL8-9
576	3838452.574	287289.104	8.694	TL8-10
577	3838455.416	287285.334	8.681	TL8-11
578	3838468.094	287282.188	8.582	TL8-12
579	3838419.081	287304.958	8.309	TX2-11
581	3838406.811	287323.712	8.862	TL7-5
582	3838422.973	287314.897	8.422	TL7-6
583	3838428.58	287311.946	8.441	TL7-7
584	3838430.152	287308.556	8.441	TL7-8
585	3838442.723	287305.446	8.175	TL7-9
586	3838458.64	287295.865	8.387	TL7-10
587	3838471.964	287290.293	8.873	TL7-11
588	3838423.974	287314.451	8.407	TX2-12
590	3838407.12	287335.918	8.452	TL6-7
591	3838422.716	287327.437	8.508	TL6-8
592	3838438.946	287319.192	8.135	TL6-9
593	3838455.168	287311.499	7.911	TL6-10
594	3838471.683	287303.211	8.393	TL6-11
595	3838475.03	287300.651	8.663	TL6-12
596	3838429.054	287324.323	8.448	TX2-13
598	3838404.829	287312.393	8.49	TL8-6
601	3838412.823	287346.116	8.415	TL5-8
602	3838419.144	287341.761	8.621	TL5-9
603	3838430.895	287335.894	8.463	TL5-10
604	3838434.69	287333.059	8.452	TL5-11
605	3838441.671	287330.33	8.108	TL5-12
606	3838446.945	287326.027	7.933	TL5-13
607	3838463.033	287318.653	7.969	TL5-14
608	3838466.936	287316.591	8.023	TL5-15
609	3838473.098	287310.882	8.187	TL5-16
610	3838433.86	287333.512	8.469	TX2-14
612	3838400.489	287364.09	7.609	TL4-8
613	3838408.406	287361.121	7.826	TL4-9
614	3838412.068	287358.296	8.045	TL4-10
615	3838428.365	287350.624	8.589	TL4-11
616	3838435.11	287345.845	8.363	TL4-12
617	3838448.051	287341.418	8.103	TL4-13
618	3838453.899	287337.048	7.947	TL4-14
619	3838467.029	287330.279	7.779	TL4-15

620	3838477.238	287323.411	7.799	TL4-16
621	3838439.181	287343.875	8.302	TX2-15
623	3838390.927	287381.761	6.911	TL3-8
624	3838408.704	287372.288	7.597	TL3-9
625	3838421.356	287363.498	8.17	TL3-10
626	3838438.611	287357.446	8.403	TL3-11
628	3838321.823	287429.183	7.467	TL2-5M
629	3838378.848	287398.262	6.488	TL2-8A
630	3838439.021	287368.558	8.137	TL2-12
631	3838455.798	287360.085	7.634	TL2-13
632	3838472.981	287351.363	7.341	TL2-14
633	3838478.759	287348.167	7.27	TL2-15
634	3838449.039	287355.184	8.072	TL3-12
635	3838462.148	287345.446	7.674	TL3-13
636	3838472.838	287341.971	7.473	TL3-14
637	3838477.809	287334.614	7.543	TL3-15
638	3838445.523	287356.176	8.22	TX2-16
639	3838449.161	287363.163	7.775	TX2-17
640	3838454.333	287373.19	7.883	TX2-18
642	3838266.911	287444.883	8.109	TL3-2A
643	3838322.562	287415.634	7.619	TL3-6M
644	3838293.574	287417.706	8.302	TL4-5M
645	3838238.941	287449.114	7.727	TL4-1A
646	3838245.746	287443.757	7.669	TL4-1B
647	3838260.533	287436.866	7.991	TL4-2A
648	3838270.602	287434.965	8.179	TL4-3M
649	3838239.656	287441.654	7.623	TL5-1A
650	3838247.681	287432.351	7.483	TL5-2A
651	3838253.052	287426.466	7.599	TL5-2B
652	3838271.569	287415.445	8.004	TL5-4M
653	3838279.976	287400.297	8.38	TL6-5A
654	3838227.419	287430.951	6.682	TL6-1A
655	3838240.561	287424.255	7.045	TL6-2A
656	3838252.195	287422.947	7.615	TL6-3A
657	3838262.042	287386.373	7.474	TL8-4A
658	3838262.418	287382.734	7.492	TL8-4B
660	3838208.057	287400.187	6.468	TL9-1A
661	3838241.522	287383.335	6.558	TL9-3A
662	3838253.433	287378.802	6.912	TL9-4M
664	3838234.017	287376.216	6.582	TL10-5A
665	3838237.628	287376.297	6.598	TL10-5B
667	3838198.898	287397.743	6.883	TL10-1M
668	3838202.113	287380.005	6.021	TL11-1A
669	3838217.751	287361.295	6.23	TL12-3A
670	3838229.819	287347.652	6.018	TL12-4A
671	3838210.226	287327.933	5.729	TL15-3A
672	3838204.555	287316.805	5.779	TL16-2A
673	3838192.816	287310.225	5.225	TL17-1M
674	3838202.343	287303.38	5.568	TL17-1A
675	3838196.801	287295.548	5.513	TL18-1A
676	3838182.216	287327.048	5.909	TL16-1M
677	3838229.746	287292.097	5.923	TL17-3A

678	3838234.192	287292.938	6.037	TL17-3B
679	3838249.714	287282.59	5.832	TL17-5M
680	3838197.027	287271.933	4.835	TL20-1M
681	3838222.127	287260.876	5.087	TL20-2A
683	3838232.2	287252.744	4.723	TL20-3A
684	3838239.86	287250.341	4.5	TL20-3B
685	3838254.579	287242.509	3.964	TL20-4A
686	3838270.224	287235.356	4.729	TL20-5A
687	3838220.917	287247.623	5.153	TL21-1A
688	3838226.618	287246.915	4.893	TL21-2M
689	3838233.742	287240.614	4.91	TL21-2A
690	3838250.524	287232.085	4.803	TL21-3A
691	3838259.289	287224.406	3.959	TL21-3B
692	3838226.761	287233.539	4.813	TL22-1A
693	3838245.11	287221.896	5.648	TL22-3M
694	3838244.606	287215.111	5.345	TL22-3A
697	3838281.385	287228.913	4.063	TL20-6M
698	3838289.385	287224.197	4.781	TL20-7M
699	3838290.577	287217.344	4.62	TL20-7A
700	3838303.645	287214.306	5.256	TL20-8M
701	3838275.423	287219.554	3.552	TL21-4M
702	3838291.785	287208.393	5.038	TL21-5A
703	3838303.111	287203.306	6.813	TL21-6M
705	3838311.713	287213.711	5.441	TL20-8A
706	3838343.119	287194.388	8.856	TL20-10A
707	3838349.983	287193.676	9.026	TL20-11M
708	3838325.823	287194.864	9.231	TL21-7A
709	3838303.924	287238.583	4.902	TL18-6A
710	3838321.934	287231.057	8.107	TL18-7A
711	3838328.637	287231.802	8.562	TL18-8M
712	3838337.077	287228.309	8.712	TL18-8A
713	3838346.139	287223.68	8.468	TL18-9M
714	3838348.767	287217.861	8.215	TL18-9A
715	3838374.675	287203.354	8.992	TL18-11M
717	3838383.411	287212.843	7.195	TL17-11A
718	3838313.253	287249.302	7.873	TL17-7M

UXO21_addl_transect_survey-data-030410

Reference Number	Northing	Easting	Elevation (m)	Stake ID
720	3838373.873	287410.5	7.081	TL23-6
721	3838391.434	287400.967	6.823	TL23-7
722	3838409.024	287391.576	7.791	TL23-8
723	3838426.746	287382.344	8.062	TL23-9
724	3838444.401	287373.016	8.118	TL23-10
725	3838462.275	287364.086	7.801	TL23-11
726	3838480.094	287355.039	7.535	TL23-12
727	3838477.932	287353.158	7.527	TL31-9
728	3838460.179	287362.355	7.702	TL31-8
729	3838442.429	287371.504	8.101	TL31-7
730	3838424.721	287380.583	8.001	TL31-6
731	3838407.056	287389.932	7.633	TL31-5
732	3838389.369	287399.176	6.793	TL31-4
733	3838371.649	287408.388	7.045	TL31-3
734	3838353.761	287417.305	7.372	TL31-2
735	3838335.774	287425.979	7.549	TL31-1
736	3838356.135	287419.625	7.427	TL23-5
737	3838338.668	287429.292	7.578	TL23-4
738	3838320.987	287438.613	7.56	TL23-3
739	3838294.225	287452.157	7.932	TL23-2
740	3838267.361	287465.336	7.846	TL23-1
741	3838283.72	287414.626	8.183	TL28-1
742	3838273.3	287396.676	8.229	TL28-2
743	3838254.191	287374.97	6.858	TL28-3
744	3838247.061	287356.324	6.02	TL28-4
746	3838227.028	287332.223	6.182	TL28-4A
747	3838208.899	287317.296	5.943	TL28-5
748	3838235.432	287320.219	6.561	TL30-1
749	3838236.553	287316.257	6.429	TL32-4
750	3838231.576	287304.122	6.413	TL32-3
751	3838224.504	287293.057	5.794	TL32-2
752	3838217.769	287282.478	5.361	TL32-1
753	3838223.552	287298.067	6.054	TL30-2
754	3838186.332	287299.799	5.614	TL24-1
755	3838202.112	287287.236	5.243	TL24-2
756	3838217.798	287275.218	4.901	TL24-3
757	3838186.762	287295.955	5.553	TL26-1
758	3838202.65	287283.87	5.227	TL26-2
759	3838218.85	287272.18	4.941	TL26-3
760	3838189.069	287291.586	5.43	TL25-1
761	3838196.971	287285.518	5.263	TL25-2
762	3838213.055	287273.674	5.012	TL25-3
764	3838373.233	287192.537	8.076	TL25-12
765	3838354.95	287200.51	7.294	TL25-11
766	3838336.6	287208.423	6.493	TL25-10
767	3838318.608	287217.068	5.881	TL25-9
768	3838300.651	287225.855	5.381	TL25-8
769	3838282.864	287235.058	4.965	TL25-7
770	3838264.912	287243.832	4.606	TL25-6

NORTH CAROLINA PROFESSIONAL SEAL L-3729 LAND SURVEYOR G. DARRELL TAYLOR

771	3838246.942	287252.508	4.557	TL25-5
772	3838229.507	287262.286	4.732	TL25-4
773	3838235.797	287261.559	4.709	TL26-4
774	3838252.115	287252.073	4.467	TL26-5
775	3838271.262	287243.194	4.811	TL26-6
776	3838289.204	287234.515	5.15	TL26-7
777	3838307.032	287225.47	5.612	TL26-8
778	3838324.949	287216.675	6.134	TL26-9
779	3838343.089	287208.242	6.785	TL26-10
780	3838361.307	287200.082	7.575	TL26-11
781	3838376.913	287193.505	8.218	TL26-12
782	3838380.072	287195.023	8.243	TL24-12
783	3838360.354	287203.231	7.431	TL24-11
784	3838342.39	287211.89	6.722	TL24-10
785	3838324.206	287220.239	6.105	TL24-9
786	3838306.171	287228.786	5.578	TL24-8
787	3838288.221	287237.501	5.123	TL24-7
788	3838270.356	287246.398	4.805	TL24-6
789	3838252.576	287255.524	4.549	TL24-5
790	3838234.847	287264.739	4.725	TL24-4
794	3838198.33	287381.548	6.352	TL27-1
795	3838210.98	287399.723	6.398	TL27-2
796	3838215.447	287411.677	5.811	TL27-3

UX021_survey-data-monitoring-wells_soil_samples

Reference Number	Northing	Easting	Elevation (m)	Station ID
798	3838256.404	287463.495	7.625	MR21-SS20
799	3838310.521	287434.632	7.54	MR21-SS24
800	3838240.913	287410.035	6.696	MR21-SS19
802	3838225.099	287407.926	4.932	MR21-SW02
803	3838225.073	287407.892	5.051	WATER ELEV
804	3838200.998	287396.035	6.762	MR21-SS13
805	3838237.271	287360.077	6.107	MR21-SS18
807	3838257.953	287437.644	8.859	MR21-MW04
808	3838278.095	287417.519	8.01	MR21-SS22
809	3838271.27	287388.637	7.918	MR21-SS21
811	3838320.007	287417.215	7.667	MR21-SS27
812	3838375.949	287399.06	7.126	MR21-MW07
813	3838394.346	287391.86	7.173	MR21-SS31
814	3838269.336	287369.578	7.802	MR21-MW03
815	3838201.274	287344.005	6.763	MR21-MW01
816	3838196.61	287307.834	5.458	MR21-SS12
817	3838187.069	287313.606	4.686	MR21-SW01
818	3838187.118	287313.54	5.015	WATER ELEV
819	3838237.372	287289.034	5.908	MR21-SS16
820	3838246.481	287319.302	6.164	MR21-SS17
822	3838426.861	287374.638	8.969	MR21-MW09
823	3838467.734	287353.138	7.459	MR21-SS40
824	3838438.876	287344.203	8.304	MR21-SS38
826	3838443.081	287319.018	7.971	MR21-SS39
828	3838459.414	287271.641	8.468	MR21-MW10
829	3838425.13	287277.881	8.384	MR21-SS37
830	3838428.832	287225.447	6.837	MR21-SS36
832	3838402.988	287264.784	7.447	MR21-SS35
833	3838417.557	287240.694	3.12	MR21-SW06
834	3838417.665	287240.699	3.292	WATER ELEV
835	3838393.624	287218.005	6.284	MR21-SS32
837	3838359.74	287264.875	3.027	MR21-SW05
838	3838359.794	287264.755	3.264	WATER ELEV
839	3838385.351	287271.087	7.332	MR21-MW08
840	3838402.991	287316.632	8.614	MR21-SS33
841	3838402.616	287351.943	8.034	MR21-SS34
843	3838335.456	287252.261	7.797	MR21-SS28
844	3838300.915	287254.845	5.971	MR21-SS25
845	3838291.975	287216.758	4.686	MR21-SS23
846	3838295.708	287196.194	6.165	MR21-SS26
847	3838321.19	287196.525	10.045	MR21-MW06
848	3838341.415	287195.078	8.846	MR21-SS29
849	3838351.495	287215.76	8.301	MR21-SS30
851	3838282.209	287272.197	2.734	MR21-SW04
852	3838282.24	287272.207	3.072	WATER ELEV
853	3838274.187	287265.343	4.8	MR21-MW05
854	3838238.418	287238.344	5.187	MR21-SS15
856	3838271.16	287219.663	2.377	MR21-SW03
857	3838271.184	287219.719	3.039	WATER ELEV

NORTH CAROLINA PROFESSIONAL SEAL L-3729 LAND SURVEYOR G. DARRELL TAYLOR

858	3838212.544	287251.38	4.676	MR21-SS11
860	3838223.158	287283.358	6.333	MR21-MW02

Appendix D
Groundwater Sampling Data Sheets

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client: CH2M HILL - NAVY
Location: Former Gas Chamber
Event: MILCON
Date: 7-25-07
Weather: Mid overcast, wind 0-10 mph Temp Mid 90's

Project Number: 356052
Well ID: GC-TW02
Sample ID: GC-TW02-07C
Sampling Team: LS, MW

Total Depth: 14.22 ~~15.06~~ FT.(BTOC)
Depth to water: 20.05 (-) ~~13.16~~ FT.(BTOC)
Water Column: 5.83 ~~1.9~~ FT.
(x) 0.041 GAL/FT.
Well Volume: 0.23903 ~~0.0779~~ GAL.
Total Purge Vol.: — GAL.
Total Vol. Purged: Gal.
Purge Device: Peristaltic Pump, new HDPE tubing

Measuring Device: Horiba Micro TPI
Date and Time: 7-25-07

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: 7-25-07 Time: 1410	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP (redox) mV	Turbidity NTU	Other: ____	Depth to water	Color / Odor / Comments
Method:							—	—	

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP (redox) mV	Turbidity NTU	Other: ____	Depth to water (ft)	Color / Odor / Comments
1345	0.75	21.34	0.062	1.92	4.78	110	672.8	—	—	Lt. Brown / None
1350	1.0	21.44	0.060	1.58	4.75	113	217.7	—	—	" "
1355	1.25	21.36	0.061	1.49	4.72	114	63.13	—	—	" "
1400	1.5	21.20	0.061	1.34	4.70	116	24.03	—	—	" "
1405	1.75	21.14	0.061	1.23	4.68	116	12.99	—	—	" "

Sample information: method, container number, size, and type, preservative used.

Analysis	Preservative	Container requirements		No. of containers
VOCs	HCL			3
~~MEE~~ 5 VOCs	~~HCL~~			2
~~Alk, Anions, Ferrous Iron~~ Tear Gas (CN, CS)	—			1
~~Sulfide~~				~~1~~
~~TOC~~				~~1~~
~~Ferric Iron~~ Metals - Total + Dissolved	HNO3			2

Observations/Notes: BP: 1140 - Purged dry - reset well 19.00 → 1335
EP: 1402
BS: 1410
ES: 1440

Cannot take DTW - Probe does not fit into 1" well w/ Tubing
~~1.00~~ Stick up: 22"
→ TMW-02 - 0-14' 1" Sch 40 pvc riser
14-19' 1" 0.010" slot screen

Flow rate =

Ferrous Iron =

MS/MSD N/A

Duplicate ID No.: N/A

Signature(s): [signature]

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client: CH2MHILL - NAVY
Location: Former Gas Chamber
Event: MILCON
Date: 7-25-07
Weather: Mid Overcast, wind 0-10mph, Temp 80s

Project Number: 356052
Well ID: GC-TW05
Sample ID: GC-TW05-07C
Sampling Team: JS, MW

Total Depth: 10.05 FT.(BTOC)
Depth to water: (-) 2.50 FT.(BTOC)
Water Column: 7.55 FT.
(x) 0.041 GAL/FT.
Well Volume: 0.30955 GAL.
Total Purge Vol.: — GAL.
Total Vol. Purged 2.5 Gal.
Purge Device: Peristaltic Pump, new HDPE tubing

Measuring Device: Horiba, Micro TII
Date and Time: 7-25-07

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: 7-25-07 Time: 1050	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP (redox) mV	Turbidity NTU	Other: ____	Depth to water	Color / Odor / Comments
Method:	19.79	0.422	6.58	7.15	-98	9.53	—	N/A	clear / none

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP (redox) mV	Turbidity NTU	Other: ____	Depth to water (ft)	Color / Odor / Comments
1032	0.75	19.25	0.415	7.07	6.77	-59	134.5	—	N/A	tint / none
1037	1.25	19.15	0.405	6.89	6.92	-82	16.71	—	N/A	clear / none
1042	1.75	19.80	0.406	7.45	6.99	-89	11.19	—	N/A	" "
1047	2.25	19.79	0.422	6.58	7.15	-98	9.53	—	N/A	" "

Sample information: method, container number, size, and type, preservative used.

Analysis	Preservative	Container requirements		No. of containers
VOCs	HCL			3
~~MEE~~ 5 VOCs	~~HCL~~			2
~~Alk, Anions, Ferrous Iron~~ Tear Gas (CN, CS)	—			1
~~Sulfide~~				~~1~~
~~TOC~~				~~1~~
~~Ferric Iron~~ Metals - Total / Dissolved	HNO3			2

Observations/Notes: BP: 1027
Flow rate = CP: 1049
BS: 1050
Ferrous Iron = BS: 1115

Cannot take DTW - Probe doesn't fit into 1" well w/ tubing
*DO: High readings - a lot of bubbles in flow through cell
Stickup: 12"

MS/MSD N/A
Duplicate ID No.: N/A

Signature(s):

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client: CH2M HILL - NAVY
Location: Former Gas Chamber
Event: MILCON
Date: 7-25-07
Weather: Mid-overcast, wind 0-10mph, Temp - Mid 80's

Project Number: 356052
Well ID: GC-TW08
Sample ID: GC-TW08-076
Sampling Team: LS, MW

Total Depth: 14.70 FT.(BTOC)
Depth to water: (-) 11.00 FT.(BTOC)
Water Column: 3.70 FT.
(x) 0.041 GAL/FT.
Well Volume: 0.1517 GAL.
Total Purge Vol.: GAL.
Total Vol. Purged: 8.5 Gal.
Purge Device: Peristaltic Pump, new HDPE tubing

Measuring Device: Horiba Model TPI
Date and Time: 7-25-07

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: 7-25-07 Time: 1305	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP (redox) mV	Turbidity NTU	Other: ____	Depth to water	Color / Odor / Comments
Method:							—	—	

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP (redox) mV	Turbidity NTU	Other: ____	Depth to water (ft)	Color / Odor / Comments
1220	1.0	19.35	0.073	0.96	5.19	59	683.2	—	—	Gray-cloudy / methane
1225	2.5	19.32	0.071	0.62	4.91	66	722.7	—	—	" "
1230	3.5	19.41	0.070	0.48	4.84	64	324.9	—	—	Gray cloudy / methane
1237	4.5	19.33	0.070	0.38	4.84	63	244.0	—	—	Gray cloudy / "
1245	5.5	19.30	0.069	0.53	4.82	61	180.9	—	—	Lt Gray cloudy / methane
1250	6.5	19.22	0.069	0.54	4.82	59	147.2	—	—	" "
1255	7.5	19.30	0.069	0.45	4.81	58	122.5	—	—	" "
1300	8.5	19.31	0.069	0.38	4.81	57	99.86	—	—	" "

Sample information: method, container number, size, and type, preservative used.

Analysis	Preservative	Container requirements		No. of containers
VOCs	HCL			3
~~MEE~~ 5 VOCs	~~HCL~~			2
~~Alk, Anions, Ferrous Iron~~ Tear Gas (CN, CS)	—			1
~~Sulfide~~				1
~~TOC~~				1
~~Ferric Iron~~ Metals - Total + Dissolved	HNO3			2

Observations/Notes: BP: 1213
Flow rate = EP: 1303
BS: 1305
Ferrous Iron = ES: 1325

- Cannot take DTW - Probe does not fit into 1" well w/ Tubing
Stickup = 30"
Turb High - ~100 NTU - Take sample - purged ~8.5 gal

MS/MSD N/A
Duplicate ID No.: N/A

Signature(s):

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client:	NAVFAC Mid-Atlantic	Project Number:	380666.FI.FK.07
Location:	MCB Camp Lejeune	Well ID:	MRZ1-MW01
Event:	UXO-21 Groundwater Sampling	Sample ID:	MRZ1-GW01-100
Date:	4/10/10	Sampling Team:	D. Seed / RDU
Weather:	80°		

Total Depth:	12	FT.(BTOC)	Water Quality Meter:	YSI 556 #13967
Depth to water:	(-) 5.90	FT.(BTOC)	Depth to Water / Date and Time:	
Water Column:	6.1	FT.		
	(x) 0.163	GAL/FT.		
Well Volume:	0.98	GAL. x3= 2.94		
Total Purge Vol.:	4.0	GAL.		
Purge Device:	Bladder Pump			
Pump Inlet Depth	9	FT.(BTOC)		

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: 4/10/10 Time: 1550	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Depth to water (ft bgs)	Color / Odor / Comments
Method: Low flow	14.26	0.152	1.03	4.42	110	8.60		

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	± 3%	± 10%	± 0.1	± 10 mv	<10		
1510	0.8	14.48	0.130	2.96	4.76	205	86.4		
1520	1.6	14.31	0.144	0.07	4.51	177.9	27.2		
1530	2.4	14.19	0.148	1.50	4.48	154	20.0		
1540	3.2	14.21	0.151	1.26	4.44	126	13.6		
1545	3.6	14.26	0.151	1.03	4.41	109	10.4		
1550	4.0	14.26	0.152	1.03	4.42	110	8.60		

Analysis	Preservative	Container requirements	No. of containers
VOCs	HCl		
SVOCs			
Explosives Residues			
Perchlorate			
TAL metals	HNO_3		

Observations/Notes: Purge Start Time: 1500 Purge Rate: 0.3 L/min

MS/MSD Duplicate ID No.: MRZ1-GW010-100 @ 1555

Signature(s):

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client:	NAVFAC Mid-Atlantic	Project Number:	380666.FI.FK.07
Location:	UXO-21	Well ID:	MR21 - MWØ2
Event:	UXO-21 Groundwater Sampling	Sample ID:	MR21 - GWØ2 - 1ØB
Date:	4-10-10	Sampling Team:	Matt W., David S.
Weather:	Sunny 75°F		

Total Depth:	16.20	FT.(BTOC)	Water Quality Meter:	YSI 556
Depth to water:	(-) 6.25	FT.(BTOC)	Depth to Water / Date and Time:	6.25 4-10-10 1600
Water Column:	9.95	FT.		
	(x) .163	GAL/FT.		
Well Volume:	1.621	GAL. X3		
Total Purge Vol.:	4.865	GAL.		
Purge Device:	Bladder Pump			
Pump Inlet Depth	10.00	FT.(BTOC)		

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: 4-10-10 Time: 1835	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Depth to water (ft bgs)	Color / Odor / Comments
Method: Low Flow	15.09	0.054	3.28	4.45	238.6	75.0	6.56	

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	± 3%	± 10%	± 0.1	± 10 mv	<10		
1620	.85	16.30	0.054	2.95	4.62	222.0	860	6.00	
1640	1.25	15.51	0.051	5.00	4.58	230.1	941	6.55	
1650	2.15	15.23	0.051	4.44	4.52	240.2	817	6.56	
1700	3.00	15.21	0.052	4.19	4.50	244.8	850	6.56	
1710	3.85	15.18	0.052	3.88	4.47	250.7	500	6.56	
1720	4.75	15.18	0.052	3.91	4.47	251.3	450	6.56	
1730	5.65	15.17	0.052	3.67	4.45	257.4	330	6.56	
1750	7.30	15.17	0.052	3.46	4.44	258.2	170	6.56	
1810	10.10	15.13	0.053	3.38	4.44	252.0	120	6.56	
1835	12.00	15.09	0.054	3.28	4.45	238.6	75.0	6.56	

Analysis	Preservative	Container requirements	No. of containers
8260 B	HCL	40ml VOA	3
TAL Metals	HNO3	250 Poly	1
Perchlorate	N/A	250 Poly	1
Nitro./ Explosives	N/A	1L Amber	2
8270 C	N/A	1L Amber	2

Observations/Notes: Purge Start Time: 1609 Purge Rate:

* 1620 pump issues
* 1635 Resolve Issue, resume purge
* Collected TAL metals last. Turbidity was 65NTU

MS/MSD Duplicate ID No.:

Signature(s): Matt W., [illegible]

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client:	NAVFAC Mid-Atlantic	Project Number:	380666.FI.FK.07
Location:	UXO-21	Well ID:	MR-21 - MW-Ø3
Event:	UXO-21 Groundwater Sampling	Sample ID:	MR21-GWØ3-1ØB
Date:	4-10-10	Sampling Team:	Matt W., David S.
Weather:	sunny 75°F		

Total Depth:	19.15 FT.(BTOC)	Water Quality Meter:	YSI 556
Depth to water:	(-) 9.10 FT.(BTOC)	Depth to Water / Date and Time:	9.10 / 4-10-10 1415
Water Column:	10.05 FT.		
	(x) .163 GAL/FT.		
Well Volume:	1.638 GAL. x 3		
Total Purge Vol.:	4.914 GAL.		
Purge Device:	Bladder Pump		
Pump Inlet Depth	13.00' FT.(BTOC)		

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: 4-10-10 Time: 1530	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Depth to water (ft bgs)	Color / Odor / Comments
Method: Low Flow	17.31	0.054	0.68	4.61	310.2	8.2	9.61	

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	± 3%	± 10%	± 0.1	± 10 mv	<10		
1435	.75	17.38	0.055	1.07	4.63	281.0	85.0	9.61	
1445	1.75	17.50	0.055	0.81	4.63	293.2	40.0	9.61	
1455	2.50	17.53	0.056	0.68	4.66	301.8	28.0	9.61	
1505	3.25	17.61	0.056	0.69	4.66	303.3	21.0	9.61	
1515	4.00	17.66	0.055	0.72	4.64	307.9	14.0	9.61	
1525	4.75	17.27	0.054	0.70	4.62	309.9	10.0	9.61	
1530	5.15	17.31	0.054	0.68	4.61	310.2	8.2	9.61	

Analysis	Preservative	Container requirements	No. of containers
8260 B	HCL	40ml VOA	3
TAL metals	HNO3	250 Poly	1
Perchlorate	N/A	250 Poly	1
Nitro./Explosives	N/A	1L Amber	2
8270 C	N/A	1L Amber	2

Observations/Notes: Purge Start Time: 1425 Purge Rate: ~~0.378~~ MW 0.315 L/min

NO Lock

MS/MSD Duplicate ID No.:

Signature(s): Matt [signature]

CH2MHILL

LOUIS

GROUNDWATER SAMPLING DATA SHEET

Client:	NAVFAC Mid-Atlantic	Project Number:	380666.FI.FK.07
Location:	MCB CAM LEJ	Well ID:	MR21-MW04
Event:	UXO-21 Groundwater Sampling	Sample ID:	MR21-GW04-103
Date:	4/10/10	Sampling Team:	M SMITH
Weather:	SUNNY, 60'S		

Total Depth:	16	FT.(BTOC)	Water Quality Meter:	YSI / HANNA
Depth to water:	(-) 11.17	FT.(BTOC)	Depth to Water / Date and Time:	11.17 4/10/10 ~~0455~~ 1355
Water Column:	4.83	FT.		
	(x) .163	GAL/FT.		
Well Volume:	.79	GAL.		
Total Purge Vol.:	4.7	GAL.		
Purge Device:	BLADDER PUMP			
Pump Inlet Depth	11	FT.(BTOC)		

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: 4/10/10 Time: 1455	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Depth to water (ft bgs)	Color / Odor / Comments
Method: LOW-FLOW	16.17	.118	2.91	4.89	183.5	8.30	11.40	

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	± 3%	± 10%	± 0.1	± 10 mv	<10		
1~~405~~	.4	16.07	.117	9.23	4.98	233.2	550	11.40	
1~~410~~	1	16.15	.119	3.10	4.91	244.6	450	11.40	
1~~415~~	1.4	16.20	.120	3.05	4.90	250.6	280	11.40	
1~~420~~	1.6	16.32	.119	3.05	4.90	252.0	190	11.40	
1~~425~~	2.0	16.14	.118	2.99	4.90	246.5	120	11.40	
1430	2.4	16.33	.117	3.14	4.92	236.6	75.0	11.40	
1435	2.9	16.26	.117	3.07	4.93	225.7	50.0	11.40	
1440	3.4	16.33	.117	2.99	4.91	209.2	24.0	11.40	
1445	4.0	16.30	.118	2.91	4.91	200.8	18.0	11.40	
1450	4.3	16.22	.117	2.98	4.90	184.3	11.0	11.40	
1455	4.7	16.17	.118	2.91	4.89	183.5	8.30	11.40	

Analysis	Preservative	Container requirements	No. of containers
EXP., PETN, NITROGLYCERIN	—	1 L	2
SVOC'S	—	1 L	2
VOC	HCL	30 ml	3
METALS	HNO_3	250 ml	1
PERCHLORATE	—	250 ml	1

Observations/Notes: Purge Start Time: 1400 Purge Rate: 350 ml/min

MS/MSD YES Duplicate ID No.: —

Signature(s):

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client:	NAVFAC Mid-Atlantic	Project Number:	380666.FI.FK.07
Location:	MCB Camp Lej	Well ID:	MRZ1 - MW 05
Event:	UXO-21 Groundwater Sampling	Sample ID:	MRZ1-GW05-100
Date:	4/10/10	Sampling Team:	D. Seed/ROU
Weather:	70°		

Total Depth:	121.65	FT.(BTOC)	Water Quality Meter:	YSI 556 # 13967
Depth to water:	(-) 3.39	FT.(BTOC)	Depth to Water / Date and Time:	
Water Column:	11.26	FT.		
	(x) 0.163	GAL/FT.		
Well Volume:	1.8	GAL x 3 = 5.4		
Total Purge Vol.:	6.8	GAL.		
Purge Device:	Bladder Pump			
Pump Inlet Depth	10	FT.(BTOC)		

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: 4/10/10 Time:	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Depth to water (ft bgs)	Color / Odor / Comments
Method: Low Flow	15.64	0.389	0.80	6.81	-107.4	13.1	3.41	

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	± 3%	± 10%	± 0.1	± 10 mv	<10		
1205	0.8	15.63	0.390	6.78	6.54	-91.8	414	3.41	
1215	1.6	15.63	0.390	1.19	6.68	-97.7	254		
1225	2.4	15.62	0.390	1.23	6.67	-98.1	174		
1230	2.8	15.62	0.390	1.21	6.68	-98.6	121		
1240	3.6	15.61	0.390	1.05	6.75	-104.5	641.2		
1250	4.4	15.65	0.389	0.94	6.79	-105.7	46.7		
1300	5.2	15.65	0.389	0.80	6.82	-107.6	29.2		
1310	6.0	15.64	0.389	0.80	6.81	-107.6	27.4		
1320	6.8	15.64	0.389	0.80	6.81	-107.4	13.1		

Analysis	Preservative	Container requirements	No. of containers
VOCs	HCl		
SVOCs			
Explosives			
Perchlorate			
TAL metals	HNO3		

Observations/Notes: Purge Start Time: 1155 Purge Rate: .3L/min

MS/MSD Duplicate ID No.:

Signature(s):

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client:	NAVFAC Mid-Atlantic	Project Number:	380666.FI.FK.07
Location:	UXO-21	Well ID:	MR21-MW06
Event:	UXO-21 Groundwater Sampling	Sample ID:	MR21-GW06-10B
Date:	4-10-10	Sampling Team:	Matt W., David S.
Weather:	Sunny 71°F		

Total Depth:	23.46 FT.(BTOC)	Water Quality Meter:	YSI 556
Depth to water:	(-) 18.80 FT.(BTOC)	Depth to Water / Date and Time:	18.80 / 4-10-10 1155
Water Column:	4.46 FT.		
	(x) .163 GAL/FT.		
Well Volume:	0.759 GAL. X 3		
Total Purge Vol.:	2.278 GAL.		
Purge Device:	Bladder Pump		
Pump Inlet Depth	21' FT.(BTOC)		

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: 4-10-10 Time: 1255	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Depth to water (ft bgs)	Color / Odor / Comments
Method: Low Flow	16.02	0.071	4.73	4.56	325.6	8.4	19.11	

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	± 3%	± 10%	± 0.1	± 10 mv	<10		
1215	.75	15.98	0.071	5.08	4.60	339.7	80.0	19.08	
1225	1.50	15.99	0.071	4.90	4.59	340.3	70.0	19.11	
1235	2.25	16.01	0.071	4.77	4.58	329.5	22.0	19.10	
1245	3.00	16.04	0.070	4.76	4.57	326.9	12.0	19.11	
1255	3.75	16.02	0.071	4.73	4.56	325.6	8.4	19.11	

Analysis	Preservative	Container requirements	No. of containers
8260 B	HCL	40ml VOA	3
TAL metals	HNO3	250 Poly	1
Perchlorate	N/A	250 Poly	1
Nitro. / Explosives	N/A	1L Amber	2
8270 C	N/A	1L Amber	2

Observations/Notes: Purge Start Time: 1206 Purge Rate: .315 L/min

NO Lock / PVC cuttings down well

MS/MSD Duplicate ID No.:

Signature(s): Matt Westerdal

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client:	NAVFAC Mid-Atlantic	Project Number:	380666.FI.FK.07
Location:	MCB CAMLEJ	Well ID:	MRZ1-MW09~~X~~7
Event:	UXO-21 Groundwater Sampling	Sample ID:	MRZ1-GW09-10B
Date:	4/10/10	Sampling Team:	M SMITH/RDO
Weather:	SUNNY, 60'S		

Total Depth:	14	FT.(BTOC)	Water Quality Meter:	YSI/7619 HANNA/089987
Depth to water:	(-) 4.22	FT.(BTOC)	Depth to Water / Date and Time:	4.22 4/10/10 0850
Water Column:	9.78	FT.		
	(x) .163	GAL/FT.		
Well Volume:	1.59	GAL.		
Total Purge Vol.:	8.2	GAL.		
Purge Device:	BLADDER PUMP			
Pump Inlet Depth	9	FT.(BTOC)		

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: / Time:	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Depth to water (ft bgs)	Color / Odor / Comments
Method:								

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	± 3%	± 10%	± 0.1	± 10 mv	<10		
0905	.2	15.06	.283	9.11	6.30	52.5	340	4.95	
0910	.5	15.09	.311	.56	6.38	36.0	230	4.90	
0915	.9	15.06	.315	.34	6.43	29.3	140	4.85	
0920	1.5	15.12	.317	.22	6.45	23.5	100	4.85	
0925	2	15.16	.319	.19	6.45	20.7	80	4.87	
0930	2.5	15.15	.321	.17	6.46	18.3	65	4.88	
0935	3.0	15.18	.322	.14	6.46	15.3	50	4.88	
0940	3.5	15.24	.322	.13	6.46	13.6	45	4.88	
0945	4.2	15.28	.323	.13	6.46	11.6	37	4.88	
0950	4.7	15.30	.323	.12	6.47	9.4	35	4.88	

Analysis	Preservative	Container requirements	No. of containers
TAL METALS	HNO_3	250 ml	1
SVOCS	—	1L	2
VOCS	HCL	30 ml	3
PETN ~~+ EXPLOSIVES~~	—	1L	~~2~~ 1 ~~3~~ 4
EXPLOSIVES	—	1L	1
PERCHLORATE	—	250 ml	1
NITROGLYCERIN	—	1L	1

Observations/Notes: Purge Start Time: 0900 Purge Rate: 400 ml/min

MS/MSD — Duplicate ID No.: —

Signature(s):

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client:	NAVFAC Mid-Atlantic	Project Number:	380666.FI.FK.07
Location:	MCB CAM LEJ	Well ID:	M221 - MW07
Event:	UXO-21 Groundwater Sampling	Sample ID:	M221-GW07-103
Date:	4/10/10	Sampling Team:	M. SMITH
Weather:	SUNNY 60'S		

Total Depth:	14	FT.(BTOC)	Water Quality Meter:	YSI / 1619 HANNA / 08987
Depth to water:	(-) 4.22	FT.(BTOC)	Depth to Water / Date and Time:	4.22 4/10/10 0850
Water Column:	9.78	FT.		
	(x) .163	GAL/FT.		
Well Volume:	1.59	GAL.		
Total Purge Vol.:		GAL.		
Purge Device:	BLADDER PUMP			
Pump Inlet Depth	9	FT.(BTOC)		

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: 4/10/10 Time: 1025	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Depth to water (ft bgs)	Color / Odor / Comments
Method: LOW FLOW	15.40	.328	.31	6.50	-4.9	9.80	4.90	

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	± 3%	± 10%	± 0.1	± 10 mv	<10		
0955	5.2	15.29	.325	.66	6.47	8.7	27.0	4.90	
1000	5.7	15.29	.325	.85	6.47	7.5	22.0	4.90	
1005	6.2	15.34	.326	.98	6.47	6.1	19.0	4.90	
1010	6.7	15.35	.328	.68	6.47	4.6	15.0	4.90	
1015	7.2	15.37	.327	.52	6.49	-.9	13.0	4.90	
1020	7.7	15.42	.329	.40	6.50	-2.8	11.0	4.90	
1025	8.2	15.40	.328	.31	6.50	-4.9	9.80	4.90	

Analysis	Preservative	Container requirements	No. of containers

SEE PAGE 1

Observations/Notes: Purge Start Time: 0900 Purge Rate: 400 ml/min

MS/MSD — Duplicate ID No.: —

Signature(s): [illegible]

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client: NAVFAC Mid-Atlantic
Location: UXO-21
Event: UXO-21 Groundwater Sampling
Date: 4-10-10
Weather: Sunny 55°F

Project Number: 380666.FI.FK.07
Well ID: MR21 - MW08
Sample ID: MR21-GW08-10B
Sampling Team: Matt W. David Seed

Total Depth: 16.00 FT.(BTOC)
Depth to water: (-) 9.21 FT.(BTOC)
Water Column: 6.79 FT.
(x) .163 GAL/FT.
Well Volume: 1.106 GAL. X3
Total Purge Vol.: 3.320 GAL.

Purge Device: Bladder Pump

Pump Inlet Depth 11 FT.(BTOC)

Water Quality Meter: YSI 556
Depth to Water / Date and Time: 9.21

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: 4-10-10 Time: 1055	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Depth to water (ft bgs)	Color / Odor / Comments
Method: Low Flow	15.19	0.065	3.31	4.31	367.4	8.7	9.55	

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	± 3%	± 10%	± 0.1	± 10 mv	<10		
1015	.75	15.08	0.066	3.53	4.34	313.9	80	9.55	
1025	1.75	15.08	0.066	3.43	4.30	342.4	39	9.55	
1035	2.75	15.15	0.066	3.30	4.33	354.0	24	9.55	
1045	3.75	15.14	0.065	3.36	4.33	360.5	12	9.55	
1055	4.75	15.19	0.065	3.31	4.31	367.4	8.7	9.55	

Analysis	Preservative	Container requirements	No. of containers
8260 B	HCL	40 ml VOA	3
8270 C	NONE	1L Amber	2
Nitro. / Explosives	NONE	1L Amber	2
perchlorate	NONE	250 Poly	1
TAL metals	HNO3	250 Poly	1

Observations/Notes: Purge Start Time: 1006 Purge Rate: .315 L/min

No lock / PVC cuttings down well

MS/MSD Duplicate ID No.:

Signature(s): Matt Webster

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client:	NAVFAC Mid-Atlantic	Project Number:	380666.FI.FK.07
Location:	MCB CAM LEJ	Well ID:	MR21 - MW09
Event:	UXO-21 Groundwater Sampling	Sample ID:	MR21 - GW09 - 103
Date:	4/10/10	Sampling Team:	M. SMITH
Weather:	SUNNY 60'S		

Total Depth:	17	FT.(BTOC)	Water Quality Meter:	YSI / 1019 HANNA / 089857
Depth to water:	(-) 10.62	FT.(BTOC)	Depth to Water / Date and Time:	10.62 4/10/10 1105
Water Column:	6.38	FT.		
	(x) .163	GAL/FT.		
Well Volume:	1.04	GAL.		
Total Purge Vol.:	4.9	GAL.		
Purge Device:	BLADDER PUMP			
Pump Inlet Depth	12	FT.(BTOC)		

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: / Time:	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Depth to water (ft bgs)	Color / Odor / Comments
Method:			PAGE 2					

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	± 3%	± 10%	± 0.1	± 10 mv	<10		
1120	.2	15.67	.105	4.93	5.51	177.7	450	10.75	
1125	.5	15.30	.099	4.86	5.37	188.6	220	10.80	
1130	.75	15.29	.098	4.79	5.36	189.7	170	10.80	
1135	1.2	15.23	.103	4.76	5.39	189.3	120	10.81	
1140	1.6	15.07	.109	4.72	5.43	185.8	80.0	10.81	
1145	2.1	15.04	.106	4.65	5.41	182.8	45.0	10.83	
1150	2.6	15.09	.106	4.64	5.41	183.7	33.0	10.87	
1155	3.2	15.04	.106	4.55	5.41	184.9	23.0	10.89	
1200	3.8	15.07	.104	4.60	5.39	185.1	18.0	10.87	
1205	4.1	15.09	.106	4.50	5.40	185.8	15.0	10.87	

Analysis	Preservative	Container requirements	No. of containers
NITROGLYCERIN, PETN, EXP.	—	1 L	2
VOC	HCL	30 ml	3
SVOC	—	1 L	2
METALS	HNO_3	250 ml	1
PERCHLORATE	—	250 ml	1

Observations/Notes: Purge Start Time: 1115 Purge Rate: 350 ml/min

MS/MSD — Duplicate ID No.: —

Signature(s): [signature]

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client:	NAVFAC Mid-Atlantic	Project Number:	380666.FI.FK.07
Location:	MCB CAMLEJ	Well ID:	MR21-MW09
Event:	UXO-21 Groundwater Sampling	Sample ID:	MR21-GW09-103
Date:	4/10/10	Sampling Team:	M. SMITH
Weather:	SUNNY 60'S		

Total Depth:		FT.(BTOC)	Water Quality Meter:	PAGE 1
Depth to water:	(-)	FT.(BTOC)	Depth to Water / Date and Time:	
Water Column:		FT.		
	(x)	GAL/FT.		
Well Volume:		GAL.		
Total Purge Vol.:		GAL.		
Purge Device:				
Pump Inlet Depth		FT.(BTOC)		

PAGE 1

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: 4/10/10 Time: 1215	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Depth to water (ft bgs)	Color / Odor / Comments
Method: LOW-FLOW	15.02	.106	4.51	5.40	183.1	10.0	10.87	

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	± 3%	± 10%	± 0.1	± 10 mv	<10		
1210	4.5	15.02	.106	4.56	5.40	184.7	13.0	10.87	
1215	4.9	15.02	.106	4.51	5.40	183.1	10.0	10.87	

Analysis	Preservative	Container requirements	No. of containers

PAGE 1

Observations/Notes: Purge Start Time: 1115 Purge Rate: 350 ml/min

MS/MSD — Duplicate ID No.: —

Signature(s): [illegible]

110 x 3.785

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client:	NAVFAC Mid-Atlantic	Project Number:	380666.FI.FK.07
Location:	MCB Camp Lej	Well ID:	MR21-MW10
Event:	UXO-21 Groundwater Sampling	Sample ID:	MR21-MW10-100
Date:	4/10/10	Sampling Team:	David S. IRDU
Weather:	80°		

Total Depth:	17	FT.(BTOC)	Water Quality Meter:	YSI 556 # 13767
Depth to water:	(-) 12.03	FT.(BTOC)	Depth to Water / Date and Time:	
Water Column:	4.97	FT.		
	(x) 0.163	GAL/FT.		
Well Volume:	0.8	GAL. x 3 = 2.4		
Total Purge Vol.:	3.2	GAL.		
Purge Device:	bladder pump			
Pump Inlet Depth	12	FT.(BTOC)		

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: 4/10/10 Time: 1010	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Depth to water (ft bgs)	Color / Odor / Comments
Method: Low flow	15.40	0.077	5.37	4.30	302.1	10.5	12.2	

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	± 3%	± 10%	± 0.1	± 10 mv	<10		
0940	0.8	15.33	0.080	13.16	4.34	262	—	12.2	
0945	1.2	15.34	0.079	8.08	4.32	269	—	12.2	
0950	1.6	15.35	0.078	6.78	4.32	280	31		
0955	2.0	15.40	0.077	5.39	4.29	301.5	17.5		
1000	2.4	15.39	0.077	5.41	4.30	301.4	20.4		
1005	2.8	15.40	0.077	5.37	4.30	301.4	16.7		
1010	3.2	15.40	0.077	5.37	4.30	302.1	10.5		

Analysis	Preservative	Container requirements	No. of containers
VOCs	HCl		
SVOCs	—		
Explosives	—		
Perchlorate	—		
TAL metals	HNO_3		

Observations/Notes: Purge Start Time: 0930 Purge Rate: 0.3 L/min

pump set @ 12 ft bloc
pump start 09 30

MS/MSD Duplicate ID No.:

Signature(s):

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client:	NAVFAC Mid-Atlantic	Project Number:	380666.FI.FK.07
Location:	UXO-21	Well ID:	SW-1
Event:	UXO-21 Groundwater Sampling	Sample ID:	MR21-SW01-10B
Date:	4-11-10	Sampling Team:	Matt W., Chris R.
Weather:	Sunny 50°F		

Total Depth:		FT.(BTOC)	Water Quality Meter:	YSI 556
Depth to water:	(-)	FT.(BTOC)	Depth to Water / Date and Time:	
Water Column:		FT.		
	(x)	GAL/FT.		
Well Volume:		GAL.		
Total Purge Vol.:		GAL.		
Purge Device:	Grab			
Pump Inlet Depth		FT.(BTOC)		

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: 4-11-10 Time: 0900 Method: Grab	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Depth to water (ft bgs)	Color / Odor / Comments
	13.47	0.149	1.04	6.48	67.2	6.50		

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	± 3%	± 10%	± 0.1	± 10 mv	<10		

Analysis	Preservative	Container requirements	No. of containers

Observations/Notes: Purge Start Time: Purge Rate:

* Larva in ponded area where sample collected

MS/MSD Duplicate ID No.:

Signature(s): Matt Westendorf

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client:	NAVFAC Mid-Atlantic	Project Number:	380666.FI.FK.07
Location:	UXO-21	Well ID:	SW-2
Event:	UXO-21 Groundwater Sampling	Sample ID:	MR21-SW02-10B
Date:	4-11-10	Sampling Team:	Matt W., Chris R.
Weather:	Sunny 60°F		

Total Depth:		FT.(BTOC)	Water Quality Meter:	YSI 556
Depth to water:	(-)	FT.(BTOC)	Depth to Water / Date and Time:	
Water Column:		FT.		
	(x)	GAL/FT.		
Well Volume:		GAL.		
Total Purge Vol.:		GAL.		
Purge Device:	Grab			
Pump Inlet Depth		FT.(BTOC)		

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: 4-11-10 Time: 0920	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Depth to water (ft bgs)	Color / Odor / Comments
Method: Grab	13.89	0.138	1.40	6.49	82.6	1.60	—	

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	± 3%	± 10%	± 0.1	± 10 mv	<10		

Analysis	Preservative	Container requirements	No. of containers

Observations/Notes: Purge Start Time: _____ Purge Rate: _____

MS/MSD Duplicate ID No.:

Signature(s): [illegible]

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client:	NAVFAC Mid-Atlantic	Project Number:	380666.FI.FK.07
Location:	UXO-21	Well ID:	SW-3
Event:	UXO-21 Groundwater Sampling	Sample ID:	~~SW~~ MR21-SW03-10B
Date:	4/11/10	Sampling Team:	D. Brown, D. Seed, M. Westendorf
Weather:	60° sunny		C. Renkema

Total Depth:		FT.(BTOC)	Water Quality Meter:	YSI 556
Depth to water:	(-)	FT.(BTOC)	Depth to Water / Date and Time:	
Water Column:		FT.		
	(x)	GAL/FT.		
Well Volume:		GAL.		
Total Purge Vol.:		GAL.		
Purge Device:				
Pump Inlet Depth		FT.(BTOC)		

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: 4/11/10 Time: 0940	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Depth to water (ft bgs)	Color / Odor / Comments
Method: Grab	15.85	0.234	4.71	6.73	44.6	3.20		

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	± 3%	± 10%	± 0.1	± 10 mv	<10		
0940		15.85	.234	4.71	6.73	44.6	~~2.95~~ 3.20		

Analysis	Preservative	Container requirements	No. of containers

Observations/Notes: Purge Start Time: _____ Purge Rate: _____

MS/MSD Duplicate ID No.:

Signature(s): [signature]

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client:	NAVFAC Mid-Atlantic	Project Number:	380666.FI.FK.07
Location:	UXO-21	Well ID:	SW-4
Event:	UXO-21 Groundwater Sampling	Sample ID:	MRA1-SW04-10B
Date:	4/11/10	Sampling Team:	D. Brown, C. Renkema
Weather:	60° sunny		M. Westendorf

Total Depth:		FT.(BTOC)	Water Quality Meter:	
Depth to water:	(-)	FT.(BTOC)	Depth to Water / Date and Time:	
Water Column:		FT.		
	(x)	GAL/FT.		
Well Volume:		GAL.		
Total Purge Vol.:		GAL.		
Purge Device:				
Pump Inlet Depth		FT.(BTOC)		

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: 4-11-10 Time: 0950	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Depth to water (ft bgs)	Color / Odor / Comments
Method: Grab	16.90	0.199	5.50	6.75	37.1	4.00		

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	± 3%	± 10%	± 0.1	± 10 mv	<10		

Analysis	Preservative	Container requirements	No. of containers

Observations/Notes: Purge Start Time: _____ Purge Rate: _____

MS/MSD Duplicate ID No.:

Signature(s): [illegible]

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client:	NAVFAC Mid-Atlantic	Project Number:	380666.FI.FK.07
Location:	UXO-21	Well ID:	SW-5
Event:	UXO-21 Groundwater Sampling	Sample ID:	MR21-SW05-10B
Date:	4-11-10	Sampling Team:	Matt W., Chris R.
Weather:	Sunny 75°F		

Total Depth:		FT.(BTOC)	Water Quality Meter:	YSI 556
Depth to water:	(-)	FT.(BTOC)	Depth to Water / Date and Time:	
Water Column:		FT.		
	(x)	GAL/FT.		
Well Volume:		GAL.		
Total Purge Vol.:		GAL.		
Purge Device:	Grab			
Pump Inlet Depth	C	FT.(BTOC)		

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: 4-11-10 Time: 1010	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Depth to water (ft bgs)	Color / Odor / Comments
Method: Grab	16.70	0.163	5.15	6.75	45.8	3.90		

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	± 3%	± 10%	± 0.1	± 10 mv	<10		

Analysis	Preservative	Container requirements	No. of containers

Observations/Notes: Purge Start Time: _____ Purge Rate: _____

MS/MSD Duplicate ID No.:

Signature(s): Matt Waterhouse

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client:	NAVFAC Mid-Atlantic	Project Number:	380666.FI.FK.07
Location:	UXO-21	Well ID:	SW-6
Event:	UXO-21 Groundwater Sampling	Sample ID:	MR21-SW06-1~~08~~
Date:	4/11/10	Sampling Team:	Matt W., Chris R.
Weather:	Sunny 75°F		

Total Depth:		FT.(BTOC)	Water Quality Meter:	YSI 556 # 10843
Depth to water:	(-)	FT.(BTOC)	Depth to Water / Date and Time:	
Water Column:		FT.		
	(x)	GAL/FT.		
Well Volume:		GAL.		
Total Purge Vol.:		GAL.		
Purge Device:	Grab			
Pump Inlet Depth		FT.(BTOC)		

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: 4/11/10 Time: 1030	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Depth to water (ft bgs)	Color / Odor / Comments
Method: Grab	16.17	0.218	5.26	6.75	14.3	3.4	—	—

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	± 3%	± 10%	± 0.1	± 10 mv	<10		
1030		16.17	0.218	5.26	6.75	14.3	3.4		

Analysis	Preservative	Container requirements	No. of containers

Observations/Notes: Purge Start Time: Purge Rate:

MS/MSD Duplicate ID No.:

Signature(s): Matt W. [illegible]

Appendix E
Geophysical Investigation Reports

NAeVA GEOPHYSICS INC.

THE LEADER IN SUBSURFACE DETECTION

Subsurface Geophysical Surveys

GPR
MAGNETICS
ELECTROMAGNETICS
SEISMICS
RESISTIVITY
UTILITY LOCATION
UXO DETECTION
BOREHOLE CAMERA
STAFF SUPPORT

GEOPHYSICAL INVESTIGATION REPORT

Preliminary Assessment / Site Inspection
Former D-Area Gas Chamber of Site UXO-21
Marine Corps Base (MCB) Camp Lejeune, North Carolina

Contract Task Order 040

Dates of Investigation:

March 2nd – 3rd, 2010

FINAL SUBMITTAL
June 24, 2010

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PLATES

Plate 1: EM61-MK2 Bottom Coil Mosaic – UXO-21

APPENDICES & CD

Appendix A: GPO Color Contour Map and IVS Results
Appendix B: QC Test Results
Contents of CD: Project Deliverables

ACRONYMS AND ABBREVIATIONS

AHA	Activity Hazard Analysis
ASR	Archive Search Report
DGM	Digital Geophysical Mapping
DQOs	Data Quality Objectives
GPO	Geophysical Prove-Out
GPS	Global Positioning System
MCB	Marine Corps Base
MEC	Munitions and Explosives of Concern
MOA	Master Ordering Agreement
MR	Munitions Response
MRP	Munitions Response Program
mV	Millivolts
NAD83	North American Datum of 1983
QA/QC	Quality Assurance / Quality Control
QC	Quality Control
SI	Site Inspection
SOPs	Standard Operating Procedures
TO	Task Order
UTM	Universal Transverse Mercator

1.0 INTRODUCTION

NAEVA Geophysics, Inc. (NAEVA) was contracted by CH2M HILL to conduct Digital Geophysical Mapping (DGM) of UXO-21, the Former Tear Gas Chamber, 2nd Marine Division at Marine Corps Base (MCB) Camp Lejeune, North Carolina. Field operations were conducted on March 2nd and 3rd, 2010.

1.1 BACKGROUND AND OBJECTIVES

The Former Tear Gas Chamber, part of the Munitions Response Program (MRP) site UXO-21, was only used as a tear gas chamber, and as such no actual munitions were expected to be found. However, canisters of tear gas and riot control grenades may have been used and could still be present at the site. A previous investigation was conducted which included an archival records search, DGM of transects by NAEVA, and environmental sampling of the 5-acre center of the approximately 17-acre Gas Chamber site in July 2007. Additional vegetation clearing and 100% DGM by NAEVA were conducted on the 5-acre center area in January 2009. Intrusive investigation activities began in March 2009 for the removal of subsurface MEC but were quickly stopped due to the discovery of two discarded military munitions (DMM). A Preliminary Assessment (PA)/SI was prepared for the exterior 12 acres of the Gas Chamber site, including the current DGM investigation. This PA/SI does not address the smaller area within the site boundary and northeast of Sneads Ferry Road due to the historical land disturbances by construction activities (e.g., road construction, subsurface utility installation) parallel to and east of Sneads Ferry Road. Rather, the area of investigation focused on the exterior 9.5 acres west of Sneads Ferry Road. Per the results of the intrusive investigation in March 2009, further investigation was required.

The goal of the geophysical investigation was to locate subsurface metal potentially representing munitions and explosives of concern (MEC) as part of an expanded site inspection (SI). Prior to commencement of the DGM surveys, CH2M HILL had a separate contractor clear cut the vegetation where necessary.

1.2 SCOPE OF WORK

NAEVA provided personnel and all geophysical equipment to perform an EM61-MK2 survey for approximately 10% of the 9.5 acres under investigation. All production data was processed, interpreted and delivered to the CH2M HILL Project Geophysicist on the following schedule: "raw" data within 3 work days of data collection and "final" data within 5 work days of data collection.

Due to the potential of MEC at UXO-21, a UXO Technician was required to escort geophysical teams during the DGM effort. Because subsurface MEC is likely present at the site, the geophysical team did not enter areas where vegetation had not been cleared.

1.3 SITE LOCATION AND DESCRIPTION

The Former Tear Gas Chamber (2nd Marine Division) of Site UXO-21 is located south of Hadnot Point, along Sneads Ferry Road, south of Duncan Street. The area of concern is circular, approximately 250 meters in diameter and 12 acres in size, excluding the 5 acres surveyed in January 2009. Vegetation consists of thick brush remaining in the marshy areas around wetlands and a creek. Topography is gently rolling with a more prominent hill to the west. Data collection was bounded by the site boundary and Sneads Ferry Road on the exterior, and the boundary of the previously surveyed area on the interior.

2.0 EQUIPMENT

2.1 GEONICS EM61-MK2

The geophysical instrument used for the investigation at MCB Camp Lejeune was the Geonics EM61-MK2 metal detector. 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. In comparison with other metal detectors, especially magnetometers, it is much better suited for work in close proximity to man-made structures and in areas of dense subsurface metallic debris (e.g., impact ranges). This instrument was chosen based on the presence of non-ferrous MEC and of multiple previous investigations successfully using the EM61-MK2 at MCB Camp Lejeune.

The EM61-MK2 system consists of one 1 meter by 0.5 meter air-cored coil, 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. The receiver measures the eddy currents at four time intervals in the coil. Earlier time gates provide enhanced detection of smaller metallic objects. Induced secondary voltages are measured in millivolts (mV). The arrangement of the system is such that there is a vertical separation of 40 cm from the ground to the bottom coil. When used with GPS or odometer wheel and fiducial positioning based on known points,, target resolution of approximately 0.5 meters can be expected. The data are collected using Geonics' EM61-MK2 program and temporarily stored in a Juniper Allegro CX data logger prior to downloading to a laptop computer.

3.0 METHODOLOGY

3.1 DGM SURVEY ACTIVITIES

Prior to commencing DGM, transects were cleared of vegetation, and a licensed surveyor contracted by CH2M HILL placed wooden stakes at irregular intervals along each defined transect. The stakes were used for the placement of fiducial marks within the recorded geophysical data. Locations for these stakes were recorded in UTM's by the surveyor and were then used by NAEVA during data processing to transform the geophysical data from a local coordinate system to geodetic coordinates.

The EM61-MK2 was chosen based on its ability to detect small, near-surface ferrous and non-ferrous munitions with high spatial resolution. The unconsolidated sands at MCB Camp Lejeune should not

adversely affect the instrument response. However, the EM61-MK2 is susceptible to interference from power lines or other objects that create an electromagnetic field (e.g., junction boxes, radios in transmit mode).

Data collection at UXO-21 was performed with the EM61-MK2 operated in wheel mode configuration. Prior to initial collection, a five-line Instrument Verification Strip (IVS) test was conducted in order to verify proper use and functionality for the instrument. A single pass on each transect was collected using the EM61-MK2. Readings were triggered by the integrated odometer wheel with a measurement taken approximately every 10 centimeters. While this can be a very accurate method when done correctly, it requires meticulous note-taking, straight-line profiling between survey points, and the creation of new lines around all obstacles. The main disadvantage is that it is not possible to record the true line path walked by the operator.

3.2 DATA PROCESSING AND INTERPRETATION

It was determined that a threshold of 3 mV in Channel 2 (the same threshold used for prior work at UXO-21) would detect the MEC items of interest.

3.2.1 Data Storage and Initial Editing

EM61-MK2 data were temporarily stored in an Allegro CX data logger using Geonics EM61-MK2 software version 1.11 and then downloaded into a laptop computer for further on-site processing using Geonics DAT61MK2 and Geosoft Oasis Montaj software.

Daily logs and field notes were input digitally into a handheld PDA. Initial data processing was performed by the field team. This included reviewing the data for integrity, repeatability, and appropriate data density; positioning the data based on the field notes; and creating XYZ files for each grid and QC test for use during final processing. If any problems with a file were noted, such as a missing line or bad readings, the cause was investigated and corrected as necessary.

3.2.2 Preprocessing

Converted raw data files were imported into Geosoft's Oasis Montaj to perform the following:

- Review and finalize all QC tests (cable shake, personnel, static, and latency) prior to processing of the DGM data for that day;
- Conversion of local coordinates to projected NAD83 UTM Zone 18 North coordinates;
- Evaluate data density;
- Apply auto leveling and instrument drift corrections;
- Apply default lag correction;
- Generate preliminary contour map(s) from gridded data;

- Generate preliminary original versus repeat profiles by grid block;
- Generate formatted ASCII files containing preprocessed data by grid block.

3.2.3 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 in the channel selected for target analysis (Channel 2);
- Evaluation and refinement of lag correction in the channel selected for target analysis (Channel 2);
- Additional digital filtering and enhancement, as necessary, in the channel selected for target analysis (Channel 2);
- Targeting of data, as described in Section 3.2.4;
- Generation of formatted ASCII files containing processed data by grid block;
- Generation of final maps for each grid showing contoured gridded data, target locations, and culture;
- Generation of final original versus repeat profiles by grid block.

3.2.4 Analysis and Target Selection

The UX-Detect module within Oasis Montaj identifies peak amplitude responses associated with, but not limited to, MEC items. Initial target selections were made based on the minimum curvature gridded data. Data profiles corresponding to the anomalies selected by Geosoft were then analyzed by trained geophysicists, with the targets evaluated as to their validity and position. Single-source anomalies may generate multiple target designations depending on shape and orientation. 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. All targets were selected from final processed data from Channel 2 of the bottom coil of the EM61-MK2.

Final processed XYZ (ASCII) files and geophysical maps were created by grid block and individual target lists were created for each transect. When all data at a particular site had been collected a mosaic map was created by combining color contour maps from all the transects on that site (see Plate 1). All anomalies occurring at or above the targeting threshold of 3 mV in Channel 2 were identified using a unique ID number (see Plate 2).

3.3 Deliverables

Each target list provides a Target ID, Transect ID, Easting (x) and Northing (y) UTM coordinate location for each target, the recorded peak response in mV, and any processor comments. The target IDs were assigned by numbering the targets with increasing IDs from the south end of each transect.

All raw, preprocessed, and processed data have been submitted to CH2M HILL's project geophysicist and can be found on the enclosed CD (see Contents of CD).

4.0 RESULTS

4.1 SUMMARY OF WORK PERFORMED

The digital geophysical mapping of UXO-21 took place on March 2nd and 3rd, 2010. The site consisted of 22 planned transects, as well as 10 transects later defined by the field team. The additional 10 transects were needed to obtain the required coverage of the area under investigation.

The most common data gaps occur around creek beds and brush cutting obstacles. Data collection continued to the site boundary as marked by the surveyors, generally at the edge of cleared vegetation or the boundary of the previously surveyed area.

4.2 DGM SURVEY ACTIVITIES

Of the 9.5 acres under investigation, a total of 1.06 acres were surveyed over the two days. Among the transects collected, 738 targets were selected above the targeting threshold of 3 mV in Channel 2. All targets were point source, meaning no polygon targets were drawn around large areas of saturated response. Cultural objects noted on the site consisted of construction materials, reinforced concrete, and utility lines. The majority of cultural sources were located along transects nearest to Sneads Ferry Road, including power lines running along the east side of the road. No MEC-related surface debris was observed.

4.3 DATA PROCESSING AND INTERPRETATION

All data were processed as described in Section 3.2. Part of this effort included analyzing channel decay in order to identify possible noise or other false positive responses. Any anomalies suspected as originating from noise (i.e., channel readings out of phase) and other non-metallic sources are noted in the processing reports included on the CD. These reports list down-line data density statistics and leveling, lag, and gridding parameters used in processing each grid block. NAEVA's data processors examined all data prior to the field team demobilizing from the site.

5.0 QUALITY CONTROL

To establish confidence in the data reliability, QC tests were conducted throughout the project. Tests were conducted prior to, during, and after all data collection sessions. All QC tests for the EM61-MK2 were conducted after a minimum 15 minute warm-up period for the electronics. Sample graphical displays of QC data are included in Appendix B.

5.1 SYSTEM VALIDATION - INSTRUMENT VERIFICATION STRIP (IVS)

Prior to mapping the site, the DGM system was verified using an IVS and a Geophysical Prove-Out (GPO). The GPO was not collected immediately prior to UXO-21, however had been collected prior to the start of Site 69/UXO-02 at Camp Lejeune. The same equipment and personnel were used without demobilization, thus the GPO previously collected was considered acceptable. The IVS was surveyed with four additional offset transects as described in the Geophysical System Verification Work Plan in order to demonstrate the effectiveness of all instrumentation, methods, and personnel prior to the initiation of fieldwork and document the site-specific capabilities of the DGM system. Serial number identifications were recorded for all instrumentation (i.e. data logger, coils, EM61-MK2 electronics), and the IVS was completed using the same personnel, equipment, and methodologies employed for the DGM survey.

DQOs examined in the IVS and associated QC tests include system data repeatability and dynamic detection repeatability. As defined in the work plan, response to a standardized item will not vary more than ± 20%, and the maximum amplitude of Channel 2 must be greater than 0.8 times the minimum amplitude on the least favorable orientation curve from the NRL validation test results. Other DQOs evaluated in production data include: downline data density having sufficient data collected to detect munitions items by at least 98% of possible sensor readings captured at 0.7 ft (0.213 m) or lesser spacing between points. The horizontal positioning accuracy must also be accurate enough to allow reacquisition. Selected anomalies must lie within 1 meter of blind seeds emplaced by CH2M HILL. All peak responses in Channel 2 over the ISOs were within specifications. See Appendix A for data analysis of the IVS surveys.

5.2 QC TEST DESCRIPTIONS AND ACCEPTANCE CRITERIA

The following QC procedures were performed and documented during the data collection process and reviewed by a qualified geophysicist on a daily basis:

Static Background and Static Spike: Static tests were performed by positioning the survey equipment in an area free of metallic response and collecting data for a 3-minute period. During this time, the instrument was held in a fixed position. A static test is the primary measurement of instrument functionality and consists of one minute without a spike, one minute with a spike (a wooden board fitted to the bottom coil with an Industry Standard Object (ISO) positioned 40cm from the coil), and then one minute without a spike. The purpose of the static test is to determine whether unusual levels of instrument or ambient noise exist and to document consistent response to a known object. Acceptance criteria of ± 20% of the spike response after background correction and less than ± 2 mV of response fluctuation were used. The static background and static spike tests were conducted at the beginning and end of each grid block.

Cable Shake Test: On a daily basis, the instrument connections were checked for their response to

vibrations in the cables. The response was observed in the field for immediate corrective action and then transmitted to a data processor at the end of the day and checked again for spikes in the data that can possibly create false anomalies. Any data spike greater than 2 mV from the mean would constitute a QC failure. The cable shake test was conducted at the beginning of the survey operations for each workday, and cables were not disconnected during the day.

Personnel Test: The personnel test was conducted at the beginning of survey operations for each workday. This test checks the response of instruments to personnel and their clothing in proximity to the system. The response was observed in the field for immediate corrective action and then transmitted to a data processor at the end of the day and checked again for spikes in the data that can possibly create false anomalies. Any data spike greater than 2 mV from the mean would constitute a QC failure.

IVS: A single pass over the IVS items was collected at the beginning of the day to demonstrate consistency in instrument performance (both response and positioning) from day-to-day, with acceptance criteria of ± 20% response amplitude and ± 20 cm positional accuracy. The data sets showed acceptable amplitudes and positions.

Repeat Data: This test is performed to verify repeatability of the data and was performed at the end of each grid block. At least 2% of the survey lines were repeated and evaluated for consistency. Since small deviations in line path can affect the instrument response the profiles were evaluated qualitatively. The spike test is used to assess quantitative repeatability.

5.3 QC Test Results

QC data were evaluated using Geosoft's QA/QC software. Static, cable shake, and personnel test profiles were plotted with an acceptance criterion of ± 2 mV from the mean. All QC tests were well within acceptance criteria. The following provides a summary of the results from each QC test:

1. **Static Background / Spike Test:** All static and spike tests were within acceptance criteria; stable, repeatable, and without spikes
2. **Cable Shake Test:** No spikes were observed in any of the tests.
3. **Personnel Test:** No deviation from background response was observed.
4. **IVS:** IVS surveys were plotted showing the line path and gridded response. A comparison of tests shows that response amplitudes are consistent and seed item positions are accurate.
5. **Repeat Data:** Repeat lines generally showed good repeatability. Discrepancies in repeat lines were often a result of line path deviation or low amplitude noise in the data.

6.0 CONCLUSIONS

Work at UXO-21 was completed after two working days of mapping. The 22 initial transects, that had survey markers in place and vegetation removed prior to the arrival of the field team, were completed on the first day of mapping. Upon review of the data, it was discovered that the predetermined transects covered only 0.69 acres and did not meet the required 10% coverage requested by CH2M HILL. A second work day was necessary, and the field team defined 10 extra transects, producing a total site coverage of 1.06 acres.

Final processed data revealed high target densities on transects 1-3, 23, and 31. This concentration corresponds with an abundance of cultural sources in this area such as construction materials and utilities observed by the field team, but the possibility MEC cannot be excluded. This surface culture is also a likely source of the numerous apparent noise targets selected in the same area. Separate from the eastern transects, a slight increase in target density is observed in the southern portion and along the service road to the west. Frequent traffic from construction vehicles and discarded trash were noticed in this area and could contribute to the increase in target density.

Since UXO-21 was used as a training and education site rather than a live range or impact area, any MEC present is expected to be in the shallow subsurface. The DGM survey equipment and methodology selected for this investigation and the geophysical conditions at the site combine to create a good environment for the detection of the items of interest, whether they occur as discrete objects or in burial pits.

The enclosed CD contains all raw, preprocessed, and processed data (including processing reports), QC test results, color contour maps and target lists for each grid, and mosaic maps for both sites. A copy of this report may also be found in Adobe PDF and Microsoft Word formats.

7.0 REFERENCES

CH2M HILL. 2008. *Expanded Site Inspection Work Plan Addendum MILCON Support Northern Boundary of Site UXO-03, Former Practice Hand Grenade Range (Draft).* Prepared for Department of the Navy NAVFAC Atlantic. December.

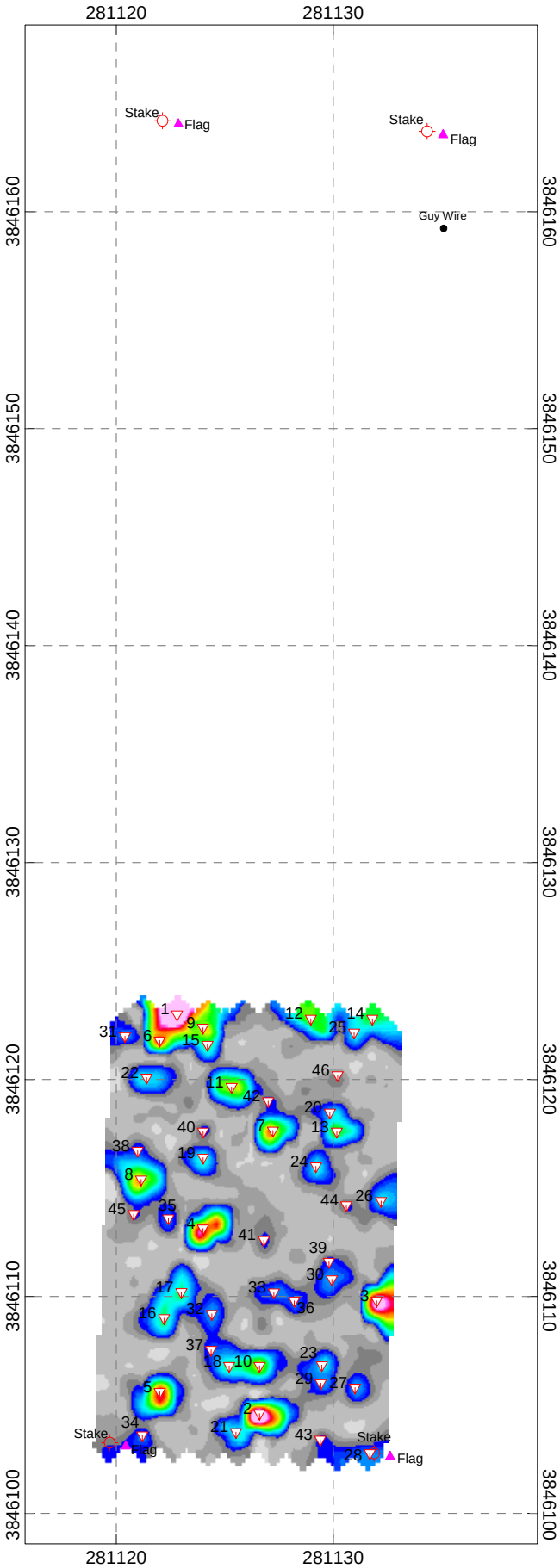
CH2M HILL. 2008. *Focused Site Inspection Work Plan Addendum Former Tear Gas Chamber 2nd Marine Division (ASR Site 2.204) (Draft).* Prepared for Department of the Navy NAVFAC Atlantic. December.

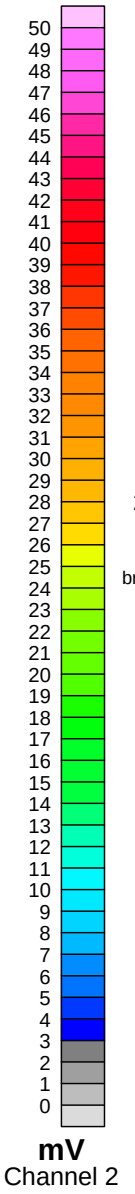
CH2M HILL. 2006. *Master Ordering Agreement.* April.

Geonics Limited. 2005. *EM61-MK2 and EM61-MK2HP 4 Channel High Sensitivity Metal Detectors Operating Manual.* July.

APPENDIX A

NAeVA GEOPHYSICS INC.
THE LEADER IN SUBSURFACE DETECTION
Subsurface Geophysical Surveys





Legend

- Selected Target (See Target Pick List For Response and Location) (Unique Target ID is XXX, eg. 002)
- Culture (if noted)
- Grid Corner (Idealized)
- Flag Location

Scale 1:300

5 0 5

(meters)

NAD83(NSRS2007) / UTM zone 18N

Client: CH2M HILL

EM61 MK2 Bottom Coil
Geophysical Prove Out (GPO - Warp Fiducials)
Site 69 and UXO-02
Marine Corps Base, Camp Lejeune, North Carolina

Date of Survey: 02/09/2010
Date of Map Creation: 02/10/2010

Map Approver: J. Guillard

Date / File Name	SEED 1			SEED 2			SEED 3		
	X_local	Y_local	Ch2_mV	X_local	Y_local	Ch2_mV	X_local	Y_local	Ch2_mV
0302IVS	0	2.35	91.56	0	5.5	96.91	0	8.5	94.09
0303IVS	0	2.35	89.88	0	5.5	101.42	0	8.5	92.68

File name / Date	Ch2_mV_Response	Height (cm)	Depth from Bottom of Bottom Coil (cm)	Depth Below Ground Surface	20% above	horizontal - s2 (mv)	20% below
0302QC1	24.76	42	38	-4	39.48	32.9	26.32
0302QC2	23.54	42	39	-3	36.48	30.4	24.32
0303QC1	23.85	42	40	-2	33.84	28.2	22.56
0303QC2	23.59	42	41	-1	31.32	26.1	20.88
			42	0	29.004	24.17	19.336

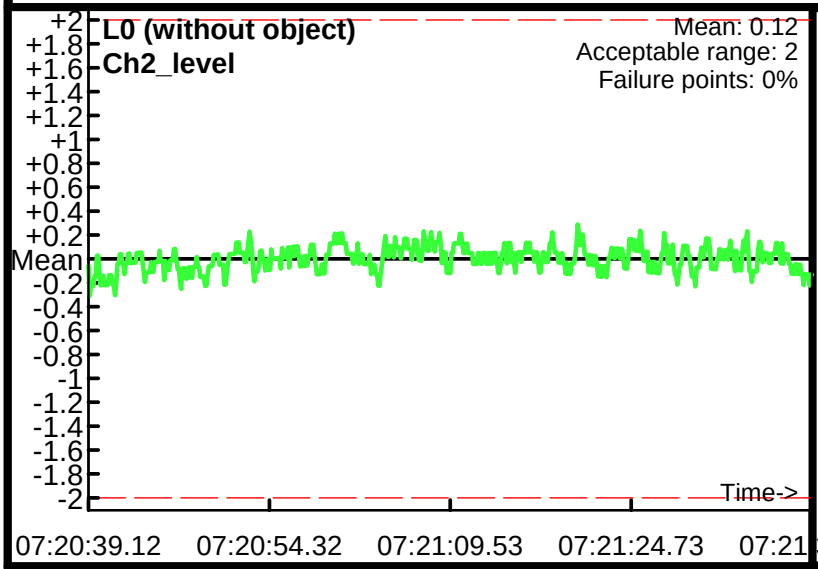
APPENDIX B

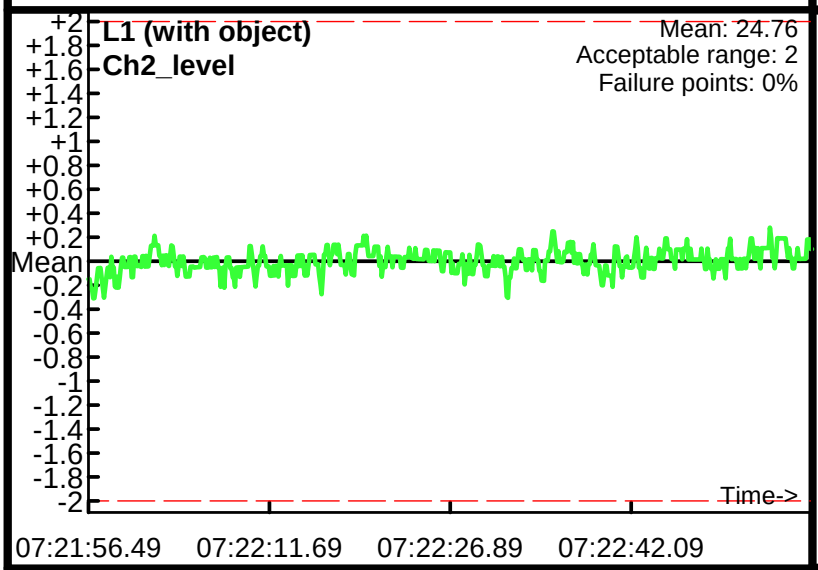
Static Calibration Test

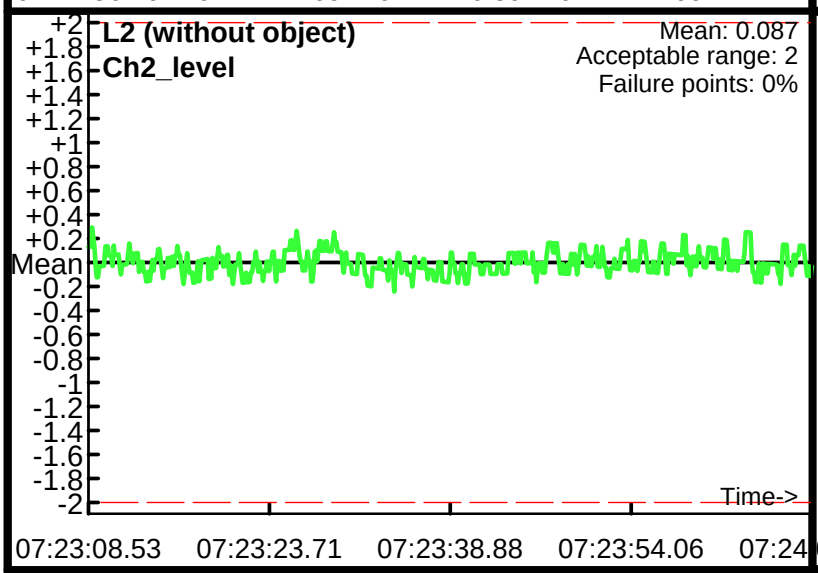
Project: Site 69 and UXO-02
Equipment: EM-61 Mark II
Grid/Location: Localized QC Area

Outside range
Acceptable limits

QC1 test
Operator: GeoC
Date: 3/2/2010







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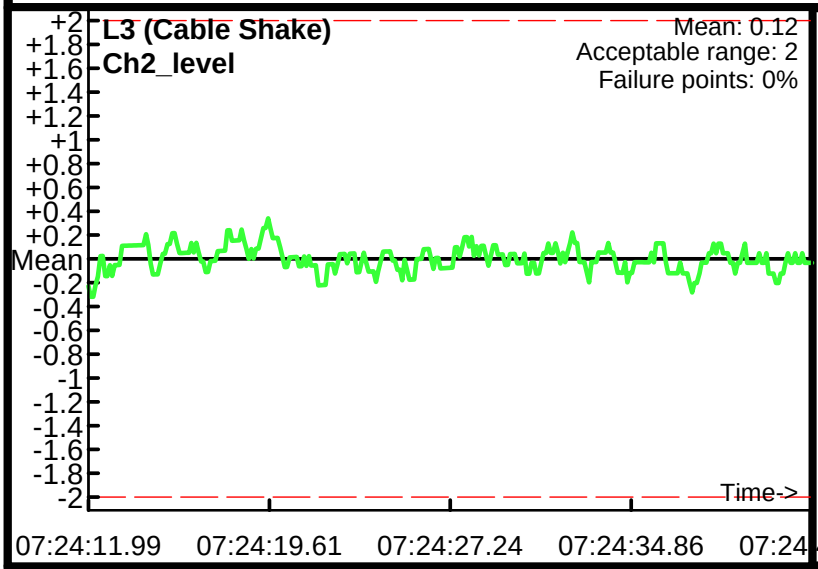
Line Name: L0 L1 L2

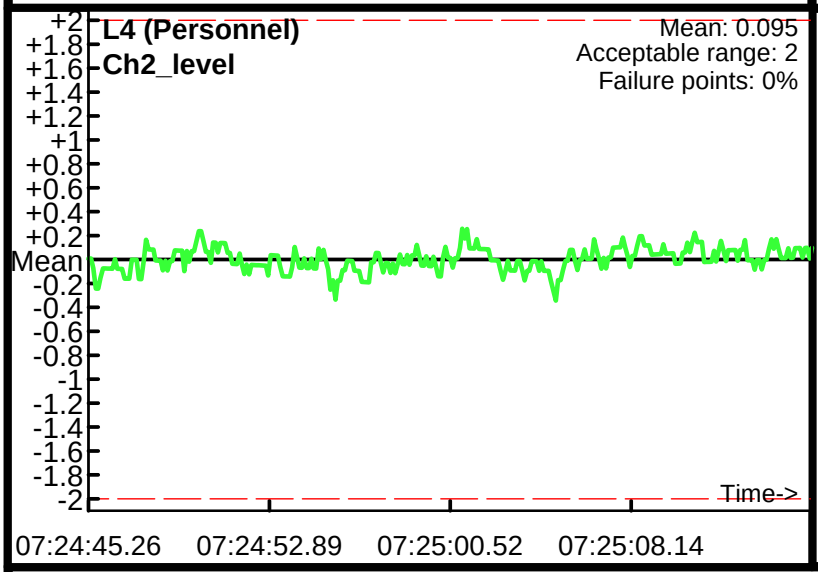
Cable Shake and Personnel Test

Project: Site 69 and UXO-02
Equipment: EM-61 Mark II
Grid/Location: Localized QC Area

Outside range
Acceptable limits

QC1 test
Operator: GeoC
Date: 3/2/2010





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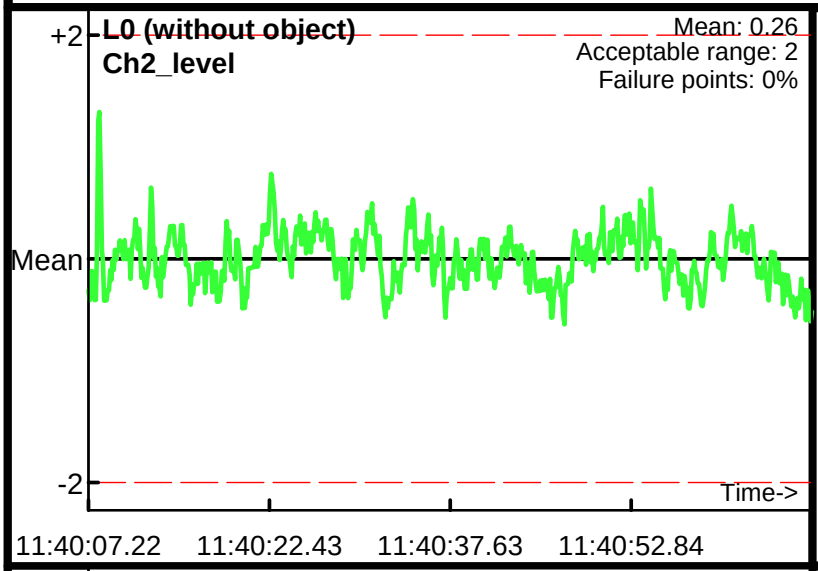
Line Name: L3 L4 L4

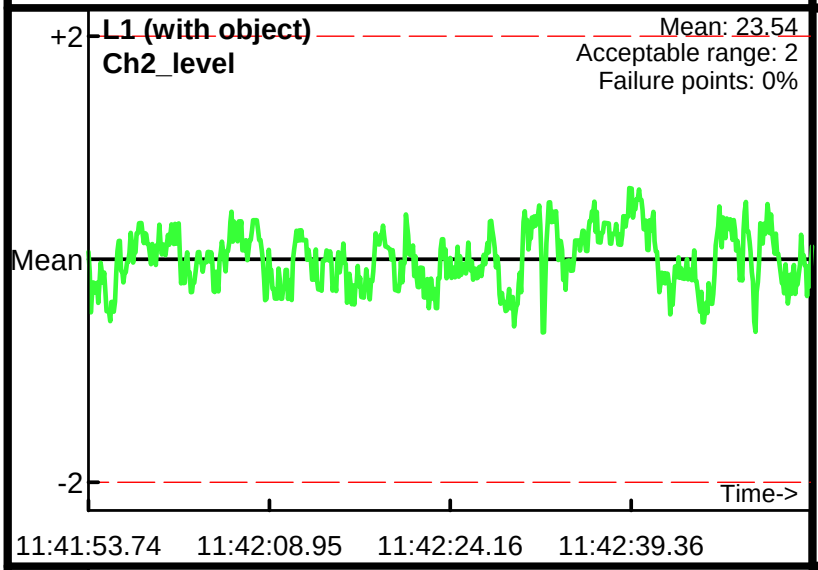
Static Calibration Test

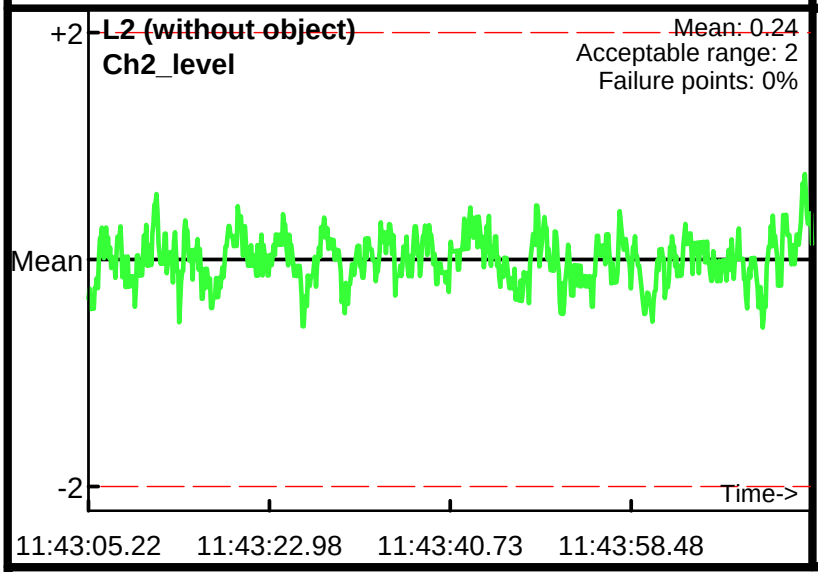
Project: Site 69 and UXO-02
Equipment: EM-61 Mark II
Grid/Location: Localized QC Area

Outside range
Acceptable limits

QC2 test
Operator: GeoC
Date: 3/2/2010







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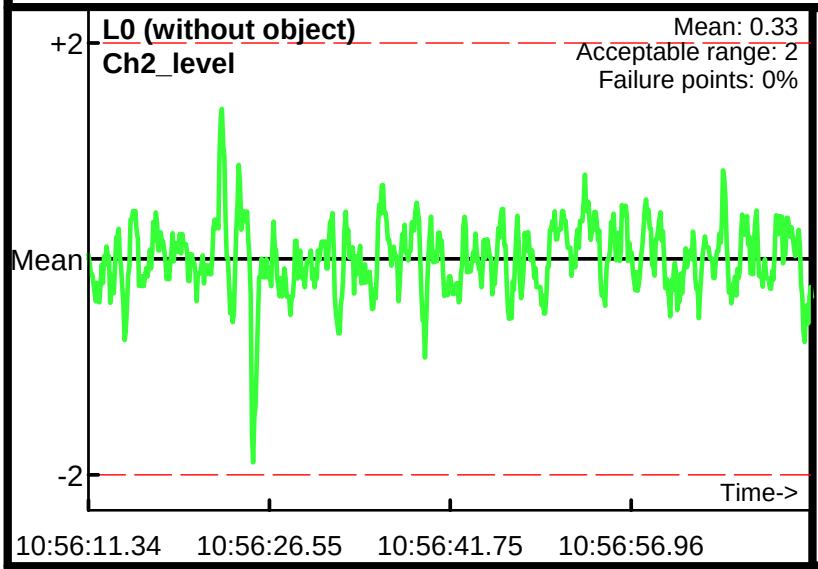
Line Name: L0 L1 L2

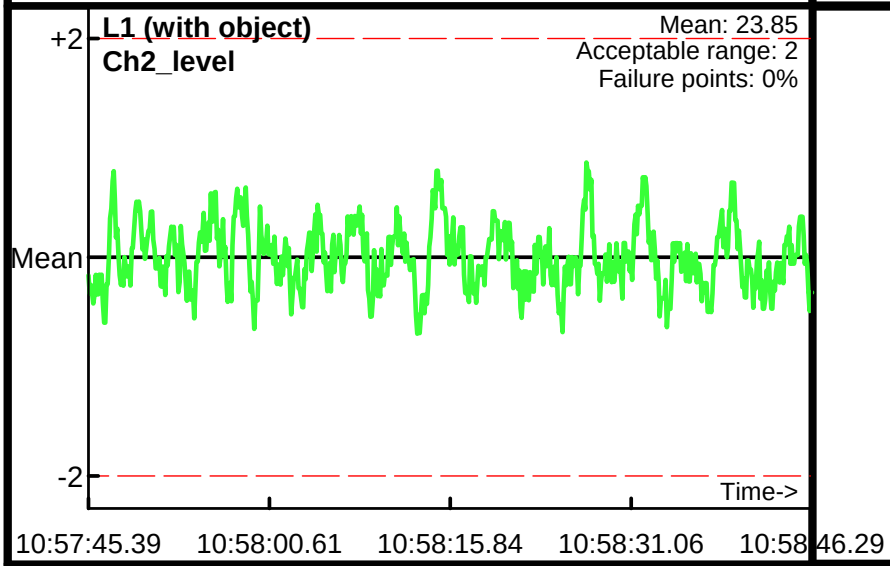
Static Calibration Test

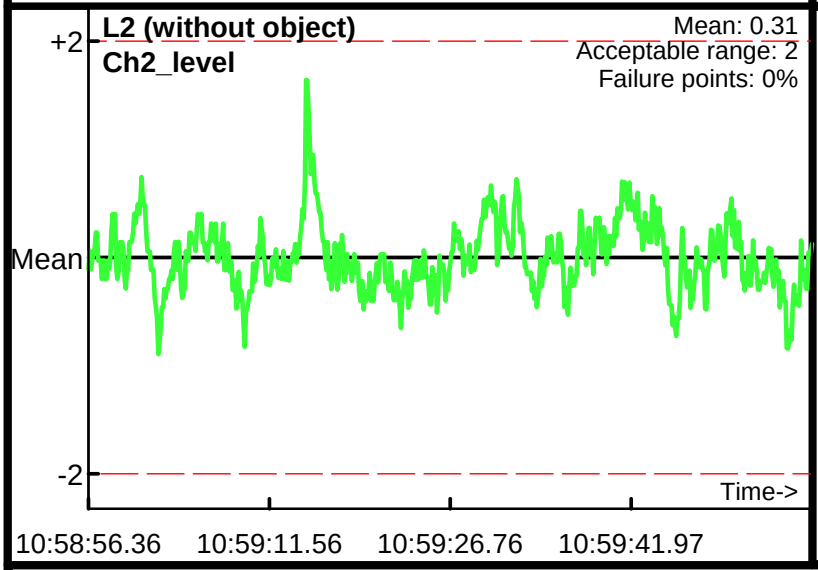
Project: Site 69 and UXO-02
Equipment: EM-61 Mark II
Grid/Location: Localized QC Area

Outside range
Acceptable limits

QC1 test
Operator: GeoC
Date: 3/3/2010







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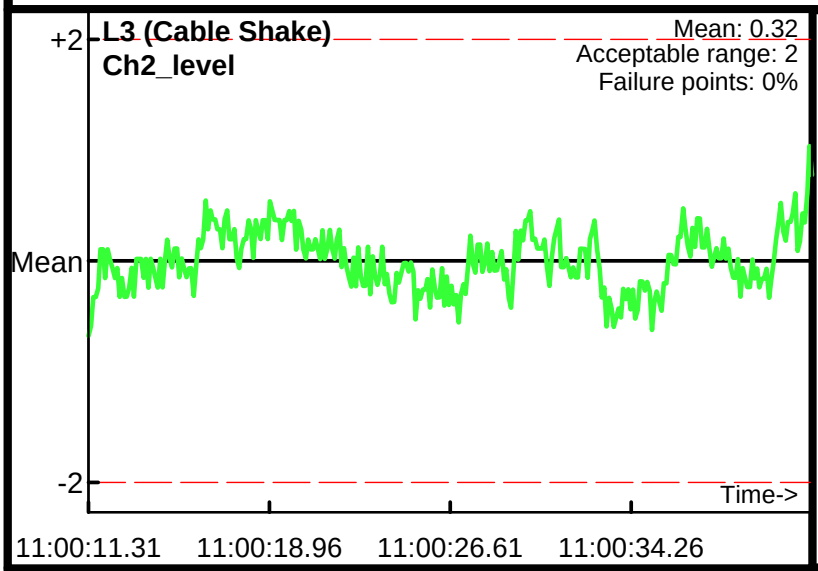
Line Name: L0 L1 L2

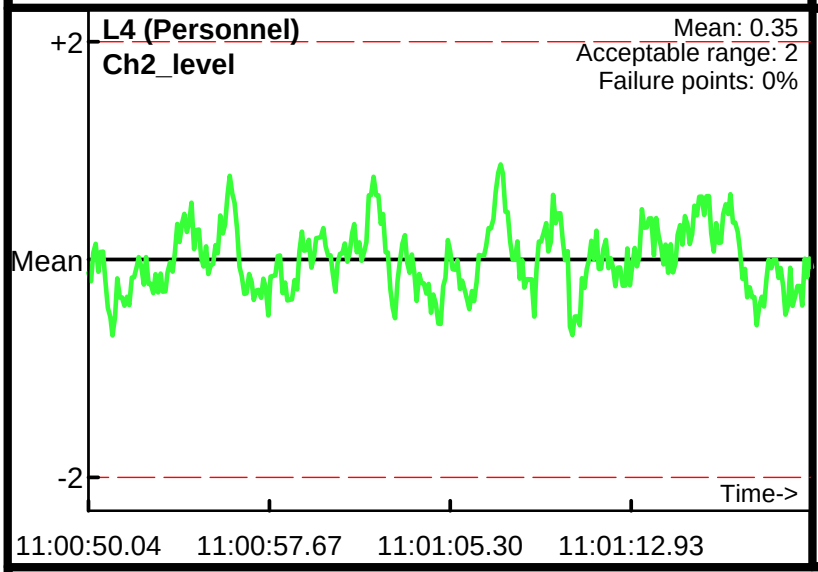
Cable Shake and Personnel Test

Project: Site 69 and UXO-02
Equipment: EM-61 Mark II
Grid/Location: Localized QC Area

Outside range
Acceptable limits

QC1 test
Operator: GeoC
Date: 3/3/2010





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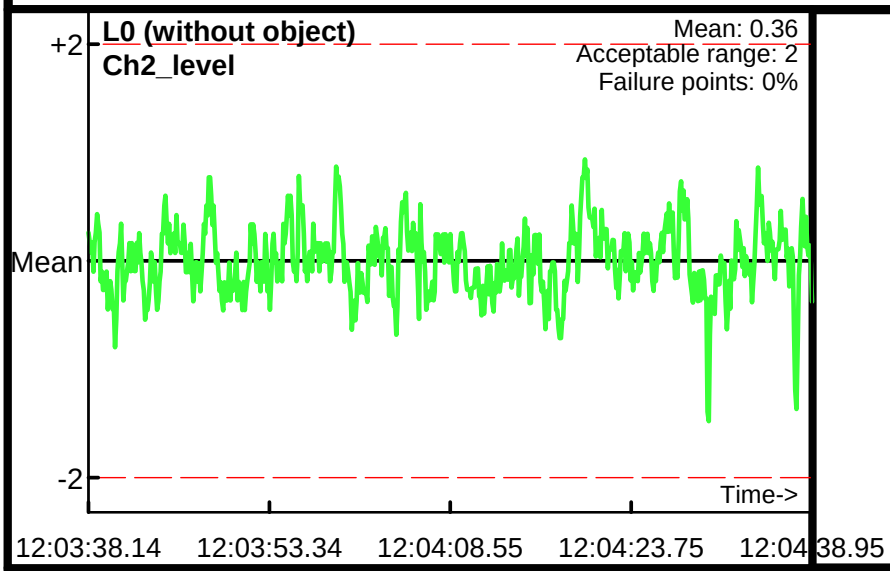
Line Name: L3 L4 L4

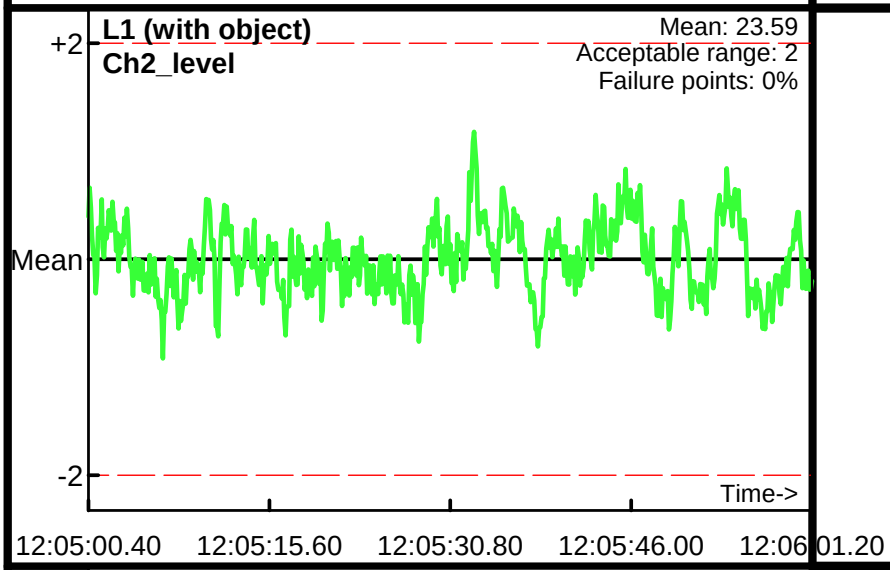
Static Calibration Test

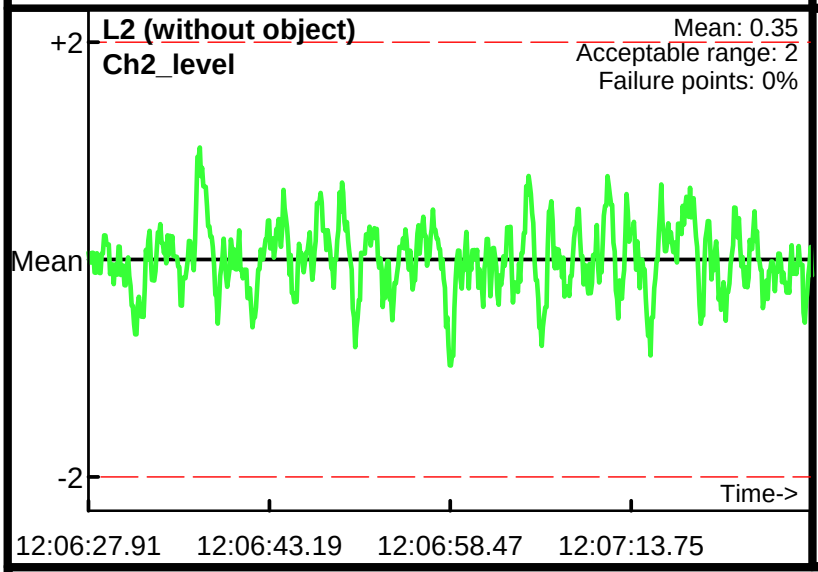
Project: Site 69 and UXO-02
Equipment: EM-61 Mark II
Grid/Location: Localized QC Area

Outside range
Acceptable limits

QC2 test
Operator: GeoC
Date: 3/3/2010







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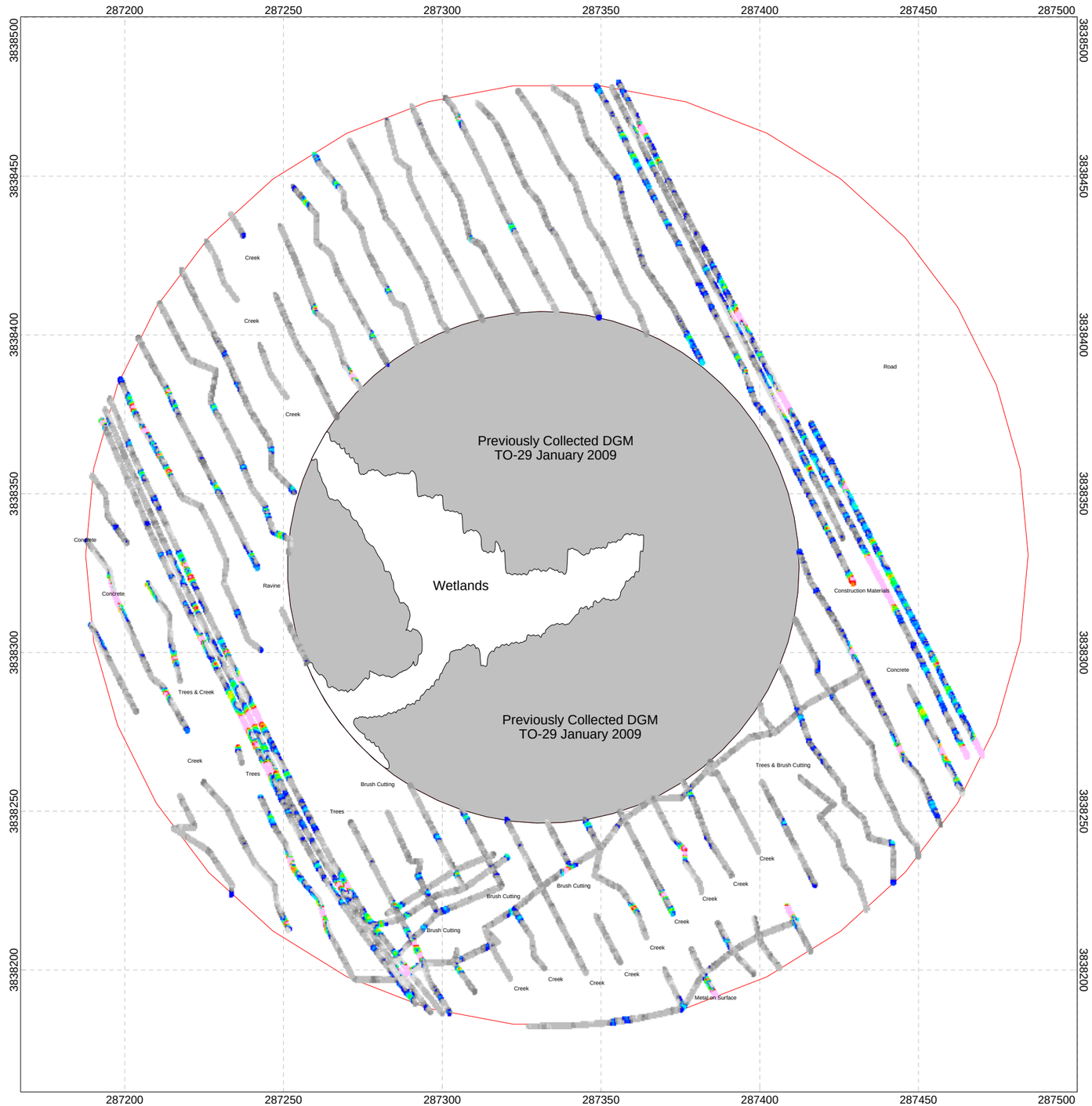
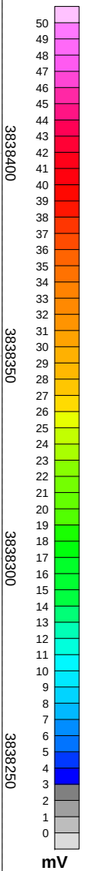
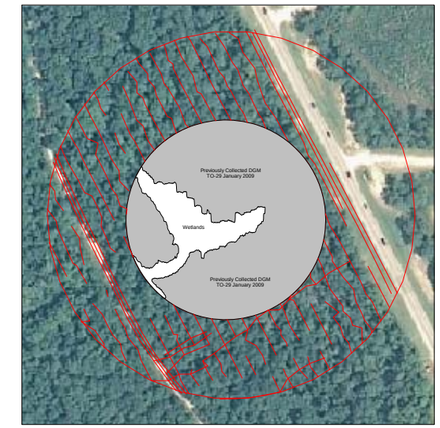
Line Name: L0 L1 L2

PLATES







Legend

Area of Investigation

NOTE: See individual maps for information (target locations, culture, etc.)

20 0 20 40 60

(meters)

NAD83 / UTM zone 18N

Plate 1

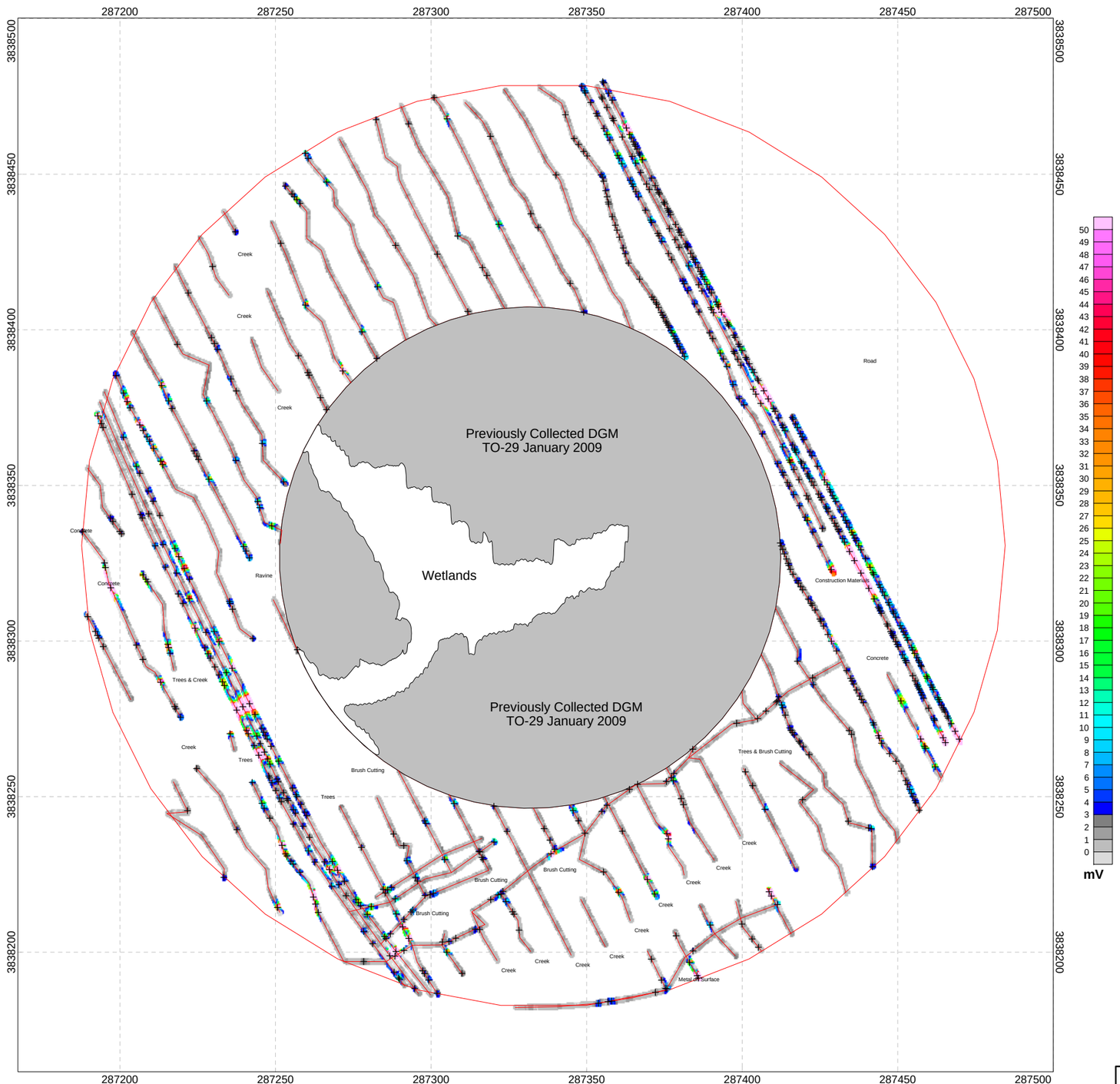
Client: CH2M HILL

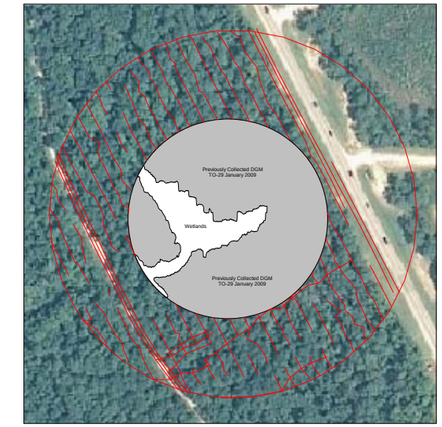
EM61 Mk2 Bottom Coil Ch2
Site Mosaic
UXO-21
Marine Corps Base, Camp Lejeune
Jacksonville, North Carolina

Date of Survey: 03/02/2010 - 03/03/2010
Date of Map Creation: 03/11/2010

Map Approver: J. Guillard

NAeVA GEOPHYSICS INC.
THE LEADER IN SUBSURFACE DETECTION
Subsurface Geophysical Surveys





Legend

- Area of Investigation
- Transect Paths
- Selected Target

NOTE: See individual maps and target lists for coordinate and target numbering information

20 0 20 40 60

(meters)

NAD83 / UTM zone 18N

Plate 2

NAeVA GEOPHYSICS INC.
THE LEADER IN SUBSURFACE DETECTION
Subsurface Geophysical Surveys

Client: CH2M HILL

EM61 Mk2 Bottom Coil Ch2
Site Mosaic with Transects Paths and Selected Targets
UXO-21
Marine Corps Base, Camp Lejeune
Jacksonville, North Carolina

Date of Survey: 03/02/2010 - 03/03/2010
Date of Map Creation: 06/24/2010

Map Approver: J. Guillard

Appendix F
Munitions Debris Disposal Documents

DEMIL METALS, INC.

P.O. Box 126
Glencoe, Illinois 60022
www.demilmetals.com

BLANKET END USE CERTIFICATION

USA ENVIRONMETAL, INC.

UXO INSPECTED RANGE RESIDUE SCRAP
EX CAMP LEJUENE

PURCHASE ORDER No: 627-2018-508
SHIPMENT No: 1 WEIGHT: 645 LB

Upon receiving the unopened labeled containers each with its unique identified and unbroken seal ensuring a continued chain of custody, and after reviewing and concurring with all the provided supporting documentation, sign for having received and agreeing with the provided documentation that the sealed containers contained no explosive hazards when received.

The contents of the sealed containers will not be sold, traded or otherwise given to another party until the contents have been smelted and are only identifiable by their basic contents.

It is hereby certified that Demil Metals, Inc., Glencoe, IL and it's subcontractor, Bedford Recycling, Bedford, IN has complied with all applicable federal, state and local ordinances and regulations with respect to the care, handling, storage, shipment, resale, export, and other use of the material hereby purchased, and that both companies are users in said materials and are capable of complying with all applicable federal, state, and local laws. It is further certified that the material has been recycled into new products by means of mechanically shredding and smelting within the continental United States of America and that the material was only identifiable by its basic contents. This certification is made in accordance with and subject to the penalties of Title 18, Section 1001, of the United States Code, Crimes and Criminal Procedures.

SIGNATURE: Barry R. Schaffer

Barry R. Schaffer

DATE: January 22, 2009

TITLE: President

COMPANY: Demil Metals, Inc.

Tel: 847.266.0117 Email: brs261@demilmetals.com Fax: 847.266.0119

DEMIL METALS, INC.

P.O. Box 126
Glencoe, Illinois 60022
www.demilmetals.com

CERTIFICATE OF DESTRUCTION

To: Mr. M Synakorn
USA Environmental, Inc.
720 Brooker Creek Blvd.
Suite 204
Oldsmar, FL 34677

From: Barry R. Schaffer
President
Demil Metals, Inc.

Re: PO No. 627-2018-508

Demilitarization & Recycling of Camp Lejeune Range Residues
Shipment No. 01: 645 LB

I hereby certify that the above referenced material shipped from Camp Lejeune was demilitarized by means of shredding & smelting at Bedford Recycling, Bedford, IN and were only identified by their basic contents; further recycling will be accomplished by smelting the material at a steel mill within the continental United States.

This certification is made in accordance with and subject to the penalties of law under the United States Code, Crimes and Criminal Procedures; Title 18, Section 1001.

Signature: Barry R Schaffer

Name: Barry R. Schaffer

Title: President

Company: Demil Metals, Inc.

Date: January 22, 2009

Tel: 847.266.0117 Email: brs261@demilmetals.com Fax: 847.266.0119

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

MD Scrap from UXO 21 site
Camp Ligonier NC
14 lbs

DEMIL METALS, INC
P.O. BOX 126
GLENCOE, IL 60022

Received at
Bed Ford Regular 1/21/10

[illegible] certifies and verifies that the [illegible] Residue and/or Explosive Contaminated property has been [illegible] percent properly inspected and to the [illegible] are free of explosives or related materials materials.

Certified By

Verified By

Container ID 3

Seal Number 184158

Appendix G
Raw Analytical Data

CTO-169
Camp Lejeune - Milcon Area Gas Chamber
Internally Validated Soil Raw Analytical Results
July 2007

Sample ID	GC-IS01-0-1-07C	GC-IS01-5-8-07C	GC-IS02-0-1-07C	GC-IS02-5-10-07C	GC-IS03-0-1-07C	GC-IS03-5-8-07C	GC-IS04-0-1-07C	GC-IS04-6-8-07C	GC-IS05-0-1-07C	GC-IS05-2-4-07C	GC-IS06-0-1-07C	GC-IS06-3-5-07C	GC-IS07-0-1-07C	GC-IS07-10-12-07C	GC-IS08-0-1-07C	GC-IS08-6-8-07C	GC-IS09-0-1-07C	GC-IS09-8-10-07C	GC-IS010-0-1-07C	GC-IS010-3-5-07C
Sample Date	7/24/07	7/24/07	7/24/07	7/24/07	7/24/07	7/24/07	7/24/07	7/24/07	7/24/07	7/24/07	7/24/07	7/24/07	7/24/07	7/24/07	7/24/07	7/24/07	7/25/07	7/25/07	7/25/07	7/25/07
Chemical Name																				
Volatile Organic Compounds (ug/kg)																				
1,1,1-Trichloroethane	14 U	10 U	14 U	10 U	13 U	11 U	12 U	9.8 U	9.1 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	12 U	10 U	11 U	7.5 U
1,1,2,2-Tetrachloroethane	14 U	10 U	14 U	10 U	13 U	11 U	12 U	9.8 U	9.1 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	12 U	10 U	11 U	7.5 U
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	14 U	10 U	14 U	10 U	13 U	11 U	12 U	9.8 U	9.1 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	12 U	10 U	11 U	7.5 U
1,1,2-Trichloroethane	14 U	10 U	14 U	10 U	13 U	11 U	12 U	9.8 U	9.1 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	12 U	10 U	11 U	7.5 U
1,1-Dichloroethane	14 U	10 U	14 U	10 U	13 U	11 U	12 U	9.8 U	9.1 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	12 U	10 U	11 U	7.5 U
1,1-Dichloroethene	14 U	10 U	14 U	10 U	13 U	11 U	12 U	9.8 U	9.1 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	12 U	10 U	11 U	7.5 U
1,2,4-Trichlorobenzene	14 U	10 U	14 U	10 U	13 U	11 U	12 U	9.8 U	9.1 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	12 U	10 U	11 U	7.5 U
1,2-Dibromo-3-chloropropane	14 U	10 U	14 U	10 U	13 U	11 U	12 U	9.8 U	9.1 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	12 U	10 U	11 U	7.5 U
1,2-Dibromoethane	14 U	10 U	14 U	10 U	13 U	11 U	12 U	9.8 U	9.1 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	12 U	10 U	11 U	7.5 U
1,2-Dichlorobenzene	14 U	10 U	14 U	10 U	13 U	11 U	12 U	9.8 U	9.1 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	12 U	10 U	11 U	7.5 U
1,2-Dichloroethane	14 U	10 U	14 U	10 U	13 U	11 U	12 U	9.8 U	9.1 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	12 U	10 U	11 U	7.5 U
1,2-Dichloropropane	14 U	10 U	14 U	10 U	13 U	11 U	12 U	9.8 U	9.1 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	12 U	10 U	11 U	7.5 U
1,3-Dichlorobenzene	14 U	10 U	14 U	10 U	13 U	11 U	12 U	9.8 U	9.1 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	12 U	10 U	11 U	7.5 U
1,4-Dichlorobenzene	14 U	10 U	14 U	10 U	13 U	11 U	12 U	9.8 U	9.1 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	12 U	10 U	11 U	7.5 U
2-Butanone	14 U	10 U	14 U	10 U	13 U	11 U	12 U	9.8 U	10	59 J	11 U	11 U	5.7 J	11 U	11 U	11 U	12 U	10 U	11 U	7.5 U
2-Hexanone	14 U	10 U	14 U	10 U	13 U	11 U	12 U	9.8 U	9.1 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	12 U	10 U	11 U	7.5 U
4-Methyl-2-pentanone	14 U	10 U	14 U	10 U	13 U	11 U	12 U	9.8 U	9.1 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	12 U	10 U	11 U	7.5 U
Acetone	40 J	7.2 J	17 J	10 U	7.5 J	13 J	12 J	7.3 J	280 J	190 J	16 J	11 U	83	11 U	33 J	11 U	12 U	24	23	7.7
Benzene	14 U	10 U	14 U	10 U	13 U	11 U	12 U	9.8 U	9.1 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	12 U	10 U	11 U	7.5 U
Bromodichloromethane	14 U	10 U	14 U	10 U	13 U	11 U	12 U	9.8 U	9.1 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	12 U	10 U	11 U	7.5 U
Bromoform	14 U	10 U	14 U	10 U	13 U	11 U	12 U	9.8 U	9.1 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	12 U	10 U	11 U	7.5 U
Bromomethane	14 U	10 U	14 U	10 U	13 U	11 U	12 U	9.8 U	9.1 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	12 U	10 U	11 U	7.5 U
Carbon disulfide	14 U	10 U	14 U	10 U	13 U	11 U	12 U	9.8 U	9.1 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	12 U	10 U	11 U	7.5 U
Carbon tetrachloride	14 U	10 U	14 U	10 U	13 U	11 U	12 U	9.8 U	9.1 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	12 U	10 U	11 U	7.5 U
Chlorobenzene	14 U	10 U	14 U	10 U	13 U	11 U	12 U	9.8 U	9.1 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	12 U	10 U	11 U	7.5 U
Chloroethane	14 U	10 U	14 U	10 U	13 U	11 U	12 U	9.8 U	9.1 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	12 U	10 U	11 U	7.5 U
Chloroform	14 U	10 U	14 U	10 U	13 U	11 U	12 U	9.8 U	9.1 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	12 U	10 U	11 U	7.5 U
Chloromethane	14 U	10 U	14 U	10 U	13 U	11 U	12 U	9.8 U	9.1 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	12 U	10 U	11 U	7.5 U
cis-1,2-Dichloroethene	14 U	10 U	14 U	10 U	13 U	11 U	12 U	9.8 U	9.1 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	12 U	10 U	11 U	7.5 U
cis-1,3-Dichloropropene	14 U	10 U	14 U	10 U	13 U	11 U	12 U	9.8 U	9.1 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	12 U	10 U	11 U	7.5 U
Cyclohexane	14 U	10 U	14 U	10 U	13 U	11 U	12 U	9.8 U	9.1 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	12 U	10 U	11 U	7.5 U
Dibromochloromethane	14 U	10 U	14 U	10 U	13 U	11 U	12 U	9.8 U	9.1 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	12 U	10 U	11 U	7.5 U
Dichlorodifluoromethane (Freon-12)	14 U	10 U	14 U	10 U	13 U	11 U	12 U	9.8 U	9.1 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	12 U	10 U	11 U	7.5 U
Ethylbenzene	14 U	10 U	14 U	10 U	13 U	11 U	12 U	9.8 U	9.1 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	12 U	10 U	11 U	7.5 U
Isopropylbenzene	14 U	10 U	14 U	10 U	13 U	11 U	12 U	9.8 U	9.1 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	12 U	10 U	11 U	7.5 U
Methyl acetate	14 U	10 U	14 U	10 U	13 U	11 U	12 U	9.8 U	9.1 U	11 U	11 U	11 U	10 U	11 U	11 U	11 J	12 U	10 U	11 U	7.5 U
Methylcyclohexane	14 U	10 U	14 U	10 U	13 U	11 U	12 U	9.8 U	9.1 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	12 U	10 U	11 U	7.5 U
Methylene chloride	15	7.3 J	8.6 J	8.6 J	8.5 J	8.5 J	12 U	9.8 U	5.7 J	11 U	11 U	11 U	10 U	11 U	7.6 J	8 J	12 U	10	11 U	6.8 J
Methyl-tert-butyl ether (MTBE)	14 U	10 U	14 U	10 U	13 U	11 U	12 U	9.8 U	9.1 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	12 U	10 U	11 U	7.5 U
Styrene	14 U	10 U	14 U	10 U	13 U	11 U	12 U	9.8 U	9.1 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	12 U	10 U	11 U	7.5 U
Tetrachloroethene	14 U	10 U	14 U	10 U	13 U	11 U	12 U	9.8 U	9.1 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	12 U	10 U	11 U	7.5 U
Toluene	14 U	10 U	14 U	10 U	13 U	11 U	12 U	9.8 U	9.1 U	11 U	4.6 J	11 U	10 U	11 U	11 U	11 U	12 U	10 U	11 U	7.5 U
trans-1,2-Dichloroethene	14 U	10 U	14 U	10 U	13 U	11 U	12 U	9.8 U	9.1 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	12 U	10 U	11 U	7.5 U
trans-1,3-Dichloropropene	14 U	10 U	14 U	10 U	13 U	11 U	12 U	9.8 U	9.1 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	12 U	10 U	11 U	7.5 U
Trichloroethene	14 U	10 U	14 U	10 U	13 U	11 U	12 U	9.8 U	9.1 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	12 U	10 U	11 U	7.5 U
Trichlorofluoromethane(Freon-11)	14 U	10 U	14 U	10 U	13 U	11 U	12 U	9.8 U	9.1 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	12 U	10 U	11 U	7.5 U
Vinyl chloride	14 U	10 U	14 U	10 U	13 U	11 U	12 U	9.8 U	9.1 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	12 U	10 U	11 U	7.5 U
Xylene, total	14 U	10 U	14 U	10 U	13 U	11 U	12 U	9.8 U	9.1 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U	12 U	10 U	11 U	7.5 U
Semivolatile Organic Compounds (ug/kg)																				
1,1-Biphenyl	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
2,2'-Oxybis(1-chloropropane)	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
2,4,5-Trichlorophenol	920 U	900 U	1000 U	960 U	900 U	930 U	890 U	980 U	1000 U	1300 U	940 U	880 U	1000 U	880 U	1100 U	940 U	1000 U	950 U	920 U	980 U
2,4,6-Trichlorophenol	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
2,4-Dichlorophenol	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
2,4-Dimethylphenol	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
2,4-Dinitrophenol	920 U	900 U	1000 U	960 U	900 U	930 U	890 U	980 U	1000 U	1300 U	940 U	880 U	1000 U	880 U	1100 U	940 U	1000 U	950 U	920 U	980 U
2,4-Dinitrotoluene	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
2,6-Dinitrotoluene	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
2-Chloroacetophenone - CN	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
2-Chlorobenzalmalononitrile	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
2-Chloronaphthalene	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
2-Chlorophenol	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
2-Methylnaphthalene	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
2-Methylphenol	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
2-Nitroaniline	920 U	900 U	1000 U	960 U	900 U	930 U	890 U	980 U	1000 U	1300 U	940 U	880 U	1000 U	880 U	1100 U	940 U	1000 U	950 U	920 U	980 U
2-Nitrophenol	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
3,3'-Dichlorobenzidine	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
3-Nitroaniline	920 U	900 U	1000 U	960 U	900 U	930 U	890 U	980 U	1000 U	1300 U	940 U	880 U	1000 U	880 U	1100 U	940 U	1000 U	950 U	920 U	980 U
4,6-Dinitro-2-methylphenol	920 U	900 U	1000 U	960 U	900 U	930 U	890 U	980 U	1000 U	1300 U	940 U	880 U	1000 U	880 U	1100 U	940 U	1000 U	950 U	920 U	980 U
4-Bromophenyl-phenylether	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
4-Chloro-3-methylphenol	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
4-Chloroaniline	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
4-Chlorophenyl-phenylether	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
4-Methylphenol	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
4-Nitroaniline	920 U	900 U	1000 U	960 U	900 U	930 U	890 U	980 U	1000 U	1300 U	940 U	880 U	1000 U	880 U	1100 U	940 U	1000 U	950 U	920 U	980 U
4-Nitrophenol	920 U	900 U	1000 U	960 U	900 U	930 U	890 U	980 U	1000 U	1300 U	940 U	880 U	1000 U	880 U	1100 U	940 U	1000 U	950 U	920 U	980 U
Acenaphthene	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
Acenaphthylene	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
Acetophenone	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
Anthracene	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
Atrazine	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
Benzaldehyde	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
Benzo(a)anthracene	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
Benzo(a)pyrene	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
Benzo(b)fluoranthene	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
Benzo(g,h,i)perylene	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
Benzo(k)fluoranthene	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
bis(2-Chloroethoxy)methane	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
bis(2-Chloroethyl)ether	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
bis(2-Ethylhexyl)phthalate	370 U	360 U	47 J	380 U	360 U	370 U	70 J	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	390 J	41 J	140 J	67 J
Butylbenzylphthalate	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U

CTO-169
Camp Lejeune - Milcon Area Gas Chamber
Internally Validated Soil Raw Analytical Results
July 2007

Sample ID	GC-IS01-0-1-07C	GC-IS01-5-8-07C	GC-IS02-0-1-07C	GC-IS02-5-10-07C	GC-IS03-0-1-07C	GC-IS03-5-8-07C	GC-IS04-0-1-07C	GC-IS04-6-8-07C	GC-IS05-0-1-07C	GC-IS05-2-4-07C	GC-IS06-0-1-07C	GC-IS06-3-5-07C	GC-IS07-0-1-07C	GC-IS07-10-12-07C	GC-IS08-0-1-07C	GC-IS08-6-8-07C	GC-IS09-0-1-07C	GC-IS09-8-10-07C	GC-IS010-0-1-07C	GC-IS010-3-5-07C
Sample Date	7/24/07	7/24/07	7/24/07	7/24/07	7/24/07	7/24/07	7/24/07	7/24/07	7/24/07	7/24/07	7/24/07	7/24/07	7/24/07	7/24/07	7/24/07	7/24/07	7/25/07	7/25/07	7/25/07	7/25/07
Chemical Name																				
Caprolactam	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
Carbazole	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
Chrysene	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
Dibenz(a,h)anthracene	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
Dibenzofuran	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
Diethylphthalate	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
Dimethyl phthalate	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
Di-n-butylphthalate	37 J	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	43 J	370 U	77 J	380 U	370 U	390 U
Di-n-octylphthalate	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
Fluoranthene	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
Fluorene	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
Hexachlorobenzene	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
Hexachlorobutadiene	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
Hexachlorocyclopentadiene	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
Hexachloroethane	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
Indeno(1,2,3-cd)pyrene	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
Isophorone	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
Naphthalene	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
Nitrobenzene	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
n-Nitroso-di-n-propylamine	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
n-Nitrosodiphenylamine	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
Pentachlorophenol	920 U	900 U	1000 U	960 U	900 U	930 U	890 U	980 U	1000 U	1300 U	940 U	880 U	1000 U	880 U	1100 U	940 U	1000 U	950 U	920 U	980 U
Phenanthrene	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
Phenol	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
Pyrene	370 U	360 U	410 U	380 U	360 U	370 U	350 U	390 U	410 U	500 U	380 U	350 U	400 U	350 U	420 U	370 U	400 U	380 U	370 U	390 U
Total Metals (UG_G)																				
Aluminum	489	8080	519	9160	296	3630	4760	7200	3550	9710	273	2250	3060	1220	1070	5290	336 J	7100 J	970 J	1110 J
Antimony	4.9 U	4.5 U	5.2 U	5.1 U	4.9 U	4.6 U	4.7 U	4.8 U	5.6 U	6.4 U	4.9 U	4.7 U	5.4 U	4.5 U	5.8 U	4.7 U	5.5 U	0.27 J	4.8 U	5.2 U
Arsenic	0.24 J	0.8	0.86 U	0.52 J	0.81 U	0.2 J	0.43 J	0.4 J	0.36 J	0.69 J	0.81 U	0.78 U	0.62 J	0.22 J	0.35 J	0.35 J	0.91 U	0.3 J	0.2 J	0.87 U
Barium	7.4 J	9.8 J	3 J	13 J	3.7 J	6.9 J	4.3 J	8.4 J	13.5 J	43.7	4.2 J	4.8 J	7.4 J	2.7 J	9 J	7.8 J	2.9 J	10 J	4.2 J	2 J
Beryllium	0.017 J	0.062 J	0.43 U	0.066 J	0.41 U	0.024 J	0.044 J	0.071 J	0.13 J	0.49 J	0.41 U	0.025 J	0.032 J	0.017 J	0.48 U	0.048 J	0.46 U	0.057 J	0.4 U	0.44 U
Cadmium	0.037 J	0.38 U	0.021 J	0.42 U	0.023 J	0.025 J	0.39 U	0.4 U	0.089 J	0.083 J	0.035 J	0.39 U	0.45 U	0.38 U	0.033 J	0.4 U	0.46 U	0.41 U	0.4 U	0.44 U
Calcium	430	62.1 J	105 J	60.9 J	67.9 J	38.5 J	37.5 J	38.7 J	476	4110	111 J	35.1 J	194 J	29.2 J	209 J	50.1 J	78.1 J	60.7 J	71.8 J	35.4 J
Chromium	0.92	8.1	0.92	9.1	0.67 J	4.3	3.5	10	3.7	7.7	0.66 J	2.9	2.6	2	1.5	6.5	0.81 J	8.5	1.2	1.5
Cobalt	4.1 U	0.14 J	4.3 U	0.11 J	4.1 U	3.9 U	3.9 U	0.089 J	0.34 J	0.41 J	4.1 U	3.9 U	4.5 U	3.8 U	4.8 U	0.039 J	4.6 U	0.66 J	4 U	4.4 U
Copper	0.74 J	1.2 J	0.42 J	1.2 J	0.23 J	0.75 J	0.52 J	1.7 J	2.3 J	1.1 J	0.22 J	0.43 J	0.49 J	0.29 J	0.77 J	0.75 J	0.098 J	1.4 J	0.18 J	0.24 J
Iron	300	2310	290	1730	88.1	523	1350	1460	1320	4440	109	389	1630	356	542	1010	226 J	1800 J	155 J	166 J
Lead	13.3	4.3	2.5	3.7	1.4	3.1	2.9	4.1	4.9	7.2	1.6	2.7	5.1	2.1	4.7	3.5	3.1	3.6	2.4	1.9
Magnesium	74.9 J	209 J	24 J	215 J	22 J	117 J	61 J	217 J	80 J	152 J	18.1 J	78.1 J	74.7 J	58.7 J	61.6 J	156 J	20.2 J	197 J	29.1 J	40.9 J
Manganese	4.3	4.1	3.5	3.5	2.6	2.4	4.3	4.3	3.2	12.5	3.3	2.1	6.8	2.1	5.5	2.8	4	13.8	2	1.6
Mercury	0.038	0.03 J	0.0063 J	0.01 J	0.04	0.029 J	0.013 J	0.011 J	0.021 J	0.084	0.032 J	0.033 U	0.026 J	0.016 J	0.098	0.03 J	0.0075 J	0.021 J	0.037	0.026 J
Nickel	0.26 J	1.2 J	3.5 U	1.2 J	3.2 U	0.5 J	0.85 J	1.1 J	1.2 J	3.4 J	3.2 U	0.28 J	0.79 J	0.14 J	0.14 J	0.72 J	3.7 U	1.2 J	0.1 J	3.5 U
Potassium	40.5 J	233 J	28.8 J	270 J	19.4 J	112 J	37.9 J	333 J	66.8 J	83.5 J	21 J	121 J	58.7 J	97.9 J	57.5 J	249 J	27.8 J	243 J	28.6 J	44.2 J
Selenium	0.49 J	0.41 J	3 U	0.42 J	0.44 J	0.36 J	0.4 J	2.8 U	1 J	1.2 J	0.36 J	0.27 J	0.36 J	2.6 U	0.6 J	0.41 J	3.2 U	2.9 U	2.8 U	3.1 U
Silver	0.81 U	0.76 U	0.86 U	0.85 U	0.81 U	0.77 U	0.78 U	0.8 U	0.93 U	1.1 U	0.81 U	0.78 U	0.89 U	0.75 U	0.96 U	0.79 U	0.91 U	0.82 U	0.8 U	0.87 U
Sodium	68.5 J	67.8 J	66.3 J	59.4 J	60.5 J	57.2 J	56.5 J	63 J	63.2 J	86.5 J	57.4 J	55 J	63.9 J	53.6 J	64 J	59.7 J	58.6 J	82.3 J	65.7 J	75.3 J
Thallium	2 U	1.9 U	2.2 U	2.1 U	2 U	1.9 U	1.9 U	2 U	2.3 U	2.7 U	2 U	2 U	2.2 U	1.9 U	2.4 U	2 U	2.3 U	2.1 U	2 U	2.2 U
Vanadium	2.1 J	10.1	1.4 J	10.2	0.78 J	4.9	4.1	11	4.1 J	5 J	0.86 J	2.9 J	5.1	2.3 J	2.7 J	8.7	1.3 J	9.1	1.2 J	1.4 J
Zinc	5.8	3.5 J	1.9 J	4 J	1.4 J	2.4 J	1.9 J	3.9 J	6.8	4.8 J	1.7 J	2.3 J	2.8 J	2.2 J	4 J	3.2 J	3.1 J	4.2 J	3 J	2 J
Wet Chemistry (PCT)																				
% Solids	91	93	81	87	92	90	94	85	80	67	89	94	83	94	79	89	84	88	91	85
Dissolved Metals (UG_L)																				
Aluminum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
J - Analyte present; value may not be precise
NJ - Identification questionable due to poor resolution
R - Unreliable result
U - Analyte not detected
PCT - Percent
UG/G - Micrograms per gram
UG/KG - Micrograms per kilogram
NA - Not analyzed

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Camp Lejeune - Milcon Area Gas Chamber
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July 2007

Sample ID	GC-TW02-07C	GC-TW05-07C	GC-TW08-07C
Sample Date	7/25/07	7/25/07	7/25/07
Chemical Name			
Volatile Organic Compounds (ug/kg)			
1,1,1-Trichloroethane	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	10 U	10 U	10 U
1,1,2-Trichloroethane	10 U	10 U	10 U
1,1-Dichloroethane	10 U	10 U	10 U
1,1-Dichloroethene	10 U	10 U	10 U
1,2,4-Trichlorobenzene	10 U	10 U	10 U
1,2-Dibromo-3-chloropropane	10 U	10 U	10 U
1,2-Dibromoethane	10 U	10 U	10 U
1,2-Dichlorobenzene	10 U	10 U	10 U
1,2-Dichloroethane	10 U	10 U	10 U
1,2-Dichloropropane	10 U	10 U	10 U
1,3-Dichlorobenzene	10 U	10 U	10 U
1,4-Dichlorobenzene	10 U	10 U	10 U
2-Butanone	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U
4-Methyl-2-pentanone	10 U	10 U	10 U
Acetone	10 U	10 U	10 U
Benzene	10 U	10 U	10 U
Bromodichloromethane	10 U	10 U	10 U
Bromoform	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U
Carbon disulfide	10 U	10 U	10 U
Carbon tetrachloride	10 U	10 U	10 U
Chlorobenzene	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U
Chloroform	10 U	10 U	10 U
Chloromethane	10 U	10 U	10 U
cis-1,2-Dichloroethene	10 U	10 U	10 U
cis-1,3-Dichloropropene	10 U	10 U	10 U
Cyclohexane	10 U	10 U	10 U
Dibromochloromethane	10 U	10 U	10 U
Dichlorodifluoromethane (Freon-12)	10 U	10 U	10 U
Ethylbenzene	10 U	10 U	10 U
Isopropylbenzene	10 U	10 U	10 U
Methyl acetate	10 U	10 U	10 U
Methylcyclohexane	10 U	10 U	10 U
Methylene chloride	10 U	10 U	10 U
Methyl-tert-butyl ether (MTBE)	10 U	10 U	10 U
Styrene	10 U	10 U	10 U
Tetrachloroethene	10 U	10 U	10 U
Toluene	6.1 J	10 U	10 U
trans-1,2-Dichloroethene	10 U	10 U	10 U
trans-1,3-Dichloropropene	10 U	10 U	10 U
Trichloroethene	10 U	10 U	10 U
Trichlorofluoromethane(Freon-11)	10 U	10 U	10 U
Vinyl chloride	10 U	10 U	10 U
Xylene, total	10 J	10 U	10 U
Semivolatile Organic Compounds (ug/kg)			
1,1-Biphenyl	11 U	12 U	12 U
2,2'-Oxybis(1-chloropropane)	11 U	12 U	12 U
2,4,5-Trichlorophenol	28 U	29 U	29 U
2,4,6-Trichlorophenol	11 U	12 U	12 U
2,4-Dichlorophenol	11 U	12 U	12 U
2,4-Dimethylphenol	11 U	12 U	12 U
2,4-Dinitrophenol	28 U	29 U	29 U
2,4-Dinitrotoluene	11 U	12 U	12 U
2,6-Dinitrotoluene	11 U	12 U	12 U
2-Chloroacetophenone - CN	11 U	12 U	12 U
2-Chlorobenzalmalononitrile	11 U	12 U	12 U
2-Chloronaphthalene	11 U	12 U	12 U
2-Chlorophenol	11 U	12 U	12 U
2-Methylnaphthalene	11 U	12 U	12 U
2-Methylphenol	11 U	12 U	12 U
2-Nitroaniline	28 U	29 U	29 U
2-Nitrophenol	11 U	12 U	12 U
3,3'-Dichlorobenzidine	11 U	12 U	12 U
3-Nitroaniline	28 U	29 U	29 U
4,6-Dinitro-2-methylphenol	28 U	29 U	29 U
4-Bromophenyl-phenylether	11 U	12 U	12 U
4-Chloro-3-methylphenol	11 U	12 U	12 U
4-Chloroaniline	11 U	12 U	12 U
4-Chlorophenyl-phenylether	11 U	12 U	12 U
4-Methylphenol	11 U	12 U	12 U
4-Nitroaniline	28 U	29 U	29 U
4-Nitrophenol	28 U	29 U	29 U
Acenaphthene	11 U	12 U	12 U
Acenaphthylene	11 U	12 U	12 U
Acetophenone	11 U	12 U	12 U
Anthracene	11 U	12 U	12 U
Atrazine	11 U	12 U	12 U
Benzaldehyde	11 U	12 U	12 U
Benzo(a)anthracene	11 U	12 U	12 U
Benzo(a)pyrene	11 U	12 U	12 U
Benzo(b)fluoranthene	11 U	12 U	12 U
Benzo(g,h,i)perylene	11 U	12 U	12 U
Benzo(k)fluoranthene	11 U	12 U	12 U
bis(2-Chloroethoxy)methane	11 U	12 U	12 U
bis(2-Chloroethyl)ether	11 U	12 U	12 U
bis(2-Ethylhexyl)phthalate	3.3 J	2.9 J	2 J
Butylbenzylphthalate	11 U	12 U	12 U
Caprolactam	11 U	12 U	12 U

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Sample ID	GC-TW02-07C	GC-TW05-07C	GC-TW08-07C
Sample Date	7/25/07	7/25/07	7/25/07
Chemical Name			
Carbazole	11 U	12 U	12 U
Chrysene	11 U	12 U	12 U
Dibenz(a,h)anthracene	11 U	12 U	12 U
Dibenzofuran	11 U	12 U	12 U
Diethylphthalate	11 U	12 U	12 U
Dimethyl phthalate	11 U	12 U	12 U
Di-n-butylphthalate	11 U	12 U	12 U
Di-n-octylphthalate	11 U	12 U	12 U
Fluoranthene	11 U	12 U	12 U
Fluorene	11 U	12 U	12 U
Hexachlorobenzene	11 U	12 U	12 U
Hexachlorobutadiene	11 U	12 U	12 U
Hexachlorocyclopentadiene	11 U	12 U	12 U
Hexachloroethane	11 U	12 U	12 U
Indeno(1,2,3-cd)pyrene	11 U	12 U	12 U
Isophorone	11 U	12 U	12 U
Naphthalene	11 U	12 U	12 U
Nitrobenzene	11 U	12 U	12 U
n-Nitroso-di-n-propylamine	11 U	12 U	12 U
n-Nitrosodiphenylamine	11 U	12 U	12 U
Pentachlorophenol	28 U	29 U	29 U
Phenanthrene	11 U	12 U	12 U
Phenol	11 U	12 U	12 U
Pyrene	11 U	12 U	12 U
Total Metals (UG_G)			
Aluminum	5710 J	203 J	563 J
Antimony	60 U	60 U	60 U
Arsenic	10 U	2.9 J	10 U
Barium	26.8 J	22.5 J	33.1 J
Beryllium	5 U	5 U	5 U
Cadmium	5 U	5 U	5 U
Calcium	846 J	67200	1030 J
Chromium	10.3	10 U	1.2 J
Cobalt	50 U	0.63 J	1.2 J
Copper	2.2 J	1.8 J	1.7 J
Iron	5750	3370	1620
Lead	5.1 J	10 U	10 U
Magnesium	1380 J	1860 J	906 J
Manganese	4.5 J	9.8 J	7.6 J
Mercury	0.042 J	0.2 U	0.035 J
Nickel	40 U	40 U	1.2 J
Potassium	1210 J	1070 J	1030 J
Selenium	35 U	35 U	35 U
Silver	10 U	10 U	10 U
Sodium	5710	6800	6070
Thallium	5.6 J	25 U	25 U
Vanadium	9.4 J	50 U	1.2 J
Zinc	12.6 J	9.1 J	11.9 J
Wet Chemistry (PCT)			
% Solids	NA	NA	NA
Dissolved Metals (UG_L)			
Aluminum	71.3 J	200 U	200 U
Antimony	60 U	60 U	60 U
Arsenic	3.2 J	10 U	10 U
Barium	15.2 J	21.7 J	32.2 J
Beryllium	5 U	5 U	5 U
Cadmium	5 U	5 U	5 U
Calcium	877 J	69100	985 J
Chromium	10 U	10 U	10 U
Cobalt	0.98 J	50 U	50 U
Copper	0.96 J	2 J	1 J
Iron	4670	2660	1240
Lead	10 U	10 U	10 U
Magnesium	1190 J	1940 J	895 J
Manganese	2.1 J	9.1 J	6.5 J
Mercury	0.057 J	0.023 J	0.033 J
Nickel	40 U	40 U	40 U
Potassium	787 J	1190 J	986 J
Selenium	35 U	35 U	35 U
Silver	10 U	10 U	10 U
Sodium	6150	7330	6270
Thallium	25 U	25 U	25 U
Vanadium	2.2 J	50 U	50 U
Zinc	9.3 J	16 J	10 J

Notes:
J - Analyte present; value may not be precise
NJ - Identification questionable due to poor resolution
R - Unreliable result
U - Analyte not detected
PCT - Percent
UG/G - Micrograms per gram
UG/KG - Micrograms per kilogram
NA - Not analyzed

Station ID	MR21-SS11		MR21-SS12	MR21-SS13	MR21-SS14	MR21-SS15	MR21-SS16	MR21-SS17	MR21-SS18		MR21-SS19	MR21-SS20	MR21-SS21	MR21-SS22	MR21-SS23	MR21-SS24	MR21-SS25	MR21-SS26	MR21-SS27		MR21-SS28	MR21-SS29
Sample ID	MR21-SS11-10A	MR21-SS11D-10A	MR21-SS12-10A	MR21-SS13-10A	MR21-SS14-10A	MR21-SS15-10A	MR21-SS16-10A	MR21-SS17-10A	MR21-SS18-10A	MR21-SS18D-10A	MR21-SS19-10A	MR21-SS20-10A	MR21-SS21-10A	MR21-SS22-10A	MR21-SS23-10A	MR21-SS24-10A	MR21-SS25-10A	MR21-SS26-10A	MR21-SS27-10A	MR21-SS27D-10A	MR21-SS28-10A	MR21-SS29-10A
Sample Date	03/03/10	03/03/10	03/03/10	03/03/10	03/03/10	03/03/10	03/03/10	03/03/10	03/03/10	03/03/10	03/03/10	03/03/10	03/03/10	03/03/10	03/03/10	03/03/10	03/04/10	03/03/10	03/03/10	03/03/10	03/04/10	03/03/10
Chemical Name																						
Volatile Organic Compounds (µg/kg)																						
1,1,1-Trichloroethane	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	16.2 UJ	19.4 UJ	13.6 U	19.3 UJ	14.4 UJ	11.8 U	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	14.7 UJ
1,1,2,2-Tetrachloroethane	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	16.2 UJ	19.4 UJ	13.6 U	19.3 UJ	14.4 UJ	11.8 U	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	14.7 UJ
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	16.2 UJ	19.4 UJ	13.6 U	19.3 UJ	14.4 UJ	11.8 U	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	14.7 UJ
1,1,2-Trichloroethane	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	16.2 UJ	19.4 UJ	13.6 U	19.3 UJ	14.4 UJ	11.8 U	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	14.7 UJ
1,1-Dichloroethane	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	16.2 UJ	19.4 UJ	13.6 U	19.3 UJ	14.4 UJ	11.8 U	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	14.7 UJ
1,1-Dichloroethene	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	16.2 UJ	19.4 UJ	13.6 U	19.3 UJ	14.4 UJ	11.8 U	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	14.7 UJ
1,2,4-Trichlorobenzene	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	16.2 UJ	19.4 UJ	13.6 U	19.3 UJ	14.4 UJ	11.8 UJ	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	14.7 UJ
1,2-Dibromo-3-chloropropane	7.51 UJ	10.5 UJ	10.7 U	9.99 UJ	7.14 UJ	8.1 UJ	6.01 UJ	6.54 UJ	8.03 UJ	8.11 UJ	9.68 UJ	6.81 U	9.67 UJ	7.22 UJ	5.89 U	8.16 UJ	8.82 UJ	6.37 UJ	7.52 UJ	8.93 UJ	5.74 U	7.33 UJ
1,2-Dibromoethane	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	16.2 UJ	19.4 UJ	13.6 U	19.3 UJ	14.4 UJ	11.8 U	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	14.7 UJ
1,2-Dichlorobenzene	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	1.02 J	19.4 UJ	13.6 U	19.3 UJ	14.4 UJ	11.8 U	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	14.7 UJ
1,2-Dichloroethane	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	16.2 UJ	19.4 UJ	13.6 U	19.3 UJ	14.4 UJ	11.8 U	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	14.7 UJ
1,2-Dichloropropane	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	16.2 UJ	19.4 UJ	13.6 U	19.3 UJ	14.4 UJ	11.8 U	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	14.7 UJ
1,3-Dichlorobenzene	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	16.2 UJ	19.4 UJ	13.6 U	19.3 UJ	14.4 UJ	11.8 U	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	14.7 UJ
1,4-Dichlorobenzene	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	1.65 J	19.4 UJ	13.6 U	19.3 UJ	14.4 UJ	11.8 U	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	14.7 UJ
2-Butanone	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	16.2 UJ	19.4 UJ	13.6 U	19.3 UJ	14.4 UJ	11.8 U	43.2 J	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	14.7 UJ
2-Hexanone	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	16.2 UJ	19.4 UJ	13.6 U	19.3 UJ	14.4 UJ	11.8 U	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	10.3 J
4-Methyl-2-pentanone	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	16.2 UJ	19.4 UJ	13.6 U	19.3 UJ	14.4 UJ	11.8 U	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	14.7 UJ
Acetone	159 J	267 J	214 J	549 J	274 J	600 J	284 J	303 J	355 J	550 J	213 J	82.6 J	691 J	206 J	22.5 J	275 J	421 J	316 J	149 J	177 J	31.9 J	492 J
Benzene	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	16.2 UJ	19.4 UJ	0.766 J	19.3 UJ	14.4 UJ	11.8 U	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	14.7 UJ
Bromodichloromethane	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	16.2 UJ	19.4 UJ	13.6 U	19.3 UJ	14.4 UJ	11.8 U	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	14.7 UJ
Bromoform	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	16.2 UJ	19.4 UJ	13.6 U	19.3 UJ	14.4 UJ	11.8 U	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	14.7 UJ
Bromomethane	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	16.2 UJ	19.4 UJ	13.6 U	19.3 UJ	14.4 UJ	11.8 UJ	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	14.7 UJ
Carbon disulfide	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	16.2 UJ	19.4 UJ	2.13 J	19.3 UJ	14.4 UJ	11.8 U	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	14.7 UJ
Carbon tetrachloride	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	16.2 UJ	19.4 UJ	13.6 U	19.3 UJ	14.4 UJ	11.8 U	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	14.7 UJ
Chlorobenzene	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	16.2 UJ	19.4 UJ	13.6 U	19.3 UJ	14.4 UJ	11.8 U	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	14.7 UJ
Chloroethane	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	16.2 UJ	19.4 UJ	13.6 U	19.3 UJ	14.4 UJ	11.8 U	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	14.7 UJ
Chloroform	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	16.2 UJ	1.3 J	13.6 U	19.3 UJ	14.4 UJ	11.8 U	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	0.996 J	14.7 UJ
Chloromethane	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	16.2 UJ	19.4 UJ	13.6 U	19.3 UJ	14.4 UJ	11.8 U	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	14.7 UJ
cis-1,2-Dichloroethene	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	16.2 UJ	19.4 UJ	13.6 U	19.3 UJ	14.4 UJ	11.8 U	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	14.7 UJ
cis-1,3-Dichloropropene	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	16.2 UJ	19.4 UJ	13.6 U	19.3 UJ	14.4 UJ	11.8 U	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	14.7 UJ
Cyclohexane	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	16.2 UJ	19.4 UJ	13.6 U	19.3 UJ	14.4 UJ	11.8 U	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	14.7 UJ
Dibromochloromethane	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	16.2 UJ	19.4 UJ	13.6 U	19.3 UJ	14.4 UJ	11.8 U	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	14.7 UJ
Dichlorodifluoromethane (Freon-12)	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	16.2 UJ	19.4 UJ	13.6 U	19.3 UJ	14.4 UJ	11.8 U	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	14.7 UJ
Ethylbenzene	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	1.28 J	1.46 J	19.4 UJ	1.26 J	19.3 UJ	14.4 UJ	11.8 U	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	14.7 UJ
Isopropylbenzene	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	16.2 UJ	19.4 UJ	13.6 U	19.3 UJ	14.4 UJ	11.8 U	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	14.7 UJ
Methyl acetate	3.75 J	87.4 J	384	118 J	5.09 J	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	16.2 UJ	8.36 J	13.6 U	19.3 UJ	14.4 UJ	11.8 U	11.4 J	17.6 UJ	2.22 J	21.7 J	23.8 J	11.5 U	14.7 UJ
Methylcyclohexane	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	16.2 UJ	19.4 UJ	13.6 U	19.3 UJ	14.4 UJ	11.8 U	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	14.7 UJ
Methylene chloride	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	16.2 UJ	19.4 UJ	13.6 U	19.3 UJ	14.4 UJ	11.8 U	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	14.7 UJ
Methyl-tert-butyl ether (MTBE)	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	16.2 UJ	19.4 UJ	13.6 U	19.3 UJ	14.4 UJ	11.8 U	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	14.7 UJ
Styrene	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	16.2 UJ	19.4 UJ	13.6 U	19.3 UJ	14.4 UJ	11.8 UJ	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	14.7 UJ
Tetrachloroethene	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	16.2 UJ	19.4 UJ	13.6 U	19.3 UJ	14.4 UJ	11.8 U	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	14.7 UJ
Toluene	15 UJ	20.9 UJ	2.55 J	2.73 J	14.3 UJ	16.2 UJ	3.32 J	4.91 J	4.02 J	16.2 UJ	19.4 UJ	3.23 J	6.62 J	14.4 UJ	11.8 U	8.85 J	17.6 UJ	2.87 J	15 UJ	17.9 UJ	11.5 U	14.7 UJ
trans-1,2-Dichloroethene	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	16.2 UJ	19.4 UJ	13.6 U	19.3 UJ	14.4 UJ	11.8 U	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	14.7 UJ
trans-1,3-Dichloropropene	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	16.2 UJ	19.4 UJ	13.6 U	19.3 UJ	14.4 UJ	11.8 U	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	14.7 UJ
Trichloroethene	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	16.2 UJ	19.4 UJ	13.6 U	19.3 UJ	14.4 UJ	11.8 U	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	14.7 UJ
Trichlorofluoromethane(Freon-11)	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	16.2 UJ	19.4 UJ	13.6 U	19.3 UJ	14.4 UJ	11.8 U	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	14.7 UJ
Vinyl chloride	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	12 UJ	13.1 UJ	16.1 UJ	16.2 UJ	19.4 UJ	13.6 U	19.3 UJ	14.4 UJ	11.8 U	16.3 UJ	17.6 UJ	12.7 UJ	15 UJ	17.9 UJ	11.5 U	14.7 UJ
Xylene, total	15 UJ	20.9 UJ	21.4 U	20 UJ	14.3 UJ	16.2 UJ	1.93 J	2.56 J	3.62 J	6 J	3.47 J	3.14 J	19.3 UJ	14.4 UJ	11.8 U	3.57 J	17.6 UJ	12.7 UJ	3.38 J	3.64 J	1.79 J	14.7 UJ
Semivolatile Organic Compounds (µg/kg)																						
1,1-Biphenyl	337 U	342 U	330 U	361 U	322 U	331 U	287 U	319 U	340 U	342 U	385 U	298 U	314 U	293 U	289 U	351 U	344 U	312 U	316 U	311 U	290 U	364 U
2,4,5-Trichlorophenol	675 U	684 U	660 U	722 U	644 U	663 U	575 U	638 U	679 U	684 U	770 U	597 UJ	628 U	586 U	577 U	702 U	688 U	624 U	632 U	622 U	581 U	727 U
2,4,6-Trichlorophenol	337 U	342 U	330 U	361 U	322 U	331 U	287 U	319 U	340 U	342 U	385 U	298 UJ	314 U	293 U	289 U	351 U	344 U	312 U	316 U	311 U	290 U	364 U
2,4-Dichlorophenol	337 U	342 U	330 U	361 U	322 U	331 U	287 U	319 U	340 U	342 U	385 U	298 UJ	314 U	293 U	289 U	351 U	344 U	312 U	316 U	311 U	290 U	364 U
2,4-Dimethylphenol	337 U	342 U	330 U	361 U	322 U	331 U	287 U	319 U	340 U	342 U	385 U	298 UJ	314 U	293 U	289 U	351 U	344 U	312 U	316 U	311 U	290 U	364 U
2,4-Dinitrophenol	675 UJ	684 UJ	660 U	722 UJ	644 U	663 U	575 U	638 UJ	679 U	684 U	770 U	597 UJ	628 UJ	586 U	577 U	702 U	688 U	624 U	632 UJ	622 UJ	581 U	727 UJ
2,4-Dinitrotoluene	300 U	300 U	300 U	302 J	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U
2,6-Dinitrotoluene	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U
2-Chloroacetophenone	337 U	342 U	330 U	361 U	322 U	331 U	287 U	319 U	340 U	342 U	385 U	298 U	314 U	293 U	289 U	351 U	344 U	312 U	316 U	311 U	290 U	364 U
2-Chlorobenzalmalononitrile	337 UJ	342 UJ	330 UJ	361 U	322 U	331 U	287 U	319 U	340 U	342 U	385 UJ	298 U	314 U	293 U	289 UJ	351 U	344 UJ	312 UJ	316 U	311 U	290 UJ	364 UJ
2-Chloronaphthalene	337 U	342 U	330 U	361 U	322 U	331 U	287 U	319 U	340 U	342 U	385 U	298 U	314 U	293 U	289 U	351 U	344 U	312 U	316 U	311 U	290 U	364 U
2-Chlorophenol	337 U	342 U	330 U	361 U	322 U	331 U	287 U	319 U	340 U	342 U	385 U	298 UJ	314 U	293 U	289 U	351 U	344 U	312 U	316 U	311 U	290 U	364 U
2-Methylnaphthalene	337 U	342 U	330 U	361 U	322 U	331 U	287 U	319 U	340 U	342 U	385 U	298 U	314 U	293 U	289 U	351 U	344 U	312 U	316 U	311 U	290 U	364 U
2-Methylphenol	337 U	342 U	330 U	361 U	322 U	331 U	287 U	319 U	340 U	342 U	385 U	298 UJ	314 U	293 U	289 U	351 U	344 U	312 U	316 U	311 U	290 U	364 U
2-Nitroaniline	675 U	684 U	660 U	722 U	644 U	663 U	575 U	638 U	679 U	684 U	770 U	597 U	628 U	586 U	577 U	702 U	688 U	624 U	632 U	622 U	581 U	727 U
2-Nitrophenol	337 U	342 U	330 U	361 U	322 U	331 U	287 U	319 U	340 U	342 U	385 U	298 UJ	314 U	293 U	289 U	351 U	344 U	312 U	316 U	311 U	290 U	364 U
3,3'-Dichlorobenzidine	337 UJ	342 UJ	330 UJ	361 UJ	322 UJ	331 UJ	287 UJ	319 UJ	340 UJ	342 UJ	385 UJ	298 U	314 UJ	293 UJ	289 UJ	351 U	344 UJ	312 UJ	316 UJ	311 UJ	290 UJ	364 UJ
3-Nitroaniline	675 U	684 U	660 U	722 U	644 U	663 U	575 U	638 U	679 U	684 U	770 U	597 U	628 U	586 U	577 U	702 U	688 U	624 U	632 U	622 U	581 U	727 U
4,6-Dinitro-2-methylphenol	675 U	684 U	660 U	722 U	644 U	663 U	575 U	638 U	679 U	684 U	770 U	597 UJ	628 U	586 U	577 U	702 U	688 U	624 U	632 U	622 U	581 U	727 U
4-Bromophenyl-phenylether	337 U	342 U	330 U	361 U	322 U	331 U	287 U	319 U	340 U	342 U	385 U	298 U	314 U	293 U	289 U	351 U	344 U	312 U	316 U	311 U	290 U	364 U
4-Chloro-3-methylphenol	337 U	342 U	330 U	361 U	322 U	331 U	287 U	319 U	340 U	342 U	385 U	298 UJ	314 U	293 U	289 U	351 U	344 U	312 U	316 U	311 U	290 U	364 U
4-Chloroaniline	337 U	342 U	330 U	361 U	322 U	331 U	287 U	319 U	340 U	342 U	385 U	298 U	314 U	293 U	289 U	351 U	344 U	312 U	316 U	311 U	290 U	364 U
4-Chlorophenyl-phenylether	337 U	342 U	330 U	361 U	322 U	331 U	287 U	319 U	340 U	342 U	385 U	298 U	314 U	293 U	289 U	351 U	344 U	312 U	316 U	311 U	290 U	364 U
4-Methylphenol	337 U	342 U	330 U	361 U	322 U	331 U	287 U	319 U	340 U	342 U	385 U	298 UJ	314 U	293 U	289 U	351 U	344 U	312 U	316 U	311 U	290 U	364 U
4-Nitroaniline	675 U	684 U	660 U	722 U	644 U	663 U	575 U	638 U	679 U	684 U	770 U	597 U	628 U	586 U	577 U	702 U	688 U	624 U	632 U	622 U	581 U	727 U
4-Nitrophenol	675 U	684 U	660 U	722 U	644 U	663 U	575 U	638 U	679 U	684 U	770 U	597 UJ	628 U	586 U	577 U	702 U	688 U	624 U	632 U	622 U	581 U	727 U
Acenaphthene	337 U	342 U	330 U	361 U	322 U	331 U	287 U	319 U	340 U	342 U	385 U	298 U	314 U	293 U	289 U	351 U	344 U	312 U	316 U	311 U	290 U	364 U
Acenaphthylene	337 U	342 U	330 U	361 U	322 U	331 U	287 U	319 U	340 U	342 U	385 U	298 U	314 U	293 U	289 U	351 U	344 U	312 U	316 U	311 U	290 U	364 U
Acetophenone	337 U	342 U	330 U	361 U	322 U	331 U	287 U	319 U	340 U	342 U	385 U	298 U	314 U	293 U	289 U	351 U	344 U	312 U	316 U	311 U	290 U	364 U
Anthracene	337 U	342 U	330 U	361 U	322 U	331 U	287 U	319 U	340 U	342 U	385 U	298 U	314 U	293 U	289 U	351 U	344 U	312 U	316 U	311 U	290 U	364 U
Atrazine	337 UJ	342 UJ	330 U	361 UJ	322 UJ	331 UJ	287 UJ	319 UJ	340 UJ	342 UJ	385 U	298 U	314 UJ	293 UJ	289 U	351 U	344 U	312 U	316 UJ	311 UJ	290 U	364 UJ
Benzaldehyde	182 J	155 J	83.8 J	102 J	322 R	77.4 J	287 R	185 J	165 J	310 J	260 J	298 R	314 R	293 R	289 R	189 J	1,210 J	312 R	316 R	311 R	290 R	249 J
Benzo(a)anthracene	67 U	68 U	66 U	72 U	64 U	66 U	57 U	64 U	68 U	68 U	77 U	60 U	63 U	59 U	58 U	70 U	69 U	62 U	63 U	62 U	58 U	73 U
Benzo(a)pyrene	6.7 U	6.8 U	6.6 U	7.2 U	6.4 U	6.6 U	5.7 U	6.4 U	6.8 U	6.8 U	7.7 U	9.8	6.3 U	5.9 U	5.8 U	30	6.9 U	6.2 U	14	11	5.8 U	7.3 U
Benzo(b)fluoranthene	67 U	14 J	66 U	72 U	64 U	66 U	57 U	64 U	11 J	68 U	77 U	18 J	63 U	59 U	58 U	53 J	69 U	62 U	35 J	21 J	58 U	18 J
Benzo(g,h,i)perylene	337 UJ	342 UJ	330 UJ	361 U	322 U	331 U	287 U	319 U	340 U	342 U	385 UJ	298 U	314 U	293 U	289 UJ	351 U	344 UJ	312 UJ	316 U	311 U	290 UJ	364 UJ
Benzo(k)fluoranthene	337 UJ	342 UJ	330 UJ	361 U	322 U	331 U	287 U	319 U	340 U	342 U	385 UJ	298 U	314 U	293 U	289 UJ	351 U	344 UJ	312 UJ	316 U	311 U	290 UJ	364 UJ

Station ID	MR21-SS11		MR21-SS12	MR21-SS13	MR21-SS14	MR21-SS15	MR21-SS16	MR21-SS17	MR21-SS18		MR21-SS19	MR21-SS20	MR21-SS21	MR21-SS22	MR21-SS23	MR21-SS24	MR21-SS25	MR21-SS26	MR21-SS27		MR21-SS28	MR21-SS29
Sample ID	MR21-SS11-10A	MR21-SS11D-10A	MR21-SS12-10A	MR21-SS13-10A	MR21-SS14-10A	MR21-SS15-10A	MR21-SS16-10A	MR21-SS17-10A	MR21-SS18-10A	MR21-SS18D-10A	MR21-SS19-10A	MR21-SS20-10A	MR21-SS21-10A	MR21-SS22-10A	MR21-SS23-10A	MR21-SS24-10A	MR21-SS25-10A	MR21-SS26-10A	MR21-SS27-10A	MR21-SS27D-10A	MR21-SS28-10A	MR21-SS29-10A
Sample Date	03/03/10	03/03/10	03/03/10	03/03/10	03/03/10	03/03/10	03/03/10	03/03/10	03/03/10	03/03/10	03/03/10	03/03/10	03/03/10	03/03/10	03/03/10	03/03/10	03/04/10	03/03/10	03/03/10	03/03/10	03/04/10	03/03/10
Chemical Name																						
bis(2-Chloroethoxy)methane	337 U	342 U	330 U	361 U	322 U	331 U	287 U	319 U	340 U	342 U	385 U	298 U	314 U	293 U	289 U	351 U	344 U	312 U	316 U	311 U	290 U	364 U
bis(2-Chloroethyl)ether	337 U	342 U	330 U	361 U	322 U	331 U	287 U	319 U	340 U	342 U	385 U	298 U	314 U	293 U	289 U	351 U	344 U	312 U	316 U	311 U	290 U	364 U
bis(2-Chloroisopropyl)ether	337 UJ	342 UJ	330 U	361 UJ	322 UJ	331 UJ	287 UJ	319 UJ	340 UJ	342 UJ	385 U	298 U	314 UJ	293 UJ	289 U	351 U	344 U	312 U	316 UJ	311 UJ	290 U	364 UJ
bis(2-Ethylhexyl)phthalate	337 UJ	342 UJ	330 U	361 UJ	322 U	331 U	287 U	319 UJ	340 U	342 U	385 U	298 U	314 UJ	293 U	289 U	351 U	344 U	312 U	316 UJ	311 UJ	290 U	364 UJ
Butylbenzylphthalate	337 UJ	342 UJ	330 U	361 UJ	322 U	331 U	287 U	319 UJ	340 U	342 U	385 U	298 U	314 UJ	293 U	289 U	351 U	344 U	312 U	316 UJ	311 UJ	290 U	364 UJ
Caprolactam	337 UJ	342 UJ	330 U	361 UJ	322 U	331 U	287 U	319 UJ	340 U	342 U	385 U	298 U	314 UJ	293 U	289 U	351 U	344 U	312 U	316 UJ	311 UJ	290 U	364 UJ
Carbazole	337 UJ	342 UJ	330 U	361 UJ	322 U	331 U	287 U	319 UJ	340 U	342 U	385 U	298 U	314 UJ	293 U	289 U	351 U	344 U	312 U	316 UJ	311 UJ	290 U	364 UJ
Chrysene	337 U	342 U	330 U	361 U	322 U	331 U	287 U	319 U	340 U	342 U	385 U	298 U	314 U	293 U	289 U	351 U	344 U	312 U	316 U	311 U	290 U	364 U
Dibenz(a,h)anthracene	6.7 U	6.8 U	6.6 UJ	7.2 UJ	6.4 U	6.6 UJ	5.7 UJ	6.4 U	6.8 U	6.8 U	7.7 U	6 UJ	6.3 U	5.9 UJ	5.8 UJ	7 UJ	6.9 U	6.2 UJ	6.3 UJ	6.2 UJ	5.8 UJ	7.3 U
Dibenzofuran	337 U	342 U	330 U	361 U	322 U	331 U	287 U	319 U	340 U	342 U	385 U	298 U	314 U	293 U	289 U	351 U	344 U	312 U	316 U	311 U	290 U	364 U
Diethylphthalate	337 U	342 U	330 U	361 U	322 U	331 U	287 U	319 U	340 U	342 U	385 U	298 U	314 U	293 U	289 U	351 U	344 U	312 U	316 U	311 U	290 U	364 U
Dimethyl phthalate	337 U	342 U	330 U	361 U	322 U	331 U	287 U	319 U	340 U	342 U	385 U	298 U	314 U	293 U	289 U	351 U	344 U	312 U	316 U	311 U	290 U	364 U
Di-n-butylphthalate	337 U	342 U	330 U	361 U	322 U	331 U	287 U	319 U	340 U	342 U	385 U	298 U	314 U	293 U	289 U	351 U	344 U	312 U	316 U	311 U	290 U	364 U
Di-n-octylphthalate	337 UJ	342 UJ	330 UJ	361 UJ	322 UJ	331 UJ	287 UJ	319 UJ	340 UJ	342 UJ	385 UJ	298 U	314 UJ	293 UJ	289 UJ	351 U	344 UJ	312 UJ	316 UJ	311 UJ	290 UJ	364 UJ
Fluoranthene	337 U	342 U	330 U	361 U	322 U	331 U	287 U	319 U	340 U	342 U	385 U	298 U	314 U	293 U	289 U	351 U	344 U	312 U	316 U	311 U	290 U	364 U
Fluorene	337 U	342 U	330 U	361 U	322 U	331 U	287 U	319 U	340 U	342 U	385 U	298 U	314 U	293 U	289 U	351 U	344 U	312 U	316 U	311 U	290 U	364 U
Hexachlorobenzene	337 U	342 U	330 U	361 U	322 U	331 U	287 U	319 U	340 U	342 U	385 U	298 U	314 U	293 U	289 U	351 U	344 U	312 U	316 U	311 U	290 U	364 U
Hexachlorobutadiene	337 U	342 U	330 U	361 U	322 U	331 U	287 U	319 U	340 U	342 U	385 U	298 U	314 U	293 U	289 U	351 U	344 U	312 U	316 U	311 U	290 U	364 U
Hexachlorocyclopentadiene	337 UJ	342 UJ	330 UJ	361 UJ	322 UJ	331 UJ	287 UJ	319 UJ	340 UJ	342 UJ	385 UJ	298 UJ	314 UJ	293 UJ	289 UJ	351 UJ	344 UJ	312 UJ	316 UJ	311 UJ	290 UJ	364 UJ
Hexachloroethane	337 U	342 U	330 U	361 U	322 U	331 U	287 U	319 U	340 U	342 U	385 U	298 U	314 U	293 U	289 U	351 U	344 U	312 U	316 U	311 U	290 U	364 U
Indeno(1,2,3-cd)pyrene	67 U	68 U	66 UJ	72 UJ	64 U	66 UJ	57 UJ	64 U	68 U	68 U	77 U	60 UJ	63 U	59 UJ	58 UJ	70 UJ	69 U	62 UJ	63 UJ	62 UJ	58 UJ	73 U
Isophorone	67 U	68 U	66 U	72 U	64 U	66 U	57 U	64 U	68 U	68 U	77 U	60 U	63 U	59 U	58 U	70 U	69 U	62 U	63 U	62 U	58 U	73 U
Naphthalene	337 U	342 U	330 U	361 U	322 U	331 U	287 U	319 U	340 U	342 U	385 U	298 U	314 U	293 U	289 U	351 U	344 U	312 U	316 U	311 U	290 U	364 U
n-Nitroso-di-n-propylamine	100 U	100 U	99 U	110 U	96 U	99 U	86 U	96 U	100 U	100 U	120 U	89 U	94 U	88 U	87 U	100 U	100 U	94 U	95 U	93 U	87 U	110 U
n-Nitrosodiphenylamine	337 U	342 U	330 U	361 U	322 U	331 U	287 U	319 U	340 U	342 U	385 U	298 U	314 U	293 U	289 U	351 U	344 U	312 U	316 U	311 U	290 U	364 U
Nitrobenzene	300 U	300 U	300 U	820 J	300 U	300 U	300 U	300 U	300 U	300 U	300 U	396 J	300 U	300 U	300 U	11,700 J	300 U	300 U	300 U	300 U	300 U	1,270 J
Pentachlorophenol	22 UJ	23 UJ	22 U	24 U	21 UJ	22 U	19 U	21 UJ	23 UJ	23 UJ	26 UJ	20 U	21 UJ	20 U	19 U	23 U	23 UJ	21 U	21 U	21 U	19 U	24 UJ
Phenanthrene	337 U	342 U	330 U	361 U	322 U	331 U	287 U	319 U	340 U	342 U	385 U	298 U	314 U	293 U	289 U	351 U	344 U	312 U	316 U	311 U	290 U	364 U
Phenol	337 U	342 U	330 U	361 U	322 U	331 U	287 U	319 U	340 U	342 U	385 U	298 UJ	314 U	293 U	289 U	351 U	344 U	312 U	316 U	311 U	290 U	364 U
Pyrene	337 U	342 U	330 U	361 U	322 U	331 U	287 U	319 U	340 U	342 U	385 U	298 U	314 U	293 U	289 U	59.1 J	344 U	312 U	316 U	311 U	290 U	364 U
Explosives (µg/kg)																						
1,3,5-Trinitrobenzene	101 J	300 U	300 U	390 J	300 U	300 U	300 U	211 J	117 J	166 J	300 U	100 J	152 J	300 U	300 U	300 U	300 U	300 U	300 U	310 J	300 U	280 J
1,3-Dinitrobenzene	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	223 J	206 J	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U
2,4,6-Trinitrotoluene	300 U	632 J	300 U	750 J	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	169 J	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U
2-Amino-4,6-dinitrotoluene	300 U	300 U	300 U	351 J	300 U	300 U	300 U	300 U	300 U	113 J	300 U	300 U	300 U	300 U	300 U	300 U	300 U	116 J	300 U	300 U	300 U	300 U
2-Nitrotoluene	300 U	300 U	300 U	243 J	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	209 J	300 U	300 U	300 U	122 J
3-Nitrotoluene	300 U	300 U	109 J	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	117 J	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U
4-Amino-2,6-dinitrotoluene	300 U	300 U	163 J	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U
4-Nitrotoluene	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	132 J	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	3,770 J
HMX	300 U	300 U	300 U	647 J	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	292 J	300 U	300 U	300 U	300 U	300 U	277 J
Nitroglycerin	968 J	750 U	750 U	750 U	750 U	457 J	750 U	750 U	1,870 J	750 U	750 U	750 U	750 U	750 U	750 U	616 J	750 U	750 U	750 U	750 U	750 U	522 J
Perchlorate	2.7 U	2.74 U	2.64 U	2.89 U	2.58 U	2.65 U	2.3 U	2.55 U	2.72 U	2.74 U	3.08 U	2.39 U	2.51 U	2.34 U	2.31 U	2.81 U	2.75 U	2.5 U	2.53 U	2.49 U	2.32 U	2.91 U
PETN	500 U	500 U	500 U	500 U	500 U	500 U	500 U	500 U	500 U	500 U	500 U	500 U	500 U	500 U	500 U	500 U	500 U	500 U	500 U	500 U	500 U	500 U
RDX	472 J	198 J	1,020 J	300 U	767 J	135 J	258 J	300 U	300 U	300 U	382 J	176 J	300 U	300 U	107 J	300 U	230 J	153 J	543	616 J	300 U	2,730 J
Tetryl	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	408	482	106 J	300 U	300 U	300 U	300 U	300 U	300 U	696 J	300 U	300 U	300 U	300 U
Total Metals (mg/kg)																						
Aluminum	1,170	1,160	3,310	6,270	864	687	387	884	804	790	1,410	3,190	542	435	2,330	5,330	1,830	1,790	600	632	2,000	3,510
Antimony	1.01 UJ	1 UJ	0.995 UJ	1.08 U	0.975 U	0.97 U	0.829 UJ	0.903 UJ	1.01 U	0.978 U	1.17 UJ	0.895 UJ	0.929 U	0.879 U	0.87 UJ	1.05 UJ	1.06 UJ	0.896 UJ	0.929 U	0.928 U	0.893 UJ	1.09 UJ
Arsenic	0.356	0.348	0.781	0.921	0.393	0.435	0.276 U	0.283 J	0.397	0.482	0.475	0.595	0.241 J	0.293 U	0.472	1.17	0.504	0.35	0.303 J	0.325	0.415	0.816
Barium	10.8	10.5	15.7	29	8.67	18.2	5.74	21.1	31.8	28.9	23.2	14.4	7.63	5.22	6.25	23.8	32.8	13.5	7.07	8.06	6	64.2
Beryllium	0.337 U	0.334 U	0.332 U	0.0758 J	0.325 U	0.323 U	0.276 U	0.301 U	0.338 U	0.326 U	0.389 U	0.0695 J	0.31 U	0.293 U	0.29 U	0.114 J	0.0907 J	0.299 U	0.31 U	0.309 U	0.298 U	0.121 J
Cadmium	0.337 U	0.334 U	0.0883 J	0.104 J	0.325 U	0.323 U	0.276 U	0.301 U	0.338 U	0.326 U	0.0913 J	0.26 J	0.31 U	0.293 U	0.29 U	0.264 J	0.17 J	0.299 U	0.31 U	0.309 U	0.298 U	0.139 J
Calcium	553	550	2,150	841	327	517	270 J	338	372	354	752	6,690	534	227 J	425	4,530	3,610	689	557	629	144 J	2,700
Chromium	1.77	1.73	3.13	5.02	1.37	0.996	0.569	0.929	0.848	0.877	1.53	4.95	0.989	0.792	2.8	7.98	1.7	2.39	0.998	1.03	2.29	2.55
Cobalt	0.843 U	0.835 U	0.829 U	0.898 U	0.813 U	0.809 U	0.691 U	0.752 U	0.845 U	0.815 U	0.973 U	0.525 J	0.774 U	0.733 U	0.725 U	0.668 J	0.882 U	0.747 U	0.774 U	0.773 U	0.745 U	0.909 U
Copper	0.856	0.873	0.988	3.54	0.906	1.11	0.406 J	1.46	1.64	1.68	2.23	4.74	0.694	0.509 J	0.883	6.1	2.67	1.12	0.954	1.11	0.539 J	2.86
Iron	341	364	823	1,110	499	389	152	381	314	306	478	1,870	358	236	977	2,640	641	676	320	338	990	1,400
Lead	5.19	5.75	5.84	9.68	6.29	4.72	2.72	8.43	12.7	11.9	17.7	15	6.91	9.55	2.91	27.2	9.39	4.21	12.3	14.9	6.86	15.6
Magnesium	95 J	96.9 J	153 J	179 J	325 U	80 J	276 U	301 U	85.1 J	81 J	115 J	251 J	71.7 J	293 U	109 J	388	244 J	116 J	310 U	309 U	78.4 J	238 J
Manganese	2.89 J	2.86 J	19.2 J	60	4.28	1.97	4.55 J	4.91 J	4.14	4.47	3.3 J	30.8 J	18.9	2.97	7.45 J	65.6 J	43.5 J	20 J	4.5	4.63	5.57 J	118 J
Mercury	0.0384 J	0.0282 J	0.0241 J	0.07	0.0235 J	0.0544	0.0345 U	0.0265 J	0.0348 J	0.0352 J	0.0428 J	0.0645	0.0155 J	0.0142 J	0.0369 U	0.0854	0.0553	0.0198 J	0.0247 J	0.029 J	0.0142 J	0.052
Nickel	0.551 J	0.574 J	1.01	1.32	0.443 J	0.51 J	0.553 U	0.608	0.794	0.748	1.17	2.67	0.345 J	0.586 U	0.667	3.24	1.08	0.563 J	0.496 J	0.532 J	0.511 J	1.83
Potassium	81 J	84.6 J	142 J	187 J	325 U	67.5 J	276 U	301 U	338 U	326 U	96.5 J	190 J	310 U	293 U	110 J	351 J	149 J	107 J	310 U	309 U	77.2 J	205 J
Selenium	0.285 J	0.296 J	0.318 J	0.66	0.213 J	0.291 J	0.332 U	0.231 J	0.362 J	0.38 J	0.419 J	0.201 J	0.371 U	0.352 U	0.348 U	0.403 J	0.388 J	0.248 J	0.187 J	0.279 J	0.357 U	0.294 J
Silver	0.337 U	0.334 U	0.332 U	0.359 U	0.325 U	0.323 U	0.276 U	0.301 U	0.338 U	0.326 U	0.389 U	0.371	0.31 U	0.293 U	0.29 U	0.44	0.353 U	0.299 U	0.31 U	0.309 U	0.298 U	0.364 U
Sodium	337 U	334 U	332 U	359 U	325 U	323 U	276 U	301 U	338 U	326 U	389 U	298 U	310 U	293 U	290 U	349 U	353 U	299 U	310 U	309 U	298 U	364 U
Thallium	0.54 U	0.534 U	0.531 U	0.574 U	0.52 U	0.517 U	0.442 U	0.482 U	0.541 U	0.521 U	0.622 U	0.477 U	0.495 U	0.469 U	0.464 U	0.558 U	0.565 U	0.478 U	0.496 U	0.495 U	0.477 U	0.582 U
Vanadium	2.18	2.23	4.14	5.63	2.25	1.16	0.659 J	1.22	1.41	1.41	2.94	5.38	1.76	1.37	3.51	9.96	2.71	2.92	1.76	1.78	3.41	4.55
Zinc	1.75	1.91	4.32	7.53	2.39	2.83	1.24	2.31	3.57	3.64	4.66	26.9	5	1.47	2.95	41.9	9.49	4.18	4.73	5.23	2.74	12.5

Notes:

Shading indicates detections

NA - Not analyzed

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

R - Unreliable Result

U - The material was analyzed for, but not detected

UJ - Analyte not detected, quantitation limit may be inaccurate

mg/kg - Milligrams per kilogram

µg/kg - Micrograms per kilogram

Station ID	MR21-SS30	MR21-SS31	MR21-SS32	MR21-SS33	MR21-SS34	MR21-SS35	MR21-SS36	MR21-SS37	MR21-SS38	MR21-SS39	MR21-SS40
Sample ID	MR21-SS30-10A	MR21-SS31-10A	MR21-SS32-10A	MR21-SS33-10A	MR21-SS34-10A	MR21-SS35-10A	MR21-SS36-10A	MR21-SS37-10A	MR21-SS38-10A	MR21-SS39-10A	MR21-SS40-10A
Sample Date	03/04/10	03/03/10	03/04/10	03/04/10	03/04/10	03/04/10	03/04/10	03/04/10	03/04/10	03/04/10	03/03/10
Chemical Name											
Volatile Organic Compounds (µg/kg)											
1,1,1-Trichloroethane	13.9 U	12.4 U	13.3 UJ	13.7 UJ	20.1 UJ	18.7 UJ	16.6 UJ	15.5 UJ	17.6 UJ	20.9 UJ	16.1 UJ
1,1,2,2-Tetrachloroethane	13.9 U	12.4 U	13.3 UJ	13.7 UJ	20.1 UJ	18.7 UJ	16.6 UJ	15.5 UJ	17.6 UJ	20.9 UJ	16.1 UJ
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	13.9 U	12.4 U	13.3 UJ	13.7 UJ	20.1 UJ	18.7 UJ	16.6 UJ	15.5 UJ	17.6 UJ	20.9 UJ	16.1 UJ
1,1,2-Trichloroethane	13.9 U	12.4 U	13.3 UJ	13.7 UJ	20.1 UJ	18.7 UJ	16.6 UJ	15.5 UJ	17.6 UJ	20.9 UJ	16.1 UJ
1,1-Dichloroethane	13.9 U	12.4 U	13.3 UJ	13.7 UJ	20.1 UJ	18.7 UJ	16.6 UJ	15.5 UJ	17.6 UJ	20.9 UJ	16.1 UJ
1,1-Dichloroethene	13.9 U	12.4 U	13.3 UJ	13.7 UJ	20.1 UJ	18.7 UJ	16.6 UJ	15.5 UJ	17.6 UJ	20.9 UJ	16.1 UJ
1,2,4-Trichlorobenzene	13.9 U	12.4 U	13.3 UJ	13.7 UJ	20.1 UJ	18.7 UJ	16.6 UJ	15.5 UJ	17.6 UJ	20.9 UJ	16.1 UJ
1,2-Dibromo-3-chloropropane	6.93 U	6.19 U	6.66 UJ	6.86 UJ	10.1 UJ	9.33 UJ	8.28 UJ	7.77 UJ	8.79 UJ	10.4 UJ	8.04 UJ
1,2-Dibromoethane	13.9 U	12.4 U	13.3 UJ	13.7 UJ	20.1 UJ	18.7 UJ	16.6 UJ	15.5 UJ	17.6 UJ	20.9 UJ	16.1 UJ
1,2-Dichlorobenzene	13.9 U	12.4 U	13.3 UJ	13.7 UJ	20.1 UJ	18.7 UJ	16.6 UJ	15.5 UJ	17.6 UJ	20.9 UJ	16.1 UJ
1,2-Dichloroethane	13.9 U	12.4 U	13.3 UJ	13.7 UJ	20.1 UJ	18.7 UJ	16.6 UJ	15.5 UJ	17.6 UJ	20.9 UJ	16.1 UJ
1,2-Dichloropropane	13.9 U	12.4 U	13.3 UJ	13.7 UJ	20.1 UJ	18.7 UJ	16.6 UJ	15.5 UJ	17.6 UJ	20.9 UJ	16.1 UJ
1,3-Dichlorobenzene	13.9 U	12.4 U	13.3 UJ	13.7 UJ	20.1 UJ	18.7 UJ	16.6 UJ	15.5 UJ	17.6 UJ	20.9 UJ	16.1 UJ
1,4-Dichlorobenzene	13.9 U	12.4 U	13.3 UJ	13.7 UJ	20.1 UJ	18.7 UJ	16.6 UJ	15.5 UJ	17.6 UJ	20.9 UJ	16.1 UJ
2-Butanone	13.9 U	12.4 U	13.3 UJ	13.7 UJ	20.1 UJ	18.7 UJ	16.6 UJ	15.5 UJ	17.6 UJ	20.9 UJ	16.1 UJ
2-Hexanone	13.9 U	12.4 U	13.3 UJ	13.7 UJ	20.1 UJ	18.7 UJ	16.6 UJ	15.5 UJ	12.8 J	20.9 UJ	16.1 UJ
4-Methyl-2-pentanone	13.9 U	12.4 U	13.3 UJ	13.7 UJ	20.1 UJ	18.7 UJ	16.6 UJ	15.5 UJ	17.6 UJ	20.9 UJ	16.1 UJ
Acetone	249 J	270 J	174 J	201 J	272 J	495 J	346 J	143 J	146 J	77 J	310 J
Benzene	13.9 U	12.4 U	13.3 UJ	13.7 UJ	20.1 UJ	18.7 UJ	16.6 UJ	15.5 UJ	17.6 UJ	20.9 UJ	16.1 UJ
Bromodichloromethane	13.9 U	12.4 U	13.3 UJ	13.7 UJ	20.1 UJ	18.7 UJ	16.6 UJ	15.5 UJ	17.6 UJ	20.9 UJ	16.1 UJ
Bromoform	13.9 U	12.4 U	13.3 UJ	13.7 UJ	20.1 UJ	18.7 UJ	16.6 UJ	15.5 UJ	17.6 UJ	20.9 UJ	16.1 UJ
Bromomethane	13.9 UJ	12.4 U	13.3 UJ	13.7 UJ	20.1 UJ	18.7 UJ	16.6 UJ	15.5 UJ	17.6 UJ	20.9 UJ	16.1 UJ
Carbon disulfide	13.9 U	12.4 U	13.3 UJ	13.7 UJ	20.1 UJ	18.7 UJ	16.6 UJ	15.5 UJ	17.6 UJ	20.9 UJ	16.1 UJ
Carbon tetrachloride	13.9 U	12.4 U	13.3 UJ	13.7 UJ	20.1 UJ	18.7 UJ	16.6 UJ	15.5 UJ	17.6 UJ	20.9 UJ	16.1 UJ
Chlorobenzene	13.9 U	12.4 U	13.3 UJ	13.7 UJ	20.1 UJ	18.7 UJ	16.6 UJ	15.5 UJ	17.6 UJ	20.9 UJ	16.1 UJ
Chloroethane	13.9 U	12.4 U	13.3 UJ	13.7 UJ	20.1 UJ	18.7 UJ	16.6 UJ	15.5 UJ	17.6 UJ	20.9 UJ	16.1 UJ
Chloroform	13.9 U	12.4 U	13.3 UJ	13.7 UJ	6.48 J	18.7 UJ	102 J	1.07 J	17.6 UJ	20.9 UJ	16.1 UJ
Chloromethane	13.9 U	12.4 U	13.3 UJ	13.7 UJ	20.1 UJ	18.7 UJ	16.6 UJ	15.5 UJ	17.6 UJ	20.9 UJ	16.1 UJ
cis-1,2-Dichloroethene	13.9 U	12.4 U	13.3 UJ	13.7 UJ	20.1 UJ	18.7 UJ	16.6 UJ	15.5 UJ	17.6 UJ	20.9 UJ	16.1 UJ
cis-1,3-Dichloropropene	13.9 U	12.4 U	13.3 UJ	13.7 UJ	20.1 UJ	18.7 UJ	16.6 UJ	15.5 UJ	17.6 UJ	20.9 UJ	16.1 UJ
Cyclohexane	13.9 U	12.4 U	13.3 UJ	13.7 UJ	20.1 UJ	18.7 UJ	16.6 UJ	15.5 UJ	17.6 UJ	20.9 UJ	16.1 UJ
Dibromochloromethane	13.9 U	12.4 U	13.3 UJ	13.7 UJ	20.1 UJ	18.7 UJ	16.6 UJ	15.5 UJ	17.6 UJ	20.9 UJ	16.1 UJ
Dichlorodifluoromethane (Freon-12)	13.9 U	12.4 U	13.3 UJ	13.7 UJ	20.1 UJ	18.7 UJ	16.6 UJ	15.5 UJ	17.6 UJ	20.9 UJ	16.1 UJ
Ethylbenzene	13.9 U	12.4 U	13.3 UJ	1.18 J	2.26 J	18.7 UJ	16.6 UJ	15.5 UJ	17.6 UJ	20.9 UJ	16.1 UJ
Isopropylbenzene	13.9 U	12.4 U	13.3 UJ	13.7 UJ	20.1 UJ	18.7 UJ	16.6 UJ	15.5 UJ	17.6 UJ	20.9 UJ	16.1 UJ
Methyl acetate	13.9 U	12.4 U	4.53 J	5.59 J	16.3 J	29.9 J	306 J	15.5 UJ	4.5 J	20.9 UJ	15.6 J
Methylcyclohexane	13.9 U	12.4 U	13.3 UJ	13.7 UJ	20.1 UJ	18.7 UJ	16.6 UJ	15.5 UJ	17.6 UJ	20.9 UJ	16.1 UJ
Methylene chloride	13.9 U	12.4 U	13.3 UJ	13.7 UJ	20.1 UJ	18.7 UJ	16.6 UJ	15.5 UJ	17.6 UJ	20.9 UJ	16.1 UJ
Methyl-tert-butyl ether (MTBE)	13.9 U	12.4 U	13.3 UJ	13.7 UJ	20.1 UJ	18.7 UJ	16.6 UJ	15.5 UJ	17.6 UJ	20.9 UJ	16.1 UJ
Styrene	13.9 U	12.4 U	13.3 UJ	13.7 UJ	20.1 UJ	18.7 UJ	16.6 UJ	15.5 UJ	17.6 UJ	20.9 UJ	16.1 UJ
Tetrachloroethene	13.9 U	12.4 U	13.3 UJ	13.7 UJ	20.1 UJ	18.7 UJ	16.6 UJ	15.5 UJ	17.6 UJ	20.9 UJ	16.1 UJ
Toluene	13.9 U	1.08 J	13.3 UJ	5.04 J	1.86 J	1.95 J	4.92 J	15.5 UJ	5.83 J	2.27 J	2.07 J
trans-1,2-Dichloroethene	13.9 U	12.4 U	13.3 UJ	13.7 UJ	20.1 UJ	18.7 UJ	16.6 UJ	15.5 UJ	17.6 UJ	20.9 UJ	16.1 UJ
trans-1,3-Dichloropropene	13.9 U	12.4 U	13.3 UJ	13.7 UJ	20.1 UJ	18.7 UJ	16.6 UJ	15.5 UJ	17.6 UJ	20.9 UJ	16.1 UJ
Trichloroethene	13.9 U	12.4 U	13.3 UJ	13.7 UJ	20.1 UJ	18.7 UJ	16.6 UJ	15.5 UJ	17.6 UJ	20.9 UJ	16.1 UJ
Trichlorofluoromethane(Freon-11)	13.9 U	12.4 U	13.3 UJ	13.7 UJ	20.1 UJ	18.7 UJ	16.6 UJ	15.5 UJ	17.6 UJ	20.9 UJ	16.1 UJ
Vinyl chloride	13.9 U	12.4 U	13.3 UJ	13.7 UJ	20.1 UJ	18.7 UJ	16.6 UJ	15.5 UJ	17.6 UJ	20.9 UJ	16.1 UJ
Xylene, total	13.9 U	12.4 U	13.3 UJ	4.85 J	3.89 J	3.37 J	16.6 UJ	15.5 UJ	2.68 J	3.58 J	2.99 J
Semivolatile Organic Compounds (µg/kg)											
1,1-Biphenyl	331 U	342 U	300 U	326 U	484 U	381 U	326 U	325 U	338 U	315 U	373 U
2,4,5-Trichlorophenol	661 U	683 U	600 U	652 U	968 UJ	762 U	653 U	650 U	675 U	630 U	747 U
2,4,6-Trichlorophenol	331 U	342 U	300 U	326 U	484 U	381 U	326 U	325 U	338 U	315 U	373 U
2,4-Dichlorophenol	331 U	342 U	300 U	326 U	484 U	381 U	326 U	325 U	338 U	315 U	373 U
2,4-Dimethylphenol	331 U	342 U	300 U	326 U	484 U	381 U	326 U	325 U	338 U	315 U	373 U
2,4-Dinitrophenol	661 U	683 U	600 UJ	652 UJ	968 UJ	762 UJ	653 U	650 U	675 U	630 U	747 U
2,4-Dinitrotoluene	300 U	300 U	300 U	300 U	300 U	300 U	140 J	300 U	300 U	300 U	300 U
2,6-Dinitrotoluene	300 U	300 U	300 U	322 J	300 U	300 U	300 U	300 U	300 U	300 U	300 U
2-Chloroacetophenone	331 U	342 U	300 U	326 U	484 U	381 U	326 U	325 U	338 U	315 U	373 U
2-Chlorobenzalmalononitrile	331 U	342 U	300 U	326 UJ	484 U	381 U	326 UJ	325 UJ	338 UJ	315 UJ	373 U
2-Chloronaphthalene	331 U	342 U	300 U	326 U	484 U	381 U	326 U	325 U	338 U	315 U	373 U
2-Chlorophenol	331 U	342 U	300 U	326 U	484 U	381 U	326 U	325 U	338 U	315 U	373 U
2-Methylnaphthalene	331 U	342 U	300 U	326 U	484 U	381 U	326 U	325 U	338 U	315 U	373 U
2-Methylphenol	331 U	342 U	300 U	326 U	484 U	381 U	326 U	325 U	338 U	315 U	373 U
2-Nitroaniline	661 U	683 U	600 U	652 U	968 UJ	762 U	653 U	650 U	675 U	630 U	747 U
2-Nitrophenol	331 U	342 U	300 U	326 U	484 U	381 U	326 U	325 U	338 U	315 U	373 U
3,3'-Dichlorobenzidine	331 U	342 U	300 UJ	326 UJ	484 R	381 UJ	326 UJ	325 UJ	338 UJ	315 UJ	373 U
3-Nitroaniline	661 U	683 U	600 U	652 U	968 R	762 U	653 U	650 U	675 U	630 U	747 U
4,6-Dinitro-2-methylphenol	661 U	683 U	600 U	652 U	968 U	762 U	653 U	650 U	675 U	630 U	747 U
4-Bromophenyl-phenylether	331 U	342 U	300 U	326 U	484 UJ	381 U	326 U	325 U	338 U	315 U	373 U
4-Chloro-3-methylphenol	331 U	342 U	300 U	326 U	484 UJ	381 U	326 U	325 U	338 U	315 U	373 U
4-Chloroaniline	331 U	342 U	300 U	326 U	484 R	381 U	326 U	325 U	338 U	315 U	373 U
4-Chlorophenyl-phenylether	331 U	342 U	300 U	326 U	484 UJ	381 U	326 U	325 U	338 U	315 U	373 U
4-Methylphenol	331 U	342 U	300 U	326 U	484 U	381 U	326 U	325 U	338 U	315 U	373 U
4-Nitroaniline	661 U	683 U	600 U	652 U	968 R	762 U	653 U	650 U	675 U	630 U	747 U
4-Nitrophenol	661 U	683 U	600 U	652 U	968 U	762 U	653 U	650 U	675 U	630 U	747 U
Acenaphthene	331 U	342 U	300 U	326 U	484 U	381 U	326 U	325 U	338 U	315 U	373 U
Acenaphthylene	331 U	342 U	300 U	326 U	484 U	381 U	326 U	325 U	338 U	315 U	373 U
Acetophenone	331 U	342 U	300 U	326 U	484 U	381 U	326 U	325 U	338 U	315 U	373 U
Anthracene	331 U	342 U	300 U	326 U	484 UJ	381 U	326 U	325 U	338 U	315 U	373 U
Atrazine	331 U	342 U	300 UJ	326 UJ	484 UJ	381 UJ	326 U	325 U	338 U	315 U	373 U
Benzaldehyde	331 R	86.3 J	300 R	326 R	277 J	381 R	326 R	94 J	103 J	315 R	152 J
Benzo(a)anthracene	66 U	68 U	60 U	65 U	97 UJ	76 U	65 U	65 U	68 U	63 U	75 U
Benzo(a)pyrene	6.6 U	20	4.5 J	6.5 U	9.7 UJ	7.6 U	6.5 U	6.5 U	6.8 U	6.3 U	23
Benzo(b)fluoranthene	66 U	31 J	60 U	14 J	13 J	12 J	65 U	65 U	22 J	63 U	34 J
Benzo(g,h,i)perylene	331 U	342 U	300 U	326 UJ	484 UJ	381 U	326 UJ	325 UJ	338 UJ	315 UJ	373 U
Benzo(k)fluoranthene	331 U	342 U	300 U	326 UJ	484 U	381 U	326 UJ	325 UJ	338 UJ	315 UJ	373 U

Station ID	MR21-SS30	MR21-SS31	MR21-SS32	MR21-SS33	MR21-SS34	MR21-SS35	MR21-SS36	MR21-SS37	MR21-SS38	MR21-SS39	MR21-SS40
Sample ID	MR21-SS30-10A	MR21-SS31-10A	MR21-SS32-10A	MR21-SS33-10A	MR21-SS34-10A	MR21-SS35-10A	MR21-SS36-10A	MR21-SS37-10A	MR21-SS38-10A	MR21-SS39-10A	MR21-SS40-10A
Sample Date	03/04/10	03/03/10	03/04/10	03/04/10	03/04/10	03/04/10	03/04/10	03/04/10	03/04/10	03/04/10	03/03/10
Chemical Name											
bis(2-Chloroethoxy)methane	331 U	342 U	300 U	326 U	484 U	381 U	326 U	325 U	338 U	315 U	373 U
bis(2-Chloroethyl)ether	331 U	342 U	300 U	326 U	484 U	381 U	326 U	325 U	338 U	315 U	373 U
bis(2-Chloroisopropyl)ether	331 U	342 U	300 UJ	326 UJ	484 UJ	381 UJ	326 U	325 U	338 U	315 U	373 U
bis(2-Ethylhexyl)phthalate	331 U	342 U	300 UJ	326 UJ	484 UJ	381 UJ	326 U	325 U	338 U	315 U	373 U
Butylbenzylphthalate	331 U	342 U	300 UJ	326 UJ	484 UJ	381 UJ	326 U	325 U	338 U	315 U	373 U
Caprolactam	331 U	342 U	300 UJ	326 UJ	484 UJ	381 UJ	326 U	325 U	338 U	315 U	373 U
Carbazole	331 U	342 U	300 UJ	326 UJ	484 UJ	381 UJ	326 U	325 U	338 U	315 U	373 U
Chrysene	331 U	342 U	300 U	326 U	484 UJ	381 U	326 U	325 U	338 U	315 U	373 U
Dibenz(a,h)anthracene	6.6 U	6.8 UJ	6 UJ	6.5 U	9.7 U	7.6 U	6.5 U	6.5 U	6.8 U	6.3 U	7.5 UJ
Dibenzofuran	331 U	342 U	300 U	326 U	484 UJ	381 U	326 U	325 U	338 U	315 U	373 U
Diethylphthalate	331 U	342 U	300 U	326 U	484 U	381 U	326 U	325 U	338 U	315 U	373 U
Dimethyl phthalate	331 U	342 U	300 U	326 U	484 UJ	381 U	326 U	325 U	338 U	315 U	373 U
Di-n-butylphthalate	331 U	342 U	300 U	326 U	484 U	381 U	326 U	325 U	338 U	315 U	373 U
Di-n-octylphthalate	331 U	342 U	300 UJ	326 UJ	484 UJ	381 UJ	326 UJ	325 UJ	338 UJ	315 UJ	373 U
Fluoranthene	331 U	342 U	300 U	326 U	484 UJ	381 U	326 U	325 U	338 U	315 U	373 U
Fluorene	331 U	342 U	300 U	326 U	484 UJ	381 U	326 U	325 U	338 U	315 U	373 U
Hexachlorobenzene	331 U	342 U	300 U	326 U	484 UJ	381 U	326 U	325 U	338 U	315 U	373 U
Hexachlorobutadiene	331 U	342 U	300 U	326 U	484 U	381 U	326 U	325 U	338 U	315 U	373 U
Hexachlorocyclopentadiene	331 UJ	342 UJ	300 UJ	326 UJ	484 UJ	381 UJ	326 UJ	325 UJ	338 UJ	315 UJ	373 UJ
Hexachloroethane	331 U	342 U	300 U	326 U	484 UJ	381 U	326 U	325 U	338 U	315 U	373 U
Indeno(1,2,3-cd)pyrene	66 U	68 UJ	60 UJ	65 U	97 U	76 U	65 U	65 U	68 U	63 U	75 UJ
Isophorone	66 U	68 U	60 U	65 U	97 U	76 U	65 U	65 U	68 U	63 U	75 U
Naphthalene	331 U	342 U	300 U	326 U	484 U	381 U	326 U	325 U	338 U	315 U	373 U
n-Nitroso-di-n-propylamine	99 U	100 U	90 U	98 U	140 U	110 U	98 U	98 U	100 U	94 U	110 U
n-Nitrosodiphenylamine	331 U	342 U	300 U	326 U	484 UJ	381 U	326 U	325 U	338 U	315 U	373 U
Nitrobenzene	300 U	300 U	690 J	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U
Pentachlorophenol	22 UJ	23 U	20 U	22 UJ	32 UJ	25 UJ	22 UJ	22 UJ	22 UJ	21 UJ	25 U
Phenanthrene	331 U	342 U	300 U	326 U	484 UJ	381 U	326 U	325 U	338 U	315 U	373 U
Phenol	331 U	342 U	300 U	326 U	484 U	381 U	326 U	325 U	338 U	315 U	373 U
Pyrene	331 U	342 U	300 U	326 U	484 UJ	381 U	326 U	325 U	338 U	315 U	373 U
Explosives (µg/kg)											
1,3,5-Trinitrobenzene	180 J	349 J	300 U	114 J	226 J	300 U	300 U	300 U	300 U	300 U	300 U
1,3-Dinitrobenzene	300 U	300 U	300 U	300 U	300 U	300 U	300 U	199 J	300 U	300 U	300 U
2,4,6-Trinitrotoluene	300 U	300 U	300 U	300 U	300 U	300 U	129 J	300 U	300 U	133 J	300 U
2-Amino-4,6-dinitrotoluene	300 U	300 U	300 U	242 J	300 UJ	126 J	300 U	300 U	300 U	300 U	300 U
2-Nitrotoluene	300 U	300 U	300 U	202 J	300 U	112 J	300 U	300 U	300 U	300 U	355 J
3-Nitrotoluene	300 U	2,690 J	270 J	300 U	300 U	300 U	300 U	300 U	300 U	117 J	300 U
4-Amino-2,6-dinitrotoluene	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U
4-Nitrotoluene	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U
HMX	300 U	300 U	300 U	300 U	1,130 J	300 U	300 U	294 J	300 U	300 U	300 U
Nitroglycerin	750 U	750 U	1,010 J	750 U	750 U	750 U	750 U	750 U	750 U	543	750 U
Perchlorate	2.64 U	2.73 U	2.4 U	2.61 U	3.87 U	3.05 U	2.61 U	2.6 U	2.7 U	2.52 U	2.99 U
PETN	500 U	500 U	500 U	500 U	500 U	500 U	1,480	523 J	639 J	500 U	500 U
RDX	452 J	300 U	435 J	857 J	615	917 J	300 U	300 U	300 U	300 U	300 U
Tetryl	300 U	300 U	300 U	108 J	300 U	300 U	300 U	300 U	300 U	300 U	300 U
Total Metals (mg/kg)											
Aluminum	3,980	3,300	739	2,280	1,680	2,130	2,110	1,700	679	1,110	9,090
Antimony	0.992 UJ	0.986 UJ	0.886 U	0.927 U	1.44 U	1.1 U	0.979 UJ	0.98 UJ	1.01 UJ	0.909 UJ	1.1 UJ
Arsenic	0.689	0.765	0.248 J	0.598	0.555	0.409	0.542	0.492	0.367	0.427	1.6
Barium	50.8	26.5	7.96	15	37.8	35.8	18.2	15.3	12.6	16.7	27.4
Beryllium	0.126 J	0.329 U	0.295 U	0.309 U	0.481 U	0.368 U	0.326 U	0.327 U	0.336 U	0.303 U	0.0971 J
Cadmium	0.0851 J	0.118 J	0.295 U	0.309 U	0.16 J	0.129 J	0.326 U	0.327 U	0.336 U	0.303 U	0.13 J
Calcium	3,430	3,500	259 J	988	3,580	4,110	828	769	929	881	4,210
Chromium	2.41	4.04	0.948	2.32	1.69	1.91	1.71	1.68	1.37	1.54	8.84
Cobalt	0.826 U	0.821 U	0.738 U	0.772 U	1.2 U	0.92 U	0.816 U	0.816 U	0.84 U	0.757 U	0.6 J
Copper	2.84	3.31	0.814	1.41	2.63	3.17	1.89	1.86	1.38	1.95	6.54
Iron	1,250	1,660	287	1,150	754	648	605	648	454	592	3,040
Lead	8.5	15	6.07	9.64	11	8.76	10.1	8.68	12.6	10.8	28.9
Magnesium	282 J	245 J	295 U	138 J	310 J	232 J	117 J	143 J	102 J	94.6 J	335 J
Manganese	120 J	60.1 J	3.75	53.4	135	38.3	22.8 J	37.7 J	21.7 J	29.2 J	25.1 J
Mercury	0.0361 J	0.0346 J	0.0235 J	0.0401	0.0516 J	0.058	0.0575	0.0347 J	0.0315 J	0.0257 J	0.07
Nickel	2.1	1.4	0.438 J	0.934	0.986	1.25	1.06	0.848	0.618 J	0.587 J	3.88
Potassium	173 J	177 J	295 U	126 J	252 J	190 J	126 J	111 J	85.2 J	83 J	278 J
Selenium	0.208 J	0.204 J	0.354 U	0.199 J	0.432 J	0.278 J	0.339 J	0.208 J	0.278 J	0.198 J	0.244 J
Silver	0.331 U	0.329 U	0.295 U	0.309 U	0.481 U	0.368 U	0.326 U	0.327 U	0.336 U	0.303 U	0.212 J
Sodium	331 U	329 U	295 U	309 U	481 U	368 U	326 U	327 U	336 U	303 U	368 U
Thallium	0.529 U	0.526 U	0.473 U	0.494 U	0.77 U	0.589 U	0.522 U	0.522 U	0.538 U	0.485 U	0.588 U
Vanadium	3.74	5.78	1.49	4.26	3.02	2.84	2.61	2.93	2.75	2.98	11.8
Zinc	16.9	18.3	1.61	5.62	13.3	8.83	2.55	6.91	5.03	3.28	33.9

Notes:

Shading indicates detections

NA - Not analyzed
J - Analyte present, value may or may not be accurate or precise
R - Unreliable Result
U - The material was analyzed for, but not detected
UJ - Analyte not detected, quantitation limit may be inaccurate
mg/kg - Milligrams per kilogram
µg/kg - Micrograms per kilogram

Station ID	MR21-MW01		MR21-MW02	MR21-MW03	MR21-MW04	MR21-MW05	MR21-MW06	MR21-MW07	MR21-MW08	MR21-MW09	MR21-MW10
Sample ID	MR21-GW01-10B	MR21-GW01D-10B	MR21-GW02-10B	MR21-GW03-10B	MR21-GW04-10B	MR21-GW05-10B	MR21-GW06-10B	MR21-GW07-10B	MR21-GW08-10B	MR21-GW09-10B	MR21-GW10-10B
Sample Date	04/10/10	04/10/10	04/10/10	04/10/10	04/10/10	04/10/10	04/10/10	04/10/10	04/10/10	04/10/10	04/10/10
Chemical Name											
Volatile Organic Compounds (µg/l)											
1,1,1-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,2-Dibromoethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Hexanone	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	5 R	5 R	5 U	5 U	5 U	5 R	5 R	5 R	5 R	5 R	5 R
Benzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	1 U	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon disulfide	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon tetrachloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	1 UJ	1 UJ	1 U	1 U	1 U	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Chloroform	1 U	1 U	1 U	2.12	4.07	1 U	8	1 U	1.05 U	1 U	28
Chloromethane	1.07 UJ	3.89 UJ	5.89 U	3.79 U	1.67 U	3.81 UJ	2.92 UJ	3.76 UJ	11.7 UJ	3.8 UJ	3.3 UJ
cis-1,2-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cyclohexane	1 U	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	1 U	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane (Freon-12)	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Isopropylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methyl acetate	1.5 U	1.5 U	1.5 UJ	1.5 UJ	1.5 UJ	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
Methylcyclohexane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene chloride	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Methyl-tert-butyl ether (MTBE)	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	3.64	3.91	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
trans-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane(Freon-11)	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl chloride	1 UJ	1 UJ	1 U	1 U	1 U	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Xylene, total	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Semivolatile Organic Compounds (µg/l)											
1,1-Biphenyl	9.62 U	9.62 U	9.62 U	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
2,4,5-Trichlorophenol	24 U	24 U	24 R	24.5 U	26.3 U	24.5 U	24.5 U	26.3 U	25 U	26.3 U	25 U
2,4,6-Trichlorophenol	9.62 U	9.62 U	9.62 R	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
2,4-Dichlorophenol	9.62 U	9.62 U	9.62 R	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
2,4-Dimethylphenol	9.62 U	9.62 U	9.62 R	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
2,4-Dinitrophenol	24 U	24 U	24 R	24.5 U	26.3 U	24.5 U	24.5 U	26.3 U	25 U	26.3 U	25 U
2,4-Dinitrotoluene	0.24 U	0.224 U	0.24 U	0.235 U	0.24 U	0.24 U	0.24 U	0.235 U	0.24 U	0.24 U	0.24 U
2,6-Dinitrotoluene	0.24 U	0.224 U	0.24 U	0.235 U	0.24 U	0.24 U	0.24 U	0.235 U	0.24 U	0.24 U	0.24 U
2-Chloroacetophenone	4.81 U	4.81 U	4.81 U	4.9 U	5.26 U	4.9 U	4.9 U	5.26 U	5 U	5.26 U	5 U
2-Chlorobenzalmalononitrile	4.81 UJ	4.81 UJ	4.81 UJ	4.9 UJ	5.26 UJ	4.9 UJ	4.9 UJ	5.26 UJ	5 UJ	5.26 UJ	5 UJ
2-Chloronaphthalene	9.62 U	9.62 U	9.62 U	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
2-Chlorophenol	9.62 U	9.62 U	9.62 R	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
2-Methylnaphthalene	9.62 U	9.62 U	9.62 U	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
2-Methylphenol	9.62 U	9.62 U	9.62 R	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
2-Nitroaniline	24 U	24 U	24 U	24.5 U	26.3 U	24.5 U	24.5 U	26.3 U	25 U	26.3 U	25 U
2-Nitrophenol	9.62 U	9.62 U	9.62 R	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
3,3'-Dichlorobenzidine	9.62 U	9.62 U	9.62 U	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
3-Nitroaniline	24 U	24 U	24 U	24.5 U	26.3 U	24.5 U	24.5 U	26.3 U	25 U	26.3 U	25 U
4,6-Dinitro-2-methylphenol	9.62 U	9.62 U	9.62 R	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
4-Bromophenyl-phenylether	9.62 U	9.62 U	9.62 U	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
4-Chloro-3-methylphenol	9.62 U	9.62 U	9.62 R	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
4-Chloroaniline	9.62 U	9.62 U	9.62 U	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
4-Chlorophenyl-phenylether	9.62 U	9.62 U	9.62 U	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
4-Methylphenol	9.62 UJ	9.62 UJ	9.62 R	9.8 UJ	10.5 UJ	9.8 UJ	9.8 U	10.5 U	10 U	10.5 U	10 U
4-Nitroaniline	24 U	24 U	24 U	24.5 U	26.3 U	24.5 U	24.5 U	26.3 U	25 U	26.3 U	25 U
4-Nitrophenol	24 U	24 U	24 R	24.5 U	26.3 U	24.5 U	24.5 U	26.3 U	25 U	26.3 U	25 U
Acenaphthene	9.62 U	9.62 U	9.62 U	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
Acenaphthylene	9.62 U	9.62 U	9.62 U	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
Acetophenone	9.62 U	9.62 U	9.62 U	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
Anthracene	9.62 U	9.62 U	9.62 U	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
Atrazine	9.62 UJ	9.62 UJ	9.62 UJ	9.8 UJ	10.5 UJ	9.8 UJ	9.8 UJ	10.5 UJ	10 UJ	10.5 UJ	10 UJ
Benzaldehyde	9.62 UJ	9.62 UJ	9.62 UJ	9.8 UJ	10.5 UJ	9.8 UJ	9.8 UJ	10.5 UJ	10 UJ	10.5 UJ	10 UJ
Benzo(a)anthracene	9.62 U	9.62 U	9.62 U	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
Benzo(a)pyrene	9.62 U	9.62 U	9.62 U	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
Benzo(b)fluoranthene	9.62 U	9.62 U	9.62 U	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
Benzo(g,h,i)perylene	9.62 U	9.62 U	9.62 U	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
Benzo(k)fluoranthene	9.62 U	9.62 U	9.62 U	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
bis(2-Chloroethoxy)methane	9.62 U	9.62 U	9.62 U	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
bis(2-Chloroethyl)ether	9.62 U	9.62 U	9.62 U	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
bis(2-Chloroisopropyl)ether	9.62 U	9.62 U	9.62 U	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
bis(2-Ethylhexyl)phthalate	9.62 U	9.62 U	9.62 U	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
Butylbenzylphthalate	9.62 U	9.62 U	9.62 U	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
Caprolactam	9.62 UJ	9.62 UJ	9.62 UJ	9.8 UJ	10.5 UJ	9.8 UJ	9.8 UJ	10.5 UJ	10 UJ	10.5 UJ	10 UJ
Carbazole	9.62 U	9.62 U	9.62 U	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
Chrysene	9.62 U	9.62 U	9.62 U	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
Dibenz(a,h)anthracene	9.62 U	9.62 U	9.62 U	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
Dibenzofuran	9.62 U	9.62 U	9.62 U	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
Diethylphthalate	9.62 U	9.62 U	9.62 U	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
Dimethyl phthalate	9.62 U	9.62 U	9.62 U	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
Di-n-butylphthalate	9.62 U	9.62 U	9.62 U	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
Di-n-octylphthalate	9.62 U	9.62 U	9.62 U	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
Fluoranthene	9.62 U	9.62 U	9.62 U	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
Fluorene	9.62 U	9.62 U	9.62 U	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
Hexachlorobenzene	9.62 U	9.62 U	9.62 U	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
Hexachlorobutadiene	9.62 U	9.62 U	9.62 U	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
Hexachlorocyclopentadiene	9.62 U	9.62 U	9.62 U	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
Hexachloroethane	9.62 U	9.62 U	9.62 U	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
Indeno(1,2,3-cd)pyrene	9.62 U	9.62 U	9.62 U	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
Isophorone	9.62 U	9.62 U	9.62 U	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
Naphthalene	9.62 U	9.62 U	9.62 U	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
n-Nitroso-di-n-propylamine	9.62 U	9.62 U	9.62 U	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
n-Nitrosodiphenylamine	9.62 U	9.62 U	9.62 U	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
Nitrobenzene	0.24 U	0.224 U	0.24 U	0.235 U	0.24 U	0.24 U	0.24 U	0.235 U	0.24 U	0.24 U	0.24 U
Pentachlorophenol	24 U	24 U	24 R	24.5 U	26.3 U	24.5 U	24.5 U	26.3 U	25 U	26.3 U	25 U
Phenanthrene	9.62 U	9.62 U	9.62 U	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
Phenol	9.62 U	9.62 U	9.62 R	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
Pyrene	9.62 U	9.62 U	9.62 U	9.8 U	10.5 U	9.8 U	9.8 U	10.5 U	10 U	10.5 U	10 U
Explosives (µg/l)											
1,3,5-Trinitrobenzene	0.24 U	0.224 U	0.24 U	0.235 U	0.24 U	0.24 U	0.24 U	0.235 U	0.24 U	0.24 U	0.24 U
1,3-Dinitrobenzene	0.24 U	0.224 U	0.24 U	0.235 U	0.24 U	0.24 U	0.24 U	0.235 U	0.24 U	0.24 U	0.252 U
2,4,6-Trinitrotoluene	0.24 U	0.224 U	0.24 U	0.235 U	0.24 U	0.24 U	0.24 U	0.235 U	0.24 U	0.24 U	0.24 U
2-Amino-4,6-dinitrotoluene	0.24 U	0.224 U	0.24 U	0.235 U	0.24 U	0.24 U	0.24 U	0.235 U	0.24 U	0.24 U	0.24 U
2-Nitrotoluene	0.24 U	0.224 U	0.24 U	0.235 U	0.24 U	0.28 U	0.24 U	0.235 U	0.24 U	0.24 U	0.24 U
3-Nitrotoluene	0.593 U	0.466 U	0.24 U	0.235 U	0.24 U	0.24 U	0.24 U	0.235 U	0.24 U	0.24 U	0.24 U
4-Amino-2,6-dinitrotoluene	0.24 U	0.224 U	0.24 U	0.235 U	0.24 U	0.24 U	0.24 U	0.235 U	0.24 U	0.24 U	0.24 U
4-Nitrotoluene	0.24 U	0.224 U	0.24 U	0.235 U	0.24 U	0.24 U	0.24 U	0.235 U	0.24 U	0.24 U	0.24 U
HMX	0.24 UJ	0.224 UJ	0.24 UJ	0.235 UJ	0.24 UJ	0.24 UJ	0.24 UJ	0.235 UJ	0.24 UJ	0.24 UJ	0.24 UJ
Perchlorate	0.2 U	0.2 U	0.2 U	0.0843 J	0.0821 J	0.2 U	0.292	0.2 U	0.0866 J	0.627	0.316
PETN	1.2 U	1.12 U	1.2 U	1.18 U	1.2 U	1.2 U	1.2 U	1.18 U	1.2 U	1.2 U	1.2 U
RDX	0.381 U	0.224 U	0.324 U	0.235 U	0.24 U	0.267 U	0.241 U	0.235 U	0.24 U	0.24 U	0.24 U
Tetryl	0.24 U	0.224 U	0.24 U	0.235 U	0.24 U	0.24 U	0.24 U	0.235 U	0.24 U	0.24 U	0.24 U
Total Metals (µg/l)											
Aluminum	629 J	675 J	1,980 J	155 J	378 J	107 J	176 J	203 J	226	301 J	266 J
Antimony	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U
Arsenic	1.5 U	1.5 U	2.07	1.5 U	1.5 U	0.886 J	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
Barium	145	146	35.1	24	80.1	16	32.1	13.4	51.3	23.6	43.2
Beryllium	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U
Cadmium	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Calcium	490 J	512 J	1,260	810 J	1,760	76,300	1,280	58,300	1,300 J	9,310	1,200 J
Chromium	1.12	1.19	2.74	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cobalt	1.99 J	1.97 J	3.12 U	3.12 U	3.12 U	3.12 U	3.12 U	3.12 U	3.12 U	3.12 U	3.12 U
Copper	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Iron	2,830	2,820	1,830	164	44.1	1,490	101	490	42.4 UJ	82.8	99
Lead	0.75 U	0.75 U	0.651 J	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U
Magnesium	3,820	3,840	623 J	1,130 J	3,100	1,620	1,730	1,510	1,660	2,150	2,190
Manganese	12.1	12.2	5.05	3.77	7.66	20.1	3.08 J	2.31 J	5.24	3.22 J	7.22
Mercury	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	3.45	3.48	0.929 J	2.5 U	1.14 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Potassium	660 J	670 J	964 J	613 J	1,020 J	1,010 J	585 J	1,250 U	1,110 J	704 J	758 J
Selenium	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.2 J	1.5 U
Silver	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 R	1.25 U	1.25 U
Sodium	14,400	14,500	6,140	5,970	10,800	6,070	7,730	2,290	5,530	3,400	6,260
Thallium	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Vanadium	1.8 J	1.77 J	3.22	3.12 U	3.12 U	3.12 U	3.12 U	1.82 J	3.12 U	3.12 U	3.12 U
Zinc	5.37	5.53	2.26 J	2.17 J	2.49 J	2.46 J	1.85 J	5 U	5.34	5 U	1.41 J

Notes:
Shading indicates detections
NA - Not analyzed
J - Analyte present, value may or may not be accurate or precise
R - Unreliable Result
U - The material was analyzed for, but not detected
UJ - Analyte not detected, quantitation limit may be inaccurate
µg/l - Micrograms per liter

CTO-40
Camp Lejeune - UXO-21
Validated Sediment Raw Analytical Results
March 2010

Station ID	MR21-SD/SW01	MR21-SD/SW02		MR21-SD/SW03	MR21-SD/SW04	MR21-SD/SW05	MR21-SD/SW06
Sample ID	MR21-SD01-10B	MR21-SD02-10B	MR21-SD02D-10B	MR21-SD03-10B	MR21-SD04-10B	MR21-SD05-10B	MR21-SD06-10B
Sample Date	04/11/10	04/11/10	04/11/10	04/11/10	04/11/10	04/11/10	04/11/10
Chemical Name							
Volatile Organic Compounds (µg/kg)							
1,1,1-Trichloroethane	11.3 U	13.2 U	12.8 U	12 U	11.6 U	11.1 U	10.3 U
1,1,2,2-Tetrachloroethane	11.3 U	13.2 U	12.8 U	12 U	11.6 U	11.1 U	10.3 U
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	11.3 U	13.2 U	12.8 U	12 U	11.6 U	11.1 U	10.3 U
1,1,2-Trichloroethane	11.3 U	13.2 U	12.8 U	12 U	11.6 U	11.1 U	10.3 U
1,1-Dichloroethane	11.3 U	13.2 U	12.8 U	12 U	11.6 U	11.1 U	10.3 U
1,1-Dichloroethene	11.3 U	13.2 U	12.8 U	12 U	11.6 U	11.1 U	10.3 U
1,2,4-Trichlorobenzene	11.3 U	13.2 U	12.8 U	12 U	11.6 U	11.1 UJ	10.3 U
1,2-Dibromo-3-chloropropane	5.65 U	6.59 U	6.42 U	5.99 U	5.78 U	5.54 U	5.13 U
1,2-Dibromoethane	11.3 U	13.2 U	12.8 U	12 U	11.6 U	11.1 U	10.3 U
1,2-Dichlorobenzene	11.3 U	13.2 U	12.8 U	12 U	11.6 U	11.1 UJ	10.3 U
1,2-Dichloroethane	11.3 U	13.2 U	12.8 U	12 U	11.6 U	11.1 U	10.3 U
1,2-Dichloropropane	11.3 U	13.2 U	12.8 U	12 U	11.6 U	11.1 U	10.3 U
1,3-Dichlorobenzene	11.3 U	13.2 U	12.8 U	12 U	11.6 U	11.1 UJ	10.3 U
1,4-Dichlorobenzene	11.3 U	13.2 U	12.8 U	12 U	11.6 U	11.1 UJ	10.3 U
2-Butanone	9.01 J	21.7	27.8	12 U	11.6 U	11.1 U	10.3 U
2-Hexanone	11.3 U	13.2 U	3.25 J	12 U	11.6 U	11.1 U	10.3 U
4-Methyl-2-pentanone	1.97 J	13.2 U	12.8 U	12 U	11.6 U	11.1 U	10.3 U
Acetone	153	355 J	368 J	83.9	28.7 U	40.6 U	22.9 U
Benzene	11.3 U	13.2 U	12.8 U	12 U	11.6 U	11.1 U	10.3 U
Bromodichloromethane	11.3 U	13.2 U	12.8 U	12 U	11.6 U	11.1 U	10.3 U
Bromoform	11.3 U	13.2 U	12.8 U	12 U	11.6 U	11.1 U	10.3 U
Bromomethane	11.3 U	13.2 U	12.8 U	12 U	11.6 U	11.1 U	10.3 U
Carbon disulfide	11.3 U	13.2 U	12.8 U	4.45 J	11.6 U	11.1 U	10.3 U
Carbon tetrachloride	11.3 U	13.2 U	12.8 U	12 U	11.6 U	11.1 U	10.3 U
Chlorobenzene	11.3 U	13.2 U	12.8 U	12 U	11.6 U	11.1 UJ	10.3 U
Chloroethane	11.3 U	13.2 U	12.8 U	12 U	11.6 U	11.1 U	10.3 U
Chloroform	11.3 U	13.2 U	12.8 U	12 U	11.6 U	11.1 U	10.3 U
Chloromethane	11.3 U	13.2 U	12.8 U	12 U	11.6 U	11.1 U	10.3 U
cis-1,2-Dichloroethene	11.3 U	13.2 U	12.8 U	12 U	11.6 U	11.1 U	10.3 U
cis-1,3-Dichloropropene	11.3 U	13.2 U	12.8 U	12 U	11.6 U	11.1 UJ	10.3 U
Cyclohexane	11.3 U	13.2 U	12.8 U	12 U	11.6 U	11.1 U	10.3 U
Dibromochloromethane	11.3 U	13.2 U	12.8 U	12 U	11.6 U	11.1 U	10.3 U
Dichlorodifluoromethane (Freon-12)	11.3 U	13.2 U	12.8 U	12 U	11.6 U	11.1 U	10.3 U
Ethylbenzene	11.3 U	13.2 U	12.8 U	12 U	11.6 U	11.1 UJ	10.3 U
Isopropylbenzene	11.3 U	13.2 U	12.8 U	12 U	11.6 U	11.1 UJ	10.3 U
Methyl acetate	11.3 U	13.2 U	12.8 U	12 U	11.6 U	11.1 UJ	10.3 U
Methylcyclohexane	11.3 U	13.2 U	12.8 U	12 U	11.6 U	11.1 UJ	10.3 U
Methylene chloride	11.3 U	13.2 U	12.8 U	12 U	11.6 U	11.1 U	10.3 U
Methyl-tert-butyl ether (MTBE)	11.3 U	13.2 U	12.8 U	12 U	11.6 U	11.1 U	10.3 U
Styrene	11.3 U	13.2 U	12.8 U	12 U	11.6 U	11.1 UJ	10.3 U
Tetrachloroethene	11.3 U	13.2 U	12.8 U	12 U	11.6 U	11.1 U	10.3 U
Toluene	26.4	661 J	694	1.95 J	11.6 U	11.1 U	10.3 U
trans-1,2-Dichloroethene	11.3 U	13.2 U	12.8 U	12 U	11.6 U	11.1 U	10.3 U
trans-1,3-Dichloropropene	11.3 U	13.2 U	12.8 U	12 U	11.6 U	11.1 U	10.3 U
Trichloroethene	11.3 U	13.2 U	12.8 U	12 U	11.6 U	11.1 UJ	10.3 U
Trichlorofluoromethane(Freon-11)	11.3 U	13.2 U	12.8 U	12 U	11.6 U	11.1 U	10.3 U
Vinyl chloride	11.3 U	13.2 U	12.8 U	12 U	11.6 U	11.1 U	10.3 U
Xylene, total	11.3 U	13.2 U	12.8 U	12 U	11.6 U	11.1 UJ	10.3 U
Semivolatile Organic Compounds (µg/kg)							
1,1-Biphenyl	338 U	365 U	373 U	369 U	336 U	347 U	316 U
2,4,5-Trichlorophenol	676 U	730 U	746 U	738 U	673 U	693 U	633 U
2,4,6-Trichlorophenol	338 U	365 U	373 U	369 U	336 U	347 U	316 U
2,4-Dichlorophenol	338 U	365 U	373 U	369 U	336 U	347 U	316 U
2,4-Dimethylphenol	338 U	365 U	373 U	369 U	336 U	347 U	316 U
2,4-Dinitrophenol	676 UJ	730 UJ	746 UJ	738 UJ	673 UJ	693 UJ	633 UJ
2,4-Dinitrotoluene	100 U	41.6 J	72 J	38.5 J	100 U	100 U	100 U
2,6-Dinitrotoluene	100 U	100 U	100 U	100 U	100 U	100 U	100 U
2-Chloroacetophenone	338 U	365 U	373 U	369 U	336 U	347 U	316 U
2-Chlorobenzalmalononitrile	338 U	365 U	373 U	369 U	336 U	347 U	316 U
2-Chloronaphthalene	338 U	365 U	373 U	369 U	336 U	347 U	316 U
2-Chlorophenol	338 U	365 U	373 U	369 U	336 U	347 U	316 U
2-Methylnaphthalene	338 U	365 U	373 U	369 U	336 U	347 U	316 U
2-Methylphenol	338 U	365 U	373 U	369 U	336 U	347 U	316 U
2-Nitroaniline	676 U	730 U	746 U	738 U	673 U	693 U	633 U
2-Nitrophenol	338 U	365 U	373 U	369 U	336 U	347 U	316 U
3,3'-Dichlorobenzidine	338 U	365 U	373 U	369 U	336 U	347 U	316 U
3-Nitroaniline	676 U	730 U	746 U	738 U	673 U	693 U	633 U
4,6-Dinitro-2-methylphenol	676 UJ	730 UJ	746 UJ	738 UJ	673 UJ	693 UJ	633 UJ
4-Bromophenyl-phenylether	338 U	365 U	373 U	369 U	336 U	347 U	316 U
4-Chloro-3-methylphenol	338 U	365 U	373 U	369 U	336 U	347 U	316 U
4-Chloroaniline	338 U	365 U	373 U	369 U	336 U	347 U	316 U
4-Chlorophenyl-phenylether	338 U	365 U	373 U	369 U	336 U	347 U	316 U
4-Methylphenol	338 U	211 J	295 J	369 U	336 U	347 U	316 U
4-Nitroaniline	676 U	730 U	746 U	738 U	673 U	693 U	633 U
4-Nitrophenol	676 U	730 U	746 U	738 U	673 U	693 U	633 U
Acenaphthene	338 U	365 U	373 U	369 U	336 U	347 U	316 U
Acenaphthylene	338 U	365 U	373 U	369 U	336 U	347 U	316 U
Acetophenone	338 U	365 U	373 U	369 U	336 U	347 U	316 U
Anthracene	338 U	365 U	373 U	369 U	336 U	347 U	316 U
Atrazine	338 U	365 U	373 U	369 U	336 U	347 U	316 U
Benzaldehyde	338 R	90.8 J	108 J	369 R	336 R	347 R	316 R
Benzo(a)anthracene	67.6 U	3.31 J	4.02 J	7.06 J	67.3 U	69.3 U	63.3 U
Benzo(a)pyrene	9.01 U	9.73 U	9.95 U	9.84 U	8.98 U	9.25 U	8.44 U
Benzo(b)fluoranthene	67.6 U	8.17 J	7.94 J	11.5 J	5.86 J	7.99 J	63.3 U
Benzo(g,h,i)perylene	338 UJ	365 UJ	373 UJ	369 UJ	336 UJ	347 UJ	316 UJ
Benzo(k)fluoranthene	338 U	365 U	373 U	369 U	336 U	347 U	316 U
bis(2-Chloroethoxy)methane	338 U	365 U	373 U	369 U	336 U	347 U	316 U
bis(2-Chloroethyl)ether	338 U	365 U	373 U	369 U	336 U	347 U	316 U
bis(2-Chloroisopropyl)ether	338 U	365 U	373 U	369 U	336 U	347 U	316 U
bis(2-Ethylhexyl)phthalate	338 U	365 U	248 J	369 U	336 U	227 J	316 U

Station ID	MR21-SD/SW01	MR21-SD/SW02		MR21-SD/SW03	MR21-SD/SW04	MR21-SD/SW05	MR21-SD/SW06
Sample ID	MR21-SD01-10B	MR21-SD02-10B	MR21-SD02D-10B	MR21-SD03-10B	MR21-SD04-10B	MR21-SD05-10B	MR21-SD06-10B
Sample Date	04/11/10	04/11/10	04/11/10	04/11/10	04/11/10	04/11/10	04/11/10
Chemical Name							
Butylbenzylphthalate	338 U	365 U	373 U	369 U	336 U	347 U	316 U
Caprolactam	338 U	365 U	373 U	369 U	336 U	347 U	316 U
Carbazole	338 U	365 U	373 U	369 U	336 U	347 U	316 U
Chrysene	338 U	365 U	373 U	369 U	336 U	347 U	316 U
Dibenz(a,h)anthracene	9.01 U	9.73 U	9.95 U	9.84 U	8.98 U	9.25 U	8.44 U
Dibenzofuran	338 U	365 U	373 U	369 U	336 U	347 U	316 U
Diethylphthalate	338 U	365 U	373 U	369 U	336 U	347 U	316 U
Dimethyl phthalate	338 U	365 U	373 U	369 U	336 U	347 U	316 U
Di-n-butylphthalate	338 U	365 U	373 U	369 U	336 U	347 U	316 U
Di-n-octylphthalate	338 U	365 U	373 U	369 U	336 U	347 U	316 U
Fluoranthene	338 U	365 U	373 U	369 U	336 U	347 U	316 U
Fluorene	338 U	365 U	373 U	369 U	336 U	347 U	316 U
Hexachlorobenzene	338 U	365 U	373 U	369 U	336 U	347 U	316 U
Hexachlorobutadiene	338 U	365 U	373 U	369 U	336 U	347 U	316 U
Hexachlorocyclopentadiene	338 U	365 U	373 U	369 U	336 U	347 R	316 U
Hexachloroethane	338 U	365 U	373 U	369 U	336 U	347 U	316 U
Indeno(1,2,3-cd)pyrene	67.6 U	73 U	74.6 U	73.8 U	67.3 U	69.3 U	63.3 U
Isophorone	67.6 U	73 U	74.6 U	73.8 U	67.3 U	69.3 U	63.3 U
Naphthalene	338 U	365 U	373 U	369 U	336 U	347 U	316 U
n-Nitroso-di-n-propylamine	101 UJ	109 UJ	112 UJ	111 UJ	101 UJ	104 UJ	94.9 UJ
n-Nitrosodiphenylamine	338 U	365 U	373 U	369 U	336 U	347 U	316 U
Nitrobenzene	100 U	100 U	82.5 J	62 J	100 U	46.4 J	100 U
Pentachlorophenol	23 U	24.8 U	25.4 U	25.1 U	22.9 U	23.6 U	21.5 U
Phenanthrene	338 U	365 U	373 U	369 U	336 U	347 U	316 U
Phenol	338 U	365 U	373 U	369 U	336 U	347 U	316 U
Pyrene	338 U	365 U	373 U	369 U	336 U	347 U	316 U
Explosives (µg/kg)							
1,3,5-Trinitrobenzene	100 U	200 J	103 J	45.8 J	100 U	100 U	100 U
1,3-Dinitrobenzene	100 U	100 U	100 U	100 U	100 U	100 U	100 U
2,4,6-Trinitrotoluene	100 U	100 U	100 U	61.3 J	100 U	45.6 J	100 U
2-Amino-4,6-dinitrotoluene	100 U	100 U	100 U	100 U	100 U	100 U	100 U
2-Nitrotoluene	100 U	67.2 J	100 U	51.2 J	100 U	100 U	100 U
3-Nitrotoluene	100 U	100 U	100 U	100 U	100 U	100 U	100 U
4-Amino-2,6-dinitrotoluene	100 U	687 J	100 U	100 U	100 U	100 U	100 U
4-Nitrotoluene	100 U	60.3 J	100 U	100 U	100 U	100 U	100 U
HMX	100 U	68.3 J	100 U	100 U	100 U	100 U	100 U
Perchlorate	2.7 U	2.92 U	2.98 U	2.95 U	2.69 U	2.77 U	2.53 U
PETN	167 U	167 U	167 U	167 U	167 U	167 U	167 U
RDX	100 U	310 J	129 J	90.6 J	100 U	65.9 J	113 J
Tetryl	100 U	74.9 J	141 J	222 J	100 U	125 J	64.7 J
Total Metals (mg/kg)							
Aluminum	1,440	2,030	2,030	1,280	729	657	382
Antimony	0.965 U	1.05 U	1.09 U	1.06 U	0.985 U	1.01 U	0.935 U
Arsenic	0.235 J	0.232 J	0.31 J	0.355 U	0.328 U	0.336 U	0.312 U
Barium	8.22	11.4	11.6	8.35	3.5	3.2	1.99 J
Beryllium	0.322 U	0.351 U	0.362 U	0.0796 J	0.328 U	0.336 U	0.312 U
Cadmium	0.322 U	0.351 U	0.362 U	0.355 U	0.328 U	0.336 U	0.312 U
Calcium	898 J	1,770 J	1,850 J	968 J	242 J	487 J	116 J
Chromium	1.78	2.57	2.44	1.72	1.3	1.39	1
Cobalt	0.804 U	0.877 U	0.905 U	0.886 U	0.821 U	0.841 U	0.779 U
Copper	0.742	1.07	1.02	0.973	3.67	0.534 J	0.624 U
Iron	660	606	609	1,050	355	312	182
Lead	3.9	6.69	6.73	3.66	3.05	3.11	2.09
Magnesium	72.6 J	100 J	97.3 J	355 U	328 U	336 U	312 U
Manganese	3.15	8.69	8.83	2.04	1.62	1.15	1.65
Mercury	0.0432 U	0.0241 J	0.0215 J	0.0487 U	0.036 U	0.0361 U	0.0348 U
Nickel	0.987	0.935	0.917	0.672 J	0.331 J	0.429 J	0.624 U
Potassium	66.4 J	99.9 J	97.8 J	355 U	328 U	336 U	312 U
Selenium	0.386 U	0.242 J	0.435 U	0.425 U	0.394 U	0.404 U	0.374 U
Silver	0.322 U	0.351 U	0.362 U	0.355 U	0.328 U	0.336 U	0.312 U
Sodium	322 U	351 U	362 U	355 U	328 U	336 U	312 U
Thallium	0.515 U	0.561 U	0.579 U	0.567 U	0.525 U	0.538 U	0.499 U
Vanadium	2.69	2.78	2.7	2.04	1.36	1.23	0.957
Zinc	3.23	4.08	3.85	11	6.82	7.46	3.43

Notes:

Shading indicates detections

NA - Not analyzed

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

R - Unreliable Result

U - The material was analyzed for, but not detected

UJ - Analyte not detected, quantitation limit may be inaccurate

mg/kg - Milligrams per kilogram

µg/kg - Micrograms per kilogram

CTO-40
Camp Lejeune - UXO-21
Validated Surface Water Raw Analytical Results
March 2010

Station ID	MR21-SD/SW01		MR21-SD/SW02	MR21-SD/SW03	MR21-SD/SW04	MR21-SD/SW05	MR21-SD/SW06
Sample ID	MR21-SW01-10B	MR21-SW01D-10B	MR21-SW02-10B	MR21-SW03-10B	MR21-SW04-10B	MR21-SW05-10B	MR21-SW06-10B
Sample Date	04/11/10	04/11/10	04/11/10	04/11/10	04/11/10	04/11/10	04/11/10
Chemical Name							
Volatile Organic Compounds (µg/l)							
1,1,1-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,2-Dibromoethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Hexanone	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	5.83 R	5 R	7.1 R	5 R	5 R	5 R	5 R
Benzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U
Bromomethane	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U
Carbon disulfide	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon tetrachloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Chloroform	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	4.59 UJ	2.07 UJ	12.2 UJ	1.43 UJ	2.02 UJ	2.87 UJ	1.84 UJ
cis-1,2-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cyclohexane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane (Freon-12)	1 U	1 U	1 U	1 UJ	1 UJ	1 U	1 U
Ethylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Isopropylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methyl acetate	1.5 U	1.5 U	1.5 U	1.5 UJ	1.5 UJ	1.5 U	1.5 U
Methylcyclohexane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene chloride	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Methyl-tert-butyl ether (MTBE)	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	1.99	2.44	3.58	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
trans-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane(Freon-11)	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl chloride	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Xylene, total	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Semivolatile Organic Compounds (µg/l)							
1,1-Biphenyl	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
2,4,5-Trichlorophenol	24 U	24.5 U	25 U	25 U	23.6 U	25 U	23.6 U
2,4,6-Trichlorophenol	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
2,4-Dichlorophenol	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
2,4-Dimethylphenol	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
2,4-Dinitrophenol	24 U	24.5 U	25 U	25 U	23.6 U	25 U	23.6 U
2,4-Dinitrotoluene	0.226 U	0.24 U	0.24 U	0.24 U	0.226 U	0.235 U	0.226 U
2,6-Dinitrotoluene	0.226 U	0.24 U	0.24 U	0.24 U	0.226 U	0.235 U	0.226 U
2-Chloroacetophenone	4.81 U	4.9 U	5 U	5 U	4.72 U	5 U	4.72 U
2-Chlorobenzalmalononitrile	4.81 UJ	4.9 UJ	5 UJ	5 UJ	4.72 UJ	5 UJ	4.72 UJ
2-Chloronaphthalene	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
2-Chlorophenol	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
2-Methylnaphthalene	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
2-Methylphenol	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
2-Nitroaniline	24 U	24.5 U	25 U	25 U	23.6 U	25 U	23.6 U
2-Nitrophenol	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
3,3'-Dichlorobenzidine	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
3-Nitroaniline	24 U	24.5 U	25 U	25 U	23.6 U	25 U	23.6 U
4,6-Dinitro-2-methylphenol	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
4-Bromophenyl-phenylether	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
4-Chloro-3-methylphenol	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
4-Chloroaniline	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
4-Chlorophenyl-phenylether	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
4-Methylphenol	9.62 U	9.8 U	10 UJ	10 UJ	9.43 U	10 UJ	9.43 UJ
4-Nitroaniline	24 U	24.5 U	25 U	25 U	23.6 U	25 U	23.6 U
4-Nitrophenol	24 U	24.5 U	25 U	25 U	23.6 U	25 U	23.6 U
Acenaphthene	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
Acenaphthylene	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
Acetophenone	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
Anthracene	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
Atrazine	9.62 UJ	9.8 UJ	10 UJ	10 UJ	9.43 UJ	10 UJ	9.43 UJ
Benzaldehyde	9.62 U	9.8 U	10 UJ	10 UJ	9.43 U	10 UJ	9.43 UJ
Benzo(a)anthracene	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
Benzo(a)pyrene	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
Benzo(b)fluoranthene	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
Benzo(g,h,i)perylene	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
Benzo(k)fluoranthene	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
bis(2-Chloroethoxy)methane	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
bis(2-Chloroethyl)ether	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
bis(2-Chloroisopropyl)ether	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
bis(2-Ethylhexyl)phthalate	2.53 J	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
Butylbenzylphthalate	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
Caprolactam	9.62 UJ	9.8 UJ	10 UJ	10 UJ	9.43 UJ	10 UJ	9.43 UJ
Carbazole	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U

Station ID	MR21-SD/SW01		MR21-SD/SW02	MR21-SD/SW03	MR21-SD/SW04	MR21-SD/SW05	MR21-SD/SW06
Sample ID	MR21-SW01-10B	MR21-SW01D-10B	MR21-SW02-10B	MR21-SW03-10B	MR21-SW04-10B	MR21-SW05-10B	MR21-SW06-10B
Sample Date	04/11/10	04/11/10	04/11/10	04/11/10	04/11/10	04/11/10	04/11/10
Chemical Name							
Chrysene	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
Dibenz(a,h)anthracene	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
Dibenzofuran	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
Diethylphthalate	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
Dimethyl phthalate	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
Di-n-butylphthalate	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
Di-n-octylphthalate	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
Fluoranthene	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
Fluorene	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
Hexachlorobenzene	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
Hexachlorobutadiene	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
Hexachlorocyclopentadiene	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
Hexachloroethane	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
Indeno(1,2,3-cd)pyrene	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
Isophorone	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
Naphthalene	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
n-Nitroso-di-n-propylamine	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
n-Nitrosodiphenylamine	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
Nitrobenzene	0.226 U	0.24 U	0.24 U	0.24 U	0.226 U	0.235 U	0.226 U
Pentachlorophenol	24 U	24.5 U	25 U	25 U	23.6 U	25 U	23.6 U
Phenanthrene	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
Phenol	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
Pyrene	9.62 U	9.8 U	10 U	10 U	9.43 U	10 U	9.43 U
Explosives (µg/l)							
1,3,5-Trinitrobenzene	0.226 U	0.24 U	0.24 U	0.24 U	0.226 U	0.235 U	0.226 U
1,3-Dinitrobenzene	0.226 U	0.24 U	0.24 U	0.24 U	0.226 U	0.235 U	0.226 U
2,4,6-Trinitrotoluene	0.226 U	0.24 U	0.252 U	0.24 U	0.226 U	0.235 U	0.226 U
2-Amino-4,6-dinitrotoluene	0.226 U	0.24 U	0.24 U	0.24 U	0.226 U	0.235 U	0.226 U
2-Nitrotoluene	0.226 U	0.24 U	0.24 U	0.24 U	0.226 U	0.235 U	0.226 U
3-Nitrotoluene	0.226 U	0.24 U	0.24 U	0.24 U	0.226 U	0.235 U	0.226 U
4-Amino-2,6-dinitrotoluene	0.226 U	0.24 U	0.24 U	0.24 U	0.226 U	0.235 U	0.226 U
4-Nitrotoluene	0.226 U	0.24 U	0.24 U	0.24 U	0.226 U	0.235 U	0.226 U
HMX	0.226 UJ	0.24 UJ	0.24 UJ	0.24 UJ	0.226 UJ	0.235 UJ	0.226 UJ
Perchlorate	0.2 U	0.2 U	0.2 U	0.0772 J	0.2 U	0.2 U	0.17 J
PETN	1.13 U	1.2 U	1.2 U	1.2 U	1.13 U	1.18 U	1.13 U
RDX	0.249 U	0.24 U	0.62 U	0.391 U	0.226 U	0.235 U	0.293 U
Tetryl	0.226 U	0.24 U	0.24 U	0.24 U	0.226 U	0.235 U	0.226 U
Total Metals (µg/l)							
Aluminum	393 J	453 J	292 J	479 J	478 J	617 J	634 J
Antimony	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Arsenic	2.55	2.75	1.13 J	1.5 U	1.5 U	1.5 U	1.5 U
Barium	19.7	22	27.6	34.3	32.6	36.5	34.9
Beryllium	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U
Cadmium	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Calcium	21,500	24,200	21,000	34,200	31,300	22,500	20,700
Chromium	1.01	1.09	0.792 J	0.573 J	0.53 J	0.629 J	0.756 J
Cobalt	3.12 U	3.12 U	3.12 U	3.12 U	3.12 U	3.12 U	3.12 U
Copper	2.5 U	1.3 J	2.06 J	2.5 U	2.5 U	2.5 U	2.5 U
Iron	2,540	3,270	409	844	784	696	726
Lead	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U
Magnesium	1,030 J	1,140 J	1,430	1,450	1,380	1,370	1,330
Manganese	60	72	178	21.3	19.7	18.9	19.1
Mercury	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	1.39 J	1.53 J	1.37 J	1.2 J	1.18 J	1.37 J	1.49 J
Potassium	757 J	929 J	1,450	839 J	808 J	721 J	705 J
Selenium	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
Silver	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U
Sodium	6,180	7,000	8,330	8,030	7,740	7,770	7,650
Thallium	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Vanadium	1.31 J	1.61 J	3.12 U	3.12 U	3.12 U	3.12 U	3.12 U
Zinc	5.98	9.62	4.75 J	6.55	5.91	8.19	8.47

Notes:
Shading indicates detections
NA - Not analyzed
J - Analyte present, value may or may not be accurate or precise
R - Unreliable Result
U - The material was analyzed for, but not detected
UJ - Analyte not detected, quantitation limit may be inaccurate
µg/l - Micrograms per liter

Appendix H
Data Validation Summary Reports

Phase I - 2007

TRACE METALS

GPL Laboratories

USEPA - CLP

COVER PAGE

Lab Name: GPL LABORATORIES, LLLP Contract: _____

Lab Code: _____ Case No.: _____ NRAS No.: _____ SDG No.: 707147

SOW No.: ILM05.3

EPA Sample No.	Lab Sample ID
GC-IS01-0-1-07C	S 707147-001-065-1/1
GC-IS01-0-1-07C MD	D 707147-001-065-1/1
GC-IS01-0-1-07C MS	SP707147-001-065-1/1
GC-IS01-5-8-07C	S 707147-002-066-1/1
GC-IS01-5-8-07C MD	D 707147-002-066-1/1
GC-IS01-5-8-07C MS	SP707147-002-066-1/1
GC-IS02-0-1-07C	S 707147-003-067-1/1
GC-IS02-5-10-07C	S 707147-004-068-1/1
GC-IS03-0-1-07C	S 707147-005-069-1/1
GC-IS03-5-8-07C	S 707147-006-070-1/1
GC-IS04-0-1-07C	S 707147-007-071-1/1
GC-IS04-6-8-07C	S 707147-008-072-1/1
GC-IS05-0-1-07C	S 707147-009-073-1/1
GC-IS05-2-4-07C	S 707147-010-074-1/1
GC-IS06-0-1-07C	S 707147-011-075-1/1
GC-IS06-3-5-07C	S 707147-012-076-1/1
GC-IS07-0-1-07C	S 707147-013-077-1/1
GC-IS07-10-12-07C	S 707147-014-078-1/1
GC-IS08-0-1-07C	S 707147-015-079-1/1
GC-IS08-6-8-07C	S 707147-016-080-1/1

		ICP-AES	ICP-MS
Were ICP-AES and ICP-MS interelement corrections applied?	(Yes/No)	YES	YES
Were ICP-AES and ICP-MS background corrections applied?	(Yes/No)	YES	YES
if yes, were raw data generated before application of background corrections?	(Yes/No)	NO	YES

Comments:

I certify that this Sample Data Package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy Sample Data Package and in the computer-readable data submitted on diskette (or via an alternate means of electronic transmission, if approved in advance by USEPA) has been authorized by the Laboratory Manager or the Manager's designee, as referred by the following signature.

EPA Sample No.	Lab Sample ID

Signature:	Rita Amin	Name:	RITA AMIN
Date:	8/15/2007	Title:	Metals Reposting

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

GC-IS01-0-1-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707147

Matrix: (soil/water) SOIL Lab Sample ID: S 707147-001-065-1/1

Level: (low/med) Date Recieved: 07/25/2007

% Solids: 91.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	489			P
7440-36-0	Antimony	4.9	U		P
7440-38-2	Arsenic	0.24	J		P
7440-39-3	Barium	7.4	J		P
7441-41-7	Beryllium	0.017	J		P
7440-43-9	Cadmium	0.037	J		P
7440-70-2	Calcium	430			P
7440-47-3	Chromium	0.92			P
7440-48-4	Cobalt	4.1	U		P
7440-50-8	Copper	0.74	J		P
7439-89-6	Iron	300			P
7439-92-1	Lead	13.3			P
7439-95-4	Magnesium	74.9	J		P
7439-96-5	Manganese	4.3			P
7439-97-6	Mercury	0.038			AV
7440-02-0	Nickel	0.26	J		P
7440-09-7	Potassium	40.5	J		P
7782-49-2	Selenium	0.49	J		P
7440-22-4	Silver	0.81	U		P
7440-23-5	Sodium	68.5	J		P
7440-28-0	Thallium	2.0	U		P
7440-62-2	Vanadium	2.1	J		P
7440-66-6	Zinc	5.8			P

ACD 9/3/07

Color Before: Grey Clarity Before: NA Texture: Medium

Color After: Yellow Clarity After: Clear Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

GC-IS01-5-8-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707147

Matrix: (soil/water) SOIL Lab Sample ID: S 707147-002-066-1/1

Level: (low/med) Date Recieved: 07/25/2007

% Solids: 93.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

AED 9/3/07

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8080			P
7440-36-0	Antimony	4.5	U		P
7440-38-2	Arsenic	0.80			P
7440-39-3	Barium	9.8	J		P
7441-41-7	Beryllium	0.062	J		P
7440-43-9	Cadmium	0.38	U		P
7440-70-2	Calcium	62.1	J		P
7440-47-3	Chromium	8.1			P
7440-48-4	Cobalt	0.14	J		P
7440-50-8	Copper	1.2	J		P
7439-89-6	Iron	2310			P
7439-92-1	Lead	4.3			P
7439-95-4	Magnesium	209	J		P
7439-96-5	Manganese	4.1			P
7439-97-6	Mercury	0.030	J		AV
7440-02-0	Nickel	1.2	J		P
7440-09-7	Potassium	233	J		P
7782-49-2	Selenium	0.41	J		P
7440-22-4	Silver	0.76	U		P
7440-23-5	Sodium	67.8	J		P
7440-28-0	Thallium	1.9	U		P
7440-62-2	Vanadium	10.1			P
7440-66-6	Zinc	3.5	J		P

Color Before: Grey Clarity Before: NA Texture: Medium

Color After: Yellow Clarity After: Clear Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

GC-IS02-0-1-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707147

Matrix: (soil/water) SOIL Lab Sample ID: S 707147-003-067-1/1

Level: (low/med) Date Recieved: 07/25/2007

% Solids: 80.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

✓ ACD 9/3/07

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	519			P
7440-36-0	Antimony	5.2	U		P
7440-38-2	Arsenic	0.86	U		P
7440-39-3	Barium	3.0	J		P
7441-41-7	Beryllium	0.43	U		P
7440-43-9	Cadmium	0.021	J		P
7440-70-2	Calcium	105	J		P
7440-47-3	Chromium	0.92			P
7440-48-4	Cobalt	4.3	U		P
7440-50-8	Copper	0.42	J		P
7439-89-6	Iron	290			P
7439-92-1	Lead	2.5			P
7439-95-4	Magnesium	24.0	J		P
7439-96-5	Manganese	3.5			P
7439-97-6	Mercury	0.0063	J		AV
7440-02-0	Nickel	3.5	U		P
7440-09-7	Potassium	28.8	J		P
7782-49-2	Selenium	3.0	U		P
7440-22-4	Silver	0.86	U		P
7440-23-5	Sodium	66.3	J		P
7440-28-0	Thallium	2.2	U		P
7440-62-2	Vanadium	1.4	J		P
7440-66-6	Zinc	1.9	J		P

Color Before: Black Clarity Before: NA Texture: Medium

Color After: Yellow Clarity After: Clear Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

GC-IS02-5-10-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707147

Matrix: (soil/water) SOIL Lab Sample ID: S 707147-004-068-1/1

Level: (low/med) Date Recieved: 07/25/2007

% Solids: 86.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9160			P
7440-36-0	Antimony	5.1	U		P
7440-38-2	Arsenic	0.52	J		P
7440-39-3	Barium	13.0	J		P
7441-41-7	Beryllium	0.066	J		P
7440-43-9	Cadmium	0.42	U		P
7440-70-2	Calcium	60.9	J		P
7440-47-3	Chromium	9.1			P
7440-48-4	Cobalt	0.11	J		P
7440-50-8	Copper	1.2	J		P
7439-89-6	Iron	1730			P
7439-92-1	Lead	3.7			P
7439-95-4	Magnesium	215	J		P
7439-96-5	Manganese	3.5			P
7439-97-6	Mercury	0.010	J		AV
7440-02-0	Nickel	1.2	J		P
7440-09-7	Potassium	270	J		P
7782-49-2	Selenium	0.42	J		P
7440-22-4	Silver	0.85	U		P
7440-23-5	Sodium	59.4	J		P
7440-28-0	Thallium	2.1	U		P
7440-62-2	Vanadium	10.2			P
7440-66-6	Zinc	4.0	J		P

✓ ACD 9/3/07

Color Before: Grey Clarity Before: NA Texture: Medium

Color After: Yellow Clarity After: Clear Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

GC-IS03-0-1-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707147

Matrix: (soil/water) SOIL Lab Sample ID: S 707147-005-069-1/1

Level: (low/med) Date Recieved: 07/25/2007

% Solids: 92.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	296			P
7440-36-0	Antimony	4.9	U		P
7440-38-2	Arsenic	0.81	U		P
7440-39-3	Barium	3.7	J		P
7441-41-7	Beryllium	0.41	U		P
7440-43-9	Cadmium	0.023	J		P
7440-70-2	Calcium	67.9	J		P
7440-47-3	Chromium	0.67	J		P
7440-48-4	Cobalt	4.1	U		P
7440-50-8	Copper	0.23	J		P
7439-89-6	Iron	88.1			P
7439-92-1	Lead	1.4			P
7439-95-4	Magnesium	22.0	J		P
7439-96-5	Manganese	2.6			P
7439-97-6	Mercury	0.040			AV
7440-02-0	Nickel	3.2	U		P
7440-09-7	Potassium	19.4	J		P
7782-49-2	Selenium	0.44	J		P
7440-22-4	Silver	0.81	U		P
7440-23-5	Sodium	60.5	J		P
7440-28-0	Thallium	2.0	U		P
7440-62-2	Vanadium	0.78	J		P
7440-66-6	Zinc	1.4	J		P

AED 9/3/07

Color Before: Grey Clarity Before: NA Texture: Medium

Color After: Yellow Clarity After: Clear Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

GC-IS03-5-8-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707147

Matrix: (soil/water) SOIL Lab Sample ID: S 707147-006-070-1/1

Level: (low/med) Date Recieved: 07/25/2007

% Solids: 89.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3630			P
7440-36-0	Antimony	4.6	U		P
7440-38-2	Arsenic	0.20	J		P
7440-39-3	Barium	6.9	J		P
7441-41-7	Beryllium	0.024	J		P
7440-43-9	Cadmium	0.025	J		P
7440-70-2	Calcium	38.5	J		P
7440-47-3	Chromium	4.3			P
7440-48-4	Cobalt	3.9	U		P
7440-50-8	Copper	0.75	J		P
7439-89-6	Iron	523			P
7439-92-1	Lead	3.1			P
7439-95-4	Magnesium	117	J		P
7439-96-5	Manganese	2.4			P
7439-97-6	Mercury	0.029	J		AV
7440-02-0	Nickel	0.50	J		P
7440-09-7	Potassium	112	J		P
7782-49-2	Selenium	0.36	J		P
7440-22-4	Silver	0.77	U		P
7440-23-5	Sodium	57.2	J		P
7440-28-0	Thallium	1.9	U		P
7440-62-2	Vanadium	4.9			P
7440-66-6	Zinc	2.4	J		P

V
ACP
9/3/07

Color Before: Grey Clarity Before: NA Texture: Medium

Color After: Yellow Clarity After: Clear Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

GC-IS04-0-1-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707147

Matrix: (soil/water) SOIL Lab Sample ID: S 707147-007-071-1/1

Level: (low/med) Date Recieved: 07/25/2007

% Solids: 94.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4760			P
7440-36-0	Antimony	4.7	U		P
7440-38-2	Arsenic	0.43	J		P
7440-39-3	Barium	4.3	J		P
7441-41-7	Beryllium	0.044	J		P
7440-43-9	Cadmium	0.39	U		P
7440-70-2	Calcium	37.5	J		P
7440-47-3	Chromium	3.5			P
7440-48-4	Cobalt	3.9	U		P
7440-50-8	Copper	0.52	J		P
7439-89-6	Iron	1350			P
7439-92-1	Lead	2.9			P
7439-95-4	Magnesium	61.0	J		P
7439-96-5	Manganese	4.3			P
7439-97-6	Mercury	0.013	J		AV
7440-02-0	Nickel	0.85	J		P
7440-09-7	Potassium	37.9	J		P
7782-49-2	Selenium	0.40	J		P
7440-22-4	Silver	0.78	U		P
7440-23-5	Sodium	56.5	J		P
7440-28-0	Thallium	1.9	U		P
7440-62-2	Vanadium	4.1			P
7440-66-6	Zinc	1.9	J		P

AED 9/3/07

Color Before: Grey Clarity Before: NA Texture: Medium

Color After: Yellow Clarity After: Clear Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

GC-IS04-6-8-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707147

Matrix: (soil/water) SOIL Lab Sample ID: S 707147-008-072-1/1

Level: (low/med) Date Recieved: 07/25/2007

% Solids: 85.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7200			P
7440-36-0	Antimony	4.8	U		P
7440-38-2	Arsenic	0.40	J		P
7440-39-3	Barium	8.4	J		P
7441-41-7	Beryllium	0.071	J		P
7440-43-9	Cadmium	0.40	U		P
7440-70-2	Calcium	38.7	J		P
7440-47-3	Chromium	10.0			P
7440-48-4	Cobalt	0.089	J		P
7440-50-8	Copper	1.7	J		P
7439-89-6	Iron	1460			P
7439-92-1	Lead	4.1			P
7439-95-4	Magnesium	217	J		P
7439-96-5	Manganese	4.3			P
7439-97-6	Mercury	0.011	J		AV
7440-02-0	Nickel	1.1	J		P
7440-09-7	Potassium	333	J		P
7782-49-2	Selenium	2.8	U		P
7440-22-4	Silver	0.80	U		P
7440-23-5	Sodium	63.0	J		P
7440-28-0	Thallium	2.0	U		P
7440-62-2	Vanadium	11.0			P
7440-66-6	Zinc	3.9	J		P

ACP 9/3/07

Color Before: Grey Clarity Before: NA Texture: Medium

Color After: Yellow Clarity After: Clear Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

GC-IS05-0-1-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707147

Matrix: (soil/water) SOIL Lab Sample ID: S 707147-009-073-1/1

Level: (low/med) Date Recieved: 07/25/2007

% Solids: 80.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3550			P
7440-36-0	Antimony	5.6	U		P
7440-38-2	Arsenic	0.36	J		P
7440-39-3	Barium	13.5	J		P
7441-41-7	Beryllium	0.13	J		P
7440-43-9	Cadmium	0.089	J		P
7440-70-2	Calcium	476			P
7440-47-3	Chromium	3.7			P
7440-48-4	Cobalt	0.34	J		P
7440-50-8	Copper	2.3	J		P
7439-89-6	Iron	1320			P
7439-92-1	Lead	4.9			P
7439-95-4	Magnesium	80.0	J		P
7439-96-5	Manganese	3.2			P
7439-97-6	Mercury	0.021	J		AV
7440-02-0	Nickel	1.2	J		P
7440-09-7	Potassium	66.8	J		P
7782-49-2	Selenium	1.0	J		P
7440-22-4	Silver	0.93	U		P
7440-23-5	Sodium	63.2	J		P
7440-28-0	Thallium	2.3	U		P
7440-62-2	Vanadium	4.1	J		P
7440-66-6	Zinc	6.8			P

✓ ACD 9/3/07

Color Before: Black Clarity Before: NA Texture: Medium

Color After: Yellow Clarity After: Clear Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

GC-IS05-2-4-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707147

Matrix: (soil/water) SOIL Lab Sample ID: S 707147-010-074-1/1

Level: (low/med) Date Recieved: 07/25/2007

% Solids: 66.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9710			P
7440-36-0	Antimony	6.4	U		P
7440-38-2	Arsenic	0.69	J		P
7440-39-3	Barium	43.7			P
7441-41-7	Beryllium	0.49	J		P
7440-43-9	Cadmium	0.083	J		P
7440-70-2	Calcium	4110			P
7440-47-3	Chromium	7.7			P
7440-48-4	Cobalt	0.41	J		P
7440-50-8	Copper	1.1	J		P
7439-89-6	Iron	4440			P
7439-92-1	Lead	7.2			P
7439-95-4	Magnesium	152	J		P
7439-96-5	Manganese	12.5			P
7439-97-6	Mercury	0.084			AV
7440-02-0	Nickel	3.4	J		P
7440-09-7	Potassium	83.5	J		P
7782-49-2	Selenium	1.2	J		P
7440-22-4	Silver	1.1	U		P
7440-23-5	Sodium	86.5	J		P
7440-28-0	Thallium	2.7	U		P
7440-62-2	Vanadium	5.0	J		P
7440-66-6	Zinc	4.8	J		P

✓ ACP 9/3/07

Color Before: Grey Clarity Before: NA Texture: Medium

Color After: Yellow Clarity After: Clear Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

GC-IS06-0-1-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707147

Matrix: (soil/water) SOIL Lab Sample ID: S 707147-011-075-1/1

Level: (low/med) Date Recieved: 07/25/2007

% Solids: 88.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	273			P
7440-36-0	Antimony	4.9	U		P
7440-38-2	Arsenic	0.81	U		P
7440-39-3	Barium	4.2	J		P
7441-41-7	Beryllium	0.41	U		P
7440-43-9	Cadmium	0.035	J		P
7440-70-2	Calcium	111	J		P
7440-47-3	Chromium	0.66	J		P
7440-48-4	Cobalt	4.1	U		P
7440-50-8	Copper	0.22	J		P
7439-89-6	Iron	109			P
7439-92-1	Lead	1.6			P
7439-95-4	Magnesium	18.1	J		P
7439-96-5	Manganese	3.3			P
7439-97-6	Mercury	0.032	J		AV
7440-02-0	Nickel	3.2	U		P
7440-09-7	Potassium	21.0	J		P
7782-49-2	Selenium	0.36	J		P
7440-22-4	Silver	0.81	U		P
7440-23-5	Sodium	57.4	J		P
7440-28-0	Thallium	2.0	U		P
7440-62-2	Vanadium	0.86	J		P
7440-66-6	Zinc	1.7	J		P

Kep 9/3/07

Color Before: Grey Clarity Before: NA Texture: Medium

Color After: Yellow Clarity After: Clear Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

GC-IS06-3-5-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707147

Matrix: (soil/water) SOIL Lab Sample ID: S 707147-012-076-1/1

Level: (low/med) Date Recieved: 07/25/2007

% Solids: 94.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2250			P
7440-36-0	Antimony	4.7	U		P
7440-38-2	Arsenic	0.78	U		P
7440-39-3	Barium	4.8	J		P
7441-41-7	Beryllium	0.025	J		P
7440-43-9	Cadmium	0.39	U		P
7440-70-2	Calcium	35.1	J		P
7440-47-3	Chromium	2.9			P
7440-48-4	Cobalt	3.9	U		P
7440-50-8	Copper	0.43	J		P
7439-89-6	Iron	389			P
7439-92-1	Lead	2.7			P
7439-95-4	Magnesium	78.1	J		P
7439-96-5	Manganese	2.1			P
7439-97-6	Mercury	0.033	U		AV
7440-02-0	Nickel	0.28	J		P
7440-09-7	Potassium	121	J		P
7782-49-2	Selenium	0.27	J		P
7440-22-4	Silver	0.78	U		P
7440-23-5	Sodium	55.0	J		P
7440-28-0	Thallium	2.0	U		P
7440-62-2	Vanadium	2.9	J		P
7440-66-6	Zinc	2.3	J		P

✓ ACD 9/3/07

Color Before: Grey Clarity Before: NA Texture: Medium

Color After: Yellow Clarity After: Clear Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

GC-IS07-0-1-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707147

Matrix: (soil/water) SOIL Lab Sample ID: S 707147-013-077-1/1

Level: (low/med) Date Recieved: 07/25/2007

% Solids: 82.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3060			P
7440-36-0	Antimony	5.4	U		P
7440-38-2	Arsenic	0.62	J		P
7440-39-3	Barium	7.4	J		P
7441-41-7	Beryllium	0.032	J		P
7440-43-9	Cadmium	0.45	U		P
7440-70-2	Calcium	194	J		P
7440-47-3	Chromium	2.6			P
7440-48-4	Cobalt	4.5	U		P
7440-50-8	Copper	0.49	J		P
7439-89-6	Iron	1630			P
7439-92-1	Lead	5.1			P
7439-95-4	Magnesium	74.7	J		P
7439-96-5	Manganese	6.8			P
7439-97-6	Mercury	0.026	J		AV
7440-02-0	Nickel	0.79	J		P
7440-09-7	Potassium	58.7	J		P
7782-49-2	Selenium	0.36	J		P
7440-22-4	Silver	0.89	U		P
7440-23-5	Sodium	63.9	J		P
7440-28-0	Thallium	2.2	U		P
7440-62-2	Vanadium	5.1			P
7440-66-6	Zinc	2.8	J		P

AED 9/3/07

Color Before: Grey Clarity Before: NA Texture: Medium

Color After: Yellow Clarity After: Clear Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

GC-IS07-10-12-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707147

Matrix: (soil/water) SOIL Lab Sample ID: S 707147-014-078-1/1

Level: (low/med) Date Recieved: 07/25/2007

% Solids: 94.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1220			P
7440-36-0	Antimony	4.5	U		P
7440-38-2	Arsenic	0.22	J		P
7440-39-3	Barium	2.7	J		P
7441-41-7	Beryllium	0.017	J		P
7440-43-9	Cadmium	0.38	U		P
7440-70-2	Calcium	29.2	J		P
7440-47-3	Chromium	2.0			P
7440-48-4	Cobalt	3.8	U		P
7440-50-8	Copper	0.29	J		P
7439-89-6	Iron	356			P
7439-92-1	Lead	2.1			P
7439-95-4	Magnesium	58.7	J		P
7439-96-5	Manganese	2.1			P
7439-97-6	Mercury	0.016	J		AV
7440-02-0	Nickel	0.14	J		P
7440-09-7	Potassium	97.9	J		P
7782-49-2	Selenium	2.6	U		P
7440-22-4	Silver	0.75	U		P
7440-23-5	Sodium	53.6	J		P
7440-28-0	Thallium	1.9	U		P
7440-62-2	Vanadium	2.3	J		P
7440-66-6	Zinc	2.2	J		P

✓ AED 9/3/07

Color Before: Grey Clarity Before: NA Texture: Medium

Color After: Yellow Clarity After: Clear Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

GC-IS08-0-1-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707147

Matrix: (soil/water) SOIL Lab Sample ID: S 707147-015-079-1/1

Level: (low/med) Date Recieved: 07/25/2007

% Solids: 78.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1070			P
7440-36-0	Antimony	5.8	U		P
7440-38-2	Arsenic	0.35	J		P
7440-39-3	Barium	9.0	J		P
7441-41-7	Beryllium	0.48	U		P
7440-43-9	Cadmium	0.033	J		P
7440-70-2	Calcium	209	J		P
7440-47-3	Chromium	1.5			P
7440-48-4	Cobalt	4.8	U		P
7440-50-8	Copper	0.77	J		P
7439-89-6	Iron	542			P
7439-92-1	Lead	4.7			P
7439-95-4	Magnesium	61.6	J		P
7439-96-5	Manganese	5.5			P
7439-97-6	Mercury	0.098			AV
7440-02-0	Nickel	0.14	J		P
7440-09-7	Potassium	57.5	J		P
7782-49-2	Selenium	0.60	J		P
7440-22-4	Silver	0.96	U		P
7440-23-5	Sodium	64.0	J		P
7440-28-0	Thallium	2.4	U		P
7440-62-2	Vanadium	2.7	J		P
7440-66-6	Zinc	4.0	J		P

AED 9/3/07

Color Before: Black Clarity Before: NA Texture: Medium

Color After: Yellow Clarity After: Clear Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

GC-IS08-6-8-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707147

Matrix: (soil/water) SOIL Lab Sample ID: S 707147-016-080-1/1

Level: (low/med) Date Recieved: 07/25/2007

% Solids: 89.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5290			P
7440-36-0	Antimony	4.7	U		P
7440-38-2	Arsenic	0.35	J		P
7440-39-3	Barium	7.8	J		P
7441-41-7	Beryllium	0.048	J		P
7440-43-9	Cadmium	0.40	U		P
7440-70-2	Calcium	50.1	J		P
7440-47-3	Chromium	6.5			P
7440-48-4	Cobalt	0.039	J		P
7440-50-8	Copper	0.75	J		P
7439-89-6	Iron	1010			P
7439-92-1	Lead	3.5			P
7439-95-4	Magnesium	156	J		P
7439-96-5	Manganese	2.8			P
7439-97-6	Mercury	0.030	J		AV
7440-02-0	Nickel	0.72	J		P
7440-09-7	Potassium	249	J		P
7782-49-2	Selenium	0.41	J		P
7440-22-4	Silver	0.79	U		P
7440-23-5	Sodium	59.7	J		P
7440-28-0	Thallium	2.0	U		P
7440-62-2	Vanadium	8.7			P
7440-66-6	Zinc	3.2	J		P

✓ AED 9/3/07

Color Before: Grey Clarity Before: NA Texture: Medium

Color After: Yellow Clarity After: Clear Artifacts: NA

Comments:

SEMIVOLATILE ORGANICS

GPL Laboratories

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS01-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-001-065-1/1
Sample Volume :	30.01	Lab File ID :	D43525.D
% Moisture:	9	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/14/2007
Injection Volume :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

Acd 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
92-52-4	1,1- Biphenyl	370	U
108-60-1	2,2-Oxybis(1-chloropropane)	370	U
95-95-4	2,4,5-Trichlorophenol	920	U
88-06-2	2,4,6-Trichlorophenol	370	U
120-83-2	2,4-Dichlorophenol	370	U
105-67-9	2,4-Dimethylphenol	370	U
51-28-5	2,4-Dinitrophenol	920	U
121-14-2	2,4-Dinitrotoluene	370	U
606-20-2	2,6-Dinitrotoluene	370	U
532-27-4	2-Chloroacetophenone - CN	370	U
2698-41-1	2-Chlorobenzalmalononitrile	370	U
91-58-7	2-Chloronaphthalene	370	U
95-57-8	2-Chlorophenol	370	U
91-57-6	2-Methylnaphthalene	370	U
88-74-4	2-Nitroaniline	920	U
88-75-5	2-Nitrophenol	370	U
95-48-7	2-methylphenol	370	U
91-94-1	3,3-Dichlorobenzidine	370	U
99-09-2	3-Nitroaniline	920	U
534-52-1	4,6-dinitro-2-methyl phenol	920	U
101-55-3	4-Bromophenyl-phenylether	370	U
106-47-8	4-Chloroaniline	370	U
7005-72-3	4-Chlorophenyl Phenyl Ether	370	U
100-01-6	4-Nitroaniline	920	U
100-02-7	4-Nitrophenol	920	U
59-50-7	4-chloro-3-methylphenol	370	U
106-44-5	4-methylphenol	370	U
83-32-9	Acenaphthene	370	U
208-96-8	Acenaphthylene	370	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS01-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-001-065-1/1
Sample Volume :	30.01	Lab File ID :	D43525.D
% Moisture:	9	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/14/2007
Injection Volume :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

✓ AEP 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
98-86-2	Acetophenone	370	U
120-12-7	Anthracene	370	U
1912-24-9	Atrazine	370	U
100-52-7	Benzaldehyde	370	U
56-55-3	Benzo(a)anthracene	370	U
50-32-8	Benzo(a)pyrene	370	U
205-99-2	Benzo(b)fluoranthene	370	U
191-24-2	Benzo(g,h,i)perylene	370	U
207-08-9	Benzo(k)fluoranthene	370	U
85-68-7	Benzyl Butyl Phthalate	370	U
105-60-2	Caprolactam	370	U
86-74-8	Carbazole	370	U
218-01-9	Chrysene	370	U
53-70-3	Dibenz(a,h)Anthracene	370	U
132-64-9	Dibenzofuran	370	U
84-66-2	Diethyl Phthalate	370	U
131-11-3	Dimethyl Phthalate	370	U
206-44-0	Fluoranthene	370	U
86-73-7	Fluorene	370	U
118-74-1	Hexachlorobenzene	370	U
87-68-3	Hexachlorobutadiene	370	U
77-47-4	Hexachlorocyclopentadiene	370	U
67-72-1	Hexachloroethane	370	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	370	U
78-59-1	Isophorone	370	U
91-20-3	Naphthalene	370	U
98-95-3	Nitrobenzene	370	U
87-86-5	Pentachlorophenol	920	U
85-01-8	Phenanthrene	370	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS01-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-001-065-1/1
Sample Volume :	30.01	Lab File ID :	D43525.D
% Moisture:	9	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/14/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

✓ AEN 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
108-95-2	Phenol	370	U
129-00-0	Pyrene	370	U
111-91-1	bis(2-chloroethoxy) methane	370	U
111-44-4	bis(2-chloroethyl) ether	370	U
117-81-7	bis(2-ethylhexyl) phthalate	370	U
84-74-2	di-n-Butyl Phthalate	37	J
117-84-0	di-n-Octyl Phthalate	370	U
621-64-7	n-Nitrosodi-n-Propylamine	370	U
86-30-6	n-Nitrosodiphenylamine	370	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS01-5-8-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-002-066-1/1
Sample Volume :	30	Lab File ID :	D43503.D
% Moisture:	6.84	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/13/2007
Injection Volume :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

✓ AED 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
92-52-4	1,1- Biphenyl	360	U
108-60-1	2,2-Oxybis(1-chloropropane)	360	U
95-95-4	2,4,5-Trichlorophenol	900	U
88-06-2	2,4,6-Trichlorophenol	360	U
120-83-2	2,4-Dichlorophenol	360	U
105-67-9	2,4-Dimethylphenol	360	U
51-28-5	2,4-Dinitrophenol	900	U
121-14-2	2,4-Dinitrotoluene	360	U
606-20-2	2,6-Dinitrotoluene	360	U
532-27-4	2-Chloroacetophenone - CN	360	U
2698-41-1	2-Chlorobenzalmalononitrile	360	U
91-58-7	2-Chloronaphthalene	360	U
95-57-8	2-Chlorophenol	360	U
91-57-6	2-Methylnaphthalene	360	U
88-74-4	2-Nitroaniline	900	U
88-75-5	2-Nitrophenol	360	U
95-48-7	2-methylphenol	360	U
91-94-1	3,3-Dichlorobenzidine	360	U
99-09-2	3-Nitroaniline	900	U
534-52-1	4,6-dinitro-2-methyl phenol	900	U
101-55-3	4-Bromophenyl-phenylether	360	U
106-47-8	4-Chloroaniline	360	U
7005-72-3	4-Chlorophenyl Phenyl Ether	360	U
100-01-6	4-Nitroaniline	900	U
100-02-7	4-Nitrophenol	900	U
59-50-7	4-chloro-3-methylphenol	360	U
106-44-5	4-methylphenol	360	U
83-32-9	Acenaphthene	360	U
208-96-8	Acenaphthylene	360	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS01-5-8-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-002-066-1/1
Sample Volume :	30	Lab File ID :	D43503.D
% Moisture:	6.84	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/13/2007
Injection Volume :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

✓ AEN 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
98-86-2	Acetophenone	360	U
120-12-7	Anthracene	360	U
1912-24-9	Atrazine	360	U
100-52-7	Benzaldehyde	360	U
56-55-3	Benzo(a)anthracene	360	U
50-32-8	Benzo(a)pyrene	360	U
205-99-2	Benzo(b)fluoranthene	360	U
191-24-2	Benzo(g,h,i)perylene	360	U
207-08-9	Benzo(k)fluoranthene	360	U
85-68-7	Benzyl Butyl Phthalate	360	U
105-60-2	Caprolactam	360	U
86-74-8	Carbazole	360	U
218-01-9	Chrysene	360	U
53-70-3	Dibenz(a,h)Anthracene	360	U
132-64-9	Dibenzofuran	360	U
84-66-2	Diethyl Phthalate	360	U
131-11-3	Dimethyl Phthalate	360	U
206-44-0	Fluoranthene	360	U
86-73-7	Fluorene	360	U
118-74-1	Hexachlorobenzene	360	U
87-68-3	Hexachlorobutadiene	360	U
77-47-4	Hexachlorocyclopentadiene	360	U
67-72-1	Hexachloroethane	360	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	360	U
78-59-1	Isophorone	360	U
91-20-3	Naphthalene	360	U
98-95-3	Nitrobenzene	360	U
87-86-5	Pentachlorophenol	900	U
85-01-8	Phenanthrene	360	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS01-5-8-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-002-066-1/1
Sample Volume :	30	Lab File ID :	D43503.D
% Moisture:	6.84	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/13/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

✓ AOD 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
108-95-2	Phenol	360	U
129-00-0	Pyrene	360	U
111-91-1	bis(2-chloroethoxy) methane	360	U
111-44-4	bis(2-chloroethyl) ether	360	U
117-81-7	bis(2-ethylhexyl) phthalate	360	U
84-74-2	di-n-Butyl Phthalate	360	U
117-84-0	di-n-Octyl Phthalate	360	U
621-64-7	n-Nitrosodi-n-Propylamine	360	U
86-30-6	n-Nitrosodiphenylamine	360	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS02-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-003-067-1/1
Sample Volume :	30	Lab File ID :	D43522.D
% Moisture:	19.15	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/14/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

✓ Aen 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
92-52-4	1,1- Biphenyl	410	U
108-60-1	2,2-Oxybis(1-chloropropane)	410	U
95-95-4	2,4,5-Trichlorophenol	1000	U
88-06-2	2,4,6-Trichlorophenol	410	U
120-83-2	2,4-Dichlorophenol	410	U
105-67-9	2,4-Dimethylphenol	410	U
51-28-5	2,4-Dinitrophenol	1000	U
121-14-2	2,4-Dinitrotoluene	410	U
606-20-2	2,6-Dinitrotoluene	410	U
532-27-4	2-Chloroacetophenone - CN	410	U
2698-41-1	2-Chlorobenzalmalononitrile	410	U
91-58-7	2-Chloronaphthalene	410	U
95-57-8	2-Chlorophenol	410	U
91-57-6	2-Methylnaphthalene	410	U
88-74-4	2-Nitroaniline	1000	U
88-75-5	2-Nitrophenol	410	U
95-48-7	2-methylphenol	410	U
91-94-1	3,3-Dichlorobenzidine	410	U
99-09-2	3-Nitroaniline	1000	U
534-52-1	4,6-dinitro-2-methyl phenol	1000	U
101-55-3	4-Bromophenyl-phenylether	410	U
106-47-8	4-Chloroaniline	410	U
7005-72-3	4-Chlorophenyl Phenyl Ether	410	U
100-01-6	4-Nitroaniline	1000	U
100-02-7	4-Nitrophenol	1000	U
59-50-7	4-chloro-3-methylphenol	410	U
106-44-5	4-methylphenol	410	U
83-32-9	Acenaphthene	410	U
208-96-8	Acenaphthylene	410	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS02-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-003-067-1/1
Sample Volume :	30	Lab File ID :	D43522.D
% Moisture:	19.15	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/14/2007
Injection Volume :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

AED 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
98-86-2	Acetophenone	410	U
120-12-7	Anthracene	410	U
1912-24-9	Atrazine	410	U
100-52-7	Benzaldehyde	410	U
56-55-3	Benzo(a)anthracene	410	U
50-32-8	Benzo(a)pyrene	410	U
205-99-2	Benzo(b)fluoranthene	410	U
191-24-2	Benzo(g,h,i)perylene	410	U
207-08-9	Benzo(k)fluoranthene	410	U
85-68-7	Benzyl Butyl Phthalate	410	U
105-60-2	Caprolactam	410	U
86-74-8	Carbazole	410	U
218-01-9	Chrysene	410	U
53-70-3	Dibenz(a,h)Anthracene	410	U
132-64-9	Dibenzofuran	410	U
84-66-2	Diethyl Phthalate	410	U
131-11-3	Dimethyl Phthalate	410	U
206-44-0	Fluoranthene	410	U
86-73-7	Fluorene	410	U
118-74-1	Hexachlorobenzene	410	U
87-68-3	Hexachlorobutadiene	410	U
77-47-4	Hexachlorocyclopentadiene	410	U
67-72-1	Hexachloroethane	410	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	410	U
78-59-1	Isophorone	410	U
91-20-3	Naphthalene	410	U
98-95-3	Nitrobenzene	410	U
87-86-5	Pentachlorophenol	1000	U
85-01-8	Phenanthrene	410	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS02-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-003-067-1/1
Sample Volume :	30	Lab File ID :	D43522.D
% Moisture:	19.15	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/14/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

✓ AED 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
108-95-2	Phenol	410	U
129-00-0	Pyrene	410	U
111-91-1	bis(2-chloroethoxy) methane	410	U
111-44-4	bis(2-chloroethyl) ether	410	U
117-81-7	bis(2-ethylhexyl) phthalate	47	J
84-74-2	di-n-Butyl Phthalate	410	U
117-84-0	di-n-Octyl Phthalate	410	U
621-64-7	n-Nitrosodi-n-Propylamine	410	U
86-30-6	n-Nitrosodiphenylamine	410	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS02-5-10-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-004-068-1/1
Sample Volume :	30.02	Lab File ID :	D43515.D
% Moisture:	13.24	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/14/2007
Injection Volume :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

✓ AED 9/13/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
92-52-4	1,1- Biphenyl	380	U
108-60-1	2,2-Oxybis(1-chloropropane)	380	U
95-95-4	2,4,5-Trichlorophenol	960	U
88-06-2	2,4,6-Trichlorophenol	380	U
120-83-2	2,4-Dichlorophenol	380	U
105-67-9	2,4-Dimethylphenol	380	U
51-28-5	2,4-Dinitrophenol	960	U
121-14-2	2,4-Dinitrotoluene	380	U
606-20-2	2,6-Dinitrotoluene	380	U
532-27-4	2-Chloroacetophenone - CN	380	U
2698-41-1	2-Chlorobenzalmalononitrile	380	U
91-58-7	2-Chloronaphthalene	380	U
95-57-8	2-Chlorophenol	380	U
91-57-6	2-Methylnaphthalene	380	U
88-74-4	2-Nitroaniline	960	U
88-75-5	2-Nitrophenol	380	U
95-48-7	2-methylphenol	380	U
91-94-1	3,3-Dichlorobenzidine	380	U
99-09-2	3-Nitroaniline	960	U
534-52-1	4,6-dinitro-2-methyl phenol	960	U
101-55-3	4-Bromophenyl-phenylether	380	U
106-47-8	4-Chloroaniline	380	U
7005-72-3	4-Chlorophenyl Phenyl Ether	380	U
100-01-6	4-Nitroaniline	960	U
100-02-7	4-Nitrophenol	960	U
59-50-7	4-chloro-3-methylphenol	380	U
106-44-5	4-methylphenol	380	U
83-32-9	Acenaphthene	380	U
208-96-8	Acenaphthylene	380	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS02-5-10-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-004-068-1/1
Sample Volume :	30.02	Lab File ID :	D43515.D
% Moisture:	13.24	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/14/2007
Injection Volume :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

✓ ACD 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
98-86-2	Acetophenone	380	U
120-12-7	Anthracene	380	U
1912-24-9	Atrazine	380	U
100-52-7	Benzaldehyde	380	U
56-55-3	Benzo(a)anthracene	380	U
50-32-8	Benzo(a)pyrene	380	U
205-99-2	Benzo(b)fluoranthene	380	U
191-24-2	Benzo(g,h,i)perylene	380	U
207-08-9	Benzo(k)fluoranthene	380	U
85-68-7	Benzyl Butyl Phthalate	380	U
105-60-2	Caprolactam	380	U
86-74-8	Carbazole	380	U
218-01-9	Chrysene	380	U
53-70-3	Dibenz(a,h)Anthracene	380	U
132-64-9	Dibenzofuran	380	U
84-66-2	Diethyl Phthalate	380	U
131-11-3	Dimethyl Phthalate	380	U
206-44-0	Fluoranthene	380	U
86-73-7	Fluorene	380	U
118-74-1	Hexachlorobenzene	380	U
87-68-3	Hexachlorobutadiene	380	U
77-47-4	Hexachlorocyclopentadiene	380	U
67-72-1	Hexachloroethane	380	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	380	U
78-59-1	Isophorone	380	U
91-20-3	Naphthalene	380	U
98-95-3	Nitrobenzene	960	U
87-86-5	Pentachlorophenol	380	U
85-01-8	Phenanthrene	380	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS02-5-10-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-004-068-1/1
Sample Volume :	30.02	Lab File ID :	D43515.D
% Moisture:	13.24	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/14/2007
Injection Volume :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

✓ AED 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
108-95-2	Phenol	380	U
129-00-0	Pyrene	380	U
111-91-1	bis(2-chloroethoxy) methane	380	U
111-44-4	bis(2-chloroethyl) ether	380	U
117-81-7	bis(2-ethylhexyl) phthalate	380	U
84-74-2	di-n-Butyl Phthalate	380	U
117-84-0	di-n-Octyl Phthalate	380	U
621-64-7	n-Nitrosodi-n-Propylamine	380	U
86-30-6	n-Nitrosodiphenylamine	380	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS03-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-005-069-1/1
Sample Volume :	30	Lab File ID :	D43518.D
% Moisture:	7.42	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/14/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

AEW 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
92-52-4	1,1- Biphenyl	360	U
108-60-1	2,2-Oxybis(1-chloropropane)	360	U
95-95-4	2,4,5-Trichlorophenol	900	U
88-06-2	2,4,6-Trichlorophenol	360	U
120-83-2	2,4-Dichlorophenol	360	U
105-67-9	2,4-Dimethylphenol	360	U
51-28-5	2,4-Dinitrophenol	900	U
121-14-2	2,4-Dinitrotoluene	360	U
606-20-2	2,6-Dinitrotoluene	360	U
532-27-4	2-Chloroacetophenone - CN	360	U
2698-41-1	2-Chlorobenzalmalononitrile	360	U
91-58-7	2-Chloronaphthalene	360	U
95-57-8	2-Chlorophenol	360	U
91-57-6	2-Methylnaphthalene	360	U
88-74-4	2-Nitroaniline	900	U
88-75-5	2-Nitrophenol	360	U
95-48-7	2-methylphenol	360	U
91-94-1	3,3-Dichlorobenzidine	360	U
99-09-2	3-Nitroaniline	900	U
534-52-1	4,6-dinitro-2-methyl phenol	900	U
101-55-3	4-Bromophenyl-phenylether	360	U
106-47-8	4-Chloroaniline	360	U
7005-72-3	4-Chlorophenyl Phenyl Ether	360	U
100-01-6	4-Nitroaniline	900	U
100-02-7	4-Nitrophenol	900	U
59-50-7	4-chloro-3-methylphenol	360	U
106-44-5	4-methylphenol	360	U
83-32-9	Acenaphthene	360	U
208-96-8	Acenaphthylene	360	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS03-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-005-069-1/1
Sample Volume :	30	Lab File ID :	D43518.D
% Moisture:	7.42	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/14/2007
Injection Volume :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

Hep 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
98-86-2	Acetophenone	360	U
120-12-7	Anthracene	360	U
1912-24-9	Atrazine	360	U
100-52-7	Benzaldehyde	360	U
56-55-3	Benzo(a)anthracene	360	U
50-32-8	Benzo(a)pyrene	360	U
205-99-2	Benzo(b)fluoranthene	360	U
191-24-2	Benzo(g,h,i)perylene	360	U
207-08-9	Benzo(k)fluoranthene	360	U
85-68-7	Benzyl Butyl Phthalate	360	U
105-60-2	Caprolactam	360	U
86-74-8	Carbazole	360	U
218-01-9	Chrysene	360	U
53-70-3	Dibenz(a,h)Anthracene	360	U
132-64-9	Dibenzofuran	360	U
84-66-2	Diethyl Phthalate	360	U
131-11-3	Dimethyl Phthalate	360	U
206-44-0	Fluoranthene	360	U
86-73-7	Fluorene	360	U
118-74-1	Hexachlorobenzene	360	U
87-68-3	Hexachlorobutadiene	360	U
77-47-4	Hexachlorocyclopentadiene	360	U
67-72-1	Hexachloroethane	360	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	360	U
78-59-1	Isophorone	360	U
91-20-3	Naphthalene	360	U
98-95-3	Nitrobenzene	360	U
87-86-5	Pentachlorophenol	900	U
85-01-8	Phenanthrene	360	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS03-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-005-069-1/1
Sample Volume :	30	Lab File ID :	D43518.D
% Moisture:	7.42	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/14/2007
Injection Volume :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

✓ AED 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
108-95-2	Phenol	360	U
129-00-0	Pyrene	360	U
111-91-1	bis(2-chloroethoxy) methane	360	U
111-44-4	bis(2-chloroethyl) ether	360	U
117-81-7	bis(2-ethylhexyl) phthalate	360	U
84-74-2	di-n-Butyl Phthalate	360	U
117-84-0	di-n-Octyl Phthalate	360	U
621-64-7	n-Nitrosodi-n-Propylamine	360	U
86-30-6	n-Nitrosodiphenylamine	360	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS03-5-8-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-006-070-1/1
Sample Volume :	30	Lab File ID :	D43516.D
% Moisture:	10.06	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/14/2007
Injection Volume :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

✓ AEP 9/13/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
92-52-4	1,1- Biphenyl	370	U
108-60-1	2,2-Oxybis(1-chloropropane)	370	U
95-95-4	2,4,5-Trichlorophenol	930	U
88-06-2	2,4,6-Trichlorophenol	370	U
120-83-2	2,4-Dichlorophenol	370	U
105-67-9	2,4-Dimethylphenol	370	U
51-28-5	2,4-Dinitrophenol	930	U
121-14-2	2,4-Dinitrotoluene	370	U
606-20-2	2,6-Dinitrotoluene	370	U
532-27-4	2-Chloroacetophenone - CN	370	U
2698-41-1	2-Chlorobenzalmalononitrile	370	U
91-58-7	2-Chloronaphthalene	370	U
95-57-8	2-Chlorophenol	370	U
91-57-6	2-Methylnaphthalene	370	U
88-74-4	2-Nitroaniline	930	U
88-75-5	2-Nitrophenol	370	U
95-48-7	2-methylphenol	370	U
91-94-1	3,3-Dichlorobenzidine	370	U
99-09-2	3-Nitroaniline	930	U
534-52-1	4,6-dinitro-2-methyl phenol	930	U
101-55-3	4-Bromophenyl-phenylether	370	U
106-47-8	4-Chloroaniline	370	U
7005-72-3	4-Chlorophenyl Phenyl Ether	370	U
100-01-6	4-Nitroaniline	930	U
100-02-7	4-Nitrophenol	930	U
59-50-7	4-chloro-3-methylphenol	370	U
106-44-5	4-methylphenol	370	U
83-32-9	Acenaphthene	370	U
208-96-8	Acenaphthylene	370	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS03-5-8-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-006-070-1/1
Sample Volume :	30	Lab File ID :	D43516.D
% Moisture:	10.06	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/14/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

AED 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
98-86-2	Acetophenone	370	U
120-12-7	Anthracene	370	U
1912-24-9	Atrazine	370	U
100-52-7	Benzaldehyde	370	U
56-55-3	Benzo(a)anthracene	370	U
50-32-8	Benzo(a)pyrene	370	U
205-99-2	Benzo(b)fluoranthene	370	U
191-24-2	Benzo(g,h,i)perylene	370	U
207-08-9	Benzo(k)fluoranthene	370	U
85-68-7	Benzyl Butyl Phthalate	370	U
105-60-2	Caprolactam	370	U
86-74-8	Carbazole	370	U
218-01-9	Chrysene	370	U
53-70-3	Dibenz(a,h)Anthracene	370	U
132-64-9	Dibenzofuran	370	U
84-66-2	Diethyl Phthalate	370	U
131-11-3	Dimethyl Phthalate	370	U
206-44-0	Fluoranthene	370	U
86-73-7	Fluorene	370	U
118-74-1	Hexachlorobenzene	370	U
87-68-3	Hexachlorobutadiene	370	U
77-47-4	Hexachlorocyclopentadiene	370	U
67-72-1	Hexachloroethane	370	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	370	U
78-59-1	Isophorone	370	U
91-20-3	Naphthalene	370	U
98-95-3	Nitrobenzene	370	U
87-86-5	Pentachlorophenol	930	U
85-01-8	Phenanthrene	370	U

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS03-5-8-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-006-070-1/1
Sample Volume :	30	Lab File ID :	D43516.D
% Moisture:	10.06	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/14/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

✓ AED 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
108-95-2	Phenol	370	U
129-00-0	Pyrene	370	U
111-91-1	bis(2-chloroethoxy) methane	370	U
111-44-4	bis(2-chloroethyl) ether	370	U
117-81-7	bis(2-ethylhexyl) phthalate	370	U
84-74-2	di-n-Butyl Phthalate	370	U
117-84-0	di-n-Octyl Phthalate	370	U
621-64-7	n-Nitrosodi-n-Propylamine	370	U
86-30-6	n-Nitrosodiphenylamine	370	U

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS04-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-007-071-1/1
Sample Volume :	30	Lab File ID :	D43519.D
% Moisture:	5.87	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/14/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

✓ AEP 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
92-52-4	1,1- Biphenyl	350	U
108-60-1	2,2-Oxybis(1-chloropropane)	350	U
95-95-4	2,4,5-Trichlorophenol	890	U
88-06-2	2,4,6-Trichlorophenol	350	U
120-83-2	2,4-Dichlorophenol	350	U
105-67-9	2,4-Dimethylphenol	350	U
51-28-5	2,4-Dinitrophenol	890	U
121-14-2	2,4-Dinitrotoluene	350	U
606-20-2	2,6-Dinitrotoluene	350	U
532-27-4	2-Chloroacetophenone - CN	350	U
2698-41-1	2-Chlorobenzalmalononitrile	350	U
91-58-7	2-Chloronaphthalene	350	U
95-57-8	2-Chlorophenol	350	U
91-57-6	2-Methylnaphthalene	350	U
88-74-4	2-Nitroaniline	890	U
88-75-5	2-Nitrophenol	350	U
95-48-7	2-methylphenol	350	U
91-94-1	3,3-Dichlorobenzidine	350	U
99-09-2	3-Nitroaniline	890	U
534-52-1	4,6-dinitro-2-methyl phenol	890	U
101-55-3	4-Bromophenyl-phenylether	350	U
106-47-8	4-Chloroaniline	350	U
7005-72-3	4-Chlorophenyl Phenyl Ether	350	U
100-01-6	4-Nitroaniline	890	U
100-02-7	4-Nitrophenol	890	U
59-50-7	4-chloro-3-methylphenol	350	U
106-44-5	4-methylphenol	350	U
83-32-9	Acenaphthene	350	U
208-96-8	Acenaphthylene	350	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS04-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-007-071-1/1
Sample Volume :	30	Lab File ID :	D43519.D
% Moisture:	5.87	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/14/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

AED 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
98-86-2	Acetophenone	350	U
120-12-7	Anthracene	350	U
1912-24-9	Atrazine	350	U
100-52-7	Benzaldehyde	350	U
56-55-3	Benzo(a)anthracene	350	U
50-32-8	Benzo(a)pyrene	350	U
205-99-2	Benzo(b)fluoranthene	350	U
191-24-2	Benzo(g,h,i)perylene	350	U
207-08-9	Benzo(k)fluoranthene	350	U
85-68-7	Benzyl Butyl Phthalate	350	U
105-60-2	Caprolactam	350	U
86-74-8	Carbazole	350	U
218-01-9	Chrysene	350	U
53-70-3	Dibenz(a,h)Anthracene	350	U
132-64-9	Dibenzofuran	350	U
84-66-2	Diethyl Phthalate	350	U
131-11-3	Dimethyl Phthalate	350	U
206-44-0	Fluoranthene	350	U
86-73-7	Fluorene	350	U
118-74-1	Hexachlorobenzene	350	U
87-68-3	Hexachlorobutadiene	350	U
77-47-4	Hexachlorocyclopentadiene	350	U
67-72-1	Hexachloroethane	350	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	350	U
78-59-1	Isophorone	350	U
91-20-3	Naphthalene	350	U
98-95-3	Nitrobenzene	350	U
87-86-5	Pentachlorophenol	890	U
85-01-8	Phenanthrene	350	U

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS04-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-007-071-1/1
Sample Volume :	30	Lab File ID :	D43519.D
% Moisture:	5.87	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/14/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

✓ AED 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
108-95-2	Phenol	350	U
129-00-0	Pyrene	350	U
111-91-1	bis(2-chloroethoxy) methane	350	U
111-44-4	bis(2-chloroethyl) ether	350	U
117-81-7	bis(2-ethylhexyl) phthalate	70	J
84-74-2	di-n-Butyl Phthalate	350	U
117-84-0	di-n-Octyl Phthalate	350	U
621-64-7	n-Nitrosodi-n-Propylamine	350	U
86-30-6	n-Nitrosodiphenylamine	350	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS04-6-8-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-008-072-1/1
Sample Volume :	30.01	Lab File ID :	D43506.D
% Moisture:	14.81	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/13/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
92-52-4	1,1- Biphenyl	390	U
108-60-1	2,2-Oxybis(1-chloropropane)	390	U
95-95-4	2,4,5-Trichlorophenol	980	U
88-06-2	2,4,6-Trichlorophenol	390	U
120-83-2	2,4-Dichlorophenol	390	U
105-67-9	2,4-Dimethylphenol	390	U
51-28-5	2,4-Dinitrophenol	980	U
121-14-2	2,4-Dinitrotoluene	390	U
606-20-2	2,6-Dinitrotoluene	390	U
532-27-4	2-Chloroacetophenone - CN	390	U
2698-41-1	2-Chlorobenzalmalononitrile	390	U
91-58-7	2-Chloronaphthalene	390	U
95-57-8	2-Chlorophenol	390	U
91-57-6	2-Methylnaphthalene	390	U
88-74-4	2-Nitroaniline	980	U
88-75-5	2-Nitrophenol	390	U
95-48-7	2-methylphenol	390	U
91-94-1	3,3-Dichlorobenzidine	390	U
99-09-2	3-Nitroaniline	980	U
534-52-1	4,6-dinitro-2-methyl phenol	980	U
101-55-3	4-Bromophenyl-phenylether	390	U
106-47-8	4-Chloroaniline	390	U
7005-72-3	4-Chlorophenyl Phenyl Ether	390	U
100-01-6	4-Nitroaniline	980	U
100-02-7	4-Nitrophenol	980	U
59-50-7	4-chloro-3-methylphenol	390	U
106-44-5	4-methylphenol	390	U
83-32-9	Acenaphthene	390	U
208-96-8	Acenaphthylene	390	U

AED 9/3/07

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS04-6-8-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-008-072-1/1
Sample Volume :	30.01	Lab File ID :	D43506.D
% Moisture:	14.81	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/13/2007
Injection Volume :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

✓ AED 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
98-86-2	Acetophenone	390	U
120-12-7	Anthracene	390	U
1912-24-9	Atrazine	390	U
100-52-7	Benzaldehyde	390	U
56-55-3	Benzo(a)anthracene	390	U
50-32-8	Benzo(a)pyrene	390	U
205-99-2	Benzo(b)fluoranthene	390	U
191-24-2	Benzo(g,h,i)perylene	390	U
207-08-9	Benzo(k)fluoranthene	390	U
85-68-7	Benzyl Butyl Phthalate	390	U
105-60-2	Caprolactam	390	U
86-74-8	Carbazole	390	U
218-01-9	Chrysene	390	U
53-70-3	Dibenz(a,h)Anthracene	390	U
132-64-9	Dibenzofuran	390	U
84-66-2	Diethyl Phthalate	390	U
131-11-3	Dimethyl Phthalate	390	U
206-44-0	Fluoranthene	390	U
86-73-7	Fluorene	390	U
118-74-1	Hexachlorobenzene	390	U
87-68-3	Hexachlorobutadiene	390	U
77-47-4	Hexachlorocyclopentadiene	390	U
67-72-1	Hexachloroethane	390	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	390	U
78-59-1	Isophorone	390	U
91-20-3	Naphthalene	390	U
98-95-3	Nitrobenzene	390	U
87-86-5	Pentachlorophenol	980	U
85-01-8	Phenanthrene	390	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS04-6-8-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-008-072-1/1
Sample Volume :	30.01	Lab File ID :	D43506.D
% Moisture:	14.81	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/13/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

✓ AED 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
108-95-2	Phenol	390	U
129-00-0	Pyrene	390	U
111-91-1	bis(2-chloroethoxy) methane	390	U
111-44-4	bis(2-chloroethyl) ether	390	U
117-81-7	bis(2-ethylhexyl) phthalate	390	U
84-74-2	di-n-Butyl Phthalate	390	U
117-84-0	di-n-Octyl Phthalate	390	U
621-64-7	n-Nitrosodi-n-Propylamine	390	U
86-30-6	n-Nitrosodiphenylamine	390	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS05-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-009-073-1/1
Sample Volume :	30	Lab File ID :	D43520.D
% Moisture:	19.55	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/14/2007
Injection Volume :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

✓ ACP 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
92-52-4	1,1- Biphenyl	410	U
108-60-1	2,2-Oxybis(1-chloropropane)	410	U
95-95-4	2,4,5-Trichlorophenol	1000	U
88-06-2	2,4,6-Trichlorophenol	410	U
120-83-2	2,4-Dichlorophenol	410	U
105-67-9	2,4-Dimethylphenol	410	U
51-28-5	2,4-Dinitrophenol	1000	U
121-14-2	2,4-Dinitrotoluene	410	U
606-20-2	2,6-Dinitrotoluene	410	U
532-27-4	2-Chloroacetophenone - CN	410	U
2698-41-1	2-Chlorobenzalmalononitrile	410	U
91-58-7	2-Chloronaphthalene	410	U
95-57-8	2-Chlorophenol	410	U
91-57-6	2-Methylnaphthalene	410	U
88-74-4	2-Nitroaniline	1000	U
88-75-5	2-Nitrophenol	410	U
95-48-7	2-methylphenol	410	U
91-94-1	3,3-Dichlorobenzidine	410	U
99-09-2	3-Nitroaniline	1000	U
534-52-1	4,6-dinitro-2-methyl phenol	1000	U
101-55-3	4-Bromophenyl-phenylether	410	U
106-47-8	4-Chloroaniline	410	U
7005-72-3	4-Chlorophenyl Phenyl Ether	410	U
100-01-6	4-Nitroaniline	1000	U
100-02-7	4-Nitrophenol	1000	U
59-50-7	4-chloro-3-methylphenol	410	U
106-44-5	4-methylphenol	410	U
83-32-9	Acenaphthene	410	U
208-96-8	Acenaphthylene	410	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS05-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-009-073-1/1
Sample Volume :	30	Lab File ID :	D43520.D
% Moisture:	19.55	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/14/2007
Injection Volume :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

✓ AED 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
98-86-2	Acetophenone	410	U
120-12-7	Anthracene	410	U
1912-24-9	Atrazine	410	U
100-52-7	Benzaldehyde	410	U
56-55-3	Benzo(a)anthracene	410	U
50-32-8	Benzo(a)pyrene	410	U
205-99-2	Benzo(b)fluoranthene	410	U
191-24-2	Benzo(g,h,i)perylene	410	U
207-08-9	Benzo(k)fluoranthene	410	U
85-68-7	Benzyl Butyl Phthalate	410	U
105-60-2	Caprolactam	410	U
86-74-8	Carbazole	410	U
218-01-9	Chrysene	410	U
53-70-3	Dibenz(a,h)Anthracene	410	U
132-64-9	Dibenzofuran	410	U
84-66-2	Diethyl Phthalate	410	U
131-11-3	Dimethyl Phthalate	410	U
206-44-0	Fluoranthene	410	U
86-73-7	Fluorene	410	U
118-74-1	Hexachlorobenzene	410	U
87-68-3	Hexachlorobutadiene	410	U
77-47-4	Hexachlorocyclopentadiene	410	U
67-72-1	Hexachloroethane	410	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	410	U
78-59-1	Isophorone	410	U
91-20-3	Naphthalene	410	U
98-95-3	Nitrobenzene	410	U
87-86-5	Pentachlorophenol	1000	U
85-01-8	Phenanthrene	410	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS05-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-009-073-1/1
Sample Volume :	30	Lab File ID :	D43520.D
% Moisture:	19.55	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/14/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

AED 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
108-95-2	Phenol	410	U
129-00-0	Pyrene	410	U
111-91-1	bis(2-chloroethoxy) methane	410	U
111-44-4	bis(2-chloroethyl) ether	410	U
117-81-7	bis(2-ethylhexyl) phthalate	410	U
84-74-2	di-n-Butyl Phthalate	410	U
117-84-0	di-n-Octyl Phthalate	410	U
621-64-7	n-Nitrosodi-n-Propylamine	410	U
86-30-6	n-Nitrosodiphenylamine	410	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS05-2-4-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-010-074-1/1
Sample Volume :	30	Lab File ID :	D43507.D
% Moisture:	33.23	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/14/2007
Injection Volume :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

ACD 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
92-52-4	1,1- Biphenyl	500	U
108-60-1	2,2-Oxybis(1-chloropropane)	500	U
95-95-4	2,4,5-Trichlorophenol	1300	U
88-06-2	2,4,6-Trichlorophenol	500	U
120-83-2	2,4-Dichlorophenol	500	U
105-67-9	2,4-Dimethylphenol	500	U
51-28-5	2,4-Dinitrophenol	1300	U
121-14-2	2,4-Dinitrotoluene	500	U
606-20-2	2,6-Dinitrotoluene	500	U
532-27-4	2-Chloroacetophenone - CN	500	U
2698-41-1	2-Chlorobenzalmalononitrile	500	U
91-58-7	2-Chloronaphthalene	500	U
95-57-8	2-Chlorophenol	500	U
91-57-6	2-Methylnaphthalene	500	U
88-74-4	2-Nitroaniline	1300	U
88-75-5	2-Nitrophenol	500	U
95-48-7	2-methylphenol	500	U
91-94-1	3,3-Dichlorobenzidine	500	U
99-09-2	3-Nitroaniline	1300	U
534-52-1	4,6-dinitro-2-methyl phenol	1300	U
101-55-3	4-Bromophenyl-phenylether	500	U
106-47-8	4-Chloroaniline	500	U
7005-72-3	4-Chlorophenyl Phenyl Ether	500	U
100-01-6	4-Nitroaniline	1300	U
100-02-7	4-Nitrophenol	1300	U
59-50-7	4-chloro-3-methylphenol	500	U
106-44-5	4-methylphenol	500	U
83-32-9	Acenaphthene	500	U
208-96-8	Acenaphthylene	500	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS05-2-4-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-010-074-1/1
Sample Volume :	30	Lab File ID :	D43507.D
% Moisture:	33.23	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/14/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

AED 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
98-86-2	Acetophenone	500	U
120-12-7	Anthracene	500	U
1912-24-9	Atrazine	500	U
100-52-7	Benzaldehyde	500	U
56-55-3	Benzo(a)anthracene	500	U
50-32-8	Benzo(a)pyrene	500	U
205-99-2	Benzo(b)fluoranthene	500	U
191-24-2	Benzo(g,h,i)perylene	500	U
207-08-9	Benzo(k)fluoranthene	500	U
85-68-7	Benzyl Butyl Phthalate	500	U
105-60-2	Caprolactam	500	U
86-74-8	Carbazole	500	U
218-01-9	Chrysene	500	U
53-70-3	Dibenz(a,h)Anthracene	500	U
132-64-9	Dibenzofuran	500	U
84-66-2	Diethyl Phthalate	500	U
131-11-3	Dimethyl Phthalate	500	U
206-44-0	Fluoranthene	500	U
86-73-7	Fluorene	500	U
118-74-1	Hexachlorobenzene	500	U
87-68-3	Hexachlorobutadiene	500	U
77-47-4	Hexachlorocyclopentadiene	500	U
67-72-1	Hexachloroethane	500	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	500	U
78-59-1	Isophorone	500	U
91-20-3	Naphthalene	500	U
98-95-3	Nitrobenzene	500	U
87-86-5	Pentachlorophenol	1300	U
85-01-8	Phenanthrene	500	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS05-2-4-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-010-074-1/1
Sample Volume :	30	Lab File ID :	D43507.D
% Moisture:	33.23	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/14/2007
Injection Volume :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

✓ AEP 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
108-95-2	Phenol	500	U
129-00-0	Pyrene	500	U
111-91-1	bis(2-chloroethoxy) methane	500	U
111-44-4	bis(2-chloroethyl) ether	500	U
117-81-7	bis(2-ethylhexyl) phthalate	500	U
84-74-2	di-n-Butyl Phthalate	500	U
117-84-0	di-n-Octyl Phthalate	500	U
621-64-7	n-Nitrosodi-n-Propylamine	500	U
86-30-6	n-Nitrosodiphenylamine	500	U

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS06-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-011-075-1/1
Sample Volume :	30.01	Lab File ID :	D43521.D
% Moisture:	11.22	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/14/2007
Injection Volume :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

✓ AED 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
92-52-4	1,1- Biphenyl	380	U
108-60-1	2,2-Oxybis(1-chloropropane)	380	U
95-95-4	2,4,5-Trichlorophenol	940	U
88-06-2	2,4,6-Trichlorophenol	380	U
120-83-2	2,4-Dichlorophenol	380	U
105-67-9	2,4-Dimethylphenol	380	U
51-28-5	2,4-Dinitrophenol	940	U
121-14-2	2,4-Dinitrotoluene	380	U
606-20-2	2,6-Dinitrotoluene	380	U
532-27-4	2-Chloroacetophenone - CN	380	U
2698-41-1	2-Chlorobenzalmalononitrile	380	U
91-58-7	2-Chloronaphthalene	380	U
95-57-8	2-Chlorophenol	380	U
91-57-6	2-Methylnaphthalene	380	U
88-74-4	2-Nitroaniline	940	U
88-75-5	2-Nitrophenol	380	U
95-48-7	2-methylphenol	380	U
91-94-1	3,3-Dichlorobenzidine	380	U
99-09-2	3-Nitroaniline	940	U
534-52-1	4,6-dinitro-2-methyl phenol	940	U
101-55-3	4-Bromophenyl-phenylether	380	U
106-47-8	4-Chloroaniline	380	U
7005-72-3	4-Chlorophenyl Phenyl Ether	380	U
100-01-6	4-Nitroaniline	940	U
100-02-7	4-Nitrophenol	940	U
59-50-7	4-chloro-3-methylphenol	380	U
106-44-5	4-methylphenol	380	U
83-32-9	Acenaphthene	380	U
208-96-8	Acenaphthylene	380	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS06-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-011-075-1/1
Sample Volume :	30.01	Lab File ID :	D43521.D
% Moisture:	11.22	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/14/2007
Injection Volume :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

✓ AED 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
98-86-2	Acetophenone	380	U
120-12-7	Anthracene	380	U
1912-24-9	Atrazine	380	U
100-52-7	Benzaldehyde	380	U
56-55-3	Benzo(a)anthracene	380	U
50-32-8	Benzo(a)pyrene	380	U
205-99-2	Benzo(b)fluoranthene	380	U
191-24-2	Benzo(g,h,i)perylene	380	U
207-08-9	Benzo(k)fluoranthene	380	U
85-68-7	Benzyl Butyl Phthalate	380	U
105-60-2	Caprolactam	380	U
86-74-8	Carbazole	380	U
218-01-9	Chrysene	380	U
53-70-3	Dibenz(a,h)Anthracene	380	U
132-64-9	Dibenzofuran	380	U
84-66-2	Diethyl Phthalate	380	U
131-11-3	Dimethyl Phthalate	380	U
206-44-0	Fluoranthene	380	U
86-73-7	Fluorene	380	U
118-74-1	Hexachlorobenzene	380	U
87-68-3	Hexachlorobutadiene	380	U
77-47-4	Hexachlorocyclopentadiene	380	U
67-72-1	Hexachloroethane	380	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	380	U
78-59-1	Isophorone	380	U
91-20-3	Naphthalene	380	U
98-95-3	Nitrobenzene	380	U
87-86-5	Pentachlorophenol	940	U
85-01-8	Phenanthrene	380	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS06-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-011-075-1/1
Sample Volume :	30.01	Lab File ID :	D43521.D
% Moisture:	11.22	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/14/2007
Injection Volume :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

✓ AED 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
108-95-2	Phenol	380	U
129-00-0	Pyrene	380	U
111-91-1	bis(2-chloroethoxy) methane	380	U
111-44-4	bis(2-chloroethyl) ether	380	U
117-81-7	bis(2-ethylhexyl) phthalate	380	U
84-74-2	di-n-Butyl Phthalate	380	U
117-84-0	di-n-Octyl Phthalate	380	U
621-64-7	n-Nitrosodi-n-Propylamine	380	U
86-30-6	n-Nitrosodiphenylamine	380	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS06-3-5-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-012-076-1/1
Sample Volume :	30.03	Lab File ID :	D43508.D
% Moisture:	5.77	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/14/2007
Injection Volume :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

AED 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
92-52-4	1,1- Biphenyl	350	U
108-60-1	2,2-Oxybis(1-chloropropane)	350	U
95-95-4	2,4,5-Trichlorophenol	880	U
88-06-2	2,4,6-Trichlorophenol	350	U
120-83-2	2,4-Dichlorophenol	350	U
105-67-9	2,4-Dimethylphenol	350	U
51-28-5	2,4-Dinitrophenol	880	U
121-14-2	2,4-Dinitrotoluene	350	U
606-20-2	2,6-Dinitrotoluene	350	U
532-27-4	2-Chloroacetophenone - CN	350	U
2698-41-1	2-Chlorobenzalmalononitrile	350	U
91-58-7	2-Chloronaphthalene	350	U
95-57-8	2-Chlorophenol	350	U
91-57-6	2-Methylnaphthalene	350	U
88-74-4	2-Nitroaniline	880	U
88-75-5	2-Nitrophenol	350	U
95-48-7	2-methylphenol	350	U
91-94-1	3,3-Dichlorobenzidine	350	U
99-09-2	3-Nitroaniline	880	U
534-52-1	4,6-dinitro-2-methyl phenol	880	U
101-55-3	4-Bromophenyl-phenylether	350	U
106-47-8	4-Chloroaniline	350	U
7005-72-3	4-Chlorophenyl Phenyl Ether	350	U
100-01-6	4-Nitroaniline	880	U
100-02-7	4-Nitrophenol	880	U
59-50-7	4-chloro-3-methylphenol	350	U
106-44-5	4-methylphenol	350	U
83-32-9	Acenaphthene	350	U
208-96-8	Acenaphthylene	350	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS06-3-5-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-012-076-1/1
Sample Volume :	30.03	Lab File ID :	D43508.D
% Moisture:	5.77	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/14/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

✓ AED 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
98-86-2	Acetophenone	350	U
120-12-7	Anthracene	350	U
1912-24-9	Atrazine	350	U
100-52-7	Benzaldehyde	350	U
56-55-3	Benzo(a)anthracene	350	U
50-32-8	Benzo(a)pyrene	350	U
205-99-2	Benzo(b)fluoranthene	350	U
191-24-2	Benzo(g,h,i)perylene	350	U
207-08-9	Benzo(k)fluoranthene	350	U
85-68-7	Benzyl Butyl Phthalate	350	U
105-60-2	Caprolactam	350	U
86-74-8	Carbazole	350	U
218-01-9	Chrysene	350	U
53-70-3	Dibenz(a,h)Anthracene	350	U
132-64-9	Dibenzofuran	350	U
84-66-2	Diethyl Phthalate	350	U
131-11-3	Dimethyl Phthalate	350	U
206-44-0	Fluoranthene	350	U
86-73-7	Fluorene	350	U
118-74-1	Hexachlorobenzene	350	U
87-68-3	Hexachlorobutadiene	350	U
77-47-4	Hexachlorocyclopentadiene	350	U
67-72-1	Hexachloroethane	350	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	350	U
78-59-1	Isophorone	350	U
91-20-3	Naphthalene	350	U
98-95-3	Nitrobenzene	350	U
87-86-5	Pentachlorophenol	880	U
85-01-8	Phenanthrene	350	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS06-3-5-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-012-076-1/1
Sample Volume :	30.03	Lab File ID :	D43508.D
% Moisture:	5.77	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/14/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

Kep 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
108-95-2	Phenol	350	U
129-00-0	Pyrene	350	U
111-91-1	bis(2-chloroethoxy) methane	350	U
111-44-4	bis(2-chloroethyl) ether	350	U
117-81-7	bis(2-ethylhexyl) phthalate	350	U
84-74-2	di-n-Butyl Phthalate	350	U
117-84-0	di-n-Octyl Phthalate	350	U
621-64-7	n-Nitrosodi-n-Propylamine	350	U
86-30-6	n-Nitrosodiphenylamine	350	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS07-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-013-077-1/1
Sample Volume :	30	Lab File ID :	D43524.D
% Moisture:	17.21	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/14/2007
Injection Volume :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

✓ ACP 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
92-52-4	1,1- Biphenyl	400	U
108-60-1	2,2-Oxybis(1-chloropropane)	400	U
95-95-4	2,4,5-Trichlorophenol	1000	U
88-06-2	2,4,6-Trichlorophenol	400	U
120-83-2	2,4-Dichlorophenol	400	U
105-67-9	2,4-Dimethylphenol	400	U
51-28-5	2,4-Dinitrophenol	1000	U
121-14-2	2,4-Dinitrotoluene	400	U
606-20-2	2,6-Dinitrotoluene	400	U
532-27-4	2-Chloroacetophenone - CN	400	U
2698-41-1	2-Chlorobenzalmalononitrile	400	U
91-58-7	2-Chloronaphthalene	400	U
95-57-8	2-Chlorophenol	400	U
91-57-6	2-Methylnaphthalene	400	U
88-74-4	2-Nitroaniline	1000	U
88-75-5	2-Nitrophenol	400	U
95-48-7	2-methylphenol	400	U
91-94-1	3,3-Dichlorobenzidine	400	U
99-09-2	3-Nitroaniline	1000	U
534-52-1	4,6-dinitro-2-methyl phenol	1000	U
101-55-3	4-Bromophenyl-phenylether	400	U
106-47-8	4-Chloroaniline	400	U
7005-72-3	4-Chlorophenyl Phenyl Ether	400	U
100-01-6	4-Nitroaniline	1000	U
100-02-7	4-Nitrophenol	1000	U
59-50-7	4-chloro-3-methylphenol	400	U
106-44-5	4-methylphenol	400	U
83-32-9	Acenaphthene	400	U
208-96-8	Acenaphthylene	400	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS07-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-013-077-1/1
Sample Volume :	30	Lab File ID :	D43524.D
% Moisture:	17.21	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/14/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

✓ AEP 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
98-86-2	Acetophenone	400	U
120-12-7	Anthracene	400	U
1912-24-9	Atrazine	400	U
100-52-7	Benzaldehyde	400	U
56-55-3	Benzo(a)anthracene	400	U
50-32-8	Benzo(a)pyrene	400	U
205-99-2	Benzo(b)fluoranthene	400	U
191-24-2	Benzo(g,h,i)perylene	400	U
207-08-9	Benzo(k)fluoranthene	400	U
85-68-7	Benzyl Butyl Phthalate	400	U
105-60-2	Caprolactam	400	U
86-74-8	Carbazole	400	U
218-01-9	Chrysene	400	U
53-70-3	Dibenz(a,h)Anthracene	400	U
132-64-9	Dibenzofuran	400	U
84-66-2	Diethyl Phthalate	400	U
131-11-3	Dimethyl Phthalate	400	U
206-44-0	Fluoranthene	400	U
86-73-7	Fluorene	400	U
118-74-1	Hexachlorobenzene	400	U
87-68-3	Hexachlorobutadiene	400	U
77-47-4	Hexachlorocyclopentadiene	400	U
67-72-1	Hexachloroethane	400	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	400	U
78-59-1	Isophorone	400	U
91-20-3	Naphthalene	400	U
98-95-3	Nitrobenzene	400	U
87-86-5	Pentachlorophenol	1000	U
85-01-8	Phenanthrene	400	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS07-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-013-077-1/1
Sample Volume :	30	Lab File ID :	D43524.D
% Moisture:	17.21	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/14/2007
Injection Volume :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

✓ AED 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
108-95-2	Phenol	400	U
129-00-0	Pyrene	400	U
111-91-1	bis(2-chloroethoxy) methane	400	U
111-44-4	bis(2-chloroethyl) ether	400	U
117-81-7	bis(2-ethylhexyl) phthalate	400	U
84-74-2	di-n-Butyl Phthalate	400	U
117-84-0	di-n-Octyl Phthalate	400	U
621-64-7	n-Nitrosodi-n-Propylamine	400	U
86-30-6	n-Nitrosodiphenylamine	400	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS07-10-12-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-014-078-1/1
Sample Volume :	30.02	Lab File ID :	D43526.D
% Moisture:	5.54	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/14/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

✓ AED 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
92-52-4	1,1- Biphenyl	350	U
108-60-1	2,2-Oxybis(1-chloropropane)	350	U
95-95-4	2,4,5-Trichlorophenol	880	U
88-06-2	2,4,6-Trichlorophenol	350	U
120-83-2	2,4-Dichlorophenol	350	U
105-67-9	2,4-Dimethylphenol	350	U
51-28-5	2,4-Dinitrophenol	880	U
121-14-2	2,4-Dinitrotoluene	350	U
606-20-2	2,6-Dinitrotoluene	350	U
532-27-4	2-Chloroacetophenone - CN	350	U
2698-41-1	2-Chlorobenzalmalononitrile	350	U
91-58-7	2-Chloronaphthalene	350	U
95-57-8	2-Chlorophenol	350	U
91-57-6	2-Methylnaphthalene	350	U
88-74-4	2-Nitroaniline	880	U
88-75-5	2-Nitrophenol	350	U
95-48-7	2-methylphenol	350	U
91-94-1	3,3-Dichlorobenzidine	350	U
99-09-2	3-Nitroaniline	880	U
534-52-1	4,6-dinitro-2-methyl phenol	880	U
101-55-3	4-Bromophenyl-phenylether	350	U
106-47-8	4-Chloroaniline	350	U
7005-72-3	4-Chlorophenyl Phenyl Ether	350	U
100-01-6	4-Nitroaniline	880	U
100-02-7	4-Nitrophenol	880	U
59-50-7	4-chloro-3-methylphenol	350	U
106-44-5	4-methylphenol	350	U
83-32-9	Acenaphthene	350	U
208-96-8	Acenaphthylene	350	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS07-10-12-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-014-078-1/1
Sample Volume :	30.02	Lab File ID :	D43526.D
% Moisture:	5.54	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/14/2007
Injection Volume :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

✓ AED 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
98-86-2	Acetophenone	350	U
120-12-7	Anthracene	350	U
1912-24-9	Atrazine	350	U
100-52-7	Benzaldehyde	350	U
56-55-3	Benzo(a)anthracene	350	U
50-32-8	Benzo(a)pyrene	350	U
205-99-2	Benzo(b)fluoranthene	350	U
191-24-2	Benzo(g,h,i)perylene	350	U
207-08-9	Benzo(k)fluoranthene	350	U
85-68-7	Benzyl Butyl Phthalate	350	U
105-60-2	Caprolactam	350	U
86-74-8	Carbazole	350	U
218-01-9	Chrysene	350	U
53-70-3	Dibenz(a,h)Anthracene	350	U
132-64-9	Dibenzofuran	350	U
84-66-2	Diethyl Phthalate	350	U
131-11-3	Dimethyl Phthalate	350	U
206-44-0	Fluoranthene	350	U
86-73-7	Fluorene	350	U
118-74-1	Hexachlorobenzene	350	U
87-68-3	Hexachlorobutadiene	350	U
77-47-4	Hexachlorocyclopentadiene	350	U
67-72-1	Hexachloroethane	350	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	350	U
78-59-1	Isophorone	350	U
91-20-3	Naphthalene	350	U
98-95-3	Nitrobenzene	350	U
87-86-5	Pentachlorophenol	880	U
85-01-8	Phenanthrene	350	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS07-10-12-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-014-078-1/1
Sample Volume :	30.02	Lab File ID :	D43526.D
% Moisture:	5.54	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/14/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

✓ AED 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
108-95-2	Phenol	350	U
129-00-0	Pyrene	350	U
111-91-1	bis(2-chloroethoxy) methane	350	U
111-44-4	bis(2-chloroethyl) ether	350	U
117-81-7	bis(2-ethylhexyl) phthalate	350	U
84-74-2	di-n-Butyl Phthalate	350	U
117-84-0	di-n-Octyl Phthalate	350	U
621-64-7	n-Nitrosodi-n-Propylamine	350	U
86-30-6	n-Nitrosodiphenylamine	350	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS08-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-015-079-1/1
Sample Volume :	30	Lab File ID :	D43523.D
% Moisture:	21.16	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/14/2007
Injection Volume :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

✓ AED 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
92-52-4	1,1- Biphenyl	420	U
108-60-1	2,2-Oxybis(1-chloropropane)	420	U
95-95-4	2,4,5-Trichlorophenol	1100	U
88-06-2	2,4,6-Trichlorophenol	420	U
120-83-2	2,4-Dichlorophenol	420	U
105-67-9	2,4-Dimethylphenol	420	U
51-28-5	2,4-Dinitrophenol	1100	U
121-14-2	2,4-Dinitrotoluene	420	U
606-20-2	2,6-Dinitrotoluene	420	U
532-27-4	2-Chloroacetophenone - CN	420	U
2698-41-1	2-Chlorobenzalmalononitrile	420	U
91-58-7	2-Chloronaphthalene	420	U
95-57-8	2-Chlorophenol	420	U
91-57-6	2-Methylnaphthalene	420	U
88-74-4	2-Nitroaniline	1100	U
88-75-5	2-Nitrophenol	420	U
95-48-7	2-methylphenol	420	U
91-94-1	3,3-Dichlorobenzidine	420	U
99-09-2	3-Nitroaniline	1100	U
534-52-1	4,6-dinitro-2-methyl phenol	1100	U
101-55-3	4-Bromophenyl-phenylether	420	U
106-47-8	4-Chloroaniline	420	U
7005-72-3	4-Chlorophenyl Phenyl Ether	420	U
100-01-6	4-Nitroaniline	1100	U
100-02-7	4-Nitrophenol	1100	U
59-50-7	4-chloro-3-methylphenol	420	U
106-44-5	4-methylphenol	420	U
83-32-9	Acenaphthene	420	U
208-96-8	Acenaphthylene	420	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS08-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-015-079-1/1
Sample Volume :	30	Lab File ID :	D43523.D
% Moisture:	21.16	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/14/2007
Injection Volume :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

Aen 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
98-86-2	Acetophenone	420	U
120-12-7	Anthracene	420	U
1912-24-9	Atrazine	420	U
100-52-7	Benzaldehyde	420	U
56-55-3	Benzo(a)anthracene	420	U
50-32-8	Benzo(a)pyrene	420	U
205-99-2	Benzo(b)fluoranthene	420	U
191-24-2	Benzo(g,h,i)perylene	420	U
207-08-9	Benzo(k)fluoranthene	420	U
85-68-7	Benzyl Butyl Phthalate	420	U
105-60-2	Caprolactam	420	U
86-74-8	Carbazole	420	U
218-01-9	Chrysene	420	U
53-70-3	Dibenz(a,h)Anthracene	420	U
132-64-9	Dibenzofuran	420	U
84-66-2	Diethyl Phthalate	420	U
131-11-3	Dimethyl Phthalate	420	U
206-44-0	Fluoranthene	420	U
86-73-7	Fluorene	420	U
118-74-1	Hexachlorobenzene	420	U
87-68-3	Hexachlorobutadiene	420	U
77-47-4	Hexachlorocyclopentadiene	420	U
67-72-1	Hexachloroethane	420	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	420	U
78-59-1	Isophorone	420	U
91-20-3	Naphthalene	420	U
98-95-3	Nitrobenzene	420	U
87-86-5	Pentachlorophenol	1100	U
85-01-8	Phenanthrene	420	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS08-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-015-079-1/1
Sample Volume :	30	Lab File ID :	D43523.D
% Moisture:	21.16	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/14/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

AED 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
108-95-2	Phenol	420	U
129-00-0	Pyrene	420	U
111-91-1	bis(2-chloroethoxy) methane	420	U
111-44-4	bis(2-chloroethyl) ether	420	U
117-81-7	bis(2-ethylhexyl) phthalate	420	U
84-74-2	di-n-Butyl Phthalate	43	J
117-84-0	di-n-Octyl Phthalate	420	U
621-64-7	n-Nitrosodi-n-Propylamine	420	U
86-30-6	n-Nitrosodiphenylamine	420	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS08-6-8-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-016-080-1/1
Sample Volume :	30	Lab File ID :	D43517.D
% Moisture:	10.88	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/14/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

✓ AED 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
92-52-4	1,1- Biphenyl	370	U
108-60-1	2,2-Oxybis(1-chloropropane)	370	U
95-95-4	2,4,5-Trichlorophenol	940	U
88-06-2	2,4,6-Trichlorophenol	370	U
120-83-2	2,4-Dichlorophenol	370	U
105-67-9	2,4-Dimethylphenol	370	U
51-28-5	2,4-Dinitrophenol	940	U
121-14-2	2,4-Dinitrotoluene	370	U
606-20-2	2,6-Dinitrotoluene	370	U
532-27-4	2-Chloroacetophenone - CN	370	U
2698-41-1	2-Chlorobenzalmalononitrile	370	U
91-58-7	2-Chloronaphthalene	370	U
95-57-8	2-Chlorophenol	370	U
91-57-6	2-Methylnaphthalene	370	U
88-74-4	2-Nitroaniline	940	U
88-75-5	2-Nitrophenol	370	U
95-48-7	2-methylphenol	370	U
91-94-1	3,3-Dichlorobenzidine	370	U
99-09-2	3-Nitroaniline	940	U
534-52-1	4,6-dinitro-2-methyl phenol	940	U
101-55-3	4-Bromophenyl-phenylether	370	U
106-47-8	4-Chloroaniline	370	U
7005-72-3	4-Chlorophenyl Phenyl Ether	370	U
100-01-6	4-Nitroaniline	940	U
100-02-7	4-Nitrophenol	940	U
59-50-7	4-chloro-3-methylphenol	370	U
106-44-5	4-methylphenol	370	U
83-32-9	Acenaphthene	370	U
208-96-8	Acenaphthylene	370	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS08-6-8-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-016-080-1/1
Sample Volume :	30	Lab File ID :	D43517.D
% Moisture:	10.88	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/14/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

✓ ACP 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
98-86-2	Acetophenone	370	U
120-12-7	Anthracene	370	U
1912-24-9	Atrazine	370	U
100-52-7	Benzaldehyde	370	U
56-55-3	Benzo(a)anthracene	370	U
50-32-8	Benzo(a)pyrene	370	U
205-99-2	Benzo(b)fluoranthene	370	U
191-24-2	Benzo(g,h,i)perylene	370	U
207-08-9	Benzo(k)fluoranthene	370	U
85-68-7	Benzyl Butyl Phthalate	370	U
105-60-2	Caprolactam	370	U
86-74-8	Carbazole	370	U
218-01-9	Chrysene	370	U
53-70-3	Dibenz(a,h)Anthracene	370	U
132-64-9	Dibenzofuran	370	U
84-66-2	Diethyl Phthalate	370	U
131-11-3	Dimethyl Phthalate	370	U
206-44-0	Fluoranthene	370	U
86-73-7	Fluorene	370	U
118-74-1	Hexachlorobenzene	370	U
87-68-3	Hexachlorobutadiene	370	U
77-47-4	Hexachlorocyclopentadiene	370	U
67-72-1	Hexachloroethane	370	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	370	U
78-59-1	Isophorone	370	U
91-20-3	Naphthalene	370	U
98-95-3	Nitrobenzene	370	U
87-86-5	Pentachlorophenol	940	U
85-01-8	Phenanthrene	370	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS08-6-8-07C

AED 9/3/07

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-016-080-1/1
Sample Volume :	30	Lab File ID :	D43517.D
% Moisture:	10.88	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/14/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
108-95-2	Phenol	370	U
129-00-0	Pyrene	370	U
111-91-1	bis(2-chloroethoxy) methane	370	U
111-44-4	bis(2-chloroethyl) ether	370	U
117-81-7	bis(2-ethylhexyl) phthalate	370	U
84-74-2	di-n-Butyl Phthalate	370	U
117-84-0	di-n-Octyl Phthalate	370	U
621-64-7	n-Nitrosodi-n-Propylamine	370	U
86-30-6	n-Nitrosodiphenylamine	370	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BLK99526

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BLK99526
Sample Volume :	30	Lab File ID :	D43501.D
% Moisture:		Date Received	
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/13/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
92-52-4	1,1- Biphenyl	330	U
108-60-1	2,2-Oxybis(1-chloropropane)	330	U
95-95-4	2,4,5-Trichlorophenol	830	U
88-06-2	2,4,6-Trichlorophenol	330	U
120-83-2	2,4-Dichlorophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
51-28-5	2,4-Dinitrophenol	830	U
121-14-2	2,4-Dinitrotoluene	330	U
606-20-2	2,6-Dinitrotoluene	330	U
532-27-4	2-Chloroacetophenone - CN	330	U
2698-41-1	2-Chlorobenzalmalononitrile	330	U
91-58-7	2-Chloronaphthalene	330	U
95-57-8	2-Chlorophenol	330	U
91-57-6	2-Methylnaphthalene	330	U
88-74-4	2-Nitroaniline	830	U
88-75-5	2-Nitrophenol	330	U
95-48-7	2-methylphenol	330	U
91-94-1	3,3-Dichlorobenzidine	330	U
99-09-2	3-Nitroaniline	830	U
534-52-1	4,6-dinitro-2-methyl phenol	830	U
101-55-3	4-Bromophenyl-phenylether	330	U
106-47-8	4-Chloroaniline	330	U
7005-72-3	4-Chlorophenyl Phenyl Ether	330	U
100-01-6	4-Nitroaniline	830	U
100-02-7	4-Nitrophenol	830	U
59-50-7	4-chloro-3-methylphenol	330	U
106-44-5	4-methylphenol	330	U
83-32-9	Acenaphthene	330	U
208-96-8	Acenaphthylene	330	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BLK99526

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BLK99526
Sample Volume :	30	Lab File ID :	D43501.D
% Moisture:		Date Received	
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/13/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
98-86-2	Acetophenone	330	U
120-12-7	Anthracene	330	U
1912-24-9	Atrazine	330	U
100-52-7	Benzaldehyde	330	U
56-55-3	Benzo(a)anthracene	330	U
50-32-8	Benzo(a)pyrene	330	U
205-99-2	Benzo(b)fluoranthene	330	U
191-24-2	Benzo(g,h,i)perylene	330	U
207-08-9	Benzo(k)fluoranthene	330	U
85-68-7	Benzyl Butyl Phthalate	330	U
105-60-2	Caprolactam	330	U
86-74-8	Carbazole	330	U
218-01-9	Chrysene	330	U
53-70-3	Dibenz(a,h)Anthracene	330	U
132-64-9	Dibenzofuran	330	U
84-66-2	Diethyl Phthalate	330	U
131-11-3	Dimethyl Phthalate	330	U
206-44-0	Fluoranthene	330	U
86-73-7	Fluorene	330	U
118-74-1	Hexachlorobenzene	330	U
87-68-3	Hexachlorobutadiene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
67-72-1	Hexachloroethane	330	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	330	U
78-59-1	Isophorone	330	U
91-20-3	Naphthalene	330	U
98-95-3	Nitrobenzene	330	U
87-86-5	Pentachlorophenol	830	U
85-01-8	Phenanthrene	330	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BLK99526

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BLK99526
Sample Volume :	30	Lab File ID :	D43501.D
% Moisture:		Date Received	
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/13/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
108-95-2	Phenol	330	U
129-00-0	Pyrene	330	U
111-91-1	bis(2-chloroethoxy) methane	330	U
111-44-4	bis(2-chloroethyl) ether	330	U
117-81-7	bis(2-ethylhexyl) phthalate	330	U
84-74-2	di-n-Butyl Phthalate	330	U
117-84-0	di-n-Octyl Phthalate	330	U
621-64-7	n-Nitrosodi-n-Propylamine	330	U
86-30-6	n-Nitrosodiphenylamine	330	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS01-5-8-07CMS

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-002-066-1/1MS
Sample Volume :	30	Lab File ID :	D43504.D
% Moisture:	6.84	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/13/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
92-52-4	1,1- Biphenyl	360	U
108-60-1	2,2-Oxybis(1-chloropropane)	360	U
95-95-4	2,4,5-Trichlorophenol	900	U
88-06-2	2,4,6-Trichlorophenol	360	U
120-83-2	2,4-Dichlorophenol	360	U
105-67-9	2,4-Dimethylphenol	360	U
51-28-5	2,4-Dinitrophenol	900	U
121-14-2	2,4-Dinitrotoluene	2000	
606-20-2	2,6-Dinitrotoluene	360	U
532-27-4	2-Chloroacetophenone - CN	1800	
2698-41-1	2-Chlorobenzalmalononitrile	1600	
91-58-7	2-Chloronaphthalene	360	U
95-57-8	2-Chlorophenol	2400	
91-57-6	2-Methylnaphthalene	360	U
88-74-4	2-Nitroaniline	900	U
88-75-5	2-Nitrophenol	360	U
95-48-7	2-methylphenol	360	U
91-94-1	3,3-Dichlorobenzidine	360	U
99-09-2	3-Nitroaniline	900	U
534-52-1	4,6-dinitro-2-methyl phenol	900	U
101-55-3	4-Bromophenyl-phenylether	360	U
106-47-8	4-Chloroaniline	360	U
7005-72-3	4-Chlorophenyl Phenyl Ether	360	U
100-01-6	4-Nitroaniline	900	U
100-02-7	4-Nitrophenol	3000	
59-50-7	4-chloro-3-methylphenol	2400	
106-44-5	4-methylphenol	360	U
83-32-9	Acenaphthene	1700	
208-96-8	Acenaphthylene	1700	

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS01-5-8-07CMS

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-002-066-1/1MS
Sample Volume :	30	Lab File ID :	D43504.D
% Moisture:	6.84	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/13/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
98-86-2	Acetophenone	360	U
120-12-7	Anthracene	360	U
1912-24-9	Atrazine	360	U
100-52-7	Benzaldehyde	360	U
56-55-3	Benzo(a)anthracene	360	U
50-32-8	Benzo(a)pyrene	360	U
205-99-2	Benzo(b)fluoranthene	360	U
191-24-2	Benzo(g,h,i)perylene	360	U
207-08-9	Benzo(k)fluoranthene	360	U
85-68-7	Benzyl Butyl Phthalate	360	U
105-60-2	Caprolactam	360	U
86-74-8	Carbazole	360	U
218-01-9	Chrysene	360	U
53-70-3	Dibenz(a,h)Anthracene	360	U
132-64-9	Dibenzofuran	360	U
84-66-2	Diethyl Phthalate	360	U
131-11-3	Dimethyl Phthalate	360	U
206-44-0	Fluoranthene	360	U
86-73-7	Fluorene	360	U
118-74-1	Hexachlorobenzene	360	U
87-68-3	Hexachlorobutadiene	360	U
77-47-4	Hexachlorocyclopentadiene	360	U
67-72-1	Hexachloroethane	360	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	360	U
78-59-1	Isophorone	360	U
91-20-3	Naphthalene	360	U
98-95-3	Nitrobenzene	360	U
87-86-5	Pentachlorophenol	2400	
85-01-8	Phenanthrene	360	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS01-5-8-07CMS

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-002-066-1/1MS
Sample Volume :	30	Lab File ID :	D43504.D
% Moisture:	6.84	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/13/2007
Injection Volume :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
108-95-2	Phenol	2500	
129-00-0	Pyrene	1800	
111-91-1	bis(2-chloroethoxy) methane	360	U
111-44-4	bis(2-chloroethyl) ether	360	U
117-81-7	bis(2-ethylhexyl) phthalate	360	U
84-74-2	di-n-Butyl Phthalate	360	U
117-84-0	di-n-Octyl Phthalate	360	U
621-64-7	n-Nitrosodi-n-Propylamine	1500	
86-30-6	n-Nitrosodiphenylamine	360	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS01-5-8-07CMSD

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-002-066-1/1MSD
Sample Volume :	30.02	Lab File ID :	D43505.D
% Moisture:	6.84	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/13/2007
Injection Volume :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
92-52-4	1,1- Biphenyl	360	U
108-60-1	2,2-Oxybis(1-chloropropane)	360	U
95-95-4	2,4,5-Trichlorophenol	890	U
88-06-2	2,4,6-Trichlorophenol	360	U
120-83-2	2,4-Dichlorophenol	360	U
105-67-9	2,4-Dimethylphenol	360	U
51-28-5	2,4-Dinitrophenol	890	U
121-14-2	2,4-Dinitrotoluene	1800	
606-20-2	2,6-Dinitrotoluene	360	U
532-27-4	2-Chloroacetophenone - CN	1700	
2698-41-1	2-Chlorobenzalmalononitrile	1500	
91-58-7	2-Chloronaphthalene	360	U
95-57-8	2-Chlorophenol	2400	
91-57-6	2-Methylnaphthalene	360	U
88-74-4	2-Nitroaniline	890	U
88-75-5	2-Nitrophenol	360	U
95-48-7	2-methylphenol	360	U
91-94-1	3,3-Dichlorobenzidine	360	U
99-09-2	3-Nitroaniline	890	U
534-52-1	4,6-dinitro-2-methyl phenol	890	U
101-55-3	4-Bromophenyl-phenylether	360	U
106-47-8	4-Chloroaniline	360	U
7005-72-3	4-Chlorophenyl Phenyl Ether	360	U
100-01-6	4-Nitroaniline	890	U
100-02-7	4-Nitrophenol	2800	
59-50-7	4-chloro-3-methylphenol	2400	
106-44-5	4-methylphenol	360	U
83-32-9	Acenaphthene	1600	
208-96-8	Acenaphthylene	1600	

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS01-5-8-07CMSD

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-002-066-1/1MSD
Sample Volume :	30.02	Lab File ID :	D43505.D
% Moisture:	6.84	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/13/2007
Injection Volume :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
98-86-2	Acetophenone	360	U
120-12-7	Anthracene	360	U
1912-24-9	Atrazine	360	U
100-52-7	Benzaldehyde	360	U
56-55-3	Benzo(a)anthracene	360	U
50-32-8	Benzo(a)pyrene	360	U
205-99-2	Benzo(b)fluoranthene	360	U
191-24-2	Benzo(g,h,i)perylene	360	U
207-08-9	Benzo(k)fluoranthene	360	U
85-68-7	Benzyl Butyl Phthalate	360	U
105-60-2	Caprolactam	360	U
86-74-8	Carbazole	360	U
218-01-9	Chrysene	360	U
53-70-3	Dibenz(a,h)Anthracene	360	U
132-64-9	Dibenzofuran	360	U
84-66-2	Diethyl Phthalate	360	U
131-11-3	Dimethyl Phthalate	360	U
206-44-0	Fluoranthene	360	U
86-73-7	Fluorene	360	U
118-74-1	Hexachlorobenzene	360	U
87-68-3	Hexachlorobutadiene	360	U
77-47-4	Hexachlorocyclopentadiene	360	U
67-72-1	Hexachloroethane	360	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	360	U
78-59-1	Isophorone	360	U
91-20-3	Naphthalene	360	U
98-95-3	Nitrobenzene	360	U
87-86-5	Pentachlorophenol	2200	
85-01-8	Phenanthrene	360	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS01-5-8-07CMSD

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-002-066-1/1MSD
Sample Volume :	30.02	Lab File ID :	D43505.D
% Moisture:	6.84	Date Received	07/25/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/13/2007
Injection Volume :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
108-95-2	Phenol	2400	
129-00-0	Pyrene	1800	
111-91-1	bis(2-chloroethoxy) methane	360	U
111-44-4	bis(2-chloroethyl) ether	360	U
117-81-7	bis(2-ethylhexyl) phthalate	360	U
84-74-2	di-n-Butyl Phthalate	360	U
117-84-0	di-n-Octyl Phthalate	360	U
621-64-7	n-Nitrosodi-n-Propylamine	1500	
86-30-6	n-Nitrosodiphenylamine	360	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BKS99526

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BKS99526
Sample Volume :	30	Lab File ID :	D43502.D
% Moisture:		Date Received	
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/13/2007
Injection Volume :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
92-52-4	1,1- Biphenyl	330	U
108-60-1	2,2-Oxybis(1-chloropropane)	330	U
95-95-4	2,4,5-Trichlorophenol	830	U
88-06-2	2,4,6-Trichlorophenol	330	U
120-83-2	2,4-Dichlorophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
51-28-5	2,4-Dinitrophenol	830	U
121-14-2	2,4-Dinitrotoluene	1600	
606-20-2	2,6-Dinitrotoluene	330	U
532-27-4	2-Chloroacetophenone - CN	1500	
2698-41-1	2-Chlorobenzalmalononitrile	1300	
91-58-7	2-Chloronaphthalene	330	U
95-57-8	2-Chlorophenol	2000	
91-57-6	2-Methylnaphthalene	330	U
88-74-4	2-Nitroaniline	830	U
88-75-5	2-Nitrophenol	330	U
95-48-7	2-methylphenol	330	U
91-94-1	3,3-Dichlorobenzidine	330	U
99-09-2	3-Nitroaniline	830	U
534-52-1	4,6-dinitro-2-methyl phenol	830	U
101-55-3	4-Bromophenyl-phenylether	330	U
106-47-8	4-Chloroaniline	330	U
7005-72-3	4-Chlorophenyl Phenyl Ether	330	U
100-01-6	4-Nitroaniline	830	U
100-02-7	4-Nitrophenol	2500	
59-50-7	4-chloro-3-methylphenol	2000	
106-44-5	4-methylphenol	330	U
83-32-9	Acenaphthene	1400	
208-96-8	Acenaphthylene	1400	

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BKS99526

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BKS99526
Sample Volume :	30	Lab File ID :	D43502.D
% Moisture:		Date Received	
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/13/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
98-86-2	Acetophenone	330	U
120-12-7	Anthracene	330	U
1912-24-9	Atrazine	330	U
100-52-7	Benzaldehyde	330	U
56-55-3	Benzo(a)anthracene	330	U
50-32-8	Benzo(a)pyrene	330	U
205-99-2	Benzo(b)fluoranthene	330	U
191-24-2	Benzo(g,h,i)perylene	330	U
207-08-9	Benzo(k)fluoranthene	330	U
85-68-7	Benzyl Butyl Phthalate	330	U
105-60-2	Caprolactam	330	U
86-74-8	Carbazole	330	U
218-01-9	Chrysene	330	U
53-70-3	Dibenz(a,h)Anthracene	330	U
132-64-9	Dibenzofuran	330	U
84-66-2	Diethyl Phthalate	330	U
131-11-3	Dimethyl Phthalate	330	U
206-44-0	Fluoranthene	330	U
86-73-7	Fluorene	330	U
118-74-1	Hexachlorobenzene	330	U
87-68-3	Hexachlorobutadiene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
67-72-1	Hexachloroethane	330	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	330	U
78-59-1	Isophorone	330	U
91-20-3	Naphthalene	330	U
98-95-3	Nitrobenzene	330	U
87-86-5	Pentachlorophenol	2100	
85-01-8	Phenanthrene	330	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BKS99526

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BKS99526
Sample Volume :	30	Lab File ID :	D43502.D
% Moisture:		Date Received	
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	.5 mL	Date Analyzed	08/13/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
108-95-2	Phenol	2000	
129-00-0	Pyrene	1600	
111-91-1	bis(2-chloroethoxy) methane	330	U
111-44-4	bis(2-chloroethyl) ether	330	U
117-81-7	bis(2-ethylhexyl) phthalate	330	U
84-74-2	di-n-Butyl Phthalate	330	U
117-84-0	di-n-Octyl Phthalate	330	U
621-64-7	n-Nitrosodi-n-Propylamine	1200	
86-30-6	n-Nitrosodiphenylamine	330	U

Surrogate Recovery Summary

Matrix : SOIL Analytical Method : CLP_OLM04.3_BN SDG No : 707147

Surrogate	CLPH2D4	DCBZ12D4	NO2BZD5	PH246BR	PH2F	PHD5	PHEN2F	PHEND14
Lower QC Limits	20	20	23	19	25	24	30	18
Upper QC Limits	130	130	120	122	121	113	115	137
Sample ID								
BKS99526	87	69	88	92	83	92	91	107
BLK99526	83	67	84	92	79	88	89	104
GC-IS01-5-8-07C	71	57	72	78	68	74	74	87
GC-IS01-5-8-07CMS	95	72	94	103	90	101	96	111
GC-IS01-5-8-07CMSD	91	71	89	95	86	96	89	106
GC-IS04-6-8-07C	99	81	100	111	93	105	101	125
GC-IS05-2-4-07C	94	76	95	104	90	99	97	112
GC-IS06-3-5-07C	79	64	78	85	75	85	80	93

* Value outside of QC Limts

CLPH2D4 = 2-Chlorophenol-d4 DCBZ12D4 = 1,2-Dichlorobenzene-d4 NO2BZD5 = Nitrobenzene-d5 PH246BR = 2,4,6-Tribromophenol PH2F = 2-Fluorophenol PHD5 = Phenol-d5
PHEN2F = 2-Fluorobiphenyl PHEND14 = p-Terphenyl-d14

Surrogate Recovery Summary

Matrix : SOIL Analytical Method : CLP_OLM04.3_BN/ SDG No : 707147

Surrogate	CLPH2D4	DCBZ12D4	NO2BZD5	PH246BR	PH2F	PHD5	PHEN2F	PHEND14
Lower QC Limits	20	20	23	19	25	24	30	18
Upper QC Limits	130	130	120	122	121	113	115	137
Sample ID								
GC-IS01-0-1-07C	74	60	78	85	68	75	84	75
GC-IS02-0-1-07C	71	57	75	93	66	75	82	77
GC-IS02-5-10-07C	87	70	86	95	79	88	91	86
GC-IS03-0-1-07C	87	71	86	100	84	92	94	83
GC-IS03-5-8-07C	65	52	66	71	62	67	69	62
GC-IS04-0-1-07C	85	67	83	92	80	89	88	80
GC-IS05-0-1-07C	92	77	97	95	83	92	103	93
GC-IS06-0-1-07C	94	73	96	114	86	98	104	95
GC-IS07-0-1-07C	85	66	82	92	79	88	85	76
GC-IS07-10-12-07C	103	83	103	106	99	107	104	93
GC-IS08-0-1-07C	80	68	84	78	69	82	90	83
GC-IS08-6-8-07C	85	69	87	90	76	88	95	93

* Value outside of QC Limts

CLPH2D4 = 2-Chlorophenol-d4 DCBZ12D4 = 1,2-Dichlorobenzene-d4 NO2BZD5 = Nitrobenzene-d5 PH246BR = 2,4,6-Tribromophenol PH2F = 2-Fluorophenol PHD5 = Phenol-d5
PHEN2F = 2-Fluorobiphenyl PHEND14 = p-Terphenyl-d14

GPL Laboratories

MS/MSD RECOVERY

SAMPLE NO
GC-IS01-5-8-07CMSD

Lab Name : GPL Laboratories SDG NO : 707147 Method : CLP OLM04.3 BNA

Lab Code : GPL Lab Sample ID : 707147-002-066-1/1MSD Matrix : SOIL Analysis Date : 08/13/2007

Compound	Spike Added (ug/kg)		CONCENTRATION (ug/kg)			%RECOVERY		% RPD	RPD Limit	QC Limits
	MS	MSD	Sample	MS	MSD	MS	MSD			
2,4-Dinitrotoluene	1800	1800	0.0	2000	1800	111 *	100 *	10	47	28-89
2-Chloroacetophenone - CN	1800	1800	0.0	1800	1700	100	94	6	50	50-150
2-Chlorobenzalmalononitrile	1800	1800	0.0	1600	1500	89	83	7	50	50-150
2-Chlorophenol	2700	2700	0.0	2500	2400	93	89	4	50	25-102
4-Nitrophenol	2700	2700	0.0	3000	2800	111	104	7	50	11-114
4-chloro-3-methylphenol	2700	2700	0.0	2500	2400	89	89	0	33	26-103
Acenaphthene	1800	1800	0.0	1700	1600	94	89	5	19	31-137
Pentachlorophenol	2700	2700	0.0	2400	2200	89	81	9	47	17-109
Phenol	2700	2700	0.0	2500	2400	93 *	89	4	35	26-90
Pyrene	1800	1800	0.0	1800	1800	100	100	0	36	35-142
n-Nitrosodi-n-Propylamine	1800	1800	0.0	1500	1500	83	83	0	38	41-126

*Column to be used to flag recovery and RPD Values with an asterisk.

*Values Outside of QC Limits.

RPD 0 Out of 11 Outside Limit
Spike Recovery : 3 Out of 22 outside limit

GPL Laboratories

LCS SUMMARY

SAMPLE NO
BKS99526

Lab Name : GPL Laboratories
Lab Code : GPL
Matrix : SOIL
Method : CLP_OLM04.3_BNA

Contract. : MILCON Area Investigations - CTO-169
SDG NO : 707147
Lab Sample ID : BKS99526
Analysis Date : 08/13/2007

COMPOUND	SPIKE ADDED (ug/kg)	BLANK CONCENTRATION (ug/kg)	LCS CONCENTRATION (ug/kg)	LCS % REC	QC LIMTS
2,4-Dinitrotoluene	1700	0	1600	96	57-102
2-Chloroacetophenone - CN	1700	0	1500	90	50-150
2-Chlorobenzalmalononitrile	1700	0	1300	78	50-150
2-Chlorophenol	2500	0	2000	80	49-91
4-Nitrophenol	2500	0	2500	100	10-207
4-chloro-3-methylphenol	2500	0	2000	80	53-90
Acenaphthene	1700	0	1400	84	54-90
Pentachlorophenol	2500	0	2100	84	17-205
Phenol	2500	0	2000	80	45-91
Pyrene	1700	0	1600	96	32-140
n-Nitrosodi-n-Propylamine	1700	0	1200	72	48-108

* Values Outside of QC Limits.

Spike recovery : 0 out of 11 outside limits

GPL Laboratories

GPL
FORM 4
SEMI-VOLATILE METHOD BLANK SUMMARY

SAMPLE NO
BLK99526

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	99526
Lab File ID :	D43501.D	SDG NO :	707147
Date Analyzed	08/13/2007	Lab Sample ID :	BLK99526
Date Extracted :	07/31/2007	Time Analyzed :	19:15
Matrix :(Soil/Water).	SOIL	Level :(Low/Med)	

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES,MS AND MSD :

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed
BKS99526	BKS99526	D43502.D	08/13/2007
GC-IS01-5-8-07C	707147-002-066-1/1	D43503.D	08/13/2007
GC-IS01-5-8-07CMS	707147-002-066-1/1MS	D43504.D	08/13/2007
GC-IS01-5-8-07CMSD	707147-002-066-1/1MSD	D43505.D	08/13/2007
GC-IS04-6-8-07C	707147-008-072-1/1	D43506.D	08/13/2007
GC-IS05-2-4-07C	707147-010-074-1/1	D43507.D	08/14/2007
GC-IS06-3-5-07C	707147-012-076-1/1	D43508.D	08/14/2007
GC-IS02-5-10-07C	707147-004-068-1/1	D43515.D	08/14/2007
GC-IS03-5-8-07C	707147-006-070-1/1	D43516.D	08/14/2007
GC-IS08-6-8-07C	707147-016-080-1/1	D43517.D	08/14/2007
GC-IS03-0-1-07C	707147-005-069-1/1	D43518.D	08/14/2007
GC-IS04-0-1-07C	707147-007-071-1/1	D43519.D	08/14/2007
GC-IS05-0-1-07C	707147-009-073-1/1	D43520.D	08/14/2007
GC-IS06-0-1-07C	707147-011-075-1/1	D43521.D	08/14/2007
GC-IS02-0-1-07C	707147-003-067-1/1	D43522.D	08/14/2007
GC-IS08-0-1-07C	707147-015-079-1/1	D43523.D	08/14/2007
GC-IS07-0-1-07C	707147-013-077-1/1	D43524.D	08/14/2007
GC-IS01-0-1-07C	707147-001-065-1/1	D43525.D	08/14/2007
GC-IS07-10-12-07C	707147-014-078-1/1	D43526.D	08/14/2007

Case Narrative

CH2M Hill Inc

MILCON Area Investigations - CTO-169

Work Order: 707147

Reviewed By

The Case Narrative, Chain of Custody, Sample Receipt Checklist, and the cover page of the Sample Analysis Report, are integral parts of GPL Laboratories' report package. If you did not receive all of these documents, please contact GPL immediately.

Sample Receipt

One water and sixteen soil samples were received on 07/25/2007. The samples were delivered by Federal Express. Sample receipt conditions and temperatures are documented on the Sample Receipt checklist.

Sample Analysis

Samples were prepared and analyzed by GPL using the analytical methodologies indicated on the Sample Analysis Summary Report. In some chromatographic analyses, manual integration is used instead of automated integration because it produces more accurate results. All manual integrations are denoted on the sample quantitation report. Analysis results and limits for soil are reported on a dry weight basis unless otherwise specified on the report.

Volatiles

Sixteen soils and one water sample were analyzed for volatile organic compounds by CLP OLM04.3 methodology.

All samples were analyzed within the holding time.

Four soils, and the Trip Blank and Holding Blank samples had some surrogate recoveries slightly above the QC limits. Ten soil samples had low internal standard responses. All these samples were re-analyzed within the holding time. The reanalyses also exhibited high surrogate recoveries and low internal standard responses, possibly due to matrix interference in the soils. Results are reported from initial analyses, and the reanalysis data is included in the package for QA/QC purposes.

Acetone is reported slightly above the calibrated range for sample GC-IS05-0-1-07C. J, LR

Matrix spike and matrix spike duplicate analyses could not be perfomed due to a lack of sample fractions.

A laboratory control sample was analyzed along with each sample batch. BKS99520 had one spike recovery slightly above the QC limits. All other recoveries were within QC limits.

TIC's were done for all of the samples and method blanks, and the results from the library search are included in this package.

Manual integration was performed on some peaks that were improperly integrated by the software. The manually integrated compounds are designated by an "m" next to the area of the quantitation report and the chromatograms were submitted with the package.

Semivolatiles

Sixteen soil samples were extracted and analyzed for semi-volatile organic compounds using CLP OLM04.3 methodology. In addition to the regular list of compounds, the samples were also analyzed for the following: 2-Chloroacetophenone (CN) and 2-Chlorobenzalmalononitrile (CS).

Extraction and analysis holding times were met.

All surrogate recoveries were within QC limits.

Matrix spike and matrix spike duplicate analyses were performed on sample GC-IS01-5-8-07C. Recovery of 2,4-dinitrotoluene in the MS and MSD and Phenol in the MS was slightly above the QC limits. OK

A laboratory control samples was extracted and analyzed along with this batch. All spike recoveries were within the QC limits.

TIC analysis is provided with these analyses. Alkanes found, if any, are also listed as part of the case narrative as per the SOW.

Due to a software limitation, the Form VI and VII's included in this data package for the additional compounds are included in their raw format.

The laboratory uses the following column and its specs:
J&W Scientific DB-5MS
0.25mm internal diameter
1.0um film thickness
30m length
(5%Phenyl)methylpolysiloxane coating.

Metals

Sixteen soil samples were analyzed for HSL metals by CLP ILM05.3 methodology.

A matrix spike, duplicate, and serial dilution were performed on sample GC-IS01-0-1-07C for all required ICP analytes. They were within the control limits.

A matrix spike and duplicate were performed on sample GC-IS01-5-8-07C for mercury. They were within the control limits.

Calibration standards are verified against independent check standards purchased from a commercial vendor of environmental standards.

All GPL QA/QC criteria were met.

Reviewed By,
Project Manager

Approved By,
Laboratory Director

VOLATILE ORGANICS

GPL Laboratories

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS01-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-001-001-1/3
Sample Volume :	4.05	Lab File ID :	F46651.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	9	Date Analyzed	07/31/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ ACW 9/13/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	14	U
79-34-5	1,1,2,2-Tetrachloroethane	14	U
79-00-5	1,1,2-Trichloroethane	14	U
75-34-3	1,1-Dichloroethane	14	U
75-35-4	1,1-Dichloroethene	14	U
120-82-1	1,2,4-Trichlorobenzene	14	U
96-12-8	1,2-Dibromo-3-Chloropropane	14	U
95-50-1	1,2-Dichlorobenzene	14	U
107-06-2	1,2-Dichloroethane	14	U
78-87-5	1,2-Dichloropropane	14	U
541-73-1	1,3-Dichlorobenzene	14	U
106-46-7	1,4-Dichlorobenzene	14	U
78-93-3	2-Butanone	14	U
591-78-6	2-Hexanone	14	U
108-10-1	4-Methyl-2-Pentanone	14	U
67-64-1	Acetone	40	J, ISL
71-43-2	Benzene	14	U
75-27-4	Bromodichloromethane	14	U
75-25-2	Bromoform	14	U
74-83-9	Bromomethane	14	U
75-15-0	Carbon Disulfide	14	U
56-23-5	Carbon Tetrachloride	14	U
108-90-7	Chlorobenzene	14	U
75-00-3	Chloroethane	14	U
67-66-3	Chloroform	14	U
74-87-3	Chloromethane	14	U
110-82-7	Cyclohexane	14	U
124-48-1	Dibromochloromethane	14	U
75-71-8	Dichlorodifluoromethane	14	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS01-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-001-001-1/3
Sample Volume :	4.05	Lab File ID :	F46651.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	9	Date Analyzed	07/31/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ ACW 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	14	U
106-93-4	Ethylene Dibromide	14	U
76-13-1	Freon 113	14	U
98-82-8	Isopropylbenzene	14	U
79-20-9	Methyl Acetate	14	U
108-87-2	Methylcyclohexane	14	U
75-09-2	Methylene Chloride	15	J, 15L
100-42-5	Styrene	14	U
127-18-4	Tetrachloroethylene	14	U
108-88-3	Toluene	14	U
79-01-6	Trichloroethene	14	U
75-69-4	Trichlorofluoromethane	14	U
75-01-4	Vinyl Chloride	14	U
1330-20-7	Xylenes, Total	14	U
156-59-2	cis-1,2-Dichloroethene	14	U
10061-01-5	cis-1,3-Dichloropropene	14	U
1634-04-4	tert-butyl methyl ether	14	U
156-60-5	trans-1,2-dichloroethene	14	U
10061-02-6	trans-1,3-dichloropropene	14	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
GC-IS01-0-1-07C

Lab Name: GPL Laboratories, LLLP
Contract: CH2M Hill Inc
Lab Code: GPL
Case No.: NA
SAS No.: NA
SDG No.: 707147
Matrix (soil/water): SOIL
Lab Sample ID: 707147-001-001-1/3
Sample wt/vol: 4.05 (g/ml) g
Lab File ID: F46651.D
Level (low/med): LOW
Date Recieved 07/25/2007
% Moisture: 9
Date Analyzed: 07/31/2007
GC Column: RTX VOA
ID: 0.53 (mm)
Dilution Factor: 1
Soil Extract Volume: _____ (uL)
Soil Aliquot Volume: _____ (uL)

Number TICs Found: 0
Concentration Units (ug/L or ug/kg): _____

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

for QA/QC

SAMPLE NO
GC-IS01-0-1-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-001-002-2/3RE
Sample Volume :	3.91	Lab File ID :	F46729.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	9	Date Analyzed	08/04/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ AED 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

R, RE

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
75-34-3	1,1-Dichloroethane	11	U
75-35-4	1,1-Dichloroethene	11	U
120-82-1	1,2,4-Trichlorobenzene	11	U
96-12-8	1,2-Dibromo-3-Chloropropane	11	U
95-50-1	1,2-Dichlorobenzene	11	U
107-06-2	1,2-Dichloroethane	11	U
78-87-5	1,2-Dichloropropane	11	U
541-73-1	1,3-Dichlorobenzene	11	U
106-46-7	1,4-Dichlorobenzene	11	U
78-93-3	2-Butanone	11	U
591-78-6	2-Hexanone	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
67-64-1	Acetone	120	
71-43-2	Benzene	11	U
75-27-4	Bromodichloromethane	11	U
75-25-2	Bromoform	11	U
74-83-9	Bromomethane	11	U
75-15-0	Carbon Disulfide	11	U
56-23-5	Carbon Tetrachloride	11	U
108-90-7	Chlorobenzene	11	U
75-00-3	Chloroethane	11	U
67-66-3	Chloroform	11	U
74-87-3	Chloromethane	11	U
110-82-7	Cyclohexane	11	U
124-48-1	Dibromochloromethane	11	U
75-71-8	Dichlorodifluoromethane	11	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS01-0-1-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-001-002-2/3RE
Sample Volume :	3.91	Lab File ID :	F46729.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	9	Date Analyzed	08/04/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ ACD 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

R, RE

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	11	U
106-93-4	Ethylene Dibromide	11	U
76-13-1	Freon 113	11	U
98-82-8	Isopropylbenzene	11	U
79-20-9	Methyl Acetate	11	U
108-87-2	Methylcyclohexane	11	U
75-09-2	Methylene Chloride	26	
100-42-5	Styrene	11	U
127-18-4	Tetrachloroethylene	11	U
108-88-3	Toluene	11	U
79-01-6	Trichloroethene	11	U
75-69-4	Trichlorofluoromethane	11	U
75-01-4	Vinyl Chloride	11	U
1330-20-7	Xylenes, Total	11	U
156-59-2	cis-1,2-Dichloroethene	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
1634-04-4	tert-butyl methyl ether	11	U
156-60-5	trans-1,2-dichloroethene	11	U
10061-02-6	trans-1,3-dichloropropene	11	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

GC-IS01-0-1-07CRE

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707147

Matrix (soil/water): SOIL Lab Sample ID: 707147-001-002-2/3RE

Sample wt/vol: 3.91 (g/ml) g Lab File ID: F46729.D

Level (low/med): LOW Date Recieved 07/25/2007

% Moisture: 9 Date Analyzed: 08/04/2007

GC Column: RTX VOA ID: 0.53 (mm) Dilution Factor: 1

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs Found: 1 Concentration Units (ug/L or ug/kg): ug/kg

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q
1		unknown	20.28	8.24	J

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS01-5-8-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-002-004-1/3
Sample Volume :	5.17	Lab File ID :	F46652.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	6.84	Date Analyzed	07/31/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ AED 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
75-34-3	1,1-Dichloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
95-50-1	1,2-Dichlorobenzene	10	U
107-06-2	1,2-Dichloroethane	10	U
78-87-5	1,2-Dichloropropane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
78-93-3	2-Butanone	10	U
591-78-6	2-Hexanone	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
67-64-1	Acetone	7.2	J
71-43-2	Benzene	10	U
75-27-4	Bromodichloromethane	10	U
75-25-2	Bromoform	10	U
74-83-9	Bromomethane	10	U
75-15-0	Carbon Disulfide	10	U
56-23-5	Carbon Tetrachloride	10	U
108-90-7	Chlorobenzene	10	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	10	U
74-87-3	Chloromethane	10	U
110-82-7	Cyclohexane	10	U
124-48-1	Dibromochloromethane	10	U
75-71-8	Dichlorodifluoromethane	10	U

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS01-5-8-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-002-004-1/3
Sample Volume :	5.17	Lab File ID :	F46652.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	6.84	Date Analyzed	07/31/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ AED 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	10	U
106-93-4	Ethylene Dibromide	10	U
76-13-1	Freon 113	10	U
98-82-8	Isopropylbenzene	10	U
79-20-9	Methyl Acetate	10	U
108-87-2	Methylcyclohexane	10	U
75-09-2	Methylene Chloride	7.3	J
100-42-5	Styrene	10	U
127-18-4	Tetrachloroethylene	10	U
108-88-3	Toluene	10	U
79-01-6	Trichloroethene	10	U
75-69-4	Trichlorofluoromethane	10	U
75-01-4	Vinyl Chloride	10	U
1330-20-7	Xylenes, Total	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
1634-04-4	tert-butyl methyl ether	10	U
156-60-5	trans-1,2-dichloroethene	10	U
10061-02-6	trans-1,3-dichloropropene	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

GC-IS01-5-8-07C

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707147

Matrix (soil/water): SOIL Lab Sample ID: 707147-002-004-1/3

Sample wt/vol: 5.17 (g/ml) g Lab File ID: F46652.D

Level (low/med): LOW Date Recieved 07/25/2007

% Moisture: 6.84 Date Analyzed: 07/31/2007

GC Column: RTX VOA ID: 0.53 (mm) Dilution Factor: 1

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs Found: 0 Concentration Units (ug/L or ug/kg): _____

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS02-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-003-007-1/3
Sample Volume :	4.55	Lab File ID :	F46653.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	19.15	Date Analyzed	07/31/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ ACD 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	14	U
79-34-5	1,1,2,2-Tetrachloroethane	14	U
79-00-5	1,1,2-Trichloroethane	14	U
75-34-3	1,1-Dichloroethane	14	U
75-35-4	1,1-Dichloroethene	14	U
120-82-1	1,2,4-Trichlorobenzene	14	U
96-12-8	1,2-Dibromo-3-Chloropropane	14	U
95-50-1	1,2-Dichlorobenzene	14	U
107-06-2	1,2-Dichloroethane	14	U
78-87-5	1,2-Dichloropropane	14	U
541-73-1	1,3-Dichlorobenzene	14	U
106-46-7	1,4-Dichlorobenzene	14	U
78-93-3	2-Butanone	14	U
591-78-6	2-Hexanone	14	U
108-10-1	4-Methyl-2-Pentanone	14	U
67-64-1	Acetone	17	J, ISL
71-43-2	Benzene	14	U
75-27-4	Bromodichloromethane	14	U
75-25-2	Bromoform	14	U
74-83-9	Bromomethane	14	U
75-15-0	Carbon Disulfide	14	U
56-23-5	Carbon Tetrachloride	14	U
108-90-7	Chlorobenzene	14	U
75-00-3	Chloroethane	14	U
67-66-3	Chloroform	14	U
74-87-3	Chloromethane	14	U
110-82-7	Cyclohexane	14	U
124-48-1	Dibromochloromethane	14	U
75-71-8	Dichlorodifluoromethane	14	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS02-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-003-007-1/3
Sample Volume :	4.55	Lab File ID :	F46653.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	19.15	Date Analyzed	07/31/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ Aeo 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	14	U
106-93-4	Ethylene Dibromide	14	U
76-13-1	Freon 113	14	U
98-82-8	Isopropylbenzene	14	U
79-20-9	Methyl Acetate	14	U
108-87-2	Methylcyclohexane	14	U
75-09-2	Methylene Chloride	8.6	J
100-42-5	Styrene	14	U
127-18-4	Tetrachloroethylene	14	U
108-88-3	Toluene	14	U
79-01-6	Trichloroethene	14	U
75-69-4	Trichlorofluoromethane	14	U
75-01-4	Vinyl Chloride	14	U
1330-20-7	Xylenes, Total	14	U
156-59-2	cis-1,2-Dichloroethene	14	U
10061-01-5	cis-1,3-Dichloropropene	14	U
1634-04-4	tert-butyl methyl ether	14	U
156-60-5	trans-1,2-dichloroethene	14	U
10061-02-6	trans-1,3-dichloropropene	14	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

GC-IS02-0-1-07C

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707147

Matrix (soil/water): SOIL Lab Sample ID: 707147-003-007-1/3

Sample wt/vol: 4.55 (g/ml) g Lab File ID: F46653.D

Level (low/med): LOW Date Recieved 07/25/2007

% Moisture: 19.15 Date Analyzed: 07/31/2007

GC Column: RTX VOA ID: 0.53 (mm) Dilution Factor: 1

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs Found: 1 Concentration Units (ug/L or ug/kg): ug/kg

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q
1		unknown	20.87	3.35	J

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

for QA/QC

SAMPLE NO
GC-IS02-0-1-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-003-008-2/3RE
Sample Volume :	4.52	Lab File ID :	F46730.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	19.15	Date Analyzed	08/04/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ AED 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
75-34-3	1,1-Dichloroethane	12	U
75-35-4	1,1-Dichloroethene	12	U
120-82-1	1,2,4-Trichlorobenzene	12	U
96-12-8	1,2-Dibromo-3-Chloropropane	12	U
95-50-1	1,2-Dichlorobenzene	12	U
107-06-2	1,2-Dichloroethane	12	U
78-87-5	1,2-Dichloropropane	12	U
541-73-1	1,3-Dichlorobenzene	12	U
106-46-7	1,4-Dichlorobenzene	12	U
78-93-3	2-Butanone	12	U
591-78-6	2-Hexanone	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
67-64-1	Acetone	44	
71-43-2	Benzene	12	U
75-27-4	Bromodichloromethane	12	U
75-25-2	Bromoform	12	U
74-83-9	Bromomethane	12	U
75-15-0	Carbon Disulfide	12	U
56-23-5	Carbon Tetrachloride	12	U
108-90-7	Chlorobenzene	12	U
75-00-3	Chloroethane	12	U
67-66-3	Chloroform	12	U
74-87-3	Chloromethane	12	U
110-82-7	Cyclohexane	12	U
124-48-1	Dibromochloromethane	12	U
75-71-8	Dichlorodifluoromethane	12	U

R, RE

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS02-0-1-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-003-008-2/3RE
Sample Volume :	4.52	Lab File ID :	F46730.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	19.15	Date Analyzed	08/04/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

ACD 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

R, RE

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	12	U
106-93-4	Ethylene Dibromide	12	U
76-13-1	Freon 113	12	U
98-82-8	Isopropylbenzene	12	U
79-20-9	Methyl Acetate	12	U
108-87-2	Methylcyclohexane	12	U
75-09-2	Methylene Chloride	18	
100-42-5	Styrene	12	U
127-18-4	Tetrachloroethylene	12	U
108-88-3	Toluene	12	U
79-01-6	Trichloroethene	12	U
75-69-4	Trichlorofluoromethane	12	U
75-01-4	Vinyl Chloride	12	U
1330-20-7	Xylenes, Total	12	U
156-59-2	cis-1,2-Dichloroethene	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
1634-04-4	tert-butyl methyl ether	12	U
156-60-5	trans-1,2-dichloroethene	12	U
10061-02-6	trans-1,3-dichloropropene	12	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
GC-IS02-0-1-07CRE

Lab Name: GPL Laboratories, LLLP
Contract: CH2M Hill Inc
Lab Code: GPL
Case No.: NA
SAS No.: NA
SDG No.: 707147
Matrix (soil/water): SOIL
Lab Sample ID: 707147-003-008-2/3RE
Sample wt/vol: 4.52 (g/ml) g
Lab File ID: F46730.D
Level (low/med): LOW
Date Recieved 07/25/2007
% Moisture: 19.15
Date Analyzed: 08/04/2007
GC Column: RTX VOA
ID: 0.53 (mm)
Dilution Factor: 1
Soil Extract Volume: (uL)
Soil Aliquot Volume: (uL)

Number TICs Found: 1
Concentration Units (ug/L or ug/kg): ug/kg

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q
1	003779-61-1	1,3,6-Octatriene, 3,7-	21.53	5.24	JN

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS02-5-10-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-004-010-1/3
Sample Volume :	5.65	Lab File ID :	F46654.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	13.24	Date Analyzed	07/31/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ AEW 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
75-34-3	1,1-Dichloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
95-50-1	1,2-Dichlorobenzene	10	U
107-06-2	1,2-Dichloroethane	10	U
78-87-5	1,2-Dichloropropane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
78-93-3	2-Butanone	10	U
591-78-6	2-Hexanone	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
67-64-1	Acetone	10	U
71-43-2	Benzene	10	U
75-27-4	Bromodichloromethane	10	U
75-25-2	Bromoform	10	U
74-83-9	Bromomethane	10	U
75-15-0	Carbon Disulfide	10	U
56-23-5	Carbon Tetrachloride	10	U
108-90-7	Chlorobenzene	10	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	10	U
74-87-3	Chloromethane	10	U
110-82-7	Cyclohexane	10	U
124-48-1	Dibromochloromethane	10	U
75-71-8	Dichlorodifluoromethane	10	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS02-5-10-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-004-010-1/3
Sample Volume :	5.65	Lab File ID :	F46654.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	13.24	Date Analyzed	07/31/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ ACD 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	10	U
106-93-4	Ethylene Dibromide	10	U
76-13-1	Freon 113	10	U
98-82-8	Isopropylbenzene	10	U
79-20-9	Methyl Acetate	10	U
108-87-2	Methylcyclohexane	10	U
75-09-2	Methylene Chloride	8.6	J
100-42-5	Styrene	10	U
127-18-4	Tetrachloroethylene	10	U
108-88-3	Toluene	10	U
79-01-6	Trichloroethene	10	U
75-69-4	Trichlorofluoromethane	10	U
75-01-4	Vinyl Chloride	10	U
1330-20-7	Xylenes, Total	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
1634-04-4	tert-butyl methyl ether	10	U
156-60-5	trans-1,2-dichloroethene	10	U
10061-02-6	trans-1,3-dichloropropene	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

GC-IS02-5-10-07C

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707147

Matrix (soil/water): SOIL Lab Sample ID: 707147-004-010-1/3

Sample wt/vol: 5.65 (g/ml) g Lab File ID: F46654.D

Level (low/med): LOW Date Recieved 07/25/2007

% Moisture: 13.24 Date Analyzed: 07/31/2007

GC Column: RTX VOA ID: 0.53 (mm) Dilution Factor: 1

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs Found: 0 Concentration Units (ug/L or ug/kg): _____

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

for QA/QC

SAMPLE NO
GC-IS02-5-10-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-004-011-2/3RE
Sample Volume :	5.59	Lab File ID :	F46731.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	13.24	Date Analyzed	08/04/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

ACD 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

R, RE

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
75-34-3	1,1-Dichloroethane	12	U
75-35-4	1,1-Dichloroethene	12	U
120-82-1	1,2,4-Trichlorobenzene	12	U
96-12-8	1,2-Dibromo-3-Chloropropane	12	U
95-50-1	1,2-Dichlorobenzene	12	U
107-06-2	1,2-Dichloroethane	12	U
78-87-5	1,2-Dichloropropane	12	U
541-73-1	1,3-Dichlorobenzene	12	U
106-46-7	1,4-Dichlorobenzene	12	U
78-93-3	2-Butanone	12	U
591-78-6	2-Hexanone	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
67-64-1	Acetone	18	
71-43-2	Benzene	12	U
75-27-4	Bromodichloromethane	12	U
75-25-2	Bromoform	12	U
74-83-9	Bromomethane	12	U
75-15-0	Carbon Disulfide	12	U
56-23-5	Carbon Tetrachloride	12	U
108-90-7	Chlorobenzene	12	U
75-00-3	Chloroethane	12	U
67-66-3	Chloroform	12	U
74-87-3	Chloromethane	12	U
110-82-7	Cyclohexane	12	U
124-48-1	Dibromochloromethane	12	U
75-71-8	Dichlorodifluoromethane	12	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS02-5-10-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-004-011-2/3RE
Sample Volume :	5.59	Lab File ID :	F46731.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	13.24	Date Analyzed	08/04/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

AED 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

R.RE

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	12	U
106-93-4	Ethylene Dibromide	12	U
76-13-1	Freon 113	12	U
98-82-8	Isopropylbenzene	12	U
79-20-9	Methyl Acetate	12	U
108-87-2	Methylcyclohexane	12	U
75-09-2	Methylene Chloride	18	
100-42-5	Styrene	12	U
127-18-4	Tetrachloroethylene	12	U
108-88-3	Toluene	12	U
79-01-6	Trichloroethene	12	U
75-69-4	Trichlorofluoromethane	12	U
75-01-4	Vinyl Chloride	12	U
1330-20-7	Xylenes, Total	12	U
156-59-2	cis-1,2-Dichloroethene	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
1634-04-4	tert-butyl methyl ether	12	U
156-60-5	trans-1,2-dichloroethene	12	U
10061-02-6	trans-1,3-dichloropropene	12	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

GC-IS02-5-10-07CRE

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707147

Matrix (soil/water): SOIL Lab Sample ID: 707147-004-011-2/3RE

Sample wt/vol: 5.59 (g/ml) g Lab File ID: F46731.D

Level (low/med): LOW Date Recieved 07/25/2007

% Moisture: 13.24 Date Analyzed: 08/04/2007

GC Column: RTX VOA ID: 0.53 (mm) Dilution Factor: 1

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs Found: 0 Concentration Units (ug/L or ug/kg): _____

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS03-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-005-013-1/3
Sample Volume :	4.29	Lab File ID :	F46655.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	7.42	Date Analyzed	07/31/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

ACD 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	13	U
79-34-5	1,1,2,2-Tetrachloroethane	13	U
79-00-5	1,1,2-Trichloroethane	13	U
75-34-3	1,1-Dichloroethane	13	U
75-35-4	1,1-Dichloroethene	13	U
120-82-1	1,2,4-Trichlorobenzene	13	U
96-12-8	1,2-Dibromo-3-Chloropropane	13	U
95-50-1	1,2-Dichlorobenzene	13	U
107-06-2	1,2-Dichloroethane	13	U
78-87-5	1,2-Dichloropropane	13	U
541-73-1	1,3-Dichlorobenzene	13	U
106-46-7	1,4-Dichlorobenzene	13	U
78-93-3	2-Butanone	13	U
591-78-6	2-Hexanone	13	U
108-10-1	4-Methyl-2-Pentanone	13	U
67-64-1	Acetone	7.5	J
71-43-2	Benzene	13	U
75-27-4	Bromodichloromethane	13	U
75-25-2	Bromoform	13	U
74-83-9	Bromomethane	13	U
75-15-0	Carbon Disulfide	13	U
56-23-5	Carbon Tetrachloride	13	U
108-90-7	Chlorobenzene	13	U
75-00-3	Chloroethane	13	U
67-66-3	Chloroform	13	U
74-87-3	Chloromethane	13	U
110-82-7	Cyclohexane	13	U
124-48-1	Dibromochloromethane	13	U
75-71-8	Dichlorodifluoromethane	13	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS03-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-005-013-1/3
Sample Volume :	4.29	Lab File ID :	F46655.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	7.42	Date Analyzed	07/31/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

AED 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	13	U
106-93-4	Ethylene Dibromide	13	U
76-13-1	Freon 113	13	U
98-82-8	Isopropylbenzene	13	U
79-20-9	Methyl Acetate	13	U
108-87-2	Methylcyclohexane	13	U
75-09-2	Methylene Chloride	8.5	J
100-42-5	Styrene	13	U
127-18-4	Tetrachloroethylene	13	U
108-88-3	Toluene	13	U
79-01-6	Trichloroethene	13	U
75-69-4	Trichlorofluoromethane	13	U
75-01-4	Vinyl Chloride	13	U
1330-20-7	Xylenes, Total	13	U
156-59-2	cis-1,2-Dichloroethene	13	U
10061-01-5	cis-1,3-Dichloropropene	13	U
1634-04-4	tert-butyl methyl ether	13	U
156-60-5	trans-1,2-dichloroethene	13	U
10061-02-6	trans-1,3-dichloropropene	13	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

GC-IS03-0-1-07C

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707147

Matrix (soil/water): SOIL Lab Sample ID: 707147-005-013-1/3

Sample wt/vol: 4.29 (g/ml) g Lab File ID: F46655.D

Level (low/med): LOW Date Recieved 07/25/2007

% Moisture: 7.42 Date Analyzed: 07/31/2007

GC Column: RTX VOA ID: 0.53 (mm) Dilution Factor: 1

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs Found: 0 Concentration Units (ug/L or ug/kg): _____

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS03-5-8-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-006-016-1/3
Sample Volume :	4.9	Lab File ID :	F46656.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	10.06	Date Analyzed	07/31/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ AED 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
75-34-3	1,1-Dichloroethane	11	U
75-35-4	1,1-Dichloroethene	11	U
120-82-1	1,2,4-Trichlorobenzene	11	U
96-12-8	1,2-Dibromo-3-Chloropropane	11	U
95-50-1	1,2-Dichlorobenzene	11	U
107-06-2	1,2-Dichloroethane	11	U
78-87-5	1,2-Dichloropropane	11	U
541-73-1	1,3-Dichlorobenzene	11	U
106-46-7	1,4-Dichlorobenzene	11	U
78-93-3	2-Butanone	11	U
591-78-6	2-Hexanone	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
67-64-1	Acetone	13	J, ISL
71-43-2	Benzene	11	U
75-27-4	Bromodichloromethane	11	U
75-25-2	Bromoform	11	U
74-83-9	Bromomethane	11	U
75-15-0	Carbon Disulfide	11	U
56-23-5	Carbon Tetrachloride	11	U
108-90-7	Chlorobenzene	11	U
75-00-3	Chloroethane	11	U
67-66-3	Chloroform	11	U
74-87-3	Chloromethane	11	U
110-82-7	Cyclohexane	11	U
124-48-1	Dibromochloromethane	11	U
75-71-8	Dichlorodifluoromethane	11	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS03-5-8-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-006-016-1/3
Sample Volume :	4.9	Lab File ID :	F46656.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	10.06	Date Analyzed	07/31/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ ACD 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	11	U
106-93-4	Ethylene Dibromide	11	U
76-13-1	Freon 113	11	U
98-82-8	Isopropylbenzene	11	U
79-20-9	Methyl Acetate	11	U
108-87-2	Methylcyclohexane	11	U
75-09-2	Methylene Chloride	8.5	J
100-42-5	Styrene	11	U
127-18-4	Tetrachloroethylene	11	U
108-88-3	Toluene	11	U
79-01-6	Trichloroethene	11	U
75-69-4	Trichlorofluoromethane	11	U
75-01-4	Vinyl Chloride	11	U
1330-20-7	Xylenes, Total	11	U
156-59-2	cis-1,2-Dichloroethene	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
1634-04-4	tert-butyl methyl ether	11	U
156-60-5	trans-1,2-dichloroethene	11	U
10061-02-6	trans-1,3-dichloropropene	11	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
GC-IS03-5-8-07C

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc
Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707147
Matrix (soil/water): SOIL Lab Sample ID: 707147-006-016-1/3
Sample wt/vol: 4.9 (g/ml) g Lab File ID: F46656.D
Level (low/med): LOW Date Recieved 07/25/2007
% Moisture: 10.06 Date Analyzed: 07/31/2007
GC Column: RTX VOA ID: 0.53 (mm) Dilution Factor: 1
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs Found: 2 Concentration Units (ug/L or ug/kg): ug/kg

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q
1	000079-92-5	Camphene	21.54	7.58	JN
2		unknown	20.87	18	J

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

for QA/QC

SAMPLE NO
GC-IS03-5-8-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-006-017-2/3RE
Sample Volume :	5.47	Lab File ID :	F46732.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	10.06	Date Analyzed	08/04/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

ACD 9/3/07

R, RE

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
75-34-3	1,1-Dichloroethane	11	U
75-35-4	1,1-Dichloroethene	11	U
120-82-1	1,2,4-Trichlorobenzene	11	U
96-12-8	1,2-Dibromo-3-Chloropropane	11	U
95-50-1	1,2-Dichlorobenzene	11	U
107-06-2	1,2-Dichloroethane	11	U
78-87-5	1,2-Dichloropropane	11	U
541-73-1	1,3-Dichlorobenzene	11	U
106-46-7	1,4-Dichlorobenzene	11	U
78-93-3	2-Butanone	11	U
591-78-6	2-Hexanone	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
67-64-1	Acetone	19	
71-43-2	Benzene	11	U
75-27-4	Bromodichloromethane	11	U
75-25-2	Bromoform	11	U
74-83-9	Bromomethane	11	U
75-15-0	Carbon Disulfide	11	U
56-23-5	Carbon Tetrachloride	11	U
108-90-7	Chlorobenzene	11	U
75-00-3	Chloroethane	11	U
67-66-3	Chloroform	11	U
74-87-3	Chloromethane	11	U
110-82-7	Cyclohexane	11	U
124-48-1	Dibromochloromethane	11	U
75-71-8	Dichlorodifluoromethane	11	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS03-5-8-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-006-017-2/3RE
Sample Volume :	5.47	Lab File ID :	F46732.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	10.06	Date Analyzed	08/04/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ ACD 9/3/07 R.RE

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	11	U
106-93-4	Ethylene Dibromide	11	U
76-13-1	Freon 113	11	U
98-82-8	Isopropylbenzene	11	U
79-20-9	Methyl Acetate	11	U
108-87-2	Methylcyclohexane	11	U
75-09-2	Methylene Chloride	16	
100-42-5	Styrene	11	U
127-18-4	Tetrachloroethylene	11	U
108-88-3	Toluene	11	U
79-01-6	Trichloroethene	11	U
75-69-4	Trichlorofluoromethane	11	U
75-01-4	Vinyl Chloride	11	U
1330-20-7	Xylenes, Total	11	U
156-59-2	cis-1,2-Dichloroethene	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
1634-04-4	tert-butyl methyl ether	11	U
156-60-5	trans-1,2-dichloroethene	11	U
10061-02-6	trans-1,3-dichloropropene	11	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
GC-IS03-5-8-07CRE

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc
Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707147
Matrix (soil/water): SOIL Lab Sample ID: 707147-006-017-2/3RE
Sample wt/vol: 5.47 (g/ml) g Lab File ID: F46732.D
Level (low/med): LOW Date Recieved 07/25/2007
% Moisture: 10.06 Date Analyzed: 08/04/2007
GC Column: RTX VOA ID: 0.53 (mm) Dilution Factor: 1
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs Found: 0 Concentration Units (ug/L or ug/kg): _____

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS04-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-007-019-1/3
Sample Volume :	4.54	Lab File ID :	F46657.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	5.87	Date Analyzed	07/31/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ AEW 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
75-34-3	1,1-Dichloroethane	12	U
75-35-4	1,1-Dichloroethene	12	U
120-82-1	1,2,4-Trichlorobenzene	12	U
96-12-8	1,2-Dibromo-3-Chloropropane	12	U
95-50-1	1,2-Dichlorobenzene	12	U
107-06-2	1,2-Dichloroethane	12	U
78-87-5	1,2-Dichloropropane	12	U
541-73-1	1,3-Dichlorobenzene	12	U
106-46-7	1,4-Dichlorobenzene	12	U
78-93-3	2-Butanone	12	U
591-78-6	2-Hexanone	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
67-64-1	Acetone	12	J, ISL
71-43-2	Benzene	12	U
75-27-4	Bromodichloromethane	12	U
75-25-2	Bromoform	12	U
74-83-9	Bromomethane	12	U
75-15-0	Carbon Disulfide	12	U
56-23-5	Carbon Tetrachloride	12	U
108-90-7	Chlorobenzene	12	U
75-00-3	Chloroethane	12	U
67-66-3	Chloroform	12	U
74-87-3	Chloromethane	12	U
110-82-7	Cyclohexane	12	U
124-48-1	Dibromochloromethane	12	U
75-71-8	Dichlorodifluoromethane	12	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS04-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-007-019-1/3
Sample Volume :	4.54	Lab File ID :	F46657.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	5.87	Date Analyzed	07/31/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ AED 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	12	U
106-93-4	Ethylene Dibromide	12	U
76-13-1	Freon 113	12	U
98-82-8	Isopropylbenzene	12	U
79-20-9	Methyl Acetate	12	U
108-87-2	Methylcyclohexane	12	U
75-09-2	Methylene Chloride	12	U
100-42-5	Styrene	12	U
127-18-4	Tetrachloroethylene	12	U
108-88-3	Toluene	12	U
79-01-6	Trichloroethene	12	U
75-69-4	Trichlorofluoromethane	12	U
75-01-4	Vinyl Chloride	12	U
1330-20-7	Xylenes, Total	12	U
156-59-2	cis-1,2-Dichloroethene	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
1634-04-4	tert-butyl methyl ether	12	U
156-60-5	trans-1,2-dichloroethene	12	U
10061-02-6	trans-1,3-dichloropropene	12	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
GC-IS04-0-1-07C

Lab Name: GPL Laboratories, LLLP
Contract: CH2M Hill Inc
Lab Code: GPL
Case No.: NA
SAS No.: NA
SDG No.: 707147
Matrix (soil/water): SOIL
Lab Sample ID: 707147-007-019-1/3
Sample wt/vol: 4.54 (g/ml) g
Lab File ID: F46657.D
Level (low/med): LOW
Date Recieved 07/25/2007
% Moisture: 5.87
Date Analyzed: 07/31/2007
GC Column: RTX VOA
ID: 0.53 (mm)
Dilution Factor: 1
Soil Extract Volume: _____ (uL)
Soil Aliquot Volume: _____ (uL)

Number TICs Found: 1
Concentration Units (ug/L or ug/kg): ug/kg

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q
1		unknown	8.73	5.75	J

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS04-6-8-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-008-022-1/3
Sample Volume :	5.98	Lab File ID :	F46658.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	14.81	Date Analyzed	07/31/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

AED 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	9.8	U
79-34-5	1,1,2,2-Tetrachloroethane	9.8	U
79-00-5	1,1,2-Trichloroethane	9.8	U
75-34-3	1,1-Dichloroethane	9.8	U
75-35-4	1,1-Dichloroethene	9.8	U
120-82-1	1,2,4-Trichlorobenzene	9.8	U
96-12-8	1,2-Dibromo-3-Chloropropane	9.8	U
95-50-1	1,2-Dichlorobenzene	9.8	U
107-06-2	1,2-Dichloroethane	9.8	U
78-87-5	1,2-Dichloropropane	9.8	U
541-73-1	1,3-Dichlorobenzene	9.8	U
106-46-7	1,4-Dichlorobenzene	9.8	U
78-93-3	2-Butanone	9.8	U
591-78-6	2-Hexanone	9.8	U
108-10-1	4-Methyl-2-Pentanone	9.8	U
67-64-1	Acetone	7.3	J
71-43-2	Benzene	9.8	U
75-27-4	Bromodichloromethane	9.8	U
75-25-2	Bromoform	9.8	U
74-83-9	Bromomethane	9.8	U
75-15-0	Carbon Disulfide	9.8	U
56-23-5	Carbon Tetrachloride	9.8	U
108-90-7	Chlorobenzene	9.8	U
75-00-3	Chloroethane	9.8	U
67-66-3	Chloroform	9.8	U
74-87-3	Chloromethane	9.8	U
110-82-7	Cyclohexane	9.8	U
124-48-1	Dibromochloromethane	9.8	U
75-71-8	Dichlorodifluoromethane	9.8	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS04-6-8-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-008-022-1/3
Sample Volume :	5.98	Lab File ID :	F46658.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	14.81	Date Analyzed	07/31/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

HED 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	9.8	U
106-93-4	Ethylene Dibromide	9.8	U
76-13-1	Freon 113	9.8	U
98-82-8	Isopropylbenzene	9.8	U
79-20-9	Methyl Acetate	9.8	U
108-87-2	Methylcyclohexane	9.8	U
75-09-2	Methylene Chloride	9.8	U
100-42-5	Styrene	9.8	U
127-18-4	Tetrachloroethylene	9.8	U
108-88-3	Toluene	9.8	U
79-01-6	Trichloroethene	9.8	U
75-69-4	Trichlorofluoromethane	9.8	U
75-01-4	Vinyl Chloride	9.8	U
1330-20-7	Xylenes, Total	9.8	U
156-59-2	cis-1,2-Dichloroethene	9.8	U
10061-01-5	cis-1,3-Dichloropropene	9.8	U
1634-04-4	tert-butyl methyl ether	9.8	U
156-60-5	trans-1,2-dichloroethene	9.8	U
10061-02-6	trans-1,3-dichloropropene	9.8	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

GC-IS04-6-8-07C

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707147

Matrix (soil/water): SOIL Lab Sample ID: 707147-008-022-1/3

Sample wt/vol: 5.98 (g/ml) g Lab File ID: F46658.D

Level (low/med): LOW Date Recieved 07/25/2007

% Moisture: 14.81 Date Analyzed: 07/31/2007

GC Column: RTX VOA ID: 0.53 (mm) Dilution Factor: 1

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs Found: 1 Concentration Units (ug/L or ug/kg): ug/kg

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q
1		unknown	8.73	6.14	J

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS05-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-009-025-1/3
Sample Volume :	5.5	Lab File ID :	F46666.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	19.55	Date Analyzed	08/01/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

AED 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	9.1	U
79-34-5	1,1,2,2-Tetrachloroethane	9.1	U
79-00-5	1,1,2-Trichloroethane	9.1	U
75-34-3	1,1-Dichloroethane	9.1	U
75-35-4	1,1-Dichloroethene	9.1	U
120-82-1	1,2,4-Trichlorobenzene	9.1	U
96-12-8	1,2-Dibromo-3-Chloropropane	9.1	U
95-50-1	1,2-Dichlorobenzene	9.1	U
107-06-2	1,2-Dichloroethane	9.1	U
78-87-5	1,2-Dichloropropane	9.1	U
541-73-1	1,3-Dichlorobenzene	9.1	U
106-46-7	1,4-Dichlorobenzene	9.1	U
78-93-3	2-Butanone	10	
591-78-6	2-Hexanone	9.1	U
108-10-1	4-Methyl-2-Pentanone	9.1	U
67-64-1	Acetone	280	~~E~~ J,LR
71-43-2	Benzene	9.1	U
75-27-4	Bromodichloromethane	9.1	U
75-25-2	Bromoform	9.1	U
74-83-9	Bromomethane	9.1	U
75-15-0	Carbon Disulfide	9.1	U
56-23-5	Carbon Tetrachloride	9.1	U
108-90-7	Chlorobenzene	9.1	U
75-00-3	Chloroethane	9.1	U
67-66-3	Chloroform	9.1	U
74-87-3	Chloromethane	9.1	U
110-82-7	Cyclohexane	9.1	U
124-48-1	Dibromochloromethane	9.1	U
75-71-8	Dichlorodifluoromethane	9.1	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS05-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-009-025-1/3
Sample Volume :	5.5	Lab File ID :	F46666.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	19.55	Date Analyzed	08/01/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

AED 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	9.1	U
106-93-4	Ethylene Dibromide	9.1	U
76-13-1	Freon 113	9.1	U
98-82-8	Isopropylbenzene	9.1	U
79-20-9	Methyl Acetate	9.1	U
108-87-2	Methylcyclohexane	9.1	U
75-09-2	Methylene Chloride	5.7	J
100-42-5	Styrene	9.1	U
127-18-4	Tetrachloroethylene	9.1	U
108-88-3	Toluene	9.1	U
79-01-6	Trichloroethene	9.1	U
75-69-4	Trichlorofluoromethane	9.1	U
75-01-4	Vinyl Chloride	9.1	U
1330-20-7	Xylenes, Total	9.1	U
156-59-2	cis-1,2-Dichloroethene	9.1	U
10061-01-5	cis-1,3-Dichloropropene	9.1	U
1634-04-4	tert-butyl methyl ether	9.1	U
156-60-5	trans-1,2-dichloroethene	9.1	U
10061-02-6	trans-1,3-dichloropropene	9.1	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

GC-IS05-0-1-07C

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707147

Matrix (soil/water): SOIL Lab Sample ID: 707147-009-025-1/3

Sample wt/vol: 5.5 (g/ml) g Lab File ID: F46666.D

Level (low/med): LOW Date Recieved 07/25/2007

% Moisture: 19.55 Date Analyzed: 08/01/2007

GC Column: RTX VOA ID: 0.53 (mm) Dilution Factor: 1

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs Found: 2 Concentration Units (ug/L or ug/kg): ug/kg

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q
1	000115-07-1	Propene	4.51	5.21	JN
2	001674-56-2	2-Propanol, 1-amino-,	7.23	6.52	JN

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS05-0-1-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-009-026-2/3RE
Sample Volume :	5.23	Lab File ID :	F46733.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	19.55	Date Analyzed	08/04/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

AeD 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

R.RE

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
75-34-3	1,1-Dichloroethane	12	U
75-35-4	1,1-Dichloroethene	12	U
120-82-1	1,2,4-Trichlorobenzene	12	U
96-12-8	1,2-Dibromo-3-Chloropropane	12	U
95-50-1	1,2-Dichlorobenzene	12	U
107-06-2	1,2-Dichloroethane	12	U
78-87-5	1,2-Dichloropropane	12	U
541-73-1	1,3-Dichlorobenzene	12	U
106-46-7	1,4-Dichlorobenzene	12	U
78-93-3	2-Butanone	12	U
591-78-6	2-Hexanone	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
67-64-1	Acetone	65	
71-43-2	Benzene	12	U
75-27-4	Bromodichloromethane	12	U
75-25-2	Bromoform	12	U
74-83-9	Bromomethane	12	U
75-15-0	Carbon Disulfide	12	U
56-23-5	Carbon Tetrachloride	12	U
108-90-7	Chlorobenzene	12	U
75-00-3	Chloroethane	12	U
67-66-3	Chloroform	12	U
74-87-3	Chloromethane	12	U
110-82-7	Cyclohexane	12	U
124-48-1	Dibromochloromethane	12	U
75-71-8	Dichlorodifluoromethane	12	U

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS05-0-1-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-009-026-2/3RE
Sample Volume :	5.23	Lab File ID :	F46733.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	19.55	Date Analyzed	08/04/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

ACD 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

R, RE

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	12	U
106-93-4	Ethylene Dibromide	12	U
76-13-1	Freon 113	12	U
98-82-8	Isopropylbenzene	12	U
79-20-9	Methyl Acetate	12	U
108-87-2	Methylcyclohexane	12	U
75-09-2	Methylene Chloride	16	
100-42-5	Styrene	12	U
127-18-4	Tetrachloroethylene	12	U
108-88-3	Toluene	12	U
79-01-6	Trichloroethene	12	U
75-69-4	Trichlorofluoromethane	12	U
75-01-4	Vinyl Chloride	12	U
1330-20-7	Xylenes, Total	12	U
156-59-2	cis-1,2-Dichloroethene	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
1634-04-4	tert-butyl methyl ether	12	U
156-60-5	trans-1,2-dichloroethene	12	U
10061-02-6	trans-1,3-dichloropropene	12	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
GC-IS05-0-1-07CRE

Lab Name: GPL Laboratories, LLLP
Contract: CH2M Hill Inc
Lab Code: GPL
Case No.: NA
SAS No.: NA
SDG No.: 707147
Matrix (soil/water): SOIL
Lab Sample ID: 707147-009-026-2/3RE
Sample wt/vol: 5.23 (g/ml) g
Lab File ID: F46733.D
Level (low/med): LOW
Date Recieved 07/25/2007
% Moisture: 19.55
Date Analyzed: 08/04/2007
GC Column: RTX VOA
ID: 0.53 (mm)
Dilution Factor: 1
Soil Extract Volume: _____ (uL)
Soil Aliquot Volume: _____ (uL)

Number TICs Found: 0
Concentration Units (ug/L or ug/kg): _____

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS05-2-4-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-010-028-1/3
Sample Volume :	4.55	Lab File ID :	F46667.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	33.23	Date Analyzed	08/01/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ AEW 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q	
71-55-6	1,1,1-Trichloroethane	11	U	
79-34-5	1,1,2,2-Tetrachloroethane	11	U	
79-00-5	1,1,2-Trichloroethane	11	U	
75-34-3	1,1-Dichloroethane	11	U	
75-35-4	1,1-Dichloroethene	11	U	
120-82-1	1,2,4-Trichlorobenzene	11	U	
96-12-8	1,2-Dibromo-3-Chloropropane	11	U	
95-50-1	1,2-Dichlorobenzene	11	U	
107-06-2	1,2-Dichloroethane	11	U	
78-87-5	1,2-Dichloropropane	11	U	
541-73-1	1,3-Dichlorobenzene	11	U	
106-46-7	1,4-Dichlorobenzene	11	U	
78-93-3	2-Butanone	59		J, ISL
591-78-6	2-Hexanone	11	U	
108-10-1	4-Methyl-2-Pentanone	11	U	
67-64-1	Acetone	190		J, ISL
71-43-2	Benzene	11	U	
75-27-4	Bromodichloromethane	11	U	
75-25-2	Bromoform	11	U	
74-83-9	Bromomethane	11	U	
75-15-0	Carbon Disulfide	11	U	
56-23-5	Carbon Tetrachloride	11	U	
108-90-7	Chlorobenzene	11	U	
75-00-3	Chloroethane	11	U	
67-66-3	Chloroform	11	U	
74-87-3	Chloromethane	11	U	
110-82-7	Cyclohexane	11	U	
124-48-1	Dibromochloromethane	11	U	
75-71-8	Dichlorodifluoromethane	11	U	

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS05-2-4-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-010-028-1/3
Sample Volume :	4.55	Lab File ID :	F46667.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	33.23	Date Analyzed	08/01/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ AEW 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	11	U
106-93-4	Ethylene Dibromide	11	U
76-13-1	Freon 113	11	U
98-82-8	Isopropylbenzene	11	U
79-20-9	Methyl Acetate	11	U
108-87-2	Methylcyclohexane	11	U
75-09-2	Methylene Chloride	11	U
100-42-5	Styrene	11	U
127-18-4	Tetrachloroethylene	11	U
108-88-3	Toluene	11	U
79-01-6	Trichloroethene	11	U
75-69-4	Trichlorofluoromethane	11	U
75-01-4	Vinyl Chloride	11	U
1330-20-7	Xylenes, Total	11	U
156-59-2	cis-1,2-Dichloroethene	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
1634-04-4	tert-butyl methyl ether	11	U
156-60-5	trans-1,2-dichloroethene	11	U
10061-02-6	trans-1,3-dichloropropene	11	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
GC-IS05-2-4-07C

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc
Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707147
Matrix (soil/water): SOIL Lab Sample ID: 707147-010-028-1/3
Sample wt/vol: 4.55 (g/ml) g Lab File ID: F46667.D
Level (low/med): LOW Date Recieved 07/25/2007
% Moisture: 33.23 Date Analyzed: 08/01/2007
GC Column: RTX VOA ID: 0.53 (mm) Dilution Factor: 1
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs Found: 2 Concentration Units (ug/L or ug/kg): ug/kg

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q
1	000064-19-7	Acetic acid	5.91	5.99	JN
2		unknown	8.73	11	J

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

for QA/QC

SAMPLE NO
GC-IS05-2-4-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-010-029-2/3RE
Sample Volume :	4.65	Lab File ID :	F46734.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	33.23	Date Analyzed	08/04/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ AED 9/13/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	15	U
79-34-5	1,1,2,2-Tetrachloroethane	15	U
79-00-5	1,1,2-Trichloroethane	15	U
75-34-3	1,1-Dichloroethane	15	U
75-35-4	1,1-Dichloroethene	15	U
120-82-1	1,2,4-Trichlorobenzene	15	U
96-12-8	1,2-Dibromo-3-Chloropropane	15	U
95-50-1	1,2-Dichlorobenzene	15	U
107-06-2	1,2-Dichloroethane	15	U
78-87-5	1,2-Dichloropropane	15	U
541-73-1	1,3-Dichlorobenzene	15	U
106-46-7	1,4-Dichlorobenzene	15	U
78-93-3	2-Butanone	93	
591-78-6	2-Hexanone	15	U
108-10-1	4-Methyl-2-Pentanone	15	U
67-64-1	Acetone	340	E
71-43-2	Benzene	15	U
75-27-4	Bromodichloromethane	15	U
75-25-2	Bromoform	15	U
74-83-9	Bromomethane	15	U
75-15-0	Carbon Disulfide	15	U
56-23-5	Carbon Tetrachloride	15	U
108-90-7	Chlorobenzene	15	U
75-00-3	Chloroethane	15	U
67-66-3	Chloroform	15	U
74-87-3	Chloromethane	15	U
110-82-7	Cyclohexane	15	U
124-48-1	Dibromochloromethane	15	U
75-71-8	Dichlorodifluoromethane	15	U

R, RE

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS05-2-4-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-010-029-2/3RE
Sample Volume :	4.65	Lab File ID :	F46734.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	33.23	Date Analyzed	08/04/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

ACD 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

R, RE

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	15	U
106-93-4	Ethylene Dibromide	15	U
76-13-1	Freon 113	15	U
98-82-8	Isopropylbenzene	15	U
79-20-9	Methyl Acetate	15	U
108-87-2	Methylcyclohexane	15	U
75-09-2	Methylene Chloride	17	
100-42-5	Styrene	15	U
127-18-4	Tetrachloroethylene	15	U
108-88-3	Toluene	15	U
79-01-6	Trichloroethene	15	U
75-69-4	Trichlorofluoromethane	15	U
75-01-4	Vinyl Chloride	15	U
1330-20-7	Xylenes, Total	15	U
156-59-2	cis-1,2-Dichloroethene	15	U
10061-01-5	cis-1,3-Dichloropropene	15	U
1634-04-4	tert-butyl methyl ether	15	U
156-60-5	trans-1,2-dichloroethene	15	U
10061-02-6	trans-1,3-dichloropropene	15	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
GC-IS05-2-4-07CRE

Lab Name: GPL Laboratories, LLLP
Contract: CH2M Hill Inc
Lab Code: GPL
Case No.: NA
SAS No.: NA
SDG No.: 707147
Matrix (soil/water): SOIL
Lab Sample ID: 707147-010-029-2/3RE
Sample wt/vol: 4.65 (g/ml) g
Lab File ID: F46734.D
Level (low/med): LOW
Date Recieved 07/25/2007
% Moisture: 33.23
Date Analyzed: 08/04/2007
GC Column: RTX VOA
ID: 0.53 (mm)
Dilution Factor: 1
Soil Extract Volume: _____ (uL)
Soil Aliquot Volume: _____ (uL)

Number TICs Found: 4
Concentration Units (ug/L or ug/kg): ug/kg

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q
1	000057-13-6	Urea	4.63	8.51	JN
2	000064-19-7	Acetic acid	5.92	12	JN
3	000074-98-6	Propane	4.53	5.74	JN
4	000074-98-6	Propane	5.42	9.58	JN

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS06-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-011-031-1/3
Sample Volume :	4.47	Lab File ID :	F46668.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	11.22	Date Analyzed	08/01/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ ACD 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
75-34-3	1,1-Dichloroethane	11	U
75-35-4	1,1-Dichloroethene	11	U
120-82-1	1,2,4-Trichlorobenzene	11	U
96-12-8	1,2-Dibromo-3-Chloropropane	11	U
95-50-1	1,2-Dichlorobenzene	11	U
107-06-2	1,2-Dichloroethane	11	U
78-87-5	1,2-Dichloropropane	11	U
541-73-1	1,3-Dichlorobenzene	11	U
106-46-7	1,4-Dichlorobenzene	11	U
78-93-3	2-Butanone	11	U
591-78-6	2-Hexanone	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
67-64-1	Acetone	16	J, ISL
71-43-2	Benzene	11	U
75-27-4	Bromodichloromethane	11	U
75-25-2	Bromoform	11	U
74-83-9	Bromomethane	11	U
75-15-0	Carbon Disulfide	11	U
56-23-5	Carbon Tetrachloride	11	U
108-90-7	Chlorobenzene	11	U
75-00-3	Chloroethane	11	U
67-66-3	Chloroform	11	U
74-87-3	Chloromethane	11	U
110-82-7	Cyclohexane	11	U
124-48-1	Dibromochloromethane	11	U
75-71-8	Dichlorodifluoromethane	11	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS06-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-011-031-1/3
Sample Volume :	4.47	Lab File ID :	F46668.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	11.22	Date Analyzed	08/01/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ ACD 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	11	U
106-93-4	Ethylene Dibromide	11	U
76-13-1	Freon 113	11	U
98-82-8	Isopropylbenzene	11	U
79-20-9	Methyl Acetate	11	U
108-87-2	Methylcyclohexane	11	U
75-09-2	Methylene Chloride	11	U
100-42-5	Styrene	11	U
127-18-4	Tetrachloroethylene	11	U
108-88-3	Toluene	4.6	J
79-01-6	Trichloroethene	11	U
75-69-4	Trichlorofluoromethane	11	U
75-01-4	Vinyl Chloride	11	U
1330-20-7	Xylenes, Total	11	U
156-59-2	cis-1,2-Dichloroethene	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
1634-04-4	tert-butyl methyl ether	11	U
156-60-5	trans-1,2-dichloroethene	11	U
10061-02-6	trans-1,3-dichloropropene	11	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
GC-IS06-0-1-07C

Lab Name: GPL Laboratories, LLLP
Contract: CH2M Hill Inc
Lab Code: GPL
Case No.: NA
SAS No.: NA
SDG No.: 707147
Matrix (soil/water): SOIL
Lab Sample ID: 707147-011-031-1/3
Sample wt/vol: 4.47 (g/ml) g
Lab File ID: F46668.D
Level (low/med): LOW
Date Recieved 07/25/2007
% Moisture: 11.22
Date Analyzed: 08/01/2007
GC Column: RTX VOA
ID: 0.53 (mm)
Dilution Factor: 1
Soil Extract Volume: _____ (uL)
Soil Aliquot Volume: _____ (uL)

Number TICs Found: 1
Concentration Units (ug/L or ug/kg): ug/kg

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q
1		unknown	8.73	8.80	J

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

for QA/QC

SAMPLE NO
GC-IS06-0-1-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-011-032-2/3RE
Sample Volume :	4.45	Lab File ID :	F46735.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	11.22	Date Analyzed	08/04/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ AED 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

R, RE

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
75-34-3	1,1-Dichloroethane	11	U
75-35-4	1,1-Dichloroethene	11	U
120-82-1	1,2,4-Trichlorobenzene	11	U
96-12-8	1,2-Dibromo-3-Chloropropane	11	U
95-50-1	1,2-Dichlorobenzene	11	U
107-06-2	1,2-Dichloroethane	11	U
78-87-5	1,2-Dichloropropane	11	U
541-73-1	1,3-Dichlorobenzene	11	U
106-46-7	1,4-Dichlorobenzene	11	U
78-93-3	2-Butanone	11	U
591-78-6	2-Hexanone	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
67-64-1	Acetone	11	U
71-43-2	Benzene	11	U
75-27-4	Bromodichloromethane	11	U
75-25-2	Bromoform	11	U
74-83-9	Bromomethane	11	U
75-15-0	Carbon Disulfide	11	U
56-23-5	Carbon Tetrachloride	11	U
108-90-7	Chlorobenzene	11	U
75-00-3	Chloroethane	11	U
67-66-3	Chloroform	11	U
74-87-3	Chloromethane	11	U
110-82-7	Cyclohexane	11	U
124-48-1	Dibromochloromethane	11	U
75-71-8	Dichlorodifluoromethane	11	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS06-0-1-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-011-032-2/3RE
Sample Volume :	4.45	Lab File ID :	F46735.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	11.22	Date Analyzed	08/04/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ ACD 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	11	U
106-93-4	Ethylene Dibromide	11	U
76-13-1	Freon 113	11	U
98-82-8	Isopropylbenzene	11	U
79-20-9	Methyl Acetate	11	U
108-87-2	Methylcyclohexane	11	U
75-09-2	Methylene Chloride	11	U
100-42-5	Styrene	11	U
127-18-4	Tetrachloroethylene	11	U
108-88-3	Toluene	11	U
79-01-6	Trichloroethene	11	U
75-69-4	Trichlorofluoromethane	11	U
75-01-4	Vinyl Chloride	11	U
1330-20-7	Xylenes, Total	11	U
156-59-2	cis-1,2-Dichloroethene	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
1634-04-4	tert-butyl methyl ether	11	U
156-60-5	trans-1,2-dichloroethene	11	U
10061-02-6	trans-1,3-dichloropropene	11	U

R, RE

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

GC-IS06-0-1-07CRE

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707147

Matrix (soil/water): SOIL Lab Sample ID: 707147-011-032-2/3RE

Sample wt/vol: 4.45 (g/ml) g Lab File ID: F46735.D

Level (low/med): LOW Date Recieved 07/25/2007

% Moisture: 11.22 Date Analyzed: 08/04/2007

GC Column: RTX VOA ID: 0.53 (mm) Dilution Factor: 1

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs Found: 1 Concentration Units (ug/L or ug/kg): ug/kg

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q
1	000075-09-2	Methylene Chloride	8.729	16	JN

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS06-3-5-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-012-034-1/3
Sample Volume :	4.62	Lab File ID :	F46669.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	5.77	Date Analyzed	08/01/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

Acid 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
75-34-3	1,1-Dichloroethane	11	U
75-35-4	1,1-Dichloroethene	11	U
120-82-1	1,2,4-Trichlorobenzene	11	U
96-12-8	1,2-Dibromo-3-Chloropropane	11	U
95-50-1	1,2-Dichlorobenzene	11	U
107-06-2	1,2-Dichloroethane	11	U
78-87-5	1,2-Dichloropropane	11	U
541-73-1	1,3-Dichlorobenzene	11	U
106-46-7	1,4-Dichlorobenzene	11	U
78-93-3	2-Butanone	11	U
591-78-6	2-Hexanone	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
67-64-1	Acetone	11	U
71-43-2	Benzene	11	U
75-27-4	Bromodichloromethane	11	U
75-25-2	Bromoform	11	U
74-83-9	Bromomethane	11	U
75-15-0	Carbon Disulfide	11	U
56-23-5	Carbon Tetrachloride	11	U
108-90-7	Chlorobenzene	11	U
75-00-3	Chloroethane	11	U
67-66-3	Chloroform	11	U
74-87-3	Chloromethane	11	U
110-82-7	Cyclohexane	11	U
124-48-1	Dibromochloromethane	11	U
75-71-8	Dichlorodifluoromethane	11	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS06-3-5-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-012-034-1/3
Sample Volume :	4.62	Lab File ID :	F46669.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	5.77	Date Analyzed	08/01/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ Aem 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	11	U
106-93-4	Ethylene Dibromide	11	U
76-13-1	Freon 113	11	U
98-82-8	Isopropylbenzene	11	U
79-20-9	Methyl Acetate	11	U
108-87-2	Methylcyclohexane	11	U
75-09-2	Methylene Chloride	11	U
100-42-5	Styrene	11	U
127-18-4	Tetrachloroethylene	11	U
108-88-3	Toluene	11	U
79-01-6	Trichloroethene	11	U
75-69-4	Trichlorofluoromethane	11	U
75-01-4	Vinyl Chloride	11	U
1330-20-7	Xylenes, Total	11	U
156-59-2	cis-1,2-Dichloroethene	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
1634-04-4	tert-butyl methyl ether	11	U
156-60-5	trans-1,2-dichloroethene	11	U
10061-02-6	trans-1,3-dichloropropene	11	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
GC-IS06-3-5-07C

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc
Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707147
Matrix (soil/water): SOIL Lab Sample ID: 707147-012-034-1/3
Sample wt/vol: 4.62 (g/ml) g Lab File ID: F46669.D
Level (low/med): LOW Date Recieved 07/25/2007
% Moisture: 5.77 Date Analyzed: 08/01/2007
GC Column: RTX VOA ID: 0.53 (mm) Dilution Factor: 1
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs Found: 2 Concentration Units (ug/L or ug/kg): ug/kg

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q
1		unknown	16.11	5.91	J
2		unknown	8.73	4.16	J

FORM I VOA-TIC

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

for QA/QC

SAMPLE NO
GC-IS06-3-5-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-012-035-2/3RE
Sample Volume :	4.58	Lab File ID :	F46736.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	5.77	Date Analyzed	08/04/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ AED 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

R,RE

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
75-34-3	1,1-Dichloroethane	11	U
75-35-4	1,1-Dichloroethene	11	U
120-82-1	1,2,4-Trichlorobenzene	11	U
96-12-8	1,2-Dibromo-3-Chloropropane	11	U
95-50-1	1,2-Dichlorobenzene	11	U
107-06-2	1,2-Dichloroethane	11	U
78-87-5	1,2-Dichloropropane	11	U
541-73-1	1,3-Dichlorobenzene	11	U
106-46-7	1,4-Dichlorobenzene	11	U
78-93-3	2-Butanone	11	U
591-78-6	2-Hexanone	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
67-64-1	Acetone	11	U
71-43-2	Benzene	11	U
75-27-4	Bromodichloromethane	11	U
75-25-2	Bromoform	11	U
74-83-9	Bromomethane	11	U
75-15-0	Carbon Disulfide	11	U
56-23-5	Carbon Tetrachloride	11	U
108-90-7	Chlorobenzene	11	U
75-00-3	Chloroethane	11	U
67-66-3	Chloroform	11	U
74-87-3	Chloromethane	11	U
110-82-7	Cyclohexane	11	U
124-48-1	Dibromochloromethane	11	U
75-71-8	Dichlorodifluoromethane	11	U

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS06-3-5-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-012-035-2/3RE
Sample Volume :	4.58	Lab File ID :	F46736.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	5.77	Date Analyzed	08/04/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ AED 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

R, RE

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	11	U
106-93-4	Ethylene Dibromide	11	U
76-13-1	Freon 113	11	U
98-82-8	Isopropylbenzene	11	U
79-20-9	Methyl Acetate	11	U
108-87-2	Methylcyclohexane	11	U
75-09-2	Methylene Chloride	11	U
100-42-5	Styrene	11	U
127-18-4	Tetrachloroethylene	11	U
108-88-3	Toluene	11	U
79-01-6	Trichloroethene	11	U
75-69-4	Trichlorofluoromethane	11	U
75-01-4	Vinyl Chloride	11	U
1330-20-7	Xylenes, Total	11	U
156-59-2	cis-1,2-Dichloroethene	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
1634-04-4	tert-butyl methyl ether	11	U
156-60-5	trans-1,2-dichloroethene	11	U
10061-02-6	trans-1,3-dichloropropene	11	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

GC-IS06-3-5-07CRE

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707147

Matrix (soil/water): SOIL Lab Sample ID: 707147-012-035-2/3RE

Sample wt/vol: 4.58 (g/ml) g Lab File ID: F46736.D

Level (low/med): LOW Date Recieved 07/25/2007

% Moisture: 5.77 Date Analyzed: 08/04/2007

GC Column: RTX VOA ID: 0.53 (mm) Dilution Factor: 1

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs Found: 0 Concentration Units (ug/L or ug/kg): _____

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS07-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-013-037-1/3
Sample Volume :	4.82	Lab File ID :	F46670.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	17.21	Date Analyzed	08/01/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ ACD 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
75-34-3	1,1-Dichloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
95-50-1	1,2-Dichlorobenzene	10	U
107-06-2	1,2-Dichloroethane	10	U
78-87-5	1,2-Dichloropropane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
78-93-3	2-Butanone	5.7	J
591-78-6	2-Hexanone	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
67-64-1	Acetone	83	
71-43-2	Benzene	10	U
75-27-4	Bromodichloromethane	10	U
75-25-2	Bromoform	10	U
74-83-9	Bromomethane	10	U
75-15-0	Carbon Disulfide	10	U
56-23-5	Carbon Tetrachloride	10	U
108-90-7	Chlorobenzene	10	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	10	U
74-87-3	Chloromethane	10	U
110-82-7	Cyclohexane	10	U
124-48-1	Dibromochloromethane	10	U
75-71-8	Dichlorodifluoromethane	10	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS07-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-013-037-1/3
Sample Volume :	4.82	Lab File ID :	F46670.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	17.21	Date Analyzed	08/01/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ AED 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	10	U
106-93-4	Ethylene Dibromide	10	U
76-13-1	Freon 113	10	U
98-82-8	Isopropylbenzene	10	U
79-20-9	Methyl Acetate	10	U
108-87-2	Methylcyclohexane	10	U
75-09-2	Methylene Chloride	10	U
100-42-5	Styrene	10	U
127-18-4	Tetrachloroethylene	10	U
108-88-3	Toluene	10	U
79-01-6	Trichloroethene	10	U
75-69-4	Trichlorofluoromethane	10	U
75-01-4	Vinyl Chloride	10	U
1330-20-7	Xylenes, Total	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
1634-04-4	tert-butyl methyl ether	10	U
156-60-5	trans-1,2-dichloroethene	10	U
10061-02-6	trans-1,3-dichloropropene	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
GC-IS07-0-1-07C

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc
Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707147
Matrix (soil/water): SOIL Lab Sample ID: 707147-013-037-1/3
Sample wt/vol: 4.82 (g/ml) g Lab File ID: F46670.D
Level (low/med): LOW Date Recieved 07/25/2007
% Moisture: 17.21 Date Analyzed: 08/01/2007
GC Column: RTX VOA ID: 0.53 (mm) Dilution Factor: 1
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs Found: 2 Concentration Units (ug/L or ug/kg): ug/kg

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q
1		unknown	20.87	32	J
2		unknown	8.73	7.15	J

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS07-10-12-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-014-040-1/3
Sample Volume :	4.39	Lab File ID :	F46671.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	5.54	Date Analyzed	08/01/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ Aen 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
75-34-3	1,1-Dichloroethane	11	U
75-35-4	1,1-Dichloroethene	11	U
120-82-1	1,2,4-Trichlorobenzene	11	U
96-12-8	1,2-Dibromo-3-Chloropropane	11	U
95-50-1	1,2-Dichlorobenzene	11	U
107-06-2	1,2-Dichloroethane	11	U
78-87-5	1,2-Dichloropropane	11	U
541-73-1	1,3-Dichlorobenzene	11	U
106-46-7	1,4-Dichlorobenzene	11	U
78-93-3	2-Butanone	11	U
591-78-6	2-Hexanone	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
67-64-1	Acetone	11	U
71-43-2	Benzene	11	U
75-27-4	Bromodichloromethane	11	U
75-25-2	Bromoform	11	U
74-83-9	Bromomethane	11	U
75-15-0	Carbon Disulfide	11	U
56-23-5	Carbon Tetrachloride	11	U
108-90-7	Chlorobenzene	11	U
75-00-3	Chloroethane	11	U
67-66-3	Chloroform	11	U
74-87-3	Chloromethane	11	U
110-82-7	Cyclohexane	11	U
124-48-1	Dibromochloromethane	11	U
75-71-8	Dichlorodifluoromethane	11	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS07-10-12-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-014-040-1/3
Sample Volume :	4.39	Lab File ID :	F46671.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	5.54	Date Analyzed	08/01/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ AED 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	11	U
106-93-4	Ethylene Dibromide	11	U
76-13-1	Freon 113	11	U
98-82-8	Isopropylbenzene	11	U
79-20-9	Methyl Acetate	11	U
108-87-2	Methylcyclohexane	11	U
75-09-2	Methylene Chloride	11	U
100-42-5	Styrene	11	U
127-18-4	Tetrachloroethylene	11	U
108-88-3	Toluene	11	U
79-01-6	Trichloroethene	11	U
75-69-4	Trichlorofluoromethane	11	U
75-01-4	Vinyl Chloride	11	U
1330-20-7	Xylenes, Total	11	U
156-59-2	cis-1,2-Dichloroethene	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
1634-04-4	tert-butyl methyl ether	11	U
156-60-5	trans-1,2-dichloroethene	11	U
10061-02-6	trans-1,3-dichloropropene	11	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

GC-IS07-10-12-07C

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707147

Matrix (soil/water): SOIL Lab Sample ID: 707147-014-040-1/3

Sample wt/vol: 4.39 (g/ml) g Lab File ID: F46671.D

Level (low/med): LOW Date Recieved 07/25/2007

% Moisture: 5.54 Date Analyzed: 08/01/2007

GC Column: RTX VOA ID: 0.53 (mm) Dilution Factor: 1

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs Found: 1 Concentration Units (ug/L or ug/kg): ug/kg

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q
1	000075-09-2	Methylene Chloride	8.746	5.64	JN

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS08-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-015-043-1/3
Sample Volume :	4.66	Lab File ID :	F46672.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	21.16	Date Analyzed	08/01/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

AED 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
75-34-3	1,1-Dichloroethane	11	U
75-35-4	1,1-Dichloroethene	11	U
120-82-1	1,2,4-Trichlorobenzene	11	U
96-12-8	1,2-Dibromo-3-Chloropropane	11	U
95-50-1	1,2-Dichlorobenzene	11	U
107-06-2	1,2-Dichloroethane	11	U
78-87-5	1,2-Dichloropropane	11	U
541-73-1	1,3-Dichlorobenzene	11	U
106-46-7	1,4-Dichlorobenzene	11	U
78-93-3	2-Butanone	11	U
591-78-6	2-Hexanone	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
67-64-1	Acetone	33	J, ISL
71-43-2	Benzene	11	U
75-27-4	Bromodichloromethane	11	U
75-25-2	Bromoform	11	U
74-83-9	Bromomethane	11	U
75-15-0	Carbon Disulfide	11	U
56-23-5	Carbon Tetrachloride	11	U
108-90-7	Chlorobenzene	11	U
75-00-3	Chloroethane	11	U
67-66-3	Chloroform	11	U
74-87-3	Chloromethane	11	U
110-82-7	Cyclohexane	11	U
124-48-1	Dibromochloromethane	11	U
75-71-8	Dichlorodifluoromethane	11	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS08-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-015-043-1/3
Sample Volume :	4.66	Lab File ID :	F46672.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	21.16	Date Analyzed	08/01/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ HeD 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	11	U
106-93-4	Ethylene Dibromide	11	U
76-13-1	Freon 113	11	U
98-82-8	Isopropylbenzene	11	U
79-20-9	Methyl Acetate	11	U
108-87-2	Methylcyclohexane	11	U
75-09-2	Methylene Chloride	7.6	J
100-42-5	Styrene	11	U
127-18-4	Tetrachloroethylene	11	U
108-88-3	Toluene	11	U
79-01-6	Trichloroethene	11	U
75-69-4	Trichlorofluoromethane	11	U
75-01-4	Vinyl Chloride	11	U
1330-20-7	Xylenes, Total	11	U
156-59-2	cis-1,2-Dichloroethene	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
1634-04-4	tert-butyl methyl ether	11	U
156-60-5	trans-1,2-dichloroethene	11	U
10061-02-6	trans-1,3-dichloropropene	11	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

GC-IS08-0-1-07C

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707147

Matrix (soil/water): SOIL Lab Sample ID: 707147-015-043-1/3

Sample wt/vol: 4.66 (g/ml) g Lab File ID: F46672.D

Level (low/med): LOW Date Recieved 07/25/2007

% Moisture: 21.16 Date Analyzed: 08/01/2007

GC Column: RTX VOA ID: 0.53 (mm) Dilution Factor: 1

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs Found: 0 Concentration Units (ug/L or ug/kg): _____

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

for QA/QC

SAMPLE NO
GC-IS08-0-1-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-015-044-2/3RE
Sample Volume :	4.64	Lab File ID :	F46737.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	21.16	Date Analyzed	08/04/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓

ACD 9/13/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

R, RE

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	13	U
79-34-5	1,1,2,2-Tetrachloroethane	13	U
79-00-5	1,1,2-Trichloroethane	13	U
75-34-3	1,1-Dichloroethane	13	U
75-35-4	1,1-Dichloroethene	13	U
120-82-1	1,2,4-Trichlorobenzene	13	U
96-12-8	1,2-Dibromo-3-Chloropropane	13	U
95-50-1	1,2-Dichlorobenzene	13	U
107-06-2	1,2-Dichloroethane	13	U
78-87-5	1,2-Dichloropropane	13	U
541-73-1	1,3-Dichlorobenzene	13	U
106-46-7	1,4-Dichlorobenzene	13	U
78-93-3	2-Butanone	13	U
591-78-6	2-Hexanone	13	U
108-10-1	4-Methyl-2-Pentanone	13	U
67-64-1	Acetone	44	
71-43-2	Benzene	13	U
75-27-4	Bromodichloromethane	13	U
75-25-2	Bromoform	13	U
74-83-9	Bromomethane	13	U
75-15-0	Carbon Disulfide	13	U
56-23-5	Carbon Tetrachloride	13	U
108-90-7	Chlorobenzene	13	U
75-00-3	Chloroethane	13	U
67-66-3	Chloroform	13	U
74-87-3	Chloromethane	13	U
110-82-7	Cyclohexane	13	U
124-48-1	Dibromochloromethane	13	U
75-71-8	Dichlorodifluoromethane	13	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS08-0-1-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-015-044-2/3RE
Sample Volume :	4.64	Lab File ID :	F46737.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	21.16	Date Analyzed	08/04/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

AEP 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

R.RE

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	13	U
106-93-4	Ethylene Dibromide	13	U
76-13-1	Freon 113	13	U
98-82-8	Isopropylbenzene	13	U
79-20-9	Methyl Acetate	13	U
108-87-2	Methylcyclohexane	13	U
75-09-2	Methylene Chloride	14	
100-42-5	Styrene	13	U
127-18-4	Tetrachloroethylene	13	U
108-88-3	Toluene	13	U
79-01-6	Trichloroethene	13	U
75-69-4	Trichlorofluoromethane	13	U
75-01-4	Vinyl Chloride	13	U
1330-20-7	Xylenes, Total	13	U
156-59-2	cis-1,2-Dichloroethene	13	U
10061-01-5	cis-1,3-Dichloropropene	13	U
1634-04-4	tert-butyl methyl ether	13	U
156-60-5	trans-1,2-dichloroethene	13	U
10061-02-6	trans-1,3-dichloropropene	13	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

GC-IS08-0-1-07CRE

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707147

Matrix (soil/water): SOIL Lab Sample ID: 707147-015-044-2/3RE

Sample wt/vol: 4.64 (g/ml) g Lab File ID: F46737.D

Level (low/med): LOW Date Recieved 07/25/2007

% Moisture: 21.16 Date Analyzed: 08/04/2007

GC Column: RTX VOA ID: 0.53 (mm) Dilution Factor: 1

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs Found: 0 Concentration Units (ug/L or ug/kg): _____

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS08-6-8-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-016-046-1/3
Sample Volume :	4.45	Lab File ID :	F46675.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	10.88	Date Analyzed	08/01/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

K ACD 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
75-34-3	1,1-Dichloroethane	11	U
75-35-4	1,1-Dichloroethene	11	U
120-82-1	1,2,4-Trichlorobenzene	11	U
96-12-8	1,2-Dibromo-3-Chloropropane	11	U
95-50-1	1,2-Dichlorobenzene	11	U
107-06-2	1,2-Dichloroethane	11	U
78-87-5	1,2-Dichloropropane	11	U
541-73-1	1,3-Dichlorobenzene	11	U
106-46-7	1,4-Dichlorobenzene	11	U
78-93-3	2-Butanone	11	U
591-78-6	2-Hexanone	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
67-64-1	Acetone	11	U
71-43-2	Benzene	11	U
75-27-4	Bromodichloromethane	11	U
75-25-2	Bromoform	11	U
74-83-9	Bromomethane	11	U
75-15-0	Carbon Disulfide	11	U
56-23-5	Carbon Tetrachloride	11	U
108-90-7	Chlorobenzene	11	U
75-00-3	Chloroethane	11	U
67-66-3	Chloroform	11	U
74-87-3	Chloromethane	11	U
110-82-7	Cyclohexane	11	U
124-48-1	Dibromochloromethane	11	U
75-71-8	Dichlorodifluoromethane	11	U

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS08-6-8-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-016-046-1/3
Sample Volume :	4.45	Lab File ID :	F46675.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	10.88	Date Analyzed	08/01/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ AED 4/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	11	U
106-93-4	Ethylene Dibromide	11	U
76-13-1	Freon 113	11	U
98-82-8	Isopropylbenzene	11	U
79-20-9	Methyl Acetate	11	J
108-87-2	Methylcyclohexane	11	U
75-09-2	Methylene Chloride	8.0	J
100-42-5	Styrene	11	U
127-18-4	Tetrachloroethylene	11	U
108-88-3	Toluene	11	U
79-01-6	Trichloroethene	11	U
75-69-4	Trichlorofluoromethane	11	U
75-01-4	Vinyl Chloride	11	U
1330-20-7	Xylenes, Total	11	U
156-59-2	cis-1,2-Dichloroethene	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
1634-04-4	tert-butyl methyl ether	11	U
156-60-5	trans-1,2-dichloroethene	11	U
10061-02-6	trans-1,3-dichloropropene	11	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
GC-IS08-6-8-07C

Lab Name: GPL Laboratories, LLLP
Contract: CH2M Hill Inc
Lab Code: GPL
Case No.: NA
SAS No.: NA
SDG No.: 707147
Matrix (soil/water): SOIL
Lab Sample ID: 707147-016-046-1/3
Sample wt/vol: 4.45 (g/ml) g
Lab File ID: F46675.D
Level (low/med): LOW
Date Recieved 07/25/2007
% Moisture: 10.88
Date Analyzed: 08/01/2007
GC Column: RTX VOA
ID: 0.53 (mm)
Dilution Factor: 1
Soil Extract Volume: _____ (uL)
Soil Aliquot Volume: _____ (uL)

Number TICs Found: 1
Concentration Units (ug/L or ug/kg): ug/kg

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q
1		unknown	15.23	3.13	J

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

for QA/QC

SAMPLE NO
GC-IS08-6-8-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-016-047-2/3RE
Sample Volume :	4.54	Lab File ID :	F46738.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	10.88	Date Analyzed	08/04/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

AED 9/13/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
75-34-3	1,1-Dichloroethane	11	U
75-35-4	1,1-Dichloroethene	11	U
120-82-1	1,2,4-Trichlorobenzene	11	U
96-12-8	1,2-Dibromo-3-Chloropropane	11	U
95-50-1	1,2-Dichlorobenzene	11	U
107-06-2	1,2-Dichloroethane	11	U
78-87-5	1,2-Dichloropropane	11	U
541-73-1	1,3-Dichlorobenzene	11	U
106-46-7	1,4-Dichlorobenzene	11	U
78-93-3	2-Butanone	11	U
591-78-6	2-Hexanone	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
67-64-1	Acetone	11	U
71-43-2	Benzene	11	U
75-27-4	Bromodichloromethane	11	U
75-25-2	Bromoform	11	U
74-83-9	Bromomethane	11	U
75-15-0	Carbon Disulfide	11	U
56-23-5	Carbon Tetrachloride	11	U
108-90-7	Chlorobenzene	11	U
75-00-3	Chloroethane	11	U
67-66-3	Chloroform	11	U
74-87-3	Chloromethane	11	U
110-82-7	Cyclohexane	11	U
124-48-1	Dibromochloromethane	11	U
75-71-8	Dichlorodifluoromethane	11	U

R, RE

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-IS08-6-8-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707147-016-047-2/3RE
Sample Volume :	4.54	Lab File ID :	F46738.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec	10.88	Date Analyzed	08/04/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

AED 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

R, RE

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	11	U
106-93-4	Ethylene Dibromide	11	U
76-13-1	Freon 113	11	U
98-82-8	Isopropylbenzene	11	U
79-20-9	Methyl Acetate	11	U
108-87-2	Methylcyclohexane	11	U
75-09-2	Methylene Chloride	10	J
100-42-5	Styrene	11	U
127-18-4	Tetrachloroethylene	11	U
108-88-3	Toluene	11	U
79-01-6	Trichloroethene	11	U
75-69-4	Trichlorofluoromethane	11	U
75-01-4	Vinyl Chloride	11	U
1330-20-7	Xylenes, Total	11	U
156-59-2	cis-1,2-Dichloroethene	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
1634-04-4	tert-butyl methyl ether	11	U
156-60-5	trans-1,2-dichloroethene	11	U
10061-02-6	trans-1,3-dichloropropene	11	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
TRIP BLANK

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707147-017-081-1/2
Sample Volume :	5	Lab File ID :	F46676.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec		Date Analyzed	08/01/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ ACD 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/L

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
75-34-3	1,1-Dichloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
95-50-1	1,2-Dichlorobenzene	10	U
107-06-2	1,2-Dichloroethane	10	U
78-87-5	1,2-Dichloropropane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
78-93-3	2-Butanone	10	U
591-78-6	2-Hexanone	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
67-64-1	Acetone	10	U
71-43-2	Benzene	10	U
75-27-4	Bromodichloromethane	10	U
75-25-2	Bromoform	10	U
74-83-9	Bromomethane	10	U
75-15-0	Carbon Disulfide	10	U
56-23-5	Carbon Tetrachloride	10	U
108-90-7	Chlorobenzene	10	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	10	U
74-87-3	Chloromethane	10	U
110-82-7	Cyclohexane	10	U
124-48-1	Dibromochloromethane	10	U
75-71-8	Dichlorodifluoromethane	10	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
TRIP BLANK

✓ AOD 9/3/07

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707147-017-081-1/2
Sample Volume :	5	Lab File ID :	F46676.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec		Date Analyzed	08/01/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

Concentration Units (mg/L or mg/kg dry weight) : ug/L

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	10	U
106-93-4	Ethylene Dibromide	10	U
76-13-1	Freon 113	10	U
98-82-8	Isopropylbenzene	10	U
79-20-9	Methyl Acetate	10	U
108-87-2	Methylcyclohexane	10	U
75-09-2	Methylene Chloride	10	U
100-42-5	Styrene	10	U
127-18-4	Tetrachloroethylene	10	U
108-88-3	Toluene	10	U
79-01-6	Trichloroethene	10	U
75-69-4	Trichlorofluoromethane	10	U
75-01-4	Vinyl Chloride	10	U
1330-20-7	Xylenes, Total	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
1634-04-4	tert-butyl methyl ether	10	U
156-60-5	trans-1,2-dichloroethene	10	U
10061-02-6	trans-1,3-dichloropropene	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TRIP BLANK

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707147

Matrix (soil/water): WATER Lab Sample ID: 707147-017-081-1/2

Sample wt/vol: 5 (g/ml) ml Lab File ID: F46676.D

Level (low/med): LOW Date Recieved 07/25/2007

% Moisture: Date Analyzed: 08/01/2007

GC Column: RTX VOA ID: 0.53 (mm) Dilution Factor: 1

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs Found: 0 Concentration Units (ug/L or ug/kg):

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
TRIP BLANKRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707147-017-082-2/2RE
Sample Volume :	5	Lab File ID :	F46739.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec		Date Analyzed	08/04/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ ACP 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/L

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
75-34-3	1,1-Dichloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
95-50-1	1,2-Dichlorobenzene	10	U
107-06-2	1,2-Dichloroethane	10	U
78-87-5	1,2-Dichloropropane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
78-93-3	2-Butanone	10	U
591-78-6	2-Hexanone	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
67-64-1	Acetone	10	U
71-43-2	Benzene	10	U
75-27-4	Bromodichloromethane	10	U
75-25-2	Bromoform	10	U
74-83-9	Bromomethane	10	U
75-15-0	Carbon Disulfide	10	U
56-23-5	Carbon Tetrachloride	10	U
108-90-7	Chlorobenzene	10	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	10	U
74-87-3	Chloromethane	10	U
110-82-7	Cyclohexane	10	U
124-48-1	Dibromochloromethane	10	U
75-71-8	Dichlorodifluoromethane	10	U

RIRE

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
TRIP BLANKRE

VRED 9/3/07

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707147-017-082-2/2RE
Sample Volume :	5	Lab File ID :	F46739.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec		Date Analyzed	08/04/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

Concentration Units (mg/L or mg/kg dry weight) : ug/L

R.RE

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	10	U
106-93-4	Ethylene Dibromide	10	U
76-13-1	Freon 113	10	U
98-82-8	Isopropylbenzene	10	U
79-20-9	Methyl Acetate	10	U
108-87-2	Methylcyclohexane	10	U
75-09-2	Methylene Chloride	10	U
100-42-5	Styrene	10	U
127-18-4	Tetrachloroethylene	10	U
108-88-3	Toluene	10	U
79-01-6	Trichloroethene	10	U
75-69-4	Trichlorofluoromethane	10	U
75-01-4	Vinyl Chloride	10	U
1330-20-7	Xylenes, Total	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
1634-04-4	tert-butyl methyl ether	10	U
156-60-5	trans-1,2-dichloroethene	10	U
10061-02-6	trans-1,3-dichloropropene	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
TRIP BLANKRE

Lab Name: GPL Laboratories, LLLP
Contract: CH2M Hill Inc
Lab Code: GPL Case No.: NA
SAS No.: NA SDG No.: 707147
Matrix (soil/water): WATER
Lab Sample ID: 707147-017-082-2/2RE
Sample wt/vol: 5 (g/ml) ml
Lab File ID: F46739.D
Level (low/med): LOW
Date Recieved 07/25/2007
% Moisture:
Date Analyzed: 08/04/2007
GC Column: RTX VOA ID: 0.53 (mm)
Dilution Factor: 1
Soil Extract Volume: (uL)
Soil Aliquot Volume: (uL)

Number TICs Found: 1
Concentration Units (ug/L or ug/kg): ug/L

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q
1		unknown	8.73	9.53	J

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
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Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707147-018-083-1/2
Sample Volume :	5	Lab File ID :	F46677.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec		Date Analyzed	08/01/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

ACD 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/L

R,RE

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
75-34-3	1,1-Dichloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
95-50-1	1,2-Dichlorobenzene	10	U
107-06-2	1,2-Dichloroethane	10	U
78-87-5	1,2-Dichloropropane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
78-93-3	2-Butanone	10	U
591-78-6	2-Hexanone	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
67-64-1	Acetone	10	U
71-43-2	Benzene	10	U
75-27-4	Bromodichloromethane	10	U
75-25-2	Bromoform	10	U
74-83-9	Bromomethane	10	U
75-15-0	Carbon Disulfide	10	U
56-23-5	Carbon Tetrachloride	10	U
108-90-7	Chlorobenzene	10	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	10	U
74-87-3	Chloromethane	10	U
110-82-7	Cyclohexane	10	U
124-48-1	Dibromochloromethane	10	U
75-71-8	Dichlorodifluoromethane	10	U

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
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Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707147-018-083-1/2
Sample Volume :	5	Lab File ID :	F46677.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec		Date Analyzed	08/01/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ AOD 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/L

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	10	U
106-93-4	Ethylene Dibromide	10	U
76-13-1	Freon 113	10	U
98-82-8	Isopropylbenzene	10	U
79-20-9	Methyl Acetate	10	U
108-87-2	Methylcyclohexane	10	U
75-09-2	Methylene Chloride	10	U
100-42-5	Styrene	10	U
127-18-4	Tetrachloroethylene	10	U
108-88-3	Toluene	10	U
79-01-6	Trichloroethene	10	U
75-69-4	Trichlorofluoromethane	10	U
75-01-4	Vinyl Chloride	10	U
1330-20-7	Xylenes, Total	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
1634-04-4	tert-butyl methyl ether	10	U
156-60-5	trans-1,2-dichloroethene	10	U
10061-02-6	trans-1,3-dichloropropene	10	U

R, RE

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
HOLDING BLANK

Lab Name: GPL Laboratories, LLLP
Contract: CH2M Hill Inc
Lab Code: GPL Case No.: NA
SAS No.: NA SDG No.: 707147
Matrix (soil/water): WATER
Lab Sample ID: 707147-018-083-1/2
Sample wt/vol: 5 (g/ml) ml
Lab File ID: F46677.D
Level (low/med): LOW
Date Recieved 07/25/2007
% Moisture:
Date Analyzed: 08/01/2007
GC Column: RTX VOA ID: 0.53 (mm)
Dilution Factor: 1
Soil Extract Volume: (uL)
Soil Aliquot Volume: (uL)

Number TICs Found: 0
Concentration Units (ug/L or ug/kg):

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
HOLDING BLANKRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707147-018-084-2/2RE
Sample Volume :	5	Lab File ID :	F46755.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec		Date Analyzed	08/06/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

ACD 9/13/07

Concentration Units (mg/L or mg/kg dry weight) : ug/L

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
75-34-3	1,1-Dichloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
95-50-1	1,2-Dichlorobenzene	10	U
107-06-2	1,2-Dichloroethane	10	U
78-87-5	1,2-Dichloropropane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
78-93-3	2-Butanone	10	U
591-78-6	2-Hexanone	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
67-64-1	Acetone	10	U
71-43-2	Benzene	10	U
75-27-4	Bromodichloromethane	10	U
75-25-2	Bromoform	10	U
74-83-9	Bromomethane	10	U
75-15-0	Carbon Disulfide	10	U
56-23-5	Carbon Tetrachloride	10	U
108-90-7	Chlorobenzene	10	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	10	U
74-87-3	Chloromethane	10	U
110-82-7	Cyclohexane	10	U
124-48-1	Dibromochloromethane	10	U
75-71-8	Dichlorodifluoromethane	10	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
HOLDING BLANKRE

✓ AEP 9/3/07

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707147-018-084-2/2RE
Sample Volume :	5	Lab File ID :	F46755.D
Level :	Low	Date Received	07/25/2007
% Moisture: not dec		Date Analyzed	08/06/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

Concentration Units (mg/L or mg/kg dry weight) : ug/L

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	10	U
106-93-4	Ethylene Dibromide	10	U
76-13-1	Freon 113	10	U
98-82-8	Isopropylbenzene	10	U
79-20-9	Methyl Acetate	10	U
108-87-2	Methylcyclohexane	10	U
75-09-2	Methylene Chloride	10	U
100-42-5	Styrene	10	U
127-18-4	Tetrachloroethylene	10	U
108-88-3	Toluene	10	U
79-01-6	Trichloroethene	10	U
75-69-4	Trichlorofluoromethane	10	U
75-01-4	Vinyl Chloride	10	U
1330-20-7	Xylenes, Total	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
1634-04-4	tert-butyl methyl ether	10	U
156-60-5	trans-1,2-dichloroethene	10	U
10061-02-6	trans-1,3-dichloropropene	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HOLDING BLANKRE

Lab Name: GPL Laboratories, LLLP
Contract: CH2M Hill Inc
Lab Code: GPL Case No.: NA
SAS No.: NA SDG No.: 707147
Matrix (soil/water): WATER
Lab Sample ID: 707147-018-084-2/2RE
Sample wt/vol: 5 (g/ml) ml
Lab File ID: F46755.D
Level (low/med): LOW
Date Recieved 07/25/2007
% Moisture:
Date Analyzed: 08/06/2007
GC Column: RTX VOA ID: 0.53 (mm)
Dilution Factor: 1
Soil Extract Volume: (uL)
Soil Aliquot Volume: (uL)

Number TICs Found: 2
Concentration Units (ug/L or ug/kg): ug/L

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q
1		unknown	23.56	3.75	J
2		unknown	8.75	16	J

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BLK99436

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BLK99436
Sample Volume :	5	Lab File ID :	F46643.D
Level :	Low	Date Received	
% Moisture: not dec		Date Analyzed	07/31/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
75-34-3	1,1-Dichloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
95-50-1	1,2-Dichlorobenzene	10	U
107-06-2	1,2-Dichloroethane	10	U
78-87-5	1,2-Dichloropropane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
78-93-3	2-Butanone	10	U
591-78-6	2-Hexanone	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
67-64-1	Acetone	10	U
71-43-2	Benzene	10	U
75-27-4	Bromodichloromethane	10	U
75-25-2	Bromoform	10	U
74-83-9	Bromomethane	10	U
75-15-0	Carbon Disulfide	10	U
56-23-5	Carbon Tetrachloride	10	U
108-90-7	Chlorobenzene	10	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	10	U
74-87-3	Chloromethane	10	U
110-82-7	Cyclohexane	10	U
124-48-1	Dibromochloromethane	10	U
75-71-8	Dichlorodifluoromethane	10	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BLK99436

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BLK99436
Sample Volume :	5	Lab File ID :	F46643.D
Level :	Low	Date Received	
% Moisture: not dec		Date Analyzed	07/31/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	10	U
106-93-4	Ethylene Dibromide	10	U
76-13-1	Freon 113	10	U
98-82-8	Isopropylbenzene	10	U
79-20-9	Methyl Acetate	10	U
108-87-2	Methylcyclohexane	10	U
75-09-2	Methylene Chloride	10	U
100-42-5	Styrene	10	U
127-18-4	Tetrachloroethylene	10	U
108-88-3	Toluene	10	U
79-01-6	Trichloroethene	10	U
75-69-4	Trichlorofluoromethane	10	U
75-01-4	Vinyl Chloride	10	U
1330-20-7	Xylenes, Total	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
1634-04-4	tert-butyl methyl ether	10	U
156-60-5	trans-1,2-dichloroethene	10	U
10061-02-6	trans-1,3-dichloropropene	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BLK99436

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707147

Matrix (soil/water): SOIL Lab Sample ID: BLK99436

Sample wt/vol: 5 (g/ml) g Lab File ID: F46643.D

Level (low/med): LOW Date Recieved

% Moisture: Date Analyzed: 07/31/2007

GC Column: RTX VOA ID: 0.53 (mm) Dilution Factor: 1

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs Found: 0 Concentration Units (ug/L or ug/kg):

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BLK99458

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BLK99458
Sample Volume :	5	Lab File ID :	F46664.D
Level :	Low	Date Received	
% Moisture: not dec		Date Analyzed	08/01/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
75-34-3	1,1-Dichloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
95-50-1	1,2-Dichlorobenzene	10	U
107-06-2	1,2-Dichloroethane	10	U
78-87-5	1,2-Dichloropropane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
78-93-3	2-Butanone	10	U
591-78-6	2-Hexanone	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
67-64-1	Acetone	10	U
71-43-2	Benzene	10	U
75-27-4	Bromodichloromethane	10	U
75-25-2	Bromoform	10	U
74-83-9	Bromomethane	10	U
75-15-0	Carbon Disulfide	10	U
56-23-5	Carbon Tetrachloride	10	U
108-90-7	Chlorobenzene	10	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	10	U
74-87-3	Chloromethane	10	U
110-82-7	Cyclohexane	10	U
124-48-1	Dibromochloromethane	10	U
75-71-8	Dichlorodifluoromethane	10	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BLK99458

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BLK99458
Sample Volume :	5	Lab File ID :	F46664.D
Level :	Low	Date Received	
% Moisture: not dec		Date Analyzed	08/01/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	10	U
106-93-4	Ethylene Dibromide	10	U
76-13-1	Freon 113	10	U
98-82-8	Isopropylbenzene	10	U
79-20-9	Methyl Acetate	10	U
108-87-2	Methylcyclohexane	10	U
75-09-2	Methylene Chloride	10	U
100-42-5	Styrene	10	U
127-18-4	Tetrachloroethylene	10	U
108-88-3	Toluene	10	U
79-01-6	Trichloroethene	10	U
75-69-4	Trichlorofluoromethane	10	U
75-01-4	Vinyl Chloride	10	U
1330-20-7	Xylenes, Total	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
1634-04-4	tert-butyl methyl ether	10	U
156-60-5	trans-1,2-dichloroethene	10	U
10061-02-6	trans-1,3-dichloropropene	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BLK99458

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707147

Matrix (soil/water): SOIL Lab Sample ID: BLK99458

Sample wt/vol: 5 (g/ml) g Lab File ID: F46664.D

Level (low/med): LOW Date Recieved

% Moisture: Date Analyzed: 08/01/2007

GC Column: RTX VOA ID: 0.53 (mm) Dilution Factor: 1

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs Found: 0 Concentration Units (ug/L or ug/kg):

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
BLK99520

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BLK99520
Sample Volume :	5	Lab File ID :	F46664.D
Level :	Low	Date Received	
% Moisture: not dec		Date Analyzed	08/01/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

Concentration Units (mg/L or mg/kg dry weight) : ug/L

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
75-34-3	1,1-Dichloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
95-50-1	1,2-Dichlorobenzene	10	U
107-06-2	1,2-Dichloroethane	10	U
78-87-5	1,2-Dichloropropane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
78-93-3	2-Butanone	10	U
591-78-6	2-Hexanone	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
67-64-1	Acetone	10	U
71-43-2	Benzene	10	U
75-27-4	Bromodichloromethane	10	U
75-25-2	Bromoform	10	U
74-83-9	Bromomethane	10	U
75-15-0	Carbon Disulfide	10	U
56-23-5	Carbon Tetrachloride	10	U
108-90-7	Chlorobenzene	10	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	10	U
74-87-3	Chloromethane	10	U
110-82-7	Cyclohexane	10	U
124-48-1	Dibromochloromethane	10	U
75-71-8	Dichlorodifluoromethane	10	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BLK99520

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BLK99520
Sample Volume :	5	Lab File ID :	F46664.D
Level :	Low	Date Received	
% Moisture: not dec		Date Analyzed	08/01/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

Concentration Units (mg/L or mg/kg dry weight) : ug/L

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	10	U
106-93-4	Ethylene Dibromide	10	U
76-13-1	Freon 113	10	U
98-82-8	Isopropylbenzene	10	U
79-20-9	Methyl Acetate	10	U
108-87-2	Methylcyclohexane	10	U
75-09-2	Methylene Chloride	10	U
100-42-5	Styrene	10	U
127-18-4	Tetrachloroethylene	10	U
108-88-3	Toluene	10	U
79-01-6	Trichloroethene	10	U
75-69-4	Trichlorofluoromethane	10	U
75-01-4	Vinyl Chloride	10	U
1330-20-7	Xylenes, Total	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
1634-04-4	tert-butyl methyl ether	10	U
156-60-5	trans-1,2-dichloroethene	10	U
10061-02-6	trans-1,3-dichloropropene	10	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BLK99544

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BLK99544
Sample Volume :	5	Lab File ID :	F46726.D
Level :	Low	Date Received	
% Moisture: not dec		Date Analyzed	08/03/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
75-34-3	1,1-Dichloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
95-50-1	1,2-Dichlorobenzene	10	U
107-06-2	1,2-Dichloroethane	10	U
78-87-5	1,2-Dichloropropane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
78-93-3	2-Butanone	10	U
591-78-6	2-Hexanone	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
67-64-1	Acetone	10	U
71-43-2	Benzene	10	U
75-27-4	Bromodichloromethane	10	U
75-25-2	Bromoform	10	U
74-83-9	Bromomethane	10	U
75-15-0	Carbon Disulfide	10	U
56-23-5	Carbon Tetrachloride	10	U
108-90-7	Chlorobenzene	10	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	10	U
74-87-3	Chloromethane	10	U
110-82-7	Cyclohexane	10	U
124-48-1	Dibromochloromethane	10	U
75-71-8	Dichlorodifluoromethane	10	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BLK99544

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BLK99544
Sample Volume :	5	Lab File ID :	F46726.D
Level :	Low	Date Received	
% Moisture: not dec		Date Analyzed	08/03/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	10	U
106-93-4	Ethylene Dibromide	10	U
76-13-1	Freon 113	10	U
98-82-8	Isopropylbenzene	10	U
79-20-9	Methyl Acetate	10	U
108-87-2	Methylcyclohexane	10	U
75-09-2	Methylene Chloride	10	U
100-42-5	Styrene	10	U
127-18-4	Tetrachloroethylene	10	U
108-88-3	Toluene	10	U
79-01-6	Trichloroethene	10	U
75-69-4	Trichlorofluoromethane	10	U
75-01-4	Vinyl Chloride	10	U
1330-20-7	Xylenes, Total	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
1634-04-4	tert-butyl methyl ether	10	U
156-60-5	trans-1,2-dichloroethene	10	U
10061-02-6	trans-1,3-dichloropropene	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
BLK99544

Lab Name: GPL Laboratories, LLLP
Contract: CH2M Hill Inc
Lab Code: GPL
Case No.: NA
SAS No.: NA
SDG No.: 707147
Matrix (soil/water): SOIL
Lab Sample ID: BLK99544
Sample wt/vol: 5 (g/ml) g
Lab File ID: F46726.D
Level (low/med): LOW
Date Recieved
% Moisture:
Date Analyzed: 08/03/2007
GC Column: RTX VOA ID: 0.53 (mm)
Dilution Factor: 1
Soil Extract Volume: (uL)
Soil Aliquot Volume: (uL)

Number TICs Found: 1
Concentration Units (ug/L or ug/kg): ug/kg

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q
1		unknown	23.53	4.39	J

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BLK99564

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BLK99564
Sample Volume :	5	Lab File ID :	F46726.D
Level :	Low	Date Received	
% Moisture: not dec		Date Analyzed	08/03/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

Concentration Units (mg/L or mg/kg dry weight) : ug/L

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
75-34-3	1,1-Dichloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
95-50-1	1,2-Dichlorobenzene	10	U
107-06-2	1,2-Dichloroethane	10	U
78-87-5	1,2-Dichloropropane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
78-93-3	2-Butanone	10	U
591-78-6	2-Hexanone	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
67-64-1	Acetone	10	U
71-43-2	Benzene	10	U
75-27-4	Bromodichloromethane	10	U
75-25-2	Bromoform	10	U
74-83-9	Bromomethane	10	U
75-15-0	Carbon Disulfide	10	U
56-23-5	Carbon Tetrachloride	10	U
108-90-7	Chlorobenzene	10	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	10	U
74-87-3	Chloromethane	10	U
110-82-7	Cyclohexane	10	U
124-48-1	Dibromochloromethane	10	U
75-71-8	Dichlorodifluoromethane	10	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BLK99564

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Case No. :		SDG NO :	707147
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BLK99564
Sample Volume :	5	Lab File ID :	F46726.D
Level :	Low	Date Received	
% Moisture: not dec		Date Analyzed	08/03/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

Concentration Units (mg/L or mg/kg dry weight) : ug/L

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	10	U
106-93-4	Ethylene Dibromide	10	U
76-13-1	Freon 113	10	U
98-82-8	Isopropylbenzene	10	U
79-20-9	Methyl Acetate	10	U
108-87-2	Methylcyclohexane	10	U
75-09-2	Methylene Chloride	10	U
100-42-5	Styrene	10	U
127-18-4	Tetrachloroethylene	10	U
108-88-3	Toluene	10	U
79-01-6	Trichloroethene	10	U
75-69-4	Trichlorofluoromethane	10	U
75-01-4	Vinyl Chloride	10	U
1330-20-7	Xylenes, Total	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
1634-04-4	tert-butyl methyl ether	10	U
156-60-5	trans-1,2-dichloroethene	10	U
10061-02-6	trans-1,3-dichloropropene	10	U

Surrogate Recovery Summary

Matrix : SOIL Analytical Method : CLP_OLM04.3_ SDG No : 707147

Surrogate	BR4FBZ	BZMED8	DCA12D4
Lower QC Limits			
Upper QC Limits			
Sample ID			
BLK99544	100	101	101
BLK99544	104	108	112
GC-IS01-0-1-07CRE	86	214 *	151 *
GC-IS02-0-1-07CRE	91	139 *	116
GC-IS02-5-10-07CRE	123 *	134	140 *
GC-IS03-5-8-07CRE	104	119	122 *
GC-IS05-0-1-07CRE	99	142 *	128 *
GC-IS05-2-4-07CRE	100	164 *	136 *
GC-IS06-0-1-07CRE	88	146 *	122 *
GC-IS06-3-5-07CRE	97	105	110
GC-IS08-0-1-07CRE	92	113	128 *
GC-IS08-6-8-07CRE	94	104	111

R,RE

All CRRE will require R,RE

Initial surr recovery better than reanalyses

* Value outside of QC Limts

BR4FBZ = 4-Bromofluorobenzene BZMED8 = Toluene-D8 DCA12D4 = 1,2-Dichloroethane-d4

Surrogate Recovery Summary

Matrix : WATER Analytical Method : CLP_OLM04.3_VO/ SDG No : 707147

Surrogate	BR4FBZ	BZMED8	DCA12D4
Lower QC Limits	86	88	76
Upper QC Limits	115	110	114
Sample ID			
BKS99520	94	93	97
BLK99520	102	106	113
HOLDING BLANK	~~142 *~~	~~142 *~~	~~169 *~~ R, RE
TRIP BLANK	108	107	123 *

* Value outside of QC Limts

BR4FBZ = 4-Bromofluorobenzene BZMED8 = Toluene-D8 DCA12D4 = 1,2-Dichloroethane-d4

Surrogate Recovery Summary

Matrix : WATER

Analytical Method : CLP_OLM04.3_VO/

SDG No : 707147

Surrogate	BR4FBZ	BZMED8	DCA12D4
Lower QC Limits	86	88	76
Upper QC Limits	115	110	114
Sample ID			
BKS99564	100	101	101
BLK99564	104	108	112
TRIP BLANKRE	~~122 *~~	~~127 *~~	128 *

R, RE

* Value outside of QC Limts

BR4FBZ = 4-Bromofluorobenzene BZMED8 = Toluene-D8 DCA12D4 = 1,2-Dichloroethane-d4

Surrogate Recovery Summary

Matrix : WATER

Analytical Method : CLP_OLM04.3_VO/

SDG No : 707147

Surrogate	BR4FBZ	BZMED8	DCA12D4
Lower QC Limits	86	88	76
Upper QC Limits	115	110	114
Sample ID			
BKS99565	90	94	93
BLK99565	101	109	106
HOLDING BLANKRE	117 *	132 *	150 *

* Value outside of QC Limts

BR4FBZ = 4-Bromofluorobenzene BZMED8 = Toluene-D8 DCA12D4 = 1,2-Dichloroethane-d4

GPL Laboratories

LCS SUMMARY

SAMPLE NO
BKS99436

Lab Name : GPL Laboratories
Lab Code : GPL
Matrix : SOIL
Method : CLP_OLM04.3_VOA

Contract. : MILCON Area Investigations - CTO-169
SDG NO : 707147
Lab Sample ID : BKS99436
Analysis Date : 07/31/2007

COMPOUND	SPIKE ADDED (ug/kg)	BLANK CONCENTRATION (ug/kg)	LCS CONCENTRATION (ug/kg)	LCS % REC	QC LIMTS
1,1,1-Trichloroethane	50	0	53	106	65-130
1,1-Dichloroethene	50	0	50	100	36-170
1,2-Dichloroethane	50	0	52	104	60-138
Benzene	50	0	52	104	58-128
Bromodichloromethane	50	0	53	106	57-126
Bromoform	50	0	55	110	65-142
Carbon Tetrachloride	50	0	51	102	61-133
Chloroform	50	0	52	104	64-129
Dibromochloromethane	50	0	55	110	69-118
Trichloroethene	50	0	51	102	16-189
Vinyl Chloride	50	0	49	98	31-154

* Values Outside of QC Limits.

Spike recovery : 0 out of 11 outside limits

GPL Laboratories

LCS SUMMARY

SAMPLE NO
BKS99458

Lab Name : GPL Laboratories
Lab Code : GPL
Matrix : SOIL
Method : CLP_OLM04.3_VOA

Contract. : MILCON Area Investigations - CTO-169
SDG NO : 707147
Lab Sample ID : BKS99458
Analysis Date : 08/01/2007

COMPOUND	SPIKE ADDED (ug/kg)	BLANK CONCENTRATION (ug/kg)	LCS CONCENTRATION (ug/kg)	LCS % REC	QC LIMTS
1,1,1-Trichloroethane	50	0	53	106	65-130
1,1-Dichloroethene	50	0	52	104	36-170
1,2-Dichloroethane	50	0	54	108	60-138
Benzene	50	0	52	104	58-128
Bromodichloromethane	50	0	52	104	57-126
Bromoform	50	0	54	108	65-142
Carbon Tetrachloride	50	0	51	102	61-133
Chloroform	50	0	53	106	64-129
Dibromochloromethane	50	0	51	102	69-118
Trichloroethene	50	0	49	98	16-189
Vinyl Chloride	50	0	77	154	31-154

* Values Outside of QC Limits.

Spike recovery : 0 out of 11 outside limits

GPL Laboratories

LCS SUMMARY

SAMPLE NO
BKS99520

Lab Name : GPL Laboratories
Lab Code : GPL
Matrix : WATER
Method : CLP_OLM04.3_VOA

Contract. : MILCON Area Investigations - CTO-169
SDG NO : 707147
Lab Sample ID : BKS99520
Analysis Date : 08/01/2007

COMPOUND	SPIKE ADDED (ug/L)	BLANK CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMTS
1,1,1-Trichloroethane	50	0	53	106	74-118
1,1-Dichloroethene	50	0	52	104	50-116
1,2-Dichloroethane	50	0	54	108	82-118
Benzene	50	0	52	104	75-115
Bromodichloromethane	50	0	52	104	76-121
Bromoform	50	0	54	108	70-121
Carbon Tetrachloride	50	0	51	102	76-120
Chlorobenzene	50	0	53	106	60-133
Chloroform	50	0	53	106	75-118
Dibromochloromethane	50	0	51	102	80-117
Toluene	50	0	57	114	59-139
Trichloroethene	50	0	49	98	65-117
Vinyl Chloride	50	0	77	154 *	50-136

* Values Outside of QC Limits.

Spike recovery : 1 out of 13 outside limits

GPL Laboratories

LCS SUMMARY

SAMPLE NO
BLK99544

Lab Name : GPL Laboratories
Lab Code : GPL
Matrix : SOIL
Method : CLP_OLM04.3_VOA

Contract. : MILCON Area Investigations - CTO-169
SDG NO : 707147
Lab Sample ID : BKS99544
Analysis Date : 08/04/2007

COMPOUND	SPIKE ADDED (ug/kg)	BLANK CONCENTRATION (ug/kg)	LCS CONCENTRATION (ug/kg)	LCS % REC	QC LIMTS
1,1,1-Trichloroethane	50	0	51	102	65-130
1,1-Dichloroethene	50	0	52	104	36-170
1,2-Dichloroethane	50	0	50	100	60-138
Benzene	50	0	51	102	58-128
Bromodichloromethane	50	0	51	102	57-126
Bromoform	50	0	52	104	65-142
Carbon Tetrachloride	50	0	52	104	61-133
Chloroform	50	0	50	100	64-129
Dibromochloromethane	50	0	50	100	69-118
Trichloroethene	50	0	50	100	16-189
Vinyl Chloride	50	0	50	100	31-154

* Values Outside of QC Limits.

Spike recovery : 0 out of 11 outside limits

GPL Laboratories

LCS SUMMARY

SAMPLE NO
BKS99564

Lab Name : GPL Laboratories
Lab Code : GPL
Matrix : WATER
Method : CLP_OLM04.3_VOA

Contract. : MILCON Area Investigations - CTO-169
SDG NO : 707147
Lab Sample ID : BKS99564
Analysis Date : 08/04/2007

COMPOUND	SPIKE ADDED (ug/L)	BLANK CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMTS
1,1,1-Trichloroethane	50	0	51	102	74-118
1,1-Dichloroethene	50	0	52	104	50-116
1,2-Dichloroethane	50	0	50	100	82-118
Benzene	50	0	51	102	75-115
Bromodichloromethane	50	0	51	102	76-121
Bromoform	50	0	52	104	70-121
Carbon Tetrachloride	50	0	52	104	76-120
Chlorobenzene	50	0	52	104	60-133
Chloroform	50	0	50	100	75-118
Dibromochloromethane	50	0	50	100	80-117
Toluene	50	0	52	104	59-139
Trichloroethene	50	0	50	100	65-117
Vinyl Chloride	50	0	50	100	50-136

* Values Outside of QC Limits.

Spike recovery : 0 out of 13 outside limits

GPL Laboratories

LCS SUMMARY

SAMPLE NO
BKS99565

Lab Name : GPL Laboratories
Lab Code : GPL
Matrix : WATER
Method : CLP_OLM04.3_VOA

Contract. : MILCON Area Investigations - CTO-169
SDG NO : 707147
Lab Sample ID : BKS99565
Analysis Date : 08/06/2007

COMPOUND	SPIKE ADDED (ug/L)	BLANK CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMTS
1,1,1-Trichloroethane	50	0	54	108	74-118
1,1-Dichloroethene	50	0	51	102	50-116
1,2-Dichloroethane	50	0	51	102	82-118
Benzene	50	0	53	106	75-115
Bromodichloromethane	50	0	52	104	76-121
Bromoform	50	0	57	114	70-121
Carbon Tetrachloride	50	0	52	104	76-120
Chlorobenzene	50	0	53	106	60-133
Chloroform	50	0	51	102	75-118
Dibromochloromethane	50	0	55	110	80-117
Toluene	50	0	68	136	59-139
Trichloroethene	50	0	53	106	65-117
Vinyl Chloride	50	0	40	80	50-136

* Values Outside of QC Limits.

Spike recovery : 0 out of 13 outside limits

GPL Laboratories

GPL
FORM 4
VOLATILE METHOD BLANK SUMMARY

SAMPLE NO
BLK99436

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707147
Lab File ID :	F46643.D	SDG NO :	707147
Date Analyzed	07/31/2007	Lab Sample ID :	BLK99436
GC Column :	RTX_VOA ID. 0.25	Time Analyzed :	11:42

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES,MS AND MSD :

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
BKS99436	BKS99436	F46644.D	12:32
GC-IS01-0-1-07C	707147-001-001-1/3	F46651.D	16:46
GC-IS01-5-8-07C	707147-002-004-1/3	F46652.D	17:22
GC-IS02-0-1-07C	707147-003-007-1/3	F46653.D	17:58
GC-IS02-5-10-07C	707147-004-010-1/3	F46654.D	18:35
GC-IS03-0-1-07C	707147-005-013-1/3	F46655.D	19:11
GC-IS03-5-8-07C	707147-006-016-1/3	F46656.D	19:47
GC-IS04-0-1-07C	707147-007-019-1/3	F46657.D	20:23
GC-IS04-6-8-07C	707147-008-022-1/3	F46658.D	20:59

SEMIVOLATILE ORGANICS

GPL Laboratories

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-ISO9-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707158-001-013-1/1
Sample Volume :	30.02	Lab File ID :	D43490.D
% Moisture:	16.36	Date Received	07/26/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	08/02/2007
Extract Volume:	.5 mL	Date Analyzed	08/13/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

AED 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
92-52-4	1,1- Biphenyl	400	U
108-60-1	2,2-Oxybis(1-chloropropane)	400	U
95-95-4	2,4,5-Trichlorophenol	1000	U
88-06-2	2,4,6-Trichlorophenol	400	U
120-83-2	2,4-Dichlorophenol	400	U
105-67-9	2,4-Dimethylphenol	400	U
51-28-5	2,4-Dinitrophenol	1000	U
121-14-2	2,4-Dinitrotoluene	400	U
606-20-2	2,6-Dinitrotoluene	400	U
532-27-4	2-Chloroacetophenone - CN	400	U
2698-41-1	2-Chlorobenzalmalononitrile	400	U
91-58-7	2-Chloronaphthalene	400	U
95-57-8	2-Chlorophenol	400	U
91-57-6	2-Methylnaphthalene	400	U
88-74-4	2-Nitroaniline	1000	U
88-75-5	2-Nitrophenol	400	U
95-48-7	2-methylphenol	400	U
91-94-1	3,3-Dichlorobenzidine	400	U
99-09-2	3-Nitroaniline	1000	U
534-52-1	4,6-dinitro-2-methyl phenol	1000	U
101-55-3	4-Bromophenyl-phenylether	400	U
106-47-8	4-Chloroaniline	400	U
7005-72-3	4-Chlorophenyl Phenyl Ether	400	U
100-01-6	4-Nitroaniline	1000	U
100-02-7	4-Nitrophenol	1000	U
59-50-7	4-chloro-3-methylphenol	400	U
106-44-5	4-methylphenol	400	U
83-32-9	Acenaphthene	400	U
208-96-8	Acenaphthylene	400	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-ISO9-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707158-001-013-1/1
Sample Volume :	30.02	Lab File ID :	D43490.D
% Moisture:	16.36	Date Received	07/26/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	08/02/2007
Extract Volume:	.5 mL	Date Analyzed	08/13/2007
Injection Volume :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

✓ AED 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
98-86-2	Acetophenone	400	U
120-12-7	Anthracene	400	U
1912-24-9	Atrazine	400	U
100-52-7	Benzaldehyde	400	U
56-55-3	Benzo(a)anthracene	400	U
50-32-8	Benzo(a)pyrene	400	U
205-99-2	Benzo(b)fluoranthene	400	U
191-24-2	Benzo(g,h,i)perylene	400	U
207-08-9	Benzo(k)fluoranthene	400	U
85-68-7	Benzyl Butyl Phthalate	400	U
105-60-2	Caprolactam	400	U
86-74-8	Carbazole	400	U
218-01-9	Chrysene	400	U
53-70-3	Dibenz(a,h)Anthracene	400	U
132-64-9	Dibenzofuran	400	U
84-66-2	Diethyl Phthalate	400	U
131-11-3	Dimethyl Phthalate	400	U
206-44-0	Fluoranthene	400	U
86-73-7	Fluorene	400	U
118-74-1	Hexachlorobenzene	400	U
87-68-3	Hexachlorobutadiene	400	U
77-47-4	Hexachlorocyclopentadiene	400	U
67-72-1	Hexachloroethane	400	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	400	U
78-59-1	Isophorone	400	U
91-20-3	Naphthalene	400	U
98-95-3	Nitrobenzene	400	U
87-86-5	Pentachlorophenol	1000	U
85-01-8	Phenanthrene	400	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-ISO9-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707158-001-013-1/1
Sample Volume :	30.02	Lab File ID :	D43490.D
% Moisture:	16.36	Date Received	07/26/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	08/02/2007
Extract Volume:	.5 mL	Date Analyzed	08/13/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

✓ ACD 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
108-95-2	Phenol	400	U
129-00-0	Pyrene	400	U
111-91-1	bis(2-chloroethoxy) methane	400	U
111-44-4	bis(2-chloroethyl) ether	400	U
117-81-7	bis(2-ethylhexyl) phthalate	390	J
84-74-2	di-n-Butyl Phthalate	77	J
117-84-0	di-n-Octyl Phthalate	400	U
621-64-7	n-Nitrosodi-n-Propylamine	400	U
86-30-6	n-Nitrosodiphenylamine	400	U

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
GC-ISO9-0-1-07C

Lab Name: GPL Laboratories, LLLP
Contract: CH2M Hill Inc
Lab Code: GPL Case No.: NA
SAS No.: NA SDG No.: 707158
Matrix (soil/water): SOIL
Lab Sample ID: 707158-001-013-1/1
Sample wt/vol: 30.02 (g/ml) g
Lab File ID: D43490.D
Level (low/med): LOW
Date Recieved 07/26/2007
% Moisture: 16.36 Decanted: (Y/N) N
Date Analyzed: 08/13/2007
Concentrated Extract Volume: 500 (uL)
Dilution Factor: 1
Injection Volume: 2 (uL)
Soil Aliquot Volume: 2 (uL)
GPC Cleanup (Y/N): Y pH:

Number TICs Found: 12
Concentration Units (ug/L or ug/kg): ug/kg

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q
1	000057-10-3	n-Hexadecanoic acid	20.35	210	JN
2	000057-11-4	Octadecanoic acid	21.31	180	JN
3	000112-70-9	1-Tridecanol	16.71	810	JN
4	002156-97-0	Dodecyl acrylate	18.69	80	JN
5	007773-83-3	1-Docosanethiol	22.82	140	JN
6	031158-91-5	Hexadecanoic acid, 1,1-	21.41	130	JN
7		unknown	10.02	270	J
8		unknown	10.23	640	J
9		unknown	10.37	86	J
10		unknown	10.53	100	J
11		unknown	22.26	100	J
12		unknown	33.72	100	J

GPL LABORATORIES

Client: CH2M HILL
SDG: 707158
Sample ID: GC-ISO9-0-1-07C

Retention Time	CAS Number	Alkane Compound	Est. Conc. (ug/KG)
10.46		Alkane Type 4	120
25.53		Alkane Type 4	90

*NOTE Alkane Type 1= Unknown Cyclic Alkane
Alkane Type 2= Unknown Branched Alkane
Alkane Type 3= Unknown Straight Chain Alkane
Alkane Type 4= Unknown Alkane

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-ISO9-8-10-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707158-002-014-1/1
Sample Volume :	30.02	Lab File ID :	D43482.D
% Moisture:	12.32	Date Received	07/26/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	08/02/2007
Extract Volume:	.5 mL	Date Analyzed	08/10/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

✓ AEN 9/13/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
92-52-4	1,1- Biphenyl	380	U
108-60-1	2,2-Oxybis(1-chloropropane)	380	U
95-95-4	2,4,5-Trichlorophenol	950	U
88-06-2	2,4,6-Trichlorophenol	380	U
120-83-2	2,4-Dichlorophenol	380	U
105-67-9	2,4-Dimethylphenol	380	U
51-28-5	2,4-Dinitrophenol	950	U
121-14-2	2,4-Dinitrotoluene	380	U
606-20-2	2,6-Dinitrotoluene	380	U
532-27-4	2-Chloroacetophenone - CN	380	U
2698-41-1	2-Chlorobenzalmalononitrile	380	U
91-58-7	2-Chloronaphthalene	380	U
95-57-8	2-Chlorophenol	380	U
91-57-6	2-Methylnaphthalene	380	U
88-74-4	2-Nitroaniline	950	U
88-75-5	2-Nitrophenol	380	U
95-48-7	2-methylphenol	380	U
91-94-1	3,3-Dichlorobenzidine	380	U
99-09-2	3-Nitroaniline	950	U
534-52-1	4,6-dinitro-2-methyl phenol	950	U
101-55-3	4-Bromophenyl-phenylether	380	U
106-47-8	4-Chloroaniline	380	U
7005-72-3	4-Chlorophenyl Phenyl Ether	380	U
100-01-6	4-Nitroaniline	950	U
100-02-7	4-Nitrophenol	950	U
59-50-7	4-chloro-3-methylphenol	380	U
106-44-5	4-methylphenol	380	U
83-32-9	Acenaphthene	380	U
208-96-8	Acenaphthylene	380	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-ISO9-8-10-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707158-002-014-1/1
Sample Volume :	30.02	Lab File ID :	D43482.D
% Moisture:	12.32	Date Received	07/26/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	08/02/2007
Extract Volume:	.5 mL	Date Analyzed	08/10/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

✓ AEP 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
98-86-2	Acetophenone	380	U
120-12-7	Anthracene	380	U
1912-24-9	Atrazine	380	U
100-52-7	Benzaldehyde	380	U
56-55-3	Benzo(a)anthracene	380	U
50-32-8	Benzo(a)pyrene	380	U
205-99-2	Benzo(b)fluoranthene	380	U
191-24-2	Benzo(g,h,i)perylene	380	U
207-08-9	Benzo(k)fluoranthene	380	U
85-68-7	Benzyl Butyl Phthalate	380	U
105-60-2	Caprolactam	380	U
86-74-8	Carbazole	380	U
218-01-9	Chrysene	380	U
53-70-3	Dibenz(a,h)Anthracene	380	U
132-64-9	Dibenzofuran	380	U
84-66-2	Diethyl Phthalate	380	U
131-11-3	Dimethyl Phthalate	380	U
206-44-0	Fluoranthene	380	U
86-73-7	Fluorene	380	U
118-74-1	Hexachlorobenzene	380	U
87-68-3	Hexachlorobutadiene	380	U
77-47-4	Hexachlorocyclopentadiene	380	U
67-72-1	Hexachloroethane	380	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	380	U
78-59-1	Isophorone	380	U
91-20-3	Naphthalene	380	U
98-95-3	Nitrobenzene	380	U
87-86-5	Pentachlorophenol	950	U
85-01-8	Phenanthrene	380	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-ISO9-8-10-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707158-002-014-1/1
Sample Volume :	30.02	Lab File ID :	D43482.D
% Moisture:	12.32	Date Received	07/26/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	08/02/2007
Extract Volume:	.5 mL	Date Analyzed	08/10/2007
Injection Volume :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

✓ ACP 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
108-95-2	Phenol	380	U
129-00-0	Pyrene	380	U
111-91-1	bis(2-chloroethoxy) methane	380	U
111-44-4	bis(2-chloroethyl) ether	380	U
117-81-7	bis(2-ethylhexyl) phthalate	41	J
84-74-2	di-n-Butyl Phthalate	~~62~~	~~JB~~ 380 U, BL
117-84-0	di-n-Octyl Phthalate	380	U
621-64-7	n-Nitrosodi-n-Propylamine	380	U
86-30-6	n-Nitrosodiphenylamine	380	U

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
GC-ISO9-8-10-07C

Lab Name: GPL Laboratories, LLLP
Contract: CH2M Hill Inc
Lab Code: GPL
Case No.: NA
SAS No.: NA
SDG No.: 707158
Matrix (soil/water): SOIL
Lab Sample ID: 707158-002-014-1/1
Sample wt/vol: 30.02 (g/ml) g
Lab File ID: D43482.D
Level (low/med): LOW
Date Recieved 07/26/2007
% Moisture: 12.32
Decanted: (Y/N) N
Date Analyzed: 08/10/2007
Concentrated Extract Volume: 500 (uL)
Dilution Factor: 1
Injection Volume: 2 (uL)
Soil Aliquot Volume: 2 (uL)
GPC Cleanup (Y/N): Y
pH:

Number TICs Found: 6
Concentration Units (ug/L or ug/kg): ug/kg

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q
1	000111-77-3	Ethanol, 2-(2-	10.24	600	JN
2	000301-02-0	9-Octadecenamide, (Z)-	22.29	580	JN
3	004291-79-6	Cyclohexane, 1-methyl-	10.53	130	JN
4	1000131-11-8	Z-5-Nonadecene	22.81	180	JN
5		unknown	10.02	190	J
6		unknown	21.28	130	J

GPL LABORATORIES

Client: CH2M HILL
SDG: 707158
Sample ID: GC-ISO9-8-10-07C

Retention Time	CAS Number	Alkane Compound	Est. Conc. (ug/KG)
10.46		Alkane Type 4	160

*NOTE Alkane Type 1= Unknown Cyclic Alkane
Alkane Type 2= Unknown Branched Alkane
Alkane Type 3= Unknown Straight Chain Alkane
Alkane Type 4= Unknown Alkane

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-ISO10-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707158-003-015-1/1
Sample Volume :	30	Lab File ID :	D43483.D
% Moisture:	8.9	Date Received	07/26/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	08/02/2007
Extract Volume:	.5 mL	Date Analyzed	08/10/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

AED 9/13/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
92-52-4	1,1- Biphenyl	370	U
108-60-1	2,2-Oxybis(1-chloropropane)	370	U
95-95-4	2,4,5-Trichlorophenol	920	U
88-06-2	2,4,6-Trichlorophenol	370	U
120-83-2	2,4-Dichlorophenol	370	U
105-67-9	2,4-Dimethylphenol	370	U
51-28-5	2,4-Dinitrophenol	920	U
121-14-2	2,4-Dinitrotoluene	370	U
606-20-2	2,6-Dinitrotoluene	370	U
532-27-4	2-Chloroacetophenone - CN	370	U
2698-41-1	2-Chlorobenzalmalononitrile	370	U
91-58-7	2-Chloronaphthalene	370	U
95-57-8	2-Chlorophenol	370	U
91-57-6	2-Methylnaphthalene	370	U
88-74-4	2-Nitroaniline	920	U
88-75-5	2-Nitrophenol	370	U
95-48-7	2-methylphenol	370	U
91-94-1	3,3-Dichlorobenzidine	370	U
99-09-2	3-Nitroaniline	920	U
534-52-1	4,6-dinitro-2-methyl phenol	920	U
101-55-3	4-Bromophenyl-phenylether	370	U
106-47-8	4-Chloroaniline	370	U
7005-72-3	4-Chlorophenyl Phenyl Ether	370	U
100-01-6	4-Nitroaniline	920	U
100-02-7	4-Nitrophenol	920	U
59-50-7	4-chloro-3-methylphenol	370	U
106-44-5	4-methylphenol	370	U
83-32-9	Acenaphthene	370	U
208-96-8	Acenaphthylene	370	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-ISO10-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707158-003-015-1/1
Sample Volume :	30	Lab File ID :	D43483.D
% Moisture:	8.9	Date Received	07/26/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	08/02/2007
Extract Volume:	.5 mL	Date Analyzed	08/10/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

Kep 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
98-86-2	Acetophenone	370	U
120-12-7	Anthracene	370	U
1912-24-9	Atrazine	370	U
100-52-7	Benzaldehyde	370	U
56-55-3	Benzo(a)anthracene	370	U
50-32-8	Benzo(a)pyrene	370	U
205-99-2	Benzo(b)fluoranthene	370	U
191-24-2	Benzo(g,h,i)perylene	370	U
207-08-9	Benzo(k)fluoranthene	370	U
85-68-7	Benzyl Butyl Phthalate	370	U
105-60-2	Caprolactam	370	U
86-74-8	Carbazole	370	U
218-01-9	Chrysene	370	U
53-70-3	Dibenz(a,h)Anthracene	370	U
132-64-9	Dibenzofuran	370	U
84-66-2	Diethyl Phthalate	370	U
131-11-3	Dimethyl Phthalate	370	U
206-44-0	Fluoranthene	370	U
86-73-7	Fluorene	370	U
118-74-1	Hexachlorobenzene	370	U
87-68-3	Hexachlorobutadiene	370	U
77-47-4	Hexachlorocyclopentadiene	370	U
67-72-1	Hexachloroethane	370	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	370	U
78-59-1	Isophorone	370	U
91-20-3	Naphthalene	370	U
98-95-3	Nitrobenzene	370	U
87-86-5	Pentachlorophenol	920	U
85-01-8	Phenanthrene	370	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-ISO10-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707158-003-015-1/1
Sample Volume :	30	Lab File ID :	D43483.D
% Moisture:	8.9	Date Received	07/26/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	08/02/2007
Extract Volume:	.5 mL	Date Analyzed	08/10/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

AED 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
108-95-2	Phenol	370	U
129-00-0	Pyrene	370	U
111-91-1	bis(2-chloroethoxy) methane	370	U
111-44-4	bis(2-chloroethyl) ether	370	U
117-81-7	bis(2-ethylhexyl) phthalate	140	J
84-74-2	di-n-Butyl Phthalate	~~60~~	~~JB~~ 370 U, BC
117-84-0	di-n-Octyl Phthalate	370	U
621-64-7	n-Nitrosodi-n-Propylamine	370	U
86-30-6	n-Nitrosodiphenylamine	370	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

GC-ISO10-0-1-07C

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707158

Matrix (soil/water): SOIL Lab Sample ID: 707158-003-015-1/1

Sample wt/vol: 30 (g/ml) g Lab File ID: D43483.D

Level (low/med): LOW Date Recieved 07/26/2007

% Moisture: 8.9 Decanted: (Y/N) N Date Analyzed: 08/10/2007

Concentrated Extract Volume: 500 (uL) Dilution Factor: 1

Injection Volume: 2 (uL) Soil Aliquot Volume: 2 (uL)

GPC Cleanup (Y/N): Y pH:

Number TICs Found: 7 Concentration Units (ug/L or ug/kg): ug/kg

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q
1	000057-10-3	n-Hexadecanoic acid	20.36	100	JN
2	004291-79-6	Cyclohexane, 1-methyl-	10.53	100	JN
3	074663-85-7	Cyclopropane, nonyl-	16.72	810	JN
4	083005-02-1	Dichloroacetic acid,	22.82	170	JN
5		unknown	10.02	260	J
6		unknown	10.23	550	J
7		unknown	18.69	87	J

GPL LABORATORIES

Client: CH2M HILL
SDG: 707158
Sample ID: GC-ISO10-0-1-07C

Retention Time	CAS Number	Alkane Compound	Est. Conc. (ug/KG)
10.46		Alkane Type 4	120

*NOTE Alkane Type 1= Unknown Cyclic Alkane
Alkane Type 2= Unknown Branched Alkane
Alkane Type 3= Unknown Straight Chain Alkane
Alkane Type 4= Unknown Alkane

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-ISO10-3-5-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707158-004-016-1/1
Sample Volume :	30	Lab File ID :	D43493.D
% Moisture:	15.11	Date Received	07/26/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	08/02/2007
Extract Volume:	.5 mL	Date Analyzed	08/13/2007
Injection Volume :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

✓ ACD 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
92-52-4	1,1- Biphenyl	390	U
108-60-1	2,2-Oxybis(1-chloropropane)	390	U
95-95-4	2,4,5-Trichlorophenol	980	U
88-06-2	2,4,6-Trichlorophenol	390	U
120-83-2	2,4-Dichlorophenol	390	U
105-67-9	2,4-Dimethylphenol	390	U
51-28-5	2,4-Dinitrophenol	980	U
121-14-2	2,4-Dinitrotoluene	390	U
606-20-2	2,6-Dinitrotoluene	390	U
532-27-4	2-Chloroacetophenone - CN	390	U
2698-41-1	2-Chlorobenzalmalononitrile	390	U
91-58-7	2-Chloronaphthalene	390	U
95-57-8	2-Chlorophenol	390	U
91-57-6	2-Methylnaphthalene	390	U
88-74-4	2-Nitroaniline	980	U
88-75-5	2-Nitrophenol	390	U
95-48-7	2-methylphenol	390	U
91-94-1	3,3-Dichlorobenzidine	390	U
99-09-2	3-Nitroaniline	980	U
534-52-1	4,6-dinitro-2-methyl phenol	980	U
101-55-3	4-Bromophenyl-phenylether	390	U
106-47-8	4-Chloroaniline	390	U
7005-72-3	4-Chlorophenyl Phenyl Ether	390	U
100-01-6	4-Nitroaniline	980	U
100-02-7	4-Nitrophenol	980	U
59-50-7	4-chloro-3-methylphenol	390	U
106-44-5	4-methylphenol	390	U
83-32-9	Acenaphthene	390	U
208-96-8	Acenaphthylene	390	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-ISO10-3-5-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707158-004-016-1/1
Sample Volume :	30	Lab File ID :	D43493.D
% Moisture:	15.11	Date Received	07/26/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	08/02/2007
Extract Volume:	.5 mL	Date Analyzed	08/13/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

✓ AED 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
98-86-2	Acetophenone	390	U
120-12-7	Anthracene	390	U
1912-24-9	Atrazine	390	U
100-52-7	Benzaldehyde	390	U
56-55-3	Benzo(a)anthracene	390	U
50-32-8	Benzo(a)pyrene	390	U
205-99-2	Benzo(b)fluoranthene	390	U
191-24-2	Benzo(g,h,i)perylene	390	U
207-08-9	Benzo(k)fluoranthene	390	U
85-68-7	Benzyl Butyl Phthalate	390	U
105-60-2	Caprolactam	390	U
86-74-8	Carbazole	390	U
218-01-9	Chrysene	390	U
53-70-3	Dibenz(a,h)Anthracene	390	U
132-64-9	Dibenzofuran	390	U
84-66-2	Diethyl Phthalate	390	U
131-11-3	Dimethyl Phthalate	390	U
206-44-0	Fluoranthene	390	U
86-73-7	Fluorene	390	U
118-74-1	Hexachlorobenzene	390	U
87-68-3	Hexachlorobutadiene	390	U
77-47-4	Hexachlorocyclopentadiene	390	U
67-72-1	Hexachloroethane	390	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	390	U
78-59-1	Isophorone	390	U
91-20-3	Naphthalene	390	U
98-95-3	Nitrobenzene	390	U
87-86-5	Pentachlorophenol	980	U
85-01-8	Phenanthrene	390	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-ISO10-3-5-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707158-004-016-1/1
Sample Volume :	30	Lab File ID :	D43493.D
% Moisture:	15.11	Date Received	07/26/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	08/02/2007
Extract Volume:	.5 mL	Date Analyzed	08/13/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
108-95-2	Phenol	390	U
129-00-0	Pyrene	390	U
111-91-1	bis(2-chloroethoxy) methane	390	U
111-44-4	bis(2-chloroethyl) ether	390	U
117-81-7	bis(2-ethylhexyl) phthalate	67	J
84-74-2	di-n-Butyl Phthalate	71	~~J~~ 390, U, BL
117-84-0	di-n-Octyl Phthalate	390	U
621-64-7	n-Nitrosodi-n-Propylamine	390	U
86-30-6	n-Nitrosodiphenylamine	390	U

AND 9/13/07

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

GC-ISO10-3-5-07C

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707158

Matrix (soil/water): SOIL Lab Sample ID: 707158-004-016-1/1

Sample wt/vol: 30 (g/ml) g Lab File ID: D43493.D

Level (low/med): LOW Date Recieved 07/26/2007

% Moisture: 15.11 Decanted: (Y/N) N Date Analyzed: 08/13/2007

Concentrated Extract Volume: 500 (uL) Dilution Factor: 1

Injection Volume: 2 (uL) Soil Aliquot Volume: 2 (uL)

GPC Cleanup (Y/N): Y pH:

Number TICs Found: 9 Concentration Units (ug/L or ug/kg): ug/kg

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q
1	000057-10-3	n-Hexadecanoic acid	20.36	180	JN
2	000057-11-4	Octadecanoic acid	21.31	140	JN
3	031158-91-5	Hexadecanoic acid, 1,1-	21.41	90	JN
4	1000131-11-8	Z-5-Nonadecene	22.82	110	JN
5		unknown	10.02	280	J
6		unknown	10.23	710	J
7		unknown	10.53	120	J
8		unknown	22.29	150	J
9		unknown	23.43	120	J

GPL LABORATORIES

Client: CH2M HILL
SDG: 707158
Sample ID: GC-ISO10-3-5-07C

Retention Time	CAS Number	Alkane Compound	Est. Conc. (ug/KG)
10.46		Alkane Type 4	150

*NOTE Alkane Type 1= Unknown Cyclic Alkane
Alkane Type 2= Unknown Branched Alkane
Alkane Type 3= Unknown Straight Chain Alkane
Alkane Type 4= Unknown Alkane

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-TW02-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707158-005-032-1/2
Sample Volume :	900	Lab File ID :	H38056.D
% Moisture:		Date Received	07/26/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/30/2007
Extract Volume:	1 mL	Date Analyzed	08/02/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

AED 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/L

CAS NO	COMPOUND		Q
92-52-4	1,1- Biphenyl	11	U
108-60-1	2,2-Oxybis(1-chloropropane)	11	U
95-95-4	2,4,5-Trichlorophenol	28	U
88-06-2	2,4,6-Trichlorophenol	11	U
120-83-2	2,4-Dichlorophenol	11	U
105-67-9	2,4-Dimethylphenol	11	U
51-28-5	2,4-Dinitrophenol	28	U
121-14-2	2,4-Dinitrotoluene	11	U
606-20-2	2,6-Dinitrotoluene	11	U
532-27-4	2-Chloroacetophenone - CN	11	U
2698-41-1	2-Chlorobenzalmalononitrile	11	U
91-58-7	2-Chloronaphthalene	11	U
95-57-8	2-Chlorophenol	11	U
91-57-6	2-Methylnaphthalene	11	U
88-74-4	2-Nitroaniline	28	U
88-75-5	2-Nitrophenol	11	U
95-48-7	2-methylphenol	11	U
91-94-1	3,3-Dichlorobenzidine	11	U
99-09-2	3-Nitroaniline	28	U
534-52-1	4,6-dinitro-2-methyl phenol	28	U
101-55-3	4-Bromophenyl-phenylether	11	U
106-47-8	4-Chloroaniline	11	U
7005-72-3	4-Chlorophenyl Phenyl Ether	11	U
100-01-6	4-Nitroaniline	28	U
100-02-7	4-Nitrophenol	28	U
59-50-7	4-chloro-3-methylphenol	11	U
106-44-5	4-methylphenol	11	U
83-32-9	Acenaphthene	11	U
208-96-8	Acenaphthylene	11	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-TW02-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707158-005-032-1/2
Sample Volume :	900	Lab File ID :	H38056.D
% Moisture:		Date Received	07/26/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/30/2007
Extract Volume:	1 mL	Date Analyzed	08/02/2007
Injection Volume :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

✓ ACD 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/L

CAS NO	COMPOUND		Q
98-86-2	Acetophenone	11	U
120-12-7	Anthracene	11	U
1912-24-9	Atrazine	11	U
100-52-7	Benzaldehyde	11	U
56-55-3	Benzo(a)anthracene	11	U
50-32-8	Benzo(a)pyrene	11	U
205-99-2	Benzo(b)fluoranthene	11	U
191-24-2	Benzo(g,h,i)perylene	11	U
207-08-9	Benzo(k)fluoranthene	11	U
85-68-7	Benzyl Butyl Phthalate	11	U
105-60-2	Caprolactam	11	U
86-74-8	Carbazole	11	U
218-01-9	Chrysene	11	U
53-70-3	Dibenz(a,h)Anthracene	11	U
132-64-9	Dibenzofuran	11	U
84-66-2	Diethyl Phthalate	11	U
131-11-3	Dimethyl Phthalate	11	U
206-44-0	Fluoranthene	11	U
86-73-7	Fluorene	11	U
118-74-1	Hexachlorobenzene	11	U
87-68-3	Hexachlorobutadiene	11	U
77-47-4	Hexachlorocyclopentadiene	11	U
67-72-1	Hexachloroethane	11	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	11	U
78-59-1	Isophorone	11	U
91-20-3	Naphthalene	11	U
98-95-3	Nitrobenzene	11	U
87-86-5	Pentachlorophenol	28	U
85-01-8	Phenanthrene	11	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-TW02-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707158-005-032-1/2
Sample Volume :	900	Lab File ID :	H38056.D
% Moisture:		Date Received	07/26/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/30/2007
Extract Volume:	1 mL	Date Analyzed	08/02/2007
Injection Volume :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

✓ ACP 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/L

CAS NO	COMPOUND		Q
108-95-2	Phenol	11	U
129-00-0	Pyrene	11	U
111-91-1	bis(2-chloroethoxy) methane	11	U
111-44-4	bis(2-chloroethyl) ether	11	U
117-81-7	bis(2-ethylhexyl) phthalate	3.3	J
84-74-2	di-n-Butyl Phthalate	11	U
117-84-0	di-n-Octyl Phthalate	11	U
621-64-7	n-Nitrosodi-n-Propylamine	11	U
86-30-6	n-Nitrosodiphenylamine	11	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

GC-TW02-07C

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707158

Matrix (soil/water): WATER Lab Sample ID: 707158-005-032-1/2

Sample wt/vol: 900 (g/ml) ml Lab File ID: H38056.D

Level (low/med): LOW Date Recieved 07/26/2007

% Moisture: Date Analyzed: 08/02/2007

GC Column: RTX VOA ID: 0.53 (mm) Dilution Factor: 1

Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 2 (uL)

Number TICs Found: 1 Concentration Units (ug/L or ug/kg): mg/L

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q
1		unknown	22.15	3.63	J

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-TW05-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707158-007-034-1/2
Sample Volume :	850	Lab File ID :	H38057.D
% Moisture:		Date Received	07/26/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/30/2007
Extract Volume:	1 mL	Date Analyzed	08/02/2007
Injection Volume :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

KED 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/L

CAS NO	COMPOUND		Q
92-52-4	1,1- Biphenyl	12	U
108-60-1	2,2-Oxybis(1-chloropropane)	12	U
95-95-4	2,4,5-Trichlorophenol	29	U
88-06-2	2,4,6-Trichlorophenol	12	U
120-83-2	2,4-Dichlorophenol	12	U
105-67-9	2,4-Dimethylphenol	12	U
51-28-5	2,4-Dinitrophenol	29	U
121-14-2	2,4-Dinitrotoluene	12	U
606-20-2	2,6-Dinitrotoluene	12	U
532-27-4	2-Chloroacetophenone - CN	12	U
2698-41-1	2-Chlorobenzalmalononitrile	12	U
91-58-7	2-Chloronaphthalene	12	U
95-57-8	2-Chlorophenol	12	U
91-57-6	2-Methylnaphthalene	12	U
88-74-4	2-Nitroaniline	29	U
88-75-5	2-Nitrophenol	12	U
95-48-7	2-methylphenol	12	U
91-94-1	3,3-Dichlorobenzidine	12	U
99-09-2	3-Nitroaniline	29	U
534-52-1	4,6-dinitro-2-methyl phenol	29	U
101-55-3	4-Bromophenyl-phenylether	12	U
106-47-8	4-Chloroaniline	12	U
7005-72-3	4-Chlorophenyl Phenyl Ether	12	U
100-01-6	4-Nitroaniline	29	U
100-02-7	4-Nitrophenol	29	U
59-50-7	4-chloro-3-methylphenol	12	U
106-44-5	4-methylphenol	12	U
83-32-9	Acenaphthene	12	U
208-96-8	Acenaphthylene	12	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-TW05-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707158-007-034-1/2
Sample Volume :	850	Lab File ID :	H38057.D
% Moisture:		Date Received	07/26/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/30/2007
Extract Volume:	1 mL	Date Analyzed	08/02/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

✓ ACD 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/L

CAS NO	COMPOUND		Q
98-86-2	Acetophenone	12	U
120-12-7	Anthracene	12	U
1912-24-9	Atrazine	12	U
100-52-7	Benzaldehyde	12	U
56-55-3	Benzo(a)anthracene	12	U
50-32-8	Benzo(a)pyrene	12	U
205-99-2	Benzo(b)fluoranthene	12	U
191-24-2	Benzo(g,h,i)perylene	12	U
207-08-9	Benzo(k)fluoranthene	12	U
85-68-7	Benzyl Butyl Phthalate	12	U
105-60-2	Caprolactam	12	U
86-74-8	Carbazole	12	U
218-01-9	Chrysene	12	U
53-70-3	Dibenz(a,h)Anthracene	12	U
132-64-9	Dibenzofuran	12	U
84-66-2	Diethyl Phthalate	12	U
131-11-3	Dimethyl Phthalate	12	U
206-44-0	Fluoranthene	12	U
86-73-7	Fluorene	12	U
118-74-1	Hexachlorobenzene	12	U
87-68-3	Hexachlorobutadiene	12	U
77-47-4	Hexachlorocyclopentadiene	12	U
67-72-1	Hexachloroethane	12	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	12	U
78-59-1	Isophorone	12	U
91-20-3	Naphthalene	12	U
98-95-3	Nitrobenzene	12	U
87-86-5	Pentachlorophenol	29	U
85-01-8	Phenanthrene	12	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-TW05-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707158-007-034-1/2
Sample Volume :	850	Lab File ID :	H38057.D
% Moisture:		Date Received	07/26/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/30/2007
Extract Volume:	1 mL	Date Analyzed	08/02/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

KCD 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/L

CAS NO	COMPOUND		Q
108-95-2	Phenol	12	U
129-00-0	Pyrene	12	U
111-91-1	bis(2-chloroethoxy) methane	12	U
111-44-4	bis(2-chloroethyl) ether	12	U
117-81-7	bis(2-ethylhexyl) phthalate	2.9	J
84-74-2	di-n-Butyl Phthalate	12	U
117-84-0	di-n-Octyl Phthalate	12	U
621-64-7	n-Nitrosodi-n-Propylamine	12	U
86-30-6	n-Nitrosodiphenylamine	12	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
GC-TW05-07C

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc
Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707158
Matrix (soil/water): WATER Lab Sample ID: 707158-007-034-1/2
Sample wt/vol: 850 (g/ml) ml Lab File ID: H38057.D
Level (low/med): LOW Date Recieved 07/26/2007
% Moisture: Date Analyzed: 08/02/2007
GC Column: RTX VOA ID: 0.53 (mm) Dilution Factor: 1
Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 2 (uL)

Number TICs Found: 1 Concentration Units (ug/L or ug/kg): mg/L

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q
1		unknown	22.15	3.40	J

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-TW08-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707158-009-036-1/2
Sample Volume :	850	Lab File ID :	H38058.D
% Moisture:		Date Received	07/26/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/30/2007
Extract Volume:	1 mL	Date Analyzed	08/02/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

AED 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/L

CAS NO	COMPOUND		Q
92-52-4	1,1- Biphenyl	12	U
108-60-1	2,2-Oxybis(1-chloropropane)	12	U
95-95-4	2,4,5-Trichlorophenol	29	U
88-06-2	2,4,6-Trichlorophenol	12	U
120-83-2	2,4-Dichlorophenol	12	U
105-67-9	2,4-Dimethylphenol	12	U
51-28-5	2,4-Dinitrophenol	29	U
121-14-2	2,4-Dinitrotoluene	12	U
606-20-2	2,6-Dinitrotoluene	12	U
532-27-4	2-Chloroacetophenone - CN	12	U
2698-41-1	2-Chlorobenzalmalononitrile	12	U
91-58-7	2-Chloronaphthalene	12	U
95-57-8	2-Chlorophenol	12	U
91-57-6	2-Methylnaphthalene	12	U
88-74-4	2-Nitroaniline	29	U
88-75-5	2-Nitrophenol	12	U
95-48-7	2-methylphenol	12	U
91-94-1	3,3-Dichlorobenzidine	12	U
99-09-2	3-Nitroaniline	29	U
534-52-1	4,6-dinitro-2-methyl phenol	29	U
101-55-3	4-Bromophenyl-phenylether	12	U
106-47-8	4-Chloroaniline	12	U
7005-72-3	4-Chlorophenyl Phenyl Ether	12	U
100-01-6	4-Nitroaniline	29	U
100-02-7	4-Nitrophenol	29	U
59-50-7	4-chloro-3-methylphenol	12	U
106-44-5	4-methylphenol	12	U
83-32-9	Acenaphthene	12	U
208-96-8	Acenaphthylene	12	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-TW08-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707158-009-036-1/2
Sample Volume :	850	Lab File ID :	H38058.D
% Moisture:		Date Received	07/26/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/30/2007
Extract Volume:	1 mL	Date Analyzed	08/02/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

ACD 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/L

CAS NO	COMPOUND		Q
98-86-2	Acetophenone	12	U
120-12-7	Anthracene	12	U
1912-24-9	Atrazine	12	U
100-52-7	Benzaldehyde	12	U
56-55-3	Benzo(a)anthracene	12	U
50-32-8	Benzo(a)pyrene	12	U
205-99-2	Benzo(b)fluoranthene	12	U
191-24-2	Benzo(g,h,i)perylene	12	U
207-08-9	Benzo(k)fluoranthene	12	U
85-68-7	Benzyl Butyl Phthalate	12	U
105-60-2	Caprolactam	12	U
86-74-8	Carbazole	12	U
218-01-9	Chrysene	12	U
53-70-3	Dibenz(a,h)Anthracene	12	U
132-64-9	Dibenzofuran	12	U
84-66-2	Diethyl Phthalate	12	U
131-11-3	Dimethyl Phthalate	12	U
206-44-0	Fluoranthene	12	U
86-73-7	Fluorene	12	U
118-74-1	Hexachlorobenzene	12	U
87-68-3	Hexachlorobutadiene	12	U
77-47-4	Hexachlorocyclopentadiene	12	U
67-72-1	Hexachloroethane	12	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	12	U
78-59-1	Isophorone	12	U
91-20-3	Naphthalene	12	U
98-95-3	Nitrobenzene	12	U
87-86-5	Pentachlorophenol	29	U
85-01-8	Phenanthrene	12	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-TW08-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707158-009-036-1/2
Sample Volume :	850	Lab File ID :	H38058.D
% Moisture:		Date Received	07/26/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/30/2007
Extract Volume:	1 mL	Date Analyzed	08/02/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

✓ ACD 9/3/07

Concentration Units (ug/L or ug/kg dry weight) : ug/L

CAS NO	COMPOUND		Q
108-95-2	Phenol	12	U
129-00-0	Pyrene	12	U
111-91-1	bis(2-chloroethoxy) methane	12	U
111-44-4	bis(2-chloroethyl) ether	12	U
117-81-7	bis(2-ethylhexyl) phthalate	2.0	J
84-74-2	di-n-Butyl Phthalate	12	U
117-84-0	di-n-Octyl Phthalate	12	U
621-64-7	n-Nitrosodi-n-Propylamine	12	U
86-30-6	n-Nitrosodiphenylamine	12	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
GC-TW08-07C

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc
Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707158
Matrix (soil/water): WATER Lab Sample ID: 707158-009-036-1/2
Sample wt/vol: 850 (g/ml) ml Lab File ID: H38058.D
Level (low/med): LOW Date Recieved 07/26/2007
% Moisture: Date Analyzed: 08/02/2007
GC Column: RTX VOA ID: 0.53 (mm) Dilution Factor: 1
Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 2 (uL)

Number TICs Found: 1 Concentration Units (ug/L or ug/kg): mg/L

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q
1		unknown	22.14	3.81	J

Surrogate Recovery Summary

Matrix : WATER Analytical Method : CLP_OLM04.3_BN/ SDG No : 707158

Surrogate	CLPH2D4	DCBZ12D4	NO2BZD5	PH246BR	PH2F	PHD5	PHEN2F	PHEND14
Lower QC Limits	33	16	35	10	21	10	43	33
Upper QC Limits	110	110	114	123	110	110	116	141
Sample ID								
BKS99406	74	25	58	87	69	79	59	33
BKSD99406	46	47	69	80	42	53	76	64
BLK99406	75	59	76	88	75	80	79	97
GC-TW02-07C	72	61	83	98	49	32	82	51
GC-TW05-07C	70	62	82	99	40	26	82	72
GC-TW08-07C	65	58	77	97	36	25	78	81

* Value outside of QC Limts

CLPH2D4 = 2-Chlorophenol-d4 DCBZ12D4 = 1,2-Dichlorobenzene-d4 NO2BZD5 = Nitrobenzene-d5 PH246BR = 2,4,6-Tribromophenol PH2F = 2-Fluorophenol PHD5 = Phenol-d5
PHEN2F = 2-Fluorobiphenyl PHEND14 = p-Terphenyl-d14

Surrogate Recovery Summary

Matrix : SOIL Analytical Method : CLP_OLM04.3_BN/ SDG No : 707158

Surrogate	CLPH2D4	DCBZ12D4	NO2BZD5	PH246BR	PH2F	PHD5	PHEN2F	PHEND14
Lower QC Limits	20	20	23	19	25	24	30	18
Upper QC Limits	130	130	120	122	121	113	115	137
Sample ID								
BKS99545	96	73	90	100	86	101	90	106
BLK99545	96	75	93	98	89	104	95	111
GC-ISO10-0-1-07C	95	73	90	104	88	100	95	112
GC-ISO9-8-10-07C	100	76	92	103	90	104	94	116

* Value outside of QC Limts

CLPH2D4 = 2-Chlorophenol-d4 DCBZ12D4 = 1,2-Dichlorobenzene-d4 NO2BZD5 = Nitrobenzene-d5 PH246BR = 2,4,6-Tribromophenol PH2F = 2-Fluorophenol PHD5 = Phenol-d5
PHEN2F = 2-Fluorobiphenyl PHEND14 = p-Terphenyl-d14

Surrogate Recovery Summary

Matrix : SOIL Analytical Method : CLP_OLM04.3_BN SDG No : 707158

Surrogate	CLPH2D4	DCBZ12D4	NO2BZD5	PH246BR	PH2F	PHD5	PHEN2F	PHEND14
Lower QC Limits	20	20	23	19	25	24	30	18
Upper QC Limits	130	130	120	122	121	113	115	137
Sample ID								
GC-ISO10-3-5-07C	80	65	82	98	75	82	82	96
GC-ISO9-0-1-07C	92	77	93	105	85	95	91	101
GC-ISO9-0-1-07CMS	82	67	84	91	74	82	85	96
GC-ISO9-0-1-07CMSD	86	70	86	96	73	87	87	95

* Value outside of QC Limts

CLPH2D4 = 2-Chlorophenol-d4 DCBZ12D4 = 1,2-Dichlorobenzene-d4 NO2BZD5 = Nitrobenzene-d5 PH246BR = 2,4,6-Tribromophenol PH2F = 2-Fluorophenol PHD5 = Phenol-d5
PHEN2F = 2-Fluorobiphenyl PHEND14 = p-Terphenyl-d14

GPL Laboratories

MS/MSD RECOVERY

SAMPLE NO
GC-ISO9-0-1-07CMSD

Lab Name : GPL Laboratories SDG NO : 707158 Method : CLP OLM04.3 BNA

Lab Code : GPL Lab Sample ID : 707158-001-013-1/1MSD Matrix : SOIL Analysis Date : 08/13/2007

Compound	Spike Added (ug/kg)		CONCENTRATION (ug/kg)			%RECOVERY		% RPD	RPD Limit	QC Limits
	MS	MSD	Sample	MS	MSD	MS	MSD			
2,4-Dinitrotoluene	2000	2000	0.0	1700	1900	85	95 *	11	47	28-89
2-Chloroacetophenone - CN	2000	2000	0.0	1500	1800	75	90	18		-
2-Chlorobenzalmalononitrile	2000	2000	0.0	1300	1600	65	80	21		-
2-Chlorophenol	3000	3000	0.0	2300	2400	77	80	4	50	25-102
4-Nitrophenol	3000	3000	0.0	2400	2900	80	97	19	50	11-114
4-chloro-3-methylphenol	3000	3000	0.0	2000	2300	67	77	14	33	26-103
Acenaphthene	2000	2000	0.0	1600	1700	80	85	6	19	31-137
Pentachlorophenol	3000	3000	0.0	2500	2600	83	87	5	47	17-109
Phenol	3000	3000	0.0	2300	2400	77	80	4	35	26-90
Pyrene	2000	2000	0.0	1700	1700	85	85	0	36	35-142
n-Nitrosodi-n-Propylamine	2000	2000	0.0	1400	1600	70	80	13	38	41-126

Column to be used to flag recovery and RPD Values with an asterisk.

* Values Outside of QC Limits.

RPD 0 Out of 11 Outside Limit
Spike Recovery : 1 Out of 22 outside limit

GPL Laboratories

BKS/BSD RECOVERY

SAMPLE NO
BKSD99406

Lab Name : GPL Laboratories SDG NO : 707158 Method : CLP OLM04.3 BNA

Lab Code : GPL Lab Sample ID : BKSD99406 Matrix : WATER Analysis Date : 08/02/2007

Compound	Spike Added (ug/L)	CONCENTRATION (ug/L)			%RECOVERY		% RPD	RPD Limit	QC Limits
		BLANK	BKS	BSD	BKS	BSD			
2,4-Dinitrotoluene	50	0.0	40	39	80	78	3	38	17-132
2-Chloroacetophenone - CN	50	0.0	34	27	68	54	23		-
2-Chlorobenzalmalononitrile	50	0.0	25	18	50	36	33		-
2-Chlorophenol	75	0.0	52	32	69	43	46 *	40	21-110
4-Nitrophenol	75	0.0	54	47	72	63	13	50	10-207
4-chloro-3-methylphenol	75	0.0	59	41	79	55	36	42	19-108
Acenaphthene	50	0.0	31	43	62	86	32 *	31	18-118
Pentachlorophenol	75	0.0	42	53	56	71	24	50	10-213
Phenol	75	0.0	53	39	71	52	31	42	18-109
Pyrene	50	0.0	32	40	64	80	22	31	23-136
n-Nitrosodi-n-Propylamine	50	0.0	35	26	68	52	27	38	15-132

#Column to be used to flag recovery and RPD Values with an asterisk.

* Values Outside of QC Limits.

RPD 2 Out of 11 Outside Limit
Spike Recovery : 0 Out of 22 outside limit

GPL Laboratories

LCS SUMMARY

SAMPLE NO
BKS99545

Lab Name : GPL Laboratories
Lab Code : GPL
Matrix : SOIL
Method : CLP_OLM04.3_BNA

Contract. : MILCON Area Investigations - CTO-169
SDG NO : 707158
Lab Sample ID : BKS99545
Analysis Date : 08/10/2007

COMPOUND	SPIKE ADDED (ug/kg)	BLANK CONCENTRATION (ug/kg)	LCS CONCENTRATION (ug/kg)	LCS % REC	QC LIMTS
2,4-Dinitrotoluene	1700	0	1900	114 *	57-102
2-Chloroacetophenone - CN	1700	0	1600	96	-
2-Chlorobenzalmalononitrile	1700	0	1400	84	-
2-Chlorophenol	2500	0	2300	92 *	49-91
4-Nitrophenol	2500	0	2800	112	10-207
4-chloro-3-methylphenol	2500	0	2400	96 *	53-90
Acenaphthene	1700	0	1600	96 *	54-90
Pentachlorophenol	2500	0	2300	92	17-205
Phenol	2500	0	2400	96 *	45-91
Pyrene	1700	0	1600	96	32-140
n-Nitrosodi-n-Propylamine	1700	0	1500	90	48-108

* Values Outside of QC Limits.

Spike recovery : 5 out of 11 outside limits

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BLK99406

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BLK99406
Sample Volume :	1000	Lab File ID :	H38053.D
% Moisture:		Date Received	
Extraction:	CLP_EXTRACTION	Date Extracted:	07/30/2007
Extract Volume:	1 mL	Date Analyzed	08/02/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

Concentration Units (ug/L or ug/kg dry weight) : ug/L

CAS NO	COMPOUND		Q
92-52-4	1,1- Biphenyl	10	U
108-60-1	2,2-Oxybis(1-chloropropane)	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
88-06-2	2,4,6-Trichlorophenol	10	U
120-83-2	2,4-Dichlorophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
51-28-5	2,4-Dinitrophenol	25	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
532-27-4	2-Chloroacetophenone - CN	10	U
2698-41-1	2-Chlorobenzalmalononitrile	10	U
91-58-7	2-Chloronaphthalene	10	U
95-57-8	2-Chlorophenol	10	U
91-57-6	2-Methylnaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
88-75-5	2-Nitrophenol	10	U
95-48-7	2-methylphenol	10	U
91-94-1	3,3-Dichlorobenzidine	10	U
99-09-2	3-Nitroaniline	25	U
534-52-1	4,6-dinitro-2-methyl phenol	25	U
101-55-3	4-Bromophenyl-phenylether	10	U
106-47-8	4-Chloroaniline	10	U
7005-72-3	4-Chlorophenyl Phenyl Ether	10	U
100-01-6	4-Nitroaniline	25	U
100-02-7	4-Nitrophenol	25	U
59-50-7	4-chloro-3-methylphenol	10	U
106-44-5	4-methylphenol	10	U
83-32-9	Acenaphthene	10	U
208-96-8	Acenaphthylene	10	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BLK99406

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BLK99406
Sample Volume :	1000	Lab File ID :	H38053.D
% Moisture:		Date Received	
Extraction:	CLP_EXTRACTION	Date Extracted:	07/30/2007
Extract Volume:	1 mL	Date Analyzed	08/02/2007
Injection Volume :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

Concentration Units (ug/L or ug/kg dry weight) : ug/L

CAS NO	COMPOUND		Q
98-86-2	Acetophenone	10	U
120-12-7	Anthracene	10	U
1912-24-9	Atrazine	10	U
100-52-7	Benzaldehyde	10	U
56-55-3	Benzo(a)anthracene	10	U
50-32-8	Benzo(a)pyrene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
85-68-7	Benzyl Butyl Phthalate	10	U
105-60-2	Caprolactam	10	U
86-74-8	Carbazole	10	U
218-01-9	Chrysene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
132-64-9	Dibenzofuran	10	U
84-66-2	Diethyl Phthalate	10	U
131-11-3	Dimethyl Phthalate	10	U
206-44-0	Fluoranthene	10	U
86-73-7	Fluorene	10	U
118-74-1	Hexachlorobenzene	10	U
87-68-3	Hexachlorobutadiene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
67-72-1	Hexachloroethane	10	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	10	U
78-59-1	Isophorone	10	U
91-20-3	Naphthalene	10	U
98-95-3	Nitrobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BLK99406

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BLK99406
Sample Volume :	1000	Lab File ID :	H38053.D
% Moisture:		Date Received	
Extraction:	CLP_EXTRACTION	Date Extracted:	07/30/2007
Extract Volume:	1 mL	Date Analyzed	08/02/2007
Injection Volume :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

Concentration Units (ug/L or ug/kg dry weight) : ug/L

CAS NO	COMPOUND		Q
108-95-2	Phenol	10	U
129-00-0	Pyrene	10	U
111-91-1	bis(2-chloroethoxy) methane	10	U
111-44-4	bis(2-chloroethyl) ether	10	U
117-81-7	bis(2-ethylhexyl) phthalate	10	U
84-74-2	di-n-Butyl Phthalate	10	U
117-84-0	di-n-Octyl Phthalate	10	U
621-64-7	n-Nitrosodi-n-Propylamine	10	U
86-30-6	n-Nitrosodiphenylamine	10	U

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BLK99406

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707158

Matrix (soil/water): WATER Lab Sample ID: BLK99406

Sample wt/vol: 1000 (g/ml) ml Lab File ID: H38053.D

Level (low/med): LOW Date Recieved

% Moisture: Decanted: (Y/N) N Date Analyzed: 08/02/2007

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1

Injection Volume: 2 (uL) Soil Aliquot Volume: 2 (uL)

GPC Cleanup (Y/N): N pH:

Number TICs Found: 0 Concentration Units (ug/L or ug/kg):

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BLK99545

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BLK99545
Sample Volume :	30	Lab File ID :	D43478.D
% Moisture:		Date Received	
Extraction:	CLP_EXTRACTION	Date Extracted:	08/02/2007
Extract Volume:	.5 mL	Date Analyzed	08/10/2007
Injection Volume :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
92-52-4	1,1- Biphenyl	330	U
108-60-1	2,2-Oxybis(1-chloropropane)	330	U
95-95-4	2,4,5-Trichlorophenol	830	U
88-06-2	2,4,6-Trichlorophenol	330	U
120-83-2	2,4-Dichlorophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
51-28-5	2,4-Dinitrophenol	830	U
121-14-2	2,4-Dinitrotoluene	330	U
606-20-2	2,6-Dinitrotoluene	330	U
532-27-4	2-Chloroacetophenone - CN	330	U
2698-41-1	2-Chlorobenzalmalononitrile	330	U
91-58-7	2-Chloronaphthalene	330	U
95-57-8	2-Chlorophenol	330	U
91-57-6	2-Methylnaphthalene	330	U
88-74-4	2-Nitroaniline	830	U
88-75-5	2-Nitrophenol	330	U
95-48-7	2-methylphenol	330	U
91-94-1	3,3-Dichlorobenzidine	330	U
99-09-2	3-Nitroaniline	830	U
534-52-1	4,6-dinitro-2-methyl phenol	830	U
101-55-3	4-Bromophenyl-phenylether	330	U
106-47-8	4-Chloroaniline	330	U
7005-72-3	4-Chlorophenyl Phenyl Ether	330	U
100-01-6	4-Nitroaniline	830	U
100-02-7	4-Nitrophenol	830	U
59-50-7	4-chloro-3-methylphenol	330	U
106-44-5	4-methylphenol	330	U
83-32-9	Acenaphthene	330	U
208-96-8	Acenaphthylene	330	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BLK99545

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BLK99545
Sample Volume :	30	Lab File ID :	D43478.D
% Moisture:		Date Received	
Extraction:	CLP_EXTRACTION	Date Extracted:	08/02/2007
Extract Volume:	.5 mL	Date Analyzed	08/10/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
98-86-2	Acetophenone	330	U
120-12-7	Anthracene	330	U
1912-24-9	Atrazine	330	U
100-52-7	Benzaldehyde	330	U
56-55-3	Benzo(a)anthracene	330	U
50-32-8	Benzo(a)pyrene	330	U
205-99-2	Benzo(b)fluoranthene	330	U
191-24-2	Benzo(g,h,i)perylene	330	U
207-08-9	Benzo(k)fluoranthene	330	U
85-68-7	Benzyl Butyl Phthalate	330	U
105-60-2	Caprolactam	330	U
86-74-8	Carbazole	330	U
218-01-9	Chrysene	330	U
53-70-3	Dibenz(a,h)Anthracene	330	U
132-64-9	Dibenzofuran	330	U
84-66-2	Diethyl Phthalate	330	U
131-11-3	Dimethyl Phthalate	330	U
206-44-0	Fluoranthene	330	U
86-73-7	Fluorene	330	U
118-74-1	Hexachlorobenzene	330	U
87-68-3	Hexachlorobutadiene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
67-72-1	Hexachloroethane	330	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	330	U
78-59-1	Isophorone	330	U
91-20-3	Naphthalene	330	U
98-95-3	Nitrobenzene	330	U
87-86-5	Pentachlorophenol	830	U
85-01-8	Phenanthrene	330	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BLK99545

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BLK99545
Sample Volume :	30	Lab File ID :	D43478.D
% Moisture:		Date Received	
Extraction:	CLP_EXTRACTION	Date Extracted:	08/02/2007
Extract Volume:	.5 mL	Date Analyzed	08/10/2007
Injection Volume :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

Concentration Units (ug/L or ug/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
108-95-2	Phenol	330	U
129-00-0	Pyrene	330	U
111-91-1	bis(2-chloroethoxy) methane	330	U
111-44-4	bis(2-chloroethyl) ether	330	U
117-81-7	bis(2-ethylhexyl) phthalate	330	U
84-74-2	di-n-Butyl Phthalate	46	J
117-84-0	di-n-Octyl Phthalate	330	U
621-64-7	n-Nitrosodi-n-Propylamine	330	U
86-30-6	n-Nitrosodiphenylamine	330	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BKS99406

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BKS99406
Sample Volume :	1000	Lab File ID :	H38054.D
% Moisture:		Date Received	
Extraction:	CLP_EXTRACTION	Date Extracted:	07/30/2007
Extract Volume:	1 mL	Date Analyzed	08/02/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

Concentration Units (ug/L or ug/kg dry weight) : ug/L

CAS NO	COMPOUND		Q
92-52-4	1,1- Biphenyl	10	U
108-60-1	2,2-Oxybis(1-chloropropane)	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
88-06-2	2,4,6-Trichlorophenol	10	U
120-83-2	2,4-Dichlorophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
51-28-5	2,4-Dinitrophenol	25	U
121-14-2	2,4-Dinitrotoluene	40	
606-20-2	2,6-Dinitrotoluene	10	U
532-27-4	2-Chloroacetophenone - CN	34	
2698-41-1	2-Chlorobenzalmalononitrile	25	
91-58-7	2-Chloronaphthalene	10	U
95-57-8	2-Chlorophenol	52	
91-57-6	2-Methylnaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
88-75-5	2-Nitrophenol	10	U
95-48-7	2-methylphenol	10	U
91-94-1	3,3-Dichlorobenzidine	10	U
99-09-2	3-Nitroaniline	25	U
534-52-1	4,6-dinitro-2-methyl phenol	25	U
101-55-3	4-Bromophenyl-phenylether	10	U
106-47-8	4-Chloroaniline	10	U
7005-72-3	4-Chlorophenyl Phenyl Ether	10	U
100-01-6	4-Nitroaniline	25	U
100-02-7	4-Nitrophenol	54	
59-50-7	4-chloro-3-methylphenol	59	
106-44-5	4-methylphenol	10	U
83-32-9	Acenaphthene	31	
208-96-8	Acenaphthylene	10	U

Response Factor Report GC/MS- H

Method : C:\HPCHEM\1\METHODS\SOM_CSCN.M (RTE Integrator)
Title : SW-846 Method 8270
Last Update : Wed Aug 01 11:26:53 2007
Response via : Initial Calibration

Calibration Files
25 =H38008.D 80 =H38009.D 10 =H38012.D
40 =H38013.D 60 =H38011.D

		Compound	25	80	10	40	60	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	----------ISTD----------						
2)	I	Naphthalene-d8	----------ISTD----------						
3)	S	Nitrobenzene-d5						0.000#	-1.00
4)	T	2-Chloroacetophenone	0.551	0.605	0.491	0.589	0.604	0.568	8.50
5)	I	Acenaphthene-d10	----------ISTD----------						
6)	T	2-Chlorobenzalmalonon	0.711	0.800	0.638	0.798	0.778	0.745	9.38
7)	S	2-Fluorobiphenyl						0.000#	-1.00
8)	I	Phenanthrene-d10	----------ISTD----------						
9)	I	Chrysene-d12	----------ISTD----------						
10)	S	Terphenyl-d14						0.000#	-1.00
11)	I	Perylene-d12	----------ISTD----------						

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : H:\GCMSDATA\H\080207\H38052.D
Acq On : 2 Aug 2007 13:30
Sample : SSTD025 CS&CN
Misc : SSTD025 CS&CN HP#H PY
MS Integration Params: rteint.p

Vial: 3
Operator: PY
Inst : GC/MS- H
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\SOM_CSCN.M (RTE Integrator)
Title : SW-846 Method 8270
Last Update : Tue Jul 31 13:09:16 2007
Response via : Single Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	123	0.00
2	I	Naphthalene-d8	1.000	1.000	0.0	125	0.00
3	S	Nitrobenzene-d5	0.000	0.000#	0.0	0#	-11.75#
4	T	2-Chloroacetophenone - CN	0.568	0.551	3.0	125	0.00
5	I	Acenaphthene-d10	1.000	1.000	0.0	122	0.00
6	T	2-Chlorobenzalmalononitrile	0.745	0.715	4.0	123	0.00
7	S	2-Fluorobiphenyl	0.000	0.000#	0.0	0#	-15.11#
8	I	Phenanthrene-d10	1.000	1.000	0.0	119	0.00
9	I	Chrysene-d12	1.000	1.000	0.0	113	0.00
10	S	Terphenyl-d14	0.000	0.000#	0.0	0#	-21.26#
11	I	Perylene-d12	1.000	1.000	0.0	103	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

TRACE METALS

GPL Laboratories

USEPA - CLP

COVER PAGE

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707158W

SOW No.: ILM05.3

EPA Sample No.	Lab Sample ID
GC-TW02-07C	S 707158-005-041-1/1
GC-TW02-07C FIL	S 707158-006-042-1/1
GC-TW02-07C MD	D 707158-005-041-1/1
GC-TW02-07C MS	SP707158-005-041-1/1
GC-TW05-07C	S 707158-007-043-1/1
GC-TW05-07C FIL	S 707158-008-044-1/1
GC-TW05-07C FIL MD	D 707158-008-044-1/1
GC-TW05-07C FIL MS	SP707158-008-044-1/1
GC-TW08-07C	S 707158-009-045-1/1
GC-TW08-07C FIL	S 707158-010-046-1/1

		ICP-AES	ICP-MS
Were ICP-AES and ICP-MS interelement corrections applied?	(Yes/No)	YES	YES
Were ICP-AES and ICP-MS background corrections applied?	(Yes/No)	YES	YES
if yes, were raw data generated before application of background corrections?	(Yes/No)	NO	YES

Comments:

I certify that this Sample Data Package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy Sample Data Package and in the computer-readable data submitted on diskette (or via an alternate means of electronic transmission, if approved in advance by USEPA) has been authorized by the Laboratory Manager or the Manager's designee, as referred by the following signature.

Signature: Rita Amin Name: RITA AMIN

Date: 8/16/2007 Title: Metals Reporting

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

GC-TW02-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707158W

Matrix: (soil/water) WATER Lab Sample ID: S 707158-005-041-1/1

Level: (low/med) Date Recieved: 07/26/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

ACD 9/3/07

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5710		N	P
7440-36-0	Antimony	60.0	U		P
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	26.8	J		P
7441-41-7	Beryllium	5.0	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	846	J		P
7440-47-3	Chromium	10.3			P
7440-48-4	Cobalt	50.0	U		P
7440-50-8	Copper	2.2	J		P
7439-89-6	Iron	5750			P
7439-92-1	Lead	5.1	J		P
7439-95-4	Magnesium	1380	J		P
7439-96-5	Manganese	4.5	J		P
7440-02-0	Nickel	40.0	U		P
7439-97-6	Mercury	0.042	J		CV
7440-09-7	Potassium	1210	J		P
7782-49-2	Selenium	35.0	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	5710			P
7440-28-0	Thallium	5.6	J		P
7440-62-2	Vanadium	9.4	J		P
7440-66-6	Zinc	12.6	J		P

J, MSH

Color Before: Colorless Clarity Before: Clear Texture: NA

Color After: Colorless Clarity After: Clear Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

GC-TW02-07C FIL

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707158W

Matrix: (soil/water) WATER Lab Sample ID: S 707158-006-042-1/1

Level: (low/med) Date Recieved: 07/26/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	71.3	J	N	P
7440-36-0	Antimony	60.0	U		P
7440-38-2	Arsenic	3.2	J		P
7440-39-3	Barium	15.2	J		P
7441-41-7	Beryllium	5.0	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	877	J		P
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	0.98	J		P
7440-50-8	Copper	0.96	J		P
7439-89-6	Iron	4670			P
7439-92-1	Lead	10.0	U		P
7439-95-4	Magnesium	1190	J		P
7439-96-5	Manganese	2.1	J		P
7439-97-6	Mercury	0.057	J		CV
7440-02-0	Nickel	40.0	U		P
7440-09-7	Potassium	787	J		P
7782-49-2	Selenium	35.0	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	6150			P
7440-28-0	Thallium	25.0	U		P
7440-62-2	Vanadium	2.2	J		P
7440-66-6	Zinc	9.3	J		P

J, NSH
ACD
9/3/07

Color Before: Colorless Clarity Before: Clear Texture: NA

Color After: Colorless Clarity After: Clear Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

GC-TW05-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707158W

Matrix: (soil/water) WATER Lab Sample ID: S 707158-007-043-1/1

Level: (low/med) Date Recieved: 07/26/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

ACD 9/3/07

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	203		N	P
7440-36-0	Antimony	60.0	U		P
7440-38-2	Arsenic	2.9	J		P
7440-39-3	Barium	22.5	J		P
7441-41-7	Beryllium	5.0	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	67200			P
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	0.63	J		P
7440-50-8	Copper	1.8	J		P
7439-89-6	Iron	3370			P
7439-92-1	Lead	10.0	U		P
7439-95-4	Magnesium	1860	J		P
7439-96-5	Manganese	9.8	J		P
7440-02-0	Nickel	40.0	U		P
7439-97-6	Mercury	0.20	U		CV
7440-09-7	Potassium	1070	J		P
7782-49-2	Selenium	35.0	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	6800			P
7440-28-0	Thallium	25.0	U		P
7440-62-2	Vanadium	50.0	U		P
7440-66-6	Zinc	9.1	J		P

J, MSH

Color Before: Colorless Clarity Before: Clear Texture: NA

Color After: Colorless Clarity After: Clear Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

GC-TW05-07C FIL

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707158W

Matrix: (soil/water) WATER Lab Sample ID: S 707158-008-044-1/1

Level: (low/med) Date Recieved: 07/26/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

ACP 9/3/07

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	200	U	N	P
7440-36-0	Antimony	60.0	U		P
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	21.7	J		P
7441-41-7	Beryllium	5.0	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	69100			P
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	50.0	U		P
7440-50-8	Copper	2.0	J		P
7439-89-6	Iron	2660			P
7439-92-1	Lead	10.0	U		P
7439-95-4	Magnesium	1940	J		P
7439-96-5	Manganese	9.1	J		P
7440-02-0	Nickel	40.0	U		P
7439-97-6	Mercury	0.023	J		CV
7440-09-7	Potassium	1190	J		P
7782-49-2	Selenium	35.0	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	7330			P
7440-28-0	Thallium	25.0	U		P
7440-62-2	Vanadium	50.0	U		P
7440-66-6	Zinc	16.0	J		P

Color Before: Colorless Clarity Before: Clear Texture: NA

Color After: Colorless Clarity After: Clear Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

GC-TW08-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707158W

Matrix: (soil/water) WATER Lab Sample ID: S 707158-009-045-1/1

Level: (low/med) Date Recieved: 07/26/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	563		N	P
7440-36-0	Antimony	60.0	U		P
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	33.1	J		P
7441-41-7	Beryllium	5.0	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	1030	J		P
7440-47-3	Chromium	1.2	J		P
7440-48-4	Cobalt	1.2	J		P
7440-50-8	Copper	1.7	J		P
7439-89-6	Iron	1620			P
7439-92-1	Lead	10.0	U		P
7439-95-4	Magnesium	906	J		P
7439-96-5	Manganese	7.6	J		P
7439-97-6	Mercury	0.035	J		CV
7440-02-0	Nickel	1.2	J		P
7440-09-7	Potassium	1030	J		P
7782-49-2	Selenium	35.0	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	6070			P
7440-28-0	Thallium	25.0	U		P
7440-62-2	Vanadium	1.2	J		P
7440-66-6	Zinc	11.9	J		P

Color Before: Colorless Clarity Before: Clear Texture: NA

Color After: Colorless Clarity After: Clear Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

GC-TW08-07C FIL

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707158W

Matrix: (soil/water) WATER Lab Sample ID: S 707158-010-046-1/1

Level: (low/med) Date Recieved: 07/26/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

AEP 9/3/07

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	200	U	~~N~~	P
7440-36-0	Antimony	60.0	U		P
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	32.2	J		P
7441-41-7	Beryllium	5.0	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	985	J		P
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	50.0	U		P
7440-50-8	Copper	1.0	J		P
7439-89-6	Iron	1240			P
7439-92-1	Lead	10.0	U		P
7439-95-4	Magnesium	895	J		P
7439-96-5	Manganese	6.5	J		P
7440-02-0	Nickel	40.0	U		P
7439-97-6	Mercury	0.033	J		CV
7440-09-7	Potassium	986	J		P
7782-49-2	Selenium	35.0	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	6270			P
7440-28-0	Thallium	25.0	U		P
7440-62-2	Vanadium	50.0	U		P
7440-66-6	Zinc	10.0	J		P

Color Before: Colorless Clarity Before: Clear Texture: NA

Color After: Colorless Clarity After: Clear Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

GC-ISO9-0-1-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707158S

Matrix: (soil/water) SOIL Lab Sample ID: S 707158-001-013-1/1

Level: (low/med) Date Recieved: 07/26/2007

% Solids: 83.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	336	J,LD		P
7440-36-0	Antimony	5.5	U		P
7440-38-2	Arsenic	0.91	U		P
7440-39-3	Barium	2.9	J		P
7441-41-7	Beryllium	0.46	U		P
7440-43-9	Cadmium	0.46	U		P
7440-70-2	Calcium	78.1	J		P
7440-47-3	Chromium	0.81	J		P
7440-48-4	Cobalt	4.6	U		P
7440-50-8	Copper	0.098	J		P
7439-89-6	Iron	226	J,LD		P
7439-92-1	Lead	3.1			P
7439-95-4	Magnesium	20.2	J		P
7439-96-5	Manganese	4.0			P
7439-97-6	Mercury	0.0075	J		AV
7440-02-0	Nickel	3.7	U		P
7440-09-7	Potassium	27.8	J		P
7782-49-2	Selenium	3.2	U		P
7440-22-4	Silver	0.91	U		P
7440-23-5	Sodium	58.6	J		P
7440-28-0	Thallium	2.3	U		P
7440-62-2	Vanadium	1.3	J		P
7440-66-6	Zinc	3.1	J		P

AGP 9/5/07

Color Before: Grey Clarity Before: NA Texture: Medium

Color After: Yellow Clarity After: Clear Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

GC-ISO9-8-10-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707158S

Matrix: (soil/water) SOIL Lab Sample ID: S 707158-002-014-1/1

Level: (low/med) Date Recieved: 07/26/2007

% Solids: 87.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7100	J,LD		P
7440-36-0	Antimony	0.27	J		P
7440-38-2	Arsenic	0.30	J		P
7440-39-3	Barium	10.0	J		P
7441-41-7	Beryllium	0.057	J		P
7440-43-9	Cadmium	0.41	U		P
7440-70-2	Calcium	60.7	J		P
7440-47-3	Chromium	8.5			P
7440-48-4	Cobalt	0.66	J		P
7440-50-8	Copper	1.4	J		P
7439-89-6	Iron	1800	J,LD		P
7439-92-1	Lead	3.6			P
7439-95-4	Magnesium	197	J		P
7439-96-5	Manganese	13.8			P
7439-97-6	Mercury	0.021	J		AV
7440-02-0	Nickel	1.2	J		P
7440-09-7	Potassium	243	J		P
7782-49-2	Selenium	2.9	U		P
7440-22-4	Silver	0.82	U		P
7440-23-5	Sodium	82.3	J		P
7440-28-0	Thallium	2.1	U		P
7440-62-2	Vanadium	9.1			P
7440-66-6	Zinc	4.2	J		P

✓ AED 9/5/07

Color Before: Grey Clarity Before: NA Texture: Medium

Color After: Yellow Clarity After: Clear Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

GC-ISO10-0-1-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707158S

Matrix: (soil/water) SOIL Lab Sample ID: S 707158-003-015-1/1

Level: (low/med) Date Recieved: 07/26/2007

% Solids: 91.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	970	J,LD	*	P
7440-36-0	Antimony	4.8	U		P
7440-38-2	Arsenic	0.20	J		P
7440-39-3	Barium	4.2	J		P
7441-41-7	Beryllium	0.40	U		P
7440-43-9	Cadmium	0.40	U		P
7440-70-2	Calcium	71.8	J		P
7440-47-3	Chromium	1.2			P
7440-48-4	Cobalt	4.0	U		P
7440-50-8	Copper	0.18	J		P
7439-89-6	Iron	155	J,LD	*	P
7439-92-1	Lead	2.4			P
7439-95-4	Magnesium	29.1	J		P
7439-96-5	Manganese	2.0			P
7439-97-6	Mercury	0.037			AV
7440-02-0	Nickel	0.10	J		P
7440-09-7	Potassium	28.6	J		P
7782-49-2	Selenium	2.8	U		P
7440-22-4	Silver	0.80	U		P
7440-23-5	Sodium	65.7	J		P
7440-28-0	Thallium	2.0	U		P
7440-62-2	Vanadium	1.2	J		P
7440-66-6	Zinc	3.0	J		P

✓ ACD 9/5/07

Color Before: Black Clarity Before: NA Texture: Medium

Color After: Yellow Clarity After: Clear Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

GC-ISO10-3-5-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707158S

Matrix: (soil/water) SOIL Lab Sample ID: S 707158-004-016-1/1

Level: (low/med) Date Recieved: 07/26/2007

% Solids: 84.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1110	J,LD	*	P
7440-36-0	Antimony	5.2	U		P
7440-38-2	Arsenic	0.87	U		P
7440-39-3	Barium	2.0	J		P
7441-41-7	Beryllium	0.44	U		P
7440-43-9	Cadmium	0.44	U		P
7440-70-2	Calcium	35.4	J		P
7440-47-3	Chromium	1.5			P
7440-48-4	Cobalt	4.4	U		P
7440-50-8	Copper	0.24	J		P
7439-89-6	Iron	166	J,LD	*	P
7439-92-1	Lead	1.9			P
7439-95-4	Magnesium	40.9	J		P
7439-96-5	Manganese	1.6			P
7439-97-6	Mercury	0.026	J		AV
7440-02-0	Nickel	3.5	U		P
7440-09-7	Potassium	44.2	J		P
7782-49-2	Selenium	3.1	U		P
7440-22-4	Silver	0.87	U		P
7440-23-5	Sodium	75.3	J		P
7440-28-0	Thallium	2.2	U		P
7440-62-2	Vanadium	1.4	J		P
7440-66-6	Zinc	2.0	J		P

✓ ACP 9/5/07

Color Before: Grey Clarity Before: NA Texture: Medium

Color After: Yellow Clarity After: Clear Artifacts: NA

Comments:

Task for Billing:
356052.SA.SM.GC (verify with PM)

Archived By:

Date:

Box Number:

Binder Number:

LIST OF CONTENTS

Clean II or III: III

CTO NUMBER: 169

PROJECT NUMBER: 356052.SA.SM.GC

PM NAME: Dan Tomczak

BASE NAME: MCB Camp Lejeune

CLIENT NAME: LANTNAVFACENGCOM

PROJECT DESCRIPTION: MILCON Area Investigations, July 2007

EIS: Felicia Arroyo DATE: 8/17/07

Laboratory Data ___X____ or Validation Reports_____

SDG Description: Gas Chamber Soil and GW

SDG# or Lot #: 707158

Sampling Date: 7/25/07

Sub-Contractor Name: GPL Laboratories

Analysis:

_____X_____VOA or Volatile

_____X_____SVOA or Semivolatile

_____Pesticide / PCBs

_____Herbicides

_____X_____Metal or Inorganic

_____Wet Chemistry, Miscellaneous or General Chemistry

_____Dioxins

_____Explosives

_____TCLP

_____TPH - Diesel Range Organics (DRO), Gasoline Range Organics (GRO)

_____ Grain Size

_____ Other:

Analytical Report For 707158

for

CH2M Hill Inc

3560523 ASM SR
GC
GC
25

Project Manager: Ryan Van Oosten

Project Name: MILCON Area Investigations - CTO-169

GPL

Laboratories

GPL Laboratories, LLLP certifies that the test results meet all requirements of the NELAC Standards unless otherwise noted.

Reviewed By,
Project Manager

Approved By,
Laboratory Director

The Case Narrative, Chain of Custody, Sample Receipt Checklist, and the cover page of the Sample Analysis Report, are integral parts of GPL Laboratories' report package. If you did not receive all of these documents, please contact GPL immediately.

Sample Receipt

Seven water and four soil samples were received on 07/26/2007. The samples were delivered by Federal Express. Sample receipt conditions and temperatures are documented on the Sample Receipt checklist.

Sample Analysis

Samples were prepared and analyzed by GPL using the analytical methodologies indicated on the Sample Analysis Summary Report. In some chromatographic analyses, manual integration is used instead of automated integration because it produces more accurate results. All manual integrations are denoted on the sample quantitation report. Analysis results and limits for soil are reported on a dry weight basis unless otherwise specified on the report.

Volatiles

Four soils and four water samples were analyzed for volatile organic compounds by CLP OLM04.3 methodology.

All samples were analyzed within the holding time.

Samples GC-ISO9-0-1-07C, GC-TW05-07,GC-TW02-07, GC-TW08-07 and the Holding Blank had surrogate recoveries outside QC limits. Samples GC-ISO10-0-1-07C and GC-ISO9-0-1-07C each had one low internal standard responses and failed to meet QC criteria limits. All these samples were re-analyzed within the holding time. The Trip Blank was reanalyzed due to the initial analysis being outside of the 12-hour tune time. The reanalyses results exhibited good surrogate recoveries for soil samples GC-ISO10-0-1-07C and GC-ISO9-0-1-07C and internal standard responses met the QC criteria limits. The reanalyses results of water samples exhibited similar surrogate recoveries. The results will be reported from initial analyses for water and the reanalyses for the soils.

Matrix spike and matrix spike duplicate analyses could not be performed due to lack of sample volume.

A laboratory control sample was analyzed along with each sample batch. All recoveries were within QC limits.

TIC's were done for all of the samples and the method blanks. The results from the library search are included in this package.

Manual integration was performed on some peaks that were improperly integrated by the software. The manually integrated compounds are designated by an "m" next to the area of the quantitation report and the chromatograms were submitted with the package.

Semivolatiles

Three water and four soil samples were extracted and analyzed for semi-volatile organic compounds by CLP OLM04.3 methodology. In addition to the regular list of compounds, the samples were also analyzed for the following: 2-Chloroacetophenone(CN) and 2-Chlorobenzalmalonon(CS).

Extraction and analysis holding times were met.

All surrogate recoveries were within QC limits.

The soil method blank BLK99545 showed the presence of Di-n-butylphthalate at a low concentration of 46 ug/kg. Because this is less than one half the reporting limit, no corrective action is necessary.

For the water samples; matrix spike and matrix spike duplicate analyses were not performed due to insufficient sample volume. Instead, duplicate laboratory control samples were extracted and analyzed along with the water batch. The %RPD for two

compounds was slightly above the QC limit. All percent recoveries were within QC limits.

Matrix spike and matrix spike duplicate analyses for soil were performed on sample GC-ISO9-0-1-07C. Percent recovery of 2,4-dinitrotoluene was was slightly above the QC limits in the MSD. A laboratory control sample was extracted and analyzed along with the soil batch. Five spike recoveries were slightly above the QC limits. Because recoveries were high, and none of these compounds were detected in any of the associated client samples, no further corrective action was performed.

TIC analysis is provided with these analyses. Alkanes found, if any, are listed as part of the case narrative as per the SOW.

Due to a software limitation, the Form VI and VII's included in this data package for the additional compounds are included in their raw format.

The laboratory uses the following column and its specs:
J&W Scientific DB-5MS
0.25mm internal diameter
1.0um film thickness
30m length
(5%Phenyl)methylpolysiloxane coating.

Metals

Six water and four soil samples were analyzed for HSL metals by CLP ILM05.3 methods.

The water and soil samples were reported on separate forms.

A matrix spike, duplicate, and serial dilution were performed on water sample GC-TW02-07C for all required ICP analytes. The matrix spike was outside of the control limits for aluminum; all associated data were flagged with an "N". A post digestion analytical spike was performed with a recovery 114% for aluminum.

A matrix spike and duplicate were performed on water sample GC-TW05-07C FIL for mercury. They were within the control limits.

A matrix spike, duplicate, and serial dilution were performed on soil sample GC-ISO9-0-1-07C for all required ICP analytes. The duplicate was outside of the control limits for aluminum and iron; all associated data were flagged with an "*".

A matrix spike and duplicate were shared on the soil sample with GPL work order 707172-004 for mercury. They were within the control limits.

Calibration standards are verified against independent check standards purchased from a commercial vendor of environmental standards.

All GPL QA/QC criteria were met with the exceptions of those mentioned above.

Reviewed By,
Project Manager

Approved By,
Laboratory Director

VOLATILE ORGANICS

GPL Laboratories

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
GC-ISO9-0-1-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707158
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707158-001-002-2/3RE
Sample Volume :	4.29	Lab File ID :	F46708.D
Level :	Low	Date Received	07/26/2007
% Moisture: not dec	16.36	Date Analyzed	08/03/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

ACP 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
75-34-3	1,1-Dichloroethane	12	U
75-35-4	1,1-Dichloroethene	12	U
120-82-1	1,2,4-Trichlorobenzene	12	U
96-12-8	1,2-Dibromo-3-Chloropropane	12	U
95-50-1	1,2-Dichlorobenzene	12	U
107-06-2	1,2-Dichloroethane	12	U
78-87-5	1,2-Dichloropropane	12	U
541-73-1	1,3-Dichlorobenzene	12	U
106-46-7	1,4-Dichlorobenzene	12	U
78-93-3	2-Butanone	12	U
591-78-6	2-Hexanone	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
67-64-1	Acetone	12	U
71-43-2	Benzene	12	U
75-27-4	Bromodichloromethane	12	U
75-25-2	Bromoform	12	U
74-83-9	Bromomethane	12	U
75-15-0	Carbon Disulfide	12	U
56-23-5	Carbon Tetrachloride	12	U
108-90-7	Chlorobenzene	12	U
75-00-3	Chloroethane	12	U
67-66-3	Chloroform	12	U
74-87-3	Chloromethane	12	U
110-82-7	Cyclohexane	12	U
124-48-1	Dibromochloromethane	12	U
75-71-8	Dichlorodifluoromethane	12	U

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
GC-ISO9-0-1-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707158
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707158-001-002-2/3RE
Sample Volume :	4.29	Lab File ID :	F46708.D
Level :	Low	Date Received	07/26/2007
% Moisture: not dec	16.36	Date Analyzed	08/03/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ AEW 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	12	U
106-93-4	Ethylene Dibromide	12	U
76-13-1	Freon 113	12	U
98-82-8	Isopropylbenzene	12	U
79-20-9	Methyl Acetate	12	U
108-87-2	Methylcyclohexane	12	U
75-09-2	Methylene Chloride	12	U
100-42-5	Styrene	12	U
127-18-4	Tetrachloroethylene	12	U
108-88-3	Toluene	12	U
79-01-6	Trichloroethene	12	U
75-69-4	Trichlorofluoromethane	12	U
75-01-4	Vinyl Chloride	12	U
1330-20-7	Xylenes, Total	12	U
156-59-2	cis-1,2-Dichloroethene	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
1634-04-4	tert-butyl methyl ether	12	U
156-60-5	trans-1,2-dichloroethene	12	U
10061-02-6	trans-1,3-dichloropropene	12	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

for QM/QC

SAMPLE NO
GC-ISO9-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707158
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707158-001-001-1/3
Sample Volume :	4.26	Lab File ID :	F46694.D
Level :	Low	Date Received	07/26/2007
% Moisture: not dec	16.36	Date Analyzed	08/02/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

AD 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	14	U
79-34-5	1,1,2,2-Tetrachloroethane	14	U
79-00-5	1,1,2-Trichloroethane	14	U
75-34-3	1,1-Dichloroethane	14	U
75-35-4	1,1-Dichloroethene	14	U
120-82-1	1,2,4-Trichlorobenzene	14	U
96-12-8	1,2-Dibromo-3-Chloropropane	14	U
95-50-1	1,2-Dichlorobenzene	14	U
107-06-2	1,2-Dichloroethane	14	U
78-87-5	1,2-Dichloropropane	14	U
541-73-1	1,3-Dichlorobenzene	14	U
106-46-7	1,4-Dichlorobenzene	14	U
78-93-3	2-Butanone	14	U
591-78-6	2-Hexanone	14	U
108-10-1	4-Methyl-2-Pentanone	14	U
67-64-1	Acetone	26	
71-43-2	Benzene	14	U
75-27-4	Bromodichloromethane	14	U
75-25-2	Bromoform	14	U
74-83-9	Bromomethane	14	U
75-15-0	Carbon Disulfide	14	U
56-23-5	Carbon Tetrachloride	14	U
108-90-7	Chlorobenzene	14	U
75-00-3	Chloroethane	14	U
67-66-3	Chloroform	14	U
74-87-3	Chloromethane	14	U
110-82-7	Cyclohexane	6.9	J
124-48-1	Dibromochloromethane	14	U
75-71-8	Dichlorodifluoromethane	14	U

R.RE

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
GC-ISO9-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707158
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707158-001-001-1/3
Sample Volume :	4.26	Lab File ID :	F46694.D
Level :	Low	Date Received	07/26/2007
% Moisture: not dec	16.36	Date Analyzed	08/02/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ ACD 9/3/07

R.RE

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	10	J
106-93-4	Ethylene Dibromide	14	U
76-13-1	Freon 113	14	U
98-82-8	Isopropylbenzene	14	U
79-20-9	Methyl Acetate	14	U
108-87-2	Methylcyclohexane	8.7	J
75-09-2	Methylene Chloride	15	
100-42-5	Styrene	14	U
127-18-4	Tetrachloroethylene	14	U
108-88-3	Toluene	28	
79-01-6	Trichloroethene	14	U
75-69-4	Trichlorofluoromethane	14	U
75-01-4	Vinyl Chloride	14	U
1330-20-7	Xylenes, Total	39	
156-59-2	cis-1,2-Dichloroethene	14	U
10061-01-5	cis-1,3-Dichloropropene	14	U
1634-04-4	tert-butyl methyl ether	14	U
156-60-5	trans-1,2-dichloroethene	14	U
10061-02-6	trans-1,3-dichloropropene	14	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
GC-ISO9-0-1-07C

Lab Name: GPL Laboratories, LLLP
Contract: CH2M Hill Inc
Lab Code: GPL Case No.: NA
SAS No.: NA SDG No.: 707158
Matrix (soil/water): SOIL
Lab Sample ID: 707158-001-001-1/3
Sample wt/vol: 4.26 (g/ml) g
Lab File ID: F46694.D
Level (low/med): LOW
Date Recieved 07/26/2007
% Moisture: 16.36
Date Analyzed: 08/02/2007
GC Column: RTX VOA ID: 0.53 (mm)
Dilution Factor: 1
Soil Extract Volume: (uL)
Soil Aliquot Volume: (uL)

Number TICs Found: 12
Concentration Units (ug/L or ug/kg): ug/kg

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q
1	000095-47-6	o-Xylene	20.45	11	JN
2	000107-83-5	Pentane, 2-methyl-	8.31	11	JN
3	000107-83-5	Pentane, 2-methyl-	8.33	5.15	JN
4	000109-66-0	Pentane	6.57	8.87	JN
5	000110-54-3	Hexane	9.34	9.74	JN
6	000526-73-8	Benzene, 1,2,3-	22.91	17	JN
7	000620-14-4	Benzene, 1-ethyl-3-	22.04	16	JN
8	000620-14-4	Benzene, 1-ethyl-3-	22.14	4.97	JN
9		unknown	17.49	4.33	J
10		unknown	6.07	12	J
11		unknown	8.84	3.94	J
12		unknown	8.85	3.28	J

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
GC-ISO9-8-10-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707158
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707158-002-004-1/3
Sample Volume :	5.59	Lab File ID :	F46695.D
Level :	Low	Date Received	07/26/2007
% Moisture: not dec	12.32	Date Analyzed	08/02/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

AEN 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
75-34-3	1,1-Dichloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
95-50-1	1,2-Dichlorobenzene	10	U
107-06-2	1,2-Dichloroethane	10	U
78-87-5	1,2-Dichloropropane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
78-93-3	2-Butanone	10	U
591-78-6	2-Hexanone	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
67-64-1	Acetone	24	
71-43-2	Benzene	10	U
75-27-4	Bromodichloromethane	10	U
75-25-2	Bromoform	10	U
74-83-9	Bromomethane	10	U
75-15-0	Carbon Disulfide	10	U
56-23-5	Carbon Tetrachloride	10	U
108-90-7	Chlorobenzene	10	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	10	U
74-87-3	Chloromethane	10	U
110-82-7	Cyclohexane	10	U
124-48-1	Dibromochloromethane	10	U
75-71-8	Dichlorodifluoromethane	10	U

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
GC-ISO9-8-10-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707158
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707158-002-004-1/3
Sample Volume :	5.59	Lab File ID :	F46695.D
Level :	Low	Date Received	07/26/2007
% Moisture: not dec	12.32	Date Analyzed	08/02/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ ACP 9/13/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	10	U
106-93-4	Ethylene Dibromide	10	U
76-13-1	Freon 113	10	U
98-82-8	Isopropylbenzene	10	U
79-20-9	Methyl Acetate	10	U
108-87-2	Methylcyclohexane	10	U
75-09-2	Methylene Chloride	10	
100-42-5	Styrene	10	U
127-18-4	Tetrachloroethylene	10	U
108-88-3	Toluene	10	U
79-01-6	Trichloroethene	10	U
75-69-4	Trichlorofluoromethane	10	U
75-01-4	Vinyl Chloride	10	U
1330-20-7	Xylenes, Total	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
1634-04-4	tert-butyl methyl ether	10	U
156-60-5	trans-1,2-dichloroethene	10	U
10061-02-6	trans-1,3-dichloropropene	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

GC-ISO9-8-10-07C

Lab Name: GPL Laboratories, LLLP
Contract: CH2M Hill Inc
Lab Code: GPL Case No.: NA
SAS No.: NA SDG No.: 707158
Matrix (soil/water): SOIL
Lab Sample ID: 707158-002-004-1/3
Sample wt/vol: 5.59 (g/ml) g
Lab File ID: F46695.D
Level (low/med): LOW
Date Recieved 07/26/2007
% Moisture: 12.32
Date Analyzed: 08/02/2007
GC Column: RTX VOA ID: 0.53 (mm)
Dilution Factor: 1
Soil Extract Volume: _____ (uL)
Soil Aliquot Volume: _____ (uL)

Number TICs Found: 0
Concentration Units (ug/L or ug/kg): _____

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
GC-ISO10-0-1-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707158
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707158-003-008-2/3RE
Sample Volume :	4.68	Lab File ID :	F46709.D
Level :	Low	Date Received	07/26/2007
% Moisture: not dec	8.9	Date Analyzed	08/03/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

ACD 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
75-34-3	1,1-Dichloroethane	11	U
75-35-4	1,1-Dichloroethene	11	U
120-82-1	1,2,4-Trichlorobenzene	11	U
96-12-8	1,2-Dibromo-3-Chloropropane	11	U
95-50-1	1,2-Dichlorobenzene	11	U
107-06-2	1,2-Dichloroethane	11	U
78-87-5	1,2-Dichloropropane	11	U
541-73-1	1,3-Dichlorobenzene	11	U
106-46-7	1,4-Dichlorobenzene	11	U
78-93-3	2-Butanone	11	U
591-78-6	2-Hexanone	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
67-64-1	Acetone	23	
71-43-2	Benzene	11	U
75-27-4	Bromodichloromethane	11	U
75-25-2	Bromoform	11	U
74-83-9	Bromomethane	11	U
75-15-0	Carbon Disulfide	11	U
56-23-5	Carbon Tetrachloride	11	U
108-90-7	Chlorobenzene	11	U
75-00-3	Chloroethane	11	U
67-66-3	Chloroform	11	U
74-87-3	Chloromethane	11	U
110-82-7	Cyclohexane	11	U
124-48-1	Dibromochloromethane	11	U
75-71-8	Dichlorodifluoromethane	11	U

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
GC-ISO10-0-1-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707158
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707158-003-008-2/3RE
Sample Volume :	4.68	Lab File ID :	F46709.D
Level :	Low	Date Received	07/26/2007
% Moisture: not dec	8.9	Date Analyzed	08/03/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

AED 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	11	U
106-93-4	Ethylene Dibromide	11	U
76-13-1	Freon 113	11	U
98-82-8	Isopropylbenzene	11	U
79-20-9	Methyl Acetate	11	U
108-87-2	Methylcyclohexane	11	U
75-09-2	Methylene Chloride	11	U
100-42-5	Styrene	11	U
127-18-4	Tetrachloroethylene	11	U
108-88-3	Toluene	11	U
79-01-6	Trichloroethene	11	U
75-69-4	Trichlorofluoromethane	11	U
75-01-4	Vinyl Chloride	11	U
1330-20-7	Xylenes, Total	11	U
156-59-2	cis-1,2-Dichloroethene	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
1634-04-4	tert-butyl methyl ether	11	U
156-60-5	trans-1,2-dichloroethene	11	U
10061-02-6	trans-1,3-dichloropropene	11	U

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

for QA/QC

SAMPLE NO
GC-ISO10-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707158
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707158-003-007-1/3
Sample Volume :	4.71	Lab File ID :	F46696.D
Level :	Low	Date Received	07/26/2007
% Moisture: not dec	8.9	Date Analyzed	08/02/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ ACD 9/13/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

R, RE

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
75-34-3	1,1-Dichloroethane	12	U
75-35-4	1,1-Dichloroethene	12	U
120-82-1	1,2,4-Trichlorobenzene	12	U
96-12-8	1,2-Dibromo-3-Chloropropane	12	U
95-50-1	1,2-Dichlorobenzene	12	U
107-06-2	1,2-Dichloroethane	12	U
78-87-5	1,2-Dichloropropane	12	U
541-73-1	1,3-Dichlorobenzene	12	U
106-46-7	1,4-Dichlorobenzene	12	U
78-93-3	2-Butanone	12	U
591-78-6	2-Hexanone	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
67-64-1	Acetone	13	
71-43-2	Benzene	12	U
75-27-4	Bromodichloromethane	12	U
75-25-2	Bromoform	12	U
74-83-9	Bromomethane	12	U
75-15-0	Carbon Disulfide	12	U
56-23-5	Carbon Tetrachloride	12	U
108-90-7	Chlorobenzene	12	U
75-00-3	Chloroethane	12	U
67-66-3	Chloroform	12	U
74-87-3	Chloromethane	12	U
110-82-7	Cyclohexane	12	U
124-48-1	Dibromochloromethane	12	U
75-71-8	Dichlorodifluoromethane	12	U

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
GC-ISO10-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707158
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707158-003-007-1/3
Sample Volume :	4.71	Lab File ID :	F46696.D
Level :	Low	Date Received	07/26/2007
% Moisture: not dec	8.9	Date Analyzed	08/02/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ ACD 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	12	U
106-93-4	Ethylene Dibromide	12	U
76-13-1	Freon 113	12	U
98-82-8	Isopropylbenzene	12	U
79-20-9	Methyl Acetate	12	U
108-87-2	Methylcyclohexane	12	U
75-09-2	Methylene Chloride	10	J
100-42-5	Styrene	12	U
127-18-4	Tetrachloroethylene	12	U
108-88-3	Toluene	12	U
79-01-6	Trichloroethene	12	U
75-69-4	Trichlorofluoromethane	12	U
75-01-4	Vinyl Chloride	12	U
1330-20-7	Xylenes, Total	12	U
156-59-2	cis-1,2-Dichloroethene	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
1634-04-4	tert-butyl methyl ether	12	U
156-60-5	trans-1,2-dichloroethene	12	U
10061-02-6	trans-1,3-dichloropropene	12	U

R, RE

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-ISO10-3-5-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707158
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707158-004-010-1/3
Sample Volume :	7.85	Lab File ID :	F46697.D
Level :	Low	Date Received	07/26/2007
% Moisture: not dec	15.11	Date Analyzed	08/02/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ ACD 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	7.5	U
79-34-5	1,1,2,2-Tetrachloroethane	7.5	U
79-00-5	1,1,2-Trichloroethane	7.5	U
75-34-3	1,1-Dichloroethane	7.5	U
75-35-4	1,1-Dichloroethene	7.5	U
120-82-1	1,2,4-Trichlorobenzene	7.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	7.5	U
95-50-1	1,2-Dichlorobenzene	7.5	U
107-06-2	1,2-Dichloroethane	7.5	U
78-87-5	1,2-Dichloropropane	7.5	U
541-73-1	1,3-Dichlorobenzene	7.5	U
106-46-7	1,4-Dichlorobenzene	7.5	U
78-93-3	2-Butanone	7.5	U
591-78-6	2-Hexanone	7.5	U
108-10-1	4-Methyl-2-Pentanone	7.5	U
67-64-1	Acetone	7.7	
71-43-2	Benzene	7.5	U
75-27-4	Bromodichloromethane	7.5	U
75-25-2	Bromoform	7.5	U
74-83-9	Bromomethane	7.5	U
75-15-0	Carbon Disulfide	7.5	U
56-23-5	Carbon Tetrachloride	7.5	U
108-90-7	Chlorobenzene	7.5	U
75-00-3	Chloroethane	7.5	U
67-66-3	Chloroform	7.5	U
74-87-3	Chloromethane	7.5	U
110-82-7	Cyclohexane	7.5	U
124-48-1	Dibromochloromethane	7.5	U
75-71-8	Dichlorodifluoromethane	7.5	U

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
GC-ISO10-3-5-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707158
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707158-004-010-1/3
Sample Volume :	7.85	Lab File ID :	F46697.D
Level :	Low	Date Received	07/26/2007
% Moisture: not dec	15.11	Date Analyzed	08/02/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ ACD 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	7.5	U
106-93-4	Ethylene Dibromide	7.5	U
76-13-1	Freon 113	7.5	U
98-82-8	Isopropylbenzene	7.5	U
79-20-9	Methyl Acetate	7.5	U
108-87-2	Methylcyclohexane	7.5	U
75-09-2	Methylene Chloride	6.8	J
100-42-5	Styrene	7.5	U
127-18-4	Tetrachloroethylene	7.5	U
108-88-3	Toluene	7.5	U
79-01-6	Trichloroethene	7.5	U
75-69-4	Trichlorofluoromethane	7.5	U
75-01-4	Vinyl Chloride	7.5	U
1330-20-7	Xylenes, Total	7.5	U
156-59-2	cis-1,2-Dichloroethene	7.5	U
10061-01-5	cis-1,3-Dichloropropene	7.5	U
1634-04-4	tert-butyl methyl ether	7.5	U
156-60-5	trans-1,2-dichloroethene	7.5	U
10061-02-6	trans-1,3-dichloropropene	7.5	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-TW02-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707158
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707158-005-021-1/3
Sample Volume :	5	Lab File ID :	F46698.D
Level :	Low	Date Received	07/26/2007
% Moisture: not dec		Date Analyzed	08/02/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ ACD 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/L

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
75-34-3	1,1-Dichloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
95-50-1	1,2-Dichlorobenzene	10	U
107-06-2	1,2-Dichloroethane	10	U
78-87-5	1,2-Dichloropropane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
78-93-3	2-Butanone	10	U
591-78-6	2-Hexanone	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
67-64-1	Acetone	10	U
71-43-2	Benzene	10	U
75-27-4	Bromodichloromethane	10	U
75-25-2	Bromoform	10	U
74-83-9	Bromomethane	10	U
75-15-0	Carbon Disulfide	10	U
56-23-5	Carbon Tetrachloride	10	U
108-90-7	Chlorobenzene	10	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	10	U
74-87-3	Chloromethane	10	U
110-82-7	Cyclohexane	10	U
124-48-1	Dibromochloromethane	10	U
75-71-8	Dichlorodifluoromethane	10	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-TW02-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707158
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707158-005-021-1/3
Sample Volume :	5	Lab File ID :	F46698.D
Level :	Low	Date Received	07/26/2007
% Moisture: not dec		Date Analyzed	08/02/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ ACD 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/L

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	10	U
106-93-4	Ethylene Dibromide	10	U
76-13-1	Freon 113	10	U
98-82-8	Isopropylbenzene	10	U
79-20-9	Methyl Acetate	10	U
108-87-2	Methylcyclohexane	10	U
75-09-2	Methylene Chloride	10	U
100-42-5	Styrene	10	U
127-18-4	Tetrachloroethylene	10	U
108-88-3	Toluene	6.1	J
79-01-6	Trichloroethene	10	U
75-69-4	Trichlorofluoromethane	10	U
75-01-4	Vinyl Chloride	10	U
1330-20-7	Xylenes, Total	10	J
156-59-2	cis-1,2-Dichloroethene	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
1634-04-4	tert-butyl methyl ether	10	U
156-60-5	trans-1,2-dichloroethene	10	U
10061-02-6	trans-1,3-dichloropropene	10	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

for QA/QC

SAMPLE NO
GC-TW02-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707158
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707158-005-022-2/3RE
Sample Volume :	5	Lab File ID :	F46710.D
Level :	Low	Date Received	07/26/2007
% Moisture: not dec		Date Analyzed	08/03/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

AED 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/L

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
75-34-3	1,1-Dichloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
95-50-1	1,2-Dichlorobenzene	10	U
107-06-2	1,2-Dichloroethane	10	U
78-87-5	1,2-Dichloropropane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
78-93-3	2-Butanone	10	U
591-78-6	2-Hexanone	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
67-64-1	Acetone	12	
71-43-2	Benzene	10	U
75-27-4	Bromodichloromethane	10	U
75-25-2	Bromoform	10	U
74-83-9	Bromomethane	10	U
75-15-0	Carbon Disulfide	10	U
56-23-5	Carbon Tetrachloride	10	U
108-90-7	Chlorobenzene	10	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	10	U
74-87-3	Chloromethane	10	U
110-82-7	Cyclohexane	10	U
124-48-1	Dibromochloromethane	10	U
75-71-8	Dichlorodifluoromethane	10	U

R, RE

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-TW02-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707158
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707158-005-022-2/3RE
Sample Volume :	5	Lab File ID :	F46710.D
Level :	Low	Date Received	07/26/2007
% Moisture: not dec		Date Analyzed	08/03/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

AED 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/L

R, RE

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	10	U
106-93-4	Ethylene Dibromide	10	U
76-13-1	Freon 113	10	U
98-82-8	Isopropylbenzene	10	U
79-20-9	Methyl Acetate	10	U
108-87-2	Methylcyclohexane	10	U
75-09-2	Methylene Chloride	10	U
100-42-5	Styrene	10	U
127-18-4	Tetrachloroethylene	10	U
108-88-3	Toluene	10	U
79-01-6	Trichloroethene	10	U
75-69-4	Trichlorofluoromethane	10	U
75-01-4	Vinyl Chloride	10	U
1330-20-7	Xylenes, Total	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
1634-04-4	tert-butyl methyl ether	10	U
156-60-5	trans-1,2-dichloroethene	10	U
10061-02-6	trans-1,3-dichloropropene	10	U

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
GC-TW05-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707158
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707158-007-024-1/3
Sample Volume :	5	Lab File ID :	F46699.D
Level :	Low	Date Received	07/26/2007
% Moisture: not dec		Date Analyzed	08/02/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

ACD 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/L

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
75-34-3	1,1-Dichloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
95-50-1	1,2-Dichlorobenzene	10	U
107-06-2	1,2-Dichloroethane	10	U
78-87-5	1,2-Dichloropropane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
78-93-3	2-Butanone	10	U
591-78-6	2-Hexanone	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
67-64-1	Acetone	10	U
71-43-2	Benzene	10	U
75-27-4	Bromodichloromethane	10	U
75-25-2	Bromoform	10	U
74-83-9	Bromomethane	10	U
75-15-0	Carbon Disulfide	10	U
56-23-5	Carbon Tetrachloride	10	U
108-90-7	Chlorobenzene	10	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	10	U
74-87-3	Chloromethane	10	U
110-82-7	Cyclohexane	10	U
124-48-1	Dibromochloromethane	10	U
75-71-8	Dichlorodifluoromethane	10	U

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
GC-TW05-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707158
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707158-007-024-1/3
Sample Volume :	5	Lab File ID :	F46699.D
Level :	Low	Date Received	07/26/2007
% Moisture: not dec		Date Analyzed	08/02/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ AED 9/30/07

Concentration Units (mg/L or mg/kg dry weight) : ug/L

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	10	U
106-93-4	Ethylene Dibromide	10	U
76-13-1	Freon 113	10	U
98-82-8	Isopropylbenzene	10	U
79-20-9	Methyl Acetate	10	U
108-87-2	Methylcyclohexane	10	U
75-09-2	Methylene Chloride	10	U
100-42-5	Styrene	10	U
127-18-4	Tetrachloroethylene	10	U
108-88-3	Toluene	10	U
79-01-6	Trichloroethene	10	U
75-69-4	Trichlorofluoromethane	10	U
75-01-4	Vinyl Chloride	10	U
1330-20-7	Xylenes, Total	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
1634-04-4	tert-butyl methyl ether	10	U
156-60-5	trans-1,2-dichloroethene	10	U
10061-02-6	trans-1,3-dichloropropene	10	U

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

for QA/QC

SAMPLE NO
GC-TW05-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707158
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707158-007-025-2/3RE
Sample Volume :	5	Lab File ID :	F46711.D
Level :	Low	Date Received	07/26/2007
% Moisture: not dec		Date Analyzed	08/03/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

AED 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/L

R, RE

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
75-34-3	1,1-Dichloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
95-50-1	1,2-Dichlorobenzene	10	U
107-06-2	1,2-Dichloroethane	10	U
78-87-5	1,2-Dichloropropane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
78-93-3	2-Butanone	10	U
591-78-6	2-Hexanone	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
67-64-1	Acetone	10	U
71-43-2	Benzene	10	U
75-27-4	Bromodichloromethane	10	U
75-25-2	Bromoform	10	U
74-83-9	Bromomethane	10	U
75-15-0	Carbon Disulfide	10	U
56-23-5	Carbon Tetrachloride	10	U
108-90-7	Chlorobenzene	10	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	10	U
74-87-3	Chloromethane	10	U
110-82-7	Cyclohexane	10	U
124-48-1	Dibromochloromethane	10	U
75-71-8	Dichlorodifluoromethane	10	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-TW05-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707158
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707158-007-025-2/3RE
Sample Volume :	5	Lab File ID :	F46711.D
Level :	Low	Date Received	07/26/2007
% Moisture: not dec		Date Analyzed	08/03/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ ACD 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/L

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	10	U
106-93-4	Ethylene Dibromide	10	U
76-13-1	Freon 113	10	U
98-82-8	Isopropylbenzene	10	U
79-20-9	Methyl Acetate	10	U
108-87-2	Methylcyclohexane	10	U
75-09-2	Methylene Chloride	10	U
100-42-5	Styrene	10	U
127-18-4	Tetrachloroethylene	10	U
108-88-3	Toluene	10	U
79-01-6	Trichloroethene	10	U
75-69-4	Trichlorofluoromethane	10	U
75-01-4	Vinyl Chloride	10	U
1330-20-7	Xylenes, Total	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
1634-04-4	tert-butyl methyl ether	10	U
156-60-5	trans-1,2-dichloroethene	10	U
10061-02-6	trans-1,3-dichloropropene	10	U

R.RE

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
GC-TW08-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707158
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707158-009-027-1/3
Sample Volume :	5	Lab File ID :	F46700.D
Level :	Low	Date Received	07/26/2007
% Moisture: not dec		Date Analyzed	08/02/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

HKD 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/L

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
75-34-3	1,1-Dichloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
95-50-1	1,2-Dichlorobenzene	10	U
107-06-2	1,2-Dichloroethane	10	U
78-87-5	1,2-Dichloropropane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
78-93-3	2-Butanone	10	U
591-78-6	2-Hexanone	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
67-64-1	Acetone	10	U
71-43-2	Benzene	10	U
75-27-4	Bromodichloromethane	10	U
75-25-2	Bromoform	10	U
74-83-9	Bromomethane	10	U
75-15-0	Carbon Disulfide	10	U
56-23-5	Carbon Tetrachloride	10	U
108-90-7	Chlorobenzene	10	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	10	U
74-87-3	Chloromethane	10	U
110-82-7	Cyclohexane	10	U
124-48-1	Dibromochloromethane	10	U
75-71-8	Dichlorodifluoromethane	10	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-TW08-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707158
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707158-009-027-1/3
Sample Volume :	5	Lab File ID :	F46700.D
Level :	Low	Date Received	07/26/2007
% Moisture: not dec		Date Analyzed	08/02/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

ACD 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/L

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	10	U
106-93-4	Ethylene Dibromide	10	U
76-13-1	Freon 113	10	U
98-82-8	Isopropylbenzene	10	U
79-20-9	Methyl Acetate	10	U
108-87-2	Methylcyclohexane	10	U
75-09-2	Methylene Chloride	10	U
100-42-5	Styrene	10	U
127-18-4	Tetrachloroethylene	10	U
108-88-3	Toluene	10	U
79-01-6	Trichloroethene	10	U
75-69-4	Trichlorofluoromethane	10	U
75-01-4	Vinyl Chloride	10	U
1330-20-7	Xylenes, Total	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
1634-04-4	tert-butyl methyl ether	10	U
156-60-5	trans-1,2-dichloroethene	10	U
10061-02-6	trans-1,3-dichloropropene	10	U

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

for QA/QC

SAMPLE NO
GC-TW08-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707158
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707158-009-028-2/3RE
Sample Volume :	5	Lab File ID :	F46712.D
Level :	Low	Date Received	07/26/2007
% Moisture: not dec		Date Analyzed	08/03/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

ACP 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/L

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
75-34-3	1,1-Dichloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
95-50-1	1,2-Dichlorobenzene	10	U
107-06-2	1,2-Dichloroethane	10	U
78-87-5	1,2-Dichloropropane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
78-93-3	2-Butanone	10	U
591-78-6	2-Hexanone	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
67-64-1	Acetone	10	U
71-43-2	Benzene	10	U
75-27-4	Bromodichloromethane	10	U
75-25-2	Bromoform	10	U
74-83-9	Bromomethane	10	U
75-15-0	Carbon Disulfide	10	U
56-23-5	Carbon Tetrachloride	10	U
108-90-7	Chlorobenzene	10	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	10	U
74-87-3	Chloromethane	10	U
110-82-7	Cyclohexane	10	U
124-48-1	Dibromochloromethane	10	U
75-71-8	Dichlorodifluoromethane	10	U

R, RE

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
GC-TW08-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707158
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707158-009-028-2/3RE
Sample Volume :	5	Lab File ID :	F46712.D
Level :	Low	Date Received	07/26/2007
% Moisture: not dec		Date Analyzed	08/03/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

AED 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/L

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	10	U
106-93-4	Ethylene Dibromide	10	U
76-13-1	Freon 113	10	U
98-82-8	Isopropylbenzene	10	U
79-20-9	Methyl Acetate	10	U
108-87-2	Methylcyclohexane	10	U
75-09-2	Methylene Chloride	10	U
100-42-5	Styrene	10	U
127-18-4	Tetrachloroethylene	10	U
108-88-3	Toluene	10	U
79-01-6	Trichloroethene	10	U
75-69-4	Trichlorofluoromethane	10	U
75-01-4	Vinyl Chloride	10	U
1330-20-7	Xylenes, Total	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
1634-04-4	tert-butyl methyl ether	10	U
156-60-5	trans-1,2-dichloroethene	10	U
10061-02-6	trans-1,3-dichloropropene	10	U

R, RE

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
TRIP BLANKRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707158
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707158-011-031-2/2RE
Sample Volume :	5	Lab File ID :	F46713.D
Level :	Low	Date Received	07/26/2007
% Moisture: not dec		Date Analyzed	08/03/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ ACD 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/L

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
75-34-3	1,1-Dichloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
95-50-1	1,2-Dichlorobenzene	10	U
107-06-2	1,2-Dichloroethane	10	U
78-87-5	1,2-Dichloropropane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
78-93-3	2-Butanone	10	U
591-78-6	2-Hexanone	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
67-64-1	Acetone	10	U
71-43-2	Benzene	10	U
75-27-4	Bromodichloromethane	10	U
75-25-2	Bromoform	10	U
74-83-9	Bromomethane	10	U
75-15-0	Carbon Disulfide	10	U
56-23-5	Carbon Tetrachloride	10	U
108-90-7	Chlorobenzene	10	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	10	U
74-87-3	Chloromethane	10	U
110-82-7	Cyclohexane	10	U
124-48-1	Dibromochloromethane	10	U
75-71-8	Dichlorodifluoromethane	10	U

R, RE

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
TRIP BLANKRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707158
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707158-011-031-2/2RE
Sample Volume :	5	Lab File ID :	F46713.D
Level :	Low	Date Received	07/26/2007
% Moisture: not dec		Date Analyzed	08/03/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ AED 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/L

R, RE

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	10	U
106-93-4	Ethylene Dibromide	10	U
76-13-1	Freon 113	10	U
98-82-8	Isopropylbenzene	10	U
79-20-9	Methyl Acetate	10	U
108-87-2	Methylcyclohexane	10	U
75-09-2	Methylene Chloride	10	U
100-42-5	Styrene	10	U
127-18-4	Tetrachloroethylene	10	U
108-88-3	Toluene	10	U
79-01-6	Trichloroethene	10	U
75-69-4	Trichlorofluoromethane	10	U
75-01-4	Vinyl Chloride	10	U
1330-20-7	Xylenes, Total	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
1634-04-4	tert-butyl methyl ether	10	U
156-60-5	trans-1,2-dichloroethene	10	U
10061-02-6	trans-1,3-dichloropropene	10	U

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

for QA/QC

SAMPLE NO
TRIP BLANK

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707158
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707158-011-030-1/2
Sample Volume :	5	Lab File ID :	F46701.D
Level :	Low	Date Received	07/26/2007
% Moisture: not dec		Date Analyzed	08/02/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

KED 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/L

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
75-34-3	1,1-Dichloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
95-50-1	1,2-Dichlorobenzene	10	U
107-06-2	1,2-Dichloroethane	10	U
78-87-5	1,2-Dichloropropane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
78-93-3	2-Butanone	10	U
591-78-6	2-Hexanone	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
67-64-1	Acetone	10	U
71-43-2	Benzene	10	U
75-27-4	Bromodichloromethane	10	U
75-25-2	Bromoform	10	U
74-83-9	Bromomethane	10	U
75-15-0	Carbon Disulfide	10	U
56-23-5	Carbon Tetrachloride	10	U
108-90-7	Chlorobenzene	10	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	10	U
74-87-3	Chloromethane	10	U
110-82-7	Cyclohexane	10	U
124-48-1	Dibromochloromethane	10	U
75-71-8	Dichlorodifluoromethane	10	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
TRIP BLANK

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707158
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707158-011-030-1/2
Sample Volume :	5	Lab File ID :	F46701.D
Level :	Low	Date Received	07/26/2007
% Moisture: not dec		Date Analyzed	08/02/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ ACD 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/L

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	10	U
106-93-4	Ethylene Dibromide	10	U
76-13-1	Freon 113	10	U
98-82-8	Isopropylbenzene	10	U
79-20-9	Methyl Acetate	10	U
108-87-2	Methylcyclohexane	10	U
75-09-2	Methylene Chloride	10	U
100-42-5	Styrene	10	U
127-18-4	Tetrachloroethylene	10	U
108-88-3	Toluene	10	U
79-01-6	Trichloroethene	10	U
75-69-4	Trichlorofluoromethane	10	U
75-01-4	Vinyl Chloride	10	U
1330-20-7	Xylenes, Total	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
1634-04-4	tert-butyl methyl ether	10	U
156-60-5	trans-1,2-dichloroethene	10	U
10061-02-6	trans-1,3-dichloropropene	10	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
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Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707158
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707158-012-047-1/2
Sample Volume :	5	Lab File ID :	F46714.D
Level :	Low	Date Received	07/26/2007
% Moisture: not dec		Date Analyzed	08/03/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ AEN 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/L

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
75-34-3	1,1-Dichloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
95-50-1	1,2-Dichlorobenzene	10	U
107-06-2	1,2-Dichloroethane	10	U
78-87-5	1,2-Dichloropropane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
78-93-3	2-Butanone	10	U
591-78-6	2-Hexanone	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
67-64-1	Acetone	10	U
71-43-2	Benzene	10	U
75-27-4	Bromodichloromethane	10	U
75-25-2	Bromoform	10	U
74-83-9	Bromomethane	10	U
75-15-0	Carbon Disulfide	10	U
56-23-5	Carbon Tetrachloride	10	U
108-90-7	Chlorobenzene	10	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	10	U
74-87-3	Chloromethane	10	U
110-82-7	Cyclohexane	10	U
124-48-1	Dibromochloromethane	10	U
75-71-8	Dichlorodifluoromethane	10	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
HOLDING BLANK

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707158
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707158-012-047-1/2
Sample Volume :	5	Lab File ID :	F46714.D
Level :	Low	Date Received	07/26/2007
% Moisture: not dec		Date Analyzed	08/03/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ ACD 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/L

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	10	U
106-93-4	Ethylene Dibromide	10	U
76-13-1	Freon 113	10	U
98-82-8	Isopropylbenzene	10	U
79-20-9	Methyl Acetate	10	U
108-87-2	Methylcyclohexane	10	U
75-09-2	Methylene Chloride	10	U
100-42-5	Styrene	10	U
127-18-4	Tetrachloroethylene	10	U
108-88-3	Toluene	10	U
79-01-6	Trichloroethene	10	U
75-69-4	Trichlorofluoromethane	10	U
75-01-4	Vinyl Chloride	10	U
1330-20-7	Xylenes, Total	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
1634-04-4	tert-butyl methyl ether	10	U
156-60-5	trans-1,2-dichloroethene	10	U
10061-02-6	trans-1,3-dichloropropene	10	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

for QA/QC

SAMPLE NO
HOLDING BLANKRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707158
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707158-012-048-2/2RE
Sample Volume :	5	Lab File ID :	F46756.D
Level :	Low	Date Received	07/26/2007
% Moisture: not dec		Date Analyzed	08/06/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

AED 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/L

R, RE

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
75-34-3	1,1-Dichloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
95-50-1	1,2-Dichlorobenzene	10	U
107-06-2	1,2-Dichloroethane	10	U
78-87-5	1,2-Dichloropropane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
78-93-3	2-Butanone	10	U
591-78-6	2-Hexanone	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
67-64-1	Acetone	10	U
71-43-2	Benzene	10	U
75-27-4	Bromodichloromethane	10	U
75-25-2	Bromoform	10	U
74-83-9	Bromomethane	10	U
75-15-0	Carbon Disulfide	10	U
56-23-5	Carbon Tetrachloride	10	U
108-90-7	Chlorobenzene	10	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	10	U
74-87-3	Chloromethane	10	U
110-82-7	Cyclohexane	10	U
124-48-1	Dibromochloromethane	10	U
75-71-8	Dichlorodifluoromethane	10	U

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
HOLDING BLANKRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707158
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707158-012-048-2/2RE
Sample Volume :	5	Lab File ID :	F46756.D
Level :	Low	Date Received	07/26/2007
% Moisture: not dec		Date Analyzed	08/06/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

✓ AED 9/3/07

Concentration Units (mg/L or mg/kg dry weight) : ug/L

R, RE

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	10	U
106-93-4	Ethylene Dibromide	10	U
76-13-1	Freon 113	10	U
98-82-8	Isopropylbenzene	10	U
79-20-9	Methyl Acetate	10	U
108-87-2	Methylcyclohexane	10	U
75-09-2	Methylene Chloride	10	U
100-42-5	Styrene	10	U
127-18-4	Tetrachloroethylene	10	U
108-88-3	Toluene	10	U
79-01-6	Trichloroethene	10	U
75-69-4	Trichlorofluoromethane	10	U
75-01-4	Vinyl Chloride	10	U
1330-20-7	Xylenes, Total	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
1634-04-4	tert-butyl methyl ether	10	U
156-60-5	trans-1,2-dichloroethene	10	U
10061-02-6	trans-1,3-dichloropropene	10	U

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
BLK99501

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707158
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BLK99501
Sample Volume :	5	Lab File ID :	F46684.D
Level :	Low	Date Received	
% Moisture: not dec		Date Analyzed	08/02/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
75-34-3	1,1-Dichloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
95-50-1	1,2-Dichlorobenzene	10	U
107-06-2	1,2-Dichloroethane	10	U
78-87-5	1,2-Dichloropropane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
78-93-3	2-Butanone	10	U
591-78-6	2-Hexanone	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
67-64-1	Acetone	10	U
71-43-2	Benzene	10	U
75-27-4	Bromodichloromethane	10	U
75-25-2	Bromoform	10	U
74-83-9	Bromomethane	10	U
75-15-0	Carbon Disulfide	10	U
56-23-5	Carbon Tetrachloride	10	U
108-90-7	Chlorobenzene	10	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	10	U
74-87-3	Chloromethane	10	U
110-82-7	Cyclohexane	10	U
124-48-1	Dibromochloromethane	10	U
75-71-8	Dichlorodifluoromethane	10	U

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
BLK99501

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707158
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BLK99501
Sample Volume :	5	Lab File ID :	F46684.D
Level :	Low	Date Received	
% Moisture: not dec		Date Analyzed	08/02/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	10	U
106-93-4	Ethylene Dibromide	10	U
76-13-1	Freon 113	10	U
98-82-8	Isopropylbenzene	10	U
79-20-9	Methyl Acetate	10	U
108-87-2	Methylcyclohexane	10	U
75-09-2	Methylene Chloride	10	U
100-42-5	Styrene	10	U
127-18-4	Tetrachloroethylene	10	U
108-88-3	Toluene	10	U
79-01-6	Trichloroethene	10	U
75-69-4	Trichlorofluoromethane	10	U
75-01-4	Vinyl Chloride	10	U
1330-20-7	Xylenes, Total	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
1634-04-4	tert-butyl methyl ether	10	U
156-60-5	trans-1,2-dichloroethene	10	U
10061-02-6	trans-1,3-dichloropropene	10	U

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
BLK99502

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707158
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BLK99502
Sample Volume :	5	Lab File ID :	F46684.D
Level :	Low	Date Received	
% Moisture: not dec		Date Analyzed	08/02/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

Concentration Units (mg/L or mg/kg dry weight) : ug/L

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
75-34-3	1,1-Dichloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
95-50-1	1,2-Dichlorobenzene	10	U
107-06-2	1,2-Dichloroethane	10	U
78-87-5	1,2-Dichloropropane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
78-93-3	2-Butanone	10	U
591-78-6	2-Hexanone	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
67-64-1	Acetone	10	U
71-43-2	Benzene	10	U
75-27-4	Bromodichloromethane	10	U
75-25-2	Bromoform	10	U
74-83-9	Bromomethane	10	U
75-15-0	Carbon Disulfide	10	U
56-23-5	Carbon Tetrachloride	10	U
108-90-7	Chlorobenzene	10	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	10	U
74-87-3	Chloromethane	10	U
110-82-7	Cyclohexane	10	U
124-48-1	Dibromochloromethane	10	U
75-71-8	Dichlorodifluoromethane	10	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BLK99502

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707158
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BLK99502
Sample Volume :	5	Lab File ID :	F46684.D
Level :	Low	Date Received	
% Moisture: not dec		Date Analyzed	08/02/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

Concentration Units (mg/L or mg/kg dry weight) : ug/L

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	10	U
106-93-4	Ethylene Dibromide	10	U
76-13-1	Freon 113	10	U
98-82-8	Isopropylbenzene	10	U
79-20-9	Methyl Acetate	10	U
108-87-2	Methylcyclohexane	10	U
75-09-2	Methylene Chloride	10	U
100-42-5	Styrene	10	U
127-18-4	Tetrachloroethylene	10	U
108-88-3	Toluene	10	U
79-01-6	Trichloroethene	10	U
75-69-4	Trichlorofluoromethane	10	U
75-01-4	Vinyl Chloride	10	U
1330-20-7	Xylenes, Total	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
1634-04-4	tert-butyl methyl ether	10	U
156-60-5	trans-1,2-dichloroethene	10	U
10061-02-6	trans-1,3-dichloropropene	10	U

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
BLK99549

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707158
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BLK99549
Sample Volume :	5	Lab File ID :	F46706.D
Level :	Low	Date Received	
% Moisture: not dec		Date Analyzed	08/03/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

Concentration Units (mg/L or mg/kg dry weight) : ug/L

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
75-34-3	1,1-Dichloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
95-50-1	1,2-Dichlorobenzene	10	U
107-06-2	1,2-Dichloroethane	10	U
78-87-5	1,2-Dichloropropane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
78-93-3	2-Butanone	10	U
591-78-6	2-Hexanone	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
67-64-1	Acetone	10	U
71-43-2	Benzene	10	U
75-27-4	Bromodichloromethane	10	U
75-25-2	Bromoform	10	U
74-83-9	Bromomethane	10	U
75-15-0	Carbon Disulfide	10	U
56-23-5	Carbon Tetrachloride	10	U
108-90-7	Chlorobenzene	10	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	10	U
74-87-3	Chloromethane	10	U
110-82-7	Cyclohexane	10	U
124-48-1	Dibromochloromethane	10	U
75-71-8	Dichlorodifluoromethane	10	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BLK99549

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707158
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BLK99549
Sample Volume :	5	Lab File ID :	F46706.D
Level :	Low	Date Received	
% Moisture: not dec		Date Analyzed	08/03/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

Concentration Units (mg/L or mg/kg dry weight) : ug/L

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	10	U
106-93-4	Ethylene Dibromide	10	U
76-13-1	Freon 113	10	U
98-82-8	Isopropylbenzene	10	U
79-20-9	Methyl Acetate	10	U
108-87-2	Methylcyclohexane	10	U
75-09-2	Methylene Chloride	10	U
100-42-5	Styrene	10	U
127-18-4	Tetrachloroethylene	10	U
108-88-3	Toluene	10	U
79-01-6	Trichloroethene	10	U
75-69-4	Trichlorofluoromethane	10	U
75-01-4	Vinyl Chloride	10	U
1330-20-7	Xylenes, Total	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
1634-04-4	tert-butyl methyl ether	10	U
156-60-5	trans-1,2-dichloroethene	10	U
10061-02-6	trans-1,3-dichloropropene	10	U

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
BLK99553

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707158
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BLK99553
Sample Volume :	5	Lab File ID :	F46706.D
Level :	Low	Date Received	
% Moisture: not dec		Date Analyzed	08/03/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
75-34-3	1,1-Dichloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
95-50-1	1,2-Dichlorobenzene	10	U
107-06-2	1,2-Dichloroethane	10	U
78-87-5	1,2-Dichloropropane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
78-93-3	2-Butanone	10	U
591-78-6	2-Hexanone	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
67-64-1	Acetone	10	U
71-43-2	Benzene	10	U
75-27-4	Bromodichloromethane	10	U
75-25-2	Bromoform	10	U
74-83-9	Bromomethane	10	U
75-15-0	Carbon Disulfide	10	U
56-23-5	Carbon Tetrachloride	10	U
108-90-7	Chlorobenzene	10	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	10	U
74-87-3	Chloromethane	10	U
110-82-7	Cyclohexane	10	U
124-48-1	Dibromochloromethane	10	U
75-71-8	Dichlorodifluoromethane	10	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BLK99553

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707158
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BLK99553
Sample Volume :	5	Lab File ID :	F46706.D
Level :	Low	Date Received	
% Moisture: not dec		Date Analyzed	08/03/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

Concentration Units (mg/L or mg/kg dry weight) : ug/kg

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	10	U
106-93-4	Ethylene Dibromide	10	U
76-13-1	Freon 113	10	U
98-82-8	Isopropylbenzene	10	U
79-20-9	Methyl Acetate	10	U
108-87-2	Methylcyclohexane	10	U
75-09-2	Methylene Chloride	10	U
100-42-5	Styrene	10	U
127-18-4	Tetrachloroethylene	10	U
108-88-3	Toluene	10	U
79-01-6	Trichloroethene	10	U
75-69-4	Trichlorofluoromethane	10	U
75-01-4	Vinyl Chloride	10	U
1330-20-7	Xylenes, Total	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
1634-04-4	tert-butyl methyl ether	10	U
156-60-5	trans-1,2-dichloroethene	10	U
10061-02-6	trans-1,3-dichloropropene	10	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BLK99677

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707158
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BLK99677
Sample Volume :	5	Lab File ID :	F46747.D
Level :	Low	Date Received	
% Moisture: not dec		Date Analyzed	08/06/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

Concentration Units (mg/L or mg/kg dry weight) : ug/L

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
75-34-3	1,1-Dichloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
95-50-1	1,2-Dichlorobenzene	10	U
107-06-2	1,2-Dichloroethane	10	U
78-87-5	1,2-Dichloropropane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
78-93-3	2-Butanone	10	U
591-78-6	2-Hexanone	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
67-64-1	Acetone	10	U
71-43-2	Benzene	10	U
75-27-4	Bromodichloromethane	10	U
75-25-2	Bromoform	10	U
74-83-9	Bromomethane	10	U
75-15-0	Carbon Disulfide	10	U
56-23-5	Carbon Tetrachloride	10	U
108-90-7	Chlorobenzene	10	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	10	U
74-87-3	Chloromethane	10	U
110-82-7	Cyclohexane	10	U
124-48-1	Dibromochloromethane	10	U
75-71-8	Dichlorodifluoromethane	10	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BLK99677

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707158
Case No. :		SDG NO :	707158
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BLK99677
Sample Volume :	5	Lab File ID :	F46747.D
Level :	Low	Date Received	
% Moisture: not dec		Date Analyzed	08/06/2007
GC Column :	RTX_VOA ID. 0.25	Dilution Factor :	1
Soil Extract Volume :	(µ L)	Soil Aliquot Volume :	(µ L)

Concentration Units (mg/L or mg/kg dry weight) : ug/L

CAS NO	COMPOUND		Q
100-41-4	Ethylbenzene	10	U
106-93-4	Ethylene Dibromide	10	U
76-13-1	Freon 113	10	U
98-82-8	Isopropylbenzene	10	U
79-20-9	Methyl Acetate	10	U
108-87-2	Methylcyclohexane	10	U
75-09-2	Methylene Chloride	10	U
100-42-5	Styrene	10	U
127-18-4	Tetrachloroethylene	10	U
108-88-3	Toluene	10	U
79-01-6	Trichloroethene	10	U
75-69-4	Trichlorofluoromethane	10	U
75-01-4	Vinyl Chloride	10	U
1330-20-7	Xylenes, Total	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
1634-04-4	tert-butyl methyl ether	10	U
156-60-5	trans-1,2-dichloroethene	10	U
10061-02-6	trans-1,3-dichloropropene	10	U

Surrogate Recovery Summary

Matrix : SOIL Analytical Method : CLP_OLM04.3_VO/ SDG No : 707158

Surrogate	BR4FBZ	BZMED8	DCA12D4
Lower QC Limits	59	84	70
Upper QC Limits	113	138	121
Sample ID			
BKS99501	108	110	105
BLK99501	99	106	107
GC-ISO10-0-1-07C	89	128	106
GC-ISO10-3-5-07C	94	110	107
GC-ISO9-0-1-07C	96	140 *	116
GC-ISO9-8-10-07C	102	116	108

* Value outside of QC Limts

BR4FBZ = 4-Bromofluorobenzene BZMED8 = Toluene-D8 DCA12D4 = 1,2-Dichloroethane-d4

Surrogate Recovery Summary

Matrix : WATER Analytical Method : CLP_OLM04.3_VO/ SDG No : 707158

Surrogate	BR4FBZ	BZMED8	DCA12D4
Lower QC Limits	86	88	76
Upper QC Limits	115	110	114
Sample ID			
BKS99502	108	110	105
BLK99502	99	106	107
GC-TW02-07C	105	116 *	114
GC-TW05-07C	122 *	131 *	127 *
GC-TW08-07C	105	114 *	122 *
TRIP BLANK	101	110	111

* Value outside of QC Limts

BR4FBZ = 4-Bromofluorobenzene BZMED8 = Toluene-D8 DCA12D4 = 1,2-Dichloroethane-d4

Surrogate Recovery Summary

Matrix : WATER Analytical Method : CLP_OLM04.3_VO/ SDG No : 707158

Surrogate	BR4FBZ	BZMED8	DCA12D4
Lower QC Limits	86	88	76
Upper QC Limits	115	110	114
Sample ID			
BKS99549	96	100	96
BLK99549	97	104	104
GC-TW02-07CRE	130 *	145 *	130 *
GC-TW05-07CRE	96	104	94
GC-TW08-07CRE	90	99	93
HOLDING BLANK	132 *	147 *	151 *
TRIP BLANKRE	94	102	105

* Value outside of QC Limts

BR4FBZ = 4-Bromofluorobenzene BZMED8 = Toluene-D8 DCA12D4 = 1,2-Dichloroethane-d4

Surrogate Recovery Summary

Matrix : SOIL Analytical Method : CLP_OLM04.3_VO/ SDG No : 707158

Surrogate	BR4FBZ	BZMED8	DCA12D4
Lower QC Limits	59	84	70
Upper QC Limits	113	138	121
Sample ID			
BKS99550	96	100	96
BLK99553	97	104	104
GC-ISO10-0-1-07CRE	79	108	100
GC-ISO9-0-1-07CRE	96	113	117

* Value outside of QC Limts

BR4FBZ = 4-Bromofluorobenzene BZMED8 = Toluene-D8 DCA12D4 = 1,2-Dichloroethane-d4

Surrogate Recovery Summary

Matrix : WATER

Analytical Method : CLP_OLM04.3_VO/

SDG No : 707158

Surrogate	BR4FBZ	BZMED8	DCA12D4
Lower QC Limits	86	88	76
Upper QC Limits	115	110	114
Sample ID			
BKS99677	90	94	93
BLK99677	101	109	106
HOLDING BLANKRE	107	114 *	127 *

* Value outside of QC Limts

BR4FBZ = 4-Bromofluorobenzene BZMED8 = Toluene-D8 DCA12D4 = 1,2-Dichloroethane-d4

GPL Laboratories

LCS SUMMARY

SAMPLE NO
BKS99501

Lab Name :	GPL Laboratories	Contract. :	MILCON Area Investigations - CTO-169
Lab Code :	GPL	SDG NO :	707158
Matrix :	SOIL	Lab Sample ID :	BKS99501
Method :	CLP_OLM04.3_VOA	Analysis Date :	08/02/2007

COMPOUND	SPIKE ADDED (ug/kg)	BLANK CONCENTRATION (ug/kg)	LCS CONCENTRATION (ug/kg)	LCS % REC	QC LIMTS
1,1,1-Trichloroethane	50	0	55	110	65-130
1,1-Dichloroethene	50	0	50	100	36-170
1,2-Dichloroethane	50	0	49	98	60-138
Benzene	50	0	53	106	58-128
Bromodichloromethane	50	0	50	100	57-126
Bromoform	50	0	56	112	65-142
Carbon Tetrachloride	50	0	49	98	61-133
Chloroform	50	0	48	96	64-129
Dibromochloromethane	50	0	54	108	69-118
Trichloroethene	50	0	53	106	16-189
Vinyl Chloride	50	0	45	90	31-154

* Values Outside of QC Limits.

Spike recovery : 0 out of 11 outside limits

GPL Laboratories

LCS SUMMARY

SAMPLE NO
BKS99502

Lab Name : GPL Laboratories
Contract. : MILCON Area Investigations - CTO-169
Lab Code : GPL
SDG NO : 707158
Matrix : WATER
Lab Sample ID : BKS99502
Method : CLP_OLM04.3_VOA
Analysis Date : 08/02/2007

COMPOUND	SPIKE ADDED (ug/L)	BLANK CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMTS
1,1,1-Trichloroethane	50	0	55	110	74-118
1,1-Dichloroethene	50	0	50	100	50-116
1,2-Dichloroethane	50	0	49	98	82-118
Benzene	50	0	53	106	75-115
Bromodichloromethane	50	0	50	100	76-121
Bromoform	50	0	56	112	70-121
Carbon Tetrachloride	50	0	49	98	76-120
Chlorobenzene	50	0	51	102	60-133
Chloroform	50	0	48	96	75-118
Dibromochloromethane	50	0	54	108	80-117
Toluene	50	0	52	104	59-139
Trichloroethene	50	0	53	106	65-117
Vinyl Chloride	50	0	45	90	50-136

* Values Outside of QC Limits.

Spike recovery : 0 out of 13 outside limits

GPL Laboratories

LCS SUMMARY

SAMPLE NO
BKS99549

Lab Name : GPL Laboratories
Lab Code : GPL
Matrix : WATER
Method : CLP_OLM04.3_VOA

Contract. : MILCON Area Investigations - CTO-169
SDG NO : 707158
Lab Sample ID : BKS99549
Analysis Date : 08/03/2007

COMPOUND	SPIKE ADDED (ug/L)	BLANK CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMTS
1,1,1-Trichloroethane	50	0	53	106	74-118
1,1-Dichloroethene	50	0	49	98	50-116
1,2-Dichloroethane	50	0	50	100	82-118
Benzene	50	0	50	100	75-115
Bromodichloromethane	50	0	51	102	76-121
Bromoform	50	0	54	108	70-121
Carbon Tetrachloride	50	0	51	102	76-120
Chlorobenzene	50	0	51	102	60-133
Chloroform	50	0	50	100	75-118
Dibromochloromethane	50	0	52	104	80-117
Toluene	50	0	43	86	59-139
Trichloroethene	50	0	50	100	65-117
Vinyl Chloride	50	0	39	78	50-136

* Values Outside of QC Limits.

Spike recovery : 0 out of 13 outside limits

GPL Laboratories

LCS SUMMARY

SAMPLE NO
BKS99550

Lab Name : GPL Laboratories
Lab Code : GPL
Matrix : SOIL
Method : CLP_OLM04.3_VOA

Contract. : MILCON Area Investigations - CTO-169
SDG NO : 707158
Lab Sample ID : BKS99550
Analysis Date : 08/03/2007

COMPOUND	SPIKE ADDED (ug/kg)	BLANK CONCENTRATION (ug/kg)	LCS CONCENTRATION (ug/kg)	LCS % REC	QC LIMTS
1,1,1-Trichloroethane	50	0	53	106	65-130
1,1-Dichloroethene	50	0	49	98	36-170
1,2-Dichloroethane	50	0	50	100	60-138
Benzene	50	0	50	100	58-128
Bromodichloromethane	50	0	51	102	57-126
Bromoform	50	0	54	108	65-142
Carbon Tetrachloride	50	0	51	102	61-133
Chloroform	50	0	50	100	64-129
Dibromochloromethane	50	0	52	104	69-118
Trichloroethene	50	0	50	100	16-189
Vinyl Chloride	50	0	39	78	31-154

* Values Outside of QC Limits.

Spike recovery : 0 out of 11 outside limits

GPL Laboratories

LCS SUMMARY

SAMPLE NO
BKS99677

Lab Name : GPL Laboratories
Lab Code : GPL
Matrix : WATER
Method : CLP_OLM04.3_VOA

Contract. : MILCON Area Investigations - CTO-169
SDG NO : 707158
Lab Sample ID : BKS99677
Analysis Date : 08/06/2007

COMPOUND	SPIKE ADDED (ug/L)	BLANK CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMTS
1,1,1-Trichloroethane	50	0	54	108	74-118
1,1-Dichloroethene	50	0	51	102	50-116
1,2-Dichloroethane	50	0	51	102	82-118
Benzene	50	0	53	106	75-115
Bromodichloromethane	50	0	52	104	76-121
Bromoform	50	0	57	114	70-121
Carbon Tetrachloride	50	0	52	104	76-120
Chlorobenzene	50	0	53	106	60-133
Chloroform	50	0	51	102	75-118
Dibromochloromethane	50	0	55	110	80-117
Toluene	50	0	68	136	59-139
Trichloroethene	50	0	53	106	65-117
Vinyl Chloride	50	0	40	80	50-136

* Values Outside of QC Limits.

Spike recovery : 0 out of 13 outside limits

Phase II - 2010

ENVIRONMENTAL
Data Services, Inc.

EXPLOSIVES

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Area Gas Chamber, CTO-040 SDG #: 1003066

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: July 26, 2010

Laboratory: Empirical Laboratories, Nashville, Tennessee Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR21-SS24-10A	1003066-01	Soil
2	MR21-SS31-10A	1003066-02	Soil
3	MR21-SS40-10A	1003066-03	Soil
4	MR21-SS20-10A	1003066-04	Soil
5	MR21-SS19-10A	1003066-05	Soil
6	MR21-SS30-10A	1003066-06	Soil
7	MR21-SS36-10A	1003066-07	Soil
8	MR21-SS37-10A	1003066-08	Soil
9	MR21-SS28-10A	1003066-09	Soil
10	MR21-SS39-10A	1003066-10	Soil
11	MR21-SS38-10A	1003066-11	Soil
12	MR21-SS25-10A	1003066-12	Soil
13	MR21-SS26-10A	1003066-13	Soil
14	MR21-SS12-10A	1003066-14	Soil
15	MR21-SS29-10A	1003066-15	Soil
16	MR21-SS17-10A	1003066-16	Soil
17	MR21-SS11-10A	1003066-17	Soil
18	MR21-SS11D-10A	1003066-18	Soil
19	MR21-SS16-10A	1003066-19	Soil
20	MR21-SS14-10A	1003066-20	Soil
21	MR21-SS23-10A	1003066-21	Soil
21MS	MR21-SS23-10AMS	1003066-21MS	Soil
21MSD	MR21-SS23-10AMSD	1003066-21MSD	Soil
22	MR21-SS18D-10A	1003066-22	Soil
23	MR21-SS18-10A	1003066-23	Soil
24	MR21-SS15-10A	1003066-24	Soil
25	MR21-SS22-10A	1003066-25	Soil
26	MR21-SS13-10A	1003066-26	Soil
27	MR21-SS21-10A	1003066-27	Soil
28	MR21-SS27-10A	1003066-28	Soil
29	MR21-SS27D-10A	1003066-29	Soil
30	MR21-SS34-10A	1003066-30	Soil
30MS	MR21-SS34-10AMS	1003066-30MS	Soil
30MSD	MR21-SS34-10AMSD	1003066-30MSD	Soil
31	MR21-SS35-10A	1003066-31	Soil

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
32	MR21-SS32-10A	1003066-32	Soil
33	MR21-FB-030410	1003066-33	Water
35	MR21-EB-030310	1003066-34	Water
35	MR21-EB-030410	1003066-35	Water
36	MR21-SS33-10A	1003066-36	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 and 14 days for soil samples and analyzed within 40 days for all samples.

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 Col.1/Col.2	Qualifier
1	1-Chloro-3-nitrobenzene	472%/Ok	J - Positive Results
2	1-Chloro-3-nitrobenzene	142%/Ok	J - Positive Results
5	1-Chloro-3-nitrobenzene	Ok/160%	None - All reported from 1st column
11	1-Chloro-3-nitrobenzene	171%/Ok	J - Positive Results
12	1-Chloro-3-nitrobenzene	202%/Ok	J - Positive Results
13	1-Chloro-3-nitrobenzene	224%/Ok	J - Positive Results
15	1-Chloro-3-nitrobenzene	576%/Ok	J - Positive Results
23	1-Chloro-3-nitrobenzene	Ok/231%	None - All reported from 1st column
26	1-Chloro-3-nitrobenzene	155%/199%	J - Positive Results

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
21	Nitroglycerine	294%/239%/Ok	None - Sample ND
30	2,4,6-Trinitrotoluene	238%/239%/Ok	None - Sample ND
	2-Amino-4,6-dinitrotoluene	75%/Ok/Ok	J/UJ
	HMX	68.2%/58.7%/Ok	J/UJ
	Nitroglycerine	330%/324%/Ok	None - Sample ND
	4-Amino-2,6-dinitrotoluene	Ok/137%/Ok	None - Sample ND

Laboratory Control Sample - The LCS samples exhibited acceptable %R values except the following.

LCS ID	Compound	%R	Qualifier	Affected Samples
0C08012-BS1	Nitroglycerine	141%	None	All ND
0C09007-BS1	Nitroglycerine	140%	None	All ND
0C09008-BS1	Nitroglycerine	154%	None	All ND
	PETN	141%	None	All ND

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 mg/kg	Qualifier	Affected Samples
MR21-EB-030310	1,3-Dinitrobenzene	0.121	0.0061	None	See FB
	2-Nitrotoluene	0.299	0.0150	None	All ND or >5X
	3-Nitrotoluene	0.0825	0.0041	None	See FB
MR21-EB-030410	1,3-Dinitrobenzene	0.126	0.0063	None	See FB
	2-Nitrotoluene	0.228	0.0114	None	All ND or >5X
	3-Nitrotoluene	0.118	0.0059	None	All ND or >5X
MR21-FB-030410	1,3,5-Trinitrobenzene	0.0856	0.0043	None	All ND or >5X
	1,3-Dinitrobenzene	0.159	0.0080	None	All ND or >5X
	Nitroglycerine	0.456	0.0228	None	All ND
	3-Nitrotoluene	0.0908	0.0045	None	All ND or >5X

Field Duplicates - Field duplicate results are summarized below.

Compound	MR21-SS11-10A mg/kg	MR21-SS11D-10A mg/kg	RPD	Qualifier
1,3,5-Trinitrobenzene	0.101	ND	NC	None
2,4,6-Trinitrotoluene	ND	0.632	NC	None
Nitroglycerine	968	ND	NC	None
RDX	0.472	0.198	82%	None

Compound	MR21-SS18-10A mg/kg	MR21-SS18D-10A mg/kg	RPD	Qualifier
1,3,5-Trinitrobenzene	0.117	0.166	35%	None
2-Amino-4,6-dinitrotoluene	ND	0.113	NC	None
Nitroglycerine	1870	ND	NC	None
4-Nitrotoluene	ND	0.132	NC	None
Tetryl	0.408	0.482	17%	None

Compound	MR21-SS27-10A mg/kg	MR21-SS27D-10A mg/kg	RPD	Qualifier
1,3,5-Trinitrobenzene	ND	0.310	NC	None
RDX	0.543	0.616	13%	None

Compound Identification - Retention times were acceptable and no further action was taken.

Compound Quantitation - Several samples exhibited results with high %D values between columns and have been flagged (P) by the laboratory and further qualified (J).

ANALYSIS DATA SHEET

MR21-SS24-10A

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Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-01	File ID:	102V0201.D
Sampled:	03/03/10 09:00	Prepared:	03/09/10 17:30	Analyzed:	03/19/10 15:03
Solids:	71.27	Preparation:	EXT_EXPL_S	Dilution:	1
Batch:	0C08012	Sequence: 0C08210	Calibration:	0040002	Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (mg/Kg)	MDL	MRL	Q	
99-35-4	1,3,5-Trinitrobenzene		0.100	0.300	UO	
99-65-0	1,3-Dinitrobenzene		0.100	0.300	UO	
118-96-7	2,4,6-Trinitrotoluene		0.100	0.300	UO	
121-14-2	2,4-Dinitrotoluene		0.100	0.300	UO	
606-20-2	2,6-Dinitrotoluene		0.100	0.300	UO	
35572-78-2	2-Amino-4,6-dinitrotoluene		0.100	0.300	UO	
55-63-0	Nitroglycerine [2C]	616 J	0.250	0.750	~~PMO~~	2C
88-72-2	2-Nitrotoluene		0.100	0.300	UO	
99-08-1	3-Nitrotoluene		0.100	0.300	UO	
19406-51-0	4-Amino-2,6-dinitrotoluene		0.100	0.300	UO	
99-99-0	4-Nitrotoluene		0.100	0.300	UO	
2691-41-0	HMX	0.292 J	0.100	0.300	~~JPMO~~	SSH
98-95-3	Nitrobenzene	11.7 J	0.100	0.300	~~PMO~~	SSH
78-11-5	PETN		0.250	0.500	UO	
121-82-4	RDX		0.100	0.300	UO	
479-45-8	Tetryl		0.100	0.300	UO	

SYSTEM MONITORING COMPOUND	ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	1.000	4.719	472	55 - 140	*
1-Chloro-3-nitrobenzene [2C]	1.000	0.9681	96.8	55 - 140	

* Values outside of QC limits

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ANALYSIS DATA SHEET

MR21-SS31-10A 2

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-02	File ID:	143V4501.D
Sampled:	03/03/10 08:50	Prepared:	03/09/10 17:30	Analyzed:	03/16/10 15:26
Solids:	73.17	Preparation:	EXT_EXPL_S	Dilution:	1

Batch: 0C08012 Sequence: 0C07612 Calibration: 0040002 Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (mg/Kg)	MDL	MRL	Q
99-35-4	1,3,5-Trinitrobenzene	0.349 J	0.100	0.300	~~PO~~ SS H
99-65-0	1,3-Dinitrobenzene		0.100	0.300	UO
118-96-7	2,4,6-Trinitrotoluene		0.100	0.300	UO
121-14-2	2,4-Dinitrotoluene		0.100	0.300	UO
606-20-2	2,6-Dinitrotoluene		0.100	0.300	UO
35572-78-2	2-Amino-4,6-dinitrotoluene		0.100	0.300	UO
55-63-0	Nitroglycerine		0.250	0.750	UO
88-72-2	2-Nitrotoluene		0.100	0.300	UO
99-08-1	3-Nitrotoluene	2.69 J	0.100	0.300	~~PO~~ SS H
19406-51-0	4-Amino-2,6-dinitrotoluene		0.100	0.300	UO
99-99-0	4-Nitrotoluene		0.100	0.300	UO
2691-41-0	HMX		0.100	0.300	UO
98-95-3	Nitrobenzene		0.100	0.300	UO
78-11-5	PETN		0.250	0.500	UO
121-82-4	RDX		0.100	0.300	UO
479-45-8	Tetryl		0.100	0.300	UO

SYSTEM MONITORING COMPOUND	ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	1.000	1.423	142	55 - 140	*
1-Chloro-3-nitrobenzene [2C]	1.000	0.9513	95.1	55 - 140	

* Values outside of QC limits

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ANALYSIS DATA SHEET

MR21-SS40-10A 3

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-03	File ID:	144V4601.D
Sampled:	03/03/10 08:40	Prepared:	03/09/10 17:30	Analyzed:	03/16/10 15:58
Solids:	66.98	Preparation:	EXT_EXPL_S	Dilution:	1

Batch: 0C08012 Sequence: 0C07612 Calibration: 0040002 Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (mg/Kg)	MDL	MRL	Q
99-35-4	1,3,5-Trinitrobenzene		0.100	0.300	U
99-65-0	1,3-Dinitrobenzene		0.100	0.300	U
118-96-7	2,4,6-Trinitrotoluene		0.100	0.300	U
121-14-2	2,4-Dinitrotoluene		0.100	0.300	U
606-20-2	2,6-Dinitrotoluene		0.100	0.300	U
35572-78-2	2-Amino-4,6-dinitrotoluene		0.100	0.300	U
55-63-0	Nitroglycerine		0.250	0.750	U~~Ø~~
88-72-2	2-Nitrotoluene	0.355 J	0.100	0.300	~~P~~ 2C
99-08-1	3-Nitrotoluene		0.100	0.300	U
19406-51-0	4-Amino-2,6-dinitrotoluene		0.100	0.300	U
99-99-0	4-Nitrotoluene		0.100	0.300	U
2691-41-0	HMX		0.100	0.300	U
98-95-3	Nitrobenzene		0.100	0.300	U
78-11-5	PETN		0.250	0.500	U
121-82-4	RDX		0.100	0.300	U
479-45-8	Tetryl		0.100	0.300	U

SYSTEM MONITORING COMPOUND	ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	1.000	0.9878	98.8	55 - 140	
1-Chloro-3-nitrobenzene [2C]	1.000	0.9725	97.3	55 - 140	

* Values outside of QC limits

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ANALYSIS DATA SHEET

MR21-SS20-10A

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Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-04	File ID:	103V0301.D
Sampled:	03/03/10 10:10	Prepared:	03/09/10 17:30	Analyzed:	03/19/10 15:35
Solids:	83.77	Preparation:	EXT_EXPL_S	Dilution:	1
Batch:	0C08012	Sequence: 0C08210	Calibration:	0040002	Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (mg/Kg)	MDL	MRL	Q	
99-35-4	1,3,5-Trinitrobenzene	0.100 J	0.100	0.300	~~J~~	2C
99-65-0	1,3-Dinitrobenzene	0.206 J	0.100	0.300	~~JPM~~	2C
118-96-7	2,4,6-Trinitrotoluene		0.100	0.300	U	
121-14-2	2,4-Dinitrotoluene		0.100	0.300	U	
606-20-2	2,6-Dinitrotoluene		0.100	0.300	U	
35572-78-2	2-Amino-4,6-dinitrotoluene		0.100	0.300	U	
55-63-0	Nitroglycerine		0.250	0.750	U~~J~~	
88-72-2	2-Nitrotoluene		0.100	0.300	U	
99-08-1	3-Nitrotoluene [2C]	0.117 J	0.100	0.300	~~JPM~~	2C
19406-51-0	4-Amino-2,6-dinitrotoluene		0.100	0.300	U	
99-99-0	4-Nitrotoluene		0.100	0.300	U	
2691-41-0	HMX		0.100	0.300	U	
98-95-3	Nitrobenzene	0.396 J	0.100	0.300	~~PM~~	2C
78-11-5	PETN		0.250	0.500	U	
121-82-4	RDX	0.176	0.100	0.300	J	
479-45-8	Tetryl		0.100	0.300	U	

SYSTEM MONITORING COMPOUND	ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	1.000	1.069	107	55 - 140	
1-Chloro-3-nitrobenzene [2C]	1.000	1.004	100	55 - 140	

* Values outside of QC limits

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ANALYSIS DATA SHEET

MR21-SS19-10A 5

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-05	File ID:	146V4801.D
Sampled:	03/03/10 09:45	Prepared:	03/09/10 17:30	Analyzed:	03/16/10 17:02
Solids:	64.91	Preparation:	EXT_EXPL_S	Dilution:	1
Batch:	0C08012	Sequence: 0C07612	Calibration:	0040002	Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (mg/Kg)	MDL	MRL	Q
99-35-4	1,3,5-Trinitrobenzene		0.100	0.300	U
99-65-0	1,3-Dinitrobenzene	0.223 J	0.100	0.300	~~JP~~ 2C
118-96-7	2,4,6-Trinitrotoluene		0.100	0.300	U
121-14-2	2,4-Dinitrotoluene		0.100	0.300	U
606-20-2	2,6-Dinitrotoluene		0.100	0.300	U
35572-78-2	2-Amino-4,6-dinitrotoluene		0.100	0.300	U
55-63-0	Nitroglycerine		0.250	0.750	U~~Ø~~
88-72-2	2-Nitrotoluene		0.100	0.300	U
99-08-1	3-Nitrotoluene		0.100	0.300	U
19406-51-0	4-Amino-2,6-dinitrotoluene		0.100	0.300	U
99-99-0	4-Nitrotoluene		0.100	0.300	U
2691-41-0	HMX		0.100	0.300	U
98-95-3	Nitrobenzene		0.100	0.300	U
78-11-5	PETN		0.250	0.500	U
121-82-4	RDX	0.382 J	0.100	0.300	~~PM~~ 2C
479-45-8	Tetryl	0.106 J	0.100	0.300	~~JPM~~ 2C

SYSTEM MONITORING COMPOUND	ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	1.000	1.011	101	55 - 140	
1-Chloro-3-nitrobenzene [2C]	1.000	1.596	160	55 - 140	*

* Values outside of QC limits

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ANALYSIS DATA SHEET

MR21-SS30-10A 6

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-06	File ID:	147V4901.D
Sampled:	03/04/10 08:30	Prepared:	03/09/10 17:30	Analyzed:	03/16/10 17:35
Solids:	75.62	Preparation:	EXT_EXPL_S	Dilution:	1
Batch:	0C08012	Sequence: 0C07612	Calibration:	0040002	Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (mg/Kg)	MDL	MRL	Q
99-35-4	1,3,5-Trinitrobenzene	0.180 J	0.100	0.300	~~ID~~ 2C
99-65-0	1,3-Dinitrobenzene		0.100	0.300	U
118-96-7	2,4,6-Trinitrotoluene		0.100	0.300	U
121-14-2	2,4-Dinitrotoluene		0.100	0.300	U
606-20-2	2,6-Dinitrotoluene		0.100	0.300	U
35572-78-2	2-Amino-4,6-dinitrotoluene		0.100	0.300	U
55-63-0	Nitroglycerine		0.250	0.750	U~~0~~
88-72-2	2-Nitrotoluene		0.100	0.300	U
99-08-1	3-Nitrotoluene		0.100	0.300	U
19406-51-0	4-Amino-2,6-dinitrotoluene		0.100	0.300	U
99-99-0	4-Nitrotoluene		0.100	0.300	U
2691-41-0	HMX		0.100	0.300	U
98-95-3	Nitrobenzene		0.100	0.300	U
78-11-5	PETN		0.250	0.500	U
121-82-4	RDX	0.452 J	0.100	0.300	~~P~~ 2C
479-45-8	Tetryl		0.100	0.300	U

SYSTEM MONITORING COMPOUND	ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	1.000	1.010	101	55 - 140	
1-Chloro-3-nitrobenzene [2C]	1.000	1.011	101	55 - 140	

* Values outside of QC limits

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ANALYSIS DATA SHEET

MR21-SS36-10A

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Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-07	File ID:	148V5001.D
Sampled:	03/04/10 08:50	Prepared:	03/09/10 17:30	Analyzed:	03/16/10 18:07
Solids:	76.62	Preparation:	EXT_EXPL_S	Dilution:	1
Batch:	0C08012	Sequence: 0C07612	Calibration:	0040002	Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (mg/Kg)	MDL	MRL	Q
99-35-4	1,3,5-Trinitrobenzene		0.100	0.300	U
99-65-0	1,3-Dinitrobenzene		0.100	0.300	U
118-96-7	2,4,6-Trinitrotoluene [2C]	0.129 J	0.100	0.300	~~JPM~~ 2C
121-14-2	2,4-Dinitrotoluene	0.140 J	0.100	0.300	~~JPM~~ 2C
606-20-2	2,6-Dinitrotoluene		0.100	0.300	U
35572-78-2	2-Amino-4,6-dinitrotoluene		0.100	0.300	U
55-63-0	Nitroglycerine		0.250	0.750	U~~J~~
88-72-2	2-Nitrotoluene		0.100	0.300	U
99-08-1	3-Nitrotoluene		0.100	0.300	U
19406-51-0	4-Amino-2,6-dinitrotoluene		0.100	0.300	U
99-99-0	4-Nitrotoluene		0.100	0.300	U
2691-41-0	HMX		0.100	0.300	U
98-95-3	Nitrobenzene		0.100	0.300	U
78-11-5	PETN	1.48	0.250	0.500	
121-82-4	RDX		0.100	0.300	U
479-45-8	Tetryl		0.100	0.300	U

SYSTEM MONITORING COMPOUND	ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	1.000	1.282	128	55 - 140	
1-Chloro-3-nitrobenzene [2C]	1.000	1.061	106	55 - 140	

* Values outside of QC limits

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ANALYSIS DATA SHEET

MR21-SS37-10A

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Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-08	File ID:	149V5101.D
Sampled:	03/04/10 09:00	Prepared:	03/09/10 17:30	Analyzed:	03/16/10 18:39
Solids:	76.95	Preparation:	EXT_EXPL_S	Dilution:	1
Batch:	0C08012	Sequence: 0C07612	Calibration:	0040002	Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (mg/Kg)	MDL	MRL	Q	
99-35-4	1,3,5-Trinitrobenzene		0.100	0.300	U	
99-65-0	1,3-Dinitrobenzene	0.199	0.100	0.300	J	
118-96-7	2,4,6-Trinitrotoluene		0.100	0.300	U	
121-14-2	2,4-Dinitrotoluene		0.100	0.300	U	
606-20-2	2,6-Dinitrotoluene		0.100	0.300	U	
35572-78-2	2-Amino-4,6-dinitrotoluene		0.100	0.300	U	
55-63-0	Nitroglycerine	~~4770~~	0.250	0.750	U~~J~~	
88-72-2	2-Nitrotoluene		0.100	0.300	U	
99-08-1	3-Nitrotoluene		0.100	0.300	U	
19406-51-0	4-Amino-2,6-dinitrotoluene		0.100	0.300	U	
99-99-0	4-Nitrotoluene		0.100	0.300	U	
2691-41-0	HMX	0.294 J	0.100	0.300	~~JPM~~	2C
98-95-3	Nitrobenzene		0.100	0.300	U	
78-11-5	PETN	0.523 J	0.250	0.500	~~PM~~	2C
121-82-4	RDX		0.100	0.300	U	
479-45-8	Tetryl		0.100	0.300	U	

SYSTEM MONITORING COMPOUND	ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	1.000	0.9022	90.2	55 - 140	
1-Chloro-3-nitrobenzene [2C]	1.000	1.065	107	55 - 140	

* Values outside of QC limits

JLS
4.5.10

MS 7/26/10

ANALYSIS DATA SHEET

MR21-SS28-10A

9

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-09	File ID:	150V5201.D
Sampled:	03/04/10 08:25	Prepared:	03/09/10 17:30	Analyzed:	03/16/10 19:11
Solids:	86.10	Preparation:	EXT_EXPL_S	Dilution:	1

Batch: 0C08012 Sequence: 0C07612 Calibration: 0040002 Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (mg/Kg)	MDL	MRL	Q
99-35-4	1,3,5-Trinitrobenzene		0.100	0.300	U
99-65-0	1,3-Dinitrobenzene		0.100	0.300	U
118-96-7	2,4,6-Trinitrotoluene		0.100	0.300	U
121-14-2	2,4-Dinitrotoluene		0.100	0.300	U
606-20-2	2,6-Dinitrotoluene		0.100	0.300	U
35572-78-2	2-Amino-4,6-dinitrotoluene		0.100	0.300	U
55-63-0	Nitroglycerine		0.250	0.750	U ϕ
88-72-2	2-Nitrotoluene		0.100	0.300	U
99-08-1	3-Nitrotoluene		0.100	0.300	U
19406-51-0	4-Amino-2,6-dinitrotoluene		0.100	0.300	U
99-99-0	4-Nitrotoluene		0.100	0.300	U
2691-41-0	HMX		0.100	0.300	U
98-95-3	Nitrobenzene		0.100	0.300	U
78-11-5	PETN		0.250	0.500	U
121-82-4	RDX		0.100	0.300	U
479-45-8	Tetryl		0.100	0.300	U

SYSTEM MONITORING COMPOUND	ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	1.000	0.9892	98.9	55 - 140	
1-Chloro-3-nitrobenzene [2C]	1.000	0.9728	97.3	55 - 140	

* Values outside of QC limits

kw 7/26/10

ANALYSIS DATA SHEET

MR21-SS39-10A

10

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-10	File ID:	151V5301.D
Sampled:	03/04/10 09:50	Prepared:	03/09/10 17:30	Analyzed:	03/16/10 19:43
Solids:	79.34	Preparation:	EXT_EXPL_S	Dilution:	1

Batch: 0C08012 Sequence: 0C07612 Calibration: 0040002 Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (mg/Kg)	MDL	MRL	Q
99-35-4	1,3,5-Trinitrobenzene		0.100	0.300	U
99-65-0	1,3-Dinitrobenzene		0.100	0.300	U
118-96-7	2,4,6-Trinitrotoluene	0.133 J	0.100	0.300	~~Y~~ 2C
121-14-2	2,4-Dinitrotoluene		0.100	0.300	U
606-20-2	2,6-Dinitrotoluene		0.100	0.300	U
35572-78-2	2-Amino-4,6-dinitrotoluene		0.100	0.300	U
55-63-0	Nitroglycerine	~~615~~ 543	0.250	0.750	~~XO~~
88-72-2	2-Nitrotoluene		0.100	0.300	U
99-08-1	3-Nitrotoluene	0.117 J	0.100	0.300	~~IP~~ 2C
19406-51-0	4-Amino-2,6-dinitrotoluene		0.100	0.300	U
99-99-0	4-Nitrotoluene		0.100	0.300	U
2691-41-0	HMX		0.100	0.300	U
98-95-3	Nitrobenzene		0.100	0.300	U
78-11-5	PETN		0.250	0.500	U
121-82-4	RDX		0.100	0.300	U
479-45-8	Tetryl		0.100	0.300	U

SYSTEM MONITORING COMPOUND	ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	1.000	1.011	101	55 - 140	
1-Chloro-3-nitrobenzene [2C]	1.000	1.069	107	55 - 140	

* Values outside of QC limits

JLS
4.5.10

MW 7/26/10

ANALYSIS DATA SHEET

MR21-SS38-10A

11

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-11	File ID:	104V0401.D
Sampled:	03/04/10 10:00	Prepared:	03/09/10 17:30	Analyzed:	03/19/10 16:07
Solids:	74.03	Preparation:	EXT_EXPL_S	Dilution:	1
Batch:	0C08012	Sequence: 0C08210	Calibration:	0040002	Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (mg/Kg)	MDL	MRL	Q
99-35-4	1,3,5-Trinitrobenzene		0.100	0.300	UO
99-65-0	1,3-Dinitrobenzene		0.100	0.300	UO
118-96-7	2,4,6-Trinitrotoluene		0.100	0.300	UO
121-14-2	2,4-Dinitrotoluene		0.100	0.300	UO
606-20-2	2,6-Dinitrotoluene		0.100	0.300	UO
35572-78-2	2-Amino-4,6-dinitrotoluene		0.100	0.300	UO
55-63-0	Nitroglycerine		0.250	0.750	UO
88-72-2	2-Nitrotoluene		0.100	0.300	UO
99-08-1	3-Nitrotoluene		0.100	0.300	UO
19406-51-0	4-Amino-2,6-dinitrotoluene		0.100	0.300	UO
99-99-0	4-Nitrotoluene		0.100	0.300	UO
2691-41-0	HMX		0.100	0.300	UO
98-95-3	Nitrobenzene		0.100	0.300	UO
78-11-5	PETN	0.639 J	0.250	0.500	~~PMO~~ SSH
121-82-4	RDX		0.100	0.300	UO
479-45-8	Tetryl		0.100	0.300	UO

SYSTEM MONITORING COMPOUND	ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	1.000	1.707	171	55 - 140	*
1-Chloro-3-nitrobenzene [2C]	1.000	0.9806	98.1	55 - 140	

* Values outside of QC limits

hw 7/26/10

ANALYSIS DATA SHEET

MR21-SS25-10A 12

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-12	File ID:	105V0501.D
Sampled:	03/04/10 08:15	Prepared:	03/09/10 17:30	Analyzed:	03/19/10 16:39
Solids:	72.66	Preparation:	EXT_EXPL_S	Dilution:	1

Batch: 0C08012 Sequence: 0C08210 Calibration: 0040002 Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (mg/Kg)	MDL	MRL	Q
99-35-4	1,3,5-Trinitrobenzene		0.100	0.300	UQ
99-65-0	1,3-Dinitrobenzene		0.100	0.300	UQ
118-96-7	2,4,6-Trinitrotoluene		0.100	0.300	UQ
121-14-2	2,4-Dinitrotoluene		0.100	0.300	UQ
606-20-2	2,6-Dinitrotoluene		0.100	0.300	UQ
35572-78-2	2-Amino-4,6-dinitrotoluene		0.100	0.300	UQ
55-63-0	Nitroglycerine		0.250	0.750	UQ
88-72-2	2-Nitrotoluene		0.100	0.300	UQ
99-08-1	3-Nitrotoluene		0.100	0.300	UQ
19406-51-0	4-Amino-2,6-dinitrotoluene		0.100	0.300	UQ
99-99-0	4-Nitrotoluene		0.100	0.300	UQ
2691-41-0	HMX		0.100	0.300	UQ
98-95-3	Nitrobenzene		0.100	0.300	UQ
78-11-5	PETN		0.250	0.500	UQ
121-82-4	RDX	~~0.515~~ 0.230 J	0.100	0.300	~~PQ~~ SSH
479-45-8	Tetryl		0.100	0.300	UQ

SYSTEM MONITORING COMPOUND	ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	1.000	2.019	202	55 - 140	*
1-Chloro-3-nitrobenzene [2C]	1.000	0.9928	99.3	55 - 140	

* Values outside of QC limits

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ANALYSIS DATA SHEET

MR21-SS26-10A 13

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-13	File ID:	106V0601.D
Sampled:	03/03/10 12:50	Prepared:	03/09/10 17:30	Analyzed:	03/19/10 17:11
Solids:	80.10	Preparation:	EXT_EXPL_S	Dilution:	1
Batch:	0C08012	Sequence: 0C08210	Calibration:	0040002	Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (mg/Kg)	MDL	MRL	Q	
99-35-4	1,3,5-Trinitrobenzene		0.100	0.300	UO	
99-65-0	1,3-Dinitrobenzene		0.100	0.300	UO	
118-96-7	2,4,6-Trinitrotoluene		0.100	0.300	UO	
121-14-2	2,4-Dinitrotoluene		0.100	0.300	UO	
606-20-2	2,6-Dinitrotoluene		0.100	0.300	UO	
35572-78-2	2-Amino-4,6-dinitrotoluene	0.116 J	0.100	0.300	~~JPO~~	SSH
55-63-0	Nitroglycerine		0.250	0.750	UO	
88-72-2	2-Nitrotoluene	0.209 J	0.100	0.300	~~JPO~~	SSH
99-08-1	3-Nitrotoluene		0.100	0.300	UO	
19406-51-0	4-Amino-2,6-dinitrotoluene		0.100	0.300	UO	
99-99-0	4-Nitrotoluene		0.100	0.300	UO	
2691-41-0	HMX		0.100	0.300	UO	
98-95-3	Nitrobenzene		0.100	0.300	UO	
78-11-5	PETN		0.250	0.500	UO	
121-82-4	RDX	0.153 J	0.100	0.300	~~JPMO~~	SSH
479-45-8	Tetryl	0.696 J	0.100	0.300	~~PO~~	SSH

SYSTEM MONITORING COMPOUND	ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	1.000	2.242	224	55 - 140	*
1-Chloro-3-nitrobenzene [2C]	1.000	1.199	120	55 - 140	

* Values outside of QC limits

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ANALYSIS DATA SHEET

MR21-SS12-10A 14

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-14	File ID:	107V0701.D
Sampled:	03/03/10 12:00	Prepared:	03/09/10 17:30	Analyzed:	03/19/10 17:44
Solids:	75.76	Preparation:	EXT_EXPL_S	Dilution:	1

Batch: 0C08012 Sequence: 0C08210 Calibration: 0040002 Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (mg/Kg)	MDL	MRL	Q	
99-35-4	1,3,5-Trinitrobenzene		0.100	0.300	U	
99-65-0	1,3-Dinitrobenzene		0.100	0.300	U	
118-96-7	2,4,6-Trinitrotoluene		0.100	0.300	U	
121-14-2	2,4-Dinitrotoluene		0.100	0.300	U	
606-20-2	2,6-Dinitrotoluene		0.100	0.300	U	
35572-78-2	2-Amino-4,6-dinitrotoluene		0.100	0.300	U	
55-63-0	Nitroglycerine		0.250	0.750	UQ	
88-72-2	2-Nitrotoluene		0.100	0.300	U	
99-08-1	3-Nitrotoluene [2C]	0.109 J	0.100	0.300	~~JPM~~	2C
19406-51-0	4-Amino-2,6-dinitrotoluene	0.163 J	0.100	0.300	~~JPM~~	2C
99-99-0	4-Nitrotoluene		0.100	0.300	U	
2691-41-0	HMX		0.100	0.300	U	
98-95-3	Nitrobenzene		0.100	0.300	U	
78-11-5	PETN		0.250	0.500	U	
121-82-4	RDX	1.02 J	0.100	0.300	~~P~~	2C
479-45-8	Tetryl		0.100	0.300	U	

SYSTEM MONITORING COMPOUND	ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	1.000	1.295	129	55 - 140	
1-Chloro-3-nitrobenzene [2C]	1.000	1.028	103	55 - 140	

* Values outside of QC limits

lew 7/26/10

ANALYSIS DATA SHEET

MR21-SS29-10A

15

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-15	File ID:	108V0801.D
Sampled:	03/03/10 13:00	Prepared:	03/09/10 17:30	Analyzed:	03/19/10 18:16
Solids:	68.76	Preparation:	EXT_EXPL_S	Dilution:	1
Batch:	0C08012	Sequence: 0C08210	Calibration:	0040002	Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (mg/Kg)	MDL	MRL	Q	
99-35-4	1,3,5-Trinitrobenzene	0.280 J	0.100	0.300	~~JO~~	SSH
99-65-0	1,3-Dinitrobenzene		0.100	0.300	UO	
118-96-7	2,4,6-Trinitrotoluene		0.100	0.300	UO	
121-14-2	2,4-Dinitrotoluene		0.100	0.300	UO	
606-20-2	2,6-Dinitrotoluene		0.100	0.300	UO	
35572-78-2	2-Amino-4,6-dinitrotoluene		0.100	0.300	UO	
55-63-0	Nitroglycerine [2C]	522 J	0.250	0.750	~~PMO~~	2C
88-72-2	2-Nitrotoluene	0.122 J	0.100	0.300	~~JO~~	SSH
99-08-1	3-Nitrotoluene		0.100	0.300	UO	
19406-51-0	4-Amino-2,6-dinitrotoluene		0.100	0.300	UO	
99-99-0	4-Nitrotoluene	3.77 J	0.100	0.300	~~PO~~	SSH
2691-41-0	HMX	0.277 J	0.100	0.300	~~JPMO~~	↓
98-95-3	Nitrobenzene	1.27 J	0.100	0.300	~~PMO~~	
78-11-5	PETN		0.250	0.500	UO	
121-82-4	RDX	2.73 J	0.100	0.300	~~O~~	SSH
479-45-8	Tetryl		0.100	0.300	UO	

SYSTEM MONITORING COMPOUND	ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	1.000	5.764	576	55 - 140	*
1-Chloro-3-nitrobenzene [2C]	1.000	1.226	123	55 - 140	

* Values outside of QC limits

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ANALYSIS DATA SHEET

MR21-SS17-10A 16

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-16	File ID:	109V0901.D
Sampled:	03/03/10 11:40	Prepared:	03/09/10 17:30	Analyzed:	03/19/10 18:48
Solids:	78.36	Preparation:	EXT_EXPL_S	Dilution:	1
Batch:	0C08012	Sequence: 0C08210	Calibration:	0040002	Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (mg/Kg)	MDL	MRL	Q
99-35-4	1,3,5-Trinitrobenzene	0.211 J	0.100	0.300	~~U~~ 2C
99-65-0	1,3-Dinitrobenzene		0.100	0.300	U
118-96-7	2,4,6-Trinitrotoluene		0.100	0.300	U
121-14-2	2,4-Dinitrotoluene		0.100	0.300	U
606-20-2	2,6-Dinitrotoluene		0.100	0.300	U
35572-78-2	2-Amino-4,6-dinitrotoluene		0.100	0.300	U
55-63-0	Nitroglycerine		0.250	0.750	UJ
88-72-2	2-Nitrotoluene		0.100	0.300	U
99-08-1	3-Nitrotoluene		0.100	0.300	U
19406-51-0	4-Amino-2,6-dinitrotoluene		0.100	0.300	U
99-99-0	4-Nitrotoluene		0.100	0.300	U
2691-41-0	HMX		0.100	0.300	U
98-95-3	Nitrobenzene		0.100	0.300	U
78-11-5	PETN		0.250	0.500	U
121-82-4	RDX		0.100	0.300	U
479-45-8	Tetryl		0.100	0.300	U

SYSTEM MONITORING COMPOUND	ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	1.000	1.383	138	55 - 140	
1-Chloro-3-nitrobenzene [2C]	1.000	0.8601	86.0	55 - 140	

* Values outside of QC limits

NW 7/26/10

ANALYSIS DATA SHEET

MR21-SS11-10A 17

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-17	File ID:	110V1001.D
Sampled:	03/03/10 12:10	Prepared:	03/09/10 17:30	Analyzed:	03/19/10 19:20
Solids:	74.12	Preparation:	EXT_EXPL_S	Dilution:	1
Batch:	0C08012	Sequence: 0C08210	Calibration:	0040002	Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (mg/Kg)	MDL	MRL	Q
99-35-4	1,3,5-Trinitrobenzene	0.101 J	0.100	0.300	~~JP~~ 2C
99-65-0	1,3-Dinitrobenzene		0.100	0.300	U
118-96-7	2,4,6-Trinitrotoluene		0.100	0.300	U
121-14-2	2,4-Dinitrotoluene		0.100	0.300	U
606-20-2	2,6-Dinitrotoluene		0.100	0.300	U
35572-78-2	2-Amino-4,6-dinitrotoluene		0.100	0.300	U
55-63-0	Nitroglycerine	~~1540~~ 968 J	0.250	0.750	~~PO~~ 2C
88-72-2	2-Nitrotoluene		0.100	0.300	U
99-08-1	3-Nitrotoluene		0.100	0.300	U
19406-51-0	4-Amino-2,6-dinitrotoluene		0.100	0.300	U
99-99-0	4-Nitrotoluene		0.100	0.300	U
2691-41-0	HMX		0.100	0.300	U
98-95-3	Nitrobenzene		0.100	0.300	U
78-11-5	PETN		0.250	0.500	U
121-82-4	RDX	0.472 J	0.100	0.300	~~P~~ 2C
479-45-8	Tetryl		0.100	0.300	U

SYSTEM MONITORING COMPOUND	ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	1.000	1.122	112	55 - 140	
1-Chloro-3-nitrobenzene [2C]	1.000	0.9150	91.5	55 - 140	

* Values outside of QC limits

JLS
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KW 7/26/10

ANALYSIS DATA SHEET

MR21-SS11D-10A 18

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-18	File ID:	111V1101.D
Sampled:	03/03/10 12:15	Prepared:	03/09/10 17:30	Analyzed:	03/19/10 19:52
Solids:	73.05	Preparation:	EXT_EXPL_S	Dilution:	1
Batch:	0C08012	Sequence: 0C08210	Calibration:	0040002	Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (mg/Kg)	MDL	MRL	Q
99-35-4	1,3,5-Trinitrobenzene		0.100	0.300	U
99-65-0	1,3-Dinitrobenzene		0.100	0.300	U
118-96-7	2,4,6-Trinitrotoluene	0.632 J	0.100	0.300	~~P~~ 2C
121-14-2	2,4-Dinitrotoluene		0.100	0.300	U
606-20-2	2,6-Dinitrotoluene		0.100	0.300	U
35572-78-2	2-Amino-4,6-dinitrotoluene		0.100	0.300	U
55-63-0	Nitroglycerine		0.250	0.750	UQ
88-72-2	2-Nitrotoluene		0.100	0.300	U
99-08-1	3-Nitrotoluene		0.100	0.300	U
19406-51-0	4-Amino-2,6-dinitrotoluene		0.100	0.300	U
99-99-0	4-Nitrotoluene		0.100	0.300	U
2691-41-0	HMX		0.100	0.300	U
98-95-3	Nitrobenzene		0.100	0.300	U
78-11-5	PETN		0.250	0.500	U
121-82-4	RDX [2C]	0.198 J	0.100	0.300	~~IPM~~ 2C
479-45-8	Tetryl		0.100	0.300	U

SYSTEM MONITORING COMPOUND	ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	1.000	0.9549	95.5	55 - 140	
1-Chloro-3-nitrobenzene [2C]	1.000	0.9376	93.8	55 - 140	

* Values outside of QC limits

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ANALYSIS DATA SHEET

MR21-SS16-10A 19

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-19	File ID:	113V1301.D
Sampled:	03/03/10 11:50	Prepared:	03/09/10 17:30	Analyzed:	03/19/10 20:57
Solids:	86.97	Preparation:	EXT_EXPL_S	Dilution:	1
Batch:	0C08012	Sequence: 0C08210	Calibration:	0040002	Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (mg/Kg)	MDL	MRL	Q
99-35-4	1,3,5-Trinitrobenzene		0.100	0.300	U
99-65-0	1,3-Dinitrobenzene		0.100	0.300	U
118-96-7	2,4,6-Trinitrotoluene		0.100	0.300	U
121-14-2	2,4-Dinitrotoluene		0.100	0.300	U
606-20-2	2,6-Dinitrotoluene		0.100	0.300	U
35572-78-2	2-Amino-4,6-dinitrotoluene		0.100	0.300	U
55-63-0	Nitroglycerine		0.250	0.750	UQ
88-72-2	2-Nitrotoluene		0.100	0.300	U
99-08-1	3-Nitrotoluene		0.100	0.300	U
19406-51-0	4-Amino-2,6-dinitrotoluene		0.100	0.300	U
99-99-0	4-Nitrotoluene		0.100	0.300	U
2691-41-0	HMX		0.100	0.300	U
98-95-3	Nitrobenzene		0.100	0.300	U
78-11-5	PETN		0.250	0.500	U
121-82-4	RDX	0.258 J	0.100	0.300	✓ 2C
479-45-8	Tetryl		0.100	0.300	U

SYSTEM MONITORING COMPOUND	ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	1.000	1.126	113	55 - 140	
1-Chloro-3-nitrobenzene [2C]	1.000	0.9639	96.4	55 - 140	

* Values outside of QC limits

MW 7/26/10

ANALYSIS DATA SHEET

MR21-SS14-10A 20

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-20	File ID:	122V2201.D
Sampled:	03/03/10 11:30	Prepared:	03/10/10 14:05	Analyzed:	03/20/10 01:46
Solids:	77.67	Preparation:	EXT_EXPL_S	Dilution:	1
Batch:	0C09007	Sequence: 0C08210	Calibration:	0040002	Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (mg/Kg)	MDL	MRL	Q
99-35-4	1,3,5-Trinitrobenzene		0.100	0.300	U
99-65-0	1,3-Dinitrobenzene		0.100	0.300	U
118-96-7	2,4,6-Trinitrotoluene		0.100	0.300	U
121-14-2	2,4-Dinitrotoluene		0.100	0.300	U
606-20-2	2,6-Dinitrotoluene		0.100	0.300	U
35572-78-2	2-Amino-4,6-dinitrotoluene		0.100	0.300	U
55-63-0	Nitroglycerine		0.250	0.750	UJ
88-72-2	2-Nitrotoluene		0.100	0.300	U
99-08-1	3-Nitrotoluene		0.100	0.300	U
19406-51-0	4-Amino-2,6-dinitrotoluene		0.100	0.300	U
99-99-0	4-Nitrotoluene		0.100	0.300	U
2691-41-0	HMX		0.100	0.300	U
98-95-3	Nitrobenzene		0.100	0.300	U
78-11-5	PETN		0.250	0.500	U
121-82-4	RDX	0.767 J	0.100	0.300	P 2C
479-45-8	Tetryl		0.100	0.300	U

SYSTEM MONITORING COMPOUND	ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	1.000	1.018	102	55 - 140	
1-Chloro-3-nitrobenzene [2C]	1.000	1.277	128	55 - 140	

* Values outside of QC limits

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ANALYSIS DATA SHEET

MR21-SS23-10A

21

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-21	File ID:	114V1401.D
Sampled:	03/03/10 12:30	Prepared:	03/09/10 17:30	Analyzed:	03/19/10 21:29
Solids:	86.63	Preparation:	EXT_EXPL_S	Dilution:	1
Batch:	0C08012	Sequence: 0C08210	Calibration:	0040002	Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (mg/Kg)	MDL	MRL	Q
99-35-4	1,3,5-Trinitrobenzene		0.100	0.300	U
99-65-0	1,3-Dinitrobenzene		0.100	0.300	U
118-96-7	2,4,6-Trinitrotoluene		0.100	0.300	U
121-14-2	2,4-Dinitrotoluene		0.100	0.300	U
606-20-2	2,6-Dinitrotoluene		0.100	0.300	U
35572-78-2	2-Amino-4,6-dinitrotoluene		0.100	0.300	U
55-63-0	Nitroglycerine		0.250	0.750	UJ
88-72-2	2-Nitrotoluene		0.100	0.300	U
99-08-1	3-Nitrotoluene		0.100	0.300	U
19406-51-0	4-Amino-2,6-dinitrotoluene		0.100	0.300	U
99-99-0	4-Nitrotoluene		0.100	0.300	U
2691-41-0	HMX		0.100	0.300	U
98-95-3	Nitrobenzene		0.100	0.300	U
78-11-5	PETN		0.250	0.500	U
121-82-4	RDX	0.107 J	0.100	0.300	JPM 2C
479-45-8	Tetryl		0.100	0.300	U

SYSTEM MONITORING COMPOUND	ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	1.000	1.369	137	55 - 140	
1-Chloro-3-nitrobenzene [2C]	1.000	0.9485	94.8	55 - 140	

‘ Values outside of QC limits

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ANALYSIS DATA SHEET

MR21-SS18D-10A 22

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-22	File ID:	111V1101.D
Sampled:	03/03/10 11:25	Prepared:	03/10/10 14:05	Analyzed:	03/24/10 09:35
Solids:	73.05	Preparation:	EXT_EXPL_S	Dilution:	1

Batch: 0C09007 Sequence: 0C08910 Calibration: 0089001 Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (mg/Kg)	MDL	MRL	Q	
99-35-4	1,3,5-Trinitrobenzene	0.166	0.100	0.300	J	
99-65-0	1,3-Dinitrobenzene		0.100	0.300	U	
118-96-7	2,4,6-Trinitrotoluene		0.100	0.300	U	
121-14-2	2,4-Dinitrotoluene		0.100	0.300	U	
606-20-2	2,6-Dinitrotoluene		0.100	0.300	U	
35572-78-2	2-Amino-4,6-dinitrotoluene	0.113 J	0.100	0.300	~~JPM~~	2C
55-63-0	Nitroglycerine		0.250	0.750	U	
88-72-2	2-Nitrotoluene		0.100	0.300	U	
99-08-1	3-Nitrotoluene		0.100	0.300	U	
19406-51-0	4-Amino-2,6-dinitrotoluene		0.100	0.300	U	
99-99-0	4-Nitrotoluene	0.132 J	0.100	0.300	~~J~~	2C
2691-41-0	HMX		0.100	0.300	U	
98-95-3	Nitrobenzene		0.100	0.300	U	
78-11-5	PETN		0.250	0.500	U	
121-82-4	RDX		0.100	0.300	U	
479-45-8	Tetryl	0.482	0.100	0.300		

SYSTEM MONITORING COMPOUND	ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	1.000	0.8334	83.3	55 - 140	
1-Chloro-3-nitrobenzene [2C]	1.000	1.103	110	55 - 140	

* Values outside of QC limits

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ANALYSIS DATA SHEET

MR21-SS18-10A 23

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-23	File ID:	124V2401.D
Sampled:	03/03/10 11:20	Prepared:	03/10/10 14:05	Analyzed:	03/20/10 02:50
Solids:	73.63	Preparation:	EXT_EXPL_S	Dilution:	1

Batch: 0C09007 Sequence: 0C08210 Calibration: 0040002 Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (mg/Kg)	MDL	MRL	Q
99-35-4	1,3,5-Trinitrobenzene	0.117 J	0.100	0.300	~~JPM~~ 2C
99-65-0	1,3-Dinitrobenzene		0.100	0.300	U
118-96-7	2,4,6-Trinitrotoluene		0.100	0.300	U
121-14-2	2,4-Dinitrotoluene		0.100	0.300	U
606-20-2	2,6-Dinitrotoluene		0.100	0.300	U
35572-78-2	2-Amino-4,6-dinitrotoluene		0.100	0.300	U
55-63-0	Nitroglycerine	1870 J	0.250	0.750	~~PO~~ 2C
88-72-2	2-Nitrotoluene		0.100	0.300	U
99-08-1	3-Nitrotoluene		0.100	0.300	U
19406-51-0	4-Amino-2,6-dinitrotoluene		0.100	0.300	U
99-99-0	4-Nitrotoluene		0.100	0.300	U
2691-41-0	HMX		0.100	0.300	U
98-95-3	Nitrobenzene		0.100	0.300	U
78-11-5	PETN		0.250	0.500	U
121-82-4	RDX		0.100	0.300	U
479-45-8	Tetryl	0.408	0.100	0.300	

SYSTEM MONITORING COMPOUND	ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	1.000	0.8403	84.0	55 - 140	
1-Chloro-3-nitrobenzene [2C]	1.000	2.312	231	55 - 140	*

* Values outside of QC limits

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ANALYSIS DATA SHEET

MR21-SS15-10A

24

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-24	File ID:	125V2501.D
Sampled:	03/03/10 12:25	Prepared:	03/10/10 14:05	Analyzed:	03/20/10 03:22
Solids:	75.42	Preparation:	EXT_EXPL_S	Dilution:	1
Batch:	0C09007	Sequence:	0C08210	Calibration:	0040002
Instrument:	GL-HPLC1				

CAS NO.	COMPOUND	CONC. (mg/Kg)	MDL	MRL	Q
99-35-4	1,3,5-Trinitrobenzene		0.100	0.300	U
99-65-0	1,3-Dinitrobenzene		0.100	0.300	U
118-96-7	2,4,6-Trinitrotoluene		0.100	0.300	U
121-14-2	2,4-Dinitrotoluene		0.100	0.300	U
606-20-2	2,6-Dinitrotoluene		0.100	0.300	U
35572-78-2	2-Amino-4,6-dinitrotoluene		0.100	0.300	U
55-63-0	Nitroglycerine	457 J	0.250	0.750	~~PQ~~ 2C
88-72-2	2-Nitrotoluene		0.100	0.300	U
99-08-1	3-Nitrotoluene		0.100	0.300	U
19406-51-0	4-Amino-2,6-dinitrotoluene		0.100	0.300	U
99-99-0	4-Nitrotoluene		0.100	0.300	U
2691-41-0	HMX		0.100	0.300	U
98-95-3	Nitrobenzene		0.100	0.300	U
78-11-5	PETN		0.250	0.500	U
121-82-4	RDX [2C]	0.135 J	0.100	0.300	~~IPM~~ 2C
479-45-8	Tetryl		0.100	0.300	U

SYSTEM MONITORING COMPOUND	ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	1.000	0.9909	99.1	55 - 140	
1-Chloro-3-nitrobenzene [2C]	1.000	1.159	116	55 - 140	

* Values outside of QC limits

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ANALYSIS DATA SHEET

MR21-SS22-10A 25

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-25	File ID:	126V2601.D
Sampled:	03/03/10 09:25	Prepared:	03/10/10 14:05	Analyzed:	03/20/10 03:54
Solids:	85.30	Preparation:	EXT_EXPL_S	Dilution:	1
Batch:	0C09007	Sequence: 0C08210	Calibration:	0040002	Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (mg/Kg)	MDL	MRL	Q
99-35-4	1,3,5-Trinitrobenzene		0.100	0.300	U
99-65-0	1,3-Dinitrobenzene		0.100	0.300	U
118-96-7	2,4,6-Trinitrotoluene	0.169 J	0.100	0.300	~~JP~~ 2C
121-14-2	2,4-Dinitrotoluene		0.100	0.300	U
606-20-2	2,6-Dinitrotoluene		0.100	0.300	U
35572-78-2	2-Amino-4,6-dinitrotoluene		0.100	0.300	U
55-63-0	Nitroglycerine		0.250	0.750	U~~Ø~~
88-72-2	2-Nitrotoluene		0.100	0.300	U
99-08-1	3-Nitrotoluene		0.100	0.300	U
19406-51-0	4-Amino-2,6-dinitrotoluene		0.100	0.300	U
99-99-0	4-Nitrotoluene		0.100	0.300	U
2691-41-0	HMX		0.100	0.300	U
98-95-3	Nitrobenzene		0.100	0.300	U
78-11-5	PETN		0.250	0.500	U
121-82-4	RDX		0.100	0.300	U
479-45-8	Tetryl		0.100	0.300	U

SYSTEM MONITORING COMPOUND	ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	1.000	0.9624	96.2	55 - 140	
1-Chloro-3-nitrobenzene [2C]	1.000	1.313	131	55 - 140	

* Values outside of QC limits

MW 7/26/10

ANALYSIS DATA SHEET

MR21-SS13-10A 26

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-26	File ID:	126V2601.D
Sampled:	03/03/10 10:00	Prepared:	03/10/10 14:05	Analyzed:	03/20/10 04:27
Solids:	69.29	Preparation:	EXT_EXPL_S	Dilution:	1

Batch: 0C09007 Sequence: 0C08210 Calibration: 0040002 Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (mg/Kg)	MDL	MRL	Q	
99-35-4	1,3,5-Trinitrobenzene [2C]	0.390 J	0.100	0.300	~~PMO~~	SSH
99-65-0	1,3-Dinitrobenzene		0.100	0.300	U~~Q~~	
118-96-7	2,4,6-Trinitrotoluene [2C]	0.750 J	0.100	0.300	~~PMO~~	SSH
121-14-2	2,4-Dinitrotoluene	0.302 J	0.100	0.300	~~Q~~	SSH
606-20-2	2,6-Dinitrotoluene		0.100	0.300	U~~Q~~	
35572-78-2	2-Amino-4,6-dinitrotoluene	0.351 J	0.100	0.300	~~PMO~~	SSH
55-63-0	Nitroglycerine		0.250	0.750	U~~Q~~	
88-72-2	2-Nitrotoluene	0.243 J	0.100	0.300	~~JPO~~	SSH
99-08-1	3-Nitrotoluene		0.100	0.300	U~~Q~~	
19406-51-0	4-Amino-2,6-dinitrotoluene		0.100	0.300	U~~Q~~	
99-99-0	4-Nitrotoluene		0.100	0.300	U~~Q~~	
2691-41-0	HMX	0.647 J	0.100	0.300	~~PQ~~	SSH
98-95-3	Nitrobenzene	0.820 J	0.100	0.300	~~PMO~~	SSH
78-11-5	PETN		0.250	0.500	U~~Q~~	
121-82-4	RDX		0.100	0.300	U~~Q~~	
479-45-8	Tetryl		0.100	0.300	U~~Q~~	

SYSTEM MONITORING COMPOUND	ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	1.000	1.551	155	55 - 140	*
1-Chloro-3-nitrobenzene [2C]	1.000	1.992	199	55 - 140	*

* Values outside of QC limits

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ANALYSIS DATA SHEET

MR21-SS21-10A

27

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-27	File ID:	128V2801.D
Sampled:	03/03/10 09:35	Prepared:	03/10/10 14:05	Analyzed:	03/20/10 04:59
Solids:	79.57	Preparation:	EXT_EXPL_S	Dilution:	1

Batch: 0C09007 Sequence: 0C08210 Calibration: 0040002 Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (mg/Kg)	MDL	MRL	Q
99-35-4	1,3,5-Trinitrobenzene	0.152	0.100	0.300	J
99-65-0	1,3-Dinitrobenzene		0.100	0.300	U
118-96-7	2,4,6-Trinitrotoluene		0.100	0.300	U
121-14-2	2,4-Dinitrotoluene		0.100	0.300	U
606-20-2	2,6-Dinitrotoluene		0.100	0.300	U
35572-78-2	2-Amino-4,6-dinitrotoluene		0.100	0.300	U
55-63-0	Nitroglycerine		0.250	0.750	UJ
88-72-2	2-Nitrotoluene		0.100	0.300	U
99-08-1	3-Nitrotoluene		0.100	0.300	U
19406-51-0	4-Amino-2,6-dinitrotoluene		0.100	0.300	U
99-99-0	4-Nitrotoluene		0.100	0.300	U
2691-41-0	HMX		0.100	0.300	U
98-95-3	Nitrobenzene		0.100	0.300	U
78-11-5	PETN		0.250	0.500	U
121-82-4	RDX		0.100	0.300	U
479-45-8	Tetryl		0.100	0.300	U

SYSTEM MONITORING COMPOUND	ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	1.000	1.004	100	55 - 140	
1-Chloro-3-nitrobenzene [2C]	1.000	1.244	124	55 - 140	

* Values outside of QC limits

MW 7/26/10

ANALYSIS DATA SHEET

MR21-SS27-10A

28

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-28	File ID:	129V2901.D
Sampled:	03/03/10 09:10	Prepared:	03/10/10 14:05	Analyzed:	03/20/10 05:31
Solids:	79.12	Preparation:	EXT_EXPL_S	Dilution:	1

Batch: 0C09007 Sequence: 0C08210 Calibration: 0040002 Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (mg/Kg)	MDL	MRL	Q
99-35-4	1,3,5-Trinitrobenzene		0.100	0.300	U
99-65-0	1,3-Dinitrobenzene		0.100	0.300	U
118-96-7	2,4,6-Trinitrotoluene		0.100	0.300	U
121-14-2	2,4-Dinitrotoluene		0.100	0.300	U
606-20-2	2,6-Dinitrotoluene		0.100	0.300	U
35572-78-2	2-Amino-4,6-dinitrotoluene		0.100	0.300	U
55-63-0	Nitroglycerine		0.250	0.750	UQ
88-72-2	2-Nitrotoluene		0.100	0.300	U
99-08-1	3-Nitrotoluene		0.100	0.300	U
19406-51-0	4-Amino-2,6-dinitrotoluene		0.100	0.300	U
99-99-0	4-Nitrotoluene		0.100	0.300	U
2691-41-0	HMX		0.100	0.300	U
98-95-3	Nitrobenzene		0.100	0.300	U
78-11-5	PETN		0.250	0.500	U
121-82-4	RDX	0.543	0.100	0.300	
479-45-8	Tetryl		0.100	0.300	U

SYSTEM MONITORING COMPOUND	ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	1.000	1.093	109	55 - 140	
1-Chloro-3-nitrobenzene [2C]	1.000	0.9881	98.8	55 - 140	

* Values outside of QC limits

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ANALYSIS DATA SHEET

MR21-SS27D-10A 29

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-29	File ID:	131V3101.D
Sampled:	03/03/10 09:15	Prepared:	03/10/10 14:05	Analyzed:	03/20/10 06:35
Solids:	80.42	Preparation:	EXT_EXPL_S	Dilution:	1
Batch:	0C09007	Sequence: 0C08210	Calibration:	0040002	Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (mg/Kg)	MDL	MRL	Q
99-35-4	1,3,5-Trinitrobenzene	0.310 J	0.100	0.300	2C
99-65-0	1,3-Dinitrobenzene		0.100	0.300	U
118-96-7	2,4,6-Trinitrotoluene		0.100	0.300	U
121-14-2	2,4-Dinitrotoluene		0.100	0.300	U
606-20-2	2,6-Dinitrotoluene		0.100	0.300	U
35572-78-2	2-Amino-4,6-dinitrotoluene		0.100	0.300	U
55-63-0	Nitroglycerine		0.250	0.750	U~~ϕ~~
88-72-2	2-Nitrotoluene		0.100	0.300	U
99-08-1	3-Nitrotoluene		0.100	0.300	U
19406-51-0	4-Amino-2,6-dinitrotoluene		0.100	0.300	U
99-99-0	4-Nitrotoluene		0.100	0.300	U
2691-41-0	HMX		0.100	0.300	U~~ϕ~~
98-95-3	Nitrobenzene		0.100	0.300	U
78-11-5	PETN		0.250	0.500	U
121-82-4	RDX	0.616 J	0.100	0.300	~~P~~ 2C
479-45-8	Tetryl		0.100	0.300	U

SYSTEM MONITORING COMPOUND	ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	1.000	1.380	138	55 - 140	
1-Chloro-3-nitrobenzene [2C]	1.000	1.060	106	55 - 140	

* Values outside of QC limits

AW 7/26/10

ANALYSIS DATA SHEET

MR21-SS34-10A 30

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-30	File ID:	132V3201.D
Sampled:	03/04/10 09:30	Prepared:	03/10/10 14:05	Analyzed:	03/20/10 07:07
Solids:	51.67	Preparation:	EXT_EXPL_S	Dilution:	1
Batch:	0C09007	Sequence: 0C08210	Calibration:	0040002	Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (mg/Kg)	MDL	MRL	Q	
99-35-4	1,3,5-Trinitrobenzene	0.226 J	0.100	0.300	~~J~~	2C
99-65-0	1,3-Dinitrobenzene		0.100	0.300	U	
118-96-7	2,4,6-Trinitrotoluene		0.100	0.300	UJ	
121-14-2	2,4-Dinitrotoluene		0.100	0.300	U	
606-20-2	2,6-Dinitrotoluene		0.100	0.300	U	
35572-78-2	2-Amino-4,6-dinitrotoluene	UJ	0.100	0.300	~~UJ~~	MSL
55-63-0	Nitroglycerine		0.250	0.750	U	
88-72-2	2-Nitrotoluene		0.100	0.300	U	
99-08-1	3-Nitrotoluene		0.100	0.300	U	
19406-51-0	4-Amino-2,6-dinitrotoluene		0.100	0.300	UJ	
99-99-0	4-Nitrotoluene		0.100	0.300	U	
2691-41-0	HMX	1.13 J	0.100	0.300	~~J~~	MSL
98-95-3	Nitrobenzene		0.100	0.300	U	
78-11-5	PETN		0.250	0.500	U	
121-82-4	RDX	0.615	0.100	0.300		
479-45-8	Tetryl		0.100	0.300	U	

SYSTEM MONITORING COMPOUND	ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	1.000	1.126	113	55 - 140	
1-Chloro-3-nitrobenzene [2C]	1.000	1.082	108	55 - 140	

* Values outside of QC limits

fw 7/26/10

ANALYSIS DATA SHEET

31

MR21-SS35-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-31	File ID:	135V3501.D
Sampled:	03/04/10 09:10	Prepared:	03/10/10 14:05	Analyzed:	03/20/10 08:43
Solids:	65.66	Preparation:	EXT_EXPL_S	Dilution:	1

Batch: 0C09007 Sequence: 0C08210 Calibration: 0040002 Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (mg/Kg)	MDL	MRL	Q
99-35-4	1,3,5-Trinitrobenzene		0.100	0.300	U
99-65-0	1,3-Dinitrobenzene		0.100	0.300	U
118-96-7	2,4,6-Trinitrotoluene		0.100	0.300	U
121-14-2	2,4-Dinitrotoluene		0.100	0.300	U
606-20-2	2,6-Dinitrotoluene		0.100	0.300	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.126 J	0.100	0.300	~~J~~ 2C
55-63-0	Nitroglycerine		0.250	0.750	U~~J~~
88-72-2	2-Nitrotoluene	0.112	0.100	0.300	J
99-08-1	3-Nitrotoluene		0.100	0.300	U
19406-51-0	4-Amino-2,6-dinitrotoluene		0.100	0.300	U
99-99-0	4-Nitrotoluene		0.100	0.300	U
2691-41-0	HMX		0.100	0.300	U~~J~~
98-95-3	Nitrobenzene		0.100	0.300	U
78-11-5	PETN		0.250	0.500	U
121-82-4	RDX	0.917 J	0.100	0.300	~~J~~ 2C
479-45-8	Tetryl		0.100	0.300	U

SYSTEM MONITORING COMPOUND	ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	1.000	1.238	124	55 - 140	
1-Chloro-3-nitrobenzene [2C]	1.000	0.9289	92.9	55 - 140	

* Values outside of QC limits

LW 7/26/10

ANALYSIS DATA SHEET

MR21-SS32-10A 32

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-32	File ID:	136V3601.D
Sampled:	03/04/10 08:40	Prepared:	03/10/10 14:05	Analyzed:	03/20/10 09:16
Solids:	83.39	Preparation:	EXT_EXPL_S	Dilution:	1
Batch:	0C09007	Sequence: 0C08210	Calibration:	0040002	Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (mg/Kg)	MDL	MRL	Q	
99-35-4	1,3,5-Trinitrobenzene		0.100	0.300	U	
99-65-0	1,3-Dinitrobenzene		0.100	0.300	U	
118-96-7	2,4,6-Trinitrotoluene		0.100	0.300	U	
121-14-2	2,4-Dinitrotoluene		0.100	0.300	U	
606-20-2	2,6-Dinitrotoluene		0.100	0.300	U	
35572-78-2	2-Amino-4,6-dinitrotoluene		0.100	0.300	U	
55-63-0	Nitroglycerine	1010 J	0.250	0.750	~~Ø~~	2C
88-72-2	2-Nitrotoluene		0.100	0.300	U	
99-08-1	3-Nitrotoluene	0.270 J	0.100	0.300	~~P~~	2C
19406-51-0	4-Amino-2,6-dinitrotoluene		0.100	0.300	U	
99-99-0	4-Nitrotoluene		0.100	0.300	U	
2691-41-0	HMX		0.100	0.300	U~~Ø~~	
98-95-3	Nitrobenzene	0.690 J	0.100	0.300	~~P~~	2C
78-11-5	PETN		0.250	0.500	U	
121-82-4	RDX	0.435 J	0.100	0.300	~~P~~	2C
479-45-8	Tetryl		0.100	0.300	U	

SYSTEM MONITORING COMPOUND	ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	1.000	1.006	101	55 - 140	
1-Chloro-3-nitrobenzene [2C]	1.000	0.9801	98.0	55 - 140	

* Values outside of QC limits

fcw 7/26/10

ANALYSIS DATA SHEET

MR21-FB-030410

33

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1003066-33	File ID:	153V5301.D
Sampled:	03/04/10 10:30	Prepared:	03/09/10 13:50	Analyzed:	03/20/10 18:22
Solids:		Preparation:	EXT_EXPL_W	Dilution:	1

Batch: 0C09008 Sequence: 0C08210 Calibration: 0040002 Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
99-35-4	1,3,5-Trinitrobenzene	0.0856	0.0769	0.231	J
99-65-0	1,3-Dinitrobenzene	0.159	0.0769	0.231	J
118-96-7	2,4,6-Trinitrotoluene		0.0769	0.231	U
121-14-2	2,4-Dinitrotoluene		0.0769	0.231	U
606-20-2	2,6-Dinitrotoluene		0.0769	0.231	U
35572-78-2	2-Amino-4,6-dinitrotoluene		0.0769	0.231	U
55-63-0	Nitroglycerine [2C]	0.456 J	0.192	0.577	~~JPMO~~ 2C
88-72-2	2-Nitrotoluene		0.0769	0.231	U
99-08-1	3-Nitrotoluene	0.0908 J	0.0769	0.231	~~JPM~~ 2C
19406-51-0	4-Amino-2,6-dinitrotoluene		0.0769	0.231	U
99-99-0	4-Nitrotoluene		0.0769	0.231	U
2691-41-0	HMX		0.0769	0.231	UØ
98-95-3	Nitrobenzene		0.0769	0.231	U
78-11-5	PETN		0.385	1.15	UØ
121-82-4	RDX		0.0769	0.231	U
479-45-8	Tetryl		0.0769	0.231	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	1.923	1.704	88.6	40 - 145	
1-Chloro-3-nitrobenzene [2C]	1.923	1.643	85.4	40 - 145	

* Values outside of QC limits

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4.5.10

fcs 7/20/10

ANALYSIS DATA SHEET

MR21-EB-030310

34

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1003066-34	File ID:	154V5401.D
Sampled:	03/03/10 15:30	Prepared:	03/09/10 13:50	Analyzed:	03/20/10 18:54
Solids:		Preparation:	EXT_EXPL_W	Dilution:	1

Batch: 0C09008 Sequence: 0C08210 Calibration: 0040002 Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
99-35-4	1,3,5-Trinitrobenzene		0.0769	0.231	U
99-65-0	1,3-Dinitrobenzene	0.121 J	0.0769	0.231	~~JP~~ 2C
118-96-7	2,4,6-Trinitrotoluene		0.0769	0.231	U
121-14-2	2,4-Dinitrotoluene		0.0769	0.231	U
606-20-2	2,6-Dinitrotoluene		0.0769	0.231	U
35572-78-2	2-Amino-4,6-dinitrotoluene		0.0769	0.231	U
55-63-0	Nitroglycerine		0.192	0.577	U~~Ø~~
88-72-2	2-Nitrotoluene	0.299	0.0769	0.231	
99-08-1	3-Nitrotoluene	0.0825 J	0.0769	0.231	~~JPM~~ 2C
19406-51-0	4-Amino-2,6-dinitrotoluene		0.0769	0.231	U
99-99-0	4-Nitrotoluene		0.0769	0.231	U
2691-41-0	HMX		0.0769	0.231	U~~Ø~~
98-95-3	Nitrobenzene		0.0769	0.231	U
78-11-5	PETN		0.385	1.15	U~~Ø~~
121-82-4	RDX		0.0769	0.231	U
479-45-8	Tetryl		0.0769	0.231	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	1.923	1.823	94.8	40 - 145	
1-Chloro-3-nitrobenzene [2C]	1.923	1.791	93.2	40 - 145	

* Values outside of QC limits

NW 7/26/10

ANALYSIS DATA SHEET

MR21-EB-030410

35

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1003066-35	File ID:	155V5501.D
Sampled:	03/04/10 11:45	Prepared:	03/09/10 13:50	Analyzed:	03/20/10 19:26
Solids:		Preparation:	EXT_EXPL_W	Dilution:	1

Batch: 0C09008 Sequence: 0C08210 Calibration: 0040002 Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q	
99-35-4	1,3,5-Trinitrobenzene		0.0755	0.226	U	
99-65-0	1,3-Dinitrobenzene	0.126 J	0.0755	0.226	~~Y~~	2C
118-96-7	2,4,6-Trinitrotoluene		0.0755	0.226	U	
121-14-2	2,4-Dinitrotoluene		0.0755	0.226	U	
606-20-2	2,6-Dinitrotoluene		0.0755	0.226	U	
35572-78-2	2-Amino-4,6-dinitrotoluene		0.0755	0.226	U	
55-63-0	Nitroglycerine		0.189	0.566	U~~Ø~~	
88-72-2	2-Nitrotoluene	0.228 J	0.0755	0.226		2C
99-08-1	3-Nitrotoluene	0.118 J	0.0755	0.226	~~JPM~~	2C
19406-51-0	4-Amino-2,6-dinitrotoluene		0.0755	0.226	U	
99-99-0	4-Nitrotoluene		0.0755	0.226	U	
2691-41-0	HMX		0.0755	0.226	U~~Ø~~	
98-95-3	Nitrobenzene		0.0755	0.226	U	
78-11-5	PETN		0.377	1.13	U~~Ø~~	
121-82-4	RDX		0.0755	0.226	U	
479-45-8	Tetryl		0.0755	0.226	U	

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	1.887	1.804	95.6	40 - 145	
1-Chloro-3-nitrobenzene [2C]	1.887	1.747	92.6	40 - 145	

* Values outside of QC limits

MW 7/26/10

ANALYSIS DATA SHEET

MR21-SS33-10A 36

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-36	File ID:	137V3701.D
Sampled:	03/04/10 09:20	Prepared:	03/10/10 14:05	Analyzed:	03/20/10 09:48
Solids:	76.73	Preparation:	EXT_EXPL_S	Dilution:	1
Batch:	0C09007	Sequence: 0C08210	Calibration:	0040002	Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (mg/Kg)	MDL	MRL	Q	
99-35-4	1,3,5-Trinitrobenzene	0.114 J	0.100	0.300	~~JPM~~	2C
99-65-0	1,3-Dinitrobenzene		0.100	0.300	U	
118-96-7	2,4,6-Trinitrotoluene		0.100	0.300	U	
121-14-2	2,4-Dinitrotoluene		0.100	0.300	U	
606-20-2	2,6-Dinitrotoluene	0.322 J	0.100	0.300	~~P~~	2C
35572-78-2	2-Amino-4,6-dinitrotoluene	0.242 J	0.100	0.300	~~JPM~~	2C
55-63-0	Nitroglycerine		0.250	0.750	UØ	
88-72-2	2-Nitrotoluene	0.202 J	0.100	0.300	~~JPM~~	2C
99-08-1	3-Nitrotoluene		0.100	0.300	U	
19406-51-0	4-Amino-2,6-dinitrotoluene		0.100	0.300	U	
99-99-0	4-Nitrotoluene		0.100	0.300	U	
2691-41-0	HMX		0.100	0.300	UØ	
98-95-3	Nitrobenzene		0.100	0.300	U	
78-11-5	PETN		0.250	0.500	U	
121-82-4	RDX	0.857 J	0.100	0.300		2C
479-45-8	Tetryl	0.108 J	0.100	0.300	~~JPM~~	2C

SYSTEM MONITORING COMPOUND	ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	1.000	1.080	108	55 - 140	
1-Chloro-3-nitrobenzene [2C]	1.000	1.270	127	55 - 140	

* Values outside of QC limits

MW 7/26/10

ENVIRONMENTAL
Data Services, Inc.

METALS

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Area Gas Chamber, CTO-040 SDG #: 1003066

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: July 26, 2010

Laboratory: Empirical Laboratories, Nashville, Tennessee Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR21-SS24-10A	1003066-01	Soil
2	MR21-SS31-10A	1003066-02	Soil
3	MR21-SS40-10A	1003066-03	Soil
4	MR21-SS20-10A	1003066-04	Soil
5	MR21-SS19-10A	1003066-05	Soil
6	MR21-SS30-10A	1003066-06	Soil
7	MR21-SS36-10A	1003066-07	Soil
8	MR21-SS37-10A	1003066-08	Soil
9	MR21-SS28-10A	1003066-09	Soil
10	MR21-SS39-10A	1003066-10	Soil
11	MR21-SS38-10A	1003066-11	Soil
12	MR21-SS25-10A	1003066-12	Soil
13	MR21-SS26-10A	1003066-13	Soil
14	MR21-SS12-10A	1003066-14	Soil
15	MR21-SS29-10A	1003066-15	Soil
16	MR21-SS17-10A	1003066-16	Soil
17	MR21-SS11-10A	1003066-17	Soil
18	MR21-SS11D-10A	1003066-18	Soil
19	MR21-SS16-10A	1003066-19	Soil
20	MR21-SS14-10A	1003066-20	Soil
21	MR21-SS23-10A	1003066-21	Soil
21MS	MR21-SS23-10AMS	1003066-21MS	Soil
21MSD	MR21-SS23-10AMSD	1003066-21MSD	Soil
22	MR21-SS18D-10A	1003066-22	Soil
23	MR21-SS18-10A	1003066-23	Soil
24	MR21-SS15-10A	1003066-24	Soil
25	MR21-SS22-10A	1003066-25	Soil
26	MR21-SS13-10A	1003066-26	Soil
27	MR21-SS21-10A	1003066-27	Soil
28	MR21-SS27-10A	1003066-28	Soil
29	MR21-SS27D-10A	1003066-29	Soil
30	MR21-SS34-10A	1003066-30	Soil
30MS	MR21-SS34-10AMS	1003066-30MS	Soil
30MSD	MR21-SS34-10AMSD	1003066-30MSD	Soil
31	MR21-SS35-10A	1003066-31	Soil

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
32	MR21-SS32-10A	1003066-32	Soil
33	MR21-FB030410	1003066-33	Water
35	MR21-EB-030310	1003066-34	Water
35	MR21-EB-030410	1003066-35	Water
36	MR21-SS33-10A	1003066-36	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 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 were free of contamination.

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level mg/kg	Qualifier	Affected Samples
MR21-EB-030310	None - ND	-	-	-	-
MR21-EB-030410	Zinc	2.56	0.64	None	All >5X
MR21-FB-030410	None - ND	-	-	-	-

ICP Interference Check Sample - All %R values were acceptable.

Matrix Spike/Duplicate - The matrix spike/duplicate samples exhibited acceptable %R and RPD values except the following.

MS/MSD Sample ID	Compound	MS/MSD %R/RPD	Qualifier	Affected Samples
21	Antimony	55.6%/53.1%/Ok	J/UJ	1-19, 21
	Manganese	127%/121%/Ok	J	
	Potassium	126%/Ok/Ok	J	1-15, 17, 18, 21

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	MR21-SS11-10A mg/kg	MR21-SS11D-10A mg/kg	RPD	Qualifier
Mercury	0.0384	0.0282	31%	None
Aluminum	1170	1160	1%	None
Arsenic	0.356	0.348	2%	None
Barium	10.8	10.5	3%	None
Calcium	553	550	1%	None
Chromium	1.77	1.73	2%	None
Copper	0.856	0.873	2%	None
Iron	341	364	7%	None
Lead	5.19	5.75	10%	None
Magnesium	95.0	96.9	2%	None
Manganese	2.89	2.86	1%	None
Nickel	0.551	0.574	4%	None
Potassium	81.0	84.6	4%	None
Selenium	0.285	0.296	4%	None
Vanadium	2.18	2.23	2%	None
Zinc	1.75	1.91	9%	None

Compound	MR21-SS18-10A mg/kg	MR21-SS18D-10A mg/kg	RPD	Qualifier
Mercury	0.0348	0.0352	1%	None
Aluminum	804	790	2%	None
Arsenic	0.397	0.482	19%	None
Barium	31.8	28.9	10%	None
Calcium	372	354	5%	None
Chromium	0.848	0.877	3%	None
Copper	1.64	1.68	2%	None
Iron	314	306	3%	None
Lead	12.7	11.9	7%	None
Magnesium	85.1	81.0	5%	None
Manganese	4.14	4.47	8%	None
Nickel	0.794	0.748	6%	None
Selenium	0.362	0.380	5%	None
Vanadium	1.41	1.41	0%	None
Zinc	3.57	3.64	2%	None

Compound	MR21-SS27-10A mg/kg	MR21-SS27D-10A mg/kg	RPD	Qualifier
Mercury	0.0247	0.0290	16%	None
Aluminum	600	632	5%	None
Arsenic	0.303	0.325	7%	None
Barium	7.07	8.06	13%	None

Compound	MR21-SS27-10A mg/kg	MR21-SS27D-10A mg/kg	RPD	Qualifier
Calcium	557	629	12%	None
Chromium	0.998	1.03	3%	None
Copper	0.954	1.11	15%	None
Iron	320	338	5%	None
Lead	12.3	14.9	19%	None
Manganese	4.50	4.63	3%	None
Nickel	0.496	0.532	7%	None
Selenium	0.187	0.279	39%	None
Vanadium	1.76	1.78	1%	None
Zinc	4.73	5.23	10%	None

Compound Quantitation - No discrepancies were identified.

ANALYSIS DATA SHEET

MR21-SS24-10A

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/03/10 09:00
% Solids: 71.27

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-01
Received: 03/05/10 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury	0.0854	0.0177	0.0448	1		SW7471A	0C23017	03/24/10 08:52
7429-90-5	Aluminum	5330	3.49	14.0	1		SW6010B	0C23009	03/24/10 18:51
7440-36-0	Antimony	UJ	0.349	1.05	1	~~UN~~	SW6010B	0C23009	03/24/10 18:51 M
7440-38-2	Arsenic	1.17	0.209	0.349	1		SW6010B	0C23009	03/24/10 18:51
7440-39-3	Barium	23.8	0.349	2.79	1		SW6010B	0C23009	03/24/10 18:51
7440-41-7	Beryllium	0.114	0.0698	0.349	1	J	SW6010B	0C23009	03/24/10 18:51
7440-43-9	Cadmium	0.264	0.0698	0.349	1	J	SW6010B	0C23009	03/24/10 18:51
7440-70-2	Calcium	4530	69.8	349	1	~~N~~	SW6010B	0C23009	03/24/10 18:51
7440-47-3	Chromium	7.98	0.140	0.349	1		SW6010B	0C23009	03/24/10 18:51
7440-48-4	Cobalt	0.668	0.349	0.873	1	J	SW6010B	0C23009	03/24/10 18:51
7440-50-8	Copper	6.10	0.349	0.698	1		SW6010B	0C23009	03/24/10 18:51
7439-89-6	Iron	2640	2.09	6.98	1	~~*~~	SW6010B	0C23009	03/24/10 18:51
7439-92-1	Lead	27.2	0.105	0.209	1		SW6010B	0C23009	03/24/10 18:51
7439-95-4	Magnesium	388	69.8	349	1		SW6010B	0C23009	03/24/10 18:51
7439-96-5	Manganese	65.6 J	0.209	1.05	1	~~N~~	SW6010B	0C23009	03/24/10 18:51 MS
7440-02-0	Nickel	3.24	0.349	0.698	1		SW6010B	0C23009	03/24/10 18:51
7440-09-7	Potassium	351 J	69.8	349	1	~~N~~	SW6010B	0C23009	03/24/10 18:51 MS
7782-49-2	Selenium	0.403	0.209	0.419	1	J	SW6010B	0C23009	03/24/10 18:51
7440-22-4	Silver	0.440	0.0698	0.349	1		SW6010B	0C23009	03/24/10 18:51
7440-23-5	Sodium		69.8	349	1	U	SW6010B	0C23009	03/24/10 18:51
7440-28-0	Thallium		0.279	0.558	1	U	SW6010B	0C23009	03/24/10 18:51
7440-62-2	Vanadium	9.96	0.349	0.873	1		SW6010B	0C23009	03/24/10 18:51
7440-66-6	Zinc	41.9	0.349	1.40	1		SW6010B	0C23009	03/24/10 18:51

MW 7/26/10

ANALYSIS DATA SHEET

MR21-SS31-10A 2

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/03/10 08:50
% Solids: 73.17

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-02
Received: 03/05/10 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury	0.0346	0.0172	0.0436	1	J	SW7471A	0C23017	03/24/10 08:53
7429-90-5	Aluminum	3300	3.29	13.1	1		SW6010B	0C23009	03/24/10 18:55
7440-36-0	Antimony	UJ	0.329	0.986	1	~~UN~~	SW6010B	0C23009	03/24/10 18:55 MS
7440-38-2	Arsenic	0.765	0.197	0.329	1		SW6010B	0C23009	03/24/10 18:55
7440-39-3	Barium	26.5	0.329	2.63	1		SW6010B	0C23009	03/24/10 18:55
7440-41-7	Beryllium		0.0657	0.329	1	U	SW6010B	0C23009	03/24/10 18:55
7440-43-9	Cadmium	0.118	0.0657	0.329	1	J	SW6010B	0C23009	03/24/10 18:55
7440-70-2	Calcium	3500	65.7	329	1	~~N~~	SW6010B	0C23009	03/24/10 18:55
7440-47-3	Chromium	4.04	0.131	0.329	1		SW6010B	0C23009	03/24/10 18:55
7440-48-4	Cobalt		0.329	0.821	1	U	SW6010B	0C23009	03/24/10 18:55
7440-50-8	Copper	3.31	0.329	0.657	1		SW6010B	0C23009	03/24/10 18:55
7439-89-6	Iron	1660	1.97	6.57	1	✓	SW6010B	0C23009	03/24/10 18:55
7439-92-1	Lead	15.0	0.0986	0.197	1		SW6010B	0C23009	03/24/10 18:55
7439-95-4	Magnesium	245	65.7	329	1	J	SW6010B	0C23009	03/24/10 18:55
7439-96-5	Manganese	60.1 J	0.197	0.986	1	~~N~~	SW6010B	0C23009	03/24/10 18:55 M
7440-02-0	Nickel	1.40	0.329	0.657	1		SW6010B	0C23009	03/24/10 18:55
7440-09-7	Potassium	177 J	65.7	329	1	~~JN~~	SW6010B	0C23009	03/24/10 18:55 M
7782-49-2	Selenium	0.204	0.197	0.394	1	J	SW6010B	0C23009	03/24/10 18:55
7440-22-4	Silver		0.0657	0.329	1	U	SW6010B	0C23009	03/24/10 18:55
7440-23-5	Sodium		65.7	329	1	U	SW6010B	0C23009	03/24/10 18:55
7440-28-0	Thallium		0.197	0.526	1	U	SW6010B	0C23009	03/24/10 18:55
7440-62-2	Vanadium	5.78	0.329	0.821	1		SW6010B	0C23009	03/24/10 18:55
7440-66-6	Zinc	18.3	0.329	1.31	1		SW6010B	0C23009	03/24/10 18:55

MW 7/26/10

ANALYSIS DATA SHEET

MR21-SS40-10A 3

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/03/10 08:40
% Solids: 66.98

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-03
Received: 03/05/10 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury	0.0700	0.0166	0.0422	1		SW7471A	0C23017	03/24/10 08:55
7429-90-5	Aluminum	9090	3.68	14.7	1		SW6010B	0C23009	03/24/10 19:00
7440-36-0	Antimony	UJ	0.368	1.10	1	U ~~N~~	SW6010B	0C23009	03/24/10 19:00 m
7440-38-2	Arsenic	1.60	0.221	0.368	1		SW6010B	0C23009	03/24/10 19:00
7440-39-3	Barium	27.4	0.368	2.94	1		SW6010B	0C23009	03/24/10 19:00
7440-41-7	Beryllium	0.0971	0.0736	0.368	1	J	SW6010B	0C23009	03/24/10 19:00
7440-43-9	Cadmium	0.130	0.0736	0.368	1	J	SW6010B	0C23009	03/24/10 19:00
7440-70-2	Calcium	4210	73.6	368	1	~~N~~	SW6010B	0C23009	03/24/10 19:00
7440-47-3	Chromium	8.84	0.147	0.368	1		SW6010B	0C23009	03/24/10 19:00
7440-48-4	Cobalt	0.600	0.368	0.919	1	J	SW6010B	0C23009	03/24/10 19:00
7440-50-8	Copper	6.54	0.368	0.736	1		SW6010B	0C23009	03/24/10 19:00
7439-89-6	Iron	3040	2.21	7.36	1	~~N~~	SW6010B	0C23009	03/24/10 19:00
7439-92-1	Lead	28.9	0.110	0.221	1		SW6010B	0C23009	03/24/10 19:00
7439-95-4	Magnesium	335	73.6	368	1	J	SW6010B	0C23009	03/24/10 19:00
7439-96-5	Manganese	25.1 J	0.221	1.10	1	~~N~~	SW6010B	0C23009	03/24/10 19:00 m
7440-02-0	Nickel	3.88	0.368	0.736	1		SW6010B	0C23009	03/24/10 19:00
7440-09-7	Potassium	278 J	73.6	368	1	J ~~N~~	SW6010B	0C23009	03/24/10 19:00 m
7782-49-2	Selenium	0.244	0.221	0.441	1	J	SW6010B	0C23009	03/24/10 19:00
7440-22-4	Silver	0.212	0.0736	0.368	1	J	SW6010B	0C23009	03/24/10 19:00
7440-23-5	Sodium		73.6	368	1	U	SW6010B	0C23009	03/24/10 19:00
7440-28-0	Thallium		0.294	0.588	1	U	SW6010B	0C23009	03/24/10 19:00
7440-62-2	Vanadium	11.8	0.368	0.919	1		SW6010B	0C23009	03/24/10 19:00
7440-66-6	Zinc	33.9	0.368	1.47	1		SW6010B	0C23009	03/24/10 19:00

MW 7/26/10

ANALYSIS DATA SHEET

MR21-SS20-10A 4

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/03/10 10:10
% Solids: 83.77

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-04
Received: 03/05/10 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury	0.0645	0.0126	0.0330	1		SW7471A	0C23017	03/24/10 08:56
7429-90-5	Aluminum	3190	2.98	11.9	1		SW6010B	0C23009	03/24/10 19:05
7440-36-0	Antimony	UJ	0.298	0.895	1	~~UN~~	SW6010B	0C23009	03/24/10 19:05 MS
7440-38-2	Arsenic	0.595	0.179	0.298	1		SW6010B	0C23009	03/24/10 19:05
7440-39-3	Barium	14.4	0.298	2.39	1		SW6010B	0C23009	03/24/10 19:05
7440-41-7	Beryllium	0.0695	0.0597	0.298	1	J	SW6010B	0C23009	03/24/10 19:05
7440-43-9	Cadmium	0.260	0.0597	0.298	1	J	SW6010B	0C23009	03/24/10 19:05
7440-70-2	Calcium	6690	59.7	298	1	~~N~~	SW6010B	0C23009	03/24/10 19:05
7440-47-3	Chromium	4.95	0.119	0.298	1		SW6010B	0C23009	03/24/10 19:05
7440-48-4	Cobalt	0.525	0.298	0.746	1	J	SW6010B	0C23009	03/24/10 19:05
7440-50-8	Copper	4.74	0.298	0.597	1		SW6010B	0C23009	03/24/10 19:05
7439-89-6	Iron	1870	1.79	5.97	1	✓	SW6010B	0C23009	03/24/10 19:05
7439-92-1	Lead	15.0	0.0895	0.179	1		SW6010B	0C23009	03/24/10 19:05
7439-95-4	Magnesium	251	59.7	298	1	J	SW6010B	0C23009	03/24/10 19:05
7439-96-5	Manganese	30.8 J	0.179	0.895	1	~~N~~	SW6010B	0C23009	03/24/10 19:05 MS
7440-02-0	Nickel	2.67	0.298	0.597	1		SW6010B	0C23009	03/24/10 19:05
7440-09-7	Potassium	190 J	59.7	298	1	~~JN~~	SW6010B	0C23009	03/24/10 19:05 MS
7782-49-2	Selenium	0.201	0.179	0.358	1	J	SW6010B	0C23009	03/24/10 19:05
7440-22-4	Silver	0.371	0.0597	0.298	1		SW6010B	0C23009	03/24/10 19:05
7440-23-5	Sodium		59.7	298	1	U	SW6010B	0C23009	03/24/10 19:05
7440-28-0	Thallium		0.239	0.477	1	U	SW6010B	0C23009	03/24/10 19:05
7440-62-2	Vanadium	5.38	0.298	0.746	1		SW6010B	0C23009	03/24/10 19:05
7440-66-6	Zinc	26.9	0.298	1.19	1		SW6010B	0C23009	03/24/10 19:05

NW 1/26/10

ANALYSIS DATA SHEET

MR21-SS19-10A

5

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/03/10 09:45
% Solids: 64.91

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-05
Received: 03/05/10 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury	0.0428	0.0200	0.0508	1	J	SW7471A	0C23017	03/24/10 08:57
7429-90-5	Aluminum	1410	3.89	15.6	1		SW6010B	0C23009	03/24/10 19:09
7440-36-0	Antimony	UJ	0.389	1.17	1	~~UN~~	SW6010B	0C23009	03/24/10 19:09 MSL
7440-38-2	Arsenic	0.475	0.233	0.389	1		SW6010B	0C23009	03/24/10 19:09
7440-39-3	Barium	23.2	0.389	3.11	1		SW6010B	0C23009	03/24/10 19:09
7440-41-7	Beryllium		0.0778	0.389	1	U	SW6010B	0C23009	03/24/10 19:09
7440-43-9	Cadmium	0.0913	0.0778	0.389	1	J	SW6010B	0C23009	03/24/10 19:09
7440-70-2	Calcium	752	77.8	389	1	~~N~~	SW6010B	0C23009	03/24/10 19:09
7440-47-3	Chromium	1.53	0.156	0.389	1		SW6010B	0C23009	03/24/10 19:09
7440-48-4	Cobalt		0.389	0.973	1	U	SW6010B	0C23009	03/24/10 19:09
7440-50-8	Copper	2.23	0.389	0.778	1		SW6010B	0C23009	03/24/10 19:09
7439-89-6	Iron	478	2.33	7.78	1	~~J~~	SW6010B	0C23009	03/24/10 19:09
7439-92-1	Lead	17.7	0.117	0.233	1		SW6010B	0C23009	03/24/10 19:09
7439-95-4	Magnesium	115	77.8	389	1	J	SW6010B	0C23009	03/24/10 19:09
7439-96-5	Manganese	3.30 J	0.233	1.17	1	~~N~~	SW6010B	0C23009	03/24/10 19:09 MS
7440-02-0	Nickel	1.17	0.389	0.778	1		SW6010B	0C23009	03/24/10 19:09
7440-09-7	Potassium	96.5 J	77.8	389	1	~~UN~~	SW6010B	0C23009	03/24/10 19:09 MSL
7782-49-2	Selenium	0.419	0.233	0.467	1	J	SW6010B	0C23009	03/24/10 19:09
7440-22-4	Silver		0.0778	0.389	1	U	SW6010B	0C23009	03/24/10 19:09
7440-23-5	Sodium		77.8	389	1	U	SW6010B	0C23009	03/24/10 19:09
7440-28-0	Thallium		0.233	0.622	1	U	SW6010B	0C23009	03/24/10 19:09
7440-62-2	Vanadium	2.94	0.389	0.973	1		SW6010B	0C23009	03/24/10 19:09
7440-66-6	Zinc	4.66	0.389	1.56	1		SW6010B	0C23009	03/24/10 19:09

kw 7/26/10

ANALYSIS DATA SHEET

MR21-SS30-10A 6

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/04/10 08:30
% Solids: 75.62

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-06
Received: 03/05/10 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury	0.0361	0.0178	0.0451	1	J	SW7471A	0C23017	03/24/10 08:58
7429-90-5	Aluminum	3980	3.31	13.2	1		SW6010B	0C23009	03/24/10 19:14
7440-36-0	Antimony	UJ	0.331	0.992	1	~~UN~~	SW6010B	0C23009	03/24/10 19:14 MSI
7440-38-2	Arsenic	0.689	0.198	0.331	1		SW6010B	0C23009	03/24/10 19:14
7440-39-3	Barium	50.8	0.331	2.64	1		SW6010B	0C23009	03/24/10 19:14
7440-41-7	Beryllium	0.126	0.0661	0.331	1	J	SW6010B	0C23009	03/24/10 19:14
7440-43-9	Cadmium	0.0851	0.0661	0.331	1	J	SW6010B	0C23009	03/24/10 19:14
7440-70-2	Calcium	3430	66.1	331	1	~~N~~	SW6010B	0C23009	03/24/10 19:14
7440-47-3	Chromium	2.41	0.132	0.331	1		SW6010B	0C23009	03/24/10 19:14
7440-48-4	Cobalt		0.331	0.826	1	U	SW6010B	0C23009	03/24/10 19:14
7440-50-8	Copper	2.84	0.331	0.661	1		SW6010B	0C23009	03/24/10 19:14
7439-89-6	Iron	1250	1.98	6.61	1	~~N~~	SW6010B	0C23009	03/24/10 19:14
7439-92-1	Lead	8.50	0.0992	0.198	1		SW6010B	0C23009	03/24/10 19:14
7439-95-4	Magnesium	282	66.1	331	1	J	SW6010B	0C23009	03/24/10 19:14
7439-96-5	Manganese	120 J	0.198	0.992	1	~~N~~	SW6010B	0C23009	03/24/10 19:14 MSI
7440-02-0	Nickel	2.10	0.331	0.661	1		SW6010B	0C23009	03/24/10 19:14
7440-09-7	Potassium	173 J	66.1	331	1	~~N~~	SW6010B	0C23009	03/24/10 19:14 MS
7782-49-2	Selenium	0.208	0.198	0.397	1	J	SW6010B	0C23009	03/24/10 19:14
7440-22-4	Silver		0.0661	0.331	1	U	SW6010B	0C23009	03/24/10 19:14
7440-23-5	Sodium		66.1	331	1	U	SW6010B	0C23009	03/24/10 19:14
7440-28-0	Thallium		0.264	0.529	1	U	SW6010B	0C23009	03/24/10 19:14
7440-62-2	Vanadium	3.74	0.331	0.826	1		SW6010B	0C23009	03/24/10 19:14
7440-66-6	Zinc	16.9	0.331	1.32	1		SW6010B	0C23009	03/24/10 19:14

AW 7/26/10

ANALYSIS DATA SHEET

MR21-SS36-10A

7

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/04/10 08:50
% Solids: 76.62

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-07
Received: 03/05/10 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury	0.0575	0.0154	0.0392	1		SW7471A	0C23017	03/24/10 09:00
7429-90-5	Aluminum	2110	3.26	13.1	1		SW6010B	0C23009	03/24/10 19:19
7440-36-0	Antimony	UJ	0.326	0.979	1	~~UN~~	SW6010B	0C23009	03/24/10 19:19 MS
7440-38-2	Arsenic	0.542	0.196	0.326	1		SW6010B	0C23009	03/24/10 19:19
7440-39-3	Barium	18.2	0.326	2.61	1		SW6010B	0C23009	03/24/10 19:19
7440-41-7	Beryllium		0.0653	0.326	1	U	SW6010B	0C23009	03/24/10 19:19
7440-43-9	Cadmium		0.0653	0.326	1	U	SW6010B	0C23009	03/24/10 19:19
7440-70-2	Calcium	828	65.3	326	1	~~N~~	SW6010B	0C23009	03/24/10 19:19
7440-47-3	Chromium	1.71	0.131	0.326	1		SW6010B	0C23009	03/24/10 19:19
7440-48-4	Cobalt		0.326	0.816	1	U	SW6010B	0C23009	03/24/10 19:19
7440-50-8	Copper	1.89	0.326	0.653	1		SW6010B	0C23009	03/24/10 19:19
7439-89-6	Iron	605	1.96	6.53	1	~~N~~	SW6010B	0C23009	03/24/10 19:19
7439-92-1	Lead	10.1	0.0979	0.196	1		SW6010B	0C23009	03/24/10 19:19
7439-95-4	Magnesium	117	65.3	326	1	J	SW6010B	0C23009	03/24/10 19:19
7439-96-5	Manganese	22.8 J	0.196	0.979	1	~~N~~	SW6010B	0C23009	03/24/10 19:19 MS
7440-02-0	Nickel	1.06	0.326	0.653	1		SW6010B	0C23009	03/24/10 19:19
7440-09-7	Potassium	126 J	65.3	326	1	J ~~N~~	SW6010B	0C23009	03/24/10 19:19 MS
7782-49-2	Selenium	0.339	0.196	0.392	1	J	SW6010B	0C23009	03/24/10 19:19
7440-22-4	Silver		0.0653	0.326	1	U	SW6010B	0C23009	03/24/10 19:19
7440-23-5	Sodium		65.3	326	1	U	SW6010B	0C23009	03/24/10 19:19
7440-28-0	Thallium		0.261	0.522	1	U	SW6010B	0C23009	03/24/10 19:19
7440-62-2	Vanadium	2.61	0.326	0.816	1		SW6010B	0C23009	03/24/10 19:19
7440-66-6	Zinc	2.55	0.326	1.31	1		SW6010B	0C23009	03/24/10 19:19

lw 7/26/10

ANALYSIS DATA SHEET

MR21-SS37-10A 8

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/04/10 09:00
% Solids: 76.95

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-08
Received: 03/05/10 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury	0.0347	0.0158	0.0402	1	J	SW7471A	0C23017	03/24/10 09:03
7429-90-5	Aluminum	1700	3.27	13.1	1		SW6010B	0C23009	03/24/10 19:23
7440-36-0	Antimony	UJ	0.327	0.980	1	~~UN~~	SW6010B	0C23009	03/24/10 19:23 MS
7440-38-2	Arsenic	0.492	0.196	0.327	1		SW6010B	0C23009	03/24/10 19:23
7440-39-3	Barium	15.3	0.327	2.61	1		SW6010B	0C23009	03/24/10 19:23
7440-41-7	Beryllium		0.0653	0.327	1	U	SW6010B	0C23009	03/24/10 19:23
7440-43-9	Cadmium		0.0653	0.327	1	U	SW6010B	0C23009	03/24/10 19:23
7440-70-2	Calcium	769	65.3	327	1	~~N~~	SW6010B	0C23009	03/24/10 19:23
7440-47-3	Chromium	1.68	0.131	0.327	1		SW6010B	0C23009	03/24/10 19:23
7440-48-4	Cobalt		0.327	0.816	1	U	SW6010B	0C23009	03/24/10 19:23
7440-50-8	Copper	1.86	0.327	0.653	1		SW6010B	0C23009	03/24/10 19:23
7439-89-6	Iron	648	1.96	6.53	1	~~J~~	SW6010B	0C23009	03/24/10 19:23
7439-92-1	Lead	8.68	0.0980	0.196	1		SW6010B	0C23009	03/24/10 19:23
7439-95-4	Magnesium	143	65.3	327	1	J	SW6010B	0C23009	03/24/10 19:23
7439-96-5	Manganese	37.7 J	0.196	0.980	1	~~N~~	SW6010B	0C23009	03/24/10 19:23 MSI
7440-02-0	Nickel	0.848	0.327	0.653	1		SW6010B	0C23009	03/24/10 19:23
7440-09-7	Potassium	111 J	65.3	327	1	~~JN~~	SW6010B	0C23009	03/24/10 19:23 MS
7782-49-2	Selenium	0.208	0.196	0.392	1	J	SW6010B	0C23009	03/24/10 19:23
7440-22-4	Silver		0.0653	0.327	1	U	SW6010B	0C23009	03/24/10 19:23
7440-23-5	Sodium		65.3	327	1	U	SW6010B	0C23009	03/24/10 19:23
7440-28-0	Thallium		0.261	0.522	1	U	SW6010B	0C23009	03/24/10 19:23
7440-62-2	Vanadium	2.93	0.327	0.816	1		SW6010B	0C23009	03/24/10 19:23
7440-66-6	Zinc	6.91	0.327	1.31	1		SW6010B	0C23009	03/24/10 19:23

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ANALYSIS DATA SHEET

MR21-SS28-10A

9

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/04/10 08:25
% Solids: 86.10

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-09
Received: 03/05/10 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury	0.0142	0.0142	0.0359	1	J	SW7471A	0C23017	03/24/10 09:04
7429-90-5	Aluminum	2000	2.98	11.9	1		SW6010B	0C23009	03/24/10 19:28
7440-36-0	Antimony	UJ	0.298	0.893	1	~~UN~~	SW6010B	0C23009	03/24/10 19:28 MS
7440-38-2	Arsenic	0.415	0.179	0.298	1		SW6010B	0C23009	03/24/10 19:28
7440-39-3	Barium	6.00	0.298	2.38	1		SW6010B	0C23009	03/24/10 19:28
7440-41-7	Beryllium		0.0596	0.298	1	U	SW6010B	0C23009	03/24/10 19:28
7440-43-9	Cadmium		0.0596	0.298	1	U	SW6010B	0C23009	03/24/10 19:28
7440-70-2	Calcium	144	59.6	298	1	~~JN~~	SW6010B	0C23009	03/24/10 19:28
7440-47-3	Chromium	2.29	0.119	0.298	1		SW6010B	0C23009	03/24/10 19:28
7440-48-4	Cobalt		0.298	0.745	1	U	SW6010B	0C23009	03/24/10 19:28
7440-50-8	Copper	0.539	0.298	0.596	1	J	SW6010B	0C23009	03/24/10 19:28
7439-89-6	Iron	990	1.79	5.96	1	~~J~~	SW6010B	0C23009	03/24/10 19:28
7439-92-1	Lead	6.86	0.0893	0.179	1		SW6010B	0C23009	03/24/10 19:28
7439-95-4	Magnesium	78.4	59.6	298	1	J	SW6010B	0C23009	03/24/10 19:28
7439-96-5	Manganese	5.57 J	0.179	0.893	1	~~N~~	SW6010B	0C23009	03/24/10 19:28 MS
7440-02-0	Nickel	0.511	0.298	0.596	1	J	SW6010B	0C23009	03/24/10 19:28
7440-09-7	Potassium	77.2 J	59.6	298	1	~~JN~~	SW6010B	0C23009	03/24/10 19:28 MS
7782-49-2	Selenium		0.179	0.357	1	U	SW6010B	0C23009	03/24/10 19:28
7440-22-4	Silver		0.0596	0.298	1	U	SW6010B	0C23009	03/24/10 19:28
7440-23-5	Sodium		59.6	298	1	U	SW6010B	0C23009	03/24/10 19:28
7440-28-0	Thallium		0.179	0.477	1	U	SW6010B	0C23009	03/24/10 19:28
7440-62-2	Vanadium	3.41	0.298	0.745	1		SW6010B	0C23009	03/24/10 19:28
7440-66-6	Zinc	2.74	0.298	1.19	1		SW6010B	0C23009	03/24/10 19:28

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ANALYSIS DATA SHEET

MR21-SS39-10A 10

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/04/10 09:50
% Solids: 79.34

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-10
Received: 03/05/10 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury	0.0257	0.0169	0.0430	1	J	SW7471A	0C23017	03/24/10 09:05
7429-90-5	Aluminum	1110	3.03	12.1	1		SW6010B	0C23009	03/24/10 19:33
7440-36-0	Antimony	UJ	0.303	0.909	1	~~UN~~	SW6010B	0C23009	03/24/10 19:33 M
7440-38-2	Arsenic	0.427	0.182	0.303	1		SW6010B	0C23009	03/24/10 19:33
7440-39-3	Barium	16.7	0.303	2.42	1		SW6010B	0C23009	03/24/10 19:33
7440-41-7	Beryllium		0.0606	0.303	1	U	SW6010B	0C23009	03/24/10 19:33
7440-43-9	Cadmium		0.0606	0.303	1	U	SW6010B	0C23009	03/24/10 19:33
7440-70-2	Calcium	881	60.6	303	1	~~N~~	SW6010B	0C23009	03/24/10 19:33
7440-47-3	Chromium	1.54	0.121	0.303	1		SW6010B	0C23009	03/24/10 19:33
7440-48-4	Cobalt		0.303	0.757	1	U	SW6010B	0C23009	03/24/10 19:33
7440-50-8	Copper	1.95	0.303	0.606	1		SW6010B	0C23009	03/24/10 19:33
7439-89-6	Iron	592	1.82	6.06	1	~~J~~	SW6010B	0C23009	03/24/10 19:33
7439-92-1	Lead	10.8	0.0909	0.182	1		SW6010B	0C23009	03/24/10 19:33
7439-95-4	Magnesium	94.6	60.6	303	1	J	SW6010B	0C23009	03/24/10 19:33
7439-96-5	Manganese	29.2 J	0.182	0.909	1	~~N~~	SW6010B	0C23009	03/24/10 19:33 M
7440-02-0	Nickel	0.587	0.303	0.606	1	J	SW6010B	0C23009	03/24/10 19:33
7440-09-7	Potassium	83.0 J	60.6	303	1	~~JN~~	SW6010B	0C23009	03/24/10 19:33 M
7782-49-2	Selenium	0.198	0.182	0.364	1	J	SW6010B	0C23009	03/24/10 19:33
7440-22-4	Silver		0.0606	0.303	1	U	SW6010B	0C23009	03/24/10 19:33
7440-23-5	Sodium		60.6	303	1	U	SW6010B	0C23009	03/24/10 19:33
7440-28-0	Thallium		0.242	0.485	1	U	SW6010B	0C23009	03/24/10 19:33
7440-62-2	Vanadium	2.98	0.303	0.757	1		SW6010B	0C23009	03/24/10 19:33
7440-66-6	Zinc	3.28	0.303	1.21	1		SW6010B	0C23009	03/24/10 19:33

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ANALYSIS DATA SHEET

MR21-SS38-10A

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/04/10 10:00
% Solids: 74.03

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-11
Received: 03/05/10 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury	0.0315	0.0188	0.0478	1	J	SW7471A	0C23017	03/24/10 09:07
7429-90-5	Aluminum	679	3.36	13.4	1		SW6010B	0C23009	03/24/10 19:50
7440-36-0	Antimony	UJ	0.336	1.01	1	~~UN~~	SW6010B	0C23009	03/24/10 19:50 MS
7440-38-2	Arsenic	0.367	0.202	0.336	1		SW6010B	0C23009	03/24/10 19:50
7440-39-3	Barium	12.6	0.336	2.69	1		SW6010B	0C23009	03/24/10 19:50
7440-41-7	Beryllium		0.0672	0.336	1	U	SW6010B	0C23009	03/24/10 19:50
7440-43-9	Cadmium		0.0672	0.336	1	U	SW6010B	0C23009	03/24/10 19:50
7440-70-2	Calcium	929	67.2	336	1	~~N~~	SW6010B	0C23009	03/24/10 19:50
7440-47-3	Chromium	1.37	0.134	0.336	1		SW6010B	0C23009	03/24/10 19:50
7440-48-4	Cobalt		0.336	0.840	1	U	SW6010B	0C23009	03/24/10 19:50
7440-50-8	Copper	1.38	0.336	0.672	1		SW6010B	0C23009	03/24/10 19:50
7439-89-6	Iron	454	2.02	6.72	1	~~J~~	SW6010B	0C23009	03/24/10 19:50
7439-92-1	Lead	12.6	0.101	0.202	1		SW6010B	0C23009	03/24/10 19:50
7439-95-4	Magnesium	102	67.2	336	1	J	SW6010B	0C23009	03/24/10 19:50
7439-96-5	Manganese	21.7 J	0.202	1.01	1	~~N~~	SW6010B	0C23009	03/24/10 19:50 MSI
7440-02-0	Nickel	0.618	0.336	0.672	1	J	SW6010B	0C23009	03/24/10 19:50
7440-09-7	Potassium	85.2 J	67.2	336	1	~~UN~~	SW6010B	0C23009	03/24/10 19:50 MS
7782-49-2	Selenium	0.278	0.202	0.403	1	J	SW6010B	0C23009	03/24/10 19:50
7440-22-4	Silver		0.0672	0.336	1	U	SW6010B	0C23009	03/24/10 19:50
7440-23-5	Sodium		67.2	336	1	U	SW6010B	0C23009	03/24/10 19:50
7440-28-0	Thallium		0.269	0.538	1	U	SW6010B	0C23009	03/24/10 19:50
7440-62-2	Vanadium	2.75	0.336	0.840	1		SW6010B	0C23009	03/24/10 19:50
7440-66-6	Zinc	5.03	0.336	1.34	1		SW6010B	0C23009	03/24/10 19:50

MW 7/26/10

ANALYSIS DATA SHEET

MR21-SS25-10A 12

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/04/10 08:15
% Solids: 72.66

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-12
Received: 03/05/10 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury	0.0553	0.0138	0.0349	1		SW7471A	0C23017	03/24/10 09:08
7429-90-5	Aluminum	1830	3.53	14.1	1		SW6010B	0C23009	03/24/10 19:55
7440-36-0	Antimony	UJ	0.353	1.06	1	~~UN~~	SW6010B	0C23009	03/24/10 19:55 MS
7440-38-2	Arsenic	0.504	0.212	0.353	1		SW6010B	0C23009	03/24/10 19:55
7440-39-3	Barium	32.8	0.353	2.82	1		SW6010B	0C23009	03/24/10 19:55
7440-41-7	Beryllium	0.0907	0.0706	0.353	1	J	SW6010B	0C23009	03/24/10 19:55
7440-43-9	Cadmium	0.170	0.0706	0.353	1	J	SW6010B	0C23009	03/24/10 19:55
7440-70-2	Calcium	3610	70.6	353	1	~~N~~	SW6010B	0C23009	03/24/10 19:55
7440-47-3	Chromium	1.70	0.141	0.353	1		SW6010B	0C23009	03/24/10 19:55
7440-48-4	Cobalt		0.353	0.882	1	U	SW6010B	0C23009	03/24/10 19:55
7440-50-8	Copper	2.67	0.353	0.706	1		SW6010B	0C23009	03/24/10 19:55
7439-89-6	Iron	641	2.12	7.06	1	~~N~~	SW6010B	0C23009	03/24/10 19:55
7439-92-1	Lead	9.39	0.106	0.212	1		SW6010B	0C23009	03/24/10 19:55
7439-95-4	Magnesium	244	70.6	353	1	J	SW6010B	0C23009	03/24/10 19:55
7439-96-5	Manganese	43.5 J	0.212	1.06	1	~~N~~	SW6010B	0C23009	03/24/10 19:55 MS
7440-02-0	Nickel	1.08	0.353	0.706	1		SW6010B	0C23009	03/24/10 19:55
7440-09-7	Potassium	149 J	70.6	353	1	~~JN~~	SW6010B	0C23009	03/24/10 19:55 MS
7782-49-2	Selenium	0.388	0.212	0.423	1	J	SW6010B	0C23009	03/24/10 19:55
7440-22-4	Silver		0.0706	0.353	1	U	SW6010B	0C23009	03/24/10 19:55
7440-23-5	Sodium		70.6	353	1	U	SW6010B	0C23009	03/24/10 19:55
7440-28-0	Thallium		0.282	0.565	1	U	SW6010B	0C23009	03/24/10 19:55
7440-62-2	Vanadium	2.71	0.353	0.882	1		SW6010B	0C23009	03/24/10 19:55
7440-66-6	Zinc	9.49	0.353	1.41	1		SW6010B	0C23009	03/24/10 19:55

RW 7/26/10

ANALYSIS DATA SHEET

MR21-SS26-10A 13

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/03/10 12:50
% Solids: 80.10

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-13
Received: 03/05/10 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury	0.0198	0.0143	0.0363	1	J	SW7471A	0C23017	03/24/10 09:09
7429-90-5	Aluminum	1790	2.99	11.9	1		SW6010B	0C23009	03/24/10 20:00
7440-36-0	Antimony	UJ	0.299	0.896	1	~~UN~~	SW6010B	0C23009	03/24/10 20:00 MS
7440-38-2	Arsenic	0.350	0.179	0.299	1		SW6010B	0C23009	03/24/10 20:00
7440-39-3	Barium	13.5	0.299	2.39	1		SW6010B	0C23009	03/24/10 20:00
7440-41-7	Beryllium		0.0597	0.299	1	U	SW6010B	0C23009	03/24/10 20:00
7440-43-9	Cadmium		0.0597	0.299	1	U	SW6010B	0C23009	03/24/10 20:00
7440-70-2	Calcium	689	59.7	299	1	~~N~~	SW6010B	0C23009	03/24/10 20:00
7440-47-3	Chromium	2.39	0.119	0.299	1		SW6010B	0C23009	03/24/10 20:00
7440-48-4	Cobalt		0.299	0.747	1	U	SW6010B	0C23009	03/24/10 20:00
7440-50-8	Copper	1.12	0.299	0.597	1		SW6010B	0C23009	03/24/10 20:00
7439-89-6	Iron	676	1.79	5.97	1	~~J~~	SW6010B	0C23009	03/24/10 20:00
7439-92-1	Lead	4.21	0.0896	0.179	1		SW6010B	0C23009	03/24/10 20:00
7439-95-4	Magnesium	116	59.7	299	1	J	SW6010B	0C23009	03/24/10 20:00
7439-96-5	Manganese	20.0 J	0.179	0.896	1	~~N~~	SW6010B	0C23009	03/24/10 20:00 MS
7440-02-0	Nickel	0.563	0.299	0.597	1	J	SW6010B	0C23009	03/24/10 20:00
7440-09-7	Potassium	107 J	59.7	299	1	~~JN~~	SW6010B	0C23009	03/24/10 20:00 MS
7782-49-2	Selenium	0.248	0.179	0.358	1	J	SW6010B	0C23009	03/24/10 20:00
7440-22-4	Silver		0.0597	0.299	1	U	SW6010B	0C23009	03/24/10 20:00
7440-23-5	Sodium		59.7	299	1	U	SW6010B	0C23009	03/24/10 20:00
7440-28-0	Thallium		0.179	0.478	1	U	SW6010B	0C23009	03/24/10 20:00
7440-62-2	Vanadium	2.92	0.299	0.747	1		SW6010B	0C23009	03/24/10 20:00
7440-66-6	Zinc	4.18	0.299	1.19	1		SW6010B	0C23009	03/24/10 20:00

MW 7/26/10

ANALYSIS DATA SHEET

MR21-SS12-10A 14

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/03/10 12:00
% Solids: 75.76

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-14
Received: 03/05/10 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury	0.0241	0.0184	0.0467	1	J	SW7471A	0C23017	03/24/10 09:11
7429-90-5	Aluminum	3310	3.32	13.3	1		SW6010B	0C23009	03/24/10 20:04
7440-36-0	Antimony	UJ	0.332	0.995	1	~~UN~~	SW6010B	0C23009	03/24/10 20:04 MS
7440-38-2	Arsenic	0.781	0.199	0.332	1		SW6010B	0C23009	03/24/10 20:04
7440-39-3	Barium	15.7	0.332	2.65	1		SW6010B	0C23009	03/24/10 20:04
7440-41-7	Beryllium		0.0663	0.332	1	U	SW6010B	0C23009	03/24/10 20:04
7440-43-9	Cadmium	0.0883	0.0663	0.332	1	J	SW6010B	0C23009	03/24/10 20:04
7440-70-2	Calcium	2150	66.3	332	1	~~N~~	SW6010B	0C23009	03/24/10 20:04
7440-47-3	Chromium	3.13	0.133	0.332	1		SW6010B	0C23009	03/24/10 20:04
7440-48-4	Cobalt		0.332	0.829	1	U	SW6010B	0C23009	03/24/10 20:04
7440-50-8	Copper	0.988	0.332	0.663	1		SW6010B	0C23009	03/24/10 20:04
7439-89-6	Iron	823	1.99	6.63	1	~~J~~	SW6010B	0C23009	03/24/10 20:04
7439-92-1	Lead	5.84	0.0995	0.199	1		SW6010B	0C23009	03/24/10 20:04
7439-95-4	Magnesium	153	66.3	332	1	J	SW6010B	0C23009	03/24/10 20:04
7439-96-5	Manganese	19.2 J	0.199	0.995	1	~~N~~	SW6010B	0C23009	03/24/10 20:04 MS
7440-02-0	Nickel	1.01	0.332	0.663	1		SW6010B	0C23009	03/24/10 20:04
7440-09-7	Potassium	142 J	66.3	332	1	~~JN~~	SW6010B	0C23009	03/24/10 20:04 MS
7782-49-2	Selenium	0.318	0.199	0.398	1	J	SW6010B	0C23009	03/24/10 20:04
7440-22-4	Silver		0.0663	0.332	1	U	SW6010B	0C23009	03/24/10 20:04
7440-23-5	Sodium		66.3	332	1	U	SW6010B	0C23009	03/24/10 20:04
7440-28-0	Thallium		0.265	0.531	1	U	SW6010B	0C23009	03/24/10 20:04
7440-62-2	Vanadium	4.14	0.332	0.829	1		SW6010B	0C23009	03/24/10 20:04
7440-66-6	Zinc	4.32	0.332	1.33	1		SW6010B	0C23009	03/24/10 20:04

MW 7/26/10

ANALYSIS DATA SHEET

MR21-SS29-10A 15

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/03/10 13:00
% Solids: 68.76

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-15
Received: 03/05/10 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury	0.0520	0.0177	0.0450	1		SW7471A	0C23017	03/24/10 09:12
7429-90-5	Aluminum	3510	3.64	14.5	1		SW6010B	0C23009	03/24/10 20:09
7440-36-0	Antimony	UJ	0.364	1.09	1	~~UN~~	SW6010B	0C23009	03/24/10 20:09 M
7440-38-2	Arsenic	0.816	0.218	0.364	1		SW6010B	0C23009	03/24/10 20:09
7440-39-3	Barium	64.2	0.364	2.91	1		SW6010B	0C23009	03/24/10 20:09
7440-41-7	Beryllium	0.121	0.0727	0.364	1	J	SW6010B	0C23009	03/24/10 20:09
7440-43-9	Cadmium	0.139	0.0727	0.364	1	J	SW6010B	0C23009	03/24/10 20:09
7440-70-2	Calcium	2700	72.7	364	1	~~N~~	SW6010B	0C23009	03/24/10 20:09
7440-47-3	Chromium	2.55	0.145	0.364	1		SW6010B	0C23009	03/24/10 20:09
7440-48-4	Cobalt		0.364	0.909	1	U	SW6010B	0C23009	03/24/10 20:09
7440-50-8	Copper	2.86	0.364	0.727	1		SW6010B	0C23009	03/24/10 20:09
7439-89-6	Iron	1400	2.18	7.27	1	~~J~~	SW6010B	0C23009	03/24/10 20:09
7439-92-1	Lead	15.6	0.109	0.218	1		SW6010B	0C23009	03/24/10 20:09
7439-95-4	Magnesium	238	72.7	364	1	J	SW6010B	0C23009	03/24/10 20:09
7439-96-5	Manganese	118 J	0.218	1.09	1	~~N~~	SW6010B	0C23009	03/24/10 20:09 M
7440-02-0	Nickel	1.83	0.364	0.727	1		SW6010B	0C23009	03/24/10 20:09
7440-09-7	Potassium	205 J	72.7	364	1	~~JN~~	SW6010B	0C23009	03/24/10 20:09 M
7782-49-2	Selenium	0.294	0.218	0.436	1	J	SW6010B	0C23009	03/24/10 20:09
7440-22-4	Silver		0.0727	0.364	1	U	SW6010B	0C23009	03/24/10 20:09
7440-23-5	Sodium		72.7	364	1	U	SW6010B	0C23009	03/24/10 20:09
7440-28-0	Thallium		0.364	0.582	1	U	SW6010B	0C23009	03/24/10 20:09
7440-62-2	Vanadium	4.55	0.364	0.909	1		SW6010B	0C23009	03/24/10 20:09
7440-66-6	Zinc	12.5	0.364	1.45	1		SW6010B	0C23009	03/24/10 20:09

hw 7/26/10

ANALYSIS DATA SHEET

MR21-SS17-10A 16

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/03/10 11:40
% Solids: 78.36

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-16
Received: 03/05/10 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury	0.0265	0.0172	0.0436	1	J	SW7471A	0C23017	03/24/10 09:13
7429-90-5	Aluminum	884	3.01	12.0	1		SW6010B	0C23009	03/24/10 20:14
7440-36-0	Antimony	UJ	0.301	0.903	1	~~UN~~	SW6010B	0C23009	03/24/10 20:14 MS
7440-38-2	Arsenic	0.283	0.181	0.301	1	J	SW6010B	0C23009	03/24/10 20:14
7440-39-3	Barium	21.1	0.301	2.41	1		SW6010B	0C23009	03/24/10 20:14
7440-41-7	Beryllium		0.0602	0.301	1	U	SW6010B	0C23009	03/24/10 20:14
7440-43-9	Cadmium		0.0602	0.301	1	U	SW6010B	0C23009	03/24/10 20:14
7440-70-2	Calcium	338	60.2	301	1	~~N~~	SW6010B	0C23009	03/24/10 20:14
7440-47-3	Chromium	0.929	0.120	0.301	1		SW6010B	0C23009	03/24/10 20:14
7440-48-4	Cobalt		0.301	0.752	1	U	SW6010B	0C23009	03/24/10 20:14
7440-50-8	Copper	1.46	0.301	0.602	1		SW6010B	0C23009	03/24/10 20:14
7439-89-6	Iron	381	1.81	6.02	1	~~J~~	SW6010B	0C23009	03/24/10 20:14
7439-92-1	Lead	8.43	0.0903	0.181	1		SW6010B	0C23009	03/24/10 20:14
7439-95-4	Magnesium		60.2	301	1	U	SW6010B	0C23009	03/24/10 20:14
7439-96-5	Manganese	4.91 J	0.181	0.903	1	~~N~~	SW6010B	0C23009	03/24/10 20:14 M
7440-02-0	Nickel	0.608	0.301	0.602	1		SW6010B	0C23009	03/24/10 20:14
7440-09-7	Potassium		60.2	301	1	U ~~N~~	SW6010B	0C23009	03/24/10 20:14
7782-49-2	Selenium	0.231	0.181	0.361	1	J	SW6010B	0C23009	03/24/10 20:14
7440-22-4	Silver		0.0602	0.301	1	U	SW6010B	0C23009	03/24/10 20:14
7440-23-5	Sodium		60.2	301	1	U	SW6010B	0C23009	03/24/10 20:14
7440-28-0	Thallium		0.181	0.482	1	U	SW6010B	0C23009	03/24/10 20:14
7440-62-2	Vanadium	1.22	0.301	0.752	1		SW6010B	0C23009	03/24/10 20:14
7440-66-6	Zinc	2.31	0.301	1.20	1		SW6010B	0C23009	03/24/10 20:14

fw 7/26/10

ANALYSIS DATA SHEET

MR21-SS11-10A

17

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/03/10 12:10
% Solids: 74.12

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-17
Received: 03/05/10 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury	0.0384	0.0181	0.0461	1	J	SW7471A	0C23017	03/24/10 09:15
7429-90-5	Aluminum	1170	3.37	13.5	1		SW6010B	0C23009	03/24/10 20:18
7440-36-0	Antimony	UJ	0.337	1.01	1	~~UN~~	SW6010B	0C23009	03/24/10 20:18 MS
7440-38-2	Arsenic	0.356	0.202	0.337	1		SW6010B	0C23009	03/24/10 20:18
7440-39-3	Barium	10.8	0.337	2.70	1		SW6010B	0C23009	03/24/10 20:18
7440-41-7	Beryllium		0.0675	0.337	1	U	SW6010B	0C23009	03/24/10 20:18
7440-43-9	Cadmium		0.0675	0.337	1	U	SW6010B	0C23009	03/24/10 20:18
7440-70-2	Calcium	553	67.5	337	1	~~N~~	SW6010B	0C23009	03/24/10 20:18
7440-47-3	Chromium	1.77	0.135	0.337	1		SW6010B	0C23009	03/24/10 20:18
7440-48-4	Cobalt		0.337	0.843	1	U	SW6010B	0C23009	03/24/10 20:18
7440-50-8	Copper	0.856	0.337	0.675	1		SW6010B	0C23009	03/24/10 20:18
7439-89-6	Iron	341	2.02	6.75	1	~~J~~	SW6010B	0C23009	03/24/10 20:18
7439-92-1	Lead	5.19	0.101	0.202	1		SW6010B	0C23009	03/24/10 20:18
7439-95-4	Magnesium	95.0	67.5	337	1	J	SW6010B	0C23009	03/24/10 20:18
7439-96-5	Manganese	2.89 J	0.202	1.01	1	~~N~~	SW6010B	0C23009	03/24/10 20:18 MS
7440-02-0	Nickel	0.551	0.337	0.675	1	J	SW6010B	0C23009	03/24/10 20:18
7440-09-7	Potassium	81.0 J	67.5	337	1	J ~~N~~	SW6010B	0C23009	03/24/10 20:18 MS
7782-49-2	Selenium	0.285	0.202	0.405	1	J	SW6010B	0C23009	03/24/10 20:18
7440-22-4	Silver		0.0675	0.337	1	U	SW6010B	0C23009	03/24/10 20:18
7440-23-5	Sodium		67.5	337	1	U	SW6010B	0C23009	03/24/10 20:18
7440-28-0	Thallium		0.202	0.540	1	U	SW6010B	0C23009	03/24/10 20:18
7440-62-2	Vanadium	2.18	0.337	0.843	1		SW6010B	0C23009	03/24/10 20:18
7440-66-6	Zinc	1.75	0.337	1.35	1		SW6010B	0C23009	03/24/10 20:18

MS 1/26/10

ANALYSIS DATA SHEET

MR21-SS11D-10A 18

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/03/10 12:15
% Solids: 73.05

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-18
Received: 03/05/10 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury	0.0282	0.0167	0.0424	1	J	SW7471A	0C23017	03/24/10 09:18
7429-90-5	Aluminum	1160	3.34	13.4	1		SW6010B	0C23009	03/24/10 20:23
7440-36-0	Antimony	UJ	0.334	1.00	1	~~UN~~	SW6010B	0C23009	03/24/10 20:23 MS
7440-38-2	Arsenic	0.348	0.200	0.334	1		SW6010B	0C23009	03/24/10 20:23
7440-39-3	Barium	10.5	0.334	2.67	1		SW6010B	0C23009	03/24/10 20:23
7440-41-7	Beryllium		0.0668	0.334	1	U	SW6010B	0C23009	03/24/10 20:23
7440-43-9	Cadmium		0.0668	0.334	1	U	SW6010B	0C23009	03/24/10 20:23
7440-70-2	Calcium	550	66.8	334	1	~~N~~	SW6010B	0C23009	03/24/10 20:23
7440-47-3	Chromium	1.73	0.134	0.334	1		SW6010B	0C23009	03/24/10 20:23
7440-48-4	Cobalt		0.334	0.835	1	U	SW6010B	0C23009	03/24/10 20:23
7440-50-8	Copper	0.873	0.334	0.668	1		SW6010B	0C23009	03/24/10 20:23
7439-89-6	Iron	364	2.00	6.68	1	~~J~~	SW6010B	0C23009	03/24/10 20:23
7439-92-1	Lead	5.75	0.100	0.200	1		SW6010B	0C23009	03/24/10 20:23
7439-95-4	Magnesium	96.9	66.8	334	1	J	SW6010B	0C23009	03/24/10 20:23
7439-96-5	Manganese	2.86 J	0.200	1.00	1	~~N~~	SW6010B	0C23009	03/24/10 20:23 MSI
7440-02-0	Nickel	0.574	0.334	0.668	1	J	SW6010B	0C23009	03/24/10 20:23
7440-09-7	Potassium	84.6 J	66.8	334	1	~~JN~~	SW6010B	0C23009	03/24/10 20:23 MSI
7782-49-2	Selenium	0.296	0.200	0.401	1	J	SW6010B	0C23009	03/24/10 20:23
7440-22-4	Silver		0.0668	0.334	1	U	SW6010B	0C23009	03/24/10 20:23
7440-23-5	Sodium		66.8	334	1	U	SW6010B	0C23009	03/24/10 20:23
7440-28-0	Thallium		0.200	0.534	1	U	SW6010B	0C23009	03/24/10 20:23
7440-62-2	Vanadium	2.23	0.334	0.835	1		SW6010B	0C23009	03/24/10 20:23
7440-66-6	Zinc	1.91	0.334	1.34	1		SW6010B	0C23009	03/24/10 20:23

KW 7/26/10

ANALYSIS DATA SHEET

MR21-SS16-10A

19

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/03/10 11:50
% Solids: 86.97

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-19
Received: 03/05/10 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury		0.0136	0.0345	1	U	SW7471A	0C23017	03/24/10 09:19
7429-90-5	Aluminum	387	2.76	11.1	1		SW6010B	0C23009	03/24/10 20:28
7440-36-0	Antimony	UJ	0.276	0.829	1	~~UN~~	SW6010B	0C23009	03/24/10 20:28 MS
7440-38-2	Arsenic		0.166	0.276	1	U	SW6010B	0C23009	03/24/10 20:28
7440-39-3	Barium	5.74	0.276	2.21	1		SW6010B	0C23009	03/24/10 20:28
7440-41-7	Beryllium		0.0553	0.276	1	U	SW6010B	0C23009	03/24/10 20:28
7440-43-9	Cadmium		0.0553	0.276	1	U	SW6010B	0C23009	03/24/10 20:28
7440-70-2	Calcium	270	55.3	276	1	J N	SW6010B	0C23009	03/24/10 20:28
7440-47-3	Chromium	0.569	0.111	0.276	1		SW6010B	0C23009	03/24/10 20:28
7440-48-4	Cobalt		0.276	0.691	1	U	SW6010B	0C23009	03/24/10 20:28
7440-50-8	Copper	0.406	0.276	0.553	1	J	SW6010B	0C23009	03/24/10 20:28
7439-89-6	Iron	152	1.66	5.53	1	*	SW6010B	0C23009	03/24/10 20:28
7439-92-1	Lead	2.72	0.0829	0.166	1		SW6010B	0C23009	03/24/10 20:28
7439-95-4	Magnesium		55.3	276	1	U	SW6010B	0C23009	03/24/10 20:28
7439-96-5	Manganese	4.55 J	0.166	0.829	1	N	SW6010B	0C23009	03/24/10 20:28 M.
7440-02-0	Nickel		0.276	0.553	1	U	SW6010B	0C23009	03/24/10 20:28
7440-09-7	Potassium		55.3	276	1	U N	SW6010B	0C23009	03/24/10 20:28
7782-49-2	Selenium		0.166	0.332	1	U	SW6010B	0C23009	03/24/10 20:28
7440-22-4	Silver		0.0553	0.276	1	U	SW6010B	0C23009	03/24/10 20:28
7440-23-5	Sodium		55.3	276	1	U	SW6010B	0C23009	03/24/10 20:28
7440-28-0	Thallium		0.166	0.442	1	U	SW6010B	0C23009	03/24/10 20:28
7440-62-2	Vanadium	0.659	0.276	0.691	1	J	SW6010B	0C23009	03/24/10 20:28
7440-66-6	Zinc	1.24	0.276	1.11	1		SW6010B	0C23009	03/24/10 20:28

KW 7/26/10

ANALYSIS DATA SHEET

MR21-SS14-10A

20

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/03/10 11:30
% Solids: 77.67

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-20
Received: 03/05/10 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury	0.0235	0.0152	0.0386	1	J	SW7471A	0C23023	03/24/10 09:26
7429-90-5	Aluminum	864	3.25	13.0	1		SW6010B	0C23010	03/24/10 21:21
7440-36-0	Antimony		0.325	0.975	1	U	SW6010B	0C23010	03/24/10 21:21
7440-38-2	Arsenic	0.393	0.195	0.325	1		SW6010B	0C23010	03/24/10 21:21
7440-39-3	Barium	8.67	0.325	2.60	1		SW6010B	0C23010	03/24/10 21:21
7440-41-7	Beryllium		0.0650	0.325	1	U	SW6010B	0C23010	03/24/10 21:21
7440-43-9	Cadmium		0.0650	0.325	1	U	SW6010B	0C23010	03/24/10 21:21
7440-70-2	Calcium	327	65.0	325	1		SW6010B	0C23010	03/24/10 21:21
7440-47-3	Chromium	1.37	0.130	0.325	1		SW6010B	0C23010	03/24/10 21:21
7440-48-4	Cobalt		0.325	0.813	1	U	SW6010B	0C23010	03/24/10 21:21
7440-50-8	Copper	0.906	0.325	0.650	1		SW6010B	0C23010	03/24/10 21:21
7439-89-6	Iron	499	1.95	6.50	1		SW6010B	0C23010	03/24/10 21:21
7439-92-1	Lead	6.29	0.0975	0.195	1		SW6010B	0C23010	03/24/10 21:21
7439-95-4	Magnesium		65.0	325	1	U	SW6010B	0C23010	03/24/10 21:21
7439-96-5	Manganese	4.28	0.195	0.975	1		SW6010B	0C23010	03/24/10 21:21
7440-02-0	Nickel	0.443	0.325	0.650	1	J	SW6010B	0C23010	03/24/10 21:21
7440-09-7	Potassium		65.0	325	1	U	SW6010B	0C23010	03/24/10 21:21
7782-49-2	Selenium	0.213	0.195	0.390	1	J	SW6010B	0C23010	03/24/10 21:21
7440-22-4	Silver		0.0650	0.325	1	U	SW6010B	0C23010	03/24/10 21:21
7440-23-5	Sodium		65.0	325	1	U	SW6010B	0C23010	03/24/10 21:21
7440-28-0	Thallium		0.195	0.520	1	U	SW6010B	0C23010	03/24/10 21:21
7440-62-2	Vanadium	2.25	0.325	0.813	1		SW6010B	0C23010	03/24/10 21:21
7440-66-6	Zinc	2.39	0.325	1.30	1		SW6010B	0C23010	03/24/10 21:21

NW 7/26/10

ANALYSIS DATA SHEET

MR21-SS23-10A

21

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/03/10 12:30
% Solids: 86.63

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-21
Received: 03/05/10 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury		0.0145	0.0369	1	U	SW7471A	0C23017	03/24/10 09:20
7429-90-5	Aluminum	2330	2.90	11.6	1		SW6010B	0C23009	03/24/10 20:32
7440-36-0	Antimony	WJ	0.290	0.870	1	~~UN~~	SW6010B	0C23009	03/24/10 20:32 M
7440-38-2	Arsenic	0.472	0.174	0.290	1		SW6010B	0C23009	03/24/10 20:32
7440-39-3	Barium	6.25	0.290	2.32	1		SW6010B	0C23009	03/24/10 20:32
7440-41-7	Beryllium		0.0580	0.290	1	U	SW6010B	0C23009	03/24/10 20:32
7440-43-9	Cadmium		0.0580	0.290	1	U	SW6010B	0C23009	03/24/10 20:32
7440-70-2	Calcium	425	58.0	290	1	~~N~~	SW6010B	0C23009	03/24/10 20:32
7440-47-3	Chromium	2.80	0.116	0.290	1		SW6010B	0C23009	03/24/10 20:32
7440-48-4	Cobalt		0.290	0.725	1	U	SW6010B	0C23009	03/24/10 20:32
7440-50-8	Copper	0.883	0.290	0.580	1		SW6010B	0C23009	03/24/10 20:32
7439-89-6	Iron	977	1.74	5.80	1	~~N~~	SW6010B	0C23009	03/24/10 20:32
7439-92-1	Lead	2.91	0.0870	0.174	1		SW6010B	0C23009	03/24/10 20:32
7439-95-4	Magnesium	109	58.0	290	1	J	SW6010B	0C23009	03/24/10 20:32
7439-96-5	Manganese	7.45 J	0.174	0.870	1	~~N~~	SW6010B	0C23009	03/24/10 20:32 M
7440-02-0	Nickel	0.667	0.290	0.580	1		SW6010B	0C23009	03/24/10 20:32
7440-09-7	Potassium	110 J	58.0	290	1	~~JN~~	SW6010B	0C23009	03/24/10 20:32 M
7782-49-2	Selenium		0.174	0.348	1	U	SW6010B	0C23009	03/24/10 20:32
7440-22-4	Silver		0.0580	0.290	1	U	SW6010B	0C23009	03/24/10 20:32
7440-23-5	Sodium		58.0	290	1	U	SW6010B	0C23009	03/24/10 20:32
7440-28-0	Thallium		0.174	0.464	1	U	SW6010B	0C23009	03/24/10 20:32
7440-62-2	Vanadium	3.51	0.290	0.725	1		SW6010B	0C23009	03/24/10 20:32
7440-66-6	Zinc	2.95	0.290	1.16	1		SW6010B	0C23009	03/24/10 20:32

NW 7/26/10

ANALYSIS DATA SHEET

MR21-SS18D-10A 22

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/03/10 11:25
% Solids: 73.05

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-22
Received: 03/05/10 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury	0.0352	0.0162	0.0411	1	J	SW7471A	0C23023	03/24/10 09:28
7429-90-5	Aluminum	790	3.26	13.0	1		SW6010B	0C23010	03/24/10 21:25
7440-36-0	Antimony		0.326	0.978	1	U	SW6010B	0C23010	03/24/10 21:25
7440-38-2	Arsenic	0.482	0.196	0.326	1		SW6010B	0C23010	03/24/10 21:25
7440-39-3	Barium	28.9	0.326	2.61	1		SW6010B	0C23010	03/24/10 21:25
7440-41-7	Beryllium		0.0652	0.326	1	U	SW6010B	0C23010	03/24/10 21:25
7440-43-9	Cadmium		0.0652	0.326	1	U	SW6010B	0C23010	03/24/10 21:25
7440-70-2	Calcium	354	65.2	326	1		SW6010B	0C23010	03/24/10 21:25
7440-47-3	Chromium	0.877	0.130	0.326	1		SW6010B	0C23010	03/24/10 21:25
7440-48-4	Cobalt		0.326	0.815	1	U	SW6010B	0C23010	03/24/10 21:25
7440-50-8	Copper	1.68	0.326	0.652	1		SW6010B	0C23010	03/24/10 21:25
7439-89-6	Iron	306	1.96	6.52	1		SW6010B	0C23010	03/24/10 21:25
7439-92-1	Lead	11.9	0.0978	0.196	1		SW6010B	0C23010	03/24/10 21:25
7439-95-4	Magnesium	81.0	65.2	326	1	J	SW6010B	0C23010	03/24/10 21:25
7439-96-5	Manganese	4.47	0.196	0.978	1		SW6010B	0C23010	03/24/10 21:25
7440-02-0	Nickel	0.748	0.326	0.652	1		SW6010B	0C23010	03/24/10 21:25
7440-09-7	Potassium		65.2	326	1	U	SW6010B	0C23010	03/24/10 21:25
7782-49-2	Selenium	0.380	0.196	0.391	1	J	SW6010B	0C23010	03/24/10 21:25
7440-22-4	Silver		0.0652	0.326	1	U	SW6010B	0C23010	03/24/10 21:25
7440-23-5	Sodium		65.2	326	1	U N	SW6010B	0C23010	03/24/10 21:25
7440-28-0	Thallium		0.261	0.521	1	U	SW6010B	0C23010	03/24/10 21:25
7440-62-2	Vanadium	1.41	0.326	0.815	1		SW6010B	0C23010	03/24/10 21:25
7440-66-6	Zinc	3.64	0.326	1.30	1		SW6010B	0C23010	03/24/10 21:25

mw 7/26/10

ANALYSIS DATA SHEET

MR21-SS18-10A

23

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/03/10 11:20
% Solids: 73.63

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-23
Received: 03/05/10 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury	0.0348	0.0177	0.0448	1	J	SW7471A	0C23023	03/24/10 09:29
7429-90-5	Aluminum	804	3.38	13.5	1		SW6010B	0C23010	03/24/10 21:30
7440-36-0	Antimony		0.338	1.01	1	U	SW6010B	0C23010	03/24/10 21:30
7440-38-2	Arsenic	0.397	0.203	0.338	1		SW6010B	0C23010	03/24/10 21:30
7440-39-3	Barium	31.8	0.338	2.70	1		SW6010B	0C23010	03/24/10 21:30
7440-41-7	Beryllium		0.0676	0.338	1	U	SW6010B	0C23010	03/24/10 21:30
7440-43-9	Cadmium		0.0676	0.338	1	U	SW6010B	0C23010	03/24/10 21:30
7440-70-2	Calcium	372	67.6	338	1		SW6010B	0C23010	03/24/10 21:30
7440-47-3	Chromium	0.848	0.135	0.338	1		SW6010B	0C23010	03/24/10 21:30
7440-48-4	Cobalt		0.338	0.845	1	U	SW6010B	0C23010	03/24/10 21:30
7440-50-8	Copper	1.64	0.338	0.676	1		SW6010B	0C23010	03/24/10 21:30
7439-89-6	Iron	314	2.03	6.76	1		SW6010B	0C23010	03/24/10 21:30
7439-92-1	Lead	12.7	0.101	0.203	1		SW6010B	0C23010	03/24/10 21:30
7439-95-4	Magnesium	85.1	67.6	338	1	J	SW6010B	0C23010	03/24/10 21:30
7439-96-5	Manganese	4.14	0.203	1.01	1		SW6010B	0C23010	03/24/10 21:30
7440-02-0	Nickel	0.794	0.338	0.676	1		SW6010B	0C23010	03/24/10 21:30
7440-09-7	Potassium		67.6	338	1	U	SW6010B	0C23010	03/24/10 21:30
7782-49-2	Selenium	0.362	0.203	0.405	1	J	SW6010B	0C23010	03/24/10 21:30
7440-22-4	Silver		0.0676	0.338	1	U	SW6010B	0C23010	03/24/10 21:30
7440-23-5	Sodium		67.6	338	1	UN	SW6010B	0C23010	03/24/10 21:30
7440-28-0	Thallium		0.270	0.541	1	U	SW6010B	0C23010	03/24/10 21:30
7440-62-2	Vanadium	1.41	0.338	0.845	1		SW6010B	0C23010	03/24/10 21:30
7440-66-6	Zinc	3.57	0.338	1.35	1		SW6010B	0C23010	03/24/10 21:30

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ANALYSIS DATA SHEET

MR21-SS15-10A 24

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/03/10 12:25
% Solids: 75.42

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-24
Received: 03/05/10 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury	0.0544	0.0167	0.0423	1		SW7471A	0C23023	03/24/10 09:32
7429-90-5	Aluminum	687	3.23	12.9	1		SW6010B	0C23010	03/24/10 21:35
7440-36-0	Antimony		0.323	0.970	1	U	SW6010B	0C23010	03/24/10 21:35
7440-38-2	Arsenic	0.435	0.194	0.323	1		SW6010B	0C23010	03/24/10 21:35
7440-39-3	Barium	18.2	0.323	2.59	1		SW6010B	0C23010	03/24/10 21:35
7440-41-7	Beryllium		0.0647	0.323	1	U	SW6010B	0C23010	03/24/10 21:35
7440-43-9	Cadmium		0.0647	0.323	1	U	SW6010B	0C23010	03/24/10 21:35
7440-70-2	Calcium	517	64.7	323	1		SW6010B	0C23010	03/24/10 21:35
7440-47-3	Chromium	0.996	0.129	0.323	1		SW6010B	0C23010	03/24/10 21:35
7440-48-4	Cobalt		0.323	0.809	1	U	SW6010B	0C23010	03/24/10 21:35
7440-50-8	Copper	1.11	0.323	0.647	1		SW6010B	0C23010	03/24/10 21:35
7439-89-6	Iron	389	1.94	6.47	1		SW6010B	0C23010	03/24/10 21:35
7439-92-1	Lead	4.72	0.0970	0.194	1		SW6010B	0C23010	03/24/10 21:35
7439-95-4	Magnesium	80.0	64.7	323	1	J	SW6010B	0C23010	03/24/10 21:35
7439-96-5	Manganese	1.97	0.194	0.970	1		SW6010B	0C23010	03/24/10 21:35
7440-02-0	Nickel	0.510	0.323	0.647	1	J	SW6010B	0C23010	03/24/10 21:35
7440-09-7	Potassium	67.5	64.7	323	1	J	SW6010B	0C23010	03/24/10 21:35
7782-49-2	Selenium	0.291	0.194	0.388	1	J	SW6010B	0C23010	03/24/10 21:35
7440-22-4	Silver		0.0647	0.323	1	U	SW6010B	0C23010	03/24/10 21:35
7440-23-5	Sodium		64.7	323	1	UN	SW6010B	0C23010	03/24/10 21:35
7440-28-0	Thallium		0.259	0.517	1	U	SW6010B	0C23010	03/24/10 21:35
7440-62-2	Vanadium	1.16	0.323	0.809	1		SW6010B	0C23010	03/24/10 21:35
7440-66-6	Zinc	2.83	0.323	1.29	1		SW6010B	0C23010	03/24/10 21:35

lew 7/26/10

ANALYSIS DATA SHEET

MR21-SS22-10A

25

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/03/10 09:25
% Solids: 85.30

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-25
Received: 03/05/10 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury	0.0142	0.0120	0.0330	1	J	SW7471A	0C23023	03/24/10 09:34
7429-90-5	Aluminum	435	2.93	11.7	1		SW6010B	0C23010	03/24/10 21:40
7440-36-0	Antimony		0.293	0.879	1	U	SW6010B	0C23010	03/24/10 21:40
7440-38-2	Arsenic		0.176	0.293	1	U	SW6010B	0C23010	03/24/10 21:40
7440-39-3	Barium	5.22	0.293	2.34	1		SW6010B	0C23010	03/24/10 21:40
7440-41-7	Beryllium		0.0586	0.293	1	U	SW6010B	0C23010	03/24/10 21:40
7440-43-9	Cadmium		0.0586	0.293	1	U	SW6010B	0C23010	03/24/10 21:40
7440-70-2	Calcium	227	58.6	293	1	J	SW6010B	0C23010	03/24/10 21:40
7440-47-3	Chromium	0.792	0.117	0.293	1		SW6010B	0C23010	03/24/10 21:40
7440-48-4	Cobalt		0.293	0.733	1	U	SW6010B	0C23010	03/24/10 21:40
7440-50-8	Copper	0.509	0.293	0.586	1	J	SW6010B	0C23010	03/24/10 21:40
7439-89-6	Iron	236	1.76	5.86	1		SW6010B	0C23010	03/24/10 21:40
7439-92-1	Lead	9.55	0.0879	0.176	1		SW6010B	0C23010	03/24/10 21:40
7439-95-4	Magnesium		58.6	293	1	U	SW6010B	0C23010	03/24/10 21:40
7439-96-5	Manganese	2.97	0.176	0.879	1		SW6010B	0C23010	03/24/10 21:40
7440-02-0	Nickel		0.293	0.586	1	U	SW6010B	0C23010	03/24/10 21:40
7440-09-7	Potassium		58.6	293	1	U	SW6010B	0C23010	03/24/10 21:40
7782-49-2	Selenium		0.176	0.352	1	U	SW6010B	0C23010	03/24/10 21:40
7440-22-4	Silver		0.0586	0.293	1	U	SW6010B	0C23010	03/24/10 21:40
7440-23-5	Sodium		58.6	293	1	U N	SW6010B	0C23010	03/24/10 21:40
7440-28-0	Thallium		0.176	0.469	1	U	SW6010B	0C23010	03/24/10 21:40
7440-62-2	Vanadium	1.37	0.293	0.733	1		SW6010B	0C23010	03/24/10 21:40
7440-66-6	Zinc	1.47	0.293	1.17	1		SW6010B	0C23010	03/24/10 21:40

MW 1/26/10

ANALYSIS DATA SHEET

MR21-SS13-10A

26

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/03/10 10:00
% Solids: 69.29

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-26
Received: 03/05/10 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury	0.0700	0.0152	0.0386	1		SW7471A	0C23023	03/24/10 09:35
7429-90-5	Aluminum	6270	3.59	14.4	1		SW6010B	0C23010	03/24/10 21:44
7440-36-0	Antimony		0.359	1.08	1	U	SW6010B	0C23010	03/24/10 21:44
7440-38-2	Arsenic	0.921	0.215	0.359	1		SW6010B	0C23010	03/24/10 21:44
7440-39-3	Barium	29.0	0.359	2.87	1		SW6010B	0C23010	03/24/10 21:44
7440-41-7	Beryllium	0.0758	0.0718	0.359	1	J	SW6010B	0C23010	03/24/10 21:44
7440-43-9	Cadmium	0.104	0.0718	0.359	1	J	SW6010B	0C23010	03/24/10 21:44
7440-70-2	Calcium	841	71.8	359	1		SW6010B	0C23010	03/24/10 21:44
7440-47-3	Chromium	5.02	0.144	0.359	1		SW6010B	0C23010	03/24/10 21:44
7440-48-4	Cobalt		0.359	0.898	1	U	SW6010B	0C23010	03/24/10 21:44
7440-50-8	Copper	3.54	0.359	0.718	1		SW6010B	0C23010	03/24/10 21:44
7439-89-6	Iron	1110	2.15	7.18	1		SW6010B	0C23010	03/24/10 21:44
7439-92-1	Lead	9.68	0.108	0.215	1		SW6010B	0C23010	03/24/10 21:44
7439-95-4	Magnesium	179	71.8	359	1	J	SW6010B	0C23010	03/24/10 21:44
7439-96-5	Manganese	60.0	0.215	1.08	1		SW6010B	0C23010	03/24/10 21:44
7440-02-0	Nickel	1.32	0.359	0.718	1		SW6010B	0C23010	03/24/10 21:44
7440-09-7	Potassium	187	71.8	359	1	J	SW6010B	0C23010	03/24/10 21:44
7782-49-2	Selenium	0.660	0.215	0.431	1		SW6010B	0C23010	03/24/10 21:44
7440-22-4	Silver		0.0718	0.359	1	U	SW6010B	0C23010	03/24/10 21:44
7440-23-5	Sodium		71.8	359	1	U N	SW6010B	0C23010	03/24/10 21:44
7440-28-0	Thallium		0.287	0.574	1	U	SW6010B	0C23010	03/24/10 21:44
7440-62-2	Vanadium	5.63	0.359	0.898	1		SW6010B	0C23010	03/24/10 21:44
7440-66-6	Zinc	7.53	0.359	1.44	1		SW6010B	0C23010	03/24/10 21:44

MW 7/26/10

ANALYSIS DATA SHEET

MR21-SS21-10A

27

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/03/10 09:35
% Solids: 79.57

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-27
Received: 03/05/10 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury	0.0155	0.0140	0.0355	1	J	SW7471A	0C23023	03/24/10 09:36
7429-90-5	Aluminum	542	3.10	12.4	1		SW6010B	0C23010	03/24/10 21:49
7440-36-0	Antimony		0.310	0.929	1	U	SW6010B	0C23010	03/24/10 21:49
7440-38-2	Arsenic	0.241	0.186	0.310	1	J	SW6010B	0C23010	03/24/10 21:49
7440-39-3	Barium	7.63	0.310	2.48	1		SW6010B	0C23010	03/24/10 21:49
7440-41-7	Beryllium		0.0619	0.310	1	U	SW6010B	0C23010	03/24/10 21:49
7440-43-9	Cadmium		0.0619	0.310	1	U	SW6010B	0C23010	03/24/10 21:49
7440-70-2	Calcium	534	61.9	310	1		SW6010B	0C23010	03/24/10 21:49
7440-47-3	Chromium	0.989	0.124	0.310	1		SW6010B	0C23010	03/24/10 21:49
7440-48-4	Cobalt		0.310	0.774	1	U	SW6010B	0C23010	03/24/10 21:49
7440-50-8	Copper	0.694	0.310	0.619	1		SW6010B	0C23010	03/24/10 21:49
7439-89-6	Iron	358	1.86	6.19	1		SW6010B	0C23010	03/24/10 21:49
7439-92-1	Lead	6.91	0.0929	0.186	1		SW6010B	0C23010	03/24/10 21:49
7439-95-4	Magnesium	71.7	61.9	310	1	J	SW6010B	0C23010	03/24/10 21:49
7439-96-5	Manganese	18.9	0.186	0.929	1		SW6010B	0C23010	03/24/10 21:49
7440-02-0	Nickel	0.345	0.310	0.619	1	J	SW6010B	0C23010	03/24/10 21:49
7440-09-7	Potassium		61.9	310	1	U	SW6010B	0C23010	03/24/10 21:49
7782-49-2	Selenium		0.186	0.371	1	U	SW6010B	0C23010	03/24/10 21:49
7440-22-4	Silver		0.0619	0.310	1	U	SW6010B	0C23010	03/24/10 21:49
7440-23-5	Sodium		61.9	310	1	UN	SW6010B	0C23010	03/24/10 21:49
7440-28-0	Thallium		0.248	0.495	1	U	SW6010B	0C23010	03/24/10 21:49
7440-62-2	Vanadium	1.76	0.310	0.774	1		SW6010B	0C23010	03/24/10 21:49
7440-66-6	Zinc	5.00	0.310	1.24	1		SW6010B	0C23010	03/24/10 21:49

Les 7/26/10

ANALYSIS DATA SHEET

MR21-SS27-10A

28

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/03/10 09:10
% Solids: 79.12

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-28
Received: 03/05/10 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury	0.0247	0.0154	0.0391	1	J	SW7471A	0C23023	03/24/10 09:37
7429-90-5	Aluminum	600	3.10	12.4	1		SW6010B	0C23010	03/24/10 21:54
7440-36-0	Antimony		0.310	0.929	1	U	SW6010B	0C23010	03/24/10 21:54
7440-38-2	Arsenic	0.303	0.186	0.310	1	J	SW6010B	0C23010	03/24/10 21:54
7440-39-3	Barium	7.07	0.310	2.48	1		SW6010B	0C23010	03/24/10 21:54
7440-41-7	Beryllium		0.0620	0.310	1	U	SW6010B	0C23010	03/24/10 21:54
7440-43-9	Cadmium		0.0620	0.310	1	U	SW6010B	0C23010	03/24/10 21:54
7440-70-2	Calcium	557	62.0	310	1		SW6010B	0C23010	03/24/10 21:54
7440-47-3	Chromium	0.998	0.124	0.310	1		SW6010B	0C23010	03/24/10 21:54
7440-48-4	Cobalt		0.310	0.774	1	U	SW6010B	0C23010	03/24/10 21:54
7440-50-8	Copper	0.954	0.310	0.620	1		SW6010B	0C23010	03/24/10 21:54
7439-89-6	Iron	320	1.86	6.20	1		SW6010B	0C23010	03/24/10 21:54
7439-92-1	Lead	12.3	0.0929	0.186	1		SW6010B	0C23010	03/24/10 21:54
7439-95-4	Magnesium		62.0	310	1	U	SW6010B	0C23010	03/24/10 21:54
7439-96-5	Manganese	4.50	0.186	0.929	1		SW6010B	0C23010	03/24/10 21:54
7440-02-0	Nickel	0.496	0.310	0.620	1	J	SW6010B	0C23010	03/24/10 21:54
7440-09-7	Potassium		62.0	310	1	U	SW6010B	0C23010	03/24/10 21:54
7782-49-2	Selenium	0.187	0.186	0.372	1	J	SW6010B	0C23010	03/24/10 21:54
7440-22-4	Silver		0.0620	0.310	1	U	SW6010B	0C23010	03/24/10 21:54
7440-23-5	Sodium		62.0	310	1	UN	SW6010B	0C23010	03/24/10 21:54
7440-28-0	Thallium		0.186	0.496	1	U	SW6010B	0C23010	03/24/10 21:54
7440-62-2	Vanadium	1.76	0.310	0.774	1		SW6010B	0C23010	03/24/10 21:54
7440-66-6	Zinc	4.73	0.310	1.24	1		SW6010B	0C23010	03/24/10 21:54

NW 7/26/10

ANALYSIS DATA SHEET

MR21-SS27D-10A

20

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/03/10 09:15
% Solids: 80.42

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-29
Received: 03/05/10 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury	0.0290	0.0167	0.0425	1	J	SW7471A	0C23023	03/24/10 09:39
7429-90-5	Aluminum	632	3.09	12.4	1		SW6010B	0C23010	03/24/10 21:58
7440-36-0	Antimony		0.309	0.928	1	U	SW6010B	0C23010	03/24/10 21:58
7440-38-2	Arsenic	0.325	0.186	0.309	1		SW6010B	0C23010	03/24/10 21:58
7440-39-3	Barium	8.06	0.309	2.47	1		SW6010B	0C23010	03/24/10 21:58
7440-41-7	Beryllium		0.0619	0.309	1	U	SW6010B	0C23010	03/24/10 21:58
7440-43-9	Cadmium		0.0619	0.309	1	U	SW6010B	0C23010	03/24/10 21:58
7440-70-2	Calcium	629	61.9	309	1		SW6010B	0C23010	03/24/10 21:58
7440-47-3	Chromium	1.03	0.124	0.309	1		SW6010B	0C23010	03/24/10 21:58
7440-48-4	Cobalt		0.309	0.773	1	U	SW6010B	0C23010	03/24/10 21:58
7440-50-8	Copper	1.11	0.309	0.619	1		SW6010B	0C23010	03/24/10 21:58
7439-89-6	Iron	338	1.86	6.19	1		SW6010B	0C23010	03/24/10 21:58
7439-92-1	Lead	14.9	0.0928	0.186	1		SW6010B	0C23010	03/24/10 21:58
7439-95-4	Magnesium		61.9	309	1	U	SW6010B	0C23010	03/24/10 21:58
7439-96-5	Manganese	4.63	0.186	0.928	1		SW6010B	0C23010	03/24/10 21:58
7440-02-0	Nickel	0.532	0.309	0.619	1	J	SW6010B	0C23010	03/24/10 21:58
7440-09-7	Potassium		61.9	309	1	U	SW6010B	0C23010	03/24/10 21:58
7782-49-2	Selenium	0.279	0.186	0.371	1	J	SW6010B	0C23010	03/24/10 21:58
7440-22-4	Silver		0.0619	0.309	1	U	SW6010B	0C23010	03/24/10 21:58
7440-23-5	Sodium		61.9	309	1	U	SW6010B	0C23010	03/24/10 21:58
7440-28-0	Thallium		0.247	0.495	1	U	SW6010B	0C23010	03/24/10 21:58
7440-62-2	Vanadium	1.78	0.309	0.773	1		SW6010B	0C23010	03/24/10 21:58
7440-66-6	Zinc	5.23	0.309	1.24	1		SW6010B	0C23010	03/24/10 21:58

MW 7/26/10

ANALYSIS DATA SHEET

MR21-SS34-10A 30

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/04/10 09:30
% Solids: 51.67

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-30
Received: 03/05/10 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury	0.0516	0.0236	0.0599	1	J	SW7471A	0C23023	03/24/10 09:40
7429-90-5	Aluminum	1680	4.81	19.3	1		SW6010B	0C23010	03/24/10 22:03
7440-36-0	Antimony		0.481	1.44	1	U	SW6010B	0C23010	03/24/10 22:03
7440-38-2	Arsenic	0.555	0.289	0.481	1		SW6010B	0C23010	03/24/10 22:03
7440-39-3	Barium	37.8	0.481	3.85	1		SW6010B	0C23010	03/24/10 22:03
7440-41-7	Beryllium		0.0963	0.481	1	U	SW6010B	0C23010	03/24/10 22:03
7440-43-9	Cadmium	0.160	0.0963	0.481	1	J	SW6010B	0C23010	03/24/10 22:03
7440-70-2	Calcium	3580	96.3	481	1		SW6010B	0C23010	03/24/10 22:03
7440-47-3	Chromium	1.69	0.193	0.481	1		SW6010B	0C23010	03/24/10 22:03
7440-48-4	Cobalt		0.481	1.20	1	U	SW6010B	0C23010	03/24/10 22:03
7440-50-8	Copper	2.63	0.481	0.963	1		SW6010B	0C23010	03/24/10 22:03
7439-89-6	Iron	754	2.89	9.63	1		SW6010B	0C23010	03/24/10 22:03
7439-92-1	Lead	11.0	0.144	0.289	1		SW6010B	0C23010	03/24/10 22:03
7439-95-4	Magnesium	310	96.3	481	1	J	SW6010B	0C23010	03/24/10 22:03
7439-96-5	Manganese	135	0.289	1.44	1		SW6010B	0C23010	03/24/10 22:03
7440-02-0	Nickel	0.986	0.481	0.963	1		SW6010B	0C23010	03/24/10 22:03
7440-09-7	Potassium	252	96.3	481	1	J	SW6010B	0C23010	03/24/10 22:03
7782-49-2	Selenium	0.432	0.289	0.578	1	J	SW6010B	0C23010	03/24/10 22:03
7440-22-4	Silver		0.0963	0.481	1	U	SW6010B	0C23010	03/24/10 22:03
7440-23-5	Sodium		96.3	481	1	U	SW6010B	0C23010	03/24/10 22:03
7440-28-0	Thallium		0.385	0.770	1	U	SW6010B	0C23010	03/24/10 22:03
7440-62-2	Vanadium	3.02	0.481	1.20	1		SW6010B	0C23010	03/24/10 22:03
7440-66-6	Zinc	13.3	0.481	1.93	1		SW6010B	0C23010	03/24/10 22:03

MW 1/26/10

ANALYSIS DATA SHEET

MR21-SS35-10A

31

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/04/10 09:10
% Solids: 65.66

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-31
Received: 03/05/10 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury	0.0580	0.0186	0.0471	1		SW7471A	0C23023	03/24/10 09:44
7429-90-5	Aluminum	2130	3.68	14.7	1		SW6010B	0C23010	03/24/10 22:40
7440-36-0	Antimony		0.368	1.10	1	U	SW6010B	0C23010	03/24/10 22:40
7440-38-2	Arsenic	0.409	0.221	0.368	1		SW6010B	0C23010	03/24/10 22:40
7440-39-3	Barium	35.8	0.368	2.94	1		SW6010B	0C23010	03/24/10 22:40
7440-41-7	Beryllium		0.0736	0.368	1	U	SW6010B	0C23010	03/24/10 22:40
7440-43-9	Cadmium	0.129	0.0736	0.368	1	J	SW6010B	0C23010	03/24/10 22:40
7440-70-2	Calcium	4110	73.6	368	1		SW6010B	0C23010	03/24/10 22:40
7440-47-3	Chromium	1.91	0.147	0.368	1		SW6010B	0C23010	03/24/10 22:40
7440-48-4	Cobalt		0.368	0.920	1	U	SW6010B	0C23010	03/24/10 22:40
7440-50-8	Copper	3.17	0.368	0.736	1		SW6010B	0C23010	03/24/10 22:40
7439-89-6	Iron	648	2.21	7.36	1		SW6010B	0C23010	03/24/10 22:40
7439-92-1	Lead	8.76	0.110	0.221	1		SW6010B	0C23010	03/24/10 22:40
7439-95-4	Magnesium	232	73.6	368	1	J	SW6010B	0C23010	03/24/10 22:40
7439-96-5	Manganese	38.3	0.221	1.10	1		SW6010B	0C23010	03/24/10 22:40
7440-02-0	Nickel	1.25	0.368	0.736	1		SW6010B	0C23010	03/24/10 22:40
7440-09-7	Potassium	190	73.6	368	1	J	SW6010B	0C23010	03/24/10 22:40
7782-49-2	Selenium	0.278	0.221	0.441	1	J	SW6010B	0C23010	03/24/10 22:40
7440-22-4	Silver		0.0736	0.368	1	U	SW6010B	0C23010	03/24/10 22:40
7440-23-5	Sodium		73.6	368	1	UN	SW6010B	0C23010	03/24/10 22:40
7440-28-0	Thallium		0.221	0.589	1	U	SW6010B	0C23010	03/24/10 22:40
7440-62-2	Vanadium	2.84	0.368	0.920	1		SW6010B	0C23010	03/24/10 22:40
7440-66-6	Zinc	8.83	0.368	1.47	1		SW6010B	0C23010	03/24/10 22:40

hw 7/26/10

ANALYSIS DATA SHEET

MR21-SS32-10A

32

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/04/10 08:40
% Solids: 83.39

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-32
Received: 03/05/10 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury	0.0235	0.0134	0.0339	1	J	SW7471A	0C23023	03/24/10 09:47
7429-90-5	Aluminum	739	2.95	11.8	1		SW6010B	0C23010	03/24/10 22:45
7440-36-0	Antimony		0.295	0.886	1	U	SW6010B	0C23010	03/24/10 22:45
7440-38-2	Arsenic	0.248	0.177	0.295	1	J	SW6010B	0C23010	03/24/10 22:45
7440-39-3	Barium	7.96	0.295	2.36	1		SW6010B	0C23010	03/24/10 22:45
7440-41-7	Beryllium		0.0591	0.295	1	U	SW6010B	0C23010	03/24/10 22:45
7440-43-9	Cadmium		0.0591	0.295	1	U	SW6010B	0C23010	03/24/10 22:45
7440-70-2	Calcium	259	59.1	295	1	J	SW6010B	0C23010	03/24/10 22:45
7440-47-3	Chromium	0.948	0.118	0.295	1		SW6010B	0C23010	03/24/10 22:45
7440-48-4	Cobalt		0.295	0.738	1	U	SW6010B	0C23010	03/24/10 22:45
7440-50-8	Copper	0.814	0.295	0.591	1		SW6010B	0C23010	03/24/10 22:45
7439-89-6	Iron	287	1.77	5.91	1		SW6010B	0C23010	03/24/10 22:45
7439-92-1	Lead	6.07	0.0886	0.177	1		SW6010B	0C23010	03/24/10 22:45
7439-95-4	Magnesium		59.1	295	1	U	SW6010B	0C23010	03/24/10 22:45
7439-96-5	Manganese	3.75	0.177	0.886	1		SW6010B	0C23010	03/24/10 22:45
7440-02-0	Nickel	0.438	0.295	0.591	1	J	SW6010B	0C23010	03/24/10 22:45
7440-09-7	Potassium		59.1	295	1	U	SW6010B	0C23010	03/24/10 22:45
7782-49-2	Selenium		0.177	0.354	1	U	SW6010B	0C23010	03/24/10 22:45
7440-22-4	Silver		0.0591	0.295	1	U	SW6010B	0C23010	03/24/10 22:45
7440-23-5	Sodium		59.1	295	1	U	SW6010B	0C23010	03/24/10 22:45
7440-28-0	Thallium		0.177	0.473	1	U	SW6010B	0C23010	03/24/10 22:45
7440-62-2	Vanadium	1.49	0.295	0.738	1		SW6010B	0C23010	03/24/10 22:45
7440-66-6	Zinc	1.61	0.295	1.18	1		SW6010B	0C23010	03/24/10 22:45

LW 7/26/10

ANALYSIS DATA SHEET

MR21-FB-030410

33

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Water
Sampled: 03/04/10 10:30
% Solids: 0.00

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-33
Received: 03/05/10 08:30

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury		0.0800	0.200	1	U	SW7470A	0C10030	03/15/10 12:32
7429-90-5	Aluminum		12.5	50.0	1	U	SW6010B	0C16020	03/17/10 17:01
7440-36-0	Antimony		1.25	3.75	1	U	SW6010B	0C16020	03/17/10 17:01
7440-38-2	Arsenic		0.750	1.25	1	U	SW6010B	0C16020	03/17/10 17:01
7440-39-3	Barium		1.25	10.0	1	U	SW6010B	0C16020	03/17/10 17:01
7440-41-7	Beryllium		0.250	1.25	1	U	SW6010B	0C16020	03/17/10 17:01
7440-43-9	Cadmium		0.250	1.25	1	U	SW6010B	0C16020	03/17/10 17:01
7440-70-2	Calcium		250	1250	1	U	SW6010B	0C16020	03/17/10 17:01
7440-47-3	Chromium		0.500	1.25	1	U	SW6010B	0C16020	03/17/10 17:01
7440-48-4	Cobalt		1.25	3.12	1	U	SW6010B	0C16020	03/17/10 17:01
7440-50-8	Copper		1.25	2.50	1	U	SW6010B	0C16020	03/17/10 17:01
7439-89-6	Iron		7.50	25.0	1	U	SW6010B	0C16020	03/17/10 17:01
7439-92-1	Lead		0.375	0.750	1	U	SW6010B	0C16020	03/17/10 17:01
7439-95-4	Magnesium		250	1250	1	U	SW6010B	0C16020	03/17/10 17:01
7439-96-5	Manganese		0.750	3.75	1	U	SW6010B	0C16020	03/17/10 17:01
7440-02-0	Nickel		0.750	2.50	1	U	SW6010B	0C16020	03/17/10 17:01
7440-09-7	Potassium		250	1250	1	U	SW6010B	0C16020	03/17/10 17:01
7782-49-2	Selenium		0.750	1.50	1	U	SW6010B	0C16020	03/17/10 17:01
7440-22-4	Silver		0.250	1.25	1	U	SW6010B	0C16020	03/17/10 17:01
7440-23-5	Sodium		250	1250	1	U	SW6010B	0C16020	03/17/10 17:01
7440-28-0	Thallium		0.750	2.00	1	U	SW6010B	0C16020	03/17/10 17:01
7440-62-2	Vanadium		1.25	3.12	1	U	SW6010B	0C16020	03/17/10 17:01
7440-66-6	Zinc		1.25	5.00	1	U	SW6010B	0C16020	03/17/10 17:01

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ANALYSIS DATA SHEET

MR21-EB-030310

34

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Water
Sampled: 03/03/10 15:30
% Solids: 0.00

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-34
Received: 03/05/10 08:30

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury		0.0800	0.200	1	U	SW7470A	0C10030	03/15/10 12:33
7429-90-5	Aluminum		12.5	50.0	1	U	SW6010B	0C16020	03/17/10 17:06
7440-36-0	Antimony		1.25	3.75	1	U	SW6010B	0C16020	03/17/10 17:06
7440-38-2	Arsenic		0.750	1.25	1	U	SW6010B	0C16020	03/17/10 17:06
7440-39-3	Barium		1.25	10.0	1	U	SW6010B	0C16020	03/17/10 17:06
7440-41-7	Beryllium		0.250	1.25	1	U	SW6010B	0C16020	03/17/10 17:06
7440-43-9	Cadmium		0.250	1.25	1	U	SW6010B	0C16020	03/17/10 17:06
7440-70-2	Calcium		250	1250	1	U	SW6010B	0C16020	03/17/10 17:06
7440-47-3	Chromium		0.500	1.25	1	U	SW6010B	0C16020	03/17/10 17:06
7440-48-4	Cobalt		1.25	3.12	1	U	SW6010B	0C16020	03/17/10 17:06
7440-50-8	Copper		1.25	2.50	1	U	SW6010B	0C16020	03/17/10 17:06
7439-89-6	Iron		7.50	25.0	1	U	SW6010B	0C16020	03/17/10 17:06
7439-92-1	Lead		0.375	0.750	1	U	SW6010B	0C16020	03/17/10 17:06
7439-95-4	Magnesium		250	1250	1	U	SW6010B	0C16020	03/17/10 17:06
7439-96-5	Manganese		0.750	3.75	1	U	SW6010B	0C16020	03/17/10 17:06
7440-02-0	Nickel		0.750	2.50	1	U	SW6010B	0C16020	03/17/10 17:06
7440-09-7	Potassium		250	1250	1	U	SW6010B	0C16020	03/17/10 17:06
7782-49-2	Selenium		0.750	1.50	1	U	SW6010B	0C16020	03/17/10 17:06
7440-22-4	Silver		0.250	1.25	1	U	SW6010B	0C16020	03/17/10 17:06
7440-23-5	Sodium		250	1250	1	U	SW6010B	0C16020	03/17/10 17:06
7440-28-0	Thallium		0.750	2.00	1	U	SW6010B	0C16020	03/17/10 17:06
7440-62-2	Vanadium		1.25	3.12	1	U	SW6010B	0C16020	03/17/10 17:06
7440-66-6	Zinc		1.25	5.00	1	U	SW6010B	0C16020	03/17/10 17:06

MW 7/26/10

ANALYSIS DATA SHEET

MR21-EB-030410

35

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Water
Sampled: 03/04/10 11:45
% Solids: 0.00

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-35
Received: 03/05/10 08:30

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury		0.0800	0.200	1	U	SW7470A	0C10030	03/15/10 12:33
7429-90-5	Aluminum		12.5	50.0	1	U	SW6010B	0C16020	03/17/10 17:11
7440-36-0	Antimony		1.25	3.75	1	U	SW6010B	0C16020	03/17/10 17:11
7440-38-2	Arsenic		0.750	1.25	1	U	SW6010B	0C16020	03/17/10 17:11
7440-39-3	Barium		1.25	10.0	1	U	SW6010B	0C16020	03/17/10 17:11
7440-41-7	Beryllium		0.250	1.25	1	U	SW6010B	0C16020	03/17/10 17:11
7440-43-9	Cadmium		0.250	1.25	1	U	SW6010B	0C16020	03/17/10 17:11
7440-70-2	Calcium		250	1250	1	U	SW6010B	0C16020	03/17/10 17:11
7440-47-3	Chromium		0.500	1.25	1	U	SW6010B	0C16020	03/17/10 17:11
7440-48-4	Cobalt		1.25	3.12	1	U	SW6010B	0C16020	03/17/10 17:11
7440-50-8	Copper		1.25	2.50	1	U	SW6010B	0C16020	03/17/10 17:11
7439-89-6	Iron		7.50	25.0	1	U	SW6010B	0C16020	03/17/10 17:11
7439-92-1	Lead		0.375	0.750	1	U	SW6010B	0C16020	03/17/10 17:11
7439-95-4	Magnesium		250	1250	1	U	SW6010B	0C16020	03/17/10 17:11
7439-96-5	Manganese		0.750	3.75	1	U	SW6010B	0C16020	03/17/10 17:11
7440-02-0	Nickel		0.750	2.50	1	U	SW6010B	0C16020	03/17/10 17:11
7440-09-7	Potassium		250	1250	1	U	SW6010B	0C16020	03/17/10 17:11
7782-49-2	Selenium		0.750	1.50	1	U	SW6010B	0C16020	03/17/10 17:11
7440-22-4	Silver		0.250	1.25	1	U	SW6010B	0C16020	03/17/10 17:11
7440-23-5	Sodium		250	1250	1	U	SW6010B	0C16020	03/17/10 17:11
7440-28-0	Thallium		0.750	2.00	1	U	SW6010B	0C16020	03/17/10 17:11
7440-62-2	Vanadium		1.25	3.12	1	U	SW6010B	0C16020	03/17/10 17:11
7440-66-6	Zinc	2.56	1.25	5.00	1	J	SW6010B	0C16020	03/17/10 17:11

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ANALYSIS DATA SHEET

MR21-SS33-10A

36

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/04/10 09:20
% Solids: 76.73

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-36
Received: 03/05/10 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury	0.0401	0.0149	0.0379	1		SW7471A	0C23023	03/24/10 09:48
7429-90-5	Aluminum	2280	3.09	12.4	1		SW6010B	0C23010	03/24/10 22:49
7440-36-0	Antimony		0.309	0.927	1	U	SW6010B	0C23010	03/24/10 22:49
7440-38-2	Arsenic	0.598	0.185	0.309	1		SW6010B	0C23010	03/24/10 22:49
7440-39-3	Barium	15.0	0.309	2.47	1		SW6010B	0C23010	03/24/10 22:49
7440-41-7	Beryllium		0.0618	0.309	1	U	SW6010B	0C23010	03/24/10 22:49
7440-43-9	Cadmium		0.0618	0.309	1	U	SW6010B	0C23010	03/24/10 22:49
7440-70-2	Calcium	988	61.8	309	1	*	SW6010B	0C23010	03/24/10 22:49
7440-47-3	Chromium	2.32	0.124	0.309	1		SW6010B	0C23010	03/24/10 22:49
7440-48-4	Cobalt		0.309	0.772	1	U	SW6010B	0C23010	03/24/10 22:49
7440-50-8	Copper	1.41	0.309	0.618	1		SW6010B	0C23010	03/24/10 22:49
7439-89-6	Iron	1150	1.85	6.18	1		SW6010B	0C23010	03/24/10 22:49
7439-92-1	Lead	9.64	0.0927	0.185	1		SW6010B	0C23010	03/24/10 22:49
7439-95-4	Magnesium	138	61.8	309	1	J	SW6010B	0C23010	03/24/10 22:49
7439-96-5	Manganese	53.4	0.185	0.927	1		SW6010B	0C23010	03/24/10 22:49
7440-02-0	Nickel	0.934	0.309	0.618	1		SW6010B	0C23010	03/24/10 22:49
7440-09-7	Potassium	126	61.8	309	1	J	SW6010B	0C23010	03/24/10 22:49
7782-49-2	Selenium	0.199	0.185	0.371	1	J	SW6010B	0C23010	03/24/10 22:49
7440-22-4	Silver		0.0618	0.309	1	U	SW6010B	0C23010	03/24/10 22:49
7440-23-5	Sodium		61.8	309	1	U N	SW6010B	0C23010	03/24/10 22:49
7440-28-0	Thallium		0.247	0.494	1	U	SW6010B	0C23010	03/24/10 22:49
7440-62-2	Vanadium	4.26	0.309	0.772	1		SW6010B	0C23010	03/24/10 22:49
7440-66-6	Zinc	5.62	0.309	1.24	1		SW6010B	0C23010	03/24/10 22:49

MW 7/26/10

ENVIRONMENTAL
Data Services, Inc.

POLYNUCLEAR AROMATIC HYDROCARBONS

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Area Gas Chamber, CTO-040 SDG #: 1003066

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: July 26, 2010

Laboratory: Empirical Laboratories, Nashville, Tennessee Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR21-SS24-10A	1003066-01	Soil
2	MR21-SS31-10A	1003066-02	Soil
3	MR21-SS40-10A	1003066-03	Soil
4	MR21-SS20-10A	1003066-04	Soil
5	MR21-SS19-10A	1003066-05	Soil
6	MR21-SS30-10A	1003066-06	Soil
7	MR21-SS36-10A	1003066-07	Soil
8	MR21-SS37-10A	1003066-08	Soil
9	MR21-SS28-10A	1003066-09	Soil
10	MR21-SS39-10A	1003066-10	Soil
11	MR21-SS38-10A	1003066-11	Soil
12	MR21-SS25-10A	1003066-12	Soil
13	MR21-SS26-10A	1003066-13	Soil
14	MR21-SS12-10A	1003066-14	Soil
15	MR21-SS29-10A	1003066-15	Soil
16	MR21-SS17-10A	1003066-16	Soil
17	MR21-SS11-10A	1003066-17	Soil
18	MR21-SS11D-10A	1003066-18	Soil
19	MR21-SS16-10A	1003066-19	Soil
20	MR21-SS14-10A	1003066-20	Soil
21	MR21-SS23-10A	1003066-21	Soil
21MS	MR21-SS23-10AMS	1003066-21MS	Soil
21MSD	MR21-SS23-10AMSD	1003066-21MSD	Soil
22	MR21-SS18D-10A	1003066-22	Soil
23	MR21-SS18-10A	1003066-23	Soil
24	MR21-SS15-10A	1003066-24	Soil
25	MR21-SS22-10A	1003066-25	Soil
26	MR21-SS13-10A	1003066-26	Soil
27	MR21-SS21-10A	1003066-27	Soil
28	MR21-SS27-10A	1003066-28	Soil
29	MR21-SS27D-10A	1003066-29	Soil
30	MR21-SS34-10A	1003066-30	Soil
30MS	MR21-SS34-10AMS	1003066-30MS	Soil
30MSD	MR21-SS34-10AMSD	1003066-30MSD	Soil
31	MR21-SS35-10A	1003066-31	Soil

32	MR21-SS32-10A	1003066-32	Soil
33	MR21-SS33-10A	1003066-36	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
03/29/10	Dibenz(a,h)anthracene	26.8%	J/UJ	1-4, 9, 13, 14, 19, 21, 24-26, 28, 29, 32
	Indeno(1,2,3-cd)pyrene	28.7%		
03/30/10	Pentachlorophenol	34.7%	J/UJ	5-8, 10-12, 15-18, 20, 22, 23, 27, 30, 31, 33

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
30	Benzo(a)anthracene	Ok/40%/37	J/UJ
	Benzo(a)pyrene	Ok/48%/Ok	
	Dibenz(a,h)anthracene	Ok/Ok/38	None for RPD alone
	Indeno(1,2,30cd)pyrene	Ok/Ok/39	

Laboratory Control Sample - The LCS samples exhibited acceptable %R values except the following.

LCS ID	Compound	%R	Qualifier	Affected Samples
0C09006-BS2	Benzo(a)anthracene	113%	None	All ND
	Pentachlorophenol	152%		

LCS ID	Compound	%R	Qualifier	Affected Samples
0C09027-BS2	Benzo(a)anthracene	115%	None	All ND
	Pentachlorophenol	153%		

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
0C09006-BLK2	Benzo(b)fluoranthene	0.87	4.35	None	All ND or >5X
	Benzo(a)pyrene	1.1	5.5	U	9, 13
	Indeno(1,2,3-cd)pyrene	2.5	12.5	None	All ND or >5X
0C09027-BLK2	Benzo(b)fluoranthene	0.70	3.5	None	All ND or >5X
	Benzo(a)pyrene	0.74	3.7	None	All ND or >5X

Field, Equipment Blank - Field QC samples were not analyzed.

Field Duplicates - Field duplicate results are summarized below.

Compound	MR21-SS11-10A ug/kg	MR21-SS11D-10A ug/kg	RPD	Qualifier
Benzo(b)fluoranthene	67 U	14	NC	None

Compound	MR21-SS18-10A ug/kg	MR21-SS18D-10A ug/kg	RPD	Qualifier
Benzo(b)fluoranthene	11	68 U	NC	None

Compound	MR21-SS27-10A ug/kg	MR21-SS27D-10A ug/kg	RPD	Qualifier
Benzo(b)fluoranthene	35	21	50%	None
Benzo(a)pyrene	14	11	24%	None

Compound Quantitation - No discrepancies were identified.

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO. 1

MR21-SS24-10A

Lab Name: EMPIRICAL LABS Contract: CH2MHILL

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: CH2.B03066

Matrix: (soil/water) SOIL Lab Sample ID: 1003066-01

Sample wt/vol: 15.0 (g/mL) G Lab File ID: 0306601

% Moisture: 29 decanted: (Y/N) N Date Sampled: 03/03/10 09:00

Extraction: (SepF/Cont/Sonc/Soxh) SOXH Date Extracted:03/09/10

Concentrated Extract Volume: 500.0(uL) Date Analyzed: 03/29/10 23:59

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: NA

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	MDL	RL	CONC	Q
56-55-3-------	Benzo(a)anthracene	0.94	70		UQ
205-99-2------	Benzo(b)fluoranthene	0.94	70	53	JB
50-32-8-------	Benzo(a)pyrene	0.94	7.0	30	B
53-70-3-------	Dibenz(a,h)anthracene	0.94	7.0	UJ	~~UQ~~ CCH
193-39-5------	Indeno(1,2,3-cd)pyrene	0.94	70	UJ	~~UQ~~ CCH
78-59-1-------	Isophorone	0.94	70		UQ
621-64-7------	N-Nitroso-di-n-propylamine	0.94	100		U
87-86-5-------	Pentachlorophenol	0.94	23		UQ

FORM I SV

UW 7/26/10

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO. 2

MR21-SS31-10A

Lab Name: EMPIRICAL LABS Contract: CH2MHILL

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: CH2.B03066

Matrix: (soil/water) SOIL Lab Sample ID: 1003066-02

Sample wt/vol: 15.0 (g/mL) G Lab File ID: 0306602

% Moisture: 27 decanted: (Y/N) N Date Sampled: 03/03/10 08:50

Extraction: (SepF/Cont/Sonc/Soxh) SOXH Date Extracted: 03/09/10

Concentrated Extract Volume: 500.0(uL) Date Analyzed: 03/30/10 00:33

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: NA

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	MDL	RL	CONC	Q
56-55-3-------	Benzo(a)anthracene	0.91	68		U
205-99-2------	Benzo(b)fluoranthene	0.91	68	31	J
50-32-8-------	Benzo(a)pyrene	0.91	6.8	20	
53-70-3-------	Dibenz(a,h)anthracene	0.91	6.8	UJ	U CCH
193-39-5------	Indeno(1,2,3-cd)pyrene	0.91	68	UJ	U CCH
78-59-1-------	Isophorone	0.91	68		U
621-64-7------	N-Nitroso-di-n-propylamine	0.91	100		U
87-86-5-------	Pentachlorophenol	0.91	23		U

FORM I SV

MW 7/26/10

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO. 3

MR21-SS40-10A

Lab Name: EMPIRICAL LABS Contract: CH2MHILL

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: CH2.B03066

Matrix: (soil/water) SOIL Lab Sample ID: 1003066-03

Sample wt/vol: 15.0 (g/mL) G Lab File ID: 0306603

% Moisture: 33 decanted: (Y/N) N Date Sampled: 03/03/10 08:40

Extraction: (SepF/Cont/Sonc/Soxh) SOXH Date Extracted: 03/09/10

Concentrated Extract Volume: 500.0(uL) Date Analyzed: 03/30/10 01:06

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: NA

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	MDL	RL	CONC	Q
56-55-3	Benzo(a)anthracene	1.00	75		U~~Q~~
205-99-2	Benzo(b)fluoranthene	1.00	75	34	J~~B~~
50-32-8	Benzo(a)pyrene	1.00	7.5	23	~~B~~
53-70-3	Dibenz(a,h)anthracene	1.00	7.5	UJ	U~~Q~~ CCH
193-39-5	Indeno(1,2,3-cd)pyrene	1.00	75	UJ	U~~Q~~ CCH
78-59-1	Isophorone	1.00	75		UQ
621-64-7	N-Nitroso-di-n-propylamine	1.00	110		U
87-86-5	Pentachlorophenol	1.00	25		U~~Q~~

FORM I SV

MW 7/26/10

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO. 4

MR21-SS20-10A

Lab Name: EMPIRICAL LABS Contract: CH2MHILL

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: CH2.B03066

Matrix: (soil/water) SOIL Lab Sample ID: 1003066-04

Sample wt/vol: 15.0 (g/mL) G Lab File ID: 0306604

% Moisture: 16 decanted: (Y/N) N Date Sampled: 03/03/10 10:10

Extraction: (SepF/Cont/Sonc/Soxh) SOXH Date Extracted: 03/09/10

Concentrated Extract Volume: 500.0(uL) Date Analyzed: 03/30/10 01:40

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: NA

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	MDL	RL	CONC	Q
56-55-3-------	Benzo(a)anthracene	0.80	60		U~~Q~~
205-99-2------	Benzo(b)fluoranthene	0.80	60	18	J~~B~~
50-32-8-------	Benzo(a)pyrene	0.80	6.0	9.8	~~B~~
53-70-3-------	Dibenz(a,h)anthracene	0.80	6.0	UJ	~~UQ~~ CCH
193-39-5------	Indeno(1,2,3-cd)pyrene	0.80	60	UJ	~~UQ~~ CCH
78-59-1-------	Isophorone	0.80	60		U~~Q~~
621-64-7------	N-Nitroso-di-n-propylamine	0.80	89		U
87-86-5-------	Pentachlorophenol	0.80	20		U~~Q~~

FORM I SV

MW 7/26/10

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO. 5

MR21-SS19-10A

Lab Name: EMPIRICAL LABS Contract: CH2MHILL

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: CH2.B03066

Matrix: (soil/water) SOIL Lab Sample ID: 1003066-05

Sample wt/vol: 15.0 (g/mL) G Lab File ID: 0306605

% Moisture: 35 decanted: (Y/N) N Date Sampled: 03/03/10 09:45

Extraction: (SepF/Cont/Sonc/Soxh) SOXH Date Extracted:03/09/10

Concentrated Extract Volume: 500.0(uL) Date Analyzed: 03/30/10 03:38

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: NA

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	MDL	RL	CONC	Q
56-55-3	Benzo(a)anthracene	1.0	77		UQ
205-99-2	Benzo(b)fluoranthene	1.0	77		U
50-32-8	Benzo(a)pyrene	1.0	7.7		U
53-70-3	Dibenz(a,h)anthracene	1.0	7.7		U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	77		U
78-59-1	Isophorone	1.0	77		UQ
621-64-7	N-Nitroso-di-n-propylamine	1.0	120		UQ
87-86-5	Pentachlorophenol	1.0	26	UJ	~~UQ~~ CCH

FORM I SV

MW 7/26/10

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO. 6

MR21-SS30-10A

Lab Name: EMPIRICAL LABS Contract: CH2MHILL

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: CH2.B03066

Matrix: (soil/water) SOIL Lab Sample ID: 1003066-06

Sample wt/vol: 15.0 (g/mL) G Lab File ID: 0306606

% Moisture: 24 decanted: (Y/N) N Date Sampled: 03/04/10 08:30

Extraction: (SepF/Cont/Sonc/Soxh) SOXH Date Extracted: 03/09/10

Concentrated Extract Volume: 500.0(uL) Date Analyzed: 03/30/10 04:12

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: NA

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	MDL	RL	CONC	Q
56-55-3	Benzo(a)anthracene	0.88	66		U
205-99-2	Benzo(b)fluoranthene	0.88	66		U
50-32-8	Benzo(a)pyrene	0.88	6.6		U
53-70-3	Dibenz(a,h)anthracene	0.88	6.6		U
193-39-5	Indeno(1,2,3-cd)pyrene	0.88	66		U
78-59-1	Isophorone	0.88	66		U
621-64-7	N-Nitroso-di-n-propylamine	0.88	99		U
87-86-5	Pentachlorophenol	0.88	22	UJ	~~U~~ CCH

FORM I SV

hw 7/26/10

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO. 7

MR21-SS36-10A

Lab Name: EMPIRICAL LABS Contract: CH2MHILL

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: CH2.B03066

Matrix: (soil/water) SOIL Lab Sample ID: 1003066-07

Sample wt/vol: 15.0 (g/mL) G Lab File ID: 0306607

% Moisture: 23 decanted: (Y/N) N Date Sampled: 03/04/10 08:50

Extraction: (SepF/Cont/Sonc/Soxh) SOXH Date Extracted: 03/09/10

Concentrated Extract Volume: 500.0(uL) Date Analyzed: 03/30/10 04:46

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: NA

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	MDL	RL	CONC	Q
56-55-3	Benzo(a)anthracene	0.87	65		U
205-99-2	Benzo(b)fluoranthene	0.87	65		U
50-32-8	Benzo(a)pyrene	0.87	6.5		U
53-70-3	Dibenz(a,h)anthracene	0.87	6.5		U
193-39-5	Indeno(1,2,3-cd)pyrene	0.87	65		U
78-59-1	Isophorone	0.87	65		U
621-64-7	N-Nitroso-di-n-propylamine	0.87	98		U
87-86-5	Pentachlorophenol	0.87	22	UJ	~~U~~ CCH

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CLIENT SAMPLE NO. 8

MR21-SS37-10A

Lab Name: EMPIRICAL LABS Contract: CH2MHILL

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: CH2.B03066

Matrix: (soil/water) SOIL Lab Sample ID: 1003066-08

Sample wt/vol: 15.0 (g/mL) G Lab File ID: 0306608

% Moisture: 23 decanted: (Y/N) N Date Sampled: 03/04/10 09:00

Extraction: (SepF/Cont/Sonc/Soxh) SOXH Date Extracted: 03/09/10

Concentrated Extract Volume: 500.0(uL) Date Analyzed: 03/30/10 05:20

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: NA

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	MDL	RL	CONC	Q
56-55-3	Benzo(a)anthracene	0.87	65		U
205-99-2	Benzo(b)fluoranthene	0.87	65		U
50-32-8	Benzo(a)pyrene	0.87	6.5		U
53-70-3	Dibenz(a,h)anthracene	0.87	6.5		U
193-39-5	Indeno(1,2,3-cd)pyrene	0.87	65		U
78-59-1	Isophorone	0.87	65		U
621-64-7	N-Nitroso-di-n-propylamine	0.87	98		U
87-86-5	Pentachlorophenol	0.87	22	UJ	~~U~~ CCH

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CLIENT SAMPLE NO. 9

MR21-SS28-10A

Lab Name: EMPIRICAL LABS Contract: CH2MHILL

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: CH2.B03066

Matrix: (soil/water) SOIL Lab Sample ID: 1003066-09

Sample wt/vol: 15.0 (g/mL) G Lab File ID: 0306609

% Moisture: 14 decanted: (Y/N) N Date Sampled: 03/04/10 08:25

Extraction: (SepF/Cont/Sonc/Soxh) SOXH Date Extracted: 03/09/10

Concentrated Extract Volume: 500.0(uL) Date Analyzed: 03/29/10 17:47

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: NA

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	MDL	RL	CONC	Q
56-55-3-------	Benzo(a)anthracene	0.77	58		U~~J~~
205-99-2------	Benzo(b)fluoranthene	0.77	58		U
50-32-8-------	Benzo(a)pyrene	0.77	5.8	5.8	~~2.2~~ ~~UB~~ U M
53-70-3-------	Dibenz(a,h)anthracene	0.77	5.8		UJ ~~UQ~~ CCH
193-39-5------	Indeno(1,2,3-cd)pyrene	0.77	58		UJ ~~UQ~~ CCH
78-59-1-------	Isophorone	0.77	58		U~~J~~
621-64-7------	N-Nitroso-di-n-propylamine	0.77	87		U
87-86-5-------	Pentachlorophenol	0.77	19		U~~J~~

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CLIENT SAMPLE NO. 10

MR21-SS39-10A

Lab Name: EMPIRICAL LABS Contract: CH2MHILL

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: CH2.B03066

Matrix: (soil/water) SOIL Lab Sample ID: 1003066-10

Sample wt/vol: 15.0 (g/mL) G Lab File ID: 0306610

% Moisture: 21 decanted: (Y/N) N Date Sampled: 03/04/10 09:50

Extraction: (SepF/Cont/Sonc/Soxh) SOXH Date Extracted: 03/09/10

Concentrated Extract Volume: 500.0(uL) Date Analyzed: 03/30/10 05:54

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: NA

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	MDL	RL	CONC	Q
56-55-3	Benzo(a)anthracene	0.84	63		U
205-99-2	Benzo(b)fluoranthene	0.84	63		U
50-32-8	Benzo(a)pyrene	0.84	6.3		U
53-70-3	Dibenz(a,h)anthracene	0.84	6.3		U
193-39-5	Indeno(1,2,3-cd)pyrene	0.84	63		U
78-59-1	Isophorone	0.84	63		U
621-64-7	N-Nitroso-di-n-propylamine	0.84	94		U
87-86-5	Pentachlorophenol	0.84	21	UJ	~~U~~ CCH

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CLIENT SAMPLE NO. 11

MR21-SS38-10A

Lab Name: EMPIRICAL LABS Contract: CH2MHILL

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: CH2.B03066

Matrix: (soil/water) SOIL Lab Sample ID: 1003066-11

Sample wt/vol: 15.0 (g/mL) G Lab File ID: 0306611

% Moisture: 26 decanted: (Y/N) N Date Sampled: 03/04/10 10:00

Extraction: (SepF/Cont/Sonc/Soxh) SOXH Date Extracted: 03/09/10

Concentrated Extract Volume: 500.0(uL) Date Analyzed: 03/30/10 06:27

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: NA

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	MDL	RL	CONC	Q
56-55-3	Benzo(a)anthracene	0.90	68		U~~Q~~
205-99-2	Benzo(b)fluoranthene	0.90	68	22	J~~B~~
50-32-8	Benzo(a)pyrene	0.90	6.8		U
53-70-3	Dibenz(a,h)anthracene	0.90	6.8		U
193-39-5	Indeno(1,2,3-cd)pyrene	0.90	68		U
78-59-1	Isophorone	0.90	68		U~~Q~~
621-64-7	N-Nitroso-di-n-propylamine	0.90	100		U~~Q~~
87-86-5	Pentachlorophenol	0.90	22	UJ	~~U~~ CQ

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CLIENT SAMPLE NO. 12

MR21-SS25-10A

Lab Name: EMPIRICAL LABS Contract: CH2MHILL

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: CH2.B03066

Matrix: (soil/water) SOIL Lab Sample ID: 1003066-12

Sample wt/vol: 15.0 (g/mL) G Lab File ID: 0306612

% Moisture: 27 decanted: (Y/N) N Date Sampled: 03/04/10 08:15

Extraction: (SepF/Cont/Sonc/Soxh) SOXH Date Extracted: 03/09/10

Concentrated Extract Volume: 500.0(uL) Date Analyzed: 03/30/10 07:01

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: NA

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	MDL	RL	CONC	Q
56-55-3	Benzo(a)anthracene	0.92	69		U~~Q~~
205-99-2	Benzo(b)fluoranthene	0.92	69		U
50-32-8	Benzo(a)pyrene	0.92	6.9		U
53-70-3	Dibenz(a,h)anthracene	0.92	6.9		U
193-39-5	Indeno(1,2,3-cd)pyrene	0.92	69		U
78-59-1	Isophorone	0.92	69		U~~Q~~
621-64-7	N-Nitroso-di-n-propylamine	0.92	100		U~~Q~~
87-86-5	Pentachlorophenol	0.92	23		~~U~~ UJ CCH

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CLIENT SAMPLE NO. 13

MR21-SS26-10A

Lab Name: EMPIRICAL LABS Contract: CH2MHILL

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: CH2.B03066

Matrix: (soil/water) SOIL Lab Sample ID: 1003066-13

Sample wt/vol: 15.0 (g/mL) G Lab File ID: 0306613

% Moisture: 20 decanted: (Y/N) N Date Sampled: 03/03/10 12:50

Extraction: (SepF/Cont/Sonc/Soxh) SOXH Date Extracted: 03/09/10

Concentrated Extract Volume: 500.0(uL) Date Analyzed: 03/29/10 18:21

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: NA

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	MDL	RL	CONC	Q
56-55-3-------	Benzo(a)anthracene	0.83	62		U
205-99-2------	Benzo(b)fluoranthene	0.83	62		U
50-32-8-------	Benzo(a)pyrene	0.83	6.2	6.2	~~3.8 JB~~ u M
53-70-3-------	Dibenz(a,h)anthracene	0.83	6.2		UJ UQ CCH
193-39-5------	Indeno(1,2,3-cd)pyrene	0.83	62		UJ ~~UQ~~ CCH
78-59-1-------	Isophorone	0.83	62		U
621-64-7------	N-Nitroso-di-n-propylamine	0.83	94		U
87-86-5-------	Pentachlorophenol	0.83	21		U

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CLIENT SAMPLE NO. 14

MR21-SS12-10A

Lab Name: EMPIRICAL LABS Contract: CH2MHILL

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: CH2.B03066

Matrix: (soil/water) SOIL Lab Sample ID: 1003066-14

Sample wt/vol: 15.0 (g/mL) G Lab File ID: 0306614

% Moisture: 24 decanted: (Y/N) N Date Sampled: 03/03/10 12:00

Extraction: (SepF/Cont/Sonc/Soxh) SOXH Date Extracted: 03/09/10

Concentrated Extract Volume: 500.0(uL) Date Analyzed: 03/29/10 18:54

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: NA

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	MDL	RL	CONC	Q
56-55-3	Benzo(a)anthracene	0.88	66		U~~Q~~
205-99-2	Benzo(b)fluoranthene	0.88	66		U
50-32-8	Benzo(a)pyrene	0.88	6.6		U
53-70-3	Dibenz(a,h)anthracene	0.88	6.6	UJ	~~UQ~~ CCH
193-39-5	Indeno(1,2,3-cd)pyrene	0.88	66	UJ	~~UQ~~ CCH
78-59-1	Isophorone	0.88	66		U~~Q~~
621-64-7	N-Nitroso-di-n-propylamine	0.88	99		U
87-86-5	Pentachlorophenol	0.88	22		U~~Q~~

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CLIENT SAMPLE NO. 15

MR21-SS29-10A

Lab Name: EMPIRICAL LABS Contract: CH2MHILL

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: CH2.B03066

Matrix: (soil/water) SOIL Lab Sample ID: 1003066-15

Sample wt/vol: 15.0 (g/mL) G Lab File ID: 0306615

% Moisture: 31 decanted: (Y/N) N Date Sampled: 03/03/10 13:00

Extraction: (SepF/Cont/Sonc/Soxh) SOXH Date Extracted: 03/09/10

Concentrated Extract Volume: 500.0(uL) Date Analyzed: 03/30/10 07:35

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: NA

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	MDL	RL	CONC	Q
56-55-3	Benzo(a)anthracene	0.97	73		UQ
205-99-2	Benzo(b)fluoranthene	0.97	73	18	JB
50-32-8	Benzo(a)pyrene	0.97	7.3		U
53-70-3	Dibenz(a,h)anthracene	0.97	7.3		U
193-39-5	Indeno(1,2,3-cd)pyrene	0.97	73		U
78-59-1	Isophorone	0.97	73		UQ
621-64-7	N-Nitroso-di-n-propylamine	0.97	110		UQ
87-86-5	Pentachlorophenol	0.97	24	UJ	~~UQ~~ CCH

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CLIENT SAMPLE NO. 16

MR21-SS17-10A

Lab Name: EMPIRICAL LABS Contract: CH2MHILL

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: CH2.B03066

Matrix: (soil/water) SOIL Lab Sample ID: 1003066-16

Sample wt/vol: 15.0 (g/mL) G Lab File ID: 0306616

% Moisture: 22 decanted: (Y/N) N Date Sampled: 03/03/10 11:40

Extraction: (SepF/Cont/Sonc/Soxh) SOXH Date Extracted:03/09/10

Concentrated Extract Volume: 500.0(uL) Date Analyzed: 03/30/10 08:09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: NA

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	MDL	RL	CONC	Q
56-55-3	Benzo(a)anthracene	0.85	64		U
205-99-2	Benzo(b)fluoranthene	0.85	64		U
50-32-8	Benzo(a)pyrene	0.85	6.4		U
53-70-3	Dibenz(a,h)anthracene	0.85	6.4		U
193-39-5	Indeno(1,2,3-cd)pyrene	0.85	64		U
78-59-1	Isophorone	0.85	64		U
621-64-7	N-Nitroso-di-n-propylamine	0.85	96		U
87-86-5	Pentachlorophenol	0.85	21	UJ	~~UQ~~ CCH

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CLIENT SAMPLE NO. 17

MR21-SS11-10A

Lab Name: EMPIRICAL LABS Contract: CH2MHILL

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: CH2.B03066

Matrix: (soil/water) SOIL Lab Sample ID: 1003066-17

Sample wt/vol: 15.0 (g/mL) G Lab File ID: 0306617

% Moisture: 26 decanted: (Y/N) N Date Sampled: 03/03/10 12:10

Extraction: (SepF/Cont/Sonc/Soxh) SOXH Date Extracted: 03/09/10

Concentrated Extract Volume: 500.0(uL) Date Analyzed: 03/30/10 08:43

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: NA

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	MDL	RL	CONC	Q
56-55-3	Benzo(a)anthracene	0.90	67		UQ
205-99-2	Benzo(b)fluoranthene	0.90	67		U
50-32-8	Benzo(a)pyrene	0.90	6.7		U
53-70-3	Dibenz(a,h)anthracene	0.90	6.7		U
193-39-5	Indeno(1,2,3-cd)pyrene	0.90	67		U
78-59-1	Isophorone	0.90	67		UQ
621-64-7	N-Nitroso-di-n-propylamine	0.90	100		UQ
87-86-5	Pentachlorophenol	0.90	22	UJ	~~UQ~~ CCH

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CLIENT SAMPLE NO. 18

MR21-SS11D-10A

Lab Name: EMPIRICAL LABS Contract: CH2MHILL

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: CH2.B03066

Matrix: (soil/water) SOIL Lab Sample ID: 1003066-18

Sample wt/vol: 15.0 (g/mL) G Lab File ID: 0306618

% Moisture: 27 decanted: (Y/N) N Date Sampled: 03/03/10 12:15

Extraction: (SepF/Cont/Sonc/Soxh) SOXH Date Extracted:03/09/10

Concentrated Extract Volume: 500.0(uL) Date Analyzed: 03/30/10 09:17

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: NA

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	MDL	RL	CONC	Q
56-55-3	Benzo(a)anthracene	0.91	68		UQ
205-99-2	Benzo(b)fluoranthene	0.91	68	14	J~~U~~
50-32-8	Benzo(a)pyrene	0.91	6.8		U
53-70-3	Dibenz(a,h)anthracene	0.91	6.8		U
193-39-5	Indeno(1,2,3-cd)pyrene	0.91	68		U
78-59-1	Isophorone	0.91	68		UQ
621-64-7	N-Nitroso-di-n-propylamine	0.91	100		UQ
87-86-5	Pentachlorophenol	0.91	23	UJ	~~UQ~~ CQ

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CLIENT SAMPLE NO. 19

MR21-SS16-10A

Lab Name: EMPIRICAL LABS Contract: CH2MHILL

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: CH2.B03066

Matrix: (soil/water) SOIL Lab Sample ID: 1003066-19

Sample wt/vol: 15.0 (g/mL) G Lab File ID: 0306619

% Moisture: 13 decanted: (Y/N) N Date Sampled: 03/03/10 11:50

Extraction: (SepF/Cont/Sonc/Soxh) SOXH Date Extracted:03/10/10

Concentrated Extract Volume: 500.0(uL) Date Analyzed: 03/29/10 20:02

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: NA

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	MDL	RL	CONC	Q
56-55-3	Benzo(a)anthracene	0.77	57		U~~Q~~
205-99-2	Benzo(b)fluoranthene	0.77	57		U
50-32-8	Benzo(a)pyrene	0.77	5.7		U
53-70-3	Dibenz(a,h)anthracene	0.77	5.7	UJ	~~UQ~~ CCH
193-39-5	Indeno(1,2,3-cd)pyrene	0.77	57	UJ	~~UQ~~ CCH
78-59-1	Isophorone	0.77	57		U~~Q~~
621-64-7	N-Nitroso-di-n-propylamine	0.77	86		U
87-86-5	Pentachlorophenol	0.77	19		U~~Q~~

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CLIENT SAMPLE NO. 20

MR21-SS14-10A

Lab Name: EMPIRICAL LABS Contract: CH2MHILL

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: CH2.B03066

Matrix: (soil/water) SOIL Lab Sample ID: 1003066-20

Sample wt/vol: 15.0 (g/mL) G Lab File ID: 0306620

% Moisture: 22 decanted: (Y/N) N Date Sampled: 03/03/10 11:30

Extraction: (SepF/Cont/Sonc/Soxh) SOXH Date Extracted:03/09/10

Concentrated Extract Volume: 500.0(uL) Date Analyzed: 03/30/10 09:51

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: NA

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	MDL	RL	CONC	Q
56-55-3	Benzo(a)anthracene	0.86	64		U
205-99-2	Benzo(b)fluoranthene	0.86	64		U
50-32-8	Benzo(a)pyrene	0.86	6.4		U
53-70-3	Dibenz(a,h)anthracene	0.86	6.4		U
193-39-5	Indeno(1,2,3-cd)pyrene	0.86	64		U
78-59-1	Isophorone	0.86	64		U
621-64-7	N-Nitroso-di-n-propylamine	0.86	96		U
87-86-5	Pentachlorophenol	0.86	21	UJ	~~U~~ CCH

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CLIENT SAMPLE NO. 21

MR21-SS23-10A

Lab Name: EMPIRICAL LABS Contract: CH2MHILL

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: CH2.B03066

Matrix: (soil/water) SOIL Lab Sample ID: 1003066-21

Sample wt/vol: 15.0 (g/mL) G Lab File ID: 0306621

% Moisture: 13 decanted: (Y/N) N Date Sampled: 03/03/10 12:30

Extraction: (SepF/Cont/Sonc/Soxh) SOXH Date Extracted:03/09/10

Concentrated Extract Volume: 500.0(uL) Date Analyzed: 03/29/10 19:28

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: NA

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	MDL	RL	CONC	Q
56-55-3	Benzo(a)anthracene	0.77	58		U
205-99-2	Benzo(b)fluoranthene	0.77	58		U
50-32-8	Benzo(a)pyrene	0.77	5.8		U
53-70-3	Dibenz(a,h)anthracene	0.77	5.8	UJ	~~UQ~~ CCH
193-39-5	Indeno(1,2,3-cd)pyrene	0.77	58	UJ	~~UQ~~ CCH
78-59-1	Isophorone	0.77	58		UQ
621-64-7	N-Nitroso-di-n-propylamine	0.77	87		U
87-86-5	Pentachlorophenol	0.77	19		UQ

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CLIENT SAMPLE NO. 22

MR21-SS18D-10A

Lab Name: EMPIRICAL LABS Contract: CH2MHILL

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: CH2.B03066

Matrix: (soil/water) SOIL Lab Sample ID: 1003066-22

Sample wt/vol: 15.0 (g/mL) G Lab File ID: 0306622

% Moisture: 27 decanted: (Y/N) N Date Sampled: 03/03/10 11:25

Extraction: (SepF/Cont/Sonc/Soxh) SOXH Date Extracted: 03/10/10

Concentrated Extract Volume: 500.0(uL) Date Analyzed: 03/30/10 10:25

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: NA

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	MDL	RL	CONC	Q
56-55-3	Benzo(a)anthracene	0.91	68		U
205-99-2	Benzo(b)fluoranthene	0.91	68		U
50-32-8	Benzo(a)pyrene	0.91	6.8		U
53-70-3	Dibenz(a,h)anthracene	0.91	6.8		U
193-39-5	Indeno(1,2,3-cd)pyrene	0.91	68		U
78-59-1	Isophorone	0.91	68		U
621-64-7	N-Nitroso-di-n-propylamine	0.91	100		U
87-86-5	Pentachlorophenol	0.91	23	UJ	~~U~~ CCH

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FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO. 23

MR21-SS18-10A

Lab Name: EMPIRICAL LABS Contract: CH2MHILL

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: CH2.B03066

Matrix: (soil/water) SOIL Lab Sample ID: 1003066-23

Sample wt/vol: 15.0 (g/mL) G Lab File ID: 0306623

% Moisture: 26 decanted: (Y/N) N Date Sampled: 03/03/10 11:20

Extraction: (SepF/Cont/Sonc/Soxh) SOXH Date Extracted: 03/10/10

Concentrated Extract Volume: 500.0(uL) Date Analyzed: 03/30/10 10:59

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: NA

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	MDL	RL	CONC	Q
56-55-3	Benzo(a)anthracene	0.90	68		U~~Q~~
205-99-2	Benzo(b)fluoranthene	0.90	68	11	J~~#~~
50-32-8	Benzo(a)pyrene	0.90	6.8		U
53-70-3	Dibenz(a,h)anthracene	0.90	6.8		U
193-39-5	Indeno(1,2,3-cd)pyrene	0.90	68		U
78-59-1	Isophorone	0.90	68		U~~Q~~
621-64-7	N-Nitroso-di-n-propylamine	0.90	100		U~~Q~~
87-86-5	Pentachlorophenol	0.90	23	UJ	~~UQ~~ CCH

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FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO. 24

MR21-SS15-10A

Lab Name: EMPIRICAL LABS Contract: CH2MHILL

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: CH2.B03066

Matrix: (soil/water) SOIL Lab Sample ID: 1003066-24

Sample wt/vol: 15.0 (g/mL) G Lab File ID: 0306624

% Moisture: 25 decanted: (Y/N) N Date Sampled: 03/03/10 12:25

Extraction: (SepF/Cont/Sonc/Soxh) SOXH Date Extracted: 03/10/10

Concentrated Extract Volume: 500.0(uL) Date Analyzed: 03/29/10 20:36

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: NA

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	MDL	RL	CONC	Q
56-55-3	Benzo(a)anthracene	0.88	66		U
205-99-2	Benzo(b)fluoranthene	0.88	66		U
50-32-8	Benzo(a)pyrene	0.88	6.6		U
53-70-3	Dibenz(a,h)anthracene	0.88	6.6	UJ	~~U~~ CCH
193-39-5	Indeno(1,2,3-cd)pyrene	0.88	66	UJ	~~U~~ CCH
78-59-1	Isophorone	0.88	66		U
621-64-7	N-Nitroso-di-n-propylamine	0.88	99		U
87-86-5	Pentachlorophenol	0.88	22		U

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CLIENT SAMPLE NO. 25

MR21-SS22-10A

Lab Name: EMPIRICAL LABS Contract: CH2MHILL

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: CH2.B03066

Matrix: (soil/water) SOIL Lab Sample ID: 1003066-25

Sample wt/vol: 15.0 (g/mL) G Lab File ID: 0306625

% Moisture: 15 decanted: (Y/N) N Date Sampled: 03/03/10 09:25

Extraction: (SepF/Cont/Sonc/Soxh) SOXH Date Extracted: 03/10/10

Concentrated Extract Volume: 500.0(uL) Date Analyzed: 03/29/10 21:10

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: NA

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	MDL	RL	CONC	Q
56-55-3	Benzo(a)anthracene	0.78	59		UQ
205-99-2	Benzo(b)fluoranthene	0.78	59		U
50-32-8	Benzo(a)pyrene	0.78	5.9		U
53-70-3	Dibenz(a,h)anthracene	0.78	5.9	UJ	~~UQ~~ CCH
193-39-5	Indeno(1,2,3-cd)pyrene	0.78	59	UJ	~~UQ~~ CCH
78-59-1	Isophorone	0.78	59		UQ
621-64-7	N-Nitroso-di-n-propylamine	0.78	88		U
87-86-5	Pentachlorophenol	0.78	20		UQ

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CLIENT SAMPLE NO. 26

MR21-SS13-10A

Lab Name: EMPIRICAL LABS Contract: CH2MHILL

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: CH2.B03066

Matrix: (soil/water) SOIL Lab Sample ID: 1003066-26

Sample wt/vol: 15.0 (g/mL) G Lab File ID: 0306626

% Moisture: 31 decanted: (Y/N) N Date Sampled: 03/03/10 10:00

Extraction: (SepF/Cont/Sonc/Soxh) SOXH Date Extracted: 03/10/10

Concentrated Extract Volume: 500.0(uL) Date Analyzed: 03/29/10 21:43

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: NA

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	MDL	RL	CONC	Q
56-55-3	Benzo(a)anthracene	0.96	72		UQ
205-99-2	Benzo(b)fluoranthene	0.96	72		U
50-32-8	Benzo(a)pyrene	0.96	7.2		U
53-70-3	Dibenz(a,h)anthracene	0.96	7.2	UJ	~~UQ~~ CCH
193-39-5	Indeno(1,2,3-cd)pyrene	0.96	72	UJ	~~UQ~~ CCH
78-59-1	Isophorone	0.96	72		UQ
621-64-7	N-Nitroso-di-n-propylamine	0.96	110		U
87-86-5	Pentachlorophenol	0.96	24		UQ

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO. 27

MR21-SS21-10A

Lab Name: EMPIRICAL LABS Contract: CH2MHILL

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: CH2.B03066

Matrix: (soil/water) SOIL Lab Sample ID: 1003066-27

Sample wt/vol: 15.0 (g/mL) G Lab File ID: 0306627

% Moisture: 20 decanted: (Y/N) N Date Sampled: 03/03/10 09:35

Extraction: (SepF/Cont/Sonc/Soxh) SOXH Date Extracted: 03/10/10

Concentrated Extract Volume: 500.0(uL) Date Analyzed: 03/30/10 11:33

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: NA

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	MDL	RL	CONC	Q
56-55-3	Benzo(a)anthracene	0.84	63		U
205-99-2	Benzo(b)fluoranthene	0.84	63		U
50-32-8	Benzo(a)pyrene	0.84	6.3		U
53-70-3	Dibenz(a,h)anthracene	0.84	6.3		U
193-39-5	Indeno(1,2,3-cd)pyrene	0.84	63		U
78-59-1	Isophorone	0.84	63		U
621-64-7	N-Nitroso-di-n-propylamine	0.84	94		U
87-86-5	Pentachlorophenol	0.84	21	uJ	~~U~~ CCH

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FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO. 28

MR21-SS27-10A

Lab Name: EMPIRICAL LABS Contract: CH2MHILL

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: CH2.B03066

Matrix: (soil/water) SOIL Lab Sample ID: 1003066-28

Sample wt/vol: 15.0 (g/mL) G Lab File ID: 0306628

% Moisture: 21 decanted: (Y/N) N Date Sampled: 03/03/10 09:10

Extraction: (SepF/Cont/Sonc/Soxh) SOXH Date Extracted: 03/10/10

Concentrated Extract Volume: 500.0(uL) Date Analyzed: 03/29/10 22:17

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: NA

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	MDL	RL	CONC	Q
56-55-3-------	Benzo(a)anthracene	0.84	63		U
205-99-2------	Benzo(b)fluoranthene	0.84	63	35	J
50-32-8-------	Benzo(a)pyrene	0.84	6.3	14	
53-70-3-------	Dibenz(a,h)anthracene	0.84	6.3	UJ	~~UQ~~ CCH
193-39-5------	Indeno(1,2,3-cd)pyrene	0.84	63	UJ	~~UQ~~ CCH
78-59-1-------	Isophorone	0.84	63		U
621-64-7------	N-Nitroso-di-n-propylamine	0.84	95		U
87-86-5-------	Pentachlorophenol	0.84	21		U

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FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO. 29

MR21-SS27D-10A

Lab Name: EMPIRICAL LABS Contract: CH2MHILL

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: CH2.B03066

Matrix: (soil/water) SOIL Lab Sample ID: 1003066-29

Sample wt/vol: 15.0 (g/mL) G Lab File ID: 0306629

% Moisture: 20 decanted: (Y/N) N Date Sampled: 03/03/10 09:15

Extraction: (SepF/Cont/Sonc/Soxh) SOXH Date Extracted: 03/10/10

Concentrated Extract Volume: 500.0(uL) Date Analyzed: 03/29/10 22:51

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: NA

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	MDL	RL	CONC	Q
56-55-3	Benzo(a)anthracene	0.83	62		U~~Q~~
205-99-2	Benzo(b)fluoranthene	0.83	62	21	J~~B~~
50-32-8	Benzo(a)pyrene	0.83	6.2	11	~~J~~
53-70-3	Dibenz(a,h)anthracene	0.83	6.2	UJ	~~UQ~~ CCH
193-39-5	Indeno(1,2,3-cd)pyrene	0.83	62	UJ	~~UQ~~ CCH
78-59-1	Isophorone	0.83	62		U
621-64-7	N-Nitroso-di-n-propylamine	0.83	93		U
87-86-5	Pentachlorophenol	0.83	21		U~~Q~~

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FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO. 30

MR21-SS34-10A

Lab Name: EMPIRICAL LABS Contract: CH2MHILL

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: CH2.B03066

Matrix: (soil/water) SOIL Lab Sample ID: 1003066-30

Sample wt/vol: 15.0 (g/mL) G Lab File ID: 0306630

% Moisture: 48 decanted: (Y/N) N Date Sampled: 03/04/10 09:30

Extraction: (SepF/Cont/Sonc/Soxh) SOXH Date Extracted: 03/10/10

Concentrated Extract Volume: 500.0(uL) Date Analyzed: 03/30/10 12:07

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: NA

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	MDL	RL	CONC	Q
56-55-3	Benzo(a)anthracene	1.3	97	UJ	~~UQJ~~ MSL
205-99-2	Benzo(b)fluoranthene	1.3	97	13	~~JB~~
50-32-8	Benzo(a)pyrene	1.3	9.7	UJ	~~UQ~~ MSL
53-70-3	Dibenz(a,h)anthracene	1.3	9.7		UJ
193-39-5	Indeno(1,2,3-cd)pyrene	1.3	97		UJ
78-59-1	Isophorone	1.3	97		UQ
621-64-7	N-Nitroso-di-n-propylamine	1.3	140		UQ
87-86-5	Pentachlorophenol	1.3	32	UJ	~~UQ~~ CCH

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FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO. 31

MR21-SS35-10A

Lab Name: EMPIRICAL LABS Contract: CH2MHILL

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: CH2.B03066

Matrix: (soil/water) SOIL Lab Sample ID: 1003066-31

Sample wt/vol: 15.0 (g/mL) G Lab File ID: 0306631

% Moisture: 34 decanted: (Y/N) N Date Sampled: 03/04/10 09:10

Extraction: (SepF/Cont/Sonc/Soxh) SOXH Date Extracted: 03/10/10

Concentrated Extract Volume: 500.0(uL) Date Analyzed: 03/30/10 12:41

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: NA

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	MDL	RL	CONC	Q
56-55-3	Benzo(a)anthracene	1.0	76		U
205-99-2	Benzo(b)fluoranthene	1.0	76	12	J
50-32-8	Benzo(a)pyrene	1.0	7.6		U
53-70-3	Dibenz(a,h)anthracene	1.0	7.6		U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	76		U
78-59-1	Isophorone	1.0	76		U
621-64-7	N-Nitroso-di-n-propylamine	1.0	110		U
87-86-5	Pentachlorophenol	1.0	25	UJ	~~UQ~~ CQ

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FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO. 32

MR21-SS32-10A

Lab Name: EMPIRICAL LABS Contract: CH2MHILL

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: CH2.B03066

Matrix: (soil/water) SOIL Lab Sample ID: 1003066-32

Sample wt/vol: 15.0 (g/mL) G Lab File ID: 0306632

% Moisture: 17 decanted: (Y/N) N Date Sampled: 03/04/10 08:40

Extraction: (SepF/Cont/Sonc/Soxh) SOXH Date Extracted: 03/10/10

Concentrated Extract Volume: 500.0(uL) Date Analyzed: 03/29/10 23:25

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: NA

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	MDL	RL	CONC	Q
56-55-3	Benzo(a)anthracene	0.80	60		UQ
205-99-2	Benzo(b)fluoranthene	0.80	60		U
50-32-8	Benzo(a)pyrene	0.80	6.0	4.5	J
53-70-3	Dibenz(a,h)anthracene	0.80	6.0	UJ	~~UQ~~ CCH
193-39-5	Indeno(1,2,3-cd)pyrene	0.80	60	UJ	~~UQ~~ CCH
78-59-1	Isophorone	0.80	60		UQ
621-64-7	N-Nitroso-di-n-propylamine	0.80	90		U
87-86-5	Pentachlorophenol	0.80	20		UQ

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FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO. 33

MR21-SS33-10A

Lab Name: EMPIRICAL LABS Contract: CH2MHILL

Lab Code: NA Case No.: NA SAS No.: NA SDG No.: CH2.B03066

Matrix: (soil/water) SOIL Lab Sample ID: 1003066-36

Sample wt/vol: 15.0 (g/mL) G Lab File ID: 0306636

% Moisture: 23 decanted: (Y/N) N Date Sampled: 03/04/10 09:20

Extraction: (SepF/Cont/Sonc/Soxh) SOXH Date Extracted: 03/10/10

Concentrated Extract Volume: 500.0(uL) Date Analyzed: 03/30/10 13:15

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: NA

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	MDL	RL	CONC	Q
56-55-3	Benzo(a)anthracene	0.87	65		U
205-99-2	Benzo(b)fluoranthene	0.87	65	14	J
50-32-8	Benzo(a)pyrene	0.87	6.5		U
53-70-3	Dibenz(a,h)anthracene	0.87	6.5		U
193-39-5	Indeno(1,2,3-cd)pyrene	0.87	65		U
78-59-1	Isophorone	0.87	65		U
621-64-7	N-Nitroso-di-n-propylamine	0.87	98		U
87-86-5	Pentachlorophenol	0.87	22	UJ	~~UQ~~ CH

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ENVIRONMENTAL
Data Services, Inc.

PERCHLORATE

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Area Gas Chamber, CTO-040 SDG #: 1003066

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: July 26, 2010

Laboratory: Empirical Laboratories, Nashville, Tennessee Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR21-SS24-10A	1003066-01	Soil
1MS	MR21-SS24-10AMS	1003066-01MS	Soil
1MSD	MR21-SS24-10AMSD	1003066-01MSD	Soil
2	MR21-SS31-10A	1003066-02	Soil
3	MR21-SS40-10A	1003066-03	Soil
4	MR21-SS20-10A	1003066-04	Soil
5	MR21-SS19-10A	1003066-05	Soil
6	MR21-SS30-10A	1003066-06	Soil
7	MR21-SS36-10A	1003066-07	Soil
8	MR21-SS37-10A	1003066-08	Soil
9	MR21-SS28-10A	1003066-09	Soil
10	MR21-SS39-10A	1003066-10	Soil
11	MR21-SS38-10A	1003066-11	Soil
12	MR21-SS25-10A	1003066-12	Soil
13	MR21-SS26-10A	1003066-13	Soil
14	MR21-SS12-10A	1003066-14	Soil
15	MR21-SS29-10A	1003066-15	Soil
16	MR21-SS17-10A	1003066-16	Soil
17	MR21-SS11-10A	1003066-17	Soil
18	MR21-SS11D-10A	1003066-18	Soil
19	MR21-SS16-10A	1003066-19	Soil
20	MR21-SS14-10A	1003066-20	Soil
21	MR21-SS23-10A	1003066-21	Soil
21MS	MR21-SS23-10AMS	1003066-21MS	Soil
21MSD	MR21-SS23-10AMSD	1003066-21MSD	Soil
22	MR21-SS18D-10A	1003066-22	Soil
23	MR21-SS18-10A	1003066-23	Soil
24	MR21-SS15-10A	1003066-24	Soil
25	MR21-SS22-10A	1003066-25	Soil
26	MR21-SS13-10A	1003066-26	Soil
27	MR21-SS21-10A	1003066-27	Soil
28	MR21-SS27-10A	1003066-28	Soil
29	MR21-SS27D-10A	1003066-29	Soil
30	MR21-SS34-10A	1003066-30	Soil
30MS	MR21-SS34-10AMS	1003066-30MS	Soil

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
30MSD	MR21-SS34-10AMSD	1003066-30MSD	Soil
31	MR21-SS35-10A	1003066-31	Soil
32	MR21-SS32-10A	1003066-32	Soil
33	MR21-FB-030410	1003066-33	Water
33MS	MR21-FB-030410MS	1003066-33MS	Water
33MSD	MR21-FB-030410MSD	1003066-33MSD	Water
35	MR21-EB-030310	1003066-34	Water
35	MR21-EB-030410	1003066-35	Water
36	MR21-SS33-10A	1003066-36	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.

Calibration - The ICV and CCV %R values were acceptable.

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/L	Qualifier	Affected Samples
MR21-EB-030310	None - ND	-	-	-	-
MR21-EB-030410	None - ND	-	-	-	-
MR21-FB-030410	None - ND	-	-	-	-

Matrix Spike/Duplicate - The matrix spike/duplicate sample exhibited acceptable %R and RPD values.

MS/MSD Sample ID	Compound	MS/MSD %R/RPD	Qualifier	Affected Samples
21	Perchlorate	Ok/Ok/31	None	None for RPD Alone
30	Perchlorate	125%/128%/20	None	All ND

LCS - The LCS samples exhibited acceptable %R values.

Field Duplicates - Field duplicate results are summarized below.

Compound	MR21-SS11-10A ug/kg	MR21-SS11D-10A ug/kg	RPD	Qualifier
None	ND	ND	-	-

Compound	MR21-SS18-10A ug/kg	MR21-SS18D-10A ug/kg	RPD	Qualifier
None	ND	ND	-	-

Compound	MR21-SS27-10A ug/kg	MR21-SS27D-10A ug/kg	RPD	Qualifier
None	ND	ND	-	-

Compound Quantitation - No discrepancies were identified.

ANALYSIS DATA SHEET

MR21-SS24-10A

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/03/10 09:00
% Solids: 71.27

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-01
Received: 03/05/10 08:30

CAS NO.	Analyte	Concentration (ug/Kg dry)	MDL	RL	Dilution Factor	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.842	2.81	1	U	SW6850	0C10014	03/10/10 19:47

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ANALYSIS DATA SHEET

MR21-SS31-10A

2

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/03/10 08:50
% Solids: 73.17

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-02
Received: 03/05/10 08:30

CAS NO.	Analyte	Concentration (ug/Kg dry)	MDL	RL	Dilution Factor	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.820	2.73	1	U	SW6850	0C10014	03/10/10 20:40

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ANALYSIS DATA SHEET

MR21-SS40-10A 3

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/03/10 08:40
% Solids: 66.98

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-03
Received: 03/05/10 08:30

CAS NO.	Analyte	Concentration (ug/Kg dry)	MDL	RL	Dilution Factor	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.896	2.99	1	U	SW6850	0C10014	03/10/10 20:58

MW 7/26/10

ANALYSIS DATA SHEET

MR21-SS20-10A

4

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/03/10 10:10
% Solids: 83.77

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-04
Received: 03/05/10 08:30

CAS NO.	Analyte	Concentration (ug/Kg dry)	MDL	RL	Dilution Factor	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.716	2.39	1	U	SW6850	0C10014	03/10/10 21:16

KW 7/26/10

ANALYSIS DATA SHEET

MR21-SS19-10A

5

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/03/10 09:45
% Solids: 64.91

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-05
Received: 03/05/10 08:30

CAS NO.	Analyte	Concentration (ug/Kg dry)	MDL	RL	Dilution Factor	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.924	3.08	1	U	SW6850	0C10014	03/10/10 21:34

Rw 7/26/10

ANALYSIS DATA SHEET

MR21-SS30-10A

6

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/04/10 08:30
% Solids: 75.62

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-06
Received: 03/05/10 08:30

CAS NO.	Analyte	Concentration (ug/Kg dry)	MDL	RL	Dilution Factor	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.793	2.64	1	U	SW6850	0C10014	03/10/10 21:52

MW 7/26/10

ANALYSIS DATA SHEET

MR21-SS36-10A

7

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/04/10 08:50
% Solids: 76.62

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-07
Received: 03/05/10 08:30

CAS NO.	Analyte	Concentration (ug/Kg dry)	MDL	RL	Dilution Factor	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.783	2.61	1	U	SW6850	0C10014	03/10/10 22:10

hw 7/26/10

ANALYSIS DATA SHEET

MR21-SS37-10A

8

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/04/10 09:00
% Solids: 76.95

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-08
Received: 03/05/10 08:30

CAS NO.	Analyte	Concentration (ug/Kg dry)	MDL	RL	Dilution Factor	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.780	2.60	1	U	SW6850	0C10014	03/10/10 22:27

JLW 7/26/10

ANALYSIS DATA SHEET

MR21-SS28-10A

9

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/04/10 08:25
% Solids: 86.10

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-09
Received: 03/05/10 08:30

CAS NO.	Analyte	Concentration (ug/Kg dry)	MDL	RL	Dilution Factor	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.697	2.32	1	U	SW6850	0C10014	03/10/10 22:45

NW 7/26/10

ANALYSIS DATA SHEET

MR21-SS39-10A 10

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/04/10 09:50
% Solids: 79.34

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-10
Received: 03/05/10 08:30

CAS NO.	Analyte	Concentration (ug/Kg dry)	MDL	RL	Dilution Factor	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.756	2.52	1	U	SW6850	0C10014	03/10/10 23:03

MW 7/26/10

ANALYSIS DATA SHEET

MR21-SS38-10A

11

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/04/10 10:00
% Solids: 74.03

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-11
Received: 03/05/10 08:30

CAS NO.	Analyte	Concentration (ug/Kg dry)	MDL	RL	Dilution Factor	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.810	2.70	1	U	SW6850	0C10014	03/11/10 00:14

mw 7/26/10

ANALYSIS DATA SHEET

MR21-SS25-10A

12

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/04/10 08:15
% Solids: 72.66

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-12
Received: 03/05/10 08:30

CAS NO.	Analyte	Concentration (ug/Kg dry)	MDL	RL	Dilution Factor	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.826	2.75	1	U	SW6850	0C10014	03/11/10 00:32

MW 7/26/10

ANALYSIS DATA SHEET

MR21-SS26-10A

13

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/03/10 12:50
% Solids: 80.10

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-13
Received: 03/05/10 08:30

CAS NO.	Analyte	Concentration (ug/Kg dry)	MDL	RL	Dilution Factor	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.749	2.50	1	U	SW6850	0C10014	03/11/10 00:50

nw 7/26/10

ANALYSIS DATA SHEET

MR21-SS12-10A

14

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/03/10 12:00
% Solids: 75.76

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-14
Received: 03/05/10 08:30

CAS NO.	Analyte	Concentration (ug/Kg dry)	MDL	RL	Dilution Factor	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.792	2.64	1	U	SW6850	0C10014	03/11/10 01:08

LW 7/26/10

ANALYSIS DATA SHEET

MR21-SS29-10A

15

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/03/10 13:00
% Solids: 68.76

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-15
Received: 03/05/10 08:30

CAS NO.	Analyte	Concentration (ug/Kg dry)	MDL	RL	Dilution Factor	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.873	2.91	1	U	SW6850	0C10014	03/11/10 01:26

dw 7/26/10

ANALYSIS DATA SHEET

MR21-SS17-10A

16

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/03/10 11:40
% Solids: 78.36

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-16
Received: 03/05/10 08:30

CAS NO.	Analyte	Concentration (ug/Kg dry)	MDL	RL	Dilution Factor	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.766	2.55	1	U	SW6850	0C10014	03/11/10 01:43

Rev 7/26/10

ANALYSIS DATA SHEET

MR21-SS11-10A

17

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/03/10 12:10
% Solids: 74.12

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-17
Received: 03/05/10 08:30

CAS NO.	Analyte	Concentration (ug/Kg dry)	MDL	RL	Dilution Factor	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.809	2.70	1	U	SW6850	0C10014	03/11/10 02:01

RW 7/26/10

ANALYSIS DATA SHEET

MR21-SS11D-10A

18

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/03/10 12:15
% Solids: 73.05

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-18
Received: 03/05/10 08:30

CAS NO.	Analyte	Concentration (ug/Kg dry)	MDL	RL	Dilution Factor	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.821	2.74	1	U	SW6850	0C10014	03/11/10 02:19

nw 7/26/10

ANALYSIS DATA SHEET

MR21-SS16-10A

19

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/03/10 11:50
% Solids: 86.97

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-19
Received: 03/05/10 08:30

CAS NO.	Analyte	Concentration (ug/Kg dry)	MDL	RL	Dilution Factor	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.690	2.30	1	U	SW6850	0C16019	03/18/10 16:53

new 7/26/10

ANALYSIS DATA SHEET

MR21-SS14-10A

20

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/03/10 11:30
% Solids: 77.67

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-20
Received: 03/05/10 08:30

CAS NO.	Analyte	Concentration (ug/Kg dry)	MDL	RL	Dilution Factor	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.773	2.58	1	U	SW6850	0C16019	03/18/10 17:29

KW 7/26/10

ANALYSIS DATA SHEET

MR21-SS23-10A 21

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/03/10 12:30
% Solids: 86.63

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-21
Received: 03/05/10 08:30

CAS NO.	Analyte	Concentration (ug/Kg dry)	MDL	RL	Dilution Factor	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.693	2.31	1	U	SW6850	0C16019	03/18/10 18:04

J.H. 4.5.10

NW 7/26/10

ANALYSIS DATA SHEET

MR21-SS18D-10A

22

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/03/10 11:25
% Solids: 73.05

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-22
Received: 03/05/10 08:30

CAS NO.	Analyte	Concentration (ug/Kg dry)	MDL	RL	Dilution Factor	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.821	2.74	1	U	SW6850	0C16019	03/18/10 19:51

Rev 7/26/10

ANALYSIS DATA SHEET

MR21-SS18-10A

23

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/03/10 11:20
% Solids: 73.63

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-23
Received: 03/05/10 08:30

CAS NO.	Analyte	Concentration (ug/Kg dry)	MDL	RL	Dilution Factor	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.815	2.72	1	U	SW6850	0C16019	03/18/10 20:27

MW 7/26/10

ANALYSIS DATA SHEET

MR21-SS15-10A

24

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/03/10 12:25
% Solids: 75.42

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-24
Received: 03/05/10 08:30

CAS NO.	Analyte	Concentration (ug/Kg dry)	MDL	RL	Dilution Factor	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.796	2.65	1	U	SW6850	0C16019	03/18/10 21:03

LW 7/26/10

ANALYSIS DATA SHEET

MR21-SS22-10A

25

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/03/10 09:25
% Solids: 85.30

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-25
Received: 03/05/10 08:30

CAS NO.	Analyte	Concentration (ug/Kg dry)	MDL	RL	Dilution Factor	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.703	2.34	1	U	SW6850	0C16019	03/18/10 21:39

lw 7/26/10

ANALYSIS DATA SHEET

MR21-SS13-10A

26

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/03/10 10:00
% Solids: 69.29

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-26
Received: 03/05/10 08:30

CAS NO.	Analyte	Concentration (ug/Kg dry)	MDL	RL	Dilution Factor	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.866	2.89	1	U	SW6850	0C16019	03/18/10 22:14

MW 7/26/10

ANALYSIS DATA SHEET

MR21-SS21-10A

27

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/03/10 09:35
% Solids: 79.57

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-27
Received: 03/05/10 08:30

CAS NO.	Analyte	Concentration (ug/Kg dry)	MDL	RL	Dilution Factor	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.754	2.51	1	U	SW6850	0C16019	03/18/10 22:50

MW 7/26/10

ANALYSIS DATA SHEET

MR21-SS27-10A

28

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/03/10 09:10
% Solids: 79.12

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-28
Received: 03/05/10 08:30

CAS NO.	Analyte	Concentration (ug/Kg dry)	MDL	RL	Dilution Factor	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.758	2.53	1	U	SW6850	0C16019	03/18/10 23:26

LW 7/26/10

29

ANALYSIS DATA SHEET

MR21-SS27D-10A

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/03/10 09:15
% Solids: 80.42

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-29
Received: 03/05/10 08:30

CAS NO.	Analyte	Concentration (ug/Kg dry)	MDL	RL	Dilution Factor	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.746	2.49	1	U	SW6850	0C16019	03/19/10 00:37

MW 1/26/10

30

ANALYSIS DATA SHEET

MR21-SS34-10A

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/04/10 09:30
% Solids: 51.67

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-30
Received: 03/05/10 08:30

CAS NO.	Analyte	Concentration (ug/Kg dry)	MDL	RL	Dilution Factor	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		1.16	3.87	1	U J	SW6850	0C16019	03/19/10 01:13

JH 4.5.10

KW 7/26/10

31

ANALYSIS DATA SHEET

MR21-SS35-10A

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/04/10 09:10
% Solids: 65.66

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-31
Received: 03/05/10 08:30

CAS NO.	Analyte	Concentration (ug/Kg dry)	MDL	RL	Dilution Factor	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.914	3.05	1	U	SW6850	0C16019	03/19/10 03:00

fcs 7/26/10

ANALYSIS DATA SHEET

MR21-SS32-10A

32

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/04/10 08:40
% Solids: 83.39

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-32
Received: 03/05/10 08:30

CAS NO.	Analyte	Concentration (ug/Kg dry)	MDL	RL	Dilution Factor	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.719	2.40	1	U	SW6850	0C16019	03/19/10 03:35

lmw 7/26/10

ANALYSIS DATA SHEET

MR21-FB-030410

33

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Water
Sampled: 03/04/10 10:30
% Solids: 0.00

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-33
Received: 03/05/10 08:30

CAS NO.	Analyte	Concentration (ug/L)	MDL	RL	Dilution Factor	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.0660	0.200	1	U	SW6850	0C09017	03/09/10 15:02

MW 1/26/10

ANALYSIS DATA SHEET

MR21-EB-030310

3L

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Water
Sampled: 03/03/10 15:30
% Solids: 0.00

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-34
Received: 03/05/10 08:30

CAS NO.	Analyte	Concentration (ug/L)	MDL	RL	Dilution Factor	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.0660	0.200	1	U	SW6850	0C09017	03/09/10 16:49

NW 7/26/10

ANALYSIS DATA SHEET

MR21-EB-030410

35

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Water
Sampled: 03/04/10 11:45
% Solids: 0.00

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-35
Received: 03/05/10 08:30

CAS NO.	Analyte	Concentration (ug/L)	MDL	RL	Dilution Factor	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.0660	0.200	1	U	SW6850	0C09017	03/09/10 17:24

MW 7/26/10

36

ANALYSIS DATA SHEET

MR21-SS33-10A

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Soil
Sampled: 03/04/10 09:20
% Solids: 76.73

SDG:
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1003066-36
Received: 03/05/10 08:30

CAS NO.	Analyte	Concentration (ug/Kg dry)	MDL	RL	Dilution Factor	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.782	2.61	1	U	SW6850	0C16019	03/19/10 04:11

QW 7/26/10

ENVIRONMENTAL
Data Services, Inc.

SEMIVOLATILE ORGANIC COMPOUNDS

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Area Gas Chamber, CTO-040 SDG #: 1003066

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: July 26, 2010

Laboratory: Empirical Laboratories, Nashville, Tennessee Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR21-SS24-10A	1003066-01	Soil
2	MR21-SS31-10A	1003066-02	Soil
3	MR21-SS40-10A	1003066-03	Soil
4	MR21-SS20-10A	1003066-04	Soil
5	MR21-SS19-10A	1003066-05	Soil
6	MR21-SS30-10A	1003066-06	Soil
7	MR21-SS36-10A	1003066-07	Soil
8	MR21-SS37-10A	1003066-08	Soil
9	MR21-SS28-10A	1003066-09	Soil
10	MR21-SS39-10A	1003066-10	Soil
11	MR21-SS38-10A	1003066-11	Soil
12	MR21-SS25-10A	1003066-12	Soil
13	MR21-SS26-10A	1003066-13	Soil
14	MR21-SS12-10A	1003066-14	Soil
15	MR21-SS29-10A	1003066-15	Soil
16	MR21-SS17-10A	1003066-16	Soil
17	MR21-SS11-10A	1003066-17	Soil
18	MR21-SS11D-10A	1003066-18	Soil
19	MR21-SS16-10A	1003066-19	Soil
20	MR21-SS14-10A	1003066-20	Soil
21	MR21-SS23-10A	1003066-21	Soil
21MS	MR21-SS23-10AMS	1003066-21MS	Soil
21MSD	MR21-SS23-10AMSD	1003066-21MSD	Soil
22	MR21-SS18D-10A	1003066-22	Soil
23	MR21-SS18-10A	1003066-23	Soil
24	MR21-SS15-10A	1003066-24	Soil
25	MR21-SS22-10A	1003066-25	Soil
26	MR21-SS13-10A	1003066-26	Soil
27	MR21-SS21-10A	1003066-27	Soil
28	MR21-SS27-10A	1003066-28	Soil
29	MR21-SS27D-10A	1003066-29	Soil
30	MR21-SS34-10A	1003066-30	Soil
30MS	MR21-SS34-10AMS	1003066-30MS	Soil
30MSD	MR21-SS34-10AMSD	1003066-30MSD	Soil
31	MR21-SS35-10A	1003066-31	Soil

32	MR21-SS32-10A	1003066-32	Soil
33	MR21-FB030410	1003066-33	Water
35	MR21-EB-030310	1003066-34	Water
35	MR21-EB-030410	1003066-35	Water
36	MR21-SS33-10A	1003066-36	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 and 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
03/10/10	Benzo(b)fluoranthene	28.8%	J/UJ	33-35
	Di-n-octylphthalate	30.4%		
	Hexachlorocyclopentadiene	34.8%		
	Indeno(1,2,3-cd)pyrene	28.7%		
03/12/10 (1111)	Hexachlorocyclopentadiene	35.1%	J/UJ	1-14, 21
04/05/10 (0911)	3,3'-Dichlorobenzidine	36.8%	J/UJ	19, 20, 22-25
	Atrazine	27.4%		
	Bis(2-chloroisopropyl)ether	43.4%		
	Di-n-octylphthalate	31.6%		
	Hexachlorocyclopentadiene	61.8%		
04/05/10 (1639)	3,3'-Dichlorobenzidine	44.5%	J/UJ	15-18, 26-32, 36 (Sample 30 also qualified due to MS/MSD)
	Atrazine	32.1%		
	Butylbenzylphthalate	26.8%		
	Caprolactam	28.7%		
	Carbazole	34.6%		
	Bis(2-chloroisopropyl)ether	43.3%		
	2,4-Dinitrophenol	41.6%		
	Di-n-octylphthalate	44.9%		
	Bis(2-ethylhexyl)phthalate	31.4%		
	Hexachlorocyclopentadiene	82.0%		

Surrogates - All samples exhibited acceptable surrogate recoveries except the following.

Sample ID	Surrogate	%R	Qualifier
4	2-Fluorobiphenyl	38.1%	None for 1 per fraction
	2-Fluorophenol	34.2%	J/UJ - Acid Compounds
	Phenol-d6	37.8%	
33	Phenol-d6	14.7%	None for only 1 out
23	2-Fluorobiphenyl	40.5%	None for only 1 out
24	2-Fluorobiphenyl	40.4%	None for 1 per fraction
	2-Fluorophenol	34.1%	
26	2-Fluorobiphenyl	40.3%	None for 1 per fraction
	Phenol-d6	39.1%	
27	2-Fluorobiphenyl	44.1%	None for 1 per fraction
31	2-Fluorobiphenyl	42.7%	None for 1 per fraction
32	2-Fluorobiphenyl	44.8%	None for 1 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
21	Benzaldehyde	5.25%/5.78%/Ok	None - See LCS
	Di-n-octylphthalate	177%/172%/Ok	None - Sample ND
	3,3'-Dichlorobenzidine	Ok/Ok/44.8	None - Sample ND
30	3,3'-Dichlorobenzidine	0%/0%/NC	J/R
	4-Chloroaniline	0%/0%/NC	J/R
	4-Nitroaniline	0%/0%/NC	J/R
	3-Nitroaniline	0%/0%/NC	J/R
	23 Other Compounds	Low	J/UJ

Laboratory Control Sample - The LCS samples exhibited acceptable %R values except the following

LCS ID	Compound	%R	Qualifier	Affected Samples
0C08004-BS1	Caprolactam	14.5%	J/UJ	33-35
	Hexachlorocyclopentadiene	149%	None	All ND
0C09006-BS1	Benzaldehyde	6.50%	J/R	1-18, 21
	Hexachlorocyclopentadiene	153%	None	All ND
0C09027-BS1	Benzaldehyde	3.99%	J/R	19, 20, 22-29, 31, 32, 36
	Caprolactam	116%	None	All ND
	Bis(2-chloroisopropyl)ether	117%		
	Hexachlorocyclopentadiene	112%		

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
5	Perylene-d12	Low	J/UJ - Associated Compounds
7	Perylene-d12	Low	J/UJ - Associated Compounds
8	Perylene-d12	Low	J/UJ - Associated Compounds
9	Perylene-d12	Low	J/UJ - Associated Compounds
10	Perylene-d12	Low	J/UJ - Associated Compounds
11	Perylene-d12	Low	J/UJ - Associated Compounds
12	Perylene-d12	Low	J/UJ - Associated Compounds
13	Perylene-d12	Low	J/UJ - Associated Compounds
14	Perylene-d12	Low	J/UJ - Associated Compounds
15	Perylene-d12	Low	J/UJ - Associated Compounds
17	Perylene-d12	Low	J/UJ - Associated Compounds
18	Perylene-d12	Low	J/UJ - Associated Compounds
21	Perylene-d12	Low	J/UJ - Associated Compounds
36	Perylene-d12	Low	J/UJ - Associated Compounds

Method Blank - The method blanks were free of contamination.

Field, Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/kg	Qualifier	Affected Samples
MR21-EB-030310	Bis(2-ethylhexyl)phthalate	1.25	833	U	22
MR21-EB-030410	None - ND	-	-	-	-
MR21-FB-030410	None - ND	-	-	-	-

Field Duplicates - Field duplicate results are summarized below.

Compound	MR21-SS11-10A ug/kg	MR21-SS11D-10A ug/kg	RPD	Qualifier
Benzaldehyde	182	155	16%	None

Compound	MR21-SS18-10A ug/kg	MR21-SS18D-10A ug/kg	RPD	Qualifier
Benzaldehyde	165	310	61%	None

Compound	MR21-SS27-10A ug/kg	MR21-SS27D-10A ug/kg	RPD	Qualifier
None	ND	ND	-	-

Tentatively Identified Compounds (TICs) - TICs were not reported.

Compound Quantitation - No discrepancies were identified.

ANALYSIS DATA SHEET

MR21-SS24-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-01	File ID:	0306601.D
Sampled:	03/03/10 09:00	Prepared:	03/09/10 17:00	Analyzed:	03/12/10 13:31
Solids:	71.27	Preparation:	EXT_3546	Dilution:	1
Batch:	0C09006	Sequence: 0C07408	Calibration:	0056004	Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
91-94-1	3,3'-Dichlorobenzidine		43.5	351	~~UJ~~
83-32-9	Acenaphthene		36.5	351	U
208-96-8	Acenaphthylene		28.1	351	U
98-86-2	Acetophenone		57.5	351	U
120-12-7	Anthracene		37.9	351	U
1912-24-9	Atrazine		39.3	351	U
100-52-7	Benzaldehyde	189 J	77.2	351	~~U~~ BSL
191-24-2	Benzo (g,h,i) perylene		98.2	351	U
207-08-9	Benzo (k) fluoranthene		54.7	351	U
92-52-4	1,1'-Biphenyl		40.7	351	U
101-55-3	4-Bromophenyl phenyl ether		36.5	351	U
85-68-7	Butyl benzyl phthalate		42.1	351	U
105-60-2	Caprolactam		94.0	351	U
86-74-8	Carbazole		50.5	351	U
59-50-7	4-Chloro-3-methylphenol		39.3	351	U
106-47-8	4-Chloroaniline		67.3	351	U
111-91-1	Bis(2-chloroethoxy)methane		43.5	351	U
111-44-4	Bis(2-chloroethyl)ether		57.5	351	U
39638-32-9	Bis(2-chloroisopropyl)ether		71.6	351	U
91-58-7	2-Chloronaphthalene		44.9	351	U
95-57-8	2-Chlorophenol		57.5	351	U
7005-72-3	4-Chlorophenyl phenyl ether		43.5	351	U
218-01-9	Chrysene		43.5	351	U
132-64-9	Dibenzofuran		33.7	351	U
84-74-2	Di-n-butyl phthalate		42.1	351	U
120-83-2	2,4-Dichlorophenol		26.7	351	U
84-66-2	Diethyl phthalate		47.7	351	U
105-67-9	2,4-Dimethylphenol		29.5	351	U
131-11-3	Dimethylphthalate		42.1	351	U
534-52-1	4,6-Dinitro-2-methylphenol		30.9	702	U
51-28-5	2,4-Dinitrophenol		182	702	U
121-14-2	2,4-Dinitrotoluene		33.7	351	U
606-20-2	2,6-Dinitrotoluene		53.3	351	UJ
117-84-0	Di-n-octyl phthalate		37.9	351	U
117-81-7	Bis(2-ethylhexyl)phthalate		50.5	351	U
206-44-0	Fluoranthene		75.8	351	U
86-73-7	Fluorene		36.5	351	U
118-74-1	Hexachlorobenzene		49.1	351	U
87-68-3	Hexachlorobutadiene		46.3	351	U
77-47-4	Hexachlorocyclopentadiene	UJ	85.6	351	~~UJ~~ CCH

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ANALYSIS DATA SHEET

MR21-SS24-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-01	File ID:	0306601.D
Sampled:	03/03/10 09:00	Prepared:	03/09/10 17:00	Analyzed:	03/12/10 13:31
Solids:	71.27	Preparation:	EXT_3546	Dilution:	1

Batch: 0C09006 Sequence: 0C07408 Calibration: 0056004 Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-72-1	Hexachloroethane		54.7	351	U
91-57-6	2-Methylnaphthalene		49.1	351	U
95-48-7	2-Methylphenol		54.7	351	U
106-44-5	4-Methylphenol		36.5	351	U
91-20-3	Naphthalene		44.9	351	U
100-01-6	4-Nitroaniline		140	702	U
99-09-2	3-Nitroaniline		65.9	702	U
88-74-4	2-Nitroaniline		44.9	702	U
98-95-3	Nitrobenzene		47.7	351	U
100-02-7	4-Nitrophenol		114	702	U
88-75-5	2-Nitrophenol		30.9	351	U
86-30-6	N-Nitrosodiphenylamine		44.9	351	U
85-01-8	Phenanthrene		32.3	351	U
108-95-2	Phenol		50.5	351	U
129-00-0	Pyrene	59.1	56.1	351	J
88-06-2	2,4,6-Trichlorophenol		49.1	351	U
95-95-4	2,4,5-Trichlorophenol		37.9	702	U
532-27-4	2-Chloroacetophenone		94.0	351	U
2698-41-1	2-Chlorobenzalmalononitrile		94.0	351	UJ

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	4677	2164	46.3	45 - 105	
2-Fluorophenol	9354	3572	38.2	35 - 105	
Nitrobenzene-d5	4677	2289	48.9	35 - 100	
Phenol-d6	9354	4056	43.4	40 - 100	
Terphenyl-dl4	4677	2663	56.9	30 - 125	
2,4,6-Tribromophenol	9354	4923	52.6	35 - 125	

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ANALYSIS DATA SHEET

MR21-SS31-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-02	File ID:	0306602.D
Sampled:	03/03/10 08:50	Prepared:	03/09/10 17:00	Analyzed:	03/12/10 14:07
Solids:	73.17	Preparation:	EXT_3546	Dilution:	1
Batch:	0C09006	Sequence: 0C07408	Calibration:	0056004	Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
91-94-1	3,3'-Dichlorobenzidine		42.4	342	U ~~J~~
83-32-9	Acenaphthene		35.5	342	U
208-96-8	Acenaphthylene		27.3	342	U
98-86-2	Acetophenone		56.0	342	U
120-12-7	Anthracene		36.9	342	U
1912-24-9	Atrazine		38.3	342	U
100-52-7	Benzaldehyde	86.3 J	75.2	342	~~U~~ BSL
191-24-2	Benzo (g,h,i) perylene		95.7	342	U
207-08-9	Benzo (k) fluoranthene		53.3	342	U
92-52-4	1,1'-Biphenyl		39.6	342	U
101-55-3	4-Bromophenyl phenyl ether		35.5	342	U
85-68-7	Butyl benzyl phthalate		41.0	342	U
105-60-2	Caprolactam		91.6	342	U
86-74-8	Carbazole		49.2	342	U
59-50-7	4-Chloro-3-methylphenol		38.3	342	U
106-47-8	4-Chloroaniline		65.6	342	U
111-91-1	Bis(2-chloroethoxy)methane		42.4	342	U
111-44-4	Bis(2-chloroethyl)ether		56.0	342	U
39638-32-9	Bis(2-chloroisopropyl)ether		69.7	342	U
91-58-7	2-Chloronaphthalene		43.7	342	U
95-57-8	2-Chlorophenol		56.0	342	U
7005-72-3	4-Chlorophenyl phenyl ether		42.4	342	U
218-01-9	Chrysene		42.4	342	U
132-64-9	Dibenzofuran		32.8	342	U
84-74-2	Di-n-butyl phthalate		41.0	342	U
120-83-2	2,4-Dichlorophenol		26.0	342	U
84-66-2	Diethyl phthalate		46.5	342	U
105-67-9	2,4-Dimethylphenol		28.7	342	U
131-11-3	Dimethylphthalate		41.0	342	U
534-52-1	4,6-Dinitro-2-methylphenol		30.1	683	U
51-28-5	2,4-Dinitrophenol		178	683	U
121-14-2	2,4-Dinitrotoluene		32.8	342	U
606-20-2	2,6-Dinitrotoluene		51.9	342	U ~~J~~
117-84-0	Di-n-octyl phthalate		36.9	342	U
117-81-7	Bis(2-ethylhexyl)phthalate		49.2	342	U
206-44-0	Fluoranthene		73.8	342	U
86-73-7	Fluorene		35.5	342	U
118-74-1	Hexachlorobenzene		47.8	342	U
87-68-3	Hexachlorobutadiene		45.1	342	U
77-47-4	Hexachlorocyclopentadiene	UJ	83.4	342	~~U~~ CCH

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ANALYSIS DATA SHEET

MR21-SS31-10A

Laboratory:	Empirical Laboratories, LLC			SDG:	
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Soil	Laboratory ID:	1003066-02	File ID:	0306602.D
Sampled:	03/03/10 08:50	Prepared:	03/09/10 17:00	Analyzed:	03/12/10 14:07
Solids:	73.17	Preparation:	EXT_3546	Dilution:	1

Batch: 0C09006 Sequence: 0C07408 Calibration: 0056004 Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-72-1	Hexachloroethane		53.3	342	U
91-57-6	2-Methylnaphthalene		47.8	342	U
95-48-7	2-Methylphenol		53.3	342	U
106-44-5	4-Methylphenol		35.5	342	U
91-20-3	Naphthalene		43.7	342	U
100-01-6	4-Nitroaniline		137	683	U
99-09-2	3-Nitroaniline		64.2	683	U
88-74-4	2-Nitroaniline		43.7	683	U
98-95-3	Nitrobenzene		46.5	342	U
100-02-7	4-Nitrophenol		111	683	U
88-75-5	2-Nitrophenol		30.1	342	U
86-30-6	N-Nitrosodiphenylamine		43.7	342	U
85-01-8	Phenanthrene		31.4	342	U
108-95-2	Phenol		49.2	342	U
129-00-0	Pyrene		54.7	342	U
88-06-2	2,4,6-Trichlorophenol		47.8	342	U
95-95-4	2,4,5-Trichlorophenol		36.9	683	U
532-27-4	2-Chloroacetophenone		91.6	342	U
2698-41-1	2-Chlorobenzalmalononitrile		91.6	342	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	4556	2438	53.5	45 - 105	
2-Fluorophenol	9111	4256	46.7	35 - 105	
Nitrobenzene-d5	4556	2710	59.5	35 - 100	
Phenol-d6	9111	4617	50.7	40 - 100	
Terphenyl-dl4	4556	2958	64.9	30 - 125	
2,4,6-Tribromophenol	9111	5456	59.9	35 - 125	

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ANALYSIS DATA SHEET

MR21-SS40-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-03	File ID:	0306603.D
Sampled:	03/03/10 08:40	Prepared:	03/09/10 17:00	Analyzed:	03/12/10 14:43
Solids:	66.98	Preparation:	EXT_3546	Dilution:	1
Batch:	0C09006	Sequence: 0C07408	Calibration:	0056004	Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
91-94-1	3,3'-Dichlorobenzidine		46.3	373	UQ
83-32-9	Acenaphthene		38.8	373	U
208-96-8	Acenaphthylene		29.9	373	U
98-86-2	Acetophenone		61.2	373	U
120-12-7	Anthracene		40.3	373	U
1912-24-9	Atrazine		41.8	373	U
100-52-7	Benzaldehyde	152 J	82.1	373	~~UQ~~ BSL
191-24-2	Benzo (g,h,i) perylene		105	373	U
207-08-9	Benzo (k) fluoranthene		58.2	373	U
92-52-4	1,1'-Biphenyl		43.3	373	U
101-55-3	4-Bromophenyl phenyl ether		38.8	373	U
85-68-7	Butyl benzyl phthalate		44.8	373	U
105-60-2	Caprolactam		100	373	U
86-74-8	Carbazole		53.8	373	U
59-50-7	4-Chloro-3-methylphenol		41.8	373	U
106-47-8	4-Chloroaniline		71.7	373	U
111-91-1	Bis(2-chloroethoxy)methane		46.3	373	U
111-44-4	Bis(2-chloroethyl)ether		61.2	373	U
39638-32-9	Bis(2-chloroisopropyl)ether		76.1	373	U
91-58-7	2-Chloronaphthalene		47.8	373	U
95-57-8	2-Chlorophenol		61.2	373	U
7005-72-3	4-Chlorophenyl phenyl ether		46.3	373	U
218-01-9	Chrysene		46.3	373	U
132-64-9	Dibenzofuran		35.8	373	U
84-74-2	Di-n-butyl phthalate		44.8	373	U
120-83-2	2,4-Dichlorophenol		28.4	373	U
84-66-2	Diethyl phthalate		50.8	373	U
105-67-9	2,4-Dimethylphenol		31.4	373	U
131-11-3	Dimethylphthalate		44.8	373	U
534-52-1	4,6-Dinitro-2-methylphenol		32.8	747	U
51-28-5	2,4-Dinitrophenol		194	747	U
121-14-2	2,4-Dinitrotoluene		35.8	373	U
606-20-2	2,6-Dinitrotoluene		56.7	373	UQ
117-84-0	Di-n-octyl phthalate		40.3	373	U
117-81-7	Bis(2-ethylhexyl)phthalate		53.8	373	U
206-44-0	Fluoranthene		80.6	373	U
86-73-7	Fluorene		38.8	373	U
118-74-1	Hexachlorobenzene		52.3	373	U
87-68-3	Hexachlorobutadiene		49.3	373	U
77-47-4	Hexachlorocyclopentadiene	UJ	91.1	373	~~UQ~~ CH

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ANALYSIS DATA SHEET

MR21-SS40-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-03	File ID:	0306603.D
Sampled:	03/03/10 08:40	Prepared:	03/09/10 17:00	Analyzed:	03/12/10 14:43
Solids:	66.98	Preparation:	EXT_3546	Dilution:	1

Batch: 0C09006 Sequence: 0C07408 Calibration: 0056004 Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-72-1	Hexachloroethane		58.2	373	U
91-57-6	2-Methylnaphthalene		52.3	373	U
95-48-7	2-Methylphenol		58.2	373	U
106-44-5	4-Methylphenol		38.8	373	U
91-20-3	Naphthalene		47.8	373	U
100-01-6	4-Nitroaniline		149	747	U
99-09-2	3-Nitroaniline		70.2	747	U
88-74-4	2-Nitroaniline		47.8	747	U
98-95-3	Nitrobenzene		50.8	373	U
100-02-7	4-Nitrophenol		121	747	U
88-75-5	2-Nitrophenol		32.8	373	U
86-30-6	N-Nitrosodiphenylamine		47.8	373	U
85-01-8	Phenanthrene		34.3	373	U
108-95-2	Phenol		53.8	373	U
129-00-0	Pyrene		59.7	373	U
88-06-2	2,4,6-Trichlorophenol		52.3	373	U
95-95-4	2,4,5-Trichlorophenol		40.3	747	U
532-27-4	2-Chloroacetophenone		100	373	U
2698-41-1	2-Chlorobenzalmalononitrile		100	373	UJ

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	4977	3173	63.8	45 - 105	
2-Fluorophenol	9954	5786	58.1	35 - 105	
Nitrobenzene-d5	4977	3395	68.2	35 - 100	
Phenol-d6	9954	6113	61.4	40 - 100	
Terphenyl-dl4	4977	3588	72.1	30 - 125	
2,4,6-Tribromophenol	9954	6920	69.5	35 - 125	

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ANALYSIS DATA SHEET

MR21-SS20-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-04	File ID:	0306604.D
Sampled:	03/03/10 10:10	Prepared:	03/09/10 17:00	Analyzed:	03/12/10 15:19
Solids:	83.77	Preparation:	EXT_3546	Dilution:	1
Batch:	0C09006	Sequence: 0C07408	Calibration:	0056004	Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
91-94-1	3,3'-Dichlorobenzidine		37.0	298	UQ	
83-32-9	Acenaphthene		31.0	298	UQ	
208-96-8	Acenaphthylene		23.9	298	UQ	
98-86-2	Acetophenone		48.9	298	UQ	
120-12-7	Anthracene		32.2	298	UQ	
1912-24-9	Atrazine		33.4	298	UQ	
100-52-7	Benzaldehyde	R	65.7	298	~~UQ~~	BSL
191-24-2	Benzo (g,h,i) perylene		83.6	298	UQ	
207-08-9	Benzo (k) fluoranthene		46.6	298	UQ	
92-52-4	1,1'-Biphenyl		34.6	298	UQ	
101-55-3	4-Bromophenyl phenyl ether		31.0	298	UQ	
85-68-7	Butyl benzyl phthalate		35.8	298	UQ	
105-60-2	Caprolactam		80.0	298	UQ	
86-74-8	Carbazole		43.0	298	UQ	
59-50-7	4-Chloro-3-methylphenol	UJ	33.4	298	~~UQ~~	SSL
106-47-8	4-Chloroaniline		57.3	298	UQ	
111-91-1	Bis(2-chloroethoxy)methane		37.0	298	UQ	
111-44-4	Bis(2-chloroethyl)ether		48.9	298	UQ	
39638-32-9	Bis(2-chloroisopropyl)ether		60.9	298	UQ	
91-58-7	2-Chloronaphthalene		38.2	298	UQ	
95-57-8	2-Chlorophenol	UJ	48.9	298	~~UQ~~	SSL
7005-72-3	4-Chlorophenyl phenyl ether		37.0	298	UQ	
218-01-9	Chrysene		37.0	298	UQ	
132-64-9	Dibenzofuran		28.6	298	UQ	
84-74-2	Di-n-butyl phthalate		35.8	298	UQ	
120-83-2	2,4-Dichlorophenol	UJ	22.7	298	~~UQ~~	SSL
84-66-2	Diethyl phthalate		40.6	298	UQ	
105-67-9	2,4-Dimethylphenol	UJ	25.1	298	~~UQ~~	SSL
131-11-3	Dimethylphthalate		35.8	298	UQ	
534-52-1	4,6-Dinitro-2-methylphenol	UJ	26.3	597	~~UQ~~	SSL
51-28-5	2,4-Dinitrophenol	UJ	155	597	~~UQ~~	SSL
121-14-2	2,4-Dinitrotoluene		28.6	298	UQ	
606-20-2	2,6-Dinitrotoluene		45.4	298	UQ	
117-84-0	Di-n-octyl phthalate		32.2	298	UQ	
117-81-7	Bis(2-ethylhexyl)phthalate		43.0	298	UQ	
206-44-0	Fluoranthene		64.5	298	UQ	
86-73-7	Fluorene		31.0	298	UQ	
118-74-1	Hexachlorobenzene		41.8	298	UQ	
87-68-3	Hexachlorobutadiene		39.4	298	UQ	
77-47-4	Hexachlorocyclopentadiene	UJ	72.8	298	UQ	CCH

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ANALYSIS DATA SHEET

MR21-SS20-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-04	File ID:	0306604.D
Sampled:	03/03/10 10:10	Prepared:	03/09/10 17:00	Analyzed:	03/12/10 15:19
Solids:	83.77	Preparation:	EXT_3546	Dilution:	1
Batch:	0C09006	Sequence: 0C07408	Calibration:	0056004	Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
67-72-1	Hexachloroethane		46.6	298	UQ	
91-57-6	2-Methylnaphthalene		41.8	298	UQ	
95-48-7	2-Methylphenol	UJ	46.6	298	~~UQ~~	SSL
106-44-5	4-Methylphenol	UJ	31.0	298	~~UQ~~	SSL
91-20-3	Naphthalene		38.2	298	UQ	
100-01-6	4-Nitroaniline		119	597	UQ	
99-09-2	3-Nitroaniline		56.1	597	UQ	
88-74-4	2-Nitroaniline		38.2	597	UQ	
98-95-3	Nitrobenzene		40.6	298	UQ	
100-02-7	4-Nitrophenol	UJ	96.7	597	~~UQ~~	SSL
88-75-5	2-Nitrophenol	UJ	26.3	298	~~UQ~~	↓
86-30-6	N-Nitrosodiphenylamine		38.2	298	UQ	
85-01-8	Phenanthrene		27.5	298	UQ	
108-95-2	Phenol	UJ	43.0	298	UQ	SSL
129-00-0	Pyrene		47.7	298	UQ	
88-06-2	2,4,6-Trichlorophenol	UJ	41.8	298	~~UQ~~	SSL
95-95-4	2,4,5-Trichlorophenol	UJ	32.2	597	~~UQ~~	SSL
532-27-4	2-Chloroacetophenone		80.0	298	UQ	
2698-41-1	2-Chlorobenzalmalononitrile		80.0	298	UQ	

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	3979	1517	38.1	45 - 105	*
2-Fluorophenol	7958	2723	34.2	35 - 105	*
Nitrobenzene-d5	3979	1692	42.5	35 - 100	
Phenol-d6	7958	3010	37.8	40 - 100	*
Terphenyl-dl4	3979	1939	48.7	30 - 125	
2,4,6-Tribromophenol	7958	3305	41.5	35 - 125	

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ANALYSIS DATA SHEET

MR21-SS19-10A

Laboratory: Empirical Laboratories, LLC SDG:

Client: CH2M Hill, Inc. Project: Lejeune CTO-40 UXO-21

Matrix: Soil Laboratory ID: 1003066-05 File ID: 0306605.D

Sampled: 03/03/10 09:45 Prepared: 03/09/10 17:00 Analyzed: 03/12/10 15:55

Solids: 64.91 Preparation: EXT_3546 Dilution: 1

Batch: 0C09006 Sequence: 0D09108 Calibration: 0056004 Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
91-94-1	3,3'-Dichlorobenzidine	UJ	47.8	385	~~UQ~~ JSL
83-32-9	Acenaphthene		40.1	385	U
208-96-8	Acenaphthylene		30.8	385	U
98-86-2	Acetophenone		63.2	385	U
120-12-7	Anthracene		41.6	385	U
1912-24-9	Atrazine		43.1	385	U
100-52-7	Benzaldehyde	260 J	84.7	385	~~J~~ BSL
191-24-2	Benzo (g,h,i) perylene	UJ	108	385	~~UQ~~ JSL
207-08-9	Benzo (k) fluoranthene	UJ	60.1	385	~~UQ~~ JSL
92-52-4	1,1'-Biphenyl		44.7	385	U
101-55-3	4-Bromophenyl phenyl ether		40.1	385	U
85-68-7	Butyl benzyl phthalate		46.2	385	U
105-60-2	Caprolactam		103	385	U
86-74-8	Carbazole		55.5	385	U
59-50-7	4-Chloro-3-methylphenol		43.1	385	U
106-47-8	4-Chloroaniline		74.0	385	U
111-91-1	Bis(2-chloroethoxy)methane		47.8	385	U
111-44-4	Bis(2-chloroethyl)ether		63.2	385	U
39638-32-9	Bis(2-chloroisopropyl)ether		78.6	385	U
91-58-7	2-Chloronaphthalene		49.3	385	U
95-57-8	2-Chlorophenol		63.2	385	U
7005-72-3	4-Chlorophenyl phenyl ether		47.8	385	U
218-01-9	Chrysene		47.8	385	U
132-64-9	Dibenzofuran		37.0	385	U
84-74-2	Di-n-butyl phthalate		46.2	385	U
120-83-2	2,4-Dichlorophenol		29.3	385	U
84-66-2	Diethyl phthalate		52.4	385	U
105-67-9	2,4-Dimethylphenol		32.4	385	U
131-11-3	Dimethylphthalate		46.2	385	U
534-52-1	4,6-Dinitro-2-methylphenol		33.9	770	U
51-28-5	2,4-Dinitrophenol		200	770	U
121-14-2	2,4-Dinitrotoluene		37.0	385	U
606-20-2	2,6-Dinitrotoluene	UJ	58.5	385	~~UQ~~ JSL
117-84-0	Di-n-octyl phthalate	UJ	41.6	385	~~UQ~~ JSL
117-81-7	Bis(2-ethylhexyl)phthalate		55.5	385	U
206-44-0	Fluoranthene		83.2	385	U
86-73-7	Fluorene		40.1	385	U
118-74-1	Hexachlorobenzene		53.9	385	U
87-68-3	Hexachlorobutadiene		50.8	385	U
77-47-4	Hexachlorocyclopentadiene	UJ	94.0	385	~~UQ~~ CH

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ANALYSIS DATA SHEET

MR21-SS19-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-05	File ID:	0306605.D
Sampled:	03/03/10 09:45	Prepared:	03/09/10 17:00	Analyzed:	03/12/10 15:55
Solids:	64.91	Preparation:	EXT_3546	Dilution:	1
Batch:	0C09006	Sequence: 0D09108	Calibration:	0056004	Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-72-1	Hexachloroethane		60.1	385	U
91-57-6	2-Methylnaphthalene		53.9	385	U
95-48-7	2-Methylphenol		60.1	385	U
106-44-5	4-Methylphenol		40.1	385	U
91-20-3	Naphthalene		49.3	385	U
100-01-6	4-Nitroaniline		154	770	U
99-09-2	3-Nitroaniline		72.4	770	U
88-74-4	2-Nitroaniline		49.3	770	U
98-95-3	Nitrobenzene		52.4	385	U
100-02-7	4-Nitrophenol		125	770	U
88-75-5	2-Nitrophenol		33.9	385	U
86-30-6	N-Nitrosodiphenylamine		49.3	385	U
85-01-8	Phenanthrene		35.4	385	U
108-95-2	Phenol		55.5	385	U
129-00-0	Pyrene		61.6	385	U
88-06-2	2,4,6-Trichlorophenol		53.9	385	U
95-95-4	2,4,5-Trichlorophenol		41.6	770	U
532-27-4	2-Chloroacetophenone		103	385	U
2698-41-1	2-Chlorobenzalmalononitrile	UJ	103	385	~~UQ~~ ISL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	5135	2859	55.7	45 - 105	
2-Fluorophenol	10270	4766	46.4	35 - 105	
Nitrobenzene-d5	5135	3092	60.2	35 - 100	
Phenol-d6	10270	4852	47.2	40 - 100	
Terphenyl-d14	5135	3865	75.3	30 - 125	
2,4,6-Tribromophenol	10270	6282	61.2	35 - 125	

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ANALYSIS DATA SHEET

MR21-SS30-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-06	File ID:	0306606.D
Sampled:	03/04/10 08:30	Prepared:	03/09/10 17:00	Analyzed:	03/12/10 16:31
Solids:	75.62	Preparation:	EXT_3546	Dilution:	1

Batch: 0C09006 Sequence: 0C07408 Calibration: 0056004 Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
91-94-1	3,3'-Dichlorobenzidine		41.0	331	UJ
83-32-9	Acenaphthene		34.4	331	U
208-96-8	Acenaphthylene		26.4	331	U
98-86-2	Acetophenone		54.2	331	U
120-12-7	Anthracene		35.7	331	U
1912-24-9	Atrazine		37.0	331	U
100-52-7	Benzaldehyde	R	72.7	331	~~UJ~~ BSL
191-24-2	Benzo (g,h,i) perylene		92.6	331	U
207-08-9	Benzo (k) fluoranthene		51.6	331	U
92-52-4	1,1'-Biphenyl		38.3	331	U
101-55-3	4-Bromophenyl phenyl ether		34.4	331	U
85-68-7	Butyl benzyl phthalate		39.7	331	U
105-60-2	Caprolactam		88.6	331	U
86-74-8	Carbazole		47.6	331	U
59-50-7	4-Chloro-3-methylphenol		37.0	331	U
106-47-8	4-Chloroaniline		63.5	331	U
111-91-1	Bis(2-chloroethoxy)methane		41.0	331	U
111-44-4	Bis(2-chloroethyl)ether		54.2	331	U
39638-32-9	Bis(2-chloroisopropyl)ether		67.4	331	U
91-58-7	2-Chloronaphthalene		42.3	331	U
95-57-8	2-Chlorophenol		54.2	331	U
7005-72-3	4-Chlorophenyl phenyl ether		41.0	331	U
218-01-9	Chrysene		41.0	331	U
132-64-9	Dibenzofuran		31.7	331	U
84-74-2	Di-n-butyl phthalate		39.7	331	U
120-83-2	2,4-Dichlorophenol		25.1	331	U
84-66-2	Diethyl phthalate		45.0	331	U
105-67-9	2,4-Dimethylphenol		27.8	331	U
131-11-3	Dimethylphthalate		39.7	331	U
534-52-1	4,6-Dinitro-2-methylphenol		29.1	661	U
51-28-5	2,4-Dinitrophenol		172	661	U
121-14-2	2,4-Dinitrotoluene		31.7	331	U
606-20-2	2,6-Dinitrotoluene		50.3	331	UJ
117-84-0	Di-n-octyl phthalate		35.7	331	U
117-81-7	Bis(2-ethylhexyl)phthalate		47.6	331	U
206-44-0	Fluoranthene		71.4	331	U
86-73-7	Fluorene		34.4	331	U
118-74-1	Hexachlorobenzene		46.3	331	U
87-68-3	Hexachlorobutadiene		43.6	331	U
77-47-4	Hexachlorocyclopentadiene	UJ	80.7	331	~~UJ~~ CCH

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ANALYSIS DATA SHEET

MR21-SS30-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-06	File ID:	0306606.D
Sampled:	03/04/10 08:30	Prepared:	03/09/10 17:00	Analyzed:	03/12/10 16:31
Solids:	75.62	Preparation:	EXT_3546	Dilution:	1

Batch: 0C09006 Sequence: 0C07408 Calibration: 0056004 Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-72-1	Hexachloroethane		51.6	331	U
91-57-6	2-Methylnaphthalene		46.3	331	U
95-48-7	2-Methylphenol		51.6	331	U
106-44-5	4-Methylphenol		34.4	331	U
91-20-3	Naphthalene		42.3	331	U
100-01-6	4-Nitroaniline		132	661	U
99-09-2	3-Nitroaniline		62.2	661	U
88-74-4	2-Nitroaniline		42.3	661	U
98-95-3	Nitrobenzene		45.0	331	U
100-02-7	4-Nitrophenol		107	661	U
88-75-5	2-Nitrophenol		29.1	331	U
86-30-6	N-Nitrosodiphenylamine		42.3	331	U
85-01-8	Phenanthrene		30.4	331	U
108-95-2	Phenol		47.6	331	U
129-00-0	Pyrene		52.9	331	U
88-06-2	2,4,6-Trichlorophenol		46.3	331	U
95-95-4	2,4,5-Trichlorophenol		35.7	661	U
532-27-4	2-Chloroacetophenone		88.6	331	U
2698-41-1	2-Chlorobenzalmalononitrile		88.6	331	UJ

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	4408	2119	48.1	45 - 105	
2-Fluorophenol	8816	3350	38.0	35 - 105	
Nitrobenzene-d5	4408	2256	51.2	35 - 100	
Phenol-d6	8816	3811	43.2	40 - 100	
Terphenyl-dl4	4408	2759	62.6	30 - 125	
2,4,6-Tribromophenol	8816	4796	54.4	35 - 125	

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ANALYSIS DATA SHEET

MR21-SS36-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-07	File ID:	0306607.D
Sampled:	03/04/10 08:50	Prepared:	03/09/10 17:00	Analyzed:	03/12/10 17:06
Solids:	76.62	Preparation:	EXT_3546	Dilution:	1

Batch: 0C09006 Sequence: 0D09108 Calibration: 0056004 Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
91-94-1	3,3'-Dichlorobenzidine	UJ	40.5	326	~~UQ~~ ISL
83-32-9	Acenaphthene		33.9	326	U
208-96-8	Acenaphthylene		26.1	326	U
98-86-2	Acetophenone		53.5	326	U
120-12-7	Anthracene		35.2	326	U
1912-24-9	Atrazine		36.5	326	U
100-52-7	Benzaldehyde	R	71.8	326	~~UQ~~ BSL
191-24-2	Benzo (g,h,i) perylene	UJ	91.4	326	UQ ISL
207-08-9	Benzo (k) fluoranthene	UJ	50.9	326	UQ ISL
92-52-4	1,1'-Biphenyl		37.8	326	U
101-55-3	4-Bromophenyl phenyl ether		33.9	326	U
85-68-7	Butyl benzyl phthalate		39.2	326	U
105-60-2	Caprolactam		87.4	326	U
86-74-8	Carbazole		47.0	326	U
59-50-7	4-Chloro-3-methylphenol		36.5	326	U
106-47-8	4-Chloroaniline		62.6	326	U
111-91-1	Bis(2-chloroethoxy)methane		40.5	326	U
111-44-4	Bis(2-chloroethyl)ether		53.5	326	U
39638-32-9	Bis(2-chloroisopropyl)ether		66.6	326	U
91-58-7	2-Chloronaphthalene		41.8	326	U
95-57-8	2-Chlorophenol		53.5	326	U
7005-72-3	4-Chlorophenyl phenyl ether		40.5	326	U
218-01-9	Chrysene		40.5	326	U
132-64-9	Dibenzofuran		31.3	326	U
84-74-2	Di-n-butyl phthalate		39.2	326	U
120-83-2	2,4-Dichlorophenol		24.8	326	U
84-66-2	Diethyl phthalate		44.4	326	U
105-67-9	2,4-Dimethylphenol		27.4	326	U
131-11-3	Dimethylphthalate		39.2	326	U
534-52-1	4,6-Dinitro-2-methylphenol		28.7	653	U
51-28-5	2,4-Dinitrophenol		170	653	U
121-14-2	2,4-Dinitrotoluene		31.3	326	U
606-20-2	2,6-Dinitrotoluene	UJ	49.6	326	UQ ISL
117-84-0	Di-n-octyl phthalate	UJ	35.2	326	UQ ISL
117-81-7	Bis(2-ethylhexyl)phthalate		47.0	326	U
206-44-0	Fluoranthene		70.5	326	U
86-73-7	Fluorene		33.9	326	U
118-74-1	Hexachlorobenzene		45.7	326	U
87-68-3	Hexachlorobutadiene		43.1	326	U
77-47-4	Hexachlorocyclopentadiene	UJ	79.6	326	~~UQ~~ CCH

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ANALYSIS DATA SHEET

MR21-SS36-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-07	File ID:	0306607.D
Sampled:	03/04/10 08:50	Prepared:	03/09/10 17:00	Analyzed:	03/12/10 17:06
Solids:	76.62	Preparation:	EXT_3546	Dilution:	1
Batch:	0C09006	Sequence: 0D09108	Calibration:	0056004	Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-72-1	Hexachloroethane		50.9	326	U
91-57-6	2-Methylnaphthalene		45.7	326	U
95-48-7	2-Methylphenol		50.9	326	U
106-44-5	4-Methylphenol		33.9	326	U
91-20-3	Naphthalene		41.8	326	U
100-01-6	4-Nitroaniline		131	653	U
99-09-2	3-Nitroaniline		61.3	653	U
88-74-4	2-Nitroaniline		41.8	653	U
98-95-3	Nitrobenzene		44.4	326	U
100-02-7	4-Nitrophenol		106	653	U
88-75-5	2-Nitrophenol		28.7	326	U
86-30-6	N-Nitrosodiphenylamine		41.8	326	U
85-01-8	Phenanthrene		30.0	326	U
108-95-2	Phenol		47.0	326	U
129-00-0	Pyrene		52.2	326	U
88-06-2	2,4,6-Trichlorophenol		45.7	326	U
95-95-4	2,4,5-Trichlorophenol		35.2	653	U
532-27-4	2-Chloroacetophenone		87.4	326	U
2698-41-1	2-Chlorobenzalmalononitrile	WJ	87.4	326	~~UQ~~ JSL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	4351	2443	56.2	45 - 105	
2-Fluorophenol	8701	4153	47.7	35 - 105	
Nitrobenzene-d5	4351	2609	60.0	35 - 100	
Phenol-d6	8701	4299	49.4	40 - 100	
Terphenyl-dl4	4351	3190	73.3	30 - 125	
2,4,6-Tribromophenol	8701	5281	60.7	35 - 125	

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ANALYSIS DATA SHEET

MR21-SS37-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-08	File ID:	0306608.D
Sampled:	03/04/10 09:00	Prepared:	03/09/10 17:00	Analyzed:	03/12/10 17:42
Solids:	76.95	Preparation:	EXT_3546	Dilution:	1
Batch:	0C09006	Sequence: 0D09108	Calibration:	0056004	Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
91-94-1	3,3'-Dichlorobenzidine	UJ	40.3	325	~~UQ~~ ISL
83-32-9	Acenaphthene		33.8	325	U
208-96-8	Acenaphthylene		26.0	325	U
98-86-2	Acetophenone		53.3	325	U
120-12-7	Anthracene		35.1	325	U
1912-24-9	Atrazine		36.4	325	U
100-52-7	Benzaldehyde	94.0 J	71.5	325	~~UQ~~ BSL
191-24-2	Benzo (g,h,i) perylene	UJ	91.0	325	UQ ISL
207-08-9	Benzo (k) fluoranthene	UJ	50.7	325	UQ ISL
92-52-4	1,1'-Biphenyl		37.7	325	U
101-55-3	4-Bromophenyl phenyl ether		33.8	325	U
85-68-7	Butyl benzyl phthalate		39.0	325	U
105-60-2	Caprolactam		87.1	325	U
86-74-8	Carbazole		46.8	325	U
59-50-7	4-Chloro-3-methylphenol		36.4	325	U
106-47-8	4-Chloroaniline		62.4	325	U
111-91-1	Bis(2-chloroethoxy)methane		40.3	325	U
111-44-4	Bis(2-chloroethyl)ether		53.3	325	U
39638-32-9	Bis(2-chloroisopropyl)ether		66.3	325	U
91-58-7	2-Chloronaphthalene		41.6	325	U
95-57-8	2-Chlorophenol		53.3	325	U
7005-72-3	4-Chlorophenyl phenyl ether		40.3	325	U
218-01-9	Chrysene		40.3	325	U
132-64-9	Dibenzofuran		31.2	325	U
84-74-2	Di-n-butyl phthalate		39.0	325	U
120-83-2	2,4-Dichlorophenol		24.7	325	U
84-66-2	Diethyl phthalate		44.2	325	U
105-67-9	2,4-Dimethylphenol		27.3	325	U
131-11-3	Dimethylphthalate		39.0	325	U
534-52-1	4,6-Dinitro-2-methylphenol		28.6	650	U
51-28-5	2,4-Dinitrophenol		169	650	U
121-14-2	2,4-Dinitrotoluene		31.2	325	U
606-20-2	2,6-Dinitrotoluene	UJ	49.4	325	UQ ISL
117-84-0	Di-n-octyl phthalate	UJ	35.1	325	UQ ISL
117-81-7	Bis(2-ethylhexyl)phthalate		46.8	325	U
206-44-0	Fluoranthene		70.2	325	U
86-73-7	Fluorene		33.8	325	U
118-74-1	Hexachlorobenzene		45.5	325	U
87-68-3	Hexachlorobutadiene		42.9	325	U
77-47-4	Hexachlorocyclopentadiene	UJ	79.3	325	~~UQ~~ CCH

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ANALYSIS DATA SHEET

MR21-SS37-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-08	File ID:	0306608.D
Sampled:	03/04/10 09:00	Prepared:	03/09/10 17:00	Analyzed:	03/12/10 17:42
Solids:	76.95	Preparation:	EXT_3546	Dilution:	1

Batch: 0C09006 Sequence: 0D09108 Calibration: 0056004 Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-72-1	Hexachloroethane		50.7	325	U
91-57-6	2-Methylnaphthalene		45.5	325	U
95-48-7	2-Methylphenol		50.7	325	U
106-44-5	4-Methylphenol		33.8	325	U
91-20-3	Naphthalene		41.6	325	U
100-01-6	4-Nitroaniline		130	650	U
99-09-2	3-Nitroaniline		61.1	650	U
88-74-4	2-Nitroaniline		41.6	650	U
98-95-3	Nitrobenzene		44.2	325	U
100-02-7	4-Nitrophenol		105	650	U
88-75-5	2-Nitrophenol		28.6	325	U
86-30-6	N-Nitrosodiphenylamine		41.6	325	U
85-01-8	Phenanthrene		29.9	325	U
108-95-2	Phenol		46.8	325	U
129-00-0	Pyrene		52.0	325	U
88-06-2	2,4,6-Trichlorophenol		45.5	325	U
95-95-4	2,4,5-Trichlorophenol		35.1	650	U
532-27-4	2-Chloroacetophenone		87.1	325	U
2698-41-1	2-Chlorobenzalmalononitrile	UJ	87.1	325	~~U~~ ISL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	4332	2319	53.5	45 - 105	
2-Fluorophenol	8664	4094	47.3	35 - 105	
Nitrobenzene-d5	4332	2475	57.1	35 - 100	
Phenol-d6	8664	4317	49.8	40 - 100	
Terphenyl-dl4	4332	3239	74.8	30 - 125	
2,4,6-Tribromophenol	8664	5059	58.4	35 - 125	

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ANALYSIS DATA SHEET

MR21-SS28-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-09	File ID:	0306609.D
Sampled:	03/04/10 08:25	Prepared:	03/09/10 17:00	Analyzed:	03/12/10 18:17
Solids:	86.10	Preparation:	EXT_3546	Dilution:	1

Batch: 0C09006 Sequence: 0D09108 Calibration: 0056004 Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
91-94-1	3,3'-Dichlorobenzidine	UJ	36.0	290	~~UQ~~ FSL
83-32-9	Acenaphthene		30.2	290	U
208-96-8	Acenaphthylene		23.2	290	U
98-86-2	Acetophenone		47.6	290	U
120-12-7	Anthracene		31.4	290	U
1912-24-9	Atrazine		32.5	290	U
100-52-7	Benzaldehyde	R	63.9	290	~~UQ~~ BSL
191-24-2	Benzo (g,h,i) perylene	UJ	81.3	290	UQ JSL
207-08-9	Benzo (k) fluoranthene	UJ	45.3	290	UQ ↓
92-52-4	1,1'-Biphenyl		33.7	290	U
101-55-3	4-Bromophenyl phenyl ether		30.2	290	U
85-68-7	Butyl benzyl phthalate		34.8	290	U
105-60-2	Caprolactam		77.8	290	U
86-74-8	Carbazole		41.8	290	U
59-50-7	4-Chloro-3-methylphenol		32.5	290	U
106-47-8	4-Chloroaniline		55.8	290	U
111-91-1	Bis(2-chloroethoxy)methane		36.0	290	U
111-44-4	Bis(2-chloroethyl)ether		47.6	290	U
39638-32-9	Bis(2-chloroisopropyl)ether		59.2	290	U
91-58-7	2-Chloronaphthalene		37.2	290	U
95-57-8	2-Chlorophenol		47.6	290	U
7005-72-3	4-Chlorophenyl phenyl ether		36.0	290	U
218-01-9	Chrysene		36.0	290	U
132-64-9	Dibenzofuran		27.9	290	U
84-74-2	Di-n-butyl phthalate		34.8	290	U
120-83-2	2,4-Dichlorophenol		22.1	290	U
84-66-2	Diethyl phthalate		39.5	290	U
105-67-9	2,4-Dimethylphenol		24.4	290	U
131-11-3	Dimethylphthalate		34.8	290	U
534-52-1	4,6-Dinitro-2-methylphenol		25.6	581	U
51-28-5	2,4-Dinitrophenol		151	581	U
121-14-2	2,4-Dinitrotoluene		27.9	290	U
606-20-2	2,6-Dinitrotoluene	UJ	44.1	290	UQ JSL
117-84-0	Di-n-octyl phthalate	UJ	31.4	290	UQ JSL
117-81-7	Bis(2-ethylhexyl)phthalate		41.8	290	U
206-44-0	Fluoranthene		62.7	290	U
86-73-7	Fluorene		30.2	290	U
118-74-1	Hexachlorobenzene		40.7	290	U
87-68-3	Hexachlorobutadiene		38.3	290	U
77-47-4	Hexachlorocyclopentadiene	UJ	70.9	290	~~UQ~~ CCM

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ANALYSIS DATA SHEET

MR21-SS28-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-09	File ID:	0306609.D
Sampled:	03/04/10 08:25	Prepared:	03/09/10 17:00	Analyzed:	03/12/10 18:17
Solids:	86.10	Preparation:	EXT_3546	Dilution:	1

Batch: 0C09006 Sequence: 0D09108 Calibration: 0056004 Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-72-1	Hexachloroethane		45.3	290	U
91-57-6	2-Methylnaphthalene		40.7	290	U
95-48-7	2-Methylphenol		45.3	290	U
106-44-5	4-Methylphenol		30.2	290	U
91-20-3	Naphthalene		37.2	290	U
100-01-6	4-Nitroaniline		116	581	U
99-09-2	3-Nitroaniline		54.6	581	U
88-74-4	2-Nitroaniline		37.2	581	U
98-95-3	Nitrobenzene		39.5	290	U
100-02-7	4-Nitrophenol		94.1	581	U
88-75-5	2-Nitrophenol		25.6	290	U
86-30-6	N-Nitrosodiphenylamine		37.2	290	U
85-01-8	Phenanthrene		26.7	290	U
108-95-2	Phenol		41.8	290	U
129-00-0	Pyrene		46.5	290	U
88-06-2	2,4,6-Trichlorophenol		40.7	290	U
95-95-4	2,4,5-Trichlorophenol		31.4	581	U
532-27-4	2-Chloroacetophenone		77.8	290	U
2698-41-1	2-Chlorobenzalmalononitrile	UJ	77.8	290	~~UJ~~ FSL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	3872	1788	46.2	45 - 105	
2-Fluorophenol	7743	3385	43.7	35 - 105	
Nitrobenzene-d5	3872	1974	51.0	35 - 100	
Phenol-d6	7743	3564	46.0	40 - 100	
Terphenyl-dl4	3872	2409	62.2	30 - 125	
2,4,6-Tribromophenol	7743	3913	50.5	35 - 125	

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ANALYSIS DATA SHEET

MR21-SS39-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-10	File ID:	0306610.D
Sampled:	03/04/10 09:50	Prepared:	03/09/10 17:00	Analyzed:	03/12/10 18:52
Solids:	79.34	Preparation:	EXT_3546	Dilution:	1
Batch:	0C09006	Sequence: 0D09108	Calibration:	0056004	Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
91-94-1	3,3'-Dichlorobenzidine	UJ	39.1	315	~~UQ~~ ISL
83-32-9	Acenaphthene		32.8	315	U
208-96-8	Acenaphthylene		25.2	315	U
98-86-2	Acetophenone		51.7	315	U
120-12-7	Anthracene		34.0	315	U
1912-24-9	Atrazine		35.3	315	U
100-52-7	Benzaldehyde	R	69.3	315	~~UQ~~ BSL
191-24-2	Benzo (g,h,i) perylene	UJ	88.2	315	UQ ISL
207-08-9	Benzo (k) fluoranthene	UJ	49.2	315	UQ ISL
92-52-4	1,1'-Biphenyl		36.6	315	U
101-55-3	4-Bromophenyl phenyl ether		32.8	315	U
85-68-7	Butyl benzyl phthalate		37.8	315	U
105-60-2	Caprolactam		84.4	315	U
86-74-8	Carbazole		45.4	315	U
59-50-7	4-Chloro-3-methylphenol		35.3	315	U
106-47-8	4-Chloroaniline		60.5	315	U
111-91-1	Bis(2-chloroethoxy)methane		39.1	315	U
111-44-4	Bis(2-chloroethyl)ether		51.7	315	U
39638-32-9	Bis(2-chloroisopropyl)ether		64.3	315	U
91-58-7	2-Chloronaphthalene		40.3	315	U
95-57-8	2-Chlorophenol		51.7	315	U
7005-72-3	4-Chlorophenyl phenyl ether		39.1	315	U
218-01-9	Chrysene		39.1	315	U
132-64-9	Dibenzofuran		30.2	315	U
84-74-2	Di-n-butyl phthalate		37.8	315	U
120-83-2	2,4-Dichlorophenol		23.9	315	U
84-66-2	Diethyl phthalate		42.9	315	U
105-67-9	2,4-Dimethylphenol		26.5	315	U
131-11-3	Dimethylphthalate		37.8	315	U
534-52-1	4,6-Dinitro-2-methylphenol		27.7	630	U
51-28-5	2,4-Dinitrophenol		164	630	U
121-14-2	2,4-Dinitrotoluene		30.2	315	U
606-20-2	2,6-Dinitrotoluene	UJ	47.9	315	UQ ISL
117-84-0	Di-n-octyl phthalate	UJ	34.0	315	UQ ↓
117-81-7	Bis(2-ethylhexyl)phthalate		45.4	315	U
206-44-0	Fluoranthene		68.1	315	U
86-73-7	Fluorene		32.8	315	U
118-74-1	Hexachlorobenzene		44.1	315	U
87-68-3	Hexachlorobutadiene		41.6	315	U
77-47-4	Hexachlorocyclopentadiene	UJ	76.9	315	~~UQ~~ CCH

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ANALYSIS DATA SHEET

MR21-SS39-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-10	File ID:	0306610.D
Sampled:	03/04/10 09:50	Prepared:	03/09/10 17:00	Analyzed:	03/12/10 18:52
Solids:	79.34	Preparation:	EXT_3546	Dilution:	1

Batch: 0C09006 Sequence: 0D09108 Calibration: 0056004 Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-72-1	Hexachloroethane		49.2	315	U
91-57-6	2-Methylnaphthalene		44.1	315	U
95-48-7	2-Methylphenol		49.2	315	U
106-44-5	4-Methylphenol		32.8	315	U
91-20-3	Naphthalene		40.3	315	U
100-01-6	4-Nitroaniline		126	630	U
99-09-2	3-Nitroaniline		59.2	630	U
88-74-4	2-Nitroaniline		40.3	630	U
98-95-3	Nitrobenzene		42.9	315	U
100-02-7	4-Nitrophenol		102	630	U
88-75-5	2-Nitrophenol		27.7	315	U
86-30-6	N-Nitrosodiphenylamine		40.3	315	U
85-01-8	Phenanthrene		29.0	315	U
108-95-2	Phenol		45.4	315	U
129-00-0	Pyrene		50.4	315	U
88-06-2	2,4,6-Trichlorophenol		44.1	315	U
95-95-4	2,4,5-Trichlorophenol		34.0	630	U
532-27-4	2-Chloroacetophenone		84.4	315	U
2698-41-1	2-Chlorobenzalmalononitrile	UJ	84.4	315	~~UJ~~ ISL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	4201	2617	62.3	45 - 105	
2-Fluorophenol	8402	4638	55.2	35 - 105	
Nitrobenzene-d5	4201	2761	65.7	35 - 100	
Phenol-d6	8402	4855	57.8	40 - 100	
Terphenyl-dl4	4201	3345	79.6	30 - 125	
2,4,6-Tribromophenol	8402	5567	66.3	35 - 125	

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ANALYSIS DATA SHEET

MR21-SS38-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-11	File ID:	0306611.D
Sampled:	03/04/10 10:00	Prepared:	03/09/10 17:00	Analyzed:	03/12/10 19:27
Solids:	74.03	Preparation:	EXT_3546	Dilution:	1
Batch:	0C09006	Sequence: 0D09108	Calibration:	0056004	Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
91-94-1	3,3'-Dichlorobenzidine	UJ	41.9	338	~~UQ~~ ISL
83-32-9	Acenaphthene		35.1	338	U
208-96-8	Acenaphthylene		27.0	338	U
98-86-2	Acetophenone		55.4	338	U
120-12-7	Anthracene		36.5	338	U
1912-24-9	Atrazine		37.8	338	U
100-52-7	Benzaldehyde	103 J	74.3	338	~~UQ~~ BSL
191-24-2	Benzo (g,h,i) perylene	UJ	94.6	338	UQ ISL
207-08-9	Benzo (k) fluoranthene	↓	52.7	338	UQ ↓
92-52-4	1,1'-Biphenyl		39.2	338	U
101-55-3	4-Bromophenyl phenyl ether		35.1	338	U
85-68-7	Butyl benzyl phthalate		40.5	338	U
105-60-2	Caprolactam		90.5	338	U
86-74-8	Carbazole		48.6	338	U
59-50-7	4-Chloro-3-methylphenol		37.8	338	U
106-47-8	4-Chloroaniline		64.8	338	U
111-91-1	Bis(2-chloroethoxy)methane		41.9	338	U
111-44-4	Bis(2-chloroethyl)ether		55.4	338	U
39638-32-9	Bis(2-chloroisopropyl)ether		68.9	338	U
91-58-7	2-Chloronaphthalene		43.2	338	U
95-57-8	2-Chlorophenol		55.4	338	U
7005-72-3	4-Chlorophenyl phenyl ether		41.9	338	U
218-01-9	Chrysene		41.9	338	U
132-64-9	Dibenzofuran		32.4	338	U
84-74-2	Di-n-butyl phthalate		40.5	338	U
120-83-2	2,4-Dichlorophenol		25.7	338	U
84-66-2	Diethyl phthalate		45.9	338	U
105-67-9	2,4-Dimethylphenol		28.4	338	U
131-11-3	Dimethylphthalate		40.5	338	U
534-52-1	4,6-Dinitro-2-methylphenol		29.7	675	U
51-28-5	2,4-Dinitrophenol		176	675	U
121-14-2	2,4-Dinitrotoluene		32.4	338	U
606-20-2	2,6-Dinitrotoluene	UJ	51.3	338	UQ ISL
117-84-0	Di-n-octyl phthalate	UJ	36.5	338	UQ ↓
117-81-7	Bis(2-ethylhexyl)phthalate		48.6	338	U
206-44-0	Fluoranthene		72.9	338	U
86-73-7	Fluorene		35.1	338	U
118-74-1	Hexachlorobenzene		47.3	338	U
87-68-3	Hexachlorobutadiene		44.6	338	U
77-47-4	Hexachlorocyclopentadiene	UJ	82.4	338	~~UQ~~ CCH

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ANALYSIS DATA SHEET

MR21-SS38-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-11	File ID:	0306611.D
Sampled:	03/04/10 10:00	Prepared:	03/09/10 17:00	Analyzed:	03/12/10 19:27
Solids:	74.03	Preparation:	EXT_3546	Dilution:	1

Batch: 0C09006 Sequence: 0D09108 Calibration: 0056004 Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-72-1	Hexachloroethane		52.7	338	U
91-57-6	2-Methylnaphthalene		47.3	338	U
95-48-7	2-Methylphenol		52.7	338	U
106-44-5	4-Methylphenol		35.1	338	U
91-20-3	Naphthalene		43.2	338	U
100-01-6	4-Nitroaniline		135	675	U
99-09-2	3-Nitroaniline		63.5	675	U
88-74-4	2-Nitroaniline		43.2	675	U
98-95-3	Nitrobenzene		45.9	338	U
100-02-7	4-Nitrophenol		109	675	U
88-75-5	2-Nitrophenol		29.7	338	U
86-30-6	N-Nitrosodiphenylamine		43.2	338	U
85-01-8	Phenanthrene		31.1	338	U
108-95-2	Phenol		48.6	338	U
129-00-0	Pyrene		54.0	338	U
88-06-2	2,4,6-Trichlorophenol		47.3	338	U
95-95-4	2,4,5-Trichlorophenol		36.5	675	U
532-27-4	2-Chloroacetophenone		90.5	338	U
2698-41-1	2-Chlorobenzalmalononitrile	UJ	90.5	338	~~UQ~~ ISL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	4503	2817	62.6	45 - 105	
2-Fluorophenol	9006	4869	54.1	35 - 105	
Nitrobenzene-d5	4503	3052	67.8	35 - 100	
Phenol-d6	9006	5372	59.7	40 - 100	
Terphenyl-d14	4503	3994	88.7	30 - 125	
2,4,6-Tribromophenol	9006	6437	71.5	35 - 125	

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ANALYSIS DATA SHEET

MR21-SS25-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-12	File ID:	0306612.D
Sampled:	03/04/10 08:15	Prepared:	03/09/10 17:00	Analyzed:	03/12/10 20:02
Solids:	72.66	Preparation:	EXT_3546	Dilution:	1
Batch:	0C09006	Sequence: 0D09108	Calibration:	0056004	Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
91-94-1	3,3'-Dichlorobenzidine	UJ	42.7	344	~~UQ~~ ISL
83-32-9	Acenaphthene		35.8	344	U
208-96-8	Acenaphthylene		27.5	344	U
98-86-2	Acetophenone		56.4	344	U
120-12-7	Anthracene		37.2	344	U
1912-24-9	Atrazine		38.5	344	U
100-52-7	Benzaldehyde	1210 J	75.7	344	~~Q~~ BSL
191-24-2	Benzo (g,h,i) perylene	UJ	96.3	344	~~UQ~~ ISL
207-08-9	Benzo (k) fluoranthene	UJ	53.7	344	~~UQ~~ J
92-52-4	1,1'-Biphenyl		39.9	344	U
101-55-3	4-Bromophenyl phenyl ether		35.8	344	U
85-68-7	Butyl benzyl phthalate		41.3	344	U
105-60-2	Caprolactam		92.2	344	U
86-74-8	Carbazole		49.5	344	U
59-50-7	4-Chloro-3-methylphenol		38.5	344	U
106-47-8	4-Chloroaniline		66.1	344	U
111-91-1	Bis(2-chloroethoxy)methane		42.7	344	U
111-44-4	Bis(2-chloroethyl)ether		56.4	344	U
39638-32-9	Bis(2-chloroisopropyl)ether		70.2	344	U
91-58-7	2-Chloronaphthalene		44.0	344	U
95-57-8	2-Chlorophenol		56.4	344	U
7005-72-3	4-Chlorophenyl phenyl ether		42.7	344	U
218-01-9	Chrysene		42.7	344	U
132-64-9	Dibenzofuran		33.0	344	U
84-74-2	Di-n-butyl phthalate		41.3	344	U
120-83-2	2,4-Dichlorophenol		26.1	344	U
84-66-2	Diethyl phthalate		46.8	344	U
105-67-9	2,4-Dimethylphenol		28.9	344	U
131-11-3	Dimethylphthalate		41.3	344	U
534-52-1	4,6-Dinitro-2-methylphenol		30.3	688	U
51-28-5	2,4-Dinitrophenol		179	688	U
121-14-2	2,4-Dinitrotoluene		33.0	344	U
606-20-2	2,6-Dinitrotoluene	UJ	52.3	344	~~UQ~~ ISL
117-84-0	Di-n-octyl phthalate	UJ	37.2	344	~~UQ~~ ISL
117-81-7	Bis(2-ethylhexyl)phthalate		49.5	344	U
206-44-0	Fluoranthene		74.3	344	U
86-73-7	Fluorene		35.8	344	U
118-74-1	Hexachlorobenzene		48.2	344	U
87-68-3	Hexachlorobutadiene		45.4	344	U
77-47-4	Hexachlorocyclopentadiene	UJ	84.0	344	~~UQ~~ CCH

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ANALYSIS DATA SHEET

MR21-SS25-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-12	File ID:	0306612.D
Sampled:	03/04/10 08:15	Prepared:	03/09/10 17:00	Analyzed:	03/12/10 20:02
Solids:	72.66	Preparation:	EXT_3546	Dilution:	1
Batch:	0C09006	Sequence: 0D09108	Calibration:	0056004	Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-72-1	Hexachloroethane		53.7	344	U
91-57-6	2-Methylnaphthalene		48.2	344	U
95-48-7	2-Methylphenol		53.7	344	U
106-44-5	4-Methylphenol		35.8	344	U
91-20-3	Naphthalene		44.0	344	U
100-01-6	4-Nitroaniline		138	688	U
99-09-2	3-Nitroaniline		64.7	688	U
88-74-4	2-Nitroaniline		44.0	688	U
98-95-3	Nitrobenzene		46.8	344	U
100-02-7	4-Nitrophenol		111	688	U
88-75-5	2-Nitrophenol		30.3	344	U
86-30-6	N-Nitrosodiphenylamine		44.0	344	U
85-01-8	Phenanthrene		31.7	344	U
108-95-2	Phenol		49.5	344	U
129-00-0	Pyrene		55.0	344	U
88-06-2	2,4,6-Trichlorophenol		48.2	344	U
95-95-4	2,4,5-Trichlorophenol		37.2	688	U
532-27-4	2-Chloroacetophenone		92.2	344	U
2698-41-1	2-Chlorobenzalmalononitrile	UJ	92.2	344	~~UQ~~ ISL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	4587	2388	52.1	45 - 105	
2-Fluorophenol	9175	3996	43.6	35 - 105	
Nitrobenzene-d5	4587	2526	55.1	35 - 100	
Phenol-d6	9175	4305	46.9	40 - 100	
Terphenyl-dl4	4587	3311	72.2	30 - 125	
2,4,6-Tribromophenol	9175	5384	58.7	35 - 125	

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ANALYSIS DATA SHEET

MR21-SS26-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-13	File ID:	0306613.D
Sampled:	03/03/10 12:50	Prepared:	03/09/10 17:00	Analyzed:	03/12/10 20:36
Solids:	80.10	Preparation:	EXT_3546	Dilution:	1
Batch:	0C09006	Sequence: 0D09108	Calibration:	0056004	Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
91-94-1	3,3'-Dichlorobenzidine	UJ	38.7	312	~~UQ~~ ISL
83-32-9	Acenaphthene		32.5	312	U
208-96-8	Acenaphthylene		25.0	312	U
98-86-2	Acetophenone		51.2	312	U
120-12-7	Anthracene		33.7	312	U
1912-24-9	Atrazine		35.0	312	U
100-52-7	Benzaldehyde	R	68.7	312	~~UQ~~ BSL
191-24-2	Benzo (g,h,i) perylene	UJ	87.4	312	UQ ISL
207-08-9	Benzo (k) fluoranthene	UJ	48.7	312	UQ ↓
92-52-4	1,1'-Biphenyl		36.2	312	U
101-55-3	4-Bromophenyl phenyl ether		32.5	312	U
85-68-7	Butyl benzyl phthalate		37.5	312	U
105-60-2	Caprolactam		83.6	312	U
86-74-8	Carbazole		44.9	312	U
59-50-7	4-Chloro-3-methylphenol		35.0	312	U
106-47-8	4-Chloroaniline		59.9	312	U
111-91-1	Bis(2-chloroethoxy)methane		38.7	312	U
111-44-4	Bis(2-chloroethyl)ether		51.2	312	U
39638-32-9	Bis(2-chloroisopropyl)ether		63.7	312	U
91-58-7	2-Chloronaphthalene		39.9	312	U
95-57-8	2-Chlorophenol		51.2	312	U
7005-72-3	4-Chlorophenyl phenyl ether		38.7	312	U
218-01-9	Chrysene		38.7	312	U
132-64-9	Dibenzofuran		30.0	312	U
84-74-2	Di-n-butyl phthalate		37.5	312	U
120-83-2	2,4-Dichlorophenol		23.7	312	U
84-66-2	Diethyl phthalate		42.4	312	U
105-67-9	2,4-Dimethylphenol		26.2	312	U
131-11-3	Dimethylphthalate		37.5	312	U
534-52-1	4,6-Dinitro-2-methylphenol		27.5	624	U
51-28-5	2,4-Dinitrophenol		162	624	U
121-14-2	2,4-Dinitrotoluene		30.0	312	U
606-20-2	2,6-Dinitrotoluene	UJ	47.4	312	UQ ISL
117-84-0	Di-n-octyl phthalate	UJ	33.7	312	UQ ISL
117-81-7	Bis(2-ethylhexyl)phthalate		44.9	312	U
206-44-0	Fluoranthene		67.4	312	U
86-73-7	Fluorene		32.5	312	U
118-74-1	Hexachlorobenzene		43.7	312	U
87-68-3	Hexachlorobutadiene		41.2	312	U
77-47-4	Hexachlorocyclopentadiene	UJ	76.2	312	~~UQ~~ CCH

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ANALYSIS DATA SHEET

MR21-SS26-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-13	File ID:	0306613.D
Sampled:	03/03/10 12:50	Prepared:	03/09/10 17:00	Analyzed:	03/12/10 20:36
Solids:	80.10	Preparation:	EXT_3546	Dilution:	1
Batch:	0C09006	Sequence: 0D09108	Calibration:	0056004	Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-72-1	Hexachloroethane		48.7	312	U
91-57-6	2-Methylnaphthalene		43.7	312	U
95-48-7	2-Methylphenol		48.7	312	U
106-44-5	4-Methylphenol		32.5	312	U
91-20-3	Naphthalene		39.9	312	U
100-01-6	4-Nitroaniline		125	624	U
99-09-2	3-Nitroaniline		58.7	624	U
88-74-4	2-Nitroaniline		39.9	624	U
98-95-3	Nitrobenzene		42.4	312	U
100-02-7	4-Nitrophenol		101	624	U
88-75-5	2-Nitrophenol		27.5	312	U
86-30-6	N-Nitrosodiphenylamine		39.9	312	U
85-01-8	Phenanthrene		28.7	312	U
108-95-2	Phenol		44.9	312	U
129-00-0	Pyrene		49.9	312	U
88-06-2	2,4,6-Trichlorophenol		43.7	312	U
95-95-4	2,4,5-Trichlorophenol		33.7	624	U
532-27-4	2-Chloroacetophenone		83.6	312	U
2698-41-1	2-Chlorobenzalmalononitrile	UJ	83.6	312	~~U~~ #SL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	4161	1965	47.2	45 - 105	
2-Fluorophenol	8323	3556	42.7	35 - 105	
Nitrobenzene-d5	4161	2100	50.5	35 - 100	
Phenol-d6	8323	3790	45.5	40 - 100	
Terphenyl-dl4	4161	2619	62.9	30 - 125	
2,4,6-Tribromophenol	8323	4173	50.1	35 - 125	

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ANALYSIS DATA SHEET

MR21-SS12-10A

Laboratory: Empirical Laboratories, LLC SDG:

Client: CH2M Hill, Inc. Project: Lejeune CTO-40 UXO-21

Matrix: Soil Laboratory ID: 1003066-14 File ID: 0306614.D

Sampled: 03/03/10 12:00 Prepared: 03/09/10 17:00 Analyzed: 03/12/10 21:11

Solids: 75.76 Preparation: EXT_3546 Dilution: 1

Batch: 0C09006 Sequence: 0D09108 Calibration: 0056004 Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
91-94-1	3,3'-Dichlorobenzidine	UJ	40.9	330	~~UQ~~ ISL
83-32-9	Acenaphthene		34.3	330	U
208-96-8	Acenaphthylene		26.4	330	U
98-86-2	Acetophenone		54.1	330	U
120-12-7	Anthracene		35.6	330	U
1912-24-9	Atrazine		37.0	330	U
100-52-7	Benzaldehyde	83.8 J	72.6	330	~~UQ~~ BSL
191-24-2	Benzo (g,h,i) perylene	UJ	92.4	330	UQ ISL
207-08-9	Benzo (k) fluoranthene	UJ	51.5	330	UQ ↓
92-52-4	1,1'-Biphenyl		38.3	330	U
101-55-3	4-Bromophenyl phenyl ether		34.3	330	U
85-68-7	Butyl benzyl phthalate		39.6	330	U
105-60-2	Caprolactam		88.4	330	U
86-74-8	Carbazole		47.5	330	U
59-50-7	4-Chloro-3-methylphenol		37.0	330	U
106-47-8	4-Chloroaniline		63.4	330	U
111-91-1	Bis(2-chloroethoxy)methane		40.9	330	U
111-44-4	Bis(2-chloroethyl)ether		54.1	330	U
39638-32-9	Bis(2-chloroisopropyl)ether		67.3	330	U
91-58-7	2-Chloronaphthalene		42.2	330	U
95-57-8	2-Chlorophenol		54.1	330	U
7005-72-3	4-Chlorophenyl phenyl ether		40.9	330	U
218-01-9	Chrysene		40.9	330	U
132-64-9	Dibenzofuran		31.7	330	U
84-74-2	Di-n-butyl phthalate		39.6	330	U
120-83-2	2,4-Dichlorophenol		25.1	330	U
84-66-2	Diethyl phthalate		44.9	330	U
105-67-9	2,4-Dimethylphenol		27.7	330	U
131-11-3	Dimethylphthalate		39.6	330	U
534-52-1	4,6-Dinitro-2-methylphenol		29.0	660	U
51-28-5	2,4-Dinitrophenol		172	660	U
121-14-2	2,4-Dinitrotoluene		31.7	330	U
606-20-2	2,6-Dinitrotoluene	UJ	50.2	330	~~UQ~~ ISL
117-84-0	Di-n-octyl phthalate	UJ	35.6	330	~~UQ~~ ISL
117-81-7	Bis(2-ethylhexyl)phthalate		47.5	330	U
206-44-0	Fluoranthene		71.3	330	U
86-73-7	Fluorene		34.3	330	U
118-74-1	Hexachlorobenzene		46.2	330	U
87-68-3	Hexachlorobutadiene		43.6	330	U
77-47-4	Hexachlorocyclopentadiene	UJ	80.5	330	~~UQ~~ OCH

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ANALYSIS DATA SHEET

MR21-SS12-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-14	File ID:	0306614.D
Sampled:	03/03/10 12:00	Prepared:	03/09/10 17:00	Analyzed:	03/12/10 21:11
Solids:	75.76	Preparation:	EXT_3546	Dilution:	1
Batch:	0C09006	Sequence: 0D09108	Calibration:	0056004	Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-72-1	Hexachloroethane		51.5	330	U
91-57-6	2-Methylnaphthalene		46.2	330	U
95-48-7	2-Methylphenol		51.5	330	U
106-44-5	4-Methylphenol		34.3	330	U
91-20-3	Naphthalene		42.2	330	U
100-01-6	4-Nitroaniline		132	660	U
99-09-2	3-Nitroaniline		62.0	660	U
88-74-4	2-Nitroaniline		42.2	660	U
98-95-3	Nitrobenzene		44.9	330	U
100-02-7	4-Nitrophenol		107	660	U
88-75-5	2-Nitrophenol		29.0	330	U
86-30-6	N-Nitrosodiphenylamine		42.2	330	U
85-01-8	Phenanthrene		30.4	330	U
108-95-2	Phenol		47.5	330	U
129-00-0	Pyrene		52.8	330	U
88-06-2	2,4,6-Trichlorophenol		46.2	330	U
95-95-4	2,4,5-Trichlorophenol		35.6	660	U
532-27-4	2-Chloroacetophenone		88.4	330	U
2698-41-1	2-Chlorobenzalmalononitrile	UJ	88.4	330	~~UQ~~ ISL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	4400	2691	61.2	45 - 105	
2-Fluorophenol	8800	4901	55.7	35 - 105	
Nitrobenzene-d5	4400	2812	63.9	35 - 100	
Phenol-d6	8800	5228	59.4	40 - 100	
Terphenyl-d14	4400	3760	85.5	30 - 125	
2,4,6-Tribromophenol	8800	5878	66.8	35 - 125	

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ANALYSIS DATA SHEET

MR21-SS29-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-15	File ID:	0306615.D
Sampled:	03/03/10 13:00	Prepared:	03/09/10 17:00	Analyzed:	04/06/10 02:09
Solids:	68.76	Preparation:	EXT_3546	Dilution:	1
Batch:	0C09006	Sequence: 0D09602	Calibration:	0056004	Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
91-94-1	3,3'-Dichlorobenzidine	UJ	45.1	364	~~U~~	CCH
83-32-9	Acenaphthene		37.8	364	U	
208-96-8	Acenaphthylene		29.1	364	U	
98-86-2	Acetophenone		59.6	364	U	
120-12-7	Anthracene		39.3	364	U	
1912-24-9	Atrazine	UJ	40.7	364	~~U~~	CCH
100-52-7	Benzaldehyde	249 J	80.0	364	~~U~~	BSL
191-24-2	Benzo (g,h,i) perylene	UJ	102	364	UQ	ISL
207-08-9	Benzo (k) fluoranthene	UJ	56.7	364	UQ	ISL
92-52-4	1,1'-Biphenyl		42.2	364	U	
101-55-3	4-Bromophenyl phenyl ether		37.8	364	U	
85-68-7	Butyl benzyl phthalate	UJ	43.6	364	UQ	CCH
105-60-2	Caprolactam	↓	97.4	364	UQ	↓
86-74-8	Carbazole		52.4	364	UQ	
59-50-7	4-Chloro-3-methylphenol		40.7	364	U	
106-47-8	4-Chloroaniline		69.8	364	U	
111-91-1	Bis(2-chloroethoxy)methane		45.1	364	U	
111-44-4	Bis(2-chloroethyl)ether		59.6	364	U~~Q~~	
39638-32-9	Bis(2-chloroisopropyl)ether	UJ	74.2	364	~~UQ~~	CCH
91-58-7	2-Chloronaphthalene		46.5	364	U	
95-57-8	2-Chlorophenol		59.6	364	U~~Q~~	
7005-72-3	4-Chlorophenyl phenyl ether		45.1	364	U	
218-01-9	Chrysene		45.1	364	U	
132-64-9	Dibenzofuran		34.9	364	U	
84-74-2	Di-n-butyl phthalate		43.6	364	U	
120-83-2	2,4-Dichlorophenol		27.6	364	U	
84-66-2	Diethyl phthalate		49.4	364	U	
105-67-9	2,4-Dimethylphenol		30.5	364	U	
131-11-3	Dimethylphthalate		43.6	364	U	
534-52-1	4,6-Dinitro-2-methylphenol		32.0	727	U	
51-28-5	2,4-Dinitrophenol	UJ	189	727	~~UQ~~	CCH
121-14-2	2,4-Dinitrotoluene		34.9	364	U	
606-20-2	2,6-Dinitrotoluene	UJ	55.3	364	~~U~~	ISL
117-84-0	Di-n-octyl phthalate	UJ	39.3	364	~~UQ~~	CCH
117-81-7	Bis(2-ethylhexyl)phthalate	UJ	52.4	364	~~UQ~~	CCH
206-44-0	Fluoranthene		78.5	364	U	
86-73-7	Fluorene		37.8	364	U	
118-74-1	Hexachlorobenzene		50.9	364	U	
87-68-3	Hexachlorobutadiene		48.0	364	U	
77-47-4	Hexachlorocyclopentadiene	UJ	88.7	364	~~UQ~~	CCH

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ANALYSIS DATA SHEET

MR21-SS29-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-15	File ID:	0306615.D
Sampled:	03/03/10 13:00	Prepared:	03/09/10 17:00	Analyzed:	04/06/10 02:09
Solids:	68.76	Preparation:	EXT_3546	Dilution:	1

Batch: 0C09006 Sequence: 0D09602 Calibration: 0056004 Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-72-1	Hexachloroethane		56.7	364	U
91-57-6	2-Methylnaphthalene		50.9	364	U
95-48-7	2-Methylphenol		56.7	364	U
106-44-5	4-Methylphenol		37.8	364	U
91-20-3	Naphthalene		46.5	364	U
100-01-6	4-Nitroaniline		145	727	U
99-09-2	3-Nitroaniline		68.4	727	U
88-74-4	2-Nitroaniline		46.5	727	U
98-95-3	Nitrobenzene		49.4	364	U
100-02-7	4-Nitrophenol		118	727	U
88-75-5	2-Nitrophenol		32.0	364	U
86-30-6	N-Nitrosodiphenylamine		46.5	364	U
85-01-8	Phenanthrene		33.5	364	U
108-95-2	Phenol		52.4	364	U
129-00-0	Pyrene		58.2	364	U
88-06-2	2,4,6-Trichlorophenol		50.9	364	U
95-95-4	2,4,5-Trichlorophenol		39.3	727	U
532-27-4	2-Chloroacetophenone		97.4	364	U
2698-41-1	2-Chlorobenzalmalononitrile	UJ	97.4	364	~~U~~ ISL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	4848	2371	48.9	45 - 105	
2-Fluorophenol	9696	4336	44.7	35 - 105	
Nitrobenzene-d5	4848	2560	52.8	35 - 100	
Phenol-d6	9696	5033	51.9	40 - 100	
Terphenyl-dl4	4848	3390	69.9	30 - 125	
2,4,6-Tribromophenol	9696	4370	45.1	35 - 125	

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ANALYSIS DATA SHEET

MR21-SS17-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-16	File ID:	0306616.D
Sampled:	03/03/10 11:40	Prepared:	03/09/10 17:00	Analyzed:	04/06/10 02:44
Solids:	78.36	Preparation:	EXT_3546	Dilution:	1
Batch:	0C09006	Sequence: 0D09602	Calibration:	0056004	Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
91-94-1	3,3'-Dichlorobenzidine	UJ	39.6	319	~~U~~	CCH
83-32-9	Acenaphthene		33.2	319	U	
208-96-8	Acenaphthylene		25.5	319	U	
98-86-2	Acetophenone		52.3	319	U	
120-12-7	Anthracene		34.5	319	U	
1912-24-9	Atrazine	UJ	35.7	319	~~U~~	CCH
100-52-7	Benzaldehyde	185 J	70.2	319	~~J~~	BSL
191-24-2	Benzo (g,h,i) perylene		89.3	319	U	
207-08-9	Benzo (k) fluoranthene		49.8	319	U	
92-52-4	1,1'-Biphenyl		37.0	319	U	
101-55-3	4-Bromophenyl phenyl ether		33.2	319	U	
85-68-7	Butyl benzyl phthalate	UJ	38.3	319	UQ	CCH
105-60-2	Caprolactam	↓	85.5	319	UQ	↓
86-74-8	Carbazole	↓	45.9	319	UQ	↓
59-50-7	4-Chloro-3-methylphenol		35.7	319	U	
106-47-8	4-Chloroaniline		61.3	319	U	
111-91-1	Bis(2-chloroethoxy)methane		39.6	319	U	
111-44-4	Bis(2-chloroethyl)ether		52.3	319	UQ	
39638-32-9	Bis(2-chloroisopropyl)ether	UJ	65.1	319	~~UQ~~	CCH
91-58-7	2-Chloronaphthalene		40.8	319	U	
95-57-8	2-Chlorophenol		52.3	319	U	
7005-72-3	4-Chlorophenyl phenyl ether		39.6	319	U	
218-01-9	Chrysene		39.6	319	U	
132-64-9	Dibenzofuran		30.6	319	U	
84-74-2	Di-n-butyl phthalate		38.3	319	U	
120-83-2	2,4-Dichlorophenol		24.2	319	U	
84-66-2	Diethyl phthalate		43.4	319	U	
105-67-9	2,4-Dimethylphenol		26.8	319	U	
131-11-3	Dimethylphthalate		38.3	319	U	
534-52-1	4,6-Dinitro-2-methylphenol		28.1	638	U	
51-28-5	2,4-Dinitrophenol	UJ	166	638	~~UQ~~	CCH
121-14-2	2,4-Dinitrotoluene		30.6	319	U	
606-20-2	2,6-Dinitrotoluene		48.5	319	U	
117-84-0	Di-n-octyl phthalate	UJ	34.5	319	UQ	CCH
117-81-7	Bis(2-ethylhexyl)phthalate	UJ	45.9	319	UQ	CCH
206-44-0	Fluoranthene		68.9	319	U	
86-73-7	Fluorene		33.2	319	U	
118-74-1	Hexachlorobenzene		44.7	319	U	
87-68-3	Hexachlorobutadiene		42.1	319	U	
77-47-4	Hexachlorocyclopentadiene	UJ	77.8	319	~~UQ~~	CCH

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ANALYSIS DATA SHEET

MR21-SS17-10A

Laboratory:	Empirical Laboratories, LLC			SDG:	
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Soil	Laboratory ID:	1003066-16	File ID:	0306616.D
Sampled:	03/03/10 11:40	Prepared:	03/09/10 17:00	Analyzed:	04/06/10 02:44
Solids:	78.36	Preparation:	EXT_3546	Dilution:	1
Batch:	0C09006	Sequence:	0D09602	Calibration:	0056004
Instrument:	MS-BNA3				

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-72-1	Hexachloroethane		49.8	319	U
91-57-6	2-Methylnaphthalene		44.7	319	U
95-48-7	2-Methylphenol		49.8	319	U
106-44-5	4-Methylphenol		33.2	319	U
91-20-3	Naphthalene		40.8	319	U
100-01-6	4-Nitroaniline		128	638	U
99-09-2	3-Nitroaniline		60.0	638	U
88-74-4	2-Nitroaniline		40.8	638	U
98-95-3	Nitrobenzene		43.4	319	U
100-02-7	4-Nitrophenol		103	638	U
88-75-5	2-Nitrophenol		28.1	319	U
86-30-6	N-Nitrosodiphenylamine		40.8	319	U
85-01-8	Phenanthrene		29.4	319	U
108-95-2	Phenol		45.9	319	U
129-00-0	Pyrene		51.0	319	U
88-06-2	2,4,6-Trichlorophenol		44.7	319	U
95-95-4	2,4,5-Trichlorophenol		34.5	638	U
532-27-4	2-Chloroacetophenone		85.5	319	U
2698-41-1	2-Chlorobenzalmalononitrile		85.5	319	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	4254	2303	54.1	45 - 105	
2-Fluorophenol	8508	4165	49.0	35 - 105	
Nitrobenzene-d5	4254	2448	57.6	35 - 100	
Phenol-d6	8508	4778	56.2	40 - 100	
Terphenyl-dl4	4254	2774	65.2	30 - 125	
2,4,6-Tribromophenol	8508	4192	49.3	35 - 125	

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ANALYSIS DATA SHEET

MR21-SS11-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-17	File ID:	0306617.D
Sampled:	03/03/10 12:10	Prepared:	03/09/10 17:00	Analyzed:	04/06/10 03:19
Solids:	74.12	Preparation:	EXT_3546	Dilution:	1
Batch:	0C09006	Sequence: 0D09602	Calibration:	0056004	Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
91-94-1	3,3'-Dichlorobenzidine	UJ	41.8	337	~~U~~	CCH
83-32-9	Acenaphthene		35.1	337	U	
208-96-8	Acenaphthylene		27.0	337	U	
98-86-2	Acetophenone		55.3	337	U	
120-12-7	Anthracene		36.4	337	U	
1912-24-9	Atrazine	UJ	37.8	337	~~U~~	CCH
100-52-7	Benzaldehyde	182 J	74.2	337	~~U~~	BSL
191-24-2	Benzo (g,h,i) perylene	UJ	94.4	337	UQ	ISL
207-08-9	Benzo (k) fluoranthene	UJ	52.6	337	UQ	ISL
92-52-4	1,1'-Biphenyl		39.1	337	U	
101-55-3	4-Bromophenyl phenyl ether		35.1	337	U	
85-68-7	Butyl benzyl phthalate	UJ	40.5	337	UQ	CCH
105-60-2	Caprolactam	↓	90.4	337	UQ	↓
86-74-8	Carbazole	↓	48.6	337	UQ	↓
59-50-7	4-Chloro-3-methylphenol		37.8	337	U	
106-47-8	4-Chloroaniline		64.8	337	U	
111-91-1	Bis(2-chloroethoxy)methane		41.8	337	U	
111-44-4	Bis(2-chloroethyl)ether		55.3	337	UQ	
39638-32-9	Bis(2-chloroisopropyl)ether	UJ	68.8	337	~~UQ~~	CCH
91-58-7	2-Chloronaphthalene		43.2	337	U	
95-57-8	2-Chlorophenol		55.3	337	U	
7005-72-3	4-Chlorophenyl phenyl ether		41.8	337	U	
218-01-9	Chrysene		41.8	337	U	
132-64-9	Dibenzofuran		32.4	337	U	
84-74-2	Di-n-butyl phthalate		40.5	337	U	
120-83-2	2,4-Dichlorophenol		25.6	337	U	
84-66-2	Diethyl phthalate		45.9	337	U	
105-67-9	2,4-Dimethylphenol		28.3	337	U	
131-11-3	Dimethylphthalate		40.5	337	U	
534-52-1	4,6-Dinitro-2-methylphenol		29.7	675	U	
51-28-5	2,4-Dinitrophenol	UJ	175	675	~~UQ~~	CCH
121-14-2	2,4-Dinitrotoluene		32.4	337	U	
606-20-2	2,6-Dinitrotoluene	UJ	51.3	337	~~U~~	ISL
117-84-0	Di-n-octyl phthalate	UJ	36.4	337	UQ	CCH
117-81-7	Bis(2-ethylhexyl)phthalate	UJ	48.6	337	UQ	CCH
206-44-0	Fluoranthene		72.9	337	U	
86-73-7	Fluorene		35.1	337	U	
118-74-1	Hexachlorobenzene		47.2	337	U	
87-68-3	Hexachlorobutadiene		44.5	337	U	
77-47-4	Hexachlorocyclopentadiene	UJ	82.3	337	~~UQ~~	CCH

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ANALYSIS DATA SHEET

MR21-SS11-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-17	File ID:	0306617.D
Sampled:	03/03/10 12:10	Prepared:	03/09/10 17:00	Analyzed:	04/06/10 03:19
Solids:	74.12	Preparation:	EXT_3546	Dilution:	1

Batch: 0C09006 Sequence: 0D09602 Calibration: 0056004 Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-72-1	Hexachloroethane		52.6	337	U
91-57-6	2-Methylnaphthalene		47.2	337	U
95-48-7	2-Methylphenol		52.6	337	U
106-44-5	4-Methylphenol		35.1	337	U
91-20-3	Naphthalene		43.2	337	U
100-01-6	4-Nitroaniline		135	675	U
99-09-2	3-Nitroaniline		63.4	675	U
88-74-4	2-Nitroaniline		43.2	675	U
98-95-3	Nitrobenzene		45.9	337	U
100-02-7	4-Nitrophenol		109	675	U
88-75-5	2-Nitrophenol		29.7	337	U
86-30-6	N-Nitrosodiphenylamine		43.2	337	U
85-01-8	Phenanthrene		31.0	337	U
108-95-2	Phenol		48.6	337	U
129-00-0	Pyrene		54.0	337	U
88-06-2	2,4,6-Trichlorophenol		47.2	337	U
95-95-4	2,4,5-Trichlorophenol		36.4	675	U
532-27-4	2-Chloroacetophenone		90.4	337	U
2698-41-1	2-Chlorobenzalmalononitrile	UJ	90.4	337	~~U~~ ISL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	4497	2445	54.4	45 - 105	
2-Fluorophenol	8994	4856	54.0	35 - 105	
Nitrobenzene-d5	4497	2714	60.3	35 - 100	
Phenol-d6	8994	5329	59.2	40 - 100	
Terphenyl-dl4	4497	3290	73.2	30 - 125	
2,4,6-Tribromophenol	8994	4515	50.2	35 - 125	

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ANALYSIS DATA SHEET

MR21-SS11D-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-18	File ID:	0306618.D
Sampled:	03/03/10 12:15	Prepared:	03/09/10 17:00	Analyzed:	04/06/10 03:54
Solids:	73.05	Preparation:	EXT_3546	Dilution:	1
Batch:	0C09006	Sequence: 0D09602	Calibration:	0056004	Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
91-94-1	3,3'-Dichlorobenzidine	UJ	42.4	342	~~U~~	CCH
83-32-9	Acenaphthene		35.6	342	U	
208-96-8	Acenaphthylene		27.4	342	U	
98-86-2	Acetophenone		56.1	342	U	
120-12-7	Anthracene		37.0	342	U	
1912-24-9	Atrazine	UJ	38.3	342	U	CCH
100-52-7	Benzaldehyde	155 J	75.3	342	~~U~~	BSL
191-24-2	Benzo (g,h,i) perylene	UJ	95.8	342	UQ	ISL
207-08-9	Benzo (k) fluoranthene	UJ	53.4	342	UQ	ISL
92-52-4	1,1'-Biphenyl		39.7	342	U	
101-55-3	4-Bromophenyl phenyl ether		35.6	342	U	
85-68-7	Butyl benzyl phthalate	UJ	41.1	342	UQ	CCH
105-60-2	Caprolactam	↓	91.7	342	UQ	↓
86-74-8	Carbazole		49.3	342	UQ	
59-50-7	4-Chloro-3-methylphenol		38.3	342	U	
106-47-8	4-Chloroaniline		65.7	342	U	
111-91-1	Bis(2-chloroethoxy)methane		42.4	342	U	
111-44-4	Bis(2-chloroethyl)ether		56.1	342	U~~Q~~	
39638-32-9	Bis(2-chloroisopropyl)ether	UJ	69.8	342	~~UQ~~	CCH
91-58-7	2-Chloronaphthalene		43.8	342	U	
95-57-8	2-Chlorophenol		56.1	342	U	
7005-72-3	4-Chlorophenyl phenyl ether		42.4	342	U	
218-01-9	Chrysene		42.4	342	U	
132-64-9	Dibenzofuran		32.9	342	U	
84-74-2	Di-n-butyl phthalate		41.1	342	U	
120-83-2	2,4-Dichlorophenol		26.0	342	U	
84-66-2	Diethyl phthalate		46.5	342	U	
105-67-9	2,4-Dimethylphenol		28.7	342	U	
131-11-3	Dimethylphthalate		41.1	342	U	
534-52-1	4,6-Dinitro-2-methylphenol		30.1	684	U	
51-28-5	2,4-Dinitrophenol	UJ	178	684	~~U~~	CCH
121-14-2	2,4-Dinitrotoluene		32.9	342	U	
606-20-2	2,6-Dinitrotoluene	UJ	52.0	342	~~U~~	ISL
117-84-0	Di-n-octyl phthalate	UJ	37.0	342	UQ	CCH
117-81-7	Bis(2-ethylhexyl)phthalate	UJ	49.3	342	UQ	CCH
206-44-0	Fluoranthene		73.9	342	U	
86-73-7	Fluorene		35.6	342	U	
118-74-1	Hexachlorobenzene		47.9	342	U	
87-68-3	Hexachlorobutadiene		45.2	342	U	
77-47-4	Hexachlorocyclopentadiene	UJ	83.5	342	~~U~~	CCH

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ANALYSIS DATA SHEET

MR21-SS11D-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-18	File ID:	0306618.D
Sampled:	03/03/10 12:15	Prepared:	03/09/10 17:00	Analyzed:	04/06/10 03:54
Solids:	73.05	Preparation:	EXT_3546	Dilution:	1

Batch: 0C09006 Sequence: 0D09602 Calibration: 0056004 Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-72-1	Hexachloroethane		53.4	342	U
91-57-6	2-Methylnaphthalene		47.9	342	U
95-48-7	2-Methylphenol		53.4	342	U
106-44-5	4-Methylphenol		35.6	342	U
91-20-3	Naphthalene		43.8	342	U
100-01-6	4-Nitroaniline		137	684	U
99-09-2	3-Nitroaniline		64.3	684	U
88-74-4	2-Nitroaniline		43.8	684	U
98-95-3	Nitrobenzene		46.5	342	U
100-02-7	4-Nitrophenol		111	684	U
88-75-5	2-Nitrophenol		30.1	342	U
86-30-6	N-Nitrosodiphenylamine		43.8	342	U
85-01-8	Phenanthrene		31.5	342	U
108-95-2	Phenol		49.3	342	U
129-00-0	Pyrene		54.8	342	U
88-06-2	2,4,6-Trichlorophenol		47.9	342	U
95-95-4	2,4,5-Trichlorophenol		37.0	684	U
532-27-4	2-Chloroacetophenone		91.7	342	U
2698-41-1	2-Chlorobenzalmalononitrile	UJ	91.7	342	~~U~~ FSL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	4563	2129	46.7	45 - 105	
2-Fluorophenol	9127	3684	40.4	35 - 105	
Nitrobenzene-d5	4563	2209	48.4	35 - 100	
Phenol-d6	9127	4409	48.3	40 - 100	
Terphenyl-d14	4563	3216	70.5	30 - 125	
2,4,6-Tribromophenol	9127	3947	43.2	35 - 125	

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ANALYSIS DATA SHEET

MR21-SS16-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-19	File ID:	0306619.D
Sampled:	03/03/10 11:50	Prepared:	03/10/10 11:40	Analyzed:	04/05/10 11:01
Solids:	86.97	Preparation:	EXT_3546	Dilution:	1
Batch:	0C09027	Sequence: 0D09601	Calibration:	0056004	Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
91-94-1	3,3'-Dichlorobenzidine	UJ	35.6	287	UQ	CCH
83-32-9	Acenaphthene		29.9	287	U	
208-96-8	Acenaphthylene		23.0	287	U	
98-86-2	Acetophenone		47.1	287	U	
120-12-7	Anthracene		31.0	287	U	
1912-24-9	Atrazine	UJ	32.2	287	~~UQ~~	CCH
100-52-7	Benzaldehyde	R	63.2	287	~~UQ~~	BSL
191-24-2	Benzo (g,h,i) perylene		80.5	287	U	
207-08-9	Benzo (k) fluoranthene		44.8	287	U	
92-52-4	1,1'-Biphenyl		33.3	287	U	
101-55-3	4-Bromophenyl phenyl ether		29.9	287	U	
85-68-7	Butyl benzyl phthalate		34.5	287	U	
105-60-2	Caprolactam		77.0	287	UQ	
86-74-8	Carbazole		41.4	287	U	
59-50-7	4-Chloro-3-methylphenol		32.2	287	U	
106-47-8	4-Chloroaniline		55.2	287	U	
111-91-1	Bis(2-chloroethoxy)methane		35.6	287	U	
111-44-4	Bis(2-chloroethyl)ether		47.1	287	UQ	
39638-32-9	Bis(2-chloroisopropyl)ether	UJ	58.6	287	~~UQ~~	CCH
91-58-7	2-Chloronaphthalene		36.8	287	U	
95-57-8	2-Chlorophenol		47.1	287	U	
7005-72-3	4-Chlorophenyl phenyl ether		35.6	287	U	
218-01-9	Chrysene		35.6	287	U	
132-64-9	Dibenzofuran		27.6	287	U	
84-74-2	Di-n-butyl phthalate		34.5	287	U	
120-83-2	2,4-Dichlorophenol		21.8	287	U	
84-66-2	Diethyl phthalate		39.1	287	U	
105-67-9	2,4-Dimethylphenol		24.1	287	U	
131-11-3	Dimethylphthalate		34.5	287	U	
534-52-1	4,6-Dinitro-2-methylphenol		25.3	575	U	
51-28-5	2,4-Dinitrophenol		149	575	U	
121-14-2	2,4-Dinitrotoluene		27.6	287	U	
606-20-2	2,6-Dinitrotoluene		43.7	287	UQ	
117-84-0	Di-n-octyl phthalate	UJ	31.0	287	~~UQ~~	CCH
117-81-7	Bis(2-ethylhexyl)phthalate		41.4	287	UQ	
206-44-0	Fluoranthene		62.1	287	U	
86-73-7	Fluorene		29.9	287	U	
118-74-1	Hexachlorobenzene		40.2	287	U	
87-68-3	Hexachlorobutadiene		37.9	287	U	
77-47-4	Hexachlorocyclopentadiene	UJ	70.1	287	~~UQ~~	CCH

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ANALYSIS DATA SHEET

MR21-SS16-10A

Laboratory:	Empirical Laboratories, LLC			SDG:	
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Soil	Laboratory ID:	1003066-19	File ID:	0306619.D
Sampled:	03/03/10 11:50	Prepared:	03/10/10 11:40	Analyzed:	04/05/10 11:01
Solids:	86.97	Preparation:	EXT_3546	Dilution:	1

Batch: 0C09027 Sequence: 0D09601 Calibration: 0056004 Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-72-1	Hexachloroethane		44.8	287	U
91-57-6	2-Methylnaphthalene		40.2	287	U
95-48-7	2-Methylphenol		44.8	287	U
106-44-5	4-Methylphenol		29.9	287	U
91-20-3	Naphthalene		36.8	287	U
100-01-6	4-Nitroaniline		115	575	U
99-09-2	3-Nitroaniline		54.0	575	U
88-74-4	2-Nitroaniline		36.8	575	U
98-95-3	Nitrobenzene		39.1	287	U
100-02-7	4-Nitrophenol		93.1	575	U
88-75-5	2-Nitrophenol		25.3	287	U
86-30-6	N-Nitrosodiphenylamine		36.8	287	U
85-01-8	Phenanthrene		26.4	287	U
108-95-2	Phenol		41.4	287	U
129-00-0	Pyrene		46.0	287	U
88-06-2	2,4,6-Trichlorophenol		40.2	287	U
95-95-4	2,4,5-Trichlorophenol		31.0	575	U
532-27-4	2-Chloroacetophenone		77.0	287	U
2698-41-1	2-Chlorobenzalmalononitrile		77.0	287	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	3833	2443	63.7	45 - 105	
2-Fluorophenol	7666	4921	64.2	35 - 105	
Nitrobenzene-d5	3833	2640	68.9	35 - 100	
Phenol-d6	7666	5309	69.3	40 - 100	
Terphenyl-dl4	3833	2433	63.5	30 - 125	
2,4,6-Tribromophenol	7666	4781	62.4	35 - 125	

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ANALYSIS DATA SHEET

MR21-SS14-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-20	File ID:	0306620.D
Sampled:	03/03/10 11:30	Prepared:	03/10/10 11:40	Analyzed:	04/05/10 11:38
Solids:	77.67	Preparation:	EXT_3546	Dilution:	1
Batch:	0C09027	Sequence: 0D09601	Calibration:	0056004	Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
91-94-1	3,3'-Dichlorobenzidine	UJ	39.9	322	~~UQ~~ CCH
83-32-9	Acenaphthene		33.5	322	U
208-96-8	Acenaphthylene		25.8	322	U
98-86-2	Acetophenone		52.8	322	U
120-12-7	Anthracene		34.8	322	U
1912-24-9	Atrazine	UJ	36.1	322	~~UQ~~ CCH
100-52-7	Benzaldehyde	R	70.8	322	~~UQ~~ BSL
191-24-2	Benzo (g,h,i) perylene		90.1	322	U
207-08-9	Benzo (k) fluoranthene		50.2	322	U
92-52-4	1,1'-Biphenyl		37.3	322	U
101-55-3	4-Bromophenyl phenyl ether		33.5	322	U
85-68-7	Butyl benzyl phthalate		38.6	322	U
105-60-2	Caprolactam		86.3	322	UQ
86-74-8	Carbazole		46.4	322	U
59-50-7	4-Chloro-3-methylphenol		36.1	322	U
106-47-8	4-Chloroaniline		61.8	322	U
111-91-1	Bis(2-chloroethoxy)methane		39.9	322	U
111-44-4	Bis(2-chloroethyl)ether		52.8	322	UQ
39638-32-9	Bis(2-chloroisopropyl)ether	UJ	65.7	322	~~UQ~~ CCH
91-58-7	2-Chloronaphthalene		41.2	322	U
95-57-8	2-Chlorophenol		52.8	322	U
7005-72-3	4-Chlorophenyl phenyl ether		39.9	322	U
218-01-9	Chrysene		39.9	322	U
132-64-9	Dibenzofuran		30.9	322	U
84-74-2	Di-n-butyl phthalate		38.6	322	U
120-83-2	2,4-Dichlorophenol		24.5	322	U
84-66-2	Diethyl phthalate		43.8	322	U
105-67-9	2,4-Dimethylphenol		27.0	322	U
131-11-3	Dimethylphthalate		38.6	322	U
534-52-1	4,6-Dinitro-2-methylphenol		28.3	644	U
51-28-5	2,4-Dinitrophenol		167	644	U
121-14-2	2,4-Dinitrotoluene		30.9	322	U
606-20-2	2,6-Dinitrotoluene		48.9	322	UQ
117-84-0	Di-n-octyl phthalate	UJ	34.8	322	~~UQ~~ CCH
117-81-7	Bis(2-ethylhexyl)phthalate		46.4	322	UQ
206-44-0	Fluoranthene		69.5	322	U
86-73-7	Fluorene		33.5	322	U
118-74-1	Hexachlorobenzene		45.1	322	U
87-68-3	Hexachlorobutadiene		42.5	322	U
77-47-4	Hexachlorocyclopentadiene	UJ	78.5	322	~~UQ~~ CCH

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ANALYSIS DATA SHEET

MR21-SS14-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-20	File ID:	0306620.D
Sampled:	03/03/10 11:30	Prepared:	03/10/10 11:40	Analyzed:	04/05/10 11:38
Solids:	77.67	Preparation:	EXT_3546	Dilution:	1

Batch: 0C09027 Sequence: 0D09601 Calibration: 0056004 Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-72-1	Hexachloroethane		50.2	322	U
91-57-6	2-Methylnaphthalene		45.1	322	U
95-48-7	2-Methylphenol		50.2	322	U
106-44-5	4-Methylphenol		33.5	322	U
91-20-3	Naphthalene		41.2	322	U
100-01-6	4-Nitroaniline		129	644	U
99-09-2	3-Nitroaniline		60.5	644	U
88-74-4	2-Nitroaniline		41.2	644	U
98-95-3	Nitrobenzene		43.8	322	U
100-02-7	4-Nitrophenol		104	644	U
88-75-5	2-Nitrophenol		28.3	322	U
86-30-6	N-Nitrosodiphenylamine		41.2	322	U
85-01-8	Phenanthrene		29.6	322	U
108-95-2	Phenol		46.4	322	U
129-00-0	Pyrene		51.5	322	U
88-06-2	2,4,6-Trichlorophenol		45.1	322	U
95-95-4	2,4,5-Trichlorophenol		34.8	644	U
532-27-4	2-Chloroacetophenone		86.3	322	U
2698-41-1	2-Chlorobenzalmalononitrile		86.3	322	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	4292	2204	51.4	45 - 105	
2-Fluorophenol	8583	4420	51.5	35 - 105	
Nitrobenzene-d5	4292	2357	54.9	35 - 100	
Phenol-d6	8583	4930	57.4	40 - 100	
Terphenyl-dl4	4292	2377	55.4	30 - 125	
2,4,6-Tribromophenol	8583	4092	47.7	35 - 125	

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ANALYSIS DATA SHEET

MR21-SS23-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-21	File ID:	0306621.D
Sampled:	03/03/10 12:30	Prepared:	03/09/10 17:00	Analyzed:	03/12/10 21:45
Solids:	86.63	Preparation:	EXT_3546	Dilution:	1
Batch:	0C09006	Sequence: 0D09108	Calibration:	0056004	Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
91-94-1	3,3'-Dichlorobenzidine	UJ	35.8	289	~~UJ,Q~~	JSL
83-32-9	Acenaphthene		30.0	289	U	
208-96-8	Acenaphthylene		23.1	289	U	
98-86-2	Acetophenone		47.3	289	U	
120-12-7	Anthracene		31.2	289	U	
1912-24-9	Atrazine		32.3	289	U	
100-52-7	Benzaldehyde	R	63.5	289	~~UJQ~~	BSL
191-24-2	Benzo (g,h,i) perylene	UJ	80.8	289	~~UQ~~	JSL
207-08-9	Benzo (k) fluoranthene	UJ	45.0	289	~~UQ~~	↓
92-52-4	1,1'-Biphenyl		33.5	289	U	
~~101-55-3~~	~~4-Bromophenyl phenyl ether~~		~~30.0~~	~~289~~	~~U~~	
85-68-7	Butyl benzyl phthalate		34.6	289	U	
105-60-2	Caprolactam		77.3	289	U	
86-74-8	Carbazole		41.6	289	U	
59-50-7	4-Chloro-3-methylphenol		32.3	289	U	
106-47-8	4-Chloroaniline		55.4	289	U	
111-91-1	Bis(2-chloroethoxy)methane		35.8	289	U	
111-44-4	Bis(2-chloroethyl)ether		47.3	289	U	
39638-32-9	Bis(2-chloroisopropyl)ether		58.9	289	U	
91-58-7	2-Chloronaphthalene		36.9	289	U	
95-57-8	2-Chlorophenol		47.3	289	U	
7005-72-3	4-Chlorophenyl phenyl ether		35.8	289	U	
218-01-9	Chrysene		35.8	289	U	
132-64-9	Dibenzofuran		27.7	289	U	
84-74-2	Di-n-butyl phthalate		34.6	289	U	
120-83-2	2,4-Dichlorophenol		21.9	289	U	
84-66-2	Diethyl phthalate		39.2	289	U	
105-67-9	2,4-Dimethylphenol		24.2	289	U	
131-11-3	Dimethylphthalate		34.6	289	U	
534-52-1	4,6-Dinitro-2-methylphenol		25.4	577	U	
51-28-5	2,4-Dinitrophenol		150	577	U	
121-14-2	2,4-Dinitrotoluene		27.7	289	U	
606-20-2	2,6-Dinitrotoluene	UJ	43.9	289	~~UQ~~	JSL
117-84-0	Di-n-octyl phthalate	UJ	31.2	289	~~UQJ~~	↓
117-81-7	Bis(2-ethylhexyl)phthalate		41.6	289	U	
206-44-0	Fluoranthene		62.3	289	U	
86-73-7	Fluorene		30.0	289	U	
118-74-1	Hexachlorobenzene		40.4	289	U	
87-68-3	Hexachlorobutadiene		38.1	289	U	
77-47-4	Hexachlorocyclopentadiene	UJ	70.4	289	~~UQ~~	CCH

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ANALYSIS DATA SHEET

MR21-SS23-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-21	File ID:	0306621.D
Sampled:	03/03/10 12:30	Prepared:	03/09/10 17:00	Analyzed:	03/12/10 21:45
Solids:	86.63	Preparation:	EXT_3546	Dilution:	1

Batch: 0C09006 Sequence: 0D09108 Calibration: 0056004 Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-72-1	Hexachloroethane		45.0	289	U
91-57-6	2-Methylnaphthalene		40.4	289	U
95-48-7	2-Methylphenol		45.0	289	U
106-44-5	4-Methylphenol		30.0	289	U
91-20-3	Naphthalene		36.9	289	U
100-01-6	4-Nitroaniline		115	577	U
99-09-2	3-Nitroaniline		54.3	577	U
88-74-4	2-Nitroaniline		36.9	577	U
98-95-3	Nitrobenzene		39.2	289	U
100-02-7	4-Nitrophenol		93.5	577	U
88-75-5	2-Nitrophenol		25.4	289	U
86-30-6	N-Nitrosodiphenylamine		36.9	289	U
85-01-8	Phenanthrene		26.5	289	U
108-95-2	Phenol		41.6	289	U
129-00-0	Pyrene		46.2	289	U
88-06-2	2,4,6-Trichlorophenol		40.4	289	U
95-95-4	2,4,5-Trichlorophenol		31.2	577	U
532-27-4	2-Chloroacetophenone		77.3	289	U
2698-41-1	2-Chlorobenzalmalononitrile	UJ	77.3	289	~~UJ~~ ISL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	3848	2152	55.9	45 - 105	
2-Fluorophenol	7696	4096	53.2	35 - 105	
Nitrobenzene-d5	3848	2172	56.5	35 - 100	
Phenol-d6	7696	4334	56.3	40 - 100	
Terphenyl-dl4	3848	3130	81.4	30 - 125	
2,4,6-Tribromophenol	7696	4848	63.0	35 - 125	

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ANALYSIS DATA SHEET

MR21-SS18D-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-22	File ID:	0306622.D
Sampled:	03/03/10 11:25	Prepared:	03/10/10 11:40	Analyzed:	04/05/10 12:15
Solids:	73.05	Preparation:	EXT_3546	Dilution:	1
Batch:	0C09027	Sequence: 0D09601	Calibration:	0056004	Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
91-94-1	3,3'-Dichlorobenzidine	UJ	42.4	342	~~UQ~~ CCH
83-32-9	Acenaphthene		35.6	342	U
208-96-8	Acenaphthylene		27.4	342	U
98-86-2	Acetophenone		56.1	342	U
120-12-7	Anthracene		37.0	342	U
1912-24-9	Atrazine	UJ	38.3	342	~~UQ~~ CCH
100-52-7	Benzaldehyde	310 J	75.3	342	~~JQ~~ BSL
191-24-2	Benzo (g,h,i) perylene		95.8	342	U
207-08-9	Benzo (k) fluoranthene		53.4	342	U
92-52-4	1,1'-Biphenyl		39.7	342	U
101-55-3	4-Bromophenyl phenyl ether		35.6	342	U
85-68-7	Butyl benzyl phthalate		41.1	342	U
105-60-2	Caprolactam		91.7	342	UQ
86-74-8	Carbazole		49.3	342	U
59-50-7	4-Chloro-3-methylphenol		38.3	342	U
106-47-8	4-Chloroaniline		65.7	342	U
111-91-1	Bis(2-chloroethoxy)methane		42.4	342	U
111-44-4	Bis(2-chloroethyl)ether		56.1	342	UQ
39638-32-9	Bis(2-chloroisopropyl)ether	UJ	69.8	342	~~UQ~~ CCH
91-58-7	2-Chloronaphthalene		43.8	342	U
95-57-8	2-Chlorophenol		56.1	342	U
7005-72-3	4-Chlorophenyl phenyl ether		42.4	342	U
218-01-9	Chrysene		42.4	342	U
132-64-9	Dibenzofuran		32.9	342	U
84-74-2	Di-n-butyl phthalate		41.1	342	U
120-83-2	2,4-Dichlorophenol		26.0	342	U
84-66-2	Diethyl phthalate		46.5	342	U
105-67-9	2,4-Dimethylphenol		28.7	342	U
131-11-3	Dimethylphthalate		41.1	342	U
534-52-1	4,6-Dinitro-2-methylphenol		30.1	684	U
51-28-5	2,4-Dinitrophenol		178	684	U
121-14-2	2,4-Dinitrotoluene		32.9	342	U
606-20-2	2,6-Dinitrotoluene		52.0	342	UQ
117-84-0	Di-n-octyl phthalate	UJ	37.0	342	~~UQ~~ CCH
117-81-7	Bis(2-ethylhexyl)phthalate	342 ~~210~~ U	49.3	342	~~JQ~~ EBL
206-44-0	Fluoranthene		73.9	342	U
86-73-7	Fluorene		35.6	342	U
118-74-1	Hexachlorobenzene		47.9	342	U
87-68-3	Hexachlorobutadiene		45.2	342	U
77-47-4	Hexachlorocyclopentadiene	UJ	83.5	342	~~UQ~~ CCH

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ANALYSIS DATA SHEET

MR21-SS18D-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-22	File ID:	0306622.D
Sampled:	03/03/10 11:25	Prepared:	03/10/10 11:40	Analyzed:	04/05/10 12:15
Solids:	73.05	Preparation:	EXT_3546	Dilution:	1

Batch: 0C09027 Sequence: 0D09601 Calibration: 0056004 Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-72-1	Hexachloroethane		53.4	342	U
91-57-6	2-Methylnaphthalene		47.9	342	U
95-48-7	2-Methylphenol		53.4	342	U
106-44-5	4-Methylphenol		35.6	342	U
91-20-3	Naphthalene		43.8	342	U
100-01-6	4-Nitroaniline		137	684	U
99-09-2	3-Nitroaniline		64.3	684	U
88-74-4	2-Nitroaniline		43.8	684	U
98-95-3	Nitrobenzene		46.5	342	U
100-02-7	4-Nitrophenol		111	684	U
88-75-5	2-Nitrophenol		30.1	342	U
86-30-6	N-Nitrosodiphenylamine		43.8	342	U
85-01-8	Phenanthrene		31.5	342	U
108-95-2	Phenol		49.3	342	U
129-00-0	Pyrene		54.8	342	U
88-06-2	2,4,6-Trichlorophenol		47.9	342	U
95-95-4	2,4,5-Trichlorophenol		37.0	684	U
532-27-4	2-Chloroacetophenone		91.7	342	U
2698-41-1	2-Chlorobenzalmalononitrile		91.7	342	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	4563	2594	56.9	45 - 105	
2-Fluorophenol	9126	4666	51.1	35 - 105	
Nitrobenzene-d5	4563	2699	59.2	35 - 100	
Phenol-d6	9126	4856	53.2	40 - 100	
Terphenyl-dl4	4563	2812	61.6	30 - 125	
2,4,6-Tribromophenol	9126	4666	51.1	35 - 125	

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ANALYSIS DATA SHEET

MR21-SS18-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-23	File ID:	0306623.D
Sampled:	03/03/10 11:20	Prepared:	03/10/10 11:40	Analyzed:	04/05/10 12:52
Solids:	73.63	Preparation:	EXT_3546	Dilution:	1
Batch:	0C09027	Sequence: 0D09601	Calibration:	0056004	Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
91-94-1	3,3'-Dichlorobenzidine	UJ	42.1	340	~~UQ~~ CCH
83-32-9	Acenaphthene		35.3	340	UQ
208-96-8	Acenaphthylene		27.2	340	UQ
98-86-2	Acetophenone		55.7	340	UQ
120-12-7	Anthracene		36.7	340	UQ
1912-24-9	Atrazine	UJ	38.0	340	~~UQ~~ CCH
100-52-7	Benzaldehyde	165 J	74.7	340	~~JQ~~ BSL
191-24-2	Benzo (g,h,i) perylene		95.1	340	UQ
207-08-9	Benzo (k) fluoranthene		53.0	340	UQ
92-52-4	1,1'-Biphenyl		39.4	340	UQ
101-55-3	4-Bromophenyl phenyl ether		35.3	340	UQ
85-68-7	Butyl benzyl phthalate		40.7	340	UQ
105-60-2	Caprolactam		91.0	340	UQ
86-74-8	Carbazole		48.9	340	UQ
59-50-7	4-Chloro-3-methylphenol		38.0	340	UQ
106-47-8	4-Chloroaniline		65.2	340	UQ
111-91-1	Bis(2-chloroethoxy)methane		42.1	340	UQ
111-44-4	Bis(2-chloroethyl)ether		55.7	340	UQ
39638-32-9	Bis(2-chloroisopropyl)ether	UJ	69.3	340	~~UQ~~ CCH
91-58-7	2-Chloronaphthalene		43.5	340	UQ
95-57-8	2-Chlorophenol		55.7	340	UQ
7005-72-3	4-Chlorophenyl phenyl ether		42.1	340	UQ
218-01-9	Chrysene		42.1	340	UQ
132-64-9	Dibenzofuran		32.6	340	UQ
84-74-2	Di-n-butyl phthalate		40.7	340	UQ
120-83-2	2,4-Dichlorophenol		25.8	340	UQ
84-66-2	Diethyl phthalate		46.2	340	UQ
105-67-9	2,4-Dimethylphenol		28.5	340	UQ
131-11-3	Dimethylphthalate		40.7	340	UQ
534-52-1	4,6-Dinitro-2-methylphenol		29.9	679	UQ
51-28-5	2,4-Dinitrophenol		177	679	UQ
121-14-2	2,4-Dinitrotoluene		32.6	340	UQ
606-20-2	2,6-Dinitrotoluene		51.6	340	UQ
117-84-0	Di-n-octyl phthalate	UJ	36.7	340	~~UQ~~ CCH
117-81-7	Bis(2-ethylhexyl)phthalate		48.9	340	UQ
206-44-0	Fluoranthene		73.3	340	UQ
86-73-7	Fluorene		35.3	340	UQ
118-74-1	Hexachlorobenzene		47.5	340	UQ
87-68-3	Hexachlorobutadiene		44.8	340	UQ
77-47-4	Hexachlorocyclopentadiene	UJ	82.9	340	~~UQ~~ CCH

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ANALYSIS DATA SHEET

MR21-SS18-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-23	File ID:	0306623.D
Sampled:	03/03/10 11:20	Prepared:	03/10/10 11:40	Analyzed:	04/05/10 12:52
Solids:	73.63	Preparation:	EXT_3546	Dilution:	1

Batch: 0C09027 Sequence: 0D09601 Calibration: 0056004 Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-72-1	Hexachloroethane		53.0	340	UQ
91-57-6	2-Methylnaphthalene		47.5	340	UQ
95-48-7	2-Methylphenol		53.0	340	UQ
106-44-5	4-Methylphenol		35.3	340	UQ
91-20-3	Naphthalene		43.5	340	UQ
100-01-6	4-Nitroaniline		136	679	UQ
99-09-2	3-Nitroaniline		63.8	679	UQ
88-74-4	2-Nitroaniline		43.5	679	UQ
98-95-3	Nitrobenzene		46.2	340	UQ
100-02-7	4-Nitrophenol		110	679	UQ
88-75-5	2-Nitrophenol		29.9	340	UQ
86-30-6	N-Nitrosodiphenylamine		43.5	340	UQ
85-01-8	Phenanthrene		31.2	340	UQ
108-95-2	Phenol		48.9	340	UQ
129-00-0	Pyrene		54.3	340	UQ
88-06-2	2,4,6-Trichlorophenol		47.5	340	UQ
95-95-4	2,4,5-Trichlorophenol		36.7	679	UQ
532-27-4	2-Chloroacetophenone		91.0	340	UQ
2698-41-1	2-Chlorobenzalmalononitrile		91.0	340	UQ

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	4527	1832	40.5	45 - 105	*
2-Fluorophenol	9055	3766	41.6	35 - 105	
Nitrobenzene-d5	4527	2068	45.7	35 - 100	
Phenol-d6	9055	4087	45.1	40 - 100	
Terphenyl-dl4	4527	2416	53.4	30 - 125	
2,4,6-Tribromophenol	9055	3624	40.0	35 - 125	

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ANALYSIS DATA SHEET

MR21-SS15-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-24	File ID:	0306624.D
Sampled:	03/03/10 12:25	Prepared:	03/10/10 11:40	Analyzed:	04/05/10 13:29
Solids:	75.42	Preparation:	EXT_3546	Dilution:	1
Batch:	0C09027	Sequence: 0D09601	Calibration:	0056004	Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
91-94-1	3,3'-Dichlorobenzidine	UJ	41.1	331	~~UQ~~ CCH
83-32-9	Acenaphthene		34.5	331	UQ
208-96-8	Acenaphthylene		26.5	331	UQ
98-86-2	Acetophenone		54.4	331	UQ
120-12-7	Anthracene		35.8	331	UQ
1912-24-9	Atrazine	UJ	37.1	331	~~UQ~~ CCH
100-52-7	Benzaldehyde	77.4 J	72.9	331	~~JQ~~ BSL
191-24-2	Benzo (g,h,i) perylene		92.8	331	UQ
207-08-9	Benzo (k) fluoranthene		51.7	331	UQ
92-52-4	1,1'-Biphenyl		38.5	331	UQ
101-55-3	4-Bromophenyl phenyl ether		34.5	331	UQ
85-68-7	Butyl benzyl phthalate		39.8	331	UQ
105-60-2	Caprolactam		88.8	331	UQ
86-74-8	Carbazole		47.7	331	UQ
59-50-7	4-Chloro-3-methylphenol		37.1	331	UQ
106-47-8	4-Chloroaniline		63.6	331	UQ
111-91-1	Bis(2-chloroethoxy)methane		41.1	331	UQ
111-44-4	Bis(2-chloroethyl)ether		54.4	331	UQ
39638-32-9	Bis(2-chloroisopropyl)ether	UJ	67.6	331	~~UQ~~ CCH
91-58-7	2-Chloronaphthalene		42.4	331	UQ
95-57-8	2-Chlorophenol		54.4	331	UQ
7005-72-3	4-Chlorophenyl phenyl ether		41.1	331	UQ
218-01-9	Chrysene		41.1	331	UQ
132-64-9	Dibenzofuran		31.8	331	UQ
84-74-2	Di-n-butyl phthalate		39.8	331	UQ
120-83-2	2,4-Dichlorophenol		25.2	331	UQ
84-66-2	Diethyl phthalate		45.1	331	UQ
105-67-9	2,4-Dimethylphenol		27.8	331	UQ
131-11-3	Dimethylphthalate		39.8	331	UQ
534-52-1	4,6-Dinitro-2-methylphenol		29.2	663	UQ
51-28-5	2,4-Dinitrophenol		172	663	UQ
121-14-2	2,4-Dinitrotoluene		31.8	331	UQ
606-20-2	2,6-Dinitrotoluene		50.4	331	UQ
117-84-0	Di-n-octyl phthalate	UJ	35.8	331	~~UQ~~ CCH
117-81-7	Bis(2-ethylhexyl)phthalate		47.7	331	UQ
206-44-0	Fluoranthene		71.6	331	UQ
86-73-7	Fluorene		34.5	331	UQ
118-74-1	Hexachlorobenzene		46.4	331	UQ
87-68-3	Hexachlorobutadiene		43.8	331	UQ
77-47-4	Hexachlorocyclopentadiene	UJ	80.9	331	~~UQ~~ CCH

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ANALYSIS DATA SHEET

MR21-SS15-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-24	File ID:	0306624.D
Sampled:	03/03/10 12:25	Prepared:	03/10/10 11:40	Analyzed:	04/05/10 13:29
Solids:	75.42	Preparation:	EXT_3546	Dilution:	1
Batch:	0C09027	Sequence: 0D09601	Calibration:	0056004	Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-72-1	Hexachloroethane		51.7	331	UQ
91-57-6	2-Methylnaphthalene		46.4	331	UQ
95-48-7	2-Methylphenol		51.7	331	UQ
106-44-5	4-Methylphenol		34.5	331	UQ
91-20-3	Naphthalene		42.4	331	UQ
100-01-6	4-Nitroaniline		133	663	UQ
99-09-2	3-Nitroaniline		62.3	663	UQ
88-74-4	2-Nitroaniline		42.4	663	UQ
98-95-3	Nitrobenzene		45.1	331	UQ
100-02-7	4-Nitrophenol		107	663	UQ
88-75-5	2-Nitrophenol		29.2	331	UQ
86-30-6	N-Nitrosodiphenylamine		42.4	331	UQ
85-01-8	Phenanthrene		30.5	331	UQ
108-95-2	Phenol		47.7	331	UQ
129-00-0	Pyrene		53.0	331	UQ
88-06-2	2,4,6-Trichlorophenol		46.4	331	UQ
95-95-4	2,4,5-Trichlorophenol		35.8	663	UQ
532-27-4	2-Chloroacetophenone		88.8	331	UQ
2698-41-1	2-Chlorobenzalmalononitrile		88.8	331	UQ

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	4420	1788	40.4	45 - 105	*
2-Fluorophenol	8840	3012	34.1	35 - 105	*
Nitrobenzene-d5	4420	1974	44.7	35 - 100	
Phenol-d6	8840	3640	41.2	40 - 100	
Terphenyl-dl4	4420	2140	48.4	30 - 125	
2,4,6-Tribromophenol	8840	3154	35.7	35 - 125	

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ANALYSIS DATA SHEET

MR21-SS22-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-25	File ID:	0306625.D
Sampled:	03/03/10 09:25	Prepared:	03/10/10 11:40	Analyzed:	04/05/10 14:06
Solids:	85.30	Preparation:	EXT_3546	Dilution:	1
Batch:	0C09027	Sequence: 0D09601	Calibration:	0056004	Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
91-94-1	3,3'-Dichlorobenzidine	UJ	36.3	293	~~UQ~~ CCH
83-32-9	Acenaphthene		30.5	293	U
208-96-8	Acenaphthylene		23.4	293	U
98-86-2	Acetophenone		48.1	293	U
120-12-7	Anthracene		31.7	293	U
1912-24-9	Atrazine	UJ	32.8	293	~~UQ~~ CCH
100-52-7	Benzaldehyde	R	64.5	293	~~UQ~~ BSL
191-24-2	Benzo (g,h,i) perylene		82.1	293	U
207-08-9	Benzo (k) fluoranthene		45.7	293	U
92-52-4	1,1'-Biphenyl		34.0	293	U
101-55-3	4-Bromophenyl phenyl ether		30.5	293	U
85-68-7	Butyl benzyl phthalate		35.2	293	U
105-60-2	Caprolactam		78.5	293	UQ
86-74-8	Carbazole		42.2	293	U
59-50-7	4-Chloro-3-methylphenol		32.8	293	U
106-47-8	4-Chloroaniline		56.3	293	U
111-91-1	Bis(2-chloroethoxy)methane		36.3	293	U
111-44-4	Bis(2-chloroethyl)ether		48.1	293	UQ
39638-32-9	Bis(2-chloroisopropyl)ether	UJ	59.8	293	~~UQ~~ CCH
91-58-7	2-Chloronaphthalene		37.5	293	U
95-57-8	2-Chlorophenol		48.1	293	U
7005-72-3	4-Chlorophenyl phenyl ether		36.3	293	U
218-01-9	Chrysene		36.3	293	U
132-64-9	Dibenzofuran		28.1	293	U
84-74-2	Di-n-butyl phthalate		35.2	293	U
120-83-2	2,4-Dichlorophenol		22.3	293	U
84-66-2	Diethyl phthalate		39.9	293	U
105-67-9	2,4-Dimethylphenol		24.6	293	U
131-11-3	Dimethylphthalate		35.2	293	U
534-52-1	4,6-Dinitro-2-methylphenol		25.8	586	U
51-28-5	2,4-Dinitrophenol		152	586	U
121-14-2	2,4-Dinitrotoluene		28.1	293	U
606-20-2	2,6-Dinitrotoluene		44.6	293	UQ
117-84-0	Di-n-octyl phthalate	UJ	31.7	293	~~UQ~~ CCH
117-81-7	Bis(2-ethylhexyl)phthalate		42.2	293	UQ
206-44-0	Fluoranthene		63.3	293	U
86-73-7	Fluorene		30.5	293	U
118-74-1	Hexachlorobenzene		41.0	293	U
87-68-3	Hexachlorobutadiene		38.7	293	U
77-47-4	Hexachlorocyclopentadiene	UJ	71.5	293	~~UQ~~ CCH

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ANALYSIS DATA SHEET

MR21-SS22-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-25	File ID:	0306625.D
Sampled:	03/03/10 09:25	Prepared:	03/10/10 11:40	Analyzed:	04/05/10 14:06
Solids:	85.30	Preparation:	EXT_3546	Dilution:	1
Batch:	0C09027	Sequence: 0D09601	Calibration:	0056004	Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-72-1	Hexachloroethane		45.7	293	U
91-57-6	2-Methylnaphthalene		41.0	293	U
95-48-7	2-Methylphenol		45.7	293	U
106-44-5	4-Methylphenol		30.5	293	U
91-20-3	Naphthalene		37.5	293	U
100-01-6	4-Nitroaniline		117	586	U
99-09-2	3-Nitroaniline		55.1	586	U
88-74-4	2-Nitroaniline		37.5	586	U
98-95-3	Nitrobenzene		39.9	293	U
100-02-7	4-Nitrophenol		95.0	586	U
88-75-5	2-Nitrophenol		25.8	293	U
86-30-6	N-Nitrosodiphenylamine		37.5	293	U
85-01-8	Phenanthrene		27.0	293	U
108-95-2	Phenol		42.2	293	U
129-00-0	Pyrene		46.9	293	U
88-06-2	2,4,6-Trichlorophenol		41.0	293	U
95-95-4	2,4,5-Trichlorophenol		31.7	586	U
532-27-4	2-Chloroacetophenone		78.5	293	U
2698-41-1	2-Chlorobenzalmalononitrile		78.5	293	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	3908	2065	52.8	45 - 105	
2-Fluorophenol	7816	4124	52.8	35 - 105	
Nitrobenzene-d5	3908	2143	54.8	35 - 100	
Phenol-d6	7816	4591	58.7	40 - 100	
Terphenyl-dl4	3908	2623	67.1	30 - 125	
2,4,6-Tribromophenol	7816	4003	51.2	35 - 125	

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ANALYSIS DATA SHEET

MR21-SS13-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-26	File ID:	0306626.D
Sampled:	03/03/10 10:00	Prepared:	03/10/10 11:40	Analyzed:	04/05/10 20:15
Solids:	69.29	Preparation:	EXT_3546	Dilution:	1
Batch:	0C09027	Sequence: 0D09602	Calibration:	0056004	Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
91-94-1	3,3'-Dichlorobenzidine	UJ	44.7	361	U	CCH
83-32-9	Acenaphthene		37.5	361	U	
208-96-8	Acenaphthylene		28.9	361	U	
98-86-2	Acetophenone		59.2	361	U	
120-12-7	Anthracene		39.0	361	U	
1912-24-9	Atrazine	UJ	40.4	361	U	CCH
100-52-7	Benzaldehyde	102 J	79.4	361	✓	BSL
191-24-2	Benzo (g,h,i) perylene		101	361	U	
207-08-9	Benzo (k) fluoranthene		56.3	361	U	
92-52-4	1,1'-Biphenyl		41.9	361	U	
101-55-3	4-Bromophenyl phenyl ether		37.5	361	U	
85-68-7	Butyl benzyl phthalate	UJ	43.3	361	U	CCH
105-60-2	Caprolactam	↓	96.7	361	U	↓
86-74-8	Carbazole	↓	52.0	361	U	↓
59-50-7	4-Chloro-3-methylphenol		40.4	361	U	
106-47-8	4-Chloroaniline		69.3	361	U	
111-91-1	Bis(2-chloroethoxy)methane		44.7	361	U	
111-44-4	Bis(2-chloroethyl)ether		59.2	361	U	
39638-32-9	Bis(2-chloroisopropyl)ether	UJ	73.6	361	U	CCH
91-58-7	2-Chloronaphthalene		46.2	361	U	
95-57-8	2-Chlorophenol		59.2	361	U	
7005-72-3	4-Chlorophenyl phenyl ether		44.7	361	U	
218-01-9	Chrysene		44.7	361	U	
132-64-9	Dibenzofuran		34.6	361	U	
84-74-2	Di-n-butyl phthalate		43.3	361	U	
120-83-2	2,4-Dichlorophenol		27.4	361	U	
84-66-2	Diethyl phthalate		49.1	361	U	
105-67-9	2,4-Dimethylphenol		30.3	361	U	
131-11-3	Dimethylphthalate		43.3	361	U	
534-52-1	4,6-Dinitro-2-methylphenol		31.8	722	U	
51-28-5	2,4-Dinitrophenol	UJ	188	722	U	CCH
121-14-2	2,4-Dinitrotoluene		34.6	361	U	
606-20-2	2,6-Dinitrotoluene		54.8	361	U	
117-84-0	Di-n-octyl phthalate	UJ	39.0	361	U	CCH
117-81-7	Bis(2-ethylhexyl)phthalate	UJ	52.0	361	U	↓
206-44-0	Fluoranthene		77.9	361	U	
86-73-7	Fluorene		37.5	361	U	
118-74-1	Hexachlorobenzene		50.5	361	U	
87-68-3	Hexachlorobutadiene		47.6	361	U	
77-47-4	Hexachlorocyclopentadiene	UJ	88.0	361	U	CCH

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ANALYSIS DATA SHEET

MR21-SS13-10A

Laboratory:	Empirical Laboratories, LLC			SDG:	
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Soil	Laboratory ID:	1003066-26	File ID:	0306626.D
Sampled:	03/03/10 10:00	Prepared:	03/10/10 11:40	Analyzed:	04/05/10 20:15
Solids:	69.29	Preparation:	EXT_3546	Dilution:	1

Batch: 0C09027 Sequence: 0D09602 Calibration: 0056004 Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-72-1	Hexachloroethane		56.3	361	U
91-57-6	2-Methylnaphthalene		50.5	361	U
95-48-7	2-Methylphenol		56.3	361	U
106-44-5	4-Methylphenol		37.5	361	U
91-20-3	Naphthalene		46.2	361	U
100-01-6	4-Nitroaniline		144	722	U
99-09-2	3-Nitroaniline		67.8	722	U
88-74-4	2-Nitroaniline		46.2	722	U
98-95-3	Nitrobenzene		49.1	361	U
100-02-7	4-Nitrophenol		117	722	U
88-75-5	2-Nitrophenol		31.8	361	U
86-30-6	N-Nitrosodiphenylamine		46.2	361	U
85-01-8	Phenanthrene		33.2	361	U
108-95-2	Phenol		52.0	361	U
129-00-0	Pyrene		57.7	361	U
88-06-2	2,4,6-Trichlorophenol		50.5	361	U
95-95-4	2,4,5-Trichlorophenol		39.0	722	U
532-27-4	2-Chloroacetophenone		96.7	361	U
2698-41-1	2-Chlorobenzalmalononitrile		96.7	361	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	4811	1938	40.3	45 - 105	*
2-Fluorophenol	9622	3581	37.2	35 - 105	
Nitrobenzene-d5	4811	2052	42.7	35 - 100	
Phenol-d6	9622	3766	39.1	40 - 100	*
Terphenyl-dl4	4811	1996	41.5	30 - 125	
2,4,6-Tribromophenol	9622	3373	35.1	35 - 125	

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ANALYSIS DATA SHEET

MR21-SS21-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-27	File ID:	0306627.D
Sampled:	03/03/10 09:35	Prepared:	03/10/10 11:40	Analyzed:	04/05/10 20:50
Solids:	79.57	Preparation:	EXT_3546	Dilution:	1
Batch:	0C09027	Sequence: 0D09602	Calibration:	0056004	Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
91-94-1	3,3'-Dichlorobenzidine	UJ	39.0	314	U	CCH
83-32-9	Acenaphthene		32.7	314	U	
208-96-8	Acenaphthylene		25.1	314	U	
98-86-2	Acetophenone		51.5	314	U	
120-12-7	Anthracene		33.9	314	U	
1912-24-9	Atrazine	UJ	35.2	314	U	CCH
100-52-7	Benzaldehyde	R	69.1	314	~~U~~ BSL	
191-24-2	Benzo (g,h,i) perylene		88.0	314	U	
207-08-9	Benzo (k) fluoranthene		49.0	314	U	
92-52-4	1,1'-Biphenyl		36.4	314	U	
101-55-3	4-Bromophenyl phenyl ether		32.7	314	U	
85-68-7	Butyl benzyl phthalate	UJ	37.7	314	U	CCH
105-60-2	Caprolactam	↓	84.2	314	U	↓
86-74-8	Carbazole	↓	45.2	314	U	
59-50-7	4-Chloro-3-methylphenol		35.2	314	U	
106-47-8	4-Chloroaniline		60.3	314	U	
111-91-1	Bis(2-chloroethoxy)methane		39.0	314	U	
111-44-4	Bis(2-chloroethyl)ether		51.5	314	U	
39638-32-9	Bis(2-chloroisopropyl)ether	UJ	64.1	314	U	CCH
91-58-7	2-Chloronaphthalene		40.2	314	U	
95-57-8	2-Chlorophenol		51.5	314	U	
7005-72-3	4-Chlorophenyl phenyl ether		39.0	314	U	
218-01-9	Chrysene		39.0	314	U	
132-64-9	Dibenzofuran		30.2	314	U	
84-74-2	Di-n-butyl phthalate		37.7	314	U	
120-83-2	2,4-Dichlorophenol		23.9	314	U	
84-66-2	Diethyl phthalate		42.7	314	U	
105-67-9	2,4-Dimethylphenol		26.4	314	U	
131-11-3	Dimethylphthalate		37.7	314	U	
534-52-1	4,6-Dinitro-2-methylphenol		27.6	628	U	
51-28-5	2,4-Dinitrophenol	UJ	163	628	U	CCH
121-14-2	2,4-Dinitrotoluene		30.2	314	U	
606-20-2	2,6-Dinitrotoluene		47.8	314	U	
117-84-0	Di-n-octyl phthalate	UJ	33.9	314	U	CCH
117-81-7	Bis(2-ethylhexyl)phthalate	UJ	45.2	314	U	↓
206-44-0	Fluoranthene		67.9	314	U	
86-73-7	Fluorene		32.7	314	U	
118-74-1	Hexachlorobenzene		44.0	314	U	
87-68-3	Hexachlorobutadiene		41.5	314	U	
77-47-4	Hexachlorocyclopentadiene	UJ	76.7	314	U	CCH

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ANALYSIS DATA SHEET

MR21-SS21-10A

Laboratory: Empirical Laboratories, LLC SDG:

Client: CH2M Hill, Inc. Project: Lejeune CTO-40 UXO-21

Matrix: Soil Laboratory ID: 1003066-27 File ID: 0306627.D

Sampled: 03/03/10 09:35 Prepared: 03/10/10 11:40 Analyzed: 04/05/10 20:50

Solids: 79.57 Preparation: EXT_3546 Dilution: 1

Batch: 0C09027 Sequence: 0D09602 Calibration: 0056004 Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-72-1	Hexachloroethane		49.0	314	U
91-57-6	2-Methylnaphthalene		44.0	314	U
95-48-7	2-Methylphenol		49.0	314	U
106-44-5	4-Methylphenol		32.7	314	U
91-20-3	Naphthalene		40.2	314	U
100-01-6	4-Nitroaniline		126	628	U
99-09-2	3-Nitroaniline		59.1	628	U
88-74-4	2-Nitroaniline		40.2	628	U
98-95-3	Nitrobenzene		42.7	314	U
100-02-7	4-Nitrophenol		102	628	U
88-75-5	2-Nitrophenol		27.6	314	U
86-30-6	N-Nitrosodiphenylamine		40.2	314	U
85-01-8	Phenanthrene		28.9	314	U
108-95-2	Phenol		45.2	314	U
129-00-0	Pyrene		50.3	314	U
88-06-2	2,4,6-Trichlorophenol		44.0	314	U
95-95-4	2,4,5-Trichlorophenol		33.9	628	U
532-27-4	2-Chloroacetophenone		84.2	314	U
2698-41-1	2-Chlorobenzalmalononitrile		84.2	314	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	4189	1847	44.1	45 - 105	*
2-Fluorophenol	8378	3594	42.9	35 - 105	
Nitrobenzene-d5	4189	2027	48.4	35 - 100	
Phenol-d6	8378	3936	47.0	40 - 100	
Terphenyl-dl4	4189	2159	51.5	30 - 125	
2,4,6-Tribromophenol	8378	3245	38.7	35 - 125	

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ANALYSIS DATA SHEET

MR21-SS27-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-28	File ID:	0306628.D
Sampled:	03/03/10 09:10	Prepared:	03/10/10 11:40	Analyzed:	04/05/10 21:25
Solids:	79.12	Preparation:	EXT_3546	Dilution:	1
Batch:	0C09027	Sequence: 0D09602	Calibration:	0056004	Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
91-94-1	3,3'-Dichlorobenzidine	UJ	39.2	316	~~UQ~~	CCH
83-32-9	Acenaphthene		32.9	316	U	
208-96-8	Acenaphthylene		25.3	316	U	
98-86-2	Acetophenone		51.8	316	U	
120-12-7	Anthracene		34.1	316	U	
1912-24-9	Atrazine	UJ	35.4	316	~~UQ~~	CCH
100-52-7	Benzaldehyde	R	69.5	316	~~U~~	BSL
191-24-2	Benzo (g,h,i) perylene		88.5	316	U	
207-08-9	Benzo (k) fluoranthene		49.3	316	U	
92-52-4	1,1'-Biphenyl		36.7	316	U	
101-55-3	4-Bromophenyl phenyl ether		32.9	316	U	
85-68-7	Butyl benzyl phthalate	UJ	37.9	316	~~UQ~~	CCH
105-60-2	Caprolactam	↓	84.7	316	~~UQ~~	↓
86-74-8	Carbazole		45.5	316	~~UQ~~	
59-50-7	4-Chloro-3-methylphenol		35.4	316	U	
106-47-8	4-Chloroaniline		60.7	316	U	
111-91-1	Bis(2-chloroethoxy)methane		39.2	316	U	
111-44-4	Bis(2-chloroethyl)ether		51.8	316	U	
39638-32-9	Bis(2-chloroisopropyl)ether	UJ	64.5	316	~~UQ~~	CCH
91-58-7	2-Chloronaphthalene		40.4	316	U	
95-57-8	2-Chlorophenol		51.8	316	U	
7005-72-3	4-Chlorophenyl phenyl ether		39.2	316	U	
218-01-9	Chrysene		39.2	316	U	
132-64-9	Dibenzofuran		30.3	316	U	
84-74-2	Di-n-butyl phthalate		37.9	316	U	
120-83-2	2,4-Dichlorophenol		24.0	316	U	
84-66-2	Diethyl phthalate		43.0	316	U	
105-67-9	2,4-Dimethylphenol		26.5	316	U	
131-11-3	Dimethylphthalate		37.9	316	U	
534-52-1	4,6-Dinitro-2-methylphenol		27.8	632	U	
51-28-5	2,4-Dinitrophenol	UJ	164	632	~~UQ~~	CCH
121-14-2	2,4-Dinitrotoluene		30.3	316	U	
606-20-2	2,6-Dinitrotoluene		48.0	316	U	
117-84-0	Di-n-octyl phthalate	UJ	34.1	316	~~UQ~~	CCH
117-81-7	Bis(2-ethylhexyl)phthalate	UJ	45.5	316	~~UQ~~	↓
206-44-0	Fluoranthene		68.3	316	U	
86-73-7	Fluorene		32.9	316	U	
118-74-1	Hexachlorobenzene		44.2	316	U	
87-68-3	Hexachlorobutadiene		41.7	316	U	
77-47-4	Hexachlorocyclopentadiene	UJ	77.1	316	~~UQ~~	CCH

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ANALYSIS DATA SHEET

MR21-SS27-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-28	File ID:	0306628.D
Sampled:	03/03/10 09:10	Prepared:	03/10/10 11:40	Analyzed:	04/05/10 21:25
Solids:	79.12	Preparation:	EXT_3546	Dilution:	1
Batch:	0C09027	Sequence:	0D09602	Calibration:	0056004
Instrument:	MS-BNA3				

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-72-1	Hexachloroethane		49.3	316	U
91-57-6	2-Methylnaphthalene		44.2	316	U
95-48-7	2-Methylphenol		49.3	316	U
106-44-5	4-Methylphenol		32.9	316	U
91-20-3	Naphthalene		40.4	316	U
100-01-6	4-Nitroaniline		126	632	U
99-09-2	3-Nitroaniline		59.4	632	U
88-74-4	2-Nitroaniline		40.4	632	U
98-95-3	Nitrobenzene		43.0	316	U
100-02-7	4-Nitrophenol		102	632	U
88-75-5	2-Nitrophenol		27.8	316	U
86-30-6	N-Nitrosodiphenylamine		40.4	316	U
85-01-8	Phenanthrene		29.1	316	U
108-95-2	Phenol		45.5	316	U
129-00-0	Pyrene		50.6	316	U
88-06-2	2,4,6-Trichlorophenol		44.2	316	U
95-95-4	2,4,5-Trichlorophenol		34.1	632	U
532-27-4	2-Chloroacetophenone		84.7	316	U
2698-41-1	2-Chlorobenzalmalononitrile		84.7	316	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	4213	1934	45.9	45 - 105	
2-Fluorophenol	8426	3462	41.1	35 - 105	
Nitrobenzene-d5	4213	2027	48.1	35 - 100	
Phenol-d6	8426	4048	48.0	40 - 100	
Terphenyl-dl4	4213	2224	52.8	30 - 125	
2,4,6-Tribromophenol	8426	3591	42.6	35 - 125	

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ANALYSIS DATA SHEET

MR21-SS27D-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-29	File ID:	0306629.D
Sampled:	03/03/10 09:15	Prepared:	03/10/10 11:40	Analyzed:	04/05/10 22:01
Solids:	80.42	Preparation:	EXT_3546	Dilution:	1
Batch:	0C09027	Sequence: 0D09602	Calibration:	0056004	Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
91-94-1	3,3'-Dichlorobenzidine	UJ	38.5	311	~~UQ~~	CCH
83-32-9	Acenaphthene		32.3	311	U	
208-96-8	Acenaphthylene		24.9	311	U	
98-86-2	Acetophenone		51.0	311	U	
120-12-7	Anthracene		33.6	311	U	
1912-24-9	Atrazine	UJ	34.8	311	~~UQ~~	CCH
100-52-7	Benzaldehyde	R	68.4	311	~~U~~	BSL
191-24-2	Benzo (g,h,i) perylene		87.0	311	U	
207-08-9	Benzo (k) fluoranthene		48.5	311	U	
92-52-4	1,1'-Biphenyl		36.1	311	U	
101-55-3	4-Bromophenyl phenyl ether		32.3	311	U	
85-68-7	Butyl benzyl phthalate	UJ	37.3	311	~~UQ~~	CCH
105-60-2	Caprolactam	↓	83.3	311	~~UQ~~	↓
86-74-8	Carbazole	↓	44.8	311	~~UQ~~	↓
59-50-7	4-Chloro-3-methylphenol		34.8	311	U	
106-47-8	4-Chloroaniline		59.7	311	U	
111-91-1	Bis(2-chloroethoxy)methane		38.5	311	U	
111-44-4	Bis(2-chloroethyl)ether		51.0	311	UJ	
39638-32-9	Bis(2-chloroisopropyl)ether	UJ	63.4	311	~~UQ~~	CCH
91-58-7	2-Chloronaphthalene		39.8	311	U	
95-57-8	2-Chlorophenol		51.0	311	U	
7005-72-3	4-Chlorophenyl phenyl ether		38.5	311	U	
218-01-9	Chrysene		38.5	311	U	
132-64-9	Dibenzofuran		29.8	311	U	
84-74-2	Di-n-butyl phthalate		37.3	311	U	
120-83-2	2,4-Dichlorophenol		23.6	311	U	
84-66-2	Diethyl phthalate		42.3	311	U	
105-67-9	2,4-Dimethylphenol		26.1	311	U	
131-11-3	Dimethylphthalate		37.3	311	U	
534-52-1	4,6-Dinitro-2-methylphenol		27.4	622	U	
51-28-5	2,4-Dinitrophenol	UJ	162	622	~~UQ~~	CCH
121-14-2	2,4-Dinitrotoluene		29.8	311	U	
606-20-2	2,6-Dinitrotoluene		47.3	311	UJ	
117-84-0	Di-n-octyl phthalate	UJ	33.6	311	~~UQ~~	CCH
117-81-7	Bis(2-ethylhexyl)phthalate	UJ	44.8	311	~~UQ~~	CCH
206-44-0	Fluoranthene		67.1	311	U	
86-73-7	Fluorene		32.3	311	U	
118-74-1	Hexachlorobenzene		43.5	311	U	
87-68-3	Hexachlorobutadiene		41.0	311	U	
77-47-4	Hexachlorocyclopentadiene	UJ	75.9	311	~~UQ~~	CCH

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ANALYSIS DATA SHEET

MR21-SS27D-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-29	File ID:	0306629.D
Sampled:	03/03/10 09:15	Prepared:	03/10/10 11:40	Analyzed:	04/05/10 22:01
Solids:	80.42	Preparation:	EXT_3546	Dilution:	1

Batch: 0C09027 Sequence: 0D09602 Calibration: 0056004 Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-72-1	Hexachloroethane		48.5	311	U
91-57-6	2-Methylnaphthalene		43.5	311	U
95-48-7	2-Methylphenol		48.5	311	U
106-44-5	4-Methylphenol		32.3	311	U
91-20-3	Naphthalene		39.8	311	U
100-01-6	4-Nitroaniline		124	622	U
99-09-2	3-Nitroaniline		58.4	622	U
88-74-4	2-Nitroaniline		39.8	622	U
98-95-3	Nitrobenzene		42.3	311	U
100-02-7	4-Nitrophenol		101	622	U
88-75-5	2-Nitrophenol		27.4	311	U
86-30-6	N-Nitrosodiphenylamine		39.8	311	U
85-01-8	Phenanthrene		28.6	311	U
108-95-2	Phenol		44.8	311	U
129-00-0	Pyrene		49.7	311	U
88-06-2	2,4,6-Trichlorophenol		43.5	311	U
95-95-4	2,4,5-Trichlorophenol		33.6	622	U
532-27-4	2-Chloroacetophenone		83.3	311	U
2698-41-1	2-Chlorobenzalmalononitrile		83.3	311	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	4145	1914	46.2	45 - 105	
2-Fluorophenol	8290	3755	45.3	35 - 105	
Nitrobenzene-d5	4145	2082	50.2	35 - 100	
Phenol-d6	8290	4246	51.2	40 - 100	
Terphenyl-d14	4145	2231	53.8	30 - 125	
2,4,6-Tribromophenol	8290	3559	42.9	35 - 125	

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ANALYSIS DATA SHEET

MR21-SS34-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-30	File ID:	0306630.D
Sampled:	03/04/10 09:30	Prepared:	03/10/10 11:40	Analyzed:	04/05/10 22:36
Solids:	51.67	Preparation:	EXT_3546	Dilution:	1

Batch: 0C09027 Sequence: 0D09602 Calibration: 0056004 Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
91-94-1	3,3'-Dichlorobenzidine	R	60.0	484	~~UJ~~	MSL
83-32-9	Acenaphthene		50.3	484	U	
208-96-8	Acenaphthylene		38.7	484	U	
98-86-2	Acetophenone		79.4	484	U	
120-12-7	Anthracene	UJ	52.3	484	~~UJ~~	MSL
1912-24-9	Atrazine	UJ	54.2	484	~~UJ, Q~~	MSL
100-52-7	Benzaldehyde	277 J	106	484	~~J~~	MSL
191-24-2	Benzo (g,h,i) perylene	UJ	135	484	~~UJ~~	MSL
207-08-9	Benzo (k) fluoranthene		75.5	484	U	
92-52-4	1,1'-Biphenyl		56.1	484	U	
101-55-3	4-Bromophenyl phenyl ether	UJ	50.3	484	~~UJ~~	MSL
85-68-7	Butyl benzyl phthalate	UJ	58.1	484	~~UQ~~	CCH
105-60-2	Caprolactam	↓	130	484	~~UQ~~	↓
86-74-8	Carbazole	↓	69.7	484	~~UQ~~	↓
59-50-7	4-Chloro-3-methylphenol	UJ	54.2	484	~~U~~	MSL
106-47-8	4-Chloroaniline	R	92.9	484	~~UJ~~	MSL
111-91-1	Bis(2-chloroethoxy)methane		60.0	484	U	
111-44-4	Bis(2-chloroethyl)ether		79.4	484	~~UQ~~	
39638-32-9	Bis(2-chloroisopropyl)ether	UJ	98.7	484	~~UQ~~	CCH
91-58-7	2-Chloronaphthalene		61.9	484	U	
95-57-8	2-Chlorophenol		79.4	484	U	
7005-72-3	4-Chlorophenyl phenyl ether	UJ	60.0	484	~~UJ~~	MSL
218-01-9	Chrysene	↓	60.0	484	~~UJ~~	↓
132-64-9	Dibenzofuran	↓	46.4	484	~~UJ~~	↓
84-74-2	Di-n-butyl phthalate		58.1	484	U	
120-83-2	2,4-Dichlorophenol		36.8	484	U	
84-66-2	Diethyl phthalate		65.8	484	U	
105-67-9	2,4-Dimethylphenol		40.6	484	U	
131-11-3	Dimethylphthalate	UJ	58.1	484	~~UJ~~	MSL
534-52-1	4,6-Dinitro-2-methylphenol		42.6	968	U	
51-28-5	2,4-Dinitrophenol	UJ	252	968	~~UQ~~	CCH
121-14-2	2,4-Dinitrotoluene	UJ	46.4	484	~~UJ~~	MSL
606-20-2	2,6-Dinitrotoluene	UJ	73.5	484	~~UJ, Q~~	MSL
117-84-0	Di-n-octyl phthalate	UJ	52.3	484	~~UJ, Q~~	MSL
117-81-7	Bis(2-ethylhexyl)phthalate	UJ	69.7	484	~~UJ, Q~~	MSL
206-44-0	Fluoranthene	↓	105	484	~~UJ~~	↓
86-73-7	Fluorene	↓	50.3	484	~~UJ~~	↓
118-74-1	Hexachlorobenzene	↓	67.7	484	~~UJ~~	↓
87-68-3	Hexachlorobutadiene		63.9	484	U	
77-47-4	Hexachlorocyclopentadiene	UJ	118	484	~~UQ~~	CCH

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ANALYSIS DATA SHEET

MR21-SS34-10A

Laboratory:	Empirical Laboratories, LLC			SDG:	
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Soil	Laboratory ID:	1003066-30	File ID:	0306630.D
Sampled:	03/04/10 09:30	Prepared:	03/10/10 11:40	Analyzed:	04/05/10 22:36
Solids:	51.67	Preparation:	EXT_3546	Dilution:	1
Batch:	0C09027	Sequence:	0D09602	Calibration:	0056004	Instrument:	MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
67-72-1	Hexachloroethane	UJ	75.5	484	~~UJ~~	MSL
91-57-6	2-Methylnaphthalene		67.7	484	U	
95-48-7	2-Methylphenol		75.5	484	U	
106-44-5	4-Methylphenol		50.3	484	U	
91-20-3	Naphthalene		61.9	484	U	
100-01-6	4-Nitroaniline	R	194	968	~~UJ~~	MSL
99-09-2	3-Nitroaniline	R	91.0	968	~~UJ~~	MSL
88-74-4	2-Nitroaniline	UJ	61.9	968	~~UJ~~	MSL
98-95-3	Nitrobenzene		65.8	484	U	
100-02-7	4-Nitrophenol		157	968	U	
88-75-5	2-Nitrophenol		42.6	484	U	
86-30-6	N-Nitrosodiphenylamine	UJ	61.9	484	~~UJ~~	MSL
85-01-8	Phenanthrene	UJ	44.5	484	~~UJ~~	MSL
108-95-2	Phenol		69.7	484	U	
129-00-0	Pyrene	UJ	77.4	484	~~UJ~~	MSL
88-06-2	2,4,6-Trichlorophenol		67.7	484	U	
95-95-4	2,4,5-Trichlorophenol	UJ	52.3	968	~~UJ~~	MSL
532-27-4	2-Chloroacetophenone		130	484	U	
2698-41-1	2-Chlorobenzalmalononitrile		130	484	U	

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	6451	3240	50.2	45 - 105	
2-Fluorophenol	12900	5517	42.8	35 - 105	
Nitrobenzene-d5	6451	3444	53.4	35 - 100	
Phenol-d6	12900	6106	47.3	40 - 100	
Terphenyl-dl4	6451	3800	58.9	30 - 125	
2,4,6-Tribromophenol	12900	5811	45.0	35 - 125	

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ANALYSIS DATA SHEET

MR21-SS35-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-31	File ID:	0306631.D
Sampled:	03/04/10 09:10	Prepared:	03/10/10 11:40	Analyzed:	04/05/10 23:12
Solids:	65.66	Preparation:	EXT_3546	Dilution:	1
Batch:	0C09027	Sequence: 0D09602	Calibration:	0056004	Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
91-94-1	3,3'-Dichlorobenzidine	UJ	47.2	381	~~U~~	CCH
83-32-9	Acenaphthene		39.6	381	U	
208-96-8	Acenaphthylene		30.5	381	U	
98-86-2	Acetophenone		62.4	381	U	
120-12-7	Anthracene		41.1	381	U	
1912-24-9	Atrazine	UJ	42.6	381	~~U~~	CCH
100-52-7	Benzaldehyde	R	83.8	381	~~U~~	BSL
191-24-2	Benzo (g,h,i) perylene		107	381	U	
207-08-9	Benzo (k) fluoranthene		59.4	381	U	
92-52-4	1,1'-Biphenyl		44.2	381	U	
101-55-3	4-Bromophenyl phenyl ether		39.6	381	U	
85-68-7	Butyl benzyl phthalate	UJ	45.7	381	U	CCH
105-60-2	Caprolactam	↓	102	381	U	↓
86-74-8	Carbazole	↓	54.8	381	U	
59-50-7	4-Chloro-3-methylphenol		42.6	381	U	
106-47-8	4-Chloroaniline		73.1	381	U	
111-91-1	Bis(2-chloroethoxy)methane		47.2	381	U	
111-44-4	Bis(2-chloroethyl)ether		62.4	381	U	
39638-32-9	Bis(2-chloroisopropyl)ether	UJ	77.7	381	~~U~~	CCH
91-58-7	2-Chloronaphthalene		48.7	381	U	
95-57-8	2-Chlorophenol		62.4	381	U	
7005-72-3	4-Chlorophenyl phenyl ether		47.2	381	U	
218-01-9	Chrysene		47.2	381	U	
132-64-9	Dibenzofuran		36.6	381	U	
84-74-2	Di-n-butyl phthalate		45.7	381	U	
120-83-2	2,4-Dichlorophenol		28.9	381	U	
84-66-2	Diethyl phthalate		51.8	381	U	
105-67-9	2,4-Dimethylphenol		32.0	381	U	
131-11-3	Dimethylphthalate		45.7	381	U	
534-52-1	4,6-Dinitro-2-methylphenol		33.5	762	U	
51-28-5	2,4-Dinitrophenol	UJ	198	762	~~U~~	CCH
121-14-2	2,4-Dinitrotoluene		36.6	381	U	
606-20-2	2,6-Dinitrotoluene		57.9	381	U	
117-84-0	Di-n-octyl phthalate	UJ	41.1	381	~~U~~	CCH
117-81-7	Bis(2-ethylhexyl)phthalate	UJ	54.8	381	~~U~~	CCH
206-44-0	Fluoranthene		82.2	381	U	
86-73-7	Fluorene		39.6	381	U	
118-74-1	Hexachlorobenzene		53.3	381	U	
87-68-3	Hexachlorobutadiene		50.3	381	U	
77-47-4	Hexachlorocyclopentadiene	UJ	92.9	381	~~U~~	CCH

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ANALYSIS DATA SHEET

MR21-SS35-10A

Laboratory:	Empirical Laboratories, LLC			SDG:	
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Soil	Laboratory ID:	1003066-31	File ID:	0306631.D
Sampled:	03/04/10 09:10	Prepared:	03/10/10 11:40	Analyzed:	04/05/10 23:12
Solids:	65.66	Preparation:	EXT_3546	Dilution:	1

Batch: 0C09027 Sequence: 0D09602 Calibration: 0056004 Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-72-1	Hexachloroethane		59.4	381	U
91-57-6	2-Methylnaphthalene		53.3	381	U
95-48-7	2-Methylphenol		59.4	381	U
106-44-5	4-Methylphenol		39.6	381	U
91-20-3	Naphthalene		48.7	381	U
100-01-6	4-Nitroaniline		152	762	U
99-09-2	3-Nitroaniline		71.6	762	U
88-74-4	2-Nitroaniline		48.7	762	U
98-95-3	Nitrobenzene		51.8	381	U
100-02-7	4-Nitrophenol		123	762	U
88-75-5	2-Nitrophenol		33.5	381	U
86-30-6	N-Nitrosodiphenylamine		48.7	381	U
85-01-8	Phenanthrene		35.0	381	U
108-95-2	Phenol		54.8	381	U
129-00-0	Pyrene		60.9	381	U
88-06-2	2,4,6-Trichlorophenol		53.3	381	U
95-95-4	2,4,5-Trichlorophenol		41.1	762	U
532-27-4	2-Chloroacetophenone		102	381	U
2698-41-1	2-Chlorobenzalmalononitrile		102	381	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	5077	2168	42.7	45 - 105	*
2-Fluorophenol	10150	3920	38.6	35 - 105	
Nitrobenzene-d5	5077	2358	46.4	35 - 100	
Phenol-d6	10150	4365	43.0	40 - 100	
Terphenyl-dl4	5077	2580	50.8	30 - 125	
2,4,6-Tribromophenol	10150	3898	38.4	35 - 125	

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ANALYSIS DATA SHEET

MR21-SS32-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-32	File ID:	0306632.D
Sampled:	03/04/10 08:40	Prepared:	03/10/10 11:40	Analyzed:	04/05/10 23:47
Solids:	83.39	Preparation:	EXT_3546	Dilution:	1
Batch:	0C09027	Sequence: 0D09602	Calibration:	0056004	Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
91-94-1	3,3'-Dichlorobenzidine	UJ	37.2	300	~~U~~ CCH
83-32-9	Acenaphthene		31.2	300	U
208-96-8	Acenaphthylene		24.0	300	U
98-86-2	Acetophenone		49.2	300	U
120-12-7	Anthracene		32.4	300	U
1912-24-9	Atrazine	UJ	33.6	300	~~U~~ CCH
100-52-7	Benzaldehyde	R	66.0	300	~~U~~ BSL
191-24-2	Benzo (g,h,i) perylene		83.9	300	U
207-08-9	Benzo (k) fluoranthene		46.8	300	U
92-52-4	1,1'-Biphenyl		34.8	300	U
101-55-3	4-Bromophenyl phenyl ether		31.2	300	U
85-68-7	Butyl benzyl phthalate	UJ	36.0	300	U CCH
105-60-2	Caprolactam	↓	80.3	300	U ↓
86-74-8	Carbazole		43.2	300	U
59-50-7	4-Chloro-3-methylphenol		33.6	300	U
106-47-8	4-Chloroaniline		57.6	300	U
111-91-1	Bis(2-chloroethoxy)methane		37.2	300	U
111-44-4	Bis(2-chloroethyl)ether		49.2	300	U
39638-32-9	Bis(2-chloroisopropyl)ether	UJ	61.2	300	~~U~~ CCH
91-58-7	2-Chloronaphthalene		38.4	300	U
95-57-8	2-Chlorophenol		49.2	300	U
7005-72-3	4-Chlorophenyl phenyl ether		37.2	300	U
218-01-9	Chrysene		37.2	300	U
132-64-9	Dibenzofuran		28.8	300	U
84-74-2	Di-n-butyl phthalate		36.0	300	U
120-83-2	2,4-Dichlorophenol		22.8	300	U
84-66-2	Diethyl phthalate		40.8	300	U
105-67-9	2,4-Dimethylphenol		25.2	300	U
131-11-3	Dimethylphthalate		36.0	300	U
534-52-1	4,6-Dinitro-2-methylphenol		26.4	600	U
51-28-5	2,4-Dinitrophenol	UJ	156	600	~~U~~ CCH
121-14-2	2,4-Dinitrotoluene		28.8	300	U
606-20-2	2,6-Dinitrotoluene		45.6	300	U
117-84-0	Di-n-octyl phthalate	UJ	32.4	300	U CCH
117-81-7	Bis(2-ethylhexyl)phthalate	UJ	43.2	300	U ↓
206-44-0	Fluoranthene		64.8	300	U
86-73-7	Fluorene		31.2	300	U
118-74-1	Hexachlorobenzene		42.0	300	U
87-68-3	Hexachlorobutadiene		39.6	300	U
77-47-4	Hexachlorocyclopentadiene	UJ	73.1	300	~~U~~ CCH

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ANALYSIS DATA SHEET

MR21-SS32-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-32	File ID:	0306632.D
Sampled:	03/04/10 08:40	Prepared:	03/10/10 11:40	Analyzed:	04/05/10 23:47
Solids:	83.39	Preparation:	EXT_3546	Dilution:	1

Batch: 0C09027 Sequence: 0D09602 Calibration: 0056004 Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-72-1	Hexachloroethane		46.8	300	U
91-57-6	2-Methylnaphthalene		42.0	300	U
95-48-7	2-Methylphenol		46.8	300	U
106-44-5	4-Methylphenol		31.2	300	U
91-20-3	Naphthalene		38.4	300	U
100-01-6	4-Nitroaniline		120	600	U
99-09-2	3-Nitroaniline		56.4	600	U
88-74-4	2-Nitroaniline		38.4	600	U
98-95-3	Nitrobenzene		40.8	300	U
100-02-7	4-Nitrophenol		97.1	600	U
88-75-5	2-Nitrophenol		26.4	300	U
86-30-6	N-Nitrosodiphenylamine		38.4	300	U
85-01-8	Phenanthrene		27.6	300	U
108-95-2	Phenol		43.2	300	U
129-00-0	Pyrene		48.0	300	U
88-06-2	2,4,6-Trichlorophenol		42.0	300	U
95-95-4	2,4,5-Trichlorophenol		32.4	600	U
532-27-4	2-Chloroacetophenone		80.3	300	U
2698-41-1	2-Chlorobenzalmalononitrile		80.3	300	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	3997	1792	44.8	45 - 105	*
2-Fluorophenol	7994	3417	42.7	35 - 105	
Nitrobenzene-d5	3997	1971	49.3	35 - 100	
Phenol-d6	7994	3971	49.7	40 - 100	
Terphenyl-dl4	3997	2126	53.2	30 - 125	
2,4,6-Tribromophenol	7994	3363	42.1	35 - 125	

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ANALYSIS DATA SHEET

MR21-FB-030410

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1003066-33	File ID:	0306633.D
Sampled:	03/04/10 10:30	Prepared:	03/08/10 10:10	Analyzed:	03/10/10 22:51
Solids:		Preparation:	EXT_3510	Dilution:	1
Batch:	0C08004	Sequence: 0C08304	Calibration:	0056004	Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
83-32-9	Acenaphthene		0.606	9.62	UQ
208-96-8	Acenaphthylene		0.452	9.62	UQ
98-86-2	Acetophenone		0.721	9.62	UQ
120-12-7	Anthracene		0.740	9.62	UQ
1912-24-9	Atrazine		0.663	9.62	UQ
100-52-7	Benzaldehyde		0.548	9.62	UQ
56-55-3	Benzo (a) anthracene		0.875	9.62	UQ
50-32-8	Benzo (a) pyrene		0.577	9.62	UQ
205-99-2	Benzo (b) fluoranthene	UJ	0.683	9.62	~~UQ~~ CCH
191-24-2	Benzo (g,h,i) perylene		1.44	9.62	UQ
207-08-9	Benzo (k) fluoranthene		0.481	9.62	UQ
92-52-4	1,1'-Biphenyl		0.375	9.62	UQ
101-55-3	4-Bromophenyl phenyl ether		0.548	9.62	UQ
85-68-7	Butyl benzyl phthalate		0.788	9.62	UQ
105-60-2	Caprolactam	UJ	0.346	9.62	~~UQ~~ BSL
86-74-8	Carbazole		0.663	9.62	UQ
59-50-7	4-Chloro-3-methylphenol		0.558	9.62	UQ
106-47-8	4-Chloroaniline		0.913	9.62	UQ
111-91-1	Bis(2-chloroethoxy)methane		0.500	9.62	UQ
111-44-4	Bis(2-chloroethyl)ether		0.433	9.62	UQ
39638-32-9	Bis(2-chloroisopropyl)ether		0.817	9.62	UQ
91-58-7	2-Chloronaphthalene		0.558	9.62	UQ
95-57-8	2-Chlorophenol		0.567	9.62	UQ
7005-72-3	4-Chlorophenyl phenyl ether		0.856	9.62	UQ
218-01-9	Chrysene		0.962	9.62	UQ
53-70-3	Dibenz (a,h) anthracene		1.63	9.62	UQ
132-64-9	Dibenzofuran		0.625	9.62	UQ
84-74-2	Di-n-butyl phthalate		1.25	9.62	UQ
91-94-1	3,3'-Dichlorobenzidine		0.856	9.62	UQ
120-83-2	2,4-Dichlorophenol		0.423	9.62	UQ
84-66-2	Diethyl phthalate		0.962	9.62	UQ
105-67-9	2,4-Dimethylphenol		0.683	9.62	UQ
131-11-3	Dimethylphthalate		0.712	9.62	UQ
534-52-1	4,6-Dinitro-2-methylphenol		0.712	9.62	UQ
51-28-5	2,4-Dinitrophenol		0.817	24.0	UQ
121-14-2	2,4-Dinitrotoluene		0.471	9.62	UQ
606-20-2	2,6-Dinitrotoluene		0.635	9.62	UQ
117-84-0	Di-n-octyl phthalate	UJ	0.317	9.62	~~UQ~~ CCH
117-81-7	Bis(2-ethylhexyl)phthalate		1.25	9.62	UQ
206-44-0	Fluoranthene		0.673	9.62	UQ

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ANALYSIS DATA SHEET

MR21-FB-030410

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1003066-33	File ID:	0306633.D
Sampled:	03/04/10 10:30	Prepared:	03/08/10 10:10	Analyzed:	03/10/10 22:51
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 0C08004 Sequence: 0C08304 Calibration: 0056004 Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
86-73-7	Fluorene		0.529	9.62	UQ
118-74-1	Hexachlorobenzene		0.452	9.62	UQ
87-68-3	Hexachlorobutadiene		0.894	9.62	UQ
77-47-4	Hexachlorocyclopentadiene	UJ	0.856	9.62	~~UQ~~ CCH
67-72-1	Hexachloroethane		0.442	9.62	UQ
193-39-5	Indeno (1,2,3-cd) pyrene	UJ	1.35	9.62	~~UQ~~ CCH
78-59-1	Isophorone		0.529	9.62	UQ
91-57-6	2-Methylnaphthalene		0.654	9.62	UQ
95-48-7	2-Methylphenol		0.798	9.62	UQ
106-44-5	4-Methylphenol		0.740	9.62	UQ
91-20-3	Naphthalene		0.433	9.62	UQ
100-01-6	4-Nitroaniline		1.92	24.0	UQ
99-09-2	3-Nitroaniline		0.962	24.0	UQ
88-74-4	2-Nitroaniline		1.15	24.0	UQ
98-95-3	Nitrobenzene		0.596	9.62	UQ
100-02-7	4-Nitrophenol		0.798	24.0	UQ
88-75-5	2-Nitrophenol		0.712	9.62	UQ
86-30-6	N-Nitrosodiphenylamine		0.442	9.62	UQ
621-64-7	N-Nitrosodi-n-propylamine		0.865	9.62	UQ
87-86-5	Pentachlorophenol		0.962	24.0	UQ
85-01-8	Phenanthrene		0.740	9.62	UQ
108-95-2	Phenol		0.442	9.62	UQ
129-00-0	Pyrene		0.625	9.62	UQ
88-06-2	2,4,6-Trichlorophenol		0.702	9.62	UQ
95-95-4	2,4,5-Trichlorophenol		0.481	24.0	UQ
532-27-4	2-Chloroacetophenone		0.962	4.81	UQ
2698-41-1	2-Chlorobenzalmalononitrile		0.962	4.81	UQ

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	48.08	27.76	57.7	50 - 110	
2-Fluorophenol	96.15	24.90	25.9	20 - 110	
Nitrobenzene-d5	48.08	31.92	66.4	40 - 110	
Phenol-d6	96.15	14.09	14.7	15 - 110	*
Terphenyl-dl4	48.08	37.42	77.8	50 - 135	
2,4,6-Tribromophenol	96.15	59.25	61.6	40 - 125	

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ANALYSIS DATA SHEET

MR21-EB-030310

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1003066-34	File ID:	0306634.D
Sampled:	03/03/10 15:30	Prepared:	03/08/10 10:10	Analyzed:	03/10/10 23:26
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 0C08004 Sequence: 0C08304 Calibration: 0056004 Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
83-32-9	Acenaphthene		0.606	9.62	U
208-96-8	Acenaphthylene		0.452	9.62	U
98-86-2	Acetophenone		0.721	9.62	U
120-12-7	Anthracene		0.740	9.62	U
1912-24-9	Atrazine		0.663	9.62	U
100-52-7	Benzaldehyde		0.548	9.62	U
56-55-3	Benzo (a) anthracene		0.875	9.62	U
50-32-8	Benzo (a) pyrene		0.577	9.62	U
205-99-2	Benzo (b) fluoranthene	UJ	0.683	9.62	~~UJ~~ CCH
191-24-2	Benzo (g,h,i) perylene		1.44	9.62	U
207-08-9	Benzo (k) fluoranthene		0.481	9.62	U
92-52-4	1,1'-Biphenyl		0.375	9.62	U
101-55-3	4-Bromophenyl phenyl ether		0.548	9.62	U
85-68-7	Butyl benzyl phthalate		0.788	9.62	U
105-60-2	Caprolactam	UJ	0.346	9.62	~~UJ~~ BSL
86-74-8	Carbazole		0.663	9.62	U
59-50-7	4-Chloro-3-methylphenol		0.558	9.62	U
106-47-8	4-Chloroaniline		0.913	9.62	U
111-91-1	Bis(2-chloroethoxy)methane		0.500	9.62	U
111-44-4	Bis(2-chloroethyl)ether		0.433	9.62	U
39638-32-9	Bis(2-chloroisopropyl)ether		0.817	9.62	U
91-58-7	2-Chloronaphthalene		0.558	9.62	U
95-57-8	2-Chlorophenol		0.567	9.62	U
7005-72-3	4-Chlorophenyl phenyl ether		0.856	9.62	U
218-01-9	Chrysene		0.962	9.62	U
53-70-3	Dibenz (a,h) anthracene		1.63	9.62	U
132-64-9	Dibenzofuran		0.625	9.62	U
84-74-2	Di-n-butyl phthalate		1.25	9.62	U
91-94-1	3,3'-Dichlorobenzidine		0.856	9.62	UJ
120-83-2	2,4-Dichlorophenol		0.423	9.62	U
84-66-2	Diethyl phthalate		0.962	9.62	U
105-67-9	2,4-Dimethylphenol		0.683	9.62	U
131-11-3	Dimethylphthalate		0.712	9.62	U
534-52-1	4,6-Dinitro-2-methylphenol		0.712	9.62	U
51-28-5	2,4-Dinitrophenol		0.817	24.0	U
121-14-2	2,4-Dinitrotoluene		0.471	9.62	U
606-20-2	2,6-Dinitrotoluene		0.635	9.62	UJ
117-84-0	Di-n-octyl phthalate	UJ	0.317	9.62	~~UJ~~ CCH
117-81-7	Bis(2-ethylhexyl)phthalate	1.25	1.25	9.62	J
206-44-0	Fluoranthene		0.673	9.62	U

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ANALYSIS DATA SHEET

MR21-EB-030310

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1003066-34	File ID:	0306634.D
Sampled:	03/03/10 15:30	Prepared:	03/08/10 10:10	Analyzed:	03/10/10 23:26
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 0C08004 Sequence: 0C08304 Calibration: 0056004 Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
86-73-7	Fluorene		0.529	9.62	U
118-74-1	Hexachlorobenzene		0.452	9.62	U
87-68-3	Hexachlorobutadiene		0.894	9.62	U
77-47-4	Hexachlorocyclopentadiene	UJ	0.856	9.62	~~UJ~~ CCH
67-72-1	Hexachloroethane		0.442	9.62	U
193-39-5	Indeno (1,2,3-cd) pyrene	UJ	1.35	9.62	~~UJ~~ CCH
78-59-1	Isophorone		0.529	9.62	U
91-57-6	2-Methylnaphthalene		0.654	9.62	U
95-48-7	2-Methylphenol		0.798	9.62	U
106-44-5	4-Methylphenol		0.740	9.62	U
91-20-3	Naphthalene		0.433	9.62	U
100-01-6	4-Nitroaniline		1.92	24.0	U
99-09-2	3-Nitroaniline		0.962	24.0	U
88-74-4	2-Nitroaniline		1.15	24.0	U
98-95-3	Nitrobenzene		0.596	9.62	U
100-02-7	4-Nitrophenol		0.798	24.0	U
88-75-5	2-Nitrophenol		0.712	9.62	U
86-30-6	N-Nitrosodiphenylamine		0.442	9.62	U
621-64-7	N-Nitrosodi-n-propylamine		0.865	9.62	U
87-86-5	Pentachlorophenol		0.962	24.0	U
85-01-8	Phenanthrene		0.740	9.62	U
108-95-2	Phenol		0.442	9.62	U
129-00-0	Pyrene		0.625	9.62	U
88-06-2	2,4,6-Trichlorophenol		0.702	9.62	U
95-95-4	2,4,5-Trichlorophenol		0.481	24.0	U
532-27-4	2-Chloroacetophenone		0.962	4.81	U
2698-41-1	2-Chlorobenzalmalononitrile		0.962	4.81	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	48.08	37.89	78.8	50 - 110	
2-Fluorophenol	96.15	32.74	34.1	20 - 110	
Nitrobenzene-d5	48.08	43.99	91.5	40 - 110	
Phenol-d6	96.15	18.22	19.0	15 - 110	
Terphenyl-dl4	48.08	47.99	99.8	50 - 135	
2,4,6-Tribromophenol	96.15	76.80	79.9	40 - 125	

lw 7/26/10

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ANALYSIS DATA SHEET

MR21-EB-030410

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1003066-35	File ID:	0306635.D
Sampled:	03/04/10 11:45	Prepared:	03/08/10 10:10	Analyzed:	03/11/10 00:02
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 0C08004 Sequence: 0C08304 Calibration: 0056004 Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
83-32-9	Acenaphthene		0.606	9.62	U
208-96-8	Acenaphthylene		0.452	9.62	U
98-86-2	Acetophenone		0.721	9.62	U
120-12-7	Anthracene		0.740	9.62	U
1912-24-9	Atrazine		0.663	9.62	U
100-52-7	Benzaldehyde		0.548	9.62	U
56-55-3	Benzo (a) anthracene		0.875	9.62	U
50-32-8	Benzo (a) pyrene		0.577	9.62	U
205-99-2	Benzo (b) fluoranthene	UJ	0.683	9.62	~~UQ~~ CCH
191-24-2	Benzo (g,h,i) perylene		1.44	9.62	U
207-08-9	Benzo (k) fluoranthene		0.481	9.62	U
92-52-4	1,1'-Biphenyl		0.375	9.62	U
101-55-3	4-Bromophenyl phenyl ether		0.548	9.62	U
85-68-7	Butyl benzyl phthalate		0.788	9.62	U
105-60-2	Caprolactam	UJ	0.346	9.62	~~UQ~~ BSL
86-74-8	Carbazole		0.663	9.62	U
59-50-7	4-Chloro-3-methylphenol		0.558	9.62	U
106-47-8	4-Chloroaniline		0.913	9.62	U
111-91-1	Bis(2-chloroethoxy)methane		0.500	9.62	U
111-44-4	Bis(2-chloroethyl)ether		0.433	9.62	U
39638-32-9	Bis(2-chloroisopropyl)ether		0.817	9.62	U
91-58-7	2-Chloronaphthalene		0.558	9.62	U
95-57-8	2-Chlorophenol		0.567	9.62	U
7005-72-3	4-Chlorophenyl phenyl ether		0.856	9.62	U
218-01-9	Chrysene		0.962	9.62	U
53-70-3	Dibenz (a,h) anthracene		1.63	9.62	U
132-64-9	Dibenzofuran		0.625	9.62	U
84-74-2	Di-n-butyl phthalate		1.25	9.62	U
91-94-1	3,3'-Dichlorobenzidine		0.856	9.62	U~~Q~~
120-83-2	2,4-Dichlorophenol		0.423	9.62	U
84-66-2	Diethyl phthalate		0.962	9.62	U
105-67-9	2,4-Dimethylphenol		0.683	9.62	U
131-11-3	Dimethylphthalate		0.712	9.62	U
534-52-1	4,6-Dinitro-2-methylphenol		0.712	9.62	U
51-28-5	2,4-Dinitrophenol		0.817	24.0	U
121-14-2	2,4-Dinitrotoluene		0.471	9.62	U
606-20-2	2,6-Dinitrotoluene		0.635	9.62	U~~Q~~
117-84-0	Di-n-octyl phthalate	UJ	0.317	9.62	~~UQ~~ CCH
117-81-7	Bis(2-ethylhexyl)phthalate		1.25	9.62	U
206-44-0	Fluoranthene		0.673	9.62	U

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ANALYSIS DATA SHEET

MR21-EB-030410

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1003066-35	File ID:	0306635.D
Sampled:	03/04/10 11:45	Prepared:	03/08/10 10:10	Analyzed:	03/11/10 00:02
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 0C08004 Sequence: 0C08304 Calibration: 0056004 Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
86-73-7	Fluorene		0.529	9.62	U
118-74-1	Hexachlorobenzene		0.452	9.62	U
87-68-3	Hexachlorobutadiene		0.894	9.62	U
77-47-4	Hexachlorocyclopentadiene	UJ	0.856	9.62	~~UQ~~ CCH
67-72-1	Hexachloroethane		0.442	9.62	U
193-39-5	Indeno (1,2,3-cd) pyrene	UJ	1.35	9.62	~~UQ~~ CCH
78-59-1	Isophorone		0.529	9.62	U
91-57-6	2-Methylnaphthalene		0.654	9.62	U
95-48-7	2-Methylphenol		0.798	9.62	U
106-44-5	4-Methylphenol		0.740	9.62	U
91-20-3	Naphthalene		0.433	9.62	U
100-01-6	4-Nitroaniline		1.92	24.0	U
99-09-2	3-Nitroaniline		0.962	24.0	U
88-74-4	2-Nitroaniline		1.15	24.0	U
98-95-3	Nitrobenzene		0.596	9.62	U
100-02-7	4-Nitrophenol		0.798	24.0	U
88-75-5	2-Nitrophenol		0.712	9.62	U
86-30-6	N-Nitrosodiphenylamine		0.442	9.62	U
621-64-7	N-Nitrosodi-n-propylamine		0.865	9.62	U
87-86-5	Pentachlorophenol		0.962	24.0	U
85-01-8	Phenanthrene		0.740	9.62	U
108-95-2	Phenol		0.442	9.62	U
129-00-0	Pyrene		0.625	9.62	U
88-06-2	2,4,6-Trichlorophenol		0.702	9.62	U
95-95-4	2,4,5-Trichlorophenol		0.481	24.0	U
532-27-4	2-Chloroacetophenone		0.962	4.81	U
2698-41-1	2-Chlorobenzalmalononitrile		0.962	4.81	~~UQ~~

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	48.08	32.65	67.9	50 - 110	
2-Fluorophenol	96.15	28.49	29.6	20 - 110	
Nitrobenzene-d5	48.08	37.74	78.5	40 - 110	
Phenol-d6	96.15	16.45	17.1	15 - 110	
Terphenyl-dl4	48.08	43.75	91.0	50 - 135	
2,4,6-Tribromophenol	96.15	69.31	72.1	40 - 125	

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ANALYSIS DATA SHEET

MR21-SS33-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-36	File ID:	0306636.D
Sampled:	03/04/10 09:20	Prepared:	03/10/10 11:40	Analyzed:	04/06/10 00:23
Solids:	76.73	Preparation:	EXT_3546	Dilution:	1
Batch:	0C09027	Sequence: 0D09602	Calibration:	0056004	Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
91-94-1	3,3'-Dichlorobenzidine	UJ	40.4	326	~~UQ~~	CCH
83-32-9	Acenaphthene		33.9	326	U	
208-96-8	Acenaphthylene		26.1	326	U	
98-86-2	Acetophenone		53.4	326	U	
120-12-7	Anthracene		35.2	326	U	
1912-24-9	Atrazine	UJ	36.5	326	~~UQ~~	CCH
100-52-7	Benzaldehyde	R	71.7	326	~~U~~	BSL
191-24-2	Benzo (g,h,i) perylene	UJ	91.2	326	UQ	ISL
207-08-9	Benzo (k) fluoranthene	UJ	50.8	326	UQ	↓
92-52-4	1,1'-Biphenyl		37.8	326	U	
101-55-3	4-Bromophenyl phenyl ether		33.9	326	U	
85-68-7	Butyl benzyl phthalate	UJ	39.1	326	UQ	CCH
105-60-2	Caprolactam	UJ	87.3	326	UQ	
86-74-8	Carbazole	UJ	46.9	326	UQ	↓
59-50-7	4-Chloro-3-methylphenol		36.5	326	U	
106-47-8	4-Chloroaniline		62.6	326	U	
111-91-1	Bis(2-chloroethoxy)methane		40.4	326	U	
111-44-4	Bis(2-chloroethyl)ether		53.4	326	UQ	
39638-32-9	Bis(2-chloroisopropyl)ether	UJ	66.5	326	~~UQ~~	CCH
91-58-7	2-Chloronaphthalene		41.7	326	U	
95-57-8	2-Chlorophenol		53.4	326	U	
7005-72-3	4-Chlorophenyl phenyl ether		40.4	326	U	
218-01-9	Chrysene		40.4	326	U	
132-64-9	Dibenzofuran		31.3	326	U	
84-74-2	Di-n-butyl phthalate		39.1	326	U	
120-83-2	2,4-Dichlorophenol		24.8	326	U	
84-66-2	Diethyl phthalate		44.3	326	U	
105-67-9	2,4-Dimethylphenol		27.4	326	U	
131-11-3	Dimethylphthalate		39.1	326	U	
534-52-1	4,6-Dinitro-2-methylphenol		28.7	652	U	
51-28-5	2,4-Dinitrophenol	UJ	169	652	~~UQ~~	CCH
121-14-2	2,4-Dinitrotoluene		31.3	326	U	
606-20-2	2,6-Dinitrotoluene	UJ	49.5	326	~~UQ~~	ISL
117-84-0	Di-n-octyl phthalate	UJ	35.2	326	UQ	CCH
117-81-7	Bis(2-ethylhexyl)phthalate	UJ	46.9	326	UQ	CCH
206-44-0	Fluoranthene		70.4	326	U	
86-73-7	Fluorene		33.9	326	U	
118-74-1	Hexachlorobenzene		45.6	326	U	
87-68-3	Hexachlorobutadiene		43.0	326	U	
77-47-4	Hexachlorocyclopentadiene	UJ	79.5	326	~~UQ~~	CCH

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ANALYSIS DATA SHEET

MR21-SS33-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-36	File ID:	0306636.D
Sampled:	03/04/10 09:20	Prepared:	03/10/10 11:40	Analyzed:	04/06/10 00:23
Solids:	76.73	Preparation:	EXT_3546	Dilution:	1
Batch:	0C09027	Sequence: 0D09602	Calibration:	0056004	Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-72-1	Hexachloroethane		50.8	326	U
91-57-6	2-Methylnaphthalene		45.6	326	U
95-48-7	2-Methylphenol		50.8	326	U
106-44-5	4-Methylphenol		33.9	326	U
91-20-3	Naphthalene		41.7	326	U
100-01-6	4-Nitroaniline		130	652	U
99-09-2	3-Nitroaniline		61.3	652	U
88-74-4	2-Nitroaniline		41.7	652	U
98-95-3	Nitrobenzene		44.3	326	U
100-02-7	4-Nitrophenol		106	652	U
88-75-5	2-Nitrophenol		28.7	326	U
86-30-6	N-Nitrosodiphenylamine		41.7	326	U
85-01-8	Phenanthrene		30.0	326	U
108-95-2	Phenol		46.9	326	U
129-00-0	Pyrene		52.1	326	U
88-06-2	2,4,6-Trichlorophenol		45.6	326	U
95-95-4	2,4,5-Trichlorophenol		35.2	652	U
532-27-4	2-Chloroacetophenone		87.3	326	U
2698-41-1	2-Chlorobenzalmalononitrile	UJ	87.3	326	~~U~~ JSL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	4344	1974	45.4	45 - 105	
2-Fluorophenol	8689	3460	39.8	35 - 105	
Nitrobenzene-d5	4344	2160	49.7	35 - 100	
Phenol-d6	8689	4070	46.8	40 - 100	
Terphenyl-dl4	4344	2657	61.2	30 - 125	
2,4,6-Tribromophenol	8689	3570	41.1	35 - 125	

LW 7/26/10

ENVIRONMENTAL
Data Services, Inc.

VOLATILE ORGANIC COMPOUNDS

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Area Gas Chamber, CTO-040 SDG #: 1003066

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: July 26, 2010

Laboratory: Empirical Laboratories, Nashville, Tennessee Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR21-SS24-10A	1003066-01	Soil
2	MR21-SS31-10A	1003066-02	Soil
3	MR21-SS40-10A	1003066-03	Soil
4	MR21-SS20-10A	1003066-04	Soil
4RE	MR21-SS20-10ARE	1003066-04RE	Soil
5	MR21-SS19-10A	1003066-05	Soil
5RE	MR21-SS19-10ARE	1003066-05RE	Soil
6RE	MR21-SS30-10ARE	1003066-06RE	Soil
7	MR21-SS36-10A	1003066-07	Soil
7RE	MR21-SS36-10ARE	1003066-07RE	Soil
8	MR21-SS37-10A	1003066-08	Soil
9	MR21-SS28-10A	1003066-09	Soil
10	MR21-SS39-10A	1003066-10	Soil
10RE	MR21-SS39-10ARE	1003066-10RE	Soil
11	MR21-SS38-10A	1003066-11	Soil
11RE	MR21-SS38-10ARE	1003066-11RE	Soil
12	MR21-SS25-10A	1003066-12	Soil
13	MR21-SS26-10A	1003066-13	Soil
14	MR21-SS12-10A	1003066-14	Soil
15	MR21-SS29-10A	1003066-15	Soil
16	MR21-SS17-10A	1003066-16	Soil
17	MR21-SS11-10A	1003066-17	Soil
18	MR21-SS11D-10A	1003066-18	Soil
19	MR21-SS16-10A	1003066-19	Soil
19RE	MR21-SS16-10ARE	1003066-19RE	Soil
20	MR21-SS14-10A	1003066-20	Soil
21	MR21-SS23-10A	1003066-21	Soil
21MS	MR21-SS23-10AMS	1003066-21MS	Soil
21MSD	MR21-SS23-10AMSD	1003066-21MSD	Soil
22	MR21-SS18D-10A	1003066-22	Soil
22RE	MR21-SS18D-10ARE	1003066-22RE	Soil
23	MR21-SS18-10A	1003066-23	Soil
23RE	MR21-SS18-10ARE	1003066-23RE	Soil
24	MR21-SS15-10A	1003066-24	Soil
24RE	MR21-SS15-10ARE	1003066-24RE	Soil

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
25	MR21-SS22-10A	1003066-25	Soil
26	MR21-SS13-10A	1003066-26	Soil
26RE	MR21-SS13-10ARE	1003066-26RE	Soil
27	MR21-SS21-10A	1003066-27	Soil
28	MR21-SS27-10A	1003066-28	Soil
29	MR21-SS27D-10A	1003066-29	Soil
30	MR21-SS34-10A	1003066-30	Soil
30MS	MR21-SS34-10AMS	1003066-30MS	Soil
30MSD	MR21-SS34-10AMSD	1003066-30MSD	Soil
30RE	MR21-SS34-10ARE	1003066-30RE	Soil
30REMS	MR21-SS34-10AREMS	1003066-30REMS	Soil
30REMSD	MR21-SS34-10AREMSD	1003066-30REMSD	Soil
31	MR21-SS35-10A	1003066-31	Soil
32	MR21-SS32-10A	1003066-32	Soil
33	MR21-FB-030410	1003066-33	Water
35	MR21-EB-030310	1003066-34	Water
35	MR21-EB-030410	1003066-35	Water
36	MR21-SS33-10A	1003066-36	Soil
36RE	MR21-SS33-10ARE	1003066-36RE	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
03/07/10	Acetone	0.045 RRF	J/R	33, 34, 35, 37
03/08/10 (1104)	Acetone	0.039 RRF	J/R	1-5, 7, 8, 9
03/08/10 (2227)	Acetone	0.042 RRF	J/R	10, 12-15, 17, 18
03/09/10	Acetone	26.7%/0.037 RRF	J/R	4RE, 5RE, 6RE, 7RE, 10RE, 11, 11RE, 16, 19-21, 24
	Bromomethane	33.6%	J/UJ	6RE, 21
03/10/10 (0232)	Acetone	25.9%/0.038	J/R	22, 23, 25-29
03/10/10 (1212)	Acetone	29.8%/0.036	J/R	19RE, 22RE, 23RE, 24RE, 26RE, 30, 31, 32, 36

CCAL Date	Compound	%D/RRF	Qualifier	Affected Samples
03/11/10	Acetone	0.0414 RRF	J/R	30RE, 36RE

Surrogates - All samples exhibited acceptable surrogate recoveries except the following.

Sample ID	Surrogate	%R	Qualifier
1	Bromofluorobenzene	83.1%	J/UJ
	Toluene-d8	122%	
4	Toluene-d8	129%	J - Positive Results
5	Bromofluorobenzene	65.4%	J/UJ
	Toluene-d8	162%	
8	Bromofluorobenzene	79.2%	J/UJ
	Toluene-d8	134%	
9	Toluene-d8	120%	J - Positive Results
3	Bromofluorobenzene	82.3%	J/UJ
	Toluene-d8	124%	
11	Bromofluorobenzene	78.0%	J/UJ
	Toluene-d8	136%	
12	Bromofluorobenzene	74.4%	J/UJ
	Toluene-d8	134%	
13	Bromofluorobenzene	80.4%	J/UJ
	Toluene-d8	129%	
15	Bromofluorobenzene	80.3%	J/UJ
	Toluene-d8	133%	
17	Bromofluorobenzene	83.3%	J/UJ
	Toluene-d8	121%	
18	Bromofluorobenzene	79.7%	J/UJ
	Toluene-d8	127%	
4RE	Bromofluorobenzene	83.9%	J/UJ
	Toluene-d8	122%	
5RE	Bromofluorobenzene	71.7%	J/UJ
	Toluene-d8	140%	
7RE	Bromofluorobenzene	84.1%	J/UJ
	Toluene-d8	128%	
10RE	Bromofluorobenzene	81.7%	J/UJ
	Toluene-d8	128%	
11RE	Bromofluorobenzene	75.2%	J/UJ
	Toluene-d8	139%	
16	Bromofluorobenzene	64.4%	J/UJ
	Toluene-d8	162%	
19	Bromofluorobenzene	72.2%	J/UJ
	Toluene-d8	142%	
20	Bromofluorobenzene	75.7%	J/UJ
	Toluene-d8	126%	
22	Bromofluorobenzene	61.1%	J/UJ
	Toluene-d8	171%	
	Dibromofluoromethane	129%	
23	Bromofluorobenzene	64.1%	J/UJ
	Toluene-d8	152%	
24	Bromofluorobenzene	73.0%	J/UJ
	Toluene-d8	135%	

Sample ID	Surrogate	%R	Qualifier
25	Bromofluorobenzene	73.5%	J/UJ
	Toluene-d8	131%	
26	Bromofluorobenzene	72.5%	J/UJ
	Toluene-d8	136%	
27	Bromofluorobenzene	73.5%	J/UJ
	Toluene-d8	130%	
28	Bromofluorobenzene	71.7%	J/UJ
	Toluene-d8	133%	
29	Bromofluorobenzene	79.1%	J/UJ
	Toluene-d8	126%	
19RE	Bromofluorobenzene	75.8%	J/UJ
	Toluene-d8	134%	
30	Bromofluorobenzene	70.0%	J/UJ
	Toluene-d8	143%	
31	Bromofluorobenzene	77.7%	J/UJ
	Toluene-d8	130%	
32	Bromofluorobenzene	73.3%	J/UJ
	Toluene-d8	130%	
36	Bromofluorobenzene	73.9%	J/UJ
	Toluene-d8	137%	
22RE	Bromofluorobenzene	64.9%	J/UJ
	Toluene-d8	177%	
	Dibromofluoromethane	133%	
23RE	Bromofluorobenzene	66.6%	J/UJ
	Toluene-d8	166%	
24RE	Bromofluorobenzene	77.7%	J/UJ
	Toluene-d8	128%	
26RE	Bromofluorobenzene	70.3%	J/UJ
	Toluene-d8	142%	
30RE	Bromofluorobenzene	70.2%	J/UJ
	Toluene-d8	144%	
36RE	Bromofluorobenzene	74.2%	J/UJ
	Toluene-d8	136%	

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
21	1,2,4-Trichlorobenzene	60.0%/48%/Ok	J/UJ
	Styrene	Ok/73.2%/Ok	J/UJ
30	Acetone	0%/Ok/Ok	None - See CCAL
	23 Compounds	Low	None - See Surrogates
30RE	Acetone	-46.8%/-24.6%/15.7	None - See CCAL
	10 Compounds	Low/High	None - See Surrogates

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
Every Sample Listed in Surrogates Section	IS2 and/or IS3	Low	None - See Surrogates

Method Blank - The method blanks exhibited the following contamination.

Blank ID	Compound	Conc. ug/kg	Action Level ug/kg	Qualifier	Affected Samples
0C08011-BLK1	Methylene Chloride	1.08	10.8	None	See 0C08011-BLK2
0C08011-BLK2	Methylene Chloride	61.0	610	U	1-4, 5, 7, 8, 9
0C08017-BLK1	Chloroform	0.639	3.195	U	10, 11, 15
	Methylene Chloride	2.53	25.3	None	See 0C08017-BLK2
0C08017-BLK2	Methylene Chloride	144	1440	U	10-15, 17, 18
0C09022-BLK1	Chloroform	0.629	3.145	U	5RE, 6RE, 7RE, 16
	Methylene Chloride	1.53	15.3	U	4RE, 5RE, 6RE, 7RE, 10RE, 11RE, 16, 19, 20, 21
	1,2,4-Trichlorobenzene	0.188	0.94	U	4RE
0C09031-BLK1	Chloroform	0.645	3.225	U	22, 27
	Methylene Chloride	0.942	9.42	U	22-29, 24RE
	1,2,4-Trichlorobenzene	0.199	0.995	U	22
0C10020-BLK1	Chloroform	0.595	2.975	U	36
	Methylene Chloride	1.26	12.6	U	19RE, 22RE, 23RE, 26RE, 30, 31, 32, 36
	1,2,4-Trichlorobenzene	0.227	1.135	U	19RE
0C11006-BLK1	Chloroform	0.596	2.98	None	All ND
	Methylene Chloride	3.03	30.3	U	30RE, 36RE

Trip, Field, Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/kg	Qualifier	Affected Samples
MR21-TB030410	None - ND	-	-	-	-
MR21-EB-030310	Methylene Chloride	0.624	6.24	None	See MB
MR21-EB-030410	Methylene Chloride	0.724	7.24	None	See MB
MR21-FB-030410	None - ND	-	-	-	-

Field Duplicates - Field duplicate results are summarized below.

Compound	MR21-SS11-10A ug/kg	MR21-SS11D-10A ug/kg	RPD	Qualifier
Acetone	159	267	51%	None
Methyl Acetate	3.75	87.4	184%	None - See Surrogates

Compound	MR21-SS18-10A ug/kg	MR21-SS18D-10A ug/kg	RPD	Qualifier
Acetone	355	550	43%	None
1,2-Dichlorobenzene	ND	1.02	NC	None
1,4-Dichlorobenzene	ND	1.65	NC	None
Ethylbenzene	1.28	1.46	13%	None
Toluene	4.02	ND	NC	None
Xylenes (total)	3.62	6.00	49%	None

Compound	MR21-SS27-10A ug/kg	MR21-SS27D-10A ug/kg	RPD	Qualifier
Acetone	149	177	17%	None
Methyl Acetate	21.7	23.8	9%	None
Xylenes (total)	3.38	3.64	7%	None

Tentatively Identified Compounds (TICs) - TICs were not reported.

Compound Quantitation - Several samples exhibited surrogate and/or internal standard deficiencies in the original analysis. The samples were reanalyzed and many exhibited similar results. Please refer to the Form Is for which sample results to use for reporting.

ANALYSIS DATA SHEET

MR21-SS24-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-01	File ID:	0306601.D
Sampled:	03/03/10 09:00	Prepared:	03/08/10 09:46	Analyzed:	03/08/10 15:33
Solids:	71.27	Preparation:	5035	Dilution:	1
Batch:	0C08011	Sequence: 0C06808	Calibration:	0057001	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-64-1	Acetone	275 J	3.26	16.3	~~Q~~ CC
71-43-2	Benzene	UJ	0.767	16.3	UQ SSL
75-27-4	Bromodichloromethane		0.489	16.3	UQ
75-25-2	Bromoform		1.63	16.3	UQ
74-83-9	Bromomethane		1.17	16.3	UQ
78-93-3	2-Butanone	43.2 J	2.28	16.3	Q
75-15-0	Carbon disulfide	UJ	2.12	16.3	UQ
56-23-5	Carbon tetrachloride		1.44	16.3	UQ
108-90-7	Chlorobenzene		0.555	16.3	UQ
75-00-3	Chloroethane		1.79	16.3	UQ
67-66-3	Chloroform		0.897	16.3	UQ
74-87-3	Chloromethane		0.848	16.3	UQ
110-82-7	Cyclohexane		0.881	16.3	UQ
124-48-1	Dibromochloromethane		0.555	16.3	UQ
96-12-8	1,2-Dibromo-3-chloropropane		1.96	8.16	UQ
106-93-4	1,2-Dibromoethane (EDB)		0.702	16.3	UQ
95-50-1	1,2-Dichlorobenzene		0.604	16.3	UQ
541-73-1	1,3-Dichlorobenzene		1.37	16.3	UQ
106-46-7	1,4-Dichlorobenzene		0.897	16.3	UQ
75-71-8	Dichlorodifluoromethane		1.79	16.3	UQ
75-34-3	1,1-Dichloroethane		0.881	16.3	UQ
107-06-2	1,2-Dichloroethane		0.750	16.3	UQ
75-35-4	1,1-Dichloroethene		1.96	16.3	UQ
156-59-4	cis-1,2-Dichloroethene		1.96	16.3	UQ
156-60-5	trans-1,2-Dichloroethene		1.79	16.3	UQ
78-87-5	1,2-Dichloropropane		0.750	16.3	UQ
10061-01-5	cis-1,3-Dichloropropene		0.816	16.3	UQ
10061-02-6	trans-1,3-Dichloropropene		0.522	16.3	UQ
100-41-4	Ethylbenzene		1.22	16.3	UQ
591-78-6	2-Hexanone		3.75	16.3	UQ
98-82-8	Isopropylbenzene		1.44	16.3	UQ
75-09-2	Methylene chloride	16.3 ~~4.70~~ UJ	1.01	16.3	~~JQB~~ MBL SSL
76-20-9	Methyl Acetate	11.4 J	2.61	16.3	JQ SSL
108-87-2	Methylcyclohexane	UJ	0.489	16.3	UQ
108-10-1	4-Methyl-2-pentanone		0.946	16.3	UQ
1634-04-4	Methyl t-Butyl Ether		0.522	16.3	UQ
100-42-5	Styrene		0.571	16.3	UQ
79-34-5	1,1,2,2-Tetrachloroethane		0.702	16.3	UQ
127-18-4	Tetrachloroethene		1.58	16.3	UQ
108-88-3	Toluene	8.85 J	1.40	16.3	JQ

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ANALYSIS DATA SHEET

MR21-SS24-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-01	File ID:	0306601.D
Sampled:	03/03/10 09:00	Prepared:	03/08/10 09:46	Analyzed:	03/08/10 15:33
Solids:	71.27	Preparation:	5035	Dilution:	1

Batch: 0C08011 Sequence: 0C06808 Calibration: 0057001 Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene	UJ	0.294	16.3	UQ
79-00-5	1,1,2-Trichloroethane		0.571	16.3	UQ
71-55-6	1,1,1-Trichloroethane		1.47	16.3	UQ
79-01-6	Trichloroethene		1.39	16.3	UQ
75-69-4	Trichlorofluoromethane		1.55	16.3	UQ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		2.72	16.3	UQ
75-01-4	Vinyl chloride		1.79	16.3	UQ
1330-20-7	Xylenes (total)	3.57 J	1.14	16.3	JQ

SSL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	48.94	40.68	83.1	85 - 120	*
Dibromofluoromethane	48.94	50.71	104	80 - 125	
1,2-Dichloroethane-d4	48.94	50.72	104	75 - 140	
Toluene-d8	48.94	59.79	122	85 - 115	*

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ANALYSIS DATA SHEET

MR21-SS31-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-02	File ID:	0306602.D
Sampled:	03/03/10 08:50	Prepared:	03/08/10 09:46	Analyzed:	03/08/10 16:12
Solids:	73.17	Preparation:	5035	Dilution:	1

Batch: 0C08011 Sequence: 0C06808 Calibration: 0057001 Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-64-1	Acetone	270 J	2.48	12.4	~~Q~~ CC
71-43-2	Benzene		0.582	12.4	U
75-27-4	Bromodichloromethane		0.371	12.4	U
75-25-2	Bromoform		1.24	12.4	U
74-83-9	Bromomethane		0.891	12.4	U
78-93-3	2-Butanone		1.73	12.4	U
75-15-0	Carbon disulfide		1.61	12.4	U
56-23-5	Carbon tetrachloride		1.09	12.4	U
108-90-7	Chlorobenzene		0.421	12.4	U
75-00-3	Chloroethane		1.36	12.4	U
67-66-3	Chloroform		0.681	12.4	U
74-87-3	Chloromethane		0.644	12.4	U
110-82-7	Cyclohexane		0.668	12.4	U
124-48-1	Dibromochloromethane		0.421	12.4	U
96-12-8	1,2-Dibromo-3-chloropropane		1.49	6.19	U
106-93-4	1,2-Dibromoethane (EDB)		0.532	12.4	U
95-50-1	1,2-Dichlorobenzene		0.458	12.4	U
541-73-1	1,3-Dichlorobenzene		1.04	12.4	U
106-46-7	1,4-Dichlorobenzene		0.681	12.4	U
75-71-8	Dichlorodifluoromethane		1.36	12.4	~~UQ~~
75-34-3	1,1-Dichloroethane		0.668	12.4	U
107-06-2	1,2-Dichloroethane		0.569	12.4	U
75-35-4	1,1-Dichloroethene		1.49	12.4	U
156-59-4	cis-1,2-Dichloroethene		1.49	12.4	U
156-60-5	trans-1,2-Dichloroethene		1.36	12.4	U
78-87-5	1,2-Dichloropropane		0.569	12.4	U
10061-01-5	cis-1,3-Dichloropropene		0.619	12.4	U
10061-02-6	trans-1,3-Dichloropropene		0.396	12.4	U
100-41-4	Ethylbenzene		0.928	12.4	~~UQ~~
591-78-6	2-Hexanone		2.85	12.4	U
98-82-8	Isopropylbenzene		1.09	12.4	U
75-09-2	Methylene chloride	12.4 ~~2.17~~ u	0.768	12.4	~~JQB~~ MBL
76-20-9	Methyl Acetate		1.98	12.4	U
108-87-2	Methylcyclohexane		0.371	12.4	U
108-10-1	4-Methyl-2-pentanone		0.718	12.4	U
1634-04-4	Methyl t-Butyl Ether		0.396	12.4	U
100-42-5	Styrene		0.433	12.4	U
79-34-5	1,1,2,2-Tetrachloroethane		0.532	12.4	U
127-18-4	Tetrachloroethene		1.20	12.4	U
108-88-3	Toluene	1.08	1.06	12.4	J

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ANALYSIS DATA SHEET

MR21-SS31-10A

2

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-02	File ID:	0306602.D
Sampled:	03/03/10 08:50	Prepared:	03/08/10 09:46	Analyzed:	03/08/10 16:12
Solids:	73.17	Preparation:	5035	Dilution:	1

Batch: 0C08011 Sequence: 0C06808 Calibration: 0057001 Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene		0.223	12.4	U
79-00-5	1,1,2-Trichloroethane		0.433	12.4	U
71-55-6	1,1,1-Trichloroethane		1.11	12.4	U
79-01-6	Trichloroethene		1.05	12.4	U
75-69-4	Trichlorofluoromethane		1.18	12.4	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		2.07	12.4	U
75-01-4	Vinyl chloride		1.36	12.4	U
1330-20-7	Xylenes (total)		0.867	12.4	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	37.14	38.52	104	85 - 120	
Dibromofluoromethane	37.14	38.18	103	80 - 125	
1,2-Dichloroethane-d4	37.14	40.80	110	75 - 140	
Toluene-d8	37.14	40.37	109	85 - 115	

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ANALYSIS DATA SHEET

MR21-SS40-10A

3

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-03	File ID:	0306603.D
Sampled:	03/03/10 08:40	Prepared:	03/08/10 09:46	Analyzed:	03/08/10 19:24
Solids:	66.98	Preparation:	5035	Dilution:	1
Batch:	0C08011	Sequence: 0C06808	Calibration:	0057001	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
67-64-1	Acetone	310 J	3.22	16.1	~~Q~~	CC
71-43-2	Benzene	UJ	0.756	16.1	UQ	SSL
75-27-4	Bromodichloromethane		0.483	16.1	UQ	
75-25-2	Bromoform		1.61	16.1	UQ	
74-83-9	Bromomethane		1.16	16.1	UQ	
78-93-3	2-Butanone		2.25	16.1	UQ	
75-15-0	Carbon disulfide		2.09	16.1	UQ	
56-23-5	Carbon tetrachloride		1.42	16.1	UQ	
108-90-7	Chlorobenzene		0.547	16.1	UQ	
75-00-3	Chloroethane		1.77	16.1	UQ	
67-66-3	Chloroform		0.885	16.1	UQ	
74-87-3	Chloromethane		0.837	16.1	UQ	
110-82-7	Cyclohexane		0.869	16.1	UQ	
124-48-1	Dibromochloromethane		0.547	16.1	UQ	
96-12-8	1,2-Dibromo-3-chloropropane		1.93	8.04	UQ	
106-93-4	1,2-Dibromoethane (EDB)		0.692	16.1	UQ	
95-50-1	1,2-Dichlorobenzene		0.595	16.1	UQ	
541-73-1	1,3-Dichlorobenzene		1.35	16.1	UQ	
106-46-7	1,4-Dichlorobenzene		0.885	16.1	UQ	
75-71-8	Dichlorodifluoromethane		1.77	16.1	UQ	
75-34-3	1,1-Dichloroethane		0.869	16.1	UQ	
107-06-2	1,2-Dichloroethane		0.740	16.1	UQ	
75-35-4	1,1-Dichloroethene		1.93	16.1	UQ	
156-59-4	cis-1,2-Dichloroethene		1.93	16.1	UQ	
156-60-5	trans-1,2-Dichloroethene		1.77	16.1	UQ	
78-87-5	1,2-Dichloropropane		0.740	16.1	UQ	
10061-01-5	cis-1,3-Dichloropropene		0.804	16.1	UQ	
10061-02-6	trans-1,3-Dichloropropene		0.515	16.1	UQ	
100-41-4	Ethylbenzene		1.21	16.1	UQ	
591-78-6	2-Hexanone		3.70	16.1	UQ	
98-82-8	Isopropylbenzene		1.42	16.1	UQ	
75-09-2	Methylene chloride	16.1 ~~4.63~~ UJ	0.998	16.1	~~JQB~~	MBL SSL
76-20-9	Methyl Acetate	15.6 J	2.57	16.1	JQ	SSL
108-87-2	Methylcyclohexane	UJ	0.483	16.1	UQ	
108-10-1	4-Methyl-2-pentanone		0.933	16.1	UQ	
1634-04-4	Methyl t-Butyl Ether		0.515	16.1	UQ	
100-42-5	Styrene		0.563	16.1	UQ	
79-34-5	1,1,2,2-Tetrachloroethane		0.692	16.1	UQ	
127-18-4	Tetrachloroethene		1.56	16.1	UQ	
108-88-3	Toluene	2.07 J	1.38	16.1	JQ	

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ANALYSIS DATA SHEET

MR21-SS40-10A

3

Laboratory:	Empirical Laboratories, LLC			SDG:	
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Soil	Laboratory ID:	1003066-03	File ID:	0306603.D
Sampled:	03/03/10 08:40	Prepared:	03/08/10 09:46	Analyzed:	03/08/10 19:24
Solids:	66.98	Preparation:	5035	Dilution:	1

Batch: 0C08011 Sequence: 0C06808 Calibration: 0057001 Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene	UJ	0.290	16.1	UQ
79-00-5	1,1,2-Trichloroethane		0.563	16.1	UQ
71-55-6	1,1,1-Trichloroethane		1.45	16.1	UQ
79-01-6	Trichloroethene		1.37	16.1	UQ
75-69-4	Trichlorofluoromethane		1.53	16.1	UQ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		2.69	16.1	UQ
75-01-4	Vinyl chloride		1.77	16.1	UQ
1330-20-7	Xylenes (total)	2.99 J	1.13	16.1	JQ

SSL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	48.27	39.71	82.3	85 - 120	*
Dibromofluoromethane	48.27	48.66	101	80 - 125	
1,2-Dichloroethane-d4	48.27	50.67	105	75 - 140	
Toluene-d8	48.27	59.75	124	85 - 115	*

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ANALYSIS DATA SHEET

MR21-SS20-10A

4

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-04	File ID:	0306604.D
Sampled:	03/03/10 10:10	Prepared:	03/08/10 09:46	Analyzed:	03/08/10 16:50
Solids:	83.77	Preparation:	5035	Dilution:	1
Batch:	0C08011	Sequence: 0C06808	Calibration:	0057001	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
67-64-1	Acetone	82.6 J	2.73	13.6	~~Q~~	CC
71-43-2	Benzene	0.766 J	0.640	13.6	~~JQ~~	SSH
75-27-4	Bromodichloromethane		0.409	13.6	UQ	
75-25-2	Bromoform		1.36	13.6	UQ	
74-83-9	Bromomethane		0.981	13.6	UQ	
78-93-3	2-Butanone		1.91	13.6	UQ	
75-15-0	Carbon disulfide	2.13 J	1.77	13.6	JQ	SSH
56-23-5	Carbon tetrachloride		1.20	13.6	UQ	
108-90-7	Chlorobenzene		0.463	13.6	UQ	
75-00-3	Chloroethane		1.50	13.6	UQ	
67-66-3	Chloroform		0.749	13.6	UQ	
74-87-3	Chloromethane		0.709	13.6	UQ	
110-82-7	Cyclohexane		0.736	13.6	UQ	
124-48-1	Dibromochloromethane		0.463	13.6	UQ	
96-12-8	1,2-Dibromo-3-chloropropane		1.64	6.81	UQ	
106-93-4	1,2-Dibromoethane (EDB)		0.586	13.6	UQ	
95-50-1	1,2-Dichlorobenzene		0.504	13.6	UQ	
541-73-1	1,3-Dichlorobenzene		1.14	13.6	UQ	
106-46-7	1,4-Dichlorobenzene		0.749	13.6	UQ	
75-71-8	Dichlorodifluoromethane		1.50	13.6	UQ	
75-34-3	1,1-Dichloroethane		0.736	13.6	UQ	
107-06-2	1,2-Dichloroethane		0.627	13.6	UQ	
75-35-4	1,1-Dichloroethene		1.64	13.6	UQ	
156-59-4	cis-1,2-Dichloroethene		1.64	13.6	UQ	
156-60-5	trans-1,2-Dichloroethene		1.50	13.6	UQ	
78-87-5	1,2-Dichloropropane		0.627	13.6	UQ	
10061-01-5	cis-1,3-Dichloropropene		0.681	13.6	UQ	
10061-02-6	trans-1,3-Dichloropropene		0.436	13.6	UQ	
100-41-4	Ethylbenzene	1.26 J	1.02	13.6	JQ	SSH
591-78-6	2-Hexanone		3.13	13.6	UQ	
98-82-8	Isopropylbenzene		1.20	13.6	UQ	
75-09-2	Methylene chloride	13.6 ~~3.19~~ U	0.845	13.6	~~JQB~~	MBL
76-20-9	Methyl Acetate		2.18	13.6	UQ	
108-87-2	Methylcyclohexane		0.409	13.6	UQ	
108-10-1	4-Methyl-2-pentanone		0.790	13.6	UQ	
1634-04-4	Methyl t-Butyl Ether		0.436	13.6	UQ	
100-42-5	Styrene		0.477	13.6	UQ	
79-34-5	1,1,2,2-Tetrachloroethane		0.586	13.6	UQ	
127-18-4	Tetrachloroethene		1.32	13.6	UQ	
108-88-3	Toluene	3.23 J	1.17	13.6	~~JQ~~	SSH

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ANALYSIS DATA SHEET

MR21-SS20-10A 4

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-04	File ID:	0306604.D
Sampled:	03/03/10 10:10	Prepared:	03/08/10 09:46	Analyzed:	03/08/10 16:50
Solids:	83.77	Preparation:	5035	Dilution:	1

Batch: 0C08011 Sequence: 0C06808 Calibration: 0057001 Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene		0.245	13.6	UQ
79-00-5	1,1,2-Trichloroethane		0.477	13.6	UQ
71-55-6	1,1,1-Trichloroethane		1.23	13.6	UQ
79-01-6	Trichloroethene		1.16	13.6	UQ
75-69-4	Trichlorofluoromethane		1.29	13.6	UQ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		2.28	13.6	UQ
75-01-4	Vinyl chloride		1.50	13.6	UQ
1330-20-7	Xylenes (total)	3.14 J	0.954	13.6	~~JQ~~ SSH

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	40.88	34.73	85.0	85 - 120	
Dibromofluoromethane	40.88	36.86	90.2	80 - 125	
1,2-Dichloroethane-d4	40.88	34.05	83.3	75 - 140	
Toluene-d8	40.88	52.57	129	85 - 115	*

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ANALYSIS DATA SHEET

MR21-SS20-10A

4RE

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-04RE1	File ID:	0306604.D
Sampled:	03/03/10 10:10	Prepared:	03/09/10 11:20	Analyzed:	03/09/10 18:21
Solids:	83.77	Preparation:	5035	Dilution:	1
Batch:	0C09022	Sequence: 0C06905	Calibration:	0057001	Instrument: MS-VOA1

use original

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-64-1	Acetone	150 J	2.51	12.5	~~Q~~
71-43-2	Benzene	0.720 J	0.589	12.5	JQ
75-27-4	Bromodichloromethane	UJ	0.376	12.5	UQ
75-25-2	Bromoform		1.25	12.5	UQ
74-83-9	Bromomethane		0.903	12.5	UQ
78-93-3	2-Butanone		1.76	12.5	UQ
75-15-0	Carbon disulfide	1.77 J	1.63	12.5	JQ
56-23-5	Carbon tetrachloride	UJ	1.10	12.5	UQ
108-90-7	Chlorobenzene		0.426	12.5	UQ
75-00-3	Chloroethane		1.38	12.5	UQ
67-66-3	Chloroform		0.690	12.5	UQ
74-87-3	Chloromethane		0.652	12.5	UQ
110-82-7	Cyclohexane		0.677	12.5	UQ
124-48-1	Dibromochloromethane		0.426	12.5	UQ
96-12-8	1,2-Dibromo-3-chloropropane		1.50	6.27	UQ
106-93-4	1,2-Dibromoethane (EDB)		0.539	12.5	UQ
95-50-1	1,2-Dichlorobenzene		0.464	12.5	UQ
541-73-1	1,3-Dichlorobenzene		1.05	12.5	UQ
106-46-7	1,4-Dichlorobenzene		0.690	12.5	UQ
75-71-8	Dichlorodifluoromethane		1.38	12.5	UQ
75-34-3	1,1-Dichloroethane		0.677	12.5	UQ
107-06-2	1,2-Dichloroethane		0.577	12.5	UQ
75-35-4	1,1-Dichloroethene		1.50	12.5	UQ
156-59-4	cis-1,2-Dichloroethene		1.50	12.5	UQ
156-60-5	trans-1,2-Dichloroethene		1.38	12.5	UQ
78-87-5	1,2-Dichloropropane		0.577	12.5	UQ
10061-01-5	cis-1,3-Dichloropropene		0.627	12.5	UQ
10061-02-6	trans-1,3-Dichloropropene		0.401	12.5	UQ
100-41-4	Ethylbenzene	1.27 J	0.940	12.5	JQ
591-78-6	2-Hexanone	UJ	2.88	12.5	UQ
98-82-8	Isopropylbenzene	UJ	1.10	12.5	UQ
75-09-2	Methylene chloride	12.5 ~~3.96~~ UJ	0.777	12.5	~~JQB~~
76-20-9	Methyl Acetate	9.33 J	2.01	12.5	JQ
108-87-2	Methylcyclohexane	UJ	0.376	12.5	UQ
108-10-1	4-Methyl-2-pentanone		0.727	12.5	UQ
1634-04-4	Methyl t-Butyl Ether		0.401	12.5	UQ
100-42-5	Styrene		0.439	12.5	UQ
79-34-5	1,1,2,2-Tetrachloroethane		0.539	12.5	UQ
127-18-4	Tetrachloroethene		1.22	12.5	UQ
108-88-3	Toluene	2.34 J	1.08	12.5	JQ

exclude

CC SSL

MBLSS SSL

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ANALYSIS DATA SHEET

MR21-SS20-10A

4RE

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-04RE1	File ID:	0306604.D
Sampled:	03/03/10 10:10	Prepared:	03/09/10 11:20	Analyzed:	03/09/10 18:21
Solids:	83.77	Preparation:	5035	Dilution:	1
Batch:	0C09022	Sequence: 0C06905	Calibration:	0057001	Instrument: MS-VOA1

use original

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene	12.5 ~~0.451~~ UJ	0.226	12.5	~~JQB~~ SSL MBL
79-00-5	1,1,2-Trichloroethane		0.439	12.5	UQ
71-55-6	1,1,1-Trichloroethane		1.13	12.5	UQ
79-01-6	Trichloroethene		1.07	12.5	UQ
75-69-4	Trichlorofluoromethane		1.19	12.5	UQ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		2.09	12.5	UQ
75-01-4	Vinyl chloride		1.38	12.5	UQ
1330-20-7	Xylenes (total)	3.07 J	0.878	12.5	JQ

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	37.62	31.57	83.9	85 - 120	*
Dibromofluoromethane	37.62	39.35	105	80 - 125	
1,2-Dichloroethane-d4	37.62	40.01	106	75 - 140	
Toluene-d8	37.62	45.99	122	85 - 115	*

exclude

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ANALYSIS DATA SHEET

MR21-SS19-10A

5

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-05	File ID:	0306605.D
Sampled:	03/03/10 09:45	Prepared:	03/08/10 09:46	Analyzed:	03/08/10 17:29
Solids:	64.91	Preparation:	5035	Dilution:	1

Batch: 0C08011 Sequence: 0C06808 Calibration: 0057001 Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-64-1	Acetone	213 J	3.87	19.4	~~Q~~ CC
71-43-2	Benzene	UJ	0.910	19.4	UQ SSL
75-27-4	Bromodichloromethane		0.581	19.4	UQ
75-25-2	Bromoform		1.94	19.4	UQ
74-83-9	Bromomethane		1.39	19.4	UQ
78-93-3	2-Butanone		2.71	19.4	UQ
75-15-0	Carbon disulfide		2.52	19.4	UQ
56-23-5	Carbon tetrachloride		1.70	19.4	UQ
108-90-7	Chlorobenzene		0.658	19.4	UQ
75-00-3	Chloroethane		2.13	19.4	UQ
67-66-3	Chloroform	1.30 J	1.06	19.4	JQ
74-87-3	Chloromethane	UJ	1.01	19.4	UQ
110-82-7	Cyclohexane		1.05	19.4	UQ
124-48-1	Dibromochloromethane		0.658	19.4	UQ
96-12-8	1,2-Dibromo-3-chloropropane		2.32	9.68	UQ
106-93-4	1,2-Dibromoethane (EDB)		0.832	19.4	UQ
95-50-1	1,2-Dichlorobenzene		0.716	19.4	UQ
541-73-1	1,3-Dichlorobenzene		1.63	19.4	UQ
106-46-7	1,4-Dichlorobenzene		1.06	19.4	UQ
75-71-8	Dichlorodifluoromethane		2.13	19.4	UQ
75-34-3	1,1-Dichloroethane		1.05	19.4	UQ
107-06-2	1,2-Dichloroethane		0.890	19.4	UQ
75-35-4	1,1-Dichloroethene		2.32	19.4	UQ
156-59-4	cis-1,2-Dichloroethene		2.32	19.4	UQ
156-60-5	trans-1,2-Dichloroethene		2.13	19.4	UQ
78-87-5	1,2-Dichloropropane		0.890	19.4	UQ
10061-01-5	cis-1,3-Dichloropropene		0.968	19.4	UQ
10061-02-6	trans-1,3-Dichloropropene		0.619	19.4	UQ
100-41-4	Ethylbenzene		1.45	19.4	UQ
591-78-6	2-Hexanone		4.45	19.4	UQ
98-82-8	Isopropylbenzene		1.70	19.4	UQ
75-09-2	Methylene chloride	19.4 ~~5.93~~ UJ	1.20	19.4	~~JQB~~ MBL SSL
76-20-9	Methyl Acetate	8.36 J	3.10	19.4	JQ SSL
108-87-2	Methylcyclohexane	UJ	0.581	19.4	UQ
108-10-1	4-Methyl-2-pentanone		1.12	19.4	UQ
1634-04-4	Methyl t-Butyl Ether		0.619	19.4	UQ
100-42-5	Styrene		0.677	19.4	UQ
79-34-5	1,1,2,2-Tetrachloroethane		0.832	19.4	UQ
127-18-4	Tetrachloroethene		1.88	19.4	UQ
108-88-3	Toluene		1.66	19.4	UQ

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ANALYSIS DATA SHEET

MR21-SS19-10A

5

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-05	File ID:	0306605.D
Sampled:	03/03/10 09:45	Prepared:	03/08/10 09:46	Analyzed:	03/08/10 17:29
Solids:	64.91	Preparation:	5035	Dilution:	1
Batch:	0C08011	Sequence: 0C06808	Calibration:	0057001	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene	UJ	0.348	19.4	UQ
79-00-5	1,1,2-Trichloroethane		0.677	19.4	UQ
71-55-6	1,1,1-Trichloroethane		1.74	19.4	UQ
79-01-6	Trichloroethene		1.65	19.4	UQ
75-69-4	Trichlorofluoromethane		1.84	19.4	UQ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		3.23	19.4	UQ
75-01-4	Vinyl chloride		2.13	19.4	UQ
1330-20-7	Xylenes (total)	3.47 J	1.35	19.4	JQ

SSL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	58.06	37.95	65.4	85 - 120	*
Dibromofluoromethane	58.06	71.68	123	80 - 125	
1,2-Dichloroethane-d4	58.06	71.16	123	75 - 140	
Toluene-d8	58.06	94.10	162	85 - 115	*

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ANALYSIS DATA SHEET

MR21-SS19-10A

5RE

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-05RE1	File ID:	0306605.D
Sampled:	03/03/10 09:45	Prepared:	03/09/10 11:20	Analyzed:	03/09/10 19:00
Solids:	64.91	Preparation:	5035	Dilution:	1
Batch:	0C09022	Sequence: 0C06905	Calibration:	0057001	Instrument: MS-VOA1

Use original

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
67-64-1	Acetone	164 J	5.10	25.5	~~Q~~	CC SSL
71-43-2	Benzene	UJ	1.20	25.5	UQ	
75-27-4	Bromodichloromethane		0.765	25.5	UQ	
75-25-2	Bromoform		2.55	25.5	UQ	
74-83-9	Bromomethane		1.84	25.5	UQ	
78-93-3	2-Butanone		3.57	25.5	UQ	
75-15-0	Carbon disulfide		3.32	25.5	UQ	
56-23-5	Carbon tetrachloride		2.24	25.5	UQ	
108-90-7	Chlorobenzene		0.867	25.5	UQ	
75-00-3	Chloroethane		2.81	25.5	UQ	
67-66-3	Chloroform	25.5 ~~1.48~~ UJ	1.40	25.5	~~JQB~~	~~MBL~~ SSL
74-87-3	Chloromethane		1.33	25.5	UQ	SSL
110-82-7	Cyclohexane		1.38	25.5	UQ	
124-48-1	Dibromochloromethane		0.867	25.5	UQ	
96-12-8	1,2-Dibromo-3-chloropropane		3.06	12.8	UQ	
106-93-4	1,2-Dibromoethane (EDB)		1.10	25.5	UQ	
95-50-1	1,2-Dichlorobenzene		0.944	25.5	UQ	
541-73-1	1,3-Dichlorobenzene		2.14	25.5	UQ	
106-46-7	1,4-Dichlorobenzene		1.40	25.5	UQ	
75-71-8	Dichlorodifluoromethane		2.81	25.5	UQ	
75-34-3	1,1-Dichloroethane		1.38	25.5	UQ	
107-06-2	1,2-Dichloroethane		1.17	25.5	UQ	
75-35-4	1,1-Dichloroethene		3.06	25.5	UQ	
156-59-4	cis-1,2-Dichloroethene		3.06	25.5	UQ	
156-60-5	trans-1,2-Dichloroethene		2.81	25.5	UQ	
78-87-5	1,2-Dichloropropane		1.17	25.5	UQ	
10061-01-5	cis-1,3-Dichloropropene		1.28	25.5	UQ	
10061-02-6	trans-1,3-Dichloropropene		0.816	25.5	UQ	
100-41-4	Ethylbenzene		1.91	25.5	UQ	
591-78-6	2-Hexanone		5.87	25.5	UQ	
98-82-8	Isopropylbenzene		2.24	25.5	UQ	
75-09-2	Methylene chloride	25.5 ~~8.35~~ UJ	1.58	25.5	~~JQB~~	~~MBL~~ SSL
76-20-9	Methyl Acetate	24.6 J	4.08	25.5	JQ	SSL
108-87-2	Methylcyclohexane	UJ	0.765	25.5	UQ	
108-10-1	4-Methyl-2-pentanone		1.48	25.5	UQ	
1634-04-4	Methyl t-Butyl Ether		0.816	25.5	UQ	
100-42-5	Styrene		0.893	25.5	UQ	
79-34-5	1,1,2,2-Tetrachloroethane		1.10	25.5	UQ	
127-18-4	Tetrachloroethene		2.47	25.5	UQ	
108-88-3	Toluene		2.19	25.5	UQ	

excluded

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ANALYSIS DATA SHEET

MR21-SS19-10A

5RE

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-05RE1	File ID:	0306605.D
Sampled:	03/03/10 09:45	Prepared:	03/09/10 11:20	Analyzed:	03/09/10 19:00
Solids:	64.91	Preparation:	5035	Dilution:	1
Batch:	0C09022	Sequence: 0C06905	Calibration:	0057001	Instrument: MS-VOA1

use original

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene	UJ	0.459	25.5	UQ
79-00-5	1,1,2-Trichloroethane		0.893	25.5	UQ
71-55-6	1,1,1-Trichloroethane		2.30	25.5	UQ
79-01-6	Trichloroethene		2.17	25.5	UQ
75-69-4	Trichlorofluoromethane		2.42	25.5	UQ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		4.26	25.5	UQ
75-01-4	Vinyl chloride		2.81	25.5	UQ
1330-20-7	Xylenes (total)	5.70 J	1.79	25.5	JQ

SSL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	76.52	54.87	71.7	85 - 120	*
Dibromofluoromethane	76.52	86.33	113	80 - 125	
1,2-Dichloroethane-d4	76.52	86.76	113	75 - 140	
Toluene-d8	76.52	107.5	140	85 - 115	*

Exclude

MW 7/26/10

ANALYSIS DATA SHEET

MR21-SS30-10A

6RE

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-06RE1	File ID:	0306606.D
Sampled:	03/04/10 08:30	Prepared:	03/09/10 11:20	Analyzed:	03/09/10 19:38
Solids:	75.62	Preparation:	5035	Dilution:	1
Batch:	0C09022	Sequence: 0C06905	Calibration:	0057001	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
67-64-1	Acetone	249 J	2.77	13.9	~~U~~	CC
71-43-2	Benzene		0.651	13.9	U	
75-27-4	Bromodichloromethane		0.416	13.9	U	
75-25-2	Bromoform		1.39	13.9	U	
74-83-9	Bromomethane	UJ	0.998	13.9	~~UJ~~	CCH
78-93-3	2-Butanone		1.94	13.9	UJ	
75-15-0	Carbon disulfide		1.80	13.9	U	
56-23-5	Carbon tetrachloride		1.22	13.9	U	
108-90-7	Chlorobenzene		0.471	13.9	U	
75-00-3	Chloroethane		1.52	13.9	U	
67-66-3	Chloroform	13.9 ~~0.831~~ U	0.762	13.9	~~JB~~	MBL
74-87-3	Chloromethane		0.721	13.9	UJ	
110-82-7	Cyclohexane		0.749	13.9	U	
124-48-1	Dibromochloromethane		0.471	13.9	U	
96-12-8	1,2-Dibromo-3-chloropropane		1.66	6.93	U	
106-93-4	1,2-Dibromoethane (EDB)		0.596	13.9	U	
95-50-1	1,2-Dichlorobenzene		0.513	13.9	U	
541-73-1	1,3-Dichlorobenzene		1.16	13.9	U	
106-46-7	1,4-Dichlorobenzene		0.762	13.9	U	
75-71-8	Dichlorodifluoromethane		1.52	13.9	UJ	
75-34-3	1,1-Dichloroethane		0.749	13.9	U	
107-06-2	1,2-Dichloroethane		0.638	13.9	U	
75-35-4	1,1-Dichloroethene		1.66	13.9	U	
156-59-4	cis-1,2-Dichloroethene		1.66	13.9	U	
156-60-5	trans-1,2-Dichloroethene		1.52	13.9	U	
78-87-5	1,2-Dichloropropane		0.638	13.9	U	
10061-01-5	cis-1,3-Dichloropropene		0.693	13.9	U	
10061-02-6	trans-1,3-Dichloropropene		0.444	13.9	U	
100-41-4	Ethylbenzene		1.04	13.9	U	
591-78-6	2-Hexanone		3.19	13.9	U	
98-82-8	Isopropylbenzene		1.22	13.9	U	
75-09-2	Methylene chloride	13.9 ~~4.01~~ U	0.859	13.9	~~JB~~	MBL
76-20-9	Methyl Acetate		2.22	13.9	U	
108-87-2	Methylcyclohexane		0.416	13.9	U	
108-10-1	4-Methyl-2-pentanone		0.804	13.9	U	
1634-04-4	Methyl t-Butyl Ether		0.444	13.9	U	
100-42-5	Styrene		0.485	13.9	U	
79-34-5	1,1,2,2-Tetrachloroethane		0.596	13.9	U	
127-18-4	Tetrachloroethene		1.34	13.9	U	
108-88-3	Toluene		1.19	13.9	U	

KW 7/26/10

ANALYSIS DATA SHEET

MR21-SS30-10A

6RE

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-06RE1	File ID:	0306606.D
Sampled:	03/04/10 08:30	Prepared:	03/09/10 11:20	Analyzed:	03/09/10 19:38
Solids:	75.62	Preparation:	5035	Dilution:	1
Batch:	0C09022	Sequence: 0C06905	Calibration:	0057001	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene		0.250	13.9	U
79-00-5	1,1,2-Trichloroethane		0.485	13.9	U
71-55-6	1,1,1-Trichloroethane		1.25	13.9	U
79-01-6	Trichloroethene		1.18	13.9	U
75-69-4	Trichlorofluoromethane		1.32	13.9	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		2.31	13.9	U
75-01-4	Vinyl chloride		1.52	13.9	U
1330-20-7	Xylenes (total)		0.970	13.9	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	41.58	37.43	90.0	85 - 120	
Dibromofluoromethane	41.58	42.51	102	80 - 125	
1,2-Dichloroethane-d4	41.58	43.16	104	75 - 140	
Toluene-d8	41.58	47.06	113	85 - 115	

UW 7/26/10

ANALYSIS DATA SHEET

MR21-SS36-10A

7

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-07	File ID:	0306607D.D
Sampled:	03/04/10 08:50	Prepared:	03/08/10 09:46	Analyzed:	03/08/10 20:41
Solids:	76.62	Preparation:	5035	Dilution:	50
Batch:	0C08011	Sequence: 0C06808	Calibration:	0057001	Instrument: MS-VOA1

Use reanalysis

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-64-1	Acetone	349 J	205	1020	~~JDQ~~ CC
71-43-2	Benzene		48.1	1020	U
75-27-4	Bromodichloromethane		30.7	1020	U
75-25-2	Bromoform		102	1020	U
74-83-9	Bromomethane		73.6	1020	U
78-93-3	2-Butanone		143	1020	U
75-15-0	Carbon disulfide		133	1020	U
56-23-5	Carbon tetrachloride		90.0	1020	U
108-90-7	Chlorobenzene		34.8	1020	U
75-00-3	Chloroethane		113	1020	U
67-66-3	Chloroform	102	56.3	1020	JD
74-87-3	Chloromethane		53.2	1020	U
110-82-7	Cyclohexane		55.2	1020	U
124-48-1	Dibromochloromethane		34.8	1020	U
96-12-8	1,2-Dibromo-3-chloropropane		123	511	U
106-93-4	1,2-Dibromoethane (EDB)		44.0	1020	U
95-50-1	1,2-Dichlorobenzene		37.8	1020	U
541-73-1	1,3-Dichlorobenzene		85.9	1020	U
106-46-7	1,4-Dichlorobenzene		56.3	1020	U
75-71-8	Dichlorodifluoromethane		113	1020	U
75-34-3	1,1-Dichloroethane		55.2	1020	U
107-06-2	1,2-Dichloroethane		47.1	1020	U
75-35-4	1,1-Dichloroethene		123	1020	U
156-59-4	cis-1,2-Dichloroethene		123	1020	U
156-60-5	trans-1,2-Dichloroethene		113	1020	U
78-87-5	1,2-Dichloropropane		47.1	1020	U
10061-01-5	cis-1,3-Dichloropropene		51.1	1020	U
10061-02-6	trans-1,3-Dichloropropene		32.7	1020	U
100-41-4	Ethylbenzene		76.7	1020	U
591-78-6	2-Hexanone		235	1020	U
98-82-8	Isopropylbenzene		90.0	1020	U
75-09-2	Methylene chloride	1020 ~~143~~ U	63.4	~~1020~~	~~JDQB~~ MDL
76-20-9	Methyl Acetate	306	164	1020	JD
108-87-2	Methylcyclohexane		30.7	1020	U
108-10-1	4-Methyl-2-pentanone		59.3	1020	U
1634-04-4	Methyl t-Butyl Ether		32.7	1020	U
100-42-5	Styrene		35.8	1020	U
79-34-5	1,1,2,2-Tetrachloroethane		44.0	1020	U
127-18-4	Tetrachloroethene		99.2	1020	U
108-88-3	Toluene		88.0	1020	U

exclude

LW 7/26/10

ANALYSIS DATA SHEET

MR21-SS36-10A

7

Laboratory: Empirical Laboratories, LLC | SDG:

Client: CH2M Hill, Inc. | Project: Lejeune CTO-40 UXO-21

Matrix: Soil | Laboratory ID: 1003066-07 | File ID: 0306607D.D

Sampled: 03/04/10 08:50 | Prepared: 03/08/10 09:46 | Analyzed: 03/08/10 20:41

Solids: 76.62 | Preparation: 5035 | Dilution: 50

Batch: 0C08011 | Sequence: 0C06808 | Calibration: 0057001 | Instrument: MS-VOA1

Use reanalyse

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene		18.4	1020	U
79-00-5	1,1,2-Trichloroethane		35.8	1020	U
71-55-6	1,1,1-Trichloroethane		92.1	1020	U
79-01-6	Trichloroethene		86.9	1020	U
75-69-4	Trichlorofluoromethane		97.2	1020	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		171	1020	U
75-01-4	Vinyl chloride		113	1020	U
1330-20-7	Xylenes (total)		71.6	1020	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	61.37	68.66	112	85 - 120	
Dibromofluoromethane	61.37	57.42	93.6	80 - 125	
1,2-Dichloroethane-d4	61.37	57.15	93.1	75 - 140	
Toluene-d8	61.37	61.10	99.6	85 - 115	

exclude

LW 7/26/10

ANALYSIS DATA SHEET

MR21-SS36-10A

7RE

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-07RE1	File ID:	0306607.D
Sampled:	03/04/10 08:50	Prepared:	03/09/10 11:20	Analyzed:	03/09/10 20:17
Solids:	76.62	Preparation:	5035	Dilution:	1
Batch:	0C09022	Sequence: 0C06905	Calibration:	0057001	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
67-64-1	Acetone	346 J	3.31	16.6	~~Q~~	CC
71-43-2	Benzene	UJ	0.778	16.6	UQ	SSL
75-27-4	Bromodichloromethane		0.497	16.6	UQ	
75-25-2	Bromoform		1.66	16.6	UQ	
74-83-9	Bromomethane		1.19	16.6	UQ	
78-93-3	2-Butanone		2.32	16.6	UQ	
75-15-0	Carbon disulfide		2.15	16.6	UQ	
56-23-5	Carbon tetrachloride		1.46	16.6	UQ	
108-90-7	Chlorobenzene		0.563	16.6	UQ	
75-00-3	Chloroethane		1.82	16.6	UQ	
67-66-3	Chloroform 102 J	~~16.6 1.24 U~~	56.3 ~~0.911~~	102 ~~16.6~~	~~JQB~~	~~HBL~~
74-87-3	Chloromethane	UJ	0.861	16.6	UQ	SSL
110-82-7	Cyclohexane		0.894	16.6	UQ	
124-48-1	Dibromochloromethane		0.563	16.6	UQ	
96-12-8	1,2-Dibromo-3-chloropropane		1.99	8.28	UQ	
106-93-4	1,2-Dibromoethane (EDB)		0.712	16.6	UQ	
95-50-1	1,2-Dichlorobenzene		0.613	16.6	UQ	
541-73-1	1,3-Dichlorobenzene		1.39	16.6	UQ	
106-46-7	1,4-Dichlorobenzene		0.911	16.6	UQ	
75-71-8	Dichlorodifluoromethane		1.82	16.6	UQ	
75-34-3	1,1-Dichloroethane		0.894	16.6	UQ	
107-06-2	1,2-Dichloroethane		0.762	16.6	UQ	
75-35-4	1,1-Dichloroethene		1.99	16.6	UQ	
156-59-4	cis-1,2-Dichloroethene		1.99	16.6	UQ	
156-60-5	trans-1,2-Dichloroethene		1.82	16.6	UQ	
78-87-5	1,2-Dichloropropane		0.762	16.6	UQ	
10061-01-5	cis-1,3-Dichloropropene		0.828	16.6	UQ	
10061-02-6	trans-1,3-Dichloropropene		0.530	16.6	UQ	
100-41-4	Ethylbenzene		1.24	16.6	UQ	
591-78-6	2-Hexanone		3.81	16.6	UQ	
98-82-8	Isopropylbenzene		1.46	16.6	UQ	
75-09-2	Methylene chloride	16.6 ~~4.42~~ UJ	1.03	16.6	JQB	MB2 SSL
76-20-9	Methyl Acetate	360 ~~1740~~ J	164 ~~2.65~~	1020 ~~16.6~~	~~EQ~~	
108-87-2	Methylcyclohexane		0.497	16.6	UQ	SSL
108-10-1	4-Methyl-2-pentanone		0.961	16.6	UQ	
1634-04-4	Methyl t-Butyl Ether		0.530	16.6	UQ	
100-42-5	Styrene		0.580	16.6	UQ	
79-34-5	1,1,2,2-Tetrachloroethane		0.712	16.6	UQ	
127-18-4	Tetrachloroethene		1.61	16.6	UQ	
108-88-3	Toluene	4.92	1.42	16.6	JQ	

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ANALYSIS DATA SHEET

MR21-SS36-10A

7RE

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-07RE1	File ID:	0306607.D
Sampled:	03/04/10 08:50	Prepared:	03/09/10 11:20	Analyzed:	03/09/10 20:17
Solids:	76.62	Preparation:	5035	Dilution:	1
Batch:	0C09022	Sequence: 0C06905	Calibration:	0057001	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene	UJ	0.298	16.6	UQ
79-00-5	1,1,2-Trichloroethane		0.580	16.6	UQ
71-55-6	1,1,1-Trichloroethane		1.49	16.6	U
79-01-6	Trichloroethene		1.41	16.6	UQ
75-69-4	Trichlorofluoromethane		1.57	16.6	UQ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		2.77	16.6	UQ
75-01-4	Vinyl chloride		1.82	16.6	UQ
1330-20-7	Xylenes (total)		1.16	16.6	UQ

SSL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	49.69	41.77	84.1	85 - 120	*
Dibromofluoromethane	49.69	53.30	107	80 - 125	
1,2-Dichloroethane-d4	49.69	54.68	110	75 - 140	
Toluene-d8	49.69	63.41	128	85 - 115	*

lw 7/26/10

ANALYSIS DATA SHEET

MR21-SS37-10A

8

Laboratory:	Empirical Laboratories, LLC			SDG:	
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Soil	Laboratory ID:	1003066-08	File ID:	0306608.D
Sampled:	03/04/10 09:00	Prepared:	03/08/10 09:46	Analyzed:	03/08/10 18:07
Solids:	76.95	Preparation:	5035	Dilution:	1
Batch:	0C08011	Sequence: 0C06808	Calibration:	0057001	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
67-64-1	Acetone	143 J	3.11	15.5	~~U~~	CC
71-43-2	Benzene	UJ	0.731	15.5	UQ	SSL
75-27-4	Bromodichloromethane		0.466	15.5	UQ	
75-25-2	Bromoform		1.55	15.5	UQ	
74-83-9	Bromomethane		1.12	15.5	UQ	
78-93-3	2-Butanone		2.18	15.5	UQ	
75-15-0	Carbon disulfide		2.02	15.5	UQ	
56-23-5	Carbon tetrachloride		1.37	15.5	UQ	
108-90-7	Chlorobenzene		0.529	15.5	UQ	
75-00-3	Chloroethane		1.71	15.5	UQ	
67-66-3	Chloroform	1.07 J	0.855	15.5	JQ	
74-87-3	Chloromethane	UJ	0.808	15.5	UQ	
110-82-7	Cyclohexane		0.839	15.5	UQ	
124-48-1	Dibromochloromethane		0.529	15.5	UQ	
96-12-8	1,2-Dibromo-3-chloropropane		1.87	7.77	UQ	
106-93-4	1,2-Dibromoethane (EDB)		0.668	15.5	UQ	
95-50-1	1,2-Dichlorobenzene		0.575	15.5	UQ	
541-73-1	1,3-Dichlorobenzene		1.31	15.5	UQ	
106-46-7	1,4-Dichlorobenzene		0.855	15.5	UQ	
75-71-8	Dichlorodifluoromethane		1.71	15.5	UQ	
75-34-3	1,1-Dichloroethane		0.839	15.5	UQ	
107-06-2	1,2-Dichloroethane		0.715	15.5	UQ	
75-35-4	1,1-Dichloroethene		1.87	15.5	UQ	
156-59-4	cis-1,2-Dichloroethene		1.87	15.5	UQ	
156-60-5	trans-1,2-Dichloroethene		1.71	15.5	UQ	
78-87-5	1,2-Dichloropropane		0.715	15.5	UQ	
10061-01-5	cis-1,3-Dichloropropene		0.777	15.5	UQ	
10061-02-6	trans-1,3-Dichloropropene		0.497	15.5	UQ	
100-41-4	Ethylbenzene		1.17	15.5	UQ	
591-78-6	2-Hexanone		3.58	15.5	UQ	
98-82-8	Isopropylbenzene		1.37	15.5	UQ	
75-09-2	Methylene chloride	15.5 ~~4.00~~ UJ	0.964	15.5	~~JQB~~	MBLSS
76-20-9	Methyl Acetate		2.49	15.5	UQ	SSL
108-87-2	Methylcyclohexane		0.466	15.5	UQ	
108-10-1	4-Methyl-2-pentanone		0.902	15.5	UQ	
1634-04-4	Methyl t-Butyl Ether		0.497	15.5	UQ	
100-42-5	Styrene		0.544	15.5	UQ	
79-34-5	1,1,2,2-Tetrachloroethane		0.668	15.5	UQ	
127-18-4	Tetrachloroethene		1.51	15.5	UQ	
108-88-3	Toluene		1.34	15.5	UQ	

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ANALYSIS DATA SHEET

MR21-SS37-10A

8

Laboratory:	Empirical Laboratories, LLC			SDG:	
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Soil	Laboratory ID:	1003066-08	File ID:	0306608.D
Sampled:	03/04/10 09:00	Prepared:	03/08/10 09:46	Analyzed:	03/08/10 18:07
Solids:	76.95	Preparation:	5035	Dilution:	1
Batch:	0C08011	Sequence:	0C06808	Calibration:	0057001
Instrument:	MS-VOA1				

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene	UJ	0.280	15.5	UQ
79-00-5	1,1,2-Trichloroethane		0.544	15.5	UQ
71-55-6	1,1,1-Trichloroethane		1.40	15.5	UQ
79-01-6	Trichloroethene		1.32	15.5	UQ
75-69-4	Trichlorofluoromethane		1.48	15.5	UQ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		2.60	15.5	UQ
75-01-4	Vinyl chloride		1.71	15.5	UQ
1330-20-7	Xylenes (total)		1.09	15.5	UQ

SSL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	46.64	36.92	79.2	85 - 120	*
Dibromofluoromethane	46.64	52.34	112	80 - 125	
1,2-Dichloroethane-d4	46.64	51.12	110	75 - 140	
Toluene-d8	46.64	62.45	134	85 - 115	*

lew 7/26/10

ANALYSIS DATA SHEET

MR21-SS28-10A

9

Laboratory: Empirical Laboratories, LLC SDG:

Client: CH2M Hill, Inc. Project: Lejeune CTO-40 UXO-21

Matrix: Soil Laboratory ID: 1003066-09 File ID: 0306609.D

Sampled: 03/04/10 08:25 Prepared: 03/08/10 09:46 Analyzed: 03/08/10 18:46

Solids: 86.10 Preparation: 5035 Dilution: 1

Batch: 0C08011 Sequence: 0C06808 Calibration: 0057001 Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
67-64-1	Acetone	31.9 J	2.30	11.5	~~U~~	CC
71-43-2	Benzene		0.539	11.5	UQ	
75-27-4	Bromodichloromethane		0.344	11.5	UQ	
75-25-2	Bromoform		1.15	11.5	UQ	
74-83-9	Bromomethane		0.826	11.5	UQ	
78-93-3	2-Butanone		1.61	11.5	UQ	
75-15-0	Carbon disulfide		1.49	11.5	UQ	
56-23-5	Carbon tetrachloride		1.01	11.5	UQ	
108-90-7	Chlorobenzene		0.390	11.5	UQ	
75-00-3	Chloroethane		1.26	11.5	UQ	
67-66-3	Chloroform	0.996 J	0.631	11.5	~~U~~	SSH
74-87-3	Chloromethane		0.597	11.5	UQ	
110-82-7	Cyclohexane		0.620	11.5	UQ	
124-48-1	Dibromochloromethane		0.390	11.5	UQ	
96-12-8	1,2-Dibromo-3-chloropropane		1.38	5.74	UQ	
106-93-4	1,2-Dibromoethane (EDB)		0.494	11.5	UQ	
95-50-1	1,2-Dichlorobenzene		0.425	11.5	UQ	
541-73-1	1,3-Dichlorobenzene		0.964	11.5	UQ	
106-46-7	1,4-Dichlorobenzene		0.631	11.5	UQ	
75-71-8	Dichlorodifluoromethane		1.26	11.5	UQ	
75-34-3	1,1-Dichloroethane		0.620	11.5	UQ	
107-06-2	1,2-Dichloroethane		0.528	11.5	UQ	
75-35-4	1,1-Dichloroethene		1.38	11.5	UQ	
156-59-4	cis-1,2-Dichloroethene		1.38	11.5	UQ	
156-60-5	trans-1,2-Dichloroethene		1.26	11.5	UQ	
78-87-5	1,2-Dichloropropane		0.528	11.5	UQ	
10061-01-5	cis-1,3-Dichloropropene		0.574	11.5	UQ	
10061-02-6	trans-1,3-Dichloropropene		0.367	11.5	UQ	
100-41-4	Ethylbenzene		0.861	11.5	UQ	
591-78-6	2-Hexanone		2.64	11.5	UQ	
98-82-8	Isopropylbenzene		1.01	11.5	UQ	
75-09-2	Methylene chloride	11.5 ~~2.71~~ u	0.712	11.5	~~UQ~~	MBL
76-20-9	Methyl Acetate		1.84	11.5	UQ	
108-87-2	Methylcyclohexane		0.344	11.5	UQ	
108-10-1	4-Methyl-2-pentanone		0.666	11.5	UQ	
1634-04-4	Methyl t-Butyl Ether		0.367	11.5	UQ	
100-42-5	Styrene		0.402	11.5	UQ	
79-34-5	1,1,2,2-Tetrachloroethane		0.494	11.5	UQ	
127-18-4	Tetrachloroethene		1.11	11.5	UQ	
108-88-3	Toluene		0.987	11.5	UQ	

MW 7/26/10

ANALYSIS DATA SHEET

MR21-SS28-10A

9

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-09	File ID:	0306609.D
Sampled:	03/04/10 08:25	Prepared:	03/08/10 09:46	Analyzed:	03/08/10 18:46
Solids:	86.10	Preparation:	5035	Dilution:	1

Batch: 0C08011 Sequence: 0C06808 Calibration: 0057001 Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene		0.207	11.5	UQ
79-00-5	1,1,2-Trichloroethane		0.402	11.5	UQ
71-55-6	1,1,1-Trichloroethane		1.03	11.5	UQ
79-01-6	Trichloroethene		0.976	11.5	UQ
75-69-4	Trichlorofluoromethane		1.09	11.5	UQ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		1.92	11.5	UQ
75-01-4	Vinyl chloride		1.26	11.5	UQ
1330-20-7	Xylenes (total)	1.79 J	0.803	11.5	~~JQ~~ SSH

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	34.43	30.82	89.5	85 - 120	
Dibromofluoromethane	34.43	36.23	105	80 - 125	
1,2-Dichloroethane-d4	34.43	36.48	106	75 - 140	
Toluene-d8	34.43	41.45	120	85 - 115	*

MW 7/26/10

ANALYSIS DATA SHEET

MR21-SS39-10A

10

Laboratory: Empirical Laboratories, LLC | SDG:

Client: CH2M Hill, Inc. | Project: Lejeune CTO-40 UXO-21

Matrix: Soil | Laboratory ID: 1003066-10 | File ID: 0306610D.D

Sampled: 03/04/10 09:50 | Prepared: 03/08/10 13:56 | Analyzed: 03/09/10 08:11

Solids: 79.34 | Preparation: 5035 | Dilution: 100

Use reanalysis

Batch: 0C08017 | Sequence: 0C06809 | Calibration: 0057001 | Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-64-1	Acetone		321	1600	~~UQ~~ R CC
71-43-2	Benzene		75.4	1600	U
75-27-4	Bromodichloromethane		48.1	1600	U
75-25-2	Bromoform		160	1600	U
74-83-9	Bromomethane		115	1600	U
78-93-3	2-Butanone		224	1600	U
75-15-0	Carbon disulfide		208	1600	U
56-23-5	Carbon tetrachloride		141	1600	U
108-90-7	Chlorobenzene		54.5	1600	U
75-00-3	Chloroethane		176	1600	U
67-66-3	Chloroform	1600 ~~96.7~~ U	88.2	1600	~~JDB~~ MBL
74-87-3	Chloromethane		83.4	1600	U
110-82-7	Cyclohexane		86.6	1600	U
124-48-1	Dibromochloromethane		54.5	1600	U
96-12-8	1,2-Dibromo-3-chloropropane		192	802	U
106-93-4	1,2-Dibromoethane (EDB)		69.0	1600	U
95-50-1	1,2-Dichlorobenzene		59.3	1600	U
541-73-1	1,3-Dichlorobenzene		135	1600	U
106-46-7	1,4-Dichlorobenzene		88.2	1600	U
75-71-8	Dichlorodifluoromethane		176	1600	U~~Q~~
75-34-3	1,1-Dichloroethane		86.6	1600	U
107-06-2	1,2-Dichloroethane		73.8	1600	U
75-35-4	1,1-Dichloroethene		192	1600	U
156-59-4	cis-1,2-Dichloroethene		192	1600	U
156-60-5	trans-1,2-Dichloroethene		176	1600	U
78-87-5	1,2-Dichloropropane		73.8	1600	U
10061-01-5	cis-1,3-Dichloropropene		80.2	1600	U
10061-02-6	trans-1,3-Dichloropropene		51.3	1600	U
100-41-4	Ethylbenzene		120	1600	U
591-78-6	2-Hexanone		369	1600	U
98-82-8	Isopropylbenzene		141	1600	U
75-09-2	Methylene chloride	1600 ~~228~~ U	99.4	1600	~~JDB~~ MBL
76-20-9	Methyl Acetate		257	1600	U
108-87-2	Methylcyclohexane		48.1	1600	U
108-10-1	4-Methyl-2-pentanone		93.0	1600	U
1634-04-4	Methyl t-Butyl Ether		51.3	1600	U
100-42-5	Styrene		56.1	1600	U
79-34-5	1,1,2,2-Tetrachloroethane		69.0	1600	U
127-18-4	Tetrachloroethene		156	1600	U
108-88-3	Toluene		138	1600	U

exclude

RW 7/26/10

ANALYSIS DATA SHEET

MR21-SS39-10A

10

Laboratory: Empirical Laboratories, LLC SDG:

Client: CH2M Hill, Inc. Project: Lejeune CTO-40 UXO-21

Matrix: Soil Laboratory ID: 1003066-10 File ID: 0306610D.D

Sampled: 03/04/10 09:50 Prepared: 03/08/10 13:56 Analyzed: 03/09/10 08:11

Solids: 79.34 Preparation: 5035 Dilution: 100

Batch: 0C08017 Sequence: 0C06809 Calibration: 0057001 Instrument: MS-VOA1

use reanalysis

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene		28.9	1600	U
79-00-5	1,1,2-Trichloroethane		56.1	1600	U
71-55-6	1,1,1-Trichloroethane		144	1600	U
79-01-6	Trichloroethene		136	1600	U
75-69-4	Trichlorofluoromethane		152	1600	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		268	1600	U
75-01-4	Vinyl chloride		176	1600	U
1330-20-7	Xylenes (total)		112	1600	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	48.11	51.90	108	85 - 120	
Dibromofluoromethane	48.11	46.59	96.8	80 - 125	
1,2-Dichloroethane-d4	48.11	44.15	91.8	75 - 140	
Toluene-d8	48.11	48.45	101	85 - 115	

exclude

lew 7/26/10

10RE

ANALYSIS DATA SHEET

MR21-SS39-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-10RE1	File ID:	0306610.D
Sampled:	03/04/10 09:50	Prepared:	03/09/10 11:20	Analyzed:	03/09/10 20:55
Solids:	79.34	Preparation:	5035	Dilution:	1
Batch:	0C09022	Sequence: 0C06905	Calibration:	0057001	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-64-1	Acetone	77.0 J	4.17	20.9	✓
71-43-2	Benzene	UJ	0.981	20.9	UQ
75-27-4	Bromodichloromethane		0.626	20.9	UQ
75-25-2	Bromoform		2.09	20.9	UQ
74-83-9	Bromomethane		1.50	20.9	UQ
78-93-3	2-Butanone		2.92	20.9	UQ
75-15-0	Carbon disulfide		2.71	20.9	UQ
56-23-5	Carbon tetrachloride		1.84	20.9	UQ
108-90-7	Chlorobenzene		0.709	20.9	UQ
75-00-3	Chloroethane		2.30	20.9	UQ
67-66-3	Chloroform		1.15	20.9	UQ
74-87-3	Chloromethane		1.09	20.9	UQ
110-82-7	Cyclohexane		1.13	20.9	UQ
124-48-1	Dibromochloromethane		0.709	20.9	UQ
96-12-8	1,2-Dibromo-3-chloropropane		2.50	10.4	UQ
106-93-4	1,2-Dibromoethane (EDB)		0.897	20.9	UQ
95-50-1	1,2-Dichlorobenzene		0.772	20.9	UQ
541-73-1	1,3-Dichlorobenzene		1.75	20.9	UQ
106-46-7	1,4-Dichlorobenzene		1.15	20.9	UQ
75-71-8	Dichlorodifluoromethane		2.30	20.9	UQ
75-34-3	1,1-Dichloroethane		1.13	20.9	UQ
107-06-2	1,2-Dichloroethane		0.960	20.9	UQ
75-35-4	1,1-Dichloroethene		2.50	20.9	UQ
156-59-4	cis-1,2-Dichloroethene		2.50	20.9	UQ
156-60-5	trans-1,2-Dichloroethene		2.30	20.9	UQ
78-87-5	1,2-Dichloropropane		0.960	20.9	UQ
10061-01-5	cis-1,3-Dichloropropene		1.04	20.9	UQ
10061-02-6	trans-1,3-Dichloropropene		0.668	20.9	UQ
100-41-4	Ethylbenzene		1.57	20.9	UQ
591-78-6	2-Hexanone		4.80	20.9	UQ
98-82-8	Isopropylbenzene		1.84	20.9	UQ
75-09-2	Methylene chloride	20.9 ~~5.63~~ UJ	1.29	20.9	~~JQB~~
76-20-9	Methyl Acetate		3.34	20.9	UQ
108-87-2	Methylcyclohexane		0.626	20.9	UQ
108-10-1	4-Methyl-2-pentanone		1.21	20.9	UQ
1634-04-4	Methyl t-Butyl Ether		0.668	20.9	UQ
100-42-5	Styrene		0.730	20.9	UQ
79-34-5	1,1,2,2-Tetrachloroethane		0.897	20.9	UQ
127-18-4	Tetrachloroethene		2.02	20.9	UQ
108-88-3	Toluene	2.27 J	1.79	20.9	JQ

CC SSL

~~MB~~ SS SSL

lw 7/26/10

ANALYSIS DATA SHEET

MR21-SS39-10A

10RE

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-10RE1	File ID:	0306610.D
Sampled:	03/04/10 09:50	Prepared:	03/09/10 11:20	Analyzed:	03/09/10 20:55
Solids:	79.34	Preparation:	5035	Dilution:	1

Batch: 0C09022 Sequence: 0C06905 Calibration: 0057001 Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene	UJ	0.376	20.9	UQ
79-00-5	1,1,2-Trichloroethane		0.730	20.9	UQ
71-55-6	1,1,1-Trichloroethane		1.88	20.9	UQ
79-01-6	Trichloroethene		1.77	20.9	UQ
75-69-4	Trichlorofluoromethane		1.98	20.9	UQ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		3.48	20.9	UQ
75-01-4	Vinyl chloride		2.30	20.9	UQ
1330-20-7	Xylenes (total)	3.58 J	1.46	20.9	JQ

SSL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	62.60	51.17	81.7	85 - 120	*
Dibromofluoromethane	62.60	68.10	109	80 - 125	
1,2-Dichloroethane-d4	62.60	68.56	110	75 - 140	
Toluene-d8	62.60	79.86	128	85 - 115	*

lw 7/26/10

ANALYSIS DATA SHEET

MR21-SS38-10A

11

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-11	File ID:	0306611.D
Sampled:	03/04/10 10:00	Prepared:	03/08/10 13:56	Analyzed:	03/09/10 02:18
Solids:	74.03	Preparation:	5035	Dilution:	1
Batch:	0C08017	Sequence: 0C06809	Calibration:	0057001	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
67-64-1	Acetone	146 ~~902~~ J	3.52	17.6	~~EQ~~	CC
71-43-2	Benzene	UJ	0.827	17.6	UQ	SSL
75-27-4	Bromodichloromethane		0.528	17.6	UQ	
75-25-2	Bromoform		1.76	17.6	UQ	
74-83-9	Bromomethane		1.27	17.6	UQ	
78-93-3	2-Butanone		2.46	17.6	UQ	
75-15-0	Carbon disulfide		2.29	17.6	UQ	
56-23-5	Carbon tetrachloride		1.55	17.6	UQ	
108-90-7	Chlorobenzene		0.598	17.6	UQ	
75-00-3	Chloroethane		1.93	17.6	UQ	SSL
67-66-3	Chloroform	17.6 ~~1.03~~ UJ	0.967	17.6	~~JQB~~	~~MSL~~
74-87-3	Chloromethane		0.915	17.6	UQ	SSL
110-82-7	Cyclohexane		0.950	17.6	UQ	
124-48-1	Dibromochloromethane		0.598	17.6	UQ	
96-12-8	1,2-Dibromo-3-chloropropane		2.11	8.79	UQ	
106-93-4	1,2-Dibromoethane (EDB)		0.756	17.6	UQ	
95-50-1	1,2-Dichlorobenzene		0.651	17.6	UQ	
541-73-1	1,3-Dichlorobenzene		1.48	17.6	UQ	
106-46-7	1,4-Dichlorobenzene		0.967	17.6	UQ	
75-71-8	Dichlorodifluoromethane		1.93	17.6	UQ	
75-34-3	1,1-Dichloroethane		0.950	17.6	UQ	
107-06-2	1,2-Dichloroethane		0.809	17.6	UQ	
75-35-4	1,1-Dichloroethene		2.11	17.6	UQ	
156-59-4	cis-1,2-Dichloroethene		2.11	17.6	UQ	
156-60-5	trans-1,2-Dichloroethene		1.93	17.6	UQ	
78-87-5	1,2-Dichloropropane		0.809	17.6	UQ	
10061-01-5	cis-1,3-Dichloropropene		0.879	17.6	UQ	
10061-02-6	trans-1,3-Dichloropropene		0.563	17.6	UQ	
100-41-4	Ethylbenzene		1.32	17.6	UQ	
591-78-6	2-Hexanone	12.8 J	4.05	17.6	JQ	
98-82-8	Isopropylbenzene	UJ	1.55	17.6	UQ	SSL
75-09-2	Methylene chloride	17.6 ~~4.84~~ UJ	1.09	17.6	~~JQB~~	~~MSL~~
76-20-9	Methyl Acetate	4.50 J	2.81	17.6	JQ	SSL
108-87-2	Methylcyclohexane	UJ	0.528	17.6	UQ	
108-10-1	4-Methyl-2-pentanone		1.02	17.6	UQ	
1634-04-4	Methyl t-Butyl Ether		0.563	17.6	UQ	
100-42-5	Styrene		0.616	17.6	UQ	
79-34-5	1,1,2,2-Tetrachloroethane		0.756	17.6	UQ	
127-18-4	Tetrachloroethene		1.71	17.6	UQ	
108-88-3	Toluene	5.83 J	1.51	17.6	JQ	

RW 7/26/10

ANALYSIS DATA SHEET

MR21-SS38-10A

11

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-11	File ID:	0306611.D
Sampled:	03/04/10 10:00	Prepared:	03/08/10 13:56	Analyzed:	03/09/10 02:18
Solids:	74.03	Preparation:	5035	Dilution:	1
Batch:	0C08017	Sequence: 0C06809	Calibration:	0057001	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene	UJ	0.317	17.6	UQ
79-00-5	1,1,2-Trichloroethane		0.616	17.6	UQ
71-55-6	1,1,1-Trichloroethane		1.58	17.6	UQ
79-01-6	Trichloroethene		1.50	17.6	UQ
75-69-4	Trichlorofluoromethane		1.67	17.6	UQ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		2.94	17.6	UQ
75-01-4	Vinyl chloride		1.93	17.6	UQ
1330-20-7	Xylenes (total)	2.68 J	1.23	17.6	JQ

SSL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	52.77	41.17	78.0	85 - 120	*
Dibromofluoromethane	52.77	56.77	108	80 - 125	
1,2-Dichloroethane-d4	52.77	56.23	107	75 - 140	
Toluene-d8	52.77	71.60	136	85 - 115	*

NW 7/26/10

ANALYSIS DATA SHEET

MR21-SS38-10A

11RE

Laboratory: Empirical Laboratories, LLC SDG:

Client: CH2M Hill, Inc. Project: Lejeune CTO-40 UXO-21

Matrix: Soil Laboratory ID: 1003066-11RE1 File ID: 0306611.D

Sampled: 03/04/10 10:00 Prepared: 03/09/10 11:20 Analyzed: 03/09/10 21:33

Solids: 74.03 Preparation: 5035 Dilution: 1

Batch: 0C09022 Sequence: 0C06905 Calibration: 0057001 Instrument: MS-VOA1

use original

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
67-64-1	Acetone	146 J	2.99	14.9	~~Q~~	CC
71-43-2	Benzene	UJ	0.702	14.9	UQ	SSL
75-27-4	Bromodichloromethane		0.448	14.9	UQ	
75-25-2	Bromoform		1.49	14.9	UQ	
74-83-9	Bromomethane		1.08	14.9	UQ	
78-93-3	2-Butanone		2.09	14.9	UQ	
75-15-0	Carbon disulfide		1.94	14.9	UQ	
56-23-5	Carbon tetrachloride		1.31	14.9	UQ	
108-90-7	Chlorobenzene		0.508	14.9	UQ	
75-00-3	Chloroethane		1.64	14.9	UQ	
67-66-3	Chloroform		0.822	14.9	UQ	
74-87-3	Chloromethane		0.777	14.9	UQ	
110-82-7	Cyclohexane		0.807	14.9	UQ	
124-48-1	Dibromochloromethane		0.508	14.9	UQ	
96-12-8	1,2-Dibromo-3-chloropropane		1.79	7.47	UQ	
106-93-4	1,2-Dibromoethane (EDB)		0.643	14.9	UQ	
95-50-1	1,2-Dichlorobenzene		0.553	14.9	UQ	
541-73-1	1,3-Dichlorobenzene		1.26	14.9	UQ	
106-46-7	1,4-Dichlorobenzene		0.822	14.9	UQ	
75-71-8	Dichlorodifluoromethane		1.64	14.9	UQ	
75-34-3	1,1-Dichloroethane		0.807	14.9	UQ	
107-06-2	1,2-Dichloroethane		0.687	14.9	UQ	
75-35-4	1,1-Dichloroethene		1.79	14.9	UQ	
156-59-4	cis-1,2-Dichloroethene		1.79	14.9	UQ	
156-60-5	trans-1,2-Dichloroethene		1.64	14.9	UQ	
78-87-5	1,2-Dichloropropane		0.687	14.9	UQ	
10061-01-5	cis-1,3-Dichloropropene		0.747	14.9	UQ	
10061-02-6	trans-1,3-Dichloropropene		0.478	14.9	UQ	
100-41-4	Ethylbenzene		1.12	14.9	UQ	
591-78-6	2-Hexanone		3.44	14.9	UQ	
98-82-8	Isopropylbenzene		1.31	14.9	UQ	
75-09-2	Methylene chloride	14.9 ~~3.61~~ UJ	0.926	14.9	~~JQB~~	~~MBL~~ SSL
76-20-9	Methyl Acetate		2.39	14.9	UQ	
108-87-2	Methylcyclohexane		0.448	14.9	UQ	
108-10-1	4-Methyl-2-pentanone		0.867	14.9	UQ	
1634-04-4	Methyl t-Butyl Ether		0.478	14.9	UQ	
100-42-5	Styrene		0.523	14.9	UQ	
79-34-5	1,1,2,2-Tetrachloroethane		0.643	14.9	UQ	
127-18-4	Tetrachloroethene		1.45	14.9	UQ	
108-88-3	Toluene	2.28 J	1.29	14.9	JQ	

exclude

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ANALYSIS DATA SHEET

MR21-SS38-10A

11RE

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-11RE1	File ID:	0306611.D
Sampled:	03/04/10 10:00	Prepared:	03/09/10 11:20	Analyzed:	03/09/10 21:33
Solids:	74.03	Preparation:	5035	Dilution:	1
Batch:	0C09022	Sequence: 0C06905	Calibration:	0057001	Instrument: MS-VOA1

use original

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene	UJ	0.269	14.9	UQ
79-00-5	1,1,2-Trichloroethane		0.523	14.9	UQ
71-55-6	1,1,1-Trichloroethane		1.34	14.9	UQ
79-01-6	Trichloroethene		1.27	14.9	UQ
75-69-4	Trichlorofluoromethane		1.42	14.9	UQ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		2.50	14.9	UQ
75-01-4	Vinyl chloride		1.64	14.9	UQ
1330-20-7	Xylenes (total)		1.05	14.9	UQ

SSL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	44.83	33.69	75.2	85 - 120	*
Dibromofluoromethane	44.83	50.25	112	80 - 125	
1,2-Dichloroethane-d4	44.83	51.17	114	75 - 140	
Toluene-d8	44.83	62.12	139	85 - 115	*

exclude

lw 7/26/10

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ANALYSIS DATA SHEET

MR21-SS25-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-12	File ID:	0306612.D
Sampled:	03/04/10 08:15	Prepared:	03/08/10 13:56	Analyzed:	03/09/10 02:57
Solids:	72.66	Preparation:	5035	Dilution:	1
Batch:	0C08017	Sequence: 0C06809	Calibration:	0057001	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
67-64-1	Acetone	421 J	3.53	17.6	~~U~~	CC
71-43-2	Benzene	UJ	0.829	17.6	UQ	SSL
75-27-4	Bromodichloromethane		0.529	17.6	UQ	
75-25-2	Bromoform		1.76	17.6	UQ	
74-83-9	Bromomethane		1.27	17.6	UQ	
78-93-3	2-Butanone		2.47	17.6	UQ	
75-15-0	Carbon disulfide		2.29	17.6	UQ	
56-23-5	Carbon tetrachloride		1.55	17.6	UQ	
108-90-7	Chlorobenzene		0.600	17.6	UQ	
75-00-3	Chloroethane		1.94	17.6	UQ	
67-66-3	Chloroform		0.970	17.6	UQ	
74-87-3	Chloromethane		0.917	17.6	UQ	
110-82-7	Cyclohexane		0.953	17.6	UQ	
124-48-1	Dibromochloromethane		0.600	17.6	UQ	
96-12-8	1,2-Dibromo-3-chloropropane		2.12	8.82	UQ	
106-93-4	1,2-Dibromoethane (EDB)		0.759	17.6	UQ	
95-50-1	1,2-Dichlorobenzene		0.653	17.6	UQ	
541-73-1	1,3-Dichlorobenzene		1.48	17.6	UQ	
106-46-7	1,4-Dichlorobenzene		0.970	17.6	UQ	
75-71-8	Dichlorodifluoromethane		1.94	17.6	UQ	
75-34-3	1,1-Dichloroethane		0.953	17.6	UQ	
107-06-2	1,2-Dichloroethane		0.812	17.6	UQ	
75-35-4	1,1-Dichloroethene		2.12	17.6	UQ	
156-59-4	cis-1,2-Dichloroethene		2.12	17.6	UQ	
156-60-5	trans-1,2-Dichloroethene		1.94	17.6	UQ	
78-87-5	1,2-Dichloropropane		0.812	17.6	UQ	
10061-01-5	cis-1,3-Dichloropropene		0.882	17.6	UQ	
10061-02-6	trans-1,3-Dichloropropene		0.565	17.6	UQ	
100-41-4	Ethylbenzene		1.32	17.6	UQ	
591-78-6	2-Hexanone		4.06	17.6	UQ	
98-82-8	Isopropylbenzene		1.55	17.6	UQ	
75-09-2	Methylene chloride	17.6 ~~5.54~~ UJ	1.09	17.6	~~JQB~~	SSL
76-20-9	Methyl Acetate		2.82	17.6	UQ	
108-87-2	Methylcyclohexane		0.529	17.6	UQ	
108-10-1	4-Methyl-2-pentanone		1.02	17.6	UQ	
1634-04-4	Methyl t-Butyl Ether		0.565	17.6	UQ	
100-42-5	Styrene		0.618	17.6	UQ	
79-34-5	1,1,2,2-Tetrachloroethane		0.759	17.6	UQ	
127-18-4	Tetrachloroethene		1.71	17.6	UQ	
108-88-3	Toluene		1.52	17.6	UQ	

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ANALYSIS DATA SHEET

MR21-SS25-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-12	File ID:	0306612.D
Sampled:	03/04/10 08:15	Prepared:	03/08/10 13:56	Analyzed:	03/09/10 02:57
Solids:	72.66	Preparation:	5035	Dilution:	1
Batch:	0C08017	Sequence: 0C06809	Calibration:	0057001	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene	UJ	0.318	17.6	UQ
79-00-5	1,1,2-Trichloroethane		0.618	17.6	UQ
71-55-6	1,1,1-Trichloroethane		1.59	17.6	UQ
79-01-6	Trichloroethene		1.50	17.6	UQ
75-69-4	Trichlorofluoromethane		1.68	17.6	UQ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		2.95	17.6	UQ
75-01-4	Vinyl chloride		1.94	17.6	UQ
1330-20-7	Xylenes (total)		1.24	17.6	UQ

SSL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	52.93	39.40	74.4	85 - 120	*
Dibromofluoromethane	52.93	57.67	109	80 - 125	
1,2-Dichloroethane-d4	52.93	56.26	106	75 - 140	
Toluene-d8	52.93	71.17	134	85 - 115	*

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ANALYSIS DATA SHEET

MR21-SS26-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-13	File ID:	0306613.D
Sampled:	03/03/10 12:50	Prepared:	03/08/10 13:56	Analyzed:	03/09/10 03:35
Solids:	80.10	Preparation:	5035	Dilution:	1
Batch:	0C08017	Sequence: 0C06809	Calibration:	0057001	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
67-64-1	Acetone	316 J	2.55	12.7	~~Q~~	CC
71-43-2	Benzene	UJ	0.599	12.7	UQ	SSL
75-27-4	Bromodichloromethane		0.382	12.7	UQ	
75-25-2	Bromoform		1.27	12.7	UQ	
74-83-9	Bromomethane		0.917	12.7	UQ	
78-93-3	2-Butanone		1.78	12.7	UQ	
75-15-0	Carbon disulfide		1.66	12.7	UQ	
56-23-5	Carbon tetrachloride		1.12	12.7	UQ	
108-90-7	Chlorobenzene		0.433	12.7	UQ	
75-00-3	Chloroethane		1.40	12.7	UQ	
67-66-3	Chloroform		0.701	12.7	UQ	
74-87-3	Chloromethane		0.662	12.7	UQ	
110-82-7	Cyclohexane		0.688	12.7	UQ	
124-48-1	Dibromochloromethane		0.433	12.7	UQ	
96-12-8	1,2-Dibromo-3-chloropropane		1.53	6.37	UQ	
106-93-4	1,2-Dibromoethane (EDB)		0.548	12.7	UQ	
95-50-1	1,2-Dichlorobenzene		0.471	12.7	UQ	
541-73-1	1,3-Dichlorobenzene		1.07	12.7	UQ	
106-46-7	1,4-Dichlorobenzene		0.701	12.7	UQ	
75-71-8	Dichlorodifluoromethane		1.40	12.7	UQ	
75-34-3	1,1-Dichloroethane		0.688	12.7	UQ	
107-06-2	1,2-Dichloroethane		0.586	12.7	UQ	
75-35-4	1,1-Dichloroethene		1.53	12.7	UQ	
156-59-4	cis-1,2-Dichloroethene		1.53	12.7	UQ	
156-60-5	trans-1,2-Dichloroethene		1.40	12.7	UQ	
78-87-5	1,2-Dichloropropane		0.586	12.7	UQ	
10061-01-5	cis-1,3-Dichloropropene		0.637	12.7	UQ	
10061-02-6	trans-1,3-Dichloropropene		0.408	12.7	UQ	
100-41-4	Ethylbenzene		0.955	12.7	UQ	
591-78-6	2-Hexanone		2.93	12.7	UQ	
98-82-8	Isopropylbenzene		1.12	12.7	UQ	
75-09-2	Methylene chloride	12.7 ~~4.02~~ UJ	0.790	12.7	~~JQB~~	~~MBL~~ SS
76-20-9	Methyl Acetate	2.22 J	2.04	12.7	JQ	SSL
108-87-2	Methylcyclohexane	UJ	0.382	12.7	UQ	
108-10-1	4-Methyl-2-pentanone		0.739	12.7	UQ	
1634-04-4	Methyl t-Butyl Ether		0.408	12.7	UQ	
100-42-5	Styrene		0.446	12.7	UQ	
79-34-5	1,1,2,2-Tetrachloroethane		0.548	12.7	UQ	
127-18-4	Tetrachloroethene		1.24	12.7	UQ	
108-88-3	Toluene	2.87 J	1.10	12.7	JQ	

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ANALYSIS DATA SHEET

MR21-SS26-10A

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Laboratory:	Empirical Laboratories, LLC			SDG:	
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Soil	Laboratory ID:	1003066-13	File ID:	0306613.D
Sampled:	03/03/10 12:50	Prepared:	03/08/10 13:56	Analyzed:	03/09/10 03:35
Solids:	80.10	Preparation:	5035	Dilution:	1
Batch:	0C08017	Sequence: 0C06809	Calibration:	0057001	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene	UJ	0.229	12.7	UQ
79-00-5	1,1,2-Trichloroethane		0.446	12.7	UQ
71-55-6	1,1,1-Trichloroethane		1.15	12.7	UQ
79-01-6	Trichloroethene		1.08	12.7	UQ
75-69-4	Trichlorofluoromethane		1.21	12.7	UQ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		2.13	12.7	UQ
75-01-4	Vinyl chloride		1.40	12.7	UQ
1330-20-7	Xylenes (total)		0.892	12.7	UQ

SSL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	38.22	30.71	80.4	85 - 120	*
Dibromofluoromethane	38.22	40.52	106	80 - 125	
1,2-Dichloroethane-d4	38.22	42.30	111	75 - 140	
Toluene-d8	38.22	49.27	129	85 - 115	*

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ANALYSIS DATA SHEET

MR21-SS12-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-14	File ID:	0306614.D
Sampled:	03/03/10 12:00	Prepared:	03/08/10 13:56	Analyzed:	03/09/10 04:14
Solids:	75.76	Preparation:	5035	Dilution:	1
Batch:	0C08017	Sequence: 0C06809	Calibration:	0057001	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
67-64-1	Acetone	214 J	4.27	21.4	~~Q~~	CC
71-43-2	Benzene		1.00	21.4	U	
75-27-4	Bromodichloromethane		0.641	21.4	U	
75-25-2	Bromoform		2.14	21.4	U	
74-83-9	Bromomethane		1.54	21.4	U	
78-93-3	2-Butanone		2.99	21.4	U	
75-15-0	Carbon disulfide		2.78	21.4	U	
56-23-5	Carbon tetrachloride		1.88	21.4	U	
108-90-7	Chlorobenzene		0.726	21.4	U	
75-00-3	Chloroethane		2.35	21.4	U	
67-66-3	Chloroform		1.17	21.4	U	
74-87-3	Chloromethane		1.11	21.4	U	
110-82-7	Cyclohexane		1.15	21.4	U	
124-48-1	Dibromochloromethane		0.726	21.4	U	
96-12-8	1,2-Dibromo-3-chloropropane		2.56	10.7	U	
106-93-4	1,2-Dibromoethane (EDB)		0.918	21.4	U	
95-50-1	1,2-Dichlorobenzene		0.790	21.4	U	
541-73-1	1,3-Dichlorobenzene		1.79	21.4	U	
106-46-7	1,4-Dichlorobenzene		1.17	21.4	U	
75-71-8	Dichlorodifluoromethane		2.35	21.4	U~~Q~~	
75-34-3	1,1-Dichloroethane		1.15	21.4	U	
107-06-2	1,2-Dichloroethane		0.983	21.4	U	
75-35-4	1,1-Dichloroethene		2.56	21.4	U	
156-59-4	cis-1,2-Dichloroethene		2.56	21.4	U	
156-60-5	trans-1,2-Dichloroethene		2.35	21.4	U	
78-87-5	1,2-Dichloropropane		0.983	21.4	U	
10061-01-5	cis-1,3-Dichloropropene		1.07	21.4	U	
10061-02-6	trans-1,3-Dichloropropene		0.684	21.4	U	
100-41-4	Ethylbenzene		1.60	21.4	U	
591-78-6	2-Hexanone		4.91	21.4	U	
98-82-8	Isopropylbenzene		1.88	21.4	U	
75-09-2	Methylene chloride	21.4 ~~5.22~~ U	1.32	21.4	~~JB~~	MBL
76-20-9	Methyl Acetate	384	3.42	21.4		
108-87-2	Methylcyclohexane		0.641	21.4	U	
108-10-1	4-Methyl-2-pentanone		1.24	21.4	U	
1634-04-4	Methyl t-Butyl Ether		0.684	21.4	U	
100-42-5	Styrene		0.748	21.4	U	
79-34-5	1,1,2,2-Tetrachloroethane		0.918	21.4	U	
127-18-4	Tetrachloroethene		2.07	21.4	U	
108-88-3	Toluene	2.55	1.84	21.4	J	

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ANALYSIS DATA SHEET

MR21-SS12-10A

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Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-14	File ID:	0306614.D
Sampled:	03/03/10 12:00	Prepared:	03/08/10 13:56	Analyzed:	03/09/10 04:14
Solids:	75.76	Preparation:	5035	Dilution:	1

Batch: 0C08017 Sequence: 0C06809 Calibration: 0057001 Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene		0.384	21.4	U
79-00-5	1,1,2-Trichloroethane		0.748	21.4	U
71-55-6	1,1,1-Trichloroethane		1.92	21.4	U
79-01-6	Trichloroethene		1.82	21.4	U
75-69-4	Trichlorofluoromethane		2.03	21.4	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		3.57	21.4	U
75-01-4	Vinyl chloride		2.35	21.4	U
1330-20-7	Xylenes (total)		1.50	21.4	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	64.08	60.88	95.0	85 - 120	
Dibromofluoromethane	64.08	65.81	103	80 - 125	
1,2-Dichloroethane-d4	64.08	68.09	106	75 - 140	
Toluene-d8	64.08	71.57	112	85 - 115	

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ANALYSIS DATA SHEET

MR21-SS29-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-15	File ID:	0306615.D
Sampled:	03/03/10 13:00	Prepared:	03/08/10 13:56	Analyzed:	03/09/10 04:52
Solids:	68.76	Preparation:	5035	Dilution:	1
Batch:	0C08017	Sequence: 0C06809	Calibration:	0057001	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
67-64-1	Acetone	492 J	2.93	14.7	~~U~~	CC
71-43-2	Benzene	UJ	0.689	14.7	UQ	SSL
75-27-4	Bromodichloromethane		0.440	14.7	UQ	
75-25-2	Bromoform		1.47	14.7	UQ	
74-83-9	Bromomethane		1.06	14.7	UQ	
78-93-3	2-Butanone		2.05	14.7	UQ	
75-15-0	Carbon disulfide		1.91	14.7	UQ	
56-23-5	Carbon tetrachloride		1.29	14.7	UQ	
108-90-7	Chlorobenzene		0.498	14.7	UQ	
75-00-3	Chloroethane		1.61	14.7	UQ	SSL
67-66-3	Chloroform	14.7 ~~0.917~~ UJ	0.806	14.7	~~JQB~~	~~MBL~~ SSL
74-87-3	Chloromethane		0.762	14.7	UQ	
110-82-7	Cyclohexane		0.792	14.7	UQ	
124-48-1	Dibromochloromethane		0.498	14.7	UQ	
96-12-8	1,2-Dibromo-3-chloropropane		1.76	7.33	UQ	
106-93-4	1,2-Dibromoethane (EDB)		0.630	14.7	UQ	
95-50-1	1,2-Dichlorobenzene		0.542	14.7	UQ	
541-73-1	1,3-Dichlorobenzene		1.23	14.7	UQ	
106-46-7	1,4-Dichlorobenzene		0.806	14.7	UQ	
75-71-8	Dichlorodifluoromethane		1.61	14.7	UQ	
75-34-3	1,1-Dichloroethane		0.792	14.7	UQ	
107-06-2	1,2-Dichloroethane		0.674	14.7	UQ	
75-35-4	1,1-Dichloroethene		1.76	14.7	UQ	
156-59-4	cis-1,2-Dichloroethene		1.76	14.7	UQ	
156-60-5	trans-1,2-Dichloroethene		1.61	14.7	UQ	
78-87-5	1,2-Dichloropropane		0.674	14.7	UQ	
10061-01-5	cis-1,3-Dichloropropene		0.733	14.7	UQ	
10061-02-6	trans-1,3-Dichloropropene		0.469	14.7	UQ	
100-41-4	Ethylbenzene		1.10	14.7	UQ	
591-78-6	2-Hexanone	10.3 J	3.37	14.7	JQ	
98-82-8	Isopropylbenzene	UJ	1.29	14.7	UQ	SSL
75-09-2	Methylene chloride	14.7 ~~4.40~~ UJ	0.909	14.7	~~JQB~~	~~MBL~~ SSL
76-20-9	Methyl Acetate		2.35	14.7	UQ	
108-87-2	Methylcyclohexane		0.440	14.7	UQ	
108-10-1	4-Methyl-2-pentanone		0.850	14.7	UQ	
1634-04-4	Methyl t-Butyl Ether		0.469	14.7	UQ	
100-42-5	Styrene		0.513	14.7	UQ	
79-34-5	1,1,2,2-Tetrachloroethane		0.630	14.7	UQ	
127-18-4	Tetrachloroethene		1.42	14.7	UQ	
108-88-3	Toluene		1.26	14.7	UQ	

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ANALYSIS DATA SHEET

MR21-SS29-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-15	File ID:	0306615.D
Sampled:	03/03/10 13:00	Prepared:	03/08/10 13:56	Analyzed:	03/09/10 04:52
Solids:	68.76	Preparation:	5035	Dilution:	1

Batch: 0C08017 Sequence: 0C06809 Calibration: 0057001 Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene	UJ	0.264	14.7	UQ
79-00-5	1,1,2-Trichloroethane		0.513	14.7	UQ
71-55-6	1,1,1-Trichloroethane		1.32	14.7	UQ
79-01-6	Trichloroethene		1.25	14.7	UQ
75-69-4	Trichlorofluoromethane		1.39	14.7	UQ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		2.45	14.7	UQ
75-01-4	Vinyl chloride		1.61	14.7	UQ
1330-20-7	Xylenes (total)		1.03	14.7	UQ

SSL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	43.98	35.31	80.3	85 - 120	*
Dibromofluoromethane	43.98	48.77	111	80 - 125	
1,2-Dichloroethane-d4	43.98	50.94	116	75 - 140	
Toluene-d8	43.98	58.36	133	85 - 115	*

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ANALYSIS DATA SHEET

MR21-SS17-10A

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Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-16	File ID:	0306616.D
Sampled:	03/03/10 11:40	Prepared:	03/09/10 11:20	Analyzed:	03/09/10 22:12
Solids:	78.36	Preparation:	5035	Dilution:	1
Batch:	0C09022	Sequence: 0C06905	Calibration:	0057001	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
67-64-1	Acetone	303 J	2.62	13.1	~~Q~~	CC
71-43-2	Benzene	UJ	0.615	13.1	UQ	SSL
75-27-4	Bromodichloromethane		0.392	13.1	UQ	
75-25-2	Bromoform		1.31	13.1	UQ	
74-83-9	Bromomethane		0.941	13.1	UQ	
78-93-3	2-Butanone		1.83	13.1	UQ	
75-15-0	Carbon disulfide		1.70	13.1	UQ	
56-23-5	Carbon tetrachloride		1.15	13.1	UQ	
108-90-7	Chlorobenzene		0.445	13.1	UQ	
75-00-3	Chloroethane		1.44	13.1	UQ	
67-66-3	Chloroform	13.1 ~~0.767~~ UJ	0.719	13.1	~~JQB~~	MRL SSL
74-87-3	Chloromethane		0.680	13.1	UQ	SSL
110-82-7	Cyclohexane		0.706	13.1	UQ	
124-48-1	Dibromochloromethane		0.445	13.1	U	
96-12-8	1,2-Dibromo-3-chloropropane		1.57	6.54	UQ	
106-93-4	1,2-Dibromoethane (EDB)		0.562	13.1	UQ	
95-50-1	1,2-Dichlorobenzene		0.484	13.1	UQ	
541-73-1	1,3-Dichlorobenzene		1.10	13.1	UQ	
106-46-7	1,4-Dichlorobenzene		0.719	13.1	UQ	
75-71-8	Dichlorodifluoromethane		1.44	13.1	UQ	
75-34-3	1,1-Dichloroethane		0.706	13.1	UQ	
107-06-2	1,2-Dichloroethane		0.601	13.1	UQ	
75-35-4	1,1-Dichloroethene		1.57	13.1	UQ	
156-59-4	cis-1,2-Dichloroethene		1.57	13.1	UQ	
156-60-5	trans-1,2-Dichloroethene		1.44	13.1	UQ	
78-87-5	1,2-Dichloropropane		0.601	13.1	UQ	
10061-01-5	cis-1,3-Dichloropropene		0.654	13.1	UQ	
10061-02-6	trans-1,3-Dichloropropene		0.418	13.1	UQ	
100-41-4	Ethylbenzene		0.981	13.1	UQ	
591-78-6	2-Hexanone		3.01	13.1	UQ	
98-82-8	Isopropylbenzene		1.15	13.1	UQ	
75-09-2	Methylene chloride	13.1 ~~3.83~~ UJ	0.811	13.1	~~JQB~~	MRL SSL
76-20-9	Methyl Acetate		2.09	13.1	UQ	SSL
108-87-2	Methylcyclohexane		0.392	13.1	UQ	
108-10-1	4-Methyl-2-pentanone		0.758	13.1	UQ	
1634-04-4	Methyl t-Butyl Ether		0.418	13.1	UQ	
100-42-5	Styrene		0.458	13.1	UQ	
79-34-5	1,1,2,2-Tetrachloroethane		0.562	13.1	UQ	
127-18-4	Tetrachloroethene		1.27	13.1	UQ	
108-88-3	Toluene	4.91 J	1.12	13.1	JQ	

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ANALYSIS DATA SHEET

MR21-SS17-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-16	File ID:	0306616.D
Sampled:	03/03/10 11:40	Prepared:	03/09/10 11:20	Analyzed:	03/09/10 22:12
Solids:	78.36	Preparation:	5035	Dilution:	1

Batch: 0C09022 Sequence: 0C06905 Calibration: 0057001 Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene	UJ	0.235	13.1	UQ
79-00-5	1,1,2-Trichloroethane		0.458	13.1	UQ
71-55-6	1,1,1-Trichloroethane		1.18	13.1	UQ
79-01-6	Trichloroethene		1.11	13.1	UQ
75-69-4	Trichlorofluoromethane		1.24	13.1	UQ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		2.18	13.1	UQ
75-01-4	Vinyl chloride		1.44	13.1	UQ
1330-20-7	Xylenes (total)	2.56 J	0.915	13.1	JQ

SSL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	39.23	25.28	64.4	85 - 120	*
Dibromofluoromethane	39.23	50.62	129	80 - 125	*
1,2-Dichloroethane-d4	39.23	48.15	123	75 - 140	
Toluene-d8	39.23	63.64	162	85 - 115	*

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ANALYSIS DATA SHEET

MR21-SS11-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-17	File ID:	0306617.D
Sampled:	03/03/10 12:10	Prepared:	03/08/10 13:56	Analyzed:	03/09/10 06:54
Solids:	74.12	Preparation:	5035	Dilution:	1
Batch:	0C08017	Sequence: 0C06809	Calibration:	0057001	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
67-64-1	Acetone	159 J	3.00	15.0	~~Q~~	CC
71-43-2	Benzene	UJ	0.706	15.0	UQ	SSL
75-27-4	Bromodichloromethane		0.451	15.0	UQ	
75-25-2	Bromoform		1.50	15.0	UQ	
74-83-9	Bromomethane		1.08	15.0	UQ	
78-93-3	2-Butanone		2.10	15.0	UQ	
75-15-0	Carbon disulfide		1.95	15.0	UQ	
56-23-5	Carbon tetrachloride		1.32	15.0	UQ	
108-90-7	Chlorobenzene		0.511	15.0	UQ	
75-00-3	Chloroethane		1.65	15.0	UQ	
67-66-3	Chloroform		0.826	15.0	UQ	
74-87-3	Chloromethane		0.781	15.0	UQ	
110-82-7	Cyclohexane		0.811	15.0	UQ	
124-48-1	Dibromochloromethane		0.511	15.0	UQ	
96-12-8	1,2-Dibromo-3-chloropropane		1.80	7.51	UQ	
106-93-4	1,2-Dibromoethane (EDB)		0.646	15.0	UQ	
95-50-1	1,2-Dichlorobenzene		0.556	15.0	UQ	
541-73-1	1,3-Dichlorobenzene		1.26	15.0	UQ	
106-46-7	1,4-Dichlorobenzene		0.826	15.0	UQ	
75-71-8	Dichlorodifluoromethane		1.65	15.0	UQ	
75-34-3	1,1-Dichloroethane		0.811	15.0	UQ	
107-06-2	1,2-Dichloroethane		0.691	15.0	UQ	
75-35-4	1,1-Dichloroethene		1.80	15.0	UQ	
156-59-4	cis-1,2-Dichloroethene		1.80	15.0	UQ	
156-60-5	trans-1,2-Dichloroethene		1.65	15.0	UQ	
78-87-5	1,2-Dichloropropane		0.691	15.0	UQ	
10061-01-5	cis-1,3-Dichloropropene		0.751	15.0	UQ	
10061-02-6	trans-1,3-Dichloropropene		0.481	15.0	UQ	
100-41-4	Ethylbenzene		1.13	15.0	UQ	
591-78-6	2-Hexanone		3.46	15.0	UQ	
98-82-8	Isopropylbenzene		1.32	15.0	UQ	
75-09-2	Methylene chloride	15.0 ~~421~~ UJ	0.931	15.0	~~JQB~~	~~MBL~~ SSL
76-20-9	Methyl Acetate	3.75 J	2.40	15.0	UQ	SSL
108-87-2	Methylcyclohexane	UJ	0.451	15.0	UQ	
108-10-1	4-Methyl-2-pentanone		0.871	15.0	UQ	
1634-04-4	Methyl t-Butyl Ether		0.481	15.0	UQ	
100-42-5	Styrene		0.526	15.0	UQ	
79-34-5	1,1,2,2-Tetrachloroethane		0.646	15.0	UQ	
127-18-4	Tetrachloroethene		1.46	15.0	UQ	
108-88-3	Toluene		1.29	15.0	UQ	

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ANALYSIS DATA SHEET

MR21-SS11-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-17	File ID:	0306617.D
Sampled:	03/03/10 12:10	Prepared:	03/08/10 13:56	Analyzed:	03/09/10 06:54
Solids:	74.12	Preparation:	5035	Dilution:	1

Batch: 0C08017 Sequence: 0C06809 Calibration: 0057001 Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene	UJ	0.270	15.0	UQ
79-00-5	1,1,2-Trichloroethane		0.526	15.0	UQ
71-55-6	1,1,1-Trichloroethane		1.35	15.0	UQ
79-01-6	Trichloroethene		1.28	15.0	UQ
75-69-4	Trichlorofluoromethane		1.43	15.0	UQ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		2.51	15.0	UQ
75-01-4	Vinyl chloride		1.65	15.0	UQ
1330-20-7	Xylenes (total)		1.05	15.0	UQ

SSL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	45.07	37.57	83.3	85 - 120	*
Dibromofluoromethane	45.07	47.27	105	80 - 125	
1,2-Dichloroethane-d4	45.07	47.49	105	75 - 140	
Toluene-d8	45.07	54.65	121	85 - 115	*

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ANALYSIS DATA SHEET

MR21-SS11D-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-18	File ID:	0306618.D
Sampled:	03/03/10 12:15	Prepared:	03/08/10 13:56	Analyzed:	03/09/10 07:32
Solids:	73.05	Preparation:	5035	Dilution:	1
Batch:	0C08017	Sequence: 0C06809	Calibration:	0057001	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
67-64-1	Acetone	267 J	4.19	20.9	~~Q~~	CC SSL
71-43-2	Benzene	UJ	0.984	20.9	UQ	
75-27-4	Bromodichloromethane		0.628	20.9	UQ	
75-25-2	Bromoform		2.09	20.9	UQ	
74-83-9	Bromomethane		1.51	20.9	UQ	
78-93-3	2-Butanone		2.93	20.9	UQ	
75-15-0	Carbon disulfide		2.72	20.9	UQ	
56-23-5	Carbon tetrachloride		1.84	20.9	UQ	
108-90-7	Chlorobenzene		0.712	20.9	UQ	
75-00-3	Chloroethane		2.30	20.9	UQ	
67-66-3	Chloroform		1.15	20.9	UQ	
74-87-3	Chloromethane		1.09	20.9	UQ	
110-82-7	Cyclohexane		1.13	20.9	UQ	
124-48-1	Dibromochloromethane		0.712	20.9	UQ	
96-12-8	1,2-Dibromo-3-chloropropane		2.51	10.5	UQ	
106-93-4	1,2-Dibromoethane (EDB)		0.900	20.9	UQ	
95-50-1	1,2-Dichlorobenzene		0.775	20.9	UQ	
541-73-1	1,3-Dichlorobenzene		1.76	20.9	UQ	
106-46-7	1,4-Dichlorobenzene		1.15	20.9	UQ	
75-71-8	Dichlorodifluoromethane		2.30	20.9	UQ	
75-34-3	1,1-Dichloroethane		1.13	20.9	UQ	
107-06-2	1,2-Dichloroethane		0.963	20.9	UQ	
75-35-4	1,1-Dichloroethene		2.51	20.9	UQ	
156-59-4	cis-1,2-Dichloroethene		2.51	20.9	UQ	
156-60-5	trans-1,2-Dichloroethene		2.30	20.9	UQ	
78-87-5	1,2-Dichloropropane		0.963	20.9	UQ	
10061-01-5	cis-1,3-Dichloropropene		1.05	20.9	UQ	
10061-02-6	trans-1,3-Dichloropropene		0.670	20.9	UQ	
100-41-4	Ethylbenzene		1.57	20.9	UQ	
591-78-6	2-Hexanone		4.81	20.9	UQ	
98-82-8	Isopropylbenzene		1.84	20.9	UQ	
75-09-2	Methylene chloride	20.9 ~~5.40~~ UJ	1.30	20.9	~~JQB~~	MBL SSL
76-20-9	Methyl Acetate	87.4 J	3.35	20.9	Q	SSL
108-87-2	Methylcyclohexane	UJ	0.628	20.9	UQ	
108-10-1	4-Methyl-2-pentanone		1.21	20.9	UQ	
1634-04-4	Methyl t-Butyl Ether		0.670	20.9	UQ	
100-42-5	Styrene		0.733	20.9	UQ	
79-34-5	1,1,2,2-Tetrachloroethane		0.900	20.9	UQ	
127-18-4	Tetrachloroethene		2.03	20.9	UQ	
108-88-3	Toluene		1.80	20.9	UQ	

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ANALYSIS DATA SHEET

MR21-SS11D-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-18	File ID:	0306618.D
Sampled:	03/03/10 12:15	Prepared:	03/08/10 13:56	Analyzed:	03/09/10 07:32
Solids:	73.05	Preparation:	5035	Dilution:	1

Batch: 0C08017 Sequence: 0C06809 Calibration: 0057001 Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene	UJ	0.377	20.9	UQ
79-00-5	1,1,2-Trichloroethane		0.733	20.9	UQ
71-55-6	1,1,1-Trichloroethane		1.88	20.9	UQ
79-01-6	Trichloroethene		1.78	20.9	UQ
75-69-4	Trichlorofluoromethane		1.99	20.9	UQ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		3.50	20.9	UQ
75-01-4	Vinyl chloride		2.30	20.9	UQ
1330-20-7	Xylenes (total)		1.47	20.9	UQ

SSL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	62.80	50.05	79.7	85 - 120	*
Dibromofluoromethane	62.80	65.82	105	80 - 125	
1,2-Dichloroethane-d4	62.80	67.59	108	75 - 140	
Toluene-d8	62.80	79.90	127	85 - 115	*

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ANALYSIS DATA SHEET

MR21-SS16-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-19	File ID:	0306619.D
Sampled:	03/03/10 11:50	Prepared:	03/09/10 11:20	Analyzed:	03/09/10 22:50
Solids:	86.97	Preparation:	5035	Dilution:	1
Batch:	0C09022	Sequence: 0C06905	Calibration:	0057001	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
67-64-1	Acetone	284 J	2.41	12.0	~~Q~~	CC
71-43-2	Benzene	UJ	0.565	12.0	UQ	SSL
75-27-4	Bromodichloromethane		0.361	12.0	UQ	
75-25-2	Bromoform		1.20	12.0	UQ	
74-83-9	Bromomethane		0.866	12.0	UQ	
78-93-3	2-Butanone		1.68	12.0	UQ	
75-15-0	Carbon disulfide		1.56	12.0	UQ	
56-23-5	Carbon tetrachloride		1.06	12.0	UQ	
108-90-7	Chlorobenzene		0.409	12.0	UQ	
75-00-3	Chloroethane		1.32	12.0	UQ	
67-66-3	Chloroform		0.662	12.0	UQ	
74-87-3	Chloromethane		0.625	12.0	UQ	
110-82-7	Cyclohexane		0.649	12.0	UQ	
124-48-1	Dibromochloromethane		0.409	12.0	UQ	
96-12-8	1,2-Dibromo-3-chloropropane		1.44	6.01	UQ	
106-93-4	1,2-Dibromoethane (EDB)		0.517	12.0	UQ	
95-50-1	1,2-Dichlorobenzene		0.445	12.0	UQ	
541-73-1	1,3-Dichlorobenzene		1.01	12.0	UQ	
106-46-7	1,4-Dichlorobenzene		0.662	12.0	UQ	
75-71-8	Dichlorodifluoromethane		1.32	12.0	UQ	
75-34-3	1,1-Dichloroethane		0.649	12.0	UQ	
107-06-2	1,2-Dichloroethane		0.553	12.0	UQ	
75-35-4	1,1-Dichloroethene		1.44	12.0	UQ	
156-59-4	cis-1,2-Dichloroethene		1.44	12.0	UQ	
156-60-5	trans-1,2-Dichloroethene		1.32	12.0	UQ	
78-87-5	1,2-Dichloropropane		0.553	12.0	UQ	
10061-01-5	cis-1,3-Dichloropropene		0.601	12.0	UQ	
10061-02-6	trans-1,3-Dichloropropene		0.385	12.0	UQ	
100-41-4	Ethylbenzene		0.902	12.0	UQ	
591-78-6	2-Hexanone		2.77	12.0	UQ	
98-82-8	Isopropylbenzene		1.06	12.0	UQ	SSL
75-09-2	Methylene chloride	12.0 ~~297~~ UJ	0.746	12.0	~~JQB~~	MBL
76-20-9	Methyl Acetate		1.92	12.0	UQ	SSL
108-87-2	Methylcyclohexane		0.361	12.0	UQ	
108-10-1	4-Methyl-2-pentanone		0.698	12.0	UQ	
1634-04-4	Methyl t-Butyl Ether		0.385	12.0	UQ	
100-42-5	Styrene		0.421	12.0	UQ	
79-34-5	1,1,2,2-Tetrachloroethane		0.517	12.0	UQ	
127-18-4	Tetrachloroethene		1.17	12.0	UQ	
108-88-3	Toluene	3.32 J	1.03	12.0	JQ	

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ANALYSIS DATA SHEET

MR21-SS16-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-19	File ID:	0306619.D
Sampled:	03/03/10 11:50	Prepared:	03/09/10 11:20	Analyzed:	03/09/10 22:50
Solids:	86.97	Preparation:	5035	Dilution:	1
Batch:	0C09022	Sequence: 0C06905	Calibration:	0057001	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene	UJ	0.216	12.0	UQ
79-00-5	1,1,2-Trichloroethane		0.421	12.0	UQ
71-55-6	1,1,1-Trichloroethane		1.08	12.0	UQ
79-01-6	Trichloroethene		1.02	12.0	UQ
75-69-4	Trichlorofluoromethane		1.14	12.0	UQ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		2.01	12.0	UQ
75-01-4	Vinyl chloride		1.32	12.0	UQ
1330-20-7	Xylenes (total)	1.93 J	0.842	12.0	JQ

SSL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	36.08	26.06	72.2	85 - 120	*
Dibromofluoromethane	36.08	40.37	112	80 - 125	
1,2-Dichloroethane-d4	36.08	40.49	112	75 - 140	
Toluene-d8	36.08	51.08	142	85 - 115	*

MW 7/26/10

ANALYSIS DATA SHEET

MR21-SS16-10A

19RE

Use original

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-19RE1	File ID:	0306619.D
Sampled:	03/03/10 11:50	Prepared:	03/10/10 11:05	Analyzed:	03/10/10 14:47
Solids:	86.97	Preparation:	5035	Dilution:	1
Batch:	0C10020	Sequence: 0C07011	Calibration:	0057001	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-64-1	Acetone	84.9 J	2.25	11.3	~~UJ~~ CC
71-43-2	Benzene	UJ	0.530	11.3	UQ SSL
75-27-4	Bromodichloromethane		0.338	11.3	UQ
75-25-2	Bromoform		1.13	11.3	UQ
74-83-9	Bromomethane		0.812	11.3	UQ
78-93-3	2-Butanone		1.58	11.3	UQ
75-15-0	Carbon disulfide		1.47	11.3	UQ
56-23-5	Carbon tetrachloride		0.992	11.3	UQ
108-90-7	Chlorobenzene		0.383	11.3	UQ
75-00-3	Chloroethane		1.24	11.3	UQ
67-66-3	Chloroform		0.620	11.3	UQ
74-87-3	Chloromethane		0.586	11.3	UQ
110-82-7	Cyclohexane		0.609	11.3	UQ
124-48-1	Dibromochloromethane		0.383	11.3	UQ
96-12-8	1,2-Dibromo-3-chloropropane		1.35	5.64	UQ
106-93-4	1,2-Dibromoethane (EDB)		0.485	11.3	UQ
95-50-1	1,2-Dichlorobenzene		0.417	11.3	UQ
541-73-1	1,3-Dichlorobenzene		0.947	11.3	UQ
106-46-7	1,4-Dichlorobenzene		0.620	11.3	UQ
75-71-8	Dichlorodifluoromethane		1.24	11.3	UQ
75-34-3	1,1-Dichloroethane		0.609	11.3	UQ
107-06-2	1,2-Dichloroethane		0.519	11.3	UQ
75-35-4	1,1-Dichloroethene		1.35	11.3	UQ
156-59-4	cis-1,2-Dichloroethene		1.35	11.3	UQ
156-60-5	trans-1,2-Dichloroethene		1.24	11.3	UQ
78-87-5	1,2-Dichloropropane		0.519	11.3	UQ
10061-01-5	cis-1,3-Dichloropropene		0.564	11.3	UQ
10061-02-6	trans-1,3-Dichloropropene		0.361	11.3	UQ
100-41-4	Ethylbenzene		0.845	11.3	UQ
591-78-6	2-Hexanone		2.59	11.3	UQ
98-82-8	Isopropylbenzene		0.992	11.3	UQ
75-09-2	Methylene chloride	11.3 ~~3.19~~ UJ	0.699	11.3	~~JQB~~ SSL
76-20-9	Methyl Acetate		1.80	11.3	UQ SSL
108-87-2	Methylcyclohexane		0.338	11.3	UQ
108-10-1	4-Methyl-2-pentanone		0.654	11.3	UQ
1634-04-4	Methyl t-Butyl Ether		0.361	11.3	UQ
100-42-5	Styrene		0.395	11.3	UQ
79-34-5	1,1,2,2-Tetrachloroethane		0.485	11.3	UQ
127-18-4	Tetrachloroethene		1.09	11.3	UQ
108-88-3	Toluene	0.974 J	0.969	11.3	UQ

exclude

MW 7/26/10

ANALYSIS DATA SHEET

MR21-SS16-10A

19RE

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-19RE1	File ID:	0306619.D
Sampled:	03/03/10 11:50	Prepared:	03/10/10 11:05	Analyzed:	03/10/10 14:47
Solids:	86.97	Preparation:	5035	Dilution:	1
Batch:	0C10020	Sequence: 0C07011	Calibration:	0057001	Instrument: MS-VOA1

use original

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene	11.3 ~~0.464~~ UJ	0.203	11.3	~~JQB~~
79-00-5	1,1,2-Trichloroethane		0.395	11.3	UQ
71-55-6	1,1,1-Trichloroethane		1.01	11.3	U
79-01-6	Trichloroethene		0.958	11.3	UQ
75-69-4	Trichlorofluoromethane		1.07	11.3	UQ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		1.88	11.3	UQ
75-01-4	Vinyl chloride		1.24	11.3	UQ
1330-20-7	Xylenes (total)	2.40 J	0.789	11.3	JQ

SSL ~~MSL~~

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	33.82	25.65	75.8	85 - 120	*
Dibromofluoromethane	33.82	37.87	112	80 - 125	
1,2-Dichloroethane-d4	33.82	39.10	116	75 - 140	
Toluene-d8	33.82	45.20	134	85 - 115	*

exclude

MW 7/26/10

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ANALYSIS DATA SHEET

MR21-SS14-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-20	File ID:	0306620.D
Sampled:	03/03/10 11:30	Prepared:	03/09/10 11:20	Analyzed:	03/09/10 23:29
Solids:	77.67	Preparation:	5035	Dilution:	1
Batch:	0C09022	Sequence: 0C06905	Calibration:	0057001	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
67-64-1	Acetone	274 J	2.85	14.3	~~Q~~	CC
71-43-2	Benzene	UJ	0.671	14.3	UQ	SSL
75-27-4	Bromodichloromethane		0.428	14.3	UQ	
75-25-2	Bromoform		1.43	14.3	UQ	
74-83-9	Bromomethane		1.03	14.3	UQ	
78-93-3	2-Butanone		2.00	14.3	UQ	
75-15-0	Carbon disulfide		1.86	14.3	UQ	
56-23-5	Carbon tetrachloride		1.26	14.3	UQ	
108-90-7	Chlorobenzene		0.485	14.3	UQ	
75-00-3	Chloroethane		1.57	14.3	UQ	
67-66-3	Chloroform		0.785	14.3	UQ	
74-87-3	Chloromethane		0.742	14.3	UQ	
110-82-7	Cyclohexane		0.771	14.3	UQ	
124-48-1	Dibromochloromethane		0.485	14.3	UQ	
96-12-8	1,2-Dibromo-3-chloropropane		1.71	7.14	UQ	
106-93-4	1,2-Dibromoethane (EDB)		0.614	14.3	UQ	
95-50-1	1,2-Dichlorobenzene		0.528	14.3	UQ	
541-73-1	1,3-Dichlorobenzene		1.20	14.3	UQ	
106-46-7	1,4-Dichlorobenzene		0.785	14.3	UQ	
75-71-8	Dichlorodifluoromethane		1.57	14.3	UQ	
75-34-3	1,1-Dichloroethane		0.771	14.3	UQ	
107-06-2	1,2-Dichloroethane		0.657	14.3	UQ	
75-35-4	1,1-Dichloroethene		1.71	14.3	UQ	
156-59-4	cis-1,2-Dichloroethene		1.71	14.3	UQ	
156-60-5	trans-1,2-Dichloroethene		1.57	14.3	UQ	
78-87-5	1,2-Dichloropropane		0.657	14.3	UQ	
10061-01-5	cis-1,3-Dichloropropene		0.714	14.3	UQ	
10061-02-6	trans-1,3-Dichloropropene		0.457	14.3	UQ	
100-41-4	Ethylbenzene		1.07	14.3	UQ	
591-78-6	2-Hexanone		3.28	14.3	UQ	
98-82-8	Isopropylbenzene		1.26	14.3	UQ	
75-09-2	Methylene chloride	14.3 ~~3.69~~ UJ	0.885	14.3	JQ	MBL
76-20-9	Methyl Acetate	5.09 J	2.28	14.3	JQ	
108-87-2	Methylcyclohexane	UJ	0.428	14.3	UQ	
108-10-1	4-Methyl-2-pentanone		0.828	14.3	UQ	
1634-04-4	Methyl t-Butyl Ether		0.457	14.3	UQ	
100-42-5	Styrene		0.500	14.3	UQ	
79-34-5	1,1,2,2-Tetrachloroethane		0.614	14.3	UQ	
127-18-4	Tetrachloroethene		1.38	14.3	UQ	
108-88-3	Toluene		1.23	14.3	UQ	

MW 7/26/10

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ANALYSIS DATA SHEET

MR21-SS14-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-20	File ID:	0306620.D
Sampled:	03/03/10 11:30	Prepared:	03/09/10 11:20	Analyzed:	03/09/10 23:29
Solids:	77.67	Preparation:	5035	Dilution:	1

Batch: 0C09022 Sequence: 0C06905 Calibration: 0057001 Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene	UJ	0.257	14.3	UQ
79-00-5	1,1,2-Trichloroethane		0.500	14.3	UQ
71-55-6	1,1,1-Trichloroethane		1.28	14.3	UQ
79-01-6	Trichloroethene		1.21	14.3	UQ
75-69-4	Trichlorofluoromethane		1.36	14.3	UQ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		2.38	14.3	UQ
75-01-4	Vinyl chloride		1.57	14.3	UQ
1330-20-7	Xylenes (total)		0.999	14.3	UQ

SSL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	42.82	32.44	75.7	85 - 120	*
Dibromofluoromethane	42.82	45.06	105	80 - 125	
1,2-Dichloroethane-d4	42.82	46.35	108	75 - 140	
Toluene-d8	42.82	53.78	126	85 - 115	*

MW 7/26/10

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ANALYSIS DATA SHEET

MR21-SS23-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-21	File ID:	0306621.D
Sampled:	03/03/10 12:30	Prepared:	03/09/10 11:20	Analyzed:	03/10/10 00:07
Solids:	86.63	Preparation:	5035	Dilution:	1
Batch:	0C09022	Sequence: 0C06905	Calibration:	0057001	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
67-64-1	Acetone	22.5 J	2.36	11.8	~~U~~	CC
71-43-2	Benzene		0.554	11.8	U	
75-27-4	Bromodichloromethane		0.353	11.8	U	
75-25-2	Bromoform		1.18	11.8	U	
74-83-9	Bromomethane	UJ	0.848	11.8	~~UJ~~	CCH
78-93-3	2-Butanone		1.65	11.8	UJ	
75-15-0	Carbon disulfide		1.53	11.8	U	
56-23-5	Carbon tetrachloride		1.04	11.8	U	
108-90-7	Chlorobenzene		0.400	11.8	U	
75-00-3	Chloroethane		1.30	11.8	U	
67-66-3	Chloroform		0.648	11.8	U	
74-87-3	Chloromethane		0.612	11.8	UJ	
110-82-7	Cyclohexane		0.636	11.8	U	
124-48-1	Dibromochloromethane		0.400	11.8	U	
96-12-8	1,2-Dibromo-3-chloropropane		1.41	5.89	U	
106-93-4	1,2-Dibromoethane (EDB)		0.506	11.8	U	
95-50-1	1,2-Dichlorobenzene		0.436	11.8	U	
541-73-1	1,3-Dichlorobenzene		0.989	11.8	U	
106-46-7	1,4-Dichlorobenzene		0.648	11.8	U	
75-71-8	Dichlorodifluoromethane		1.30	11.8	UJ	
75-34-3	1,1-Dichloroethane		0.636	11.8	U	
107-06-2	1,2-Dichloroethane		0.542	11.8	U	
75-35-4	1,1-Dichloroethene		1.41	11.8	U	
156-59-4	cis-1,2-Dichloroethene		1.41	11.8	U	
156-60-5	trans-1,2-Dichloroethene		1.30	11.8	U	
78-87-5	1,2-Dichloropropane		0.542	11.8	U	
10061-01-5	cis-1,3-Dichloropropene		0.589	11.8	U	
10061-02-6	trans-1,3-Dichloropropene		0.377	11.8	U	
100-41-4	Ethylbenzene		0.883	11.8	UJ	
591-78-6	2-Hexanone		2.71	11.8	U	
98-82-8	Isopropylbenzene		1.04	11.8	U	
75-09-2	Methylene chloride	11.8 ~~3.20~~ U	0.730	11.8	~~J~~	MBL
76-20-9	Methyl Acetate		1.88	11.8	U	
108-87-2	Methylcyclohexane		0.353	11.8	U	
108-10-1	4-Methyl-2-pentanone		0.683	11.8	U	
1634-04-4	Methyl t-Butyl Ether		0.377	11.8	U	
100-42-5	Styrene	UJ	0.412	11.8	~~UJ~~	MSL
79-34-5	1,1,2,2-Tetrachloroethane		0.506	11.8	U	
127-18-4	Tetrachloroethene		1.14	11.8	U	
108-88-3	Toluene		1.01	11.8	U	

KW 7/26/10

ANALYSIS DATA SHEET

MR21-SS23-10A

21

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-21	File ID:	0306621.D
Sampled:	03/03/10 12:30	Prepared:	03/09/10 11:20	Analyzed:	03/10/10 00:07
Solids:	86.63	Preparation:	5035	Dilution:	1

Batch: 0C09022 Sequence: 0C06905 Calibration: 0057001 Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene	UJ	0.212	11.8	~~U~~ MSL
79-00-5	1,1,2-Trichloroethane		0.412	11.8	U
71-55-6	1,1,1-Trichloroethane		1.06	11.8	U
79-01-6	Trichloroethene		1.00	11.8	U
75-69-4	Trichlorofluoromethane		1.12	11.8	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		1.97	11.8	U
75-01-4	Vinyl chloride		1.30	11.8	U
1330-20-7	Xylenes (total)		0.825	11.8	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	35.34	35.08	99.3	85 - 120	
Dibromofluoromethane	35.34	35.50	100	80 - 125	
1,2-Dichloroethane-d4	35.34	36.55	103	75 - 140	
Toluene-d8	35.34	36.96	105	85 - 115	

lw 7/26/10

22

ANALYSIS DATA SHEET

MR21-SS18D-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-22	File ID:	0306622.D
Sampled:	03/03/10 11:25	Prepared:	03/09/10 16:27	Analyzed:	03/10/10 05:06
Solids:	73.05	Preparation:	5035	Dilution:	1
Batch:	0C09031	Sequence: 0C06910	Calibration:	0057001	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
67-64-1	Acetone	550 J	3.24	16.2	~~Q~~	CC
71-43-2	Benzene	UJ	0.762	16.2	UQ	SSL
75-27-4	Bromodichloromethane		0.487	16.2	UQ	
75-25-2	Bromoform		1.62	16.2	UQ	
74-83-9	Bromomethane		1.17	16.2	UQ	
78-93-3	2-Butanone		2.27	16.2	UQ	
75-15-0	Carbon disulfide		2.11	16.2	UQ	
56-23-5	Carbon tetrachloride		1.43	16.2	UQ	
108-90-7	Chlorobenzene		0.551	16.2	UQ	
75-00-3	Chloroethane		1.78	16.2	UQ	
67-66-3	Chloroform	16.2 ~~1.09~~ UJ	0.892	16.2	~~JQB~~	MBL SSL
74-87-3	Chloromethane		0.843	16.2	UQ	SSL
110-82-7	Cyclohexane		0.876	16.2	UQ	
124-48-1	Dibromochloromethane		0.551	16.2	UQ	
96-12-8	1,2-Dibromo-3-chloropropane		1.95	8.11	UQ	
106-93-4	1,2-Dibromoethane (EDB)		0.697	16.2	UQ	
95-50-1	1,2-Dichlorobenzene	1.02 J	0.600	16.2	JQ	
541-73-1	1,3-Dichlorobenzene	UJ	1.36	16.2	UQ	
106-46-7	1,4-Dichlorobenzene	1.65 J	0.892	16.2	JQ	
75-71-8	Dichlorodifluoromethane	UJ	1.78	16.2	UQ	
75-34-3	1,1-Dichloroethane		0.876	16.2	UQ	
107-06-2	1,2-Dichloroethane		0.746	16.2	UQ	
75-35-4	1,1-Dichloroethene		1.95	16.2	UQ	
156-59-4	cis-1,2-Dichloroethene		1.95	16.2	UQ	
156-60-5	trans-1,2-Dichloroethene		1.78	16.2	UQ	
78-87-5	1,2-Dichloropropane		0.746	16.2	UQ	
10061-01-5	cis-1,3-Dichloropropene		0.811	16.2	UQ	
10061-02-6	trans-1,3-Dichloropropene		0.519	16.2	UQ	
100-41-4	Ethylbenzene	1.46 J	1.22	16.2	JQ	
591-78-6	2-Hexanone	UJ	3.73	16.2	UQ	
98-82-8	Isopropylbenzene	UJ	1.43	16.2	UQ	SSL
75-09-2	Methylene chloride	16.2 ~~4.56~~ UJ	1.01	16.2	~~JQB~~	MBL
76-20-9	Methyl Acetate		2.60	16.2	UQ	SSL
108-87-2	Methylcyclohexane		0.487	16.2	UQ	
108-10-1	4-Methyl-2-pentanone		0.941	16.2	UQ	
1634-04-4	Methyl t-Butyl Ether		0.519	16.2	UQ	
100-42-5	Styrene		0.568	16.2	UQ	
79-34-5	1,1,2,2-Tetrachloroethane		0.697	16.2	UQ	
127-18-4	Tetrachloroethene		1.57	16.2	UQ	
108-88-3	Toluene		1.39	16.2	UQ	

MW 7/26/10

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ANALYSIS DATA SHEET

MR21-SS18D-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-22	File ID:	0306622.D
Sampled:	03/03/10 11:25	Prepared:	03/09/10 16:27	Analyzed:	03/10/10 05:06
Solids:	73.05	Preparation:	5035	Dilution:	1
Batch:	0C09031	Sequence: 0C06910	Calibration:	0057001	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene	16.2 ~~1.43~~ UJ	0.292	16.2	~~JQ~~
79-00-5	1,1,2-Trichloroethane		0.568	16.2	UQ
71-55-6	1,1,1-Trichloroethane		1.46	16.2	UQ
79-01-6	Trichloroethene		1.38	16.2	UQ
75-69-4	Trichlorofluoromethane		1.54	16.2	UQ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		2.71	16.2	UQ
75-01-4	Vinyl chloride		1.78	16.2	UQ
1330-20-7	Xylenes (total)	6.00 J	1.14	16.2	JQ

SSL
~~MBL~~

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	48.66	29.73	61.1	85 - 120	*
Dibromofluoromethane	48.66	62.91	129	80 - 125	*
1,2-Dichloroethane-d4	48.66	62.48	128	75 - 140	
Toluene-d8	48.66	83.30	171	85 - 115	*

MW 7/26/10

22RE

ANALYSIS DATA SHEET

MR21-SS18D-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-22RE1	File ID:	0306622.D
Sampled:	03/03/10 11:25	Prepared:	03/10/10 11:05	Analyzed:	03/10/10 18:00
Solids:	73.05	Preparation:	5035	Dilution:	1
Batch:	0C10020	Sequence: 0C07011	Calibration:	0057001	Instrument: MS-VOA1

use original

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
67-64-1	Acetone	295 J	3.03	15.1	~~Q~~	CC
71-43-2	Benzene	UJ	0.712	15.1	UQ	SSL
75-27-4	Bromodichloromethane		0.454	15.1	UQ	
75-25-2	Bromoform		1.51	15.1	UQ	
74-83-9	Bromomethane		1.09	15.1	UQ	
78-93-3	2-Butanone		2.12	15.1	UQ	
75-15-0	Carbon disulfide		1.97	15.1	UQ	
56-23-5	Carbon tetrachloride		1.33	15.1	UQ	
108-90-7	Chlorobenzene		0.515	15.1	UQ	
75-00-3	Chloroethane		1.67	15.1	UQ	
67-66-3	Chloroform		0.833	15.1	UQ	
74-87-3	Chloromethane		0.787	15.1	UQ	
110-82-7	Cyclohexane		0.818	15.1	UQ	
124-48-1	Dibromochloromethane		0.515	15.1	UQ	
96-12-8	1,2-Dibromo-3-chloropropane		1.82	7.57	UQ	
106-93-4	1,2-Dibromoethane (EDB)		0.651	15.1	UQ	
95-50-1	1,2-Dichlorobenzene		0.560	15.1	UQ	
541-73-1	1,3-Dichlorobenzene		1.27	15.1	UQ	
106-46-7	1,4-Dichlorobenzene		0.833	15.1	UQ	
75-71-8	Dichlorodifluoromethane		1.67	15.1	UQ	
75-34-3	1,1-Dichloroethane		0.818	15.1	UQ	
107-06-2	1,2-Dichloroethane		0.697	15.1	UQ	
75-35-4	1,1-Dichloroethene		1.82	15.1	UQ	
156-59-4	cis-1,2-Dichloroethene		1.82	15.1	UQ	
156-60-5	trans-1,2-Dichloroethene		1.67	15.1	UQ	
78-87-5	1,2-Dichloropropane		0.697	15.1	UQ	
10061-01-5	cis-1,3-Dichloropropene		0.757	15.1	UQ	
10061-02-6	trans-1,3-Dichloropropene		0.485	15.1	UQ	
100-41-4	Ethylbenzene	1.69 J	1.14	15.1	JQ	
591-78-6	2-Hexanone	UJ	3.48	15.1	UQ	
98-82-8	Isopropylbenzene	UJ	1.33	15.1	UQ	
75-09-2	Methylene chloride	15.1 ~~4.35~~ UJ	0.939	15.1	~~JQB~~	SSL ~~MBL~~
76-20-9	Methyl Acetate		2.42	15.1	UQ	SSL
108-87-2	Methylcyclohexane		0.454	15.1	UQ	
108-10-1	4-Methyl-2-pentanone		0.878	15.1	UQ	
1634-04-4	Methyl t-Butyl Ether		0.485	15.1	UQ	
100-42-5	Styrene		0.530	15.1	UQ	
79-34-5	1,1,2,2-Tetrachloroethane		0.651	15.1	UQ	
127-18-4	Tetrachloroethene		1.47	15.1	UQ	
108-88-3	Toluene	3.71 J	1.30	15.1	JQ	

exclude

hw 7/26/10

22RE

ANALYSIS DATA SHEET

MR21-SS18D-10A

Use original

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-22RE1	File ID:	0306622.D
Sampled:	03/03/10 11:25	Prepared:	03/10/10 11:05	Analyzed:	03/10/10 18:00
Solids:	73.05	Preparation:	5035	Dilution:	1
Batch:	0C10020	Sequence: 0C07011	Calibration:	0057001	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene	UJ	0.273	15.1	UQ
79-00-5	1,1,2-Trichloroethane		0.530	15.1	UQ
71-55-6	1,1,1-Trichloroethane		1.36	15.1	UQ
79-01-6	Trichloroethene		1.29	15.1	UQ
75-69-4	Trichlorofluoromethane		1.44	15.1	UQ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		2.53	15.1	UQ
75-01-4	Vinyl chloride		1.67	15.1	UQ
1330-20-7	Xylenes (total)	6.56 J	1.06	15.1	JQ

SSL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	45.43	29.47	64.9	85 - 120	*
Dibromofluoromethane	45.43	60.58	133	80 - 125	*
1,2-Dichloroethane-d4	45.43	58.84	130	75 - 140	
Toluene-d8	45.43	80.25	177	85 - 115	*

exclude

KW 7/26/10

23

ANALYSIS DATA SHEET

MR21-SS18-10A

Use reanalysis

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-23	File ID:	0306623.D
Sampled:	03/03/10 11:20	Prepared:	03/09/10 16:27	Analyzed:	03/10/10 05:45
Solids:	73.63	Preparation:	5035	Dilution:	1
Batch:	0C09031	Sequence: 0C06910	Calibration:	0057001	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
67-64-1	Acetone	321 J	2.73	13.6	~~U~~	CC
71-43-2	Benzene	UJ	0.641	13.6	UQ	SSL
75-27-4	Bromodichloromethane		0.409	13.6	UQ	
75-25-2	Bromoform		1.36	13.6	UQ	
74-83-9	Bromomethane		0.982	13.6	UQ	
78-93-3	2-Butanone		1.91	13.6	UQ	
75-15-0	Carbon disulfide		1.77	13.6	UQ	
56-23-5	Carbon tetrachloride		1.20	13.6	UQ	
108-90-7	Chlorobenzene		0.464	13.6	UQ	
75-00-3	Chloroethane		1.50	13.6	UQ	
67-66-3	Chloroform		0.750	13.6	UQ	
74-87-3	Chloromethane		0.709	13.6	UQ	
110-82-7	Cyclohexane		0.736	13.6	UQ	
124-48-1	Dibromochloromethane		0.464	13.6	UQ	
96-12-8	1,2-Dibromo-3-chloropropane		1.64	6.82	UQ	
106-93-4	1,2-Dibromoethane (EDB)		0.586	13.6	UQ	
95-50-1	1,2-Dichlorobenzene		0.505	13.6	UQ	
541-73-1	1,3-Dichlorobenzene		1.15	13.6	UQ	
106-46-7	1,4-Dichlorobenzene		0.750	13.6	UQ	
75-71-8	Dichlorodifluoromethane		1.50	13.6	UQ	
75-34-3	1,1-Dichloroethane		0.736	13.6	UQ	
107-06-2	1,2-Dichloroethane		0.627	13.6	UQ	
75-35-4	1,1-Dichloroethene		1.64	13.6	UQ	
156-59-4	cis-1,2-Dichloroethene		1.64	13.6	UQ	
156-60-5	trans-1,2-Dichloroethene		1.50	13.6	UQ	
78-87-5	1,2-Dichloropropane		0.627	13.6	UQ	
10061-01-5	cis-1,3-Dichloropropene		0.682	13.6	UQ	
10061-02-6	trans-1,3-Dichloropropene		0.436	13.6	UQ	
100-41-4	Ethylbenzene		1.02	13.6	UQ	
591-78-6	2-Hexanone		3.14	13.6	UQ	
98-82-8	Isopropylbenzene		1.20	13.6	UQ	SSL
75-09-2	Methylene chloride	13.6 ~~4.61~~ UJ	0.845	13.6	~~JQB~~	~~LLB~~
76-20-9	Methyl Acetate		2.18	13.6	UQ	SSL
108-87-2	Methylcyclohexane		0.409	13.6	UQ	
108-10-1	4-Methyl-2-pentanone		0.791	13.6	UQ	
1634-04-4	Methyl t-Butyl Ether		0.436	13.6	UQ	
100-42-5	Styrene		0.477	13.6	UQ	
79-34-5	1,1,2,2-Tetrachloroethane		0.586	13.6	UQ	
127-18-4	Tetrachloroethene		1.32	13.6	UQ	
108-88-3	Toluene	1.79 J	1.17	13.6	JQ	

exclude

NW 7/26/10

ANALYSIS DATA SHEET

MR21-SS18-10A

23

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-23	File ID:	0306623.D
Sampled:	03/03/10 11:20	Prepared:	03/09/10 16:27	Analyzed:	03/10/10 05:45
Solids:	73.63	Preparation:	5035	Dilution:	1
Batch:	0C09031	Sequence:	0C06910	Calibration:	0057001
Instrument:	MS-VOA1				

use reanalysis

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene	UJ	0.245	13.6	UQ
79-00-5	1,1,2-Trichloroethane		0.477	13.6	UQ
71-55-6	1,1,1-Trichloroethane		1.23	13.6	UQ
79-01-6	Trichloroethene		1.16	13.6	UQ
75-69-4	Trichlorofluoromethane		1.30	13.6	UQ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		2.28	13.6	UQ
75-01-4	Vinyl chloride		1.50	13.6	UQ
1330-20-7	Xylenes (total)		0.955	13.6	UQ

SSL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	40.91	26.21	64.1	85 - 120	*
Dibromofluoromethane	40.91	47.24	115	80 - 125	
1,2-Dichloroethane-d4	40.91	47.37	116	75 - 140	
Toluene-d8	40.91	62.35	152	85 - 115	*

exclude

LLW 7/26/10

23RE

ANALYSIS DATA SHEET

MR21-SS18-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-23RE1	File ID:	0306623.D
Sampled:	03/03/10 11:20	Prepared:	03/10/10 11:05	Analyzed:	03/10/10 18:38
Solids:	73.63	Preparation:	5035	Dilution:	1
Batch:	0C10020	Sequence: 0C07011	Calibration:	0057001	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-64-1	Acetone	355 J	3.21	16.1	~~U~~ CC
71-43-2	Benzene	UJ	0.755	16.1	UQ SSL
75-27-4	Bromodichloromethane		0.482	16.1	UQ
75-25-2	Bromoform		1.61	16.1	UQ
74-83-9	Bromomethane		1.16	16.1	UQ
78-93-3	2-Butanone		2.25	16.1	UQ
75-15-0	Carbon disulfide		2.09	16.1	UQ
56-23-5	Carbon tetrachloride		1.41	16.1	UQ
108-90-7	Chlorobenzene		0.546	16.1	UQ
75-00-3	Chloroethane		1.77	16.1	UQ
67-66-3	Chloroform		0.883	16.1	UQ
74-87-3	Chloromethane		0.835	16.1	UQ
110-82-7	Cyclohexane		0.867	16.1	UQ
124-48-1	Dibromochloromethane		0.546	16.1	UQ
96-12-8	1,2-Dibromo-3-chloropropane		1.93	8.03	UQ
106-93-4	1,2-Dibromoethane (EDB)		0.690	16.1	UQ
95-50-1	1,2-Dichlorobenzene		0.594	16.1	UQ
541-73-1	1,3-Dichlorobenzene		1.35	16.1	UQ
106-46-7	1,4-Dichlorobenzene		0.883	16.1	UQ
75-71-8	Dichlorodifluoromethane		1.77	16.1	UQ
75-34-3	1,1-Dichloroethane		0.867	16.1	UQ
107-06-2	1,2-Dichloroethane		0.739	16.1	UQ
75-35-4	1,1-Dichloroethene		1.93	16.1	UQ
156-59-4	cis-1,2-Dichloroethene		1.93	16.1	UQ
156-60-5	trans-1,2-Dichloroethene		1.77	16.1	UQ
78-87-5	1,2-Dichloropropane		0.739	16.1	UQ
10061-01-5	cis-1,3-Dichloropropene		0.803	16.1	UQ
10061-02-6	trans-1,3-Dichloropropene		0.514	16.1	UQ
100-41-4	Ethylbenzene	1.28 J	1.20	16.1	JQ
591-78-6	2-Hexanone	UJ	3.69	16.1	UQ
98-82-8	Isopropylbenzene	UJ	1.41	16.1	UQ
75-09-2	Methylene chloride	16.1 ~~3.79~~ UJ	0.995	16.1	~~JQ~~ SSL MBL
76-20-9	Methyl Acetate		2.57	16.1	UQ
108-87-2	Methylcyclohexane		0.482	16.1	UQ
108-10-1	4-Methyl-2-pentanone		0.931	16.1	UQ
1634-04-4	Methyl t-Butyl Ether		0.514	16.1	UQ
100-42-5	Styrene		0.562	16.1	UQ
79-34-5	1,1,2,2-Tetrachloroethane		0.690	16.1	UQ
127-18-4	Tetrachloroethene		1.56	16.1	UQ
108-88-3	Toluene	4.02 J	1.38	16.1	JQ

MW 7/26/10

23RE

ANALYSIS DATA SHEET

MR21-SS18-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-23RE1	File ID:	0306623.D
Sampled:	03/03/10 11:20	Prepared:	03/10/10 11:05	Analyzed:	03/10/10 18:38
Solids:	73.63	Preparation:	5035	Dilution:	1
Batch:	0C10020	Sequence: 0C07011	Calibration:	0057001	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene	UJ	0.289	16.1	UQ
79-00-5	1,1,2-Trichloroethane		0.562	16.1	UQ
71-55-6	1,1,1-Trichloroethane		1.44	16.1	UQ
79-01-6	Trichloroethene		1.36	16.1	UQ
75-69-4	Trichlorofluoromethane		1.53	16.1	UQ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		2.68	16.1	UQ
75-01-4	Vinyl chloride		1.77	16.1	UQ
1330-20-7	Xylenes (total)	3.62 J	1.12	16.1	JQ

SSL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	48.16	32.09	66.6	85 - 120	*
Dibromofluoromethane	48.16	59.53	124	80 - 125	
1,2-Dichloroethane-d4	48.16	58.36	121	75 - 140	
Toluene-d8	48.16	79.75	166	85 - 115	*

MW 7/26/10

ANALYSIS DATA SHEET

MR21-SS15-10A

24

Laboratory:	Empirical Laboratories, LLC			SDG:	
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Soil	Laboratory ID:	1003066-24	File ID:	0306624.D
Sampled:	03/03/10 12:25	Prepared:	03/09/10 16:27	Analyzed:	03/10/10 06:23
Solids:	75.42	Preparation:	5035	Dilution:	1
Batch:	0C09031	Sequence: 0C06910	Calibration:	0057001	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
67-64-1	Acetone	600 ~~728~~ J	3.95 ~~3.24~~	19.7 ~~16.2~~	~~EQ~~	CC
71-43-2	Benzene	UJ	0.762	16.2	UQ	SSL
75-27-4	Bromodichloromethane		0.486	16.2	UQ	
75-25-2	Bromoform		1.62	16.2	UQ	
74-83-9	Bromomethane		1.17	16.2	UQ	
78-93-3	2-Butanone		2.27	16.2	UQ	
75-15-0	Carbon disulfide		2.11	16.2	UQ	
56-23-5	Carbon tetrachloride		1.43	16.2	UQ	
108-90-7	Chlorobenzene		0.551	16.2	UQ	
75-00-3	Chloroethane		1.78	16.2	UQ	
67-66-3	Chloroform		0.892	16.2	UQ	
74-87-3	Chloromethane		0.843	16.2	UQ	
110-82-7	Cyclohexane		0.875	16.2	UQ	
124-48-1	Dibromochloromethane		0.551	16.2	UQ	
96-12-8	1,2-Dibromo-3-chloropropane		1.95	8.10	UQ	
106-93-4	1,2-Dibromoethane (EDB)		0.697	16.2	UQ	
95-50-1	1,2-Dichlorobenzene		0.600	16.2	UQ	
541-73-1	1,3-Dichlorobenzene		1.36	16.2	UQ	
106-46-7	1,4-Dichlorobenzene		0.892	16.2	UQ	
75-71-8	Dichlorodifluoromethane		1.78	16.2	UQ	
75-34-3	1,1-Dichloroethane		0.875	16.2	UQ	
107-06-2	1,2-Dichloroethane		0.746	16.2	UQ	
75-35-4	1,1-Dichloroethene		1.95	16.2	UQ	
156-59-4	cis-1,2-Dichloroethene		1.95	16.2	UQ	
156-60-5	trans-1,2-Dichloroethene		1.78	16.2	UQ	
78-87-5	1,2-Dichloropropane		0.746	16.2	UQ	
10061-01-5	cis-1,3-Dichloropropene		0.810	16.2	UQ	
10061-02-6	trans-1,3-Dichloropropene		0.519	16.2	UQ	
100-41-4	Ethylbenzene		1.22	16.2	UQ	
591-78-6	2-Hexanone		3.73	16.2	UQ	
98-82-8	Isopropylbenzene		1.43	16.2	UQ	SSL
75-09-2	Methylene chloride	16.2 ~~6.79~~ UJ	1.01	16.2	~~JB~~	MBL
76-20-9	Methyl Acetate		2.59	16.2	UQ	
108-87-2	Methylcyclohexane		0.486	16.2	UQ	
108-10-1	4-Methyl-2-pentanone		0.940	16.2	UQ	
1634-04-4	Methyl t-Butyl Ether		0.519	16.2	UQ	
100-42-5	Styrene		0.567	16.2	UQ	
79-34-5	1,1,2,2-Tetrachloroethane		0.697	16.2	UQ	
127-18-4	Tetrachloroethene		1.57	16.2	UQ	
108-88-3	Toluene		1.39	16.2	UQ	

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ANALYSIS DATA SHEET

MR21-SS15-10A

Laboratory:	Empirical Laboratories, LLC			SDG:	
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Soil	Laboratory ID:	1003066-24	File ID:	0306624.D
Sampled:	03/03/10 12:25	Prepared:	03/09/10 16:27	Analyzed:	03/10/10 06:23
Solids:	75.42	Preparation:	5035	Dilution:	1

Batch: 0C09031 Sequence: 0C06910 Calibration: 0057001 Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene	UJ	0.292	16.2	UQ
79-00-5	1,1,2-Trichloroethane		0.567	16.2	UQ
71-55-6	1,1,1-Trichloroethane		1.46	16.2	UQ
79-01-6	Trichloroethene		1.38	16.2	UQ
75-69-4	Trichlorofluoromethane		1.54	16.2	UQ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		2.71	16.2	UQ
75-01-4	Vinyl chloride		1.78	16.2	UQ
1330-20-7	Xylenes (total)		1.13	16.2	UQ

SSL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	48.63	35.50	73.0	85 - 120	*
Dibromofluoromethane	48.63	52.50	108	80 - 125	
1,2-Dichloroethane-d4	48.63	50.62	104	75 - 140	
Toluene-d8	48.63	65.53	135	85 - 115	*

MW 7/26/10

ANALYSIS DATA SHEET

MR21-SS15-10A

24RE

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-24RE1	File ID:	0306624.D
Sampled:	03/03/10 12:25	Prepared:	03/10/10 11:05	Analyzed:	03/10/10 19:17
Solids:	75.42	Preparation:	5035	Dilution:	1
Batch:	0C10020	Sequence: 0C07011	Calibration:	0057001	Instrument: MS-VOA1

use original

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-64-1	Acetone	600 J	3.95	19.7	~~Q~~
71-43-2	Benzene	UJ	0.927	19.7	UQ
75-27-4	Bromodichloromethane		0.592	19.7	UQ
75-25-2	Bromoform		1.97	19.7	UQ
74-83-9	Bromomethane		1.42	19.7	UQ
78-93-3	2-Butanone		2.76	19.7	UQ
75-15-0	Carbon disulfide		2.57	19.7	UQ
56-23-5	Carbon tetrachloride		1.74	19.7	UQ
108-90-7	Chlorobenzene		0.671	19.7	UQ
75-00-3	Chloroethane		2.17	19.7	UQ
67-66-3	Chloroform		1.09	19.7	UQ
74-87-3	Chloromethane		1.03	19.7	UQ
110-82-7	Cyclohexane		1.07	19.7	UQ
124-48-1	Dibromochloromethane		0.671	19.7	UQ
96-12-8	1,2-Dibromo-3-chloropropane		2.37	9.87	UQ
106-93-4	1,2-Dibromoethane (EDB)		0.848	19.7	UQ
95-50-1	1,2-Dichlorobenzene		0.730	19.7	UQ
541-73-1	1,3-Dichlorobenzene		1.66	19.7	UQ
106-46-7	1,4-Dichlorobenzene		1.09	19.7	UQ
75-71-8	Dichlorodifluoromethane		2.17	19.7	UQ
75-34-3	1,1-Dichloroethane		1.07	19.7	UQ
107-06-2	1,2-Dichloroethane		0.908	19.7	UQ
75-35-4	1,1-Dichloroethene		2.37	19.7	UQ
156-59-4	cis-1,2-Dichloroethene		2.37	19.7	UQ
156-60-5	trans-1,2-Dichloroethene		2.17	19.7	UQ
78-87-5	1,2-Dichloropropane		0.908	19.7	UQ
10061-01-5	cis-1,3-Dichloropropene		0.987	19.7	UQ
10061-02-6	trans-1,3-Dichloropropene		0.631	19.7	UQ
100-41-4	Ethylbenzene		1.48	19.7	UQ
591-78-6	2-Hexanone		4.54	19.7	UQ
98-82-8	Isopropylbenzene		1.74	19.7	UQ
75-09-2	Methylene chloride	19.7 UJ ~~5.70~~	1.22	19.7	~~JQB~~
76-20-9	Methyl Acetate	UJ	3.16	19.7	UQ
108-87-2	Methylcyclohexane		0.592	19.7	UQ
108-10-1	4-Methyl-2-pentanone		1.14	19.7	UQ
1634-04-4	Methyl t-Butyl Ether		0.631	19.7	UQ
100-42-5	Styrene		0.691	19.7	UQ
79-34-5	1,1,2,2-Tetrachloroethane		0.848	19.7	UQ
127-18-4	Tetrachloroethene		1.91	19.7	UQ
108-88-3	Toluene		1.70	19.7	UQ

exclude

CC SSL

SSL

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MW 7/26/10

ANALYSIS DATA SHEET

MR21-SS15-10A

24RE

Laboratory:	Empirical Laboratories, LLC			SDG:	
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Soil	Laboratory ID:	1003066-24RE1	File ID:	0306624.D
Sampled:	03/03/10 12:25	Prepared:	03/10/10 11:05	Analyzed:	03/10/10 19:17
Solids:	75.42	Preparation:	5035	Dilution:	1
Batch:	0C10020	Sequence:	0C07011	Calibration:	0057001
Instrument:	MS-VOA1				

use original

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene	UJ	0.355	19.7	UQ
79-00-5	1,1,2-Trichloroethane		0.691	19.7	UQ
71-55-6	1,1,1-Trichloroethane		1.78	19.7	UQ
79-01-6	Trichloroethene		1.68	19.7	UQ
75-69-4	Trichlorofluoromethane		1.87	19.7	UQ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		3.30	19.7	UQ
75-01-4	Vinyl chloride		2.17	19.7	UQ
1330-20-7	Xylenes (total)		1.38	19.7	UQ

SSL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	59.19	45.97	77.7	85 - 120	*
Dibromofluoromethane	59.19	63.71	108	80 - 125	
1,2-Dichloroethane-d4	59.19	64.22	108	75 - 140	
Toluene-d8	59.19	75.76	128	85 - 115	*

exclude

NW 7/26/10

ANALYSIS DATA SHEET

MR21-SS22-10A

25

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-25	File ID:	0306625.D
Sampled:	03/03/10 09:25	Prepared:	03/09/10 16:27	Analyzed:	03/10/10 07:02
Solids:	85.30	Preparation:	5035	Dilution:	1
Batch:	0C09031	Sequence: 0C06910	Calibration:	0057001	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
67-64-1	Acetone	206 J	2.89	14.4	~~Q~~	CC
71-43-2	Benzene	UJ	0.679	14.4	UQ	SSL
75-27-4	Bromodichloromethane		0.433	14.4	UQ	
75-25-2	Bromoform		1.44	14.4	UQ	
74-83-9	Bromomethane		1.04	14.4	UQ	
78-93-3	2-Butanone		2.02	14.4	UQ	
75-15-0	Carbon disulfide		1.88	14.4	UQ	
56-23-5	Carbon tetrachloride		1.27	14.4	UQ	
108-90-7	Chlorobenzene		0.491	14.4	UQ	
75-00-3	Chloroethane		1.59	14.4	UQ	
67-66-3	Chloroform		0.794	14.4	UQ	
74-87-3	Chloromethane		0.751	14.4	UQ	
110-82-7	Cyclohexane		0.780	14.4	UQ	
124-48-1	Dibromochloromethane		0.491	14.4	UQ	
96-12-8	1,2-Dibromo-3-chloropropane		1.73	7.22	UQ	
106-93-4	1,2-Dibromoethane (EDB)		0.621	14.4	UQ	
95-50-1	1,2-Dichlorobenzene		0.534	14.4	UQ	
541-73-1	1,3-Dichlorobenzene		1.21	14.4	UQ	
106-46-7	1,4-Dichlorobenzene		0.794	14.4	UQ	
75-71-8	Dichlorodifluoromethane		1.59	14.4	UQ	
75-34-3	1,1-Dichloroethane		0.780	14.4	UQ	
107-06-2	1,2-Dichloroethane		0.664	14.4	UQ	
75-35-4	1,1-Dichloroethene		1.73	14.4	UQ	
156-59-4	cis-1,2-Dichloroethene		1.73	14.4	UQ	
156-60-5	trans-1,2-Dichloroethene		1.59	14.4	UQ	
78-87-5	1,2-Dichloropropane		0.664	14.4	UQ	
10061-01-5	cis-1,3-Dichloropropene		0.722	14.4	UQ	
10061-02-6	trans-1,3-Dichloropropene		0.462	14.4	UQ	
100-41-4	Ethylbenzene		1.08	14.4	UQ	
591-78-6	2-Hexanone		3.32	14.4	UQ	
98-82-8	Isopropylbenzene		1.27	14.4	UQ	SSL
75-09-2	Methylene chloride	14.4 ~~3.30~~ UJ	0.895	14.4	~~JQB~~	MSL
76-20-9	Methyl Acetate		2.31	14.4	UQ	SSL
108-87-2	Methylcyclohexane		0.433	14.4	UQ	
108-10-1	4-Methyl-2-pentanone		0.837	14.4	UQ	
1634-04-4	Methyl t-Butyl Ether		0.462	14.4	UQ	
100-42-5	Styrene		0.505	14.4	UQ	
79-34-5	1,1,2,2-Tetrachloroethane		0.621	14.4	UQ	
127-18-4	Tetrachloroethene		1.40	14.4	UQ	
108-88-3	Toluene		1.24	14.4	UQ	

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ANALYSIS DATA SHEET

MR21-SS22-10A

25

Laboratory:	Empirical Laboratories, LLC			SDG:	
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Soil	Laboratory ID:	1003066-25	File ID:	0306625.D
Sampled:	03/03/10 09:25	Prepared:	03/09/10 16:27	Analyzed:	03/10/10 07:02
Solids:	85.30	Preparation:	5035	Dilution:	1

Batch: 0C09031 Sequence: 0C06910 Calibration: 0057001 Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene	UJ	0.260	14.4	UQ
79-00-5	1,1,2-Trichloroethane		0.505	14.4	UQ
71-55-6	1,1,1-Trichloroethane		1.30	14.4	UQ
79-01-6	Trichloroethene		1.23	14.4	UQ
75-69-4	Trichlorofluoromethane		1.37	14.4	UQ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		2.41	14.4	UQ
75-01-4	Vinyl chloride		1.59	14.4	UQ
1330-20-7	Xylenes (total)		1.01	14.4	UQ

SSL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	43.31	31.82	73.5	85 - 120	*
Dibromofluoromethane	43.31	47.15	109	80 - 125	
1,2-Dichloroethane-d4	43.31	47.18	109	75 - 140	
Toluene-d8	43.31	56.93	131	85 - 115	*

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ANALYSIS DATA SHEET

MR21-SS13-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-26	File ID:	0306626.D
Sampled:	03/03/10 10:00	Prepared:	03/09/10 16:27	Analyzed:	03/10/10 07:40
Solids:	69.29	Preparation:	5035	Dilution:	1
Batch:	0C09031	Sequence: 0C06910	Calibration:	0057001	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
67-64-1	Acetone	549 J	4.00	20.0	~~U~~	CC
71-43-2	Benzene	UJ	0.940	20.0	UQ	SSL
75-27-4	Bromodichloromethane		0.600	20.0	UQ	
75-25-2	Bromoform		2.00	20.0	UQ	
74-83-9	Bromomethane		1.44	20.0	UQ	
78-93-3	2-Butanone		2.80	20.0	UQ	
75-15-0	Carbon disulfide		2.60	20.0	UQ	
56-23-5	Carbon tetrachloride		1.76	20.0	UQ	
108-90-7	Chlorobenzene		0.680	20.0	UQ	
75-00-3	Chloroethane		2.20	20.0	UQ	
67-66-3	Chloroform		1.10	20.0	UQ	
74-87-3	Chloromethane		1.04	20.0	UQ	
110-82-7	Cyclohexane		1.08	20.0	UQ	
124-48-1	Dibromochloromethane		0.680	20.0	UQ	
96-12-8	1,2-Dibromo-3-chloropropane		2.40	9.99	UQ	
106-93-4	1,2-Dibromoethane (EDB)		0.860	20.0	UQ	
95-50-1	1,2-Dichlorobenzene		0.740	20.0	UQ	
541-73-1	1,3-Dichlorobenzene		1.68	20.0	UQ	
106-46-7	1,4-Dichlorobenzene		1.10	20.0	UQ	
75-71-8	Dichlorodifluoromethane		2.20	20.0	UQ	
75-34-3	1,1-Dichloroethane		1.08	20.0	UQ	
107-06-2	1,2-Dichloroethane		0.920	20.0	UQ	
75-35-4	1,1-Dichloroethene		2.40	20.0	UQ	
156-59-4	cis-1,2-Dichloroethene		2.40	20.0	UQ	
156-60-5	trans-1,2-Dichloroethene		2.20	20.0	UQ	
78-87-5	1,2-Dichloropropane		0.920	20.0	UQ	
10061-01-5	cis-1,3-Dichloropropene		0.999	20.0	UQ	
10061-02-6	trans-1,3-Dichloropropene		0.640	20.0	UQ	
100-41-4	Ethylbenzene		1.50	20.0	UQ	
591-78-6	2-Hexanone		4.60	20.0	UQ	
98-82-8	Isopropylbenzene		1.76	20.0	UQ	SSL
75-09-2	Methylene chloride	20.0 ~~8.23~~ UJ	1.24	20.0	~~IQB~~	MBL
76-20-9	Methyl Acetate	118 J	3.20	20.0	Q	SSL
108-87-2	Methylcyclohexane	UJ	0.600	20.0	UQ	
108-10-1	4-Methyl-2-pentanone		1.16	20.0	UQ	
1634-04-4	Methyl t-Butyl Ether		0.640	20.0	UQ	
100-42-5	Styrene		0.700	20.0	UQ	
79-34-5	1,1,2,2-Tetrachloroethane		0.860	20.0	UQ	
127-18-4	Tetrachloroethene		1.94	20.0	UQ	
108-88-3	Toluene	2.73 J	1.72	20.0	JQ	

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ANALYSIS DATA SHEET

MR21-SS13-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-26	File ID:	0306626.D
Sampled:	03/03/10 10:00	Prepared:	03/09/10 16:27	Analyzed:	03/10/10 07:40
Solids:	69.29	Preparation:	5035	Dilution:	1

Batch: 0C09031 Sequence: 0C06910 Calibration: 0057001 Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene	UJ	0.360	20.0	UQ
79-00-5	1,1,2-Trichloroethane		0.700	20.0	UQ
71-55-6	1,1,1-Trichloroethane		1.80	20.0	UQ
79-01-6	Trichloroethene		1.70	20.0	UQ
75-69-4	Trichlorofluoromethane		1.90	20.0	UQ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		3.34	20.0	UQ
75-01-4	Vinyl chloride		2.20	20.0	UQ
1330-20-7	Xylenes (total)		1.40	20.0	UQ

SSL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	59.97	43.47	72.5	85 - 120	*
Dibromofluoromethane	59.97	64.21	107	80 - 125	
1,2-Dichloroethane-d4	59.97	66.67	111	75 - 140	
Toluene-d8	59.97	81.83	136	85 - 115	*

MW 7/26/10

26RE

ANALYSIS DATA SHEET

MR21-SS13-10A

Laboratory: Empirical Laboratories, LLC SDG:

Client: CH2M Hill, Inc. Project: Lejeune CTO-40 UXO-21

Matrix: Soil Laboratory ID: 1003066-26RE1 File ID: 0306626.D

Sampled: 03/03/10 10:00 Prepared: 03/10/10 11:05 Analyzed: 03/10/10 19:55

Solids: 69.29 Preparation: 5035 Dilution: 1

Batch: 0C10020 Sequence: 0C07011 Calibration: 0057001 Instrument: MS-VOA1

use original

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-64-1	Acetone	452 J	3.08	15.4	~~Q~~
71-43-2	Benzene	UJ	0.725	15.4	UQ
75-27-4	Bromodichloromethane		0.463	15.4	UQ
75-25-2	Bromoform		1.54	15.4	UQ
74-83-9	Bromomethane		1.11	15.4	UQ
78-93-3	2-Butanone		2.16	15.4	UQ
75-15-0	Carbon disulfide		2.00	15.4	UQ
56-23-5	Carbon tetrachloride		1.36	15.4	UQ
108-90-7	Chlorobenzene		0.524	15.4	UQ
75-00-3	Chloroethane		1.70	15.4	UQ
67-66-3	Chloroform		0.848	15.4	UQ
74-87-3	Chloromethane		0.802	15.4	UQ
110-82-7	Cyclohexane		0.833	15.4	UQ
124-48-1	Dibromochloromethane		0.524	15.4	UQ
96-12-8	1,2-Dibromo-3-chloropropane		1.85	7.71	UQ
106-93-4	1,2-Dibromoethane (EDB)		0.663	15.4	UQ
95-50-1	1,2-Dichlorobenzene		0.571	15.4	UQ
541-73-1	1,3-Dichlorobenzene		1.30	15.4	UQ
106-46-7	1,4-Dichlorobenzene		0.848	15.4	UQ
75-71-8	Dichlorodifluoromethane		1.70	15.4	UQ
75-34-3	1,1-Dichloroethane		0.833	15.4	UQ
107-06-2	1,2-Dichloroethane		0.709	15.4	UQ
75-35-4	1,1-Dichloroethene		1.85	15.4	UQ
156-59-4	cis-1,2-Dichloroethene		1.85	15.4	UQ
156-60-5	trans-1,2-Dichloroethene		1.70	15.4	UQ
78-87-5	1,2-Dichloropropane		0.709	15.4	UQ
10061-01-5	cis-1,3-Dichloropropene		0.771	15.4	UQ
10061-02-6	trans-1,3-Dichloropropene		0.493	15.4	UQ
100-41-4	Ethylbenzene		1.16	15.4	UQ
591-78-6	2-Hexanone		3.55	15.4	UQ
98-82-8	Isopropylbenzene		1.36	15.4	UQ
75-09-2	Methylene chloride	15.4 ~~5.05~~ UJ	0.956	15.4	~~JQB~~ ~~UBt~~
76-20-9	Methyl Acetate	49.3 J	2.47	15.4	Q
108-87-2	Methylcyclohexane	UJ	0.463	15.4	UQ
108-10-1	4-Methyl-2-pentanone		0.894	15.4	UQ
1634-04-4	Methyl t-Butyl Ether		0.493	15.4	UQ
100-42-5	Styrene		0.540	15.4	UQ
79-34-5	1,1,2,2-Tetrachloroethane		0.663	15.4	UQ
127-18-4	Tetrachloroethene		1.50	15.4	UQ
108-88-3	Toluene		1.33	15.4	UQ

exclude

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SSL

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ANALYSIS DATA SHEET

MR21-SS13-10A

26RE

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-26RE1	File ID:	0306626.D
Sampled:	03/03/10 10:00	Prepared:	03/10/10 11:05	Analyzed:	03/10/10 19:55
Solids:	69.29	Preparation:	5035	Dilution:	1
Batch:	0C10020	Sequence: 0C07011	Calibration:	0057001	Instrument: MS-VOA1

use original

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene	UJ	0.278	15.4	UQ
79-00-5	1,1,2-Trichloroethane		0.540	15.4	UQ
71-55-6	1,1,1-Trichloroethane		1.39	15.4	UQ
79-01-6	Trichloroethene		1.31	15.4	UQ
75-69-4	Trichlorofluoromethane		1.46	15.4	UQ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		2.58	15.4	UQ
75-01-4	Vinyl chloride		1.70	15.4	UQ
1330-20-7	Xylenes (total)		1.08	15.4	UQ

SSL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	46.26	32.52	70.3	85 - 120	*
Dibromofluoromethane	46.26	51.50	111	80 - 125	
1,2-Dichloroethane-d4	46.26	52.08	113	75 - 140	
Toluene-d8	46.26	65.67	142	85 - 115	*

exclude

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ANALYSIS DATA SHEET

MR21-SS21-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-27	File ID:	0306627.D
Sampled:	03/03/10 09:35	Prepared:	03/09/10 16:27	Analyzed:	03/10/10 08:19
Solids:	79.57	Preparation:	5035	Dilution:	1
Batch:	0C09031	Sequence: 0C06910	Calibration:	0057001	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
67-64-1	Acetone	691 J	3.87	19.3	~~Q~~	CC
71-43-2	Benzene	UJ	0.909	19.3	UQ	SSL
75-27-4	Bromodichloromethane		0.580	19.3	UQ	
75-25-2	Bromoform		1.93	19.3	UQ	
74-83-9	Bromomethane		1.39	19.3	UQ	
78-93-3	2-Butanone		2.71	19.3	UQ	
75-15-0	Carbon disulfide		2.51	19.3	UQ	
56-23-5	Carbon tetrachloride		1.70	19.3	UQ	
108-90-7	Chlorobenzene		0.657	19.3	UQ	
75-00-3	Chloroethane		2.13	19.3	UQ	
67-66-3	Chloroform	19.3 ~~1.48~~ UJ	1.06	19.3	~~JQB~~	MSL SSL
74-87-3	Chloromethane		1.01	19.3	UQ	SSL
110-82-7	Cyclohexane		1.04	19.3	UQ	
124-48-1	Dibromochloromethane		0.657	19.3	UQ	
96-12-8	1,2-Dibromo-3-chloropropane		2.32	9.67	UQ	
106-93-4	1,2-Dibromoethane (EDB)		0.831	19.3	UQ	
95-50-1	1,2-Dichlorobenzene		0.715	19.3	UQ	
541-73-1	1,3-Dichlorobenzene		1.62	19.3	UQ	
106-46-7	1,4-Dichlorobenzene		1.06	19.3	UQ	
75-71-8	Dichlorodifluoromethane		2.13	19.3	UQ	
75-34-3	1,1-Dichloroethane		1.04	19.3	UQ	
107-06-2	1,2-Dichloroethane		0.889	19.3	UQ	
75-35-4	1,1-Dichloroethene		2.32	19.3	UQ	
156-59-4	cis-1,2-Dichloroethene		2.32	19.3	UQ	
156-60-5	trans-1,2-Dichloroethene		2.13	19.3	UQ	
78-87-5	1,2-Dichloropropane		0.889	19.3	UQ	
10061-01-5	cis-1,3-Dichloropropene		0.967	19.3	UQ	
10061-02-6	trans-1,3-Dichloropropene		0.619	19.3	UQ	
100-41-4	Ethylbenzene		1.45	19.3	UQ	
591-78-6	2-Hexanone		4.45	19.3	UQ	
98-82-8	Isopropylbenzene		1.70	19.3	UQ	
75-09-2	Methylene chloride	19.3 ~~5.76~~ UJ	1.20	19.3	~~JQB~~	MSL SS
76-20-9	Methyl Acetate		3.09	19.3	UQ	
108-87-2	Methylcyclohexane		0.580	19.3	UQ	
108-10-1	4-Methyl-2-pentanone		1.12	19.3	UQ	
1634-04-4	Methyl t-Butyl Ether		0.619	19.3	UQ	
100-42-5	Styrene		0.677	19.3	UQ	
79-34-5	1,1,2,2-Tetrachloroethane		0.831	19.3	UQ	
127-18-4	Tetrachloroethene		1.88	19.3	UQ	
108-88-3	Toluene	6.62 J	1.66	19.3	JQ	

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ANALYSIS DATA SHEET

MR21-SS21-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-27	File ID:	0306627.D
Sampled:	03/03/10 09:35	Prepared:	03/09/10 16:27	Analyzed:	03/10/10 08:19
Solids:	79.57	Preparation:	5035	Dilution:	1
Batch:	0C09031	Sequence: 0C06910	Calibration:	0057001	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene	UJ	0.348	19.3	UQ
79-00-5	1,1,2-Trichloroethane		0.677	19.3	UQ
71-55-6	1,1,1-Trichloroethane		1.74	19.3	UQ
79-01-6	Trichloroethene		1.64	19.3	UQ
75-69-4	Trichlorofluoromethane		1.84	19.3	UQ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		3.23	19.3	UQ
75-01-4	Vinyl chloride		2.13	19.3	UQ
1330-20-7	Xylenes (total)		1.35	19.3	UQ

SSL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	58.00	42.64	73.5	85 - 120	*
Dibromofluoromethane	58.00	61.89	107	80 - 125	
1,2-Dichloroethane-d4	58.00	62.85	108	75 - 140	
Toluene-d8	58.00	75.47	130	85 - 115	*

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ANALYSIS DATA SHEET

MR21-SS27-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-28	File ID:	0306628.D
Sampled:	03/03/10 09:10	Prepared:	03/09/10 16:27	Analyzed:	03/10/10 08:57
Solids:	79.12	Preparation:	5035	Dilution:	1
Batch:	0C09031	Sequence: 0C06910	Calibration:	0057001	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
67-64-1	Acetone	149 J	3.01	15.0	~~Q~~	CC
71-43-2	Benzene	UJ	0.707	15.0	UQ	SSL
75-27-4	Bromodichloromethane		0.451	15.0	UQ	
75-25-2	Bromoform		1.50	15.0	UQ	
74-83-9	Bromomethane		1.08	15.0	UQ	
78-93-3	2-Butanone		2.11	15.0	UQ	
75-15-0	Carbon disulfide		1.96	15.0	UQ	
56-23-5	Carbon tetrachloride		1.32	15.0	UQ	
108-90-7	Chlorobenzene		0.512	15.0	UQ	
75-00-3	Chloroethane		1.66	15.0	UQ	
67-66-3	Chloroform		0.828	15.0	UQ	
74-87-3	Chloromethane		0.782	15.0	UQ	
110-82-7	Cyclohexane		0.813	15.0	UQ	
124-48-1	Dibromochloromethane		0.512	15.0	UQ	
96-12-8	1,2-Dibromo-3-chloropropane		1.81	7.52	UQ	
106-93-4	1,2-Dibromoethane (EDB)		0.647	15.0	UQ	
95-50-1	1,2-Dichlorobenzene		0.557	15.0	UQ	
541-73-1	1,3-Dichlorobenzene		1.26	15.0	UQ	
106-46-7	1,4-Dichlorobenzene		0.828	15.0	UQ	
75-71-8	Dichlorodifluoromethane		1.66	15.0	UQ	
75-34-3	1,1-Dichloroethane		0.813	15.0	UQ	
107-06-2	1,2-Dichloroethane		0.692	15.0	UQ	
75-35-4	1,1-Dichloroethene		1.81	15.0	UQ	
156-59-4	cis-1,2-Dichloroethene		1.81	15.0	UQ	
156-60-5	trans-1,2-Dichloroethene		1.66	15.0	UQ	
78-87-5	1,2-Dichloropropane		0.692	15.0	UQ	
10061-01-5	cis-1,3-Dichloropropene		0.752	15.0	UQ	
10061-02-6	trans-1,3-Dichloropropene		0.481	15.0	UQ	
100-41-4	Ethylbenzene		1.13	15.0	UQ	
591-78-6	2-Hexanone		3.46	15.0	UQ	
98-82-8	Isopropylbenzene		1.32	15.0	UQ	
75-09-2	Methylene chloride	15.9 ~~4.95~~ UJ	0.933	15.0	~~10B~~	SSL ~~MBL~~
76-20-9	Methyl Acetate	21.7 J	2.41	15.0	Q	SSL
108-87-2	Methylcyclohexane	UJ	0.451	15.0	UQ	
108-10-1	4-Methyl-2-pentanone		0.873	15.0	UQ	
1634-04-4	Methyl t-Butyl Ether		0.481	15.0	UQ	
100-42-5	Styrene		0.527	15.0	UQ	
79-34-5	1,1,2,2-Tetrachloroethane		0.647	15.0	UQ	
127-18-4	Tetrachloroethene		1.46	15.0	UQ	
108-88-3	Toluene		1.29	15.0	UQ	

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ANALYSIS DATA SHEET

MR21-SS27-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-28	File ID:	0306628.D
Sampled:	03/03/10 09:10	Prepared:	03/09/10 16:27	Analyzed:	03/10/10 08:57
Solids:	79.12	Preparation:	5035	Dilution:	1
Batch:	0C09031	Sequence: 0C06910	Calibration:	0057001	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene	4J	0.271	15.0	UQ
79-00-5	1,1,2-Trichloroethane		0.527	15.0	UQ
71-55-6	1,1,1-Trichloroethane		1.35	15.0	UQ
79-01-6	Trichloroethene		1.28	15.0	UQ
75-69-4	Trichlorofluoromethane		1.43	15.0	UQ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		2.51	15.0	UQ
75-01-4	Vinyl chloride		1.66	15.0	UQ
1330-20-7	Xylenes (total)	3.38 J	1.05	15.0	JQ

SSL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	45.14	32.37	71.7	85 - 120	*
Dibromofluoromethane	45.14	49.73	110	80 - 125	
1,2-Dichloroethane-d4	45.14	48.95	108	75 - 140	
Toluene-d8	45.14	59.96	133	85 - 115	*

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ANALYSIS DATA SHEET

MR21-SS27D-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-29	File ID:	0306629.D
Sampled:	03/03/10 09:15	Prepared:	03/09/10 16:27	Analyzed:	03/10/10 09:36
Solids:	80.42	Preparation:	5035	Dilution:	1
Batch:	0C09031	Sequence: 0C06910	Calibration:	0057001	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
67-64-1	Acetone	177 J	3.57	17.9	~~Q~~	CC SSL
71-43-2	Benzene	UJ	0.840	17.9	UQ	
75-27-4	Bromodichloromethane		0.536	17.9	UQ	
75-25-2	Bromoform		1.79	17.9	UQ	
74-83-9	Bromomethane		1.29	17.9	UQ	
78-93-3	2-Butanone		2.50	17.9	UQ	
75-15-0	Carbon disulfide		2.32	17.9	UQ	
56-23-5	Carbon tetrachloride		1.57	17.9	UQ	
108-90-7	Chlorobenzene		0.607	17.9	UQ	
75-00-3	Chloroethane		1.97	17.9	UQ	
67-66-3	Chloroform		0.983	17.9	UQ	
74-87-3	Chloromethane		0.929	17.9	UQ	
110-82-7	Cyclohexane		0.965	17.9	UQ	
124-48-1	Dibromochloromethane		0.607	17.9	UQ	
96-12-8	1,2-Dibromo-3-chloropropane		2.14	8.93	UQ	
106-93-4	1,2-Dibromoethane (EDB)		0.768	17.9	UQ	
95-50-1	1,2-Dichlorobenzene		0.661	17.9	UQ	
541-73-1	1,3-Dichlorobenzene		1.50	17.9	UQ	
106-46-7	1,4-Dichlorobenzene		0.983	17.9	UQ	
75-71-8	Dichlorodifluoromethane		1.97	17.9	UQ	
75-34-3	1,1-Dichloroethane		0.965	17.9	UQ	
107-06-2	1,2-Dichloroethane		0.822	17.9	UQ	
75-35-4	1,1-Dichloroethene		2.14	17.9	UQ	
156-59-4	cis-1,2-Dichloroethene		2.14	17.9	UQ	
156-60-5	trans-1,2-Dichloroethene		1.97	17.9	UQ	
78-87-5	1,2-Dichloropropane		0.822	17.9	UQ	
10061-01-5	cis-1,3-Dichloropropene		0.893	17.9	UQ	
10061-02-6	trans-1,3-Dichloropropene		0.572	17.9	UQ	
100-41-4	Ethylbenzene		1.34	17.9	UQ	
591-78-6	2-Hexanone		4.11	17.9	UQ	
98-82-8	Isopropylbenzene		1.57	17.9	UQ	
75-09-2	Methylene chloride	17.9 ~~6.70~~ UJ	1.11	17.9	~~JQB~~	SSL MSL
76-20-9	Methyl Acetate	23.8 J	2.86	17.9	~~Q~~	SSL
108-87-2	Methylcyclohexane	UJ	0.536	17.9	UQ	
108-10-1	4-Methyl-2-pentanone		1.04	17.9	UQ	
1634-04-4	Methyl t-Butyl Ether		0.572	17.9	UQ	
100-42-5	Styrene		0.625	17.9	UQ	
79-34-5	1,1,2,2-Tetrachloroethane		0.768	17.9	UQ	
127-18-4	Tetrachloroethene		1.73	17.9	UQ	
108-88-3	Toluene		1.54	17.9	UQ	

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ANALYSIS DATA SHEET

MR21-SS27D-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-29	File ID:	0306629.D
Sampled:	03/03/10 09:15	Prepared:	03/09/10 16:27	Analyzed:	03/10/10 09:36
Solids:	80.42	Preparation:	5035	Dilution:	1
Batch:	0C09031	Sequence: 0C06910	Calibration:	0057001	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene	UJ	0.322	17.9	UQ
79-00-5	1,1,2-Trichloroethane		0.625	17.9	UQ
71-55-6	1,1,1-Trichloroethane		1.61	17.9	UQ
79-01-6	Trichloroethene		1.52	17.9	UQ
75-69-4	Trichlorofluoromethane		1.70	17.9	UQ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		2.98	17.9	UQ
75-01-4	Vinyl chloride		1.97	17.9	UQ
1330-20-7	Xylenes (total)	3.64 J	1.25	17.9	JQ

SSL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	53.60	42.38	79.1	85 - 120	*
Dibromofluoromethane	53.60	58.08	108	80 - 125	
1,2-Dichloroethane-d4	53.60	58.02	108	75 - 140	
Toluene-d8	53.60	67.44	126	85 - 115	*

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ANALYSIS DATA SHEET

MR21-SS34-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-30	File ID:	0306630.D
Sampled:	03/04/10 09:30	Prepared:	03/10/10 11:05	Analyzed:	03/10/10 15:26
Solids:	51.67	Preparation:	5035	Dilution:	1

Batch: 0C10020 Sequence: 0C07011 Calibration: 0057001 Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
67-64-1	Acetone	272 J	4.02	20.1	~~UQ~~	CC
71-43-2	Benzene	UJ	0.946	20.1	UJQ	SSL
75-27-4	Bromodichloromethane		0.604	20.1	UJQ	
75-25-2	Bromoform		2.01	20.1	UQ	
74-83-9	Bromomethane		1.45	20.1	UQ	
78-93-3	2-Butanone		2.82	20.1	UQ	
75-15-0	Carbon disulfide		2.62	20.1	UQ	
56-23-5	Carbon tetrachloride		1.77	20.1	UQ	
108-90-7	Chlorobenzene		0.684	20.1	UJQ	
75-00-3	Chloroethane		2.21	20.1	UQ	
67-66-3	Chloroform	6.48 J	1.11	20.1	JQ	
74-87-3	Chloromethane	UJ	1.05	20.1	UQ	
110-82-7	Cyclohexane		1.09	20.1	UJQ	
124-48-1	Dibromochloromethane		0.684	20.1	UQ	
96-12-8	1,2-Dibromo-3-chloropropane		2.41	10.1	UQ	
106-93-4	1,2-Dibromoethane (EDB)		0.865	20.1	UJQ	
95-50-1	1,2-Dichlorobenzene		0.744	20.1	UJQ	
541-73-1	1,3-Dichlorobenzene		1.69	20.1	UJQ	
106-46-7	1,4-Dichlorobenzene		1.11	20.1	UJQ	
75-71-8	Dichlorodifluoromethane		2.21	20.1	UQ	
75-34-3	1,1-Dichloroethane		1.09	20.1	UJQ	
107-06-2	1,2-Dichloroethane		0.925	20.1	UJQ	
75-35-4	1,1-Dichloroethene		2.41	20.1	UQ	
156-59-4	cis-1,2-Dichloroethene		2.41	20.1	UQ	
156-60-5	trans-1,2-Dichloroethene		2.21	20.1	UQ	
78-87-5	1,2-Dichloropropane		0.925	20.1	UJQ	
10061-01-5	cis-1,3-Dichloropropene		1.01	20.1	UJQ	
10061-02-6	trans-1,3-Dichloropropene		0.644	20.1	UJQ	
100-41-4	Ethylbenzene	2.26 J	1.79 ~~1.51~~	23.8 ~~20.1~~	UJQ	
591-78-6	2-Hexanone	UJ	4.63	20.1	UJQ	
98-82-8	Isopropylbenzene		1.77	20.1	UJQ	SSL
75-09-2	Methylene chloride	20.1 ~~6.34~~ UJ	1.25	20.1	~~JQB~~	MBL
76-20-9	Methyl Acetate	16.3 J	3.22	20.1	JQ	SSL
108-87-2	Methylcyclohexane	UJ	0.604	20.1	UJQ	
108-10-1	4-Methyl-2-pentanone		1.17	20.1	UJQ	
1634-04-4	Methyl t-Butyl Ether		0.644	20.1	UJQ	
100-42-5	Styrene		0.704	20.1	UJQ	
79-34-5	1,1,2,2-Tetrachloroethane		0.865	20.1	UJQ	
127-18-4	Tetrachloroethene		1.95	20.1	UJQ	
108-88-3	Toluene	1.86 J	1.73	20.1	JQ	

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ANALYSIS DATA SHEET

MR21-SS34-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-30	File ID:	0306630.D
Sampled:	03/04/10 09:30	Prepared:	03/10/10 11:05	Analyzed:	03/10/10 15:26
Solids:	51.67	Preparation:	5035	Dilution:	1
Batch:	0C10020	Sequence:	0C07011	Calibration:	0057001
Instrument:	MS-VOA1				

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene	UJ	0.362	20.1	UJ~~Q~~
79-00-5	1,1,2-Trichloroethane		0.704	20.1	U~~Q~~
71-55-6	1,1,1-Trichloroethane		1.81	20.1	U~~Q~~
79-01-6	Trichloroethene		1.71	20.1	U~~Q~~
75-69-4	Trichlorofluoromethane		1.91	20.1	U~~Q~~
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		3.36	20.1	U~~Q~~
75-01-4	Vinyl chloride		2.21	20.1	U~~Q~~
1330-20-7	Xylenes (total)	3.89 J	1.41	20.1	J~~Q~~

SSL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	60.36	42.26	70.0	85 - 120	*
Dibromofluoromethane	60.36	72.76	121	80 - 125	
1,2-Dichloroethane-d4	60.36	75.79	126	75 - 140	
Toluene-d8	60.36	86.12	143	85 - 115	*

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ANALYSIS DATA SHEET

MR21-SS34-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-30RE1	File ID:	0306630.D
Sampled:	03/04/10 09:30	Prepared:	03/11/10 09:58	Analyzed:	03/11/10 13:43
Solids:	51.67	Preparation:	5035	Dilution:	1
Batch:	0C11006	Sequence: 0C07103	Calibration:	0057001	Instrument: MS-VOA1

use original

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-64-1	Acetone	330 J	4.77	23.8	~~JQ~~
71-43-2	Benzene	UJ	1.12	23.8	UQ
75-27-4	Bromodichloromethane		0.715	23.8	UQ
75-25-2	Bromoform		2.38	23.8	UJQ
74-83-9	Bromomethane		1.72	23.8	UQ
78-93-3	2-Butanone		3.34	23.8	UQ
75-15-0	Carbon disulfide		3.10	23.8	UQ
56-23-5	Carbon tetrachloride		2.10	23.8	UQ
108-90-7	Chlorobenzene		0.810	23.8	UQ
75-00-3	Chloroethane		2.62	23.8	UQ
67-66-3	Chloroform	4.62 J	1.31	23.8	JQ
74-87-3	Chloromethane	UJ	1.24	23.8	UQ
110-82-7	Cyclohexane		1.29	23.8	UQ
124-48-1	Dibromochloromethane		0.810	23.8	UJQ
96-12-8	1,2-Dibromo-3-chloropropane		2.86	11.9	UQ
106-93-4	1,2-Dibromoethane (EDB)		1.02	23.8	UQ
95-50-1	1,2-Dichlorobenzene		0.882	23.8	UJQ
541-73-1	1,3-Dichlorobenzene		2.00	23.8	UJQ
106-46-7	1,4-Dichlorobenzene		1.31	23.8	UJQ
75-71-8	Dichlorodifluoromethane		2.62	23.8	UQ
75-34-3	1,1-Dichloroethane		1.29	23.8	UQ
107-06-2	1,2-Dichloroethane		1.10	23.8	UQ
75-35-4	1,1-Dichloroethene		2.86	23.8	UQ
156-59-4	cis-1,2-Dichloroethene		2.86	23.8	UQ
156-60-5	trans-1,2-Dichloroethene		2.62	23.8	UQ
78-87-5	1,2-Dichloropropane		1.10	23.8	UQ
10061-01-5	cis-1,3-Dichloropropene		1.19	23.8	UQ
10061-02-6	trans-1,3-Dichloropropene		0.763	23.8	UQ
100-41-4	Ethylbenzene	2.26 J	1.79	23.8	JQ
591-78-6	2-Hexanone	UJ	5.48	23.8	UQ
98-82-8	Isopropylbenzene	UJ	2.10	23.8	UQ
75-09-2	Methylene chloride	23.8 ~~9.01~~ UJ	1.48	23.8	~~JQB~~
76-20-9	Methyl Acetate	12.5 J	3.81	23.8	JQ
108-87-2	Methylcyclohexane	UJ	0.715	23.8	UJQ
108-10-1	4-Methyl-2-pentanone		1.38	23.8	UQ
1634-04-4	Methyl t-Butyl Ether		0.763	23.8	UQ
100-42-5	Styrene		0.834	23.8	UJQ
79-34-5	1,1,2,2-Tetrachloroethane		1.02	23.8	UJQ
127-18-4	Tetrachloroethene		2.31	23.8	UQ
108-88-3	Toluene		2.05	23.8	UQ

exclude

CC SSL

MBL SSL

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ANALYSIS DATA SHEET

MR21-SS34-10A

3ORE

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-30RE1	File ID:	0306630.D
Sampled:	03/04/10 09:30	Prepared:	03/11/10 09:58	Analyzed:	03/11/10 13:43
Solids:	51.67	Preparation:	5035	Dilution:	1
Batch:	0C11006	Sequence: 0C07103	Calibration:	0057001	Instrument: MS-VOA1

use ORIGINAL

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene	UJ	0.429	23.8	UJQ
79-00-5	1,1,2-Trichloroethane		0.834	23.8	UJQ
71-55-6	1,1,1-Trichloroethane		2.15	23.8	UQ
79-01-6	Trichloroethene		2.03	23.8	UQ
75-69-4	Trichlorofluoromethane		2.26	23.8	UQ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		3.98	23.8	UQ
75-01-4	Vinyl chloride		2.62	23.8	UJQ
1330-20-7	Xylenes (total)	8.94 J	1.67	23.8	JQ

SSL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	71.51	50.17	70.2	85 - 120	*
Dibromofluoromethane	71.51	86.02	120	80 - 125	
1,2-Dichloroethane-d4	71.51	85.40	119	75 - 140	
Toluene-d8	71.51	102.6	144	85 - 115	*

exclude

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ANALYSIS DATA SHEET

MR21-SS35-10A

31

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-31	File ID:	0306631.D
Sampled:	03/04/10 09:10	Prepared:	03/10/10 11:05	Analyzed:	03/10/10 16:04
Solids:	65.66	Preparation:	5035	Dilution:	1
Batch:	0C10020	Sequence: 0C07011	Calibration:	0057001	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
67-64-1	Acetone	495 J	3.73	18.7	~~Q~~	CC SSL
71-43-2	Benzene	UJ	0.877	18.7	UQ	
75-27-4	Bromodichloromethane		0.560	18.7	UQ	
75-25-2	Bromoform		1.87	18.7	UQ	
74-83-9	Bromomethane		1.34	18.7	UQ	
78-93-3	2-Butanone		2.61	18.7	UQ	
75-15-0	Carbon disulfide		2.43	18.7	UQ	
56-23-5	Carbon tetrachloride		1.64	18.7	UQ	
108-90-7	Chlorobenzene		0.635	18.7	UQ	
75-00-3	Chloroethane		2.05	18.7	UQ	
67-66-3	Chloroform		1.03	18.7	UQ	
74-87-3	Chloromethane		0.971	18.7	UQ	
110-82-7	Cyclohexane		1.01	18.7	UQ	
124-48-1	Dibromochloromethane		0.635	18.7	UQ	
96-12-8	1,2-Dibromo-3-chloropropane		2.24	9.33	UQ	
106-93-4	1,2-Dibromoethane (EDB)		0.803	18.7	UQ	
95-50-1	1,2-Dichlorobenzene		0.691	18.7	UQ	
541-73-1	1,3-Dichlorobenzene		1.57	18.7	UQ	
106-46-7	1,4-Dichlorobenzene		1.03	18.7	UQ	
75-71-8	Dichlorodifluoromethane		2.05	18.7	UQ	
75-34-3	1,1-Dichloroethane		1.01	18.7	UQ	
107-06-2	1,2-Dichloroethane		0.859	18.7	UQ	
75-35-4	1,1-Dichloroethene		2.24	18.7	UQ	
156-59-4	cis-1,2-Dichloroethene		2.24	18.7	UQ	
156-60-5	trans-1,2-Dichloroethene		2.05	18.7	UQ	
78-87-5	1,2-Dichloropropane		0.859	18.7	UQ	
10061-01-5	cis-1,3-Dichloropropene		0.933	18.7	UQ	
10061-02-6	trans-1,3-Dichloropropene		0.597	18.7	UQ	
100-41-4	Ethylbenzene		1.40	18.7	UQ	
591-78-6	2-Hexanone		4.29	18.7	UQ	
98-82-8	Isopropylbenzene		1.64	18.7	UQ	SSL
75-09-2	Methylene chloride	18.7 ~~8.11~~ UJ	1.16	18.7	~~JQB~~	MBL
76-20-9	Methyl Acetate	29.9 J	2.99	18.7	Q	SSL
108-87-2	Methylcyclohexane	UJ	0.560	18.7	UQ	
108-10-1	4-Methyl-2-pentanone		1.08	18.7	UQ	
1634-04-4	Methyl t-Butyl Ether		0.597	18.7	UQ	
100-42-5	Styrene		0.653	18.7	UQ	
79-34-5	1,1,2,2-Tetrachloroethane		0.803	18.7	UQ	
127-18-4	Tetrachloroethene		1.81	18.7	UQ	
108-88-3	Toluene	1.95 J	1.61	18.7	JQ	

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ANALYSIS DATA SHEET

MR21-SS35-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-31	File ID:	0306631.D
Sampled:	03/04/10 09:10	Prepared:	03/10/10 11:05	Analyzed:	03/10/10 16:04
Solids:	65.66	Preparation:	5035	Dilution:	1
Batch:	0C10020	Sequence: 0C07011	Calibration:	0057001	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene	UJ	0.336	18.7	UQ
79-00-5	1,1,2-Trichloroethane		0.653	18.7	UQ
71-55-6	1,1,1-Trichloroethane		1.68	18.7	UQ
79-01-6	Trichloroethene		1.59	18.7	UQ
75-69-4	Trichlorofluoromethane		1.77	18.7	UQ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		3.12	18.7	UQ
75-01-4	Vinyl chloride		2.05	18.7	UQ
1330-20-7	Xylenes (total)	3.37 J	1.31	18.7	JQ

SSL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	55.99	43.50	77.7	85 - 120	*
Dibromofluoromethane	55.99	59.31	106	80 - 125	
1,2-Dichloroethane-d4	55.99	60.39	108	75 - 140	
Toluene-d8	55.99	73.05	130	85 - 115	*

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ANALYSIS DATA SHEET

MR21-SS32-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-32	File ID:	0306632.D
Sampled:	03/04/10 08:40	Prepared:	03/10/10 11:05	Analyzed:	03/10/10 16:43
Solids:	83.39	Preparation:	5035	Dilution:	1
Batch:	0C10020	Sequence: 0C07011	Calibration:	0057001	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
67-64-1	Acetone	174 J	2.66	13.3	~~Q~~	CC
71-43-2	Benzene	UJ	0.626	13.3	UQ	SSL
75-27-4	Bromodichloromethane		0.400	13.3	UQ	
75-25-2	Bromoform		1.33	13.3	UQ	
74-83-9	Bromomethane		0.959	13.3	UQ	
78-93-3	2-Butanone		1.87	13.3	UQ	
75-15-0	Carbon disulfide		1.73	13.3	UQ	
56-23-5	Carbon tetrachloride		1.17	13.3	UQ	
108-90-7	Chlorobenzene		0.453	13.3	UQ	
75-00-3	Chloroethane		1.47	13.3	UQ	
67-66-3	Chloroform		0.733	13.3	UQ	
74-87-3	Chloromethane		0.693	13.3	UQ	
110-82-7	Cyclohexane		0.719	13.3	UQ	
124-48-1	Dibromochloromethane		0.453	13.3	UQ	
96-12-8	1,2-Dibromo-3-chloropropane		1.60	6.66	UQ	
106-93-4	1,2-Dibromoethane (EDB)		0.573	13.3	UQ	
95-50-1	1,2-Dichlorobenzene		0.493	13.3	UQ	
541-73-1	1,3-Dichlorobenzene		1.12	13.3	UQ	
106-46-7	1,4-Dichlorobenzene		0.733	13.3	UQ	
75-71-8	Dichlorodifluoromethane		1.47	13.3	UQ	
75-34-3	1,1-Dichloroethane		0.719	13.3	UQ	
107-06-2	1,2-Dichloroethane		0.613	13.3	UQ	
75-35-4	1,1-Dichloroethene		1.60	13.3	UQ	
156-59-4	cis-1,2-Dichloroethene		1.60	13.3	UQ	
156-60-5	trans-1,2-Dichloroethene		1.47	13.3	UQ	
78-87-5	1,2-Dichloropropane		0.613	13.3	UQ	
10061-01-5	cis-1,3-Dichloropropene		0.666	13.3	UQ	
10061-02-6	trans-1,3-Dichloropropene		0.426	13.3	UQ	
100-41-4	Ethylbenzene		0.999	13.3	UQ	
591-78-6	2-Hexanone		3.06	13.3	UQ	
98-82-8	Isopropylbenzene		1.17	13.3	UQ	SSL
75-09-2	Methylene chloride	13.3 ~~3.84~~ UJ	0.826	13.3	~~JQ~~	~~MSL~~
76-20-9	Methyl Acetate	4.53 J	2.13	13.3	JQ	SSL
108-87-2	Methylcyclohexane	UJ	0.400	13.3	UQ	
108-10-1	4-Methyl-2-pentanone		0.773	13.3	UQ	
1634-04-4	Methyl t-Butyl Ether		0.426	13.3	UQ	
100-42-5	Styrene		0.466	13.3	UQ	
79-34-5	1,1,2,2-Tetrachloroethane		0.573	13.3	UQ	
127-18-4	Tetrachloroethene		1.29	13.3	UQ	
108-88-3	Toluene		1.15	13.3	UQ	

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ANALYSIS DATA SHEET

MR21-SS32-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-32	File ID:	0306632.D
Sampled:	03/04/10 08:40	Prepared:	03/10/10 11:05	Analyzed:	03/10/10 16:43
Solids:	83.39	Preparation:	5035	Dilution:	1
Batch:	0C10020	Sequence:	0C07011	Calibration:	0057001
Instrument:	MS-VOA1				

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene	UJ	0.240	13.3	UQ
79-00-5	1,1,2-Trichloroethane		0.466	13.3	UQ
71-55-6	1,1,1-Trichloroethane		1.20	13.3	UQ
79-01-6	Trichloroethene		1.13	13.3	UQ
75-69-4	Trichlorofluoromethane		1.27	13.3	UQ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		2.23	13.3	UQ
75-01-4	Vinyl chloride		1.47	13.3	UQ
1330-20-7	Xylenes (total)		0.933	13.3	UQ

SSL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	39.97	29.29	73.3	85 - 120	*
Dibromofluoromethane	39.97	43.23	108	80 - 125	
1,2-Dichloroethane-d4	39.97	42.93	107	75 - 140	
Toluene-d8	39.97	51.81	130	85 - 115	*

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ANALYSIS DATA SHEET

MR21-FB-030410

Laboratory:	Empirical Laboratories, LLC			SDG:	
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1003066-33	File ID:	0306633.D
Sampled:	03/04/10 10:30	Prepared:	03/07/10 00:00	Analyzed:	03/08/10 00:05
Solids:		Preparation:	5030B	Dilution:	1

Batch: 0C07002 Sequence: 0C06705 Calibration: 0061001 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
67-64-1	Acetone	R	1.80	5.00	~~U~~ CC
71-43-2	Benzene		0.140	1.00	U
75-27-4	Bromodichloromethane		0.180	1.00	U
75-25-2	Bromoform		0.500	1.50	U
74-83-9	Bromomethane		0.320	1.00	U
78-93-3	2-Butanone		1.60	5.00	U
75-15-0	Carbon disulfide		0.260	1.00	U
56-23-5	Carbon tetrachloride		0.240	1.00	U
108-90-7	Chlorobenzene		0.210	1.00	U
75-00-3	Chloroethane		0.270	1.00	U
67-66-3	Chloroform		0.230	1.00	U
74-87-3	Chloromethane		0.360	1.00	U
110-82-7	Cyclohexane		0.200	1.00	U
124-48-1	Dibromochloromethane		0.180	1.00	U
96-12-8	1,2-Dibromo-3-chloropropane		0.550	1.50	U
106-93-4	1,2-Dibromoethane (EDB)		0.240	1.00	U
95-50-1	1,2-Dichlorobenzene		0.160	1.00	U
541-73-1	1,3-Dichlorobenzene		0.250	1.00	U
106-46-7	1,4-Dichlorobenzene		0.250	1.00	U
75-71-8	Dichlorodifluoromethane		0.260	1.00	U
75-34-3	1,1-Dichloroethane		0.240	1.00	U
107-06-2	1,2-Dichloroethane		0.220	1.00	U
75-35-4	1,1-Dichloroethene		0.280	1.00	U
156-59-4	cis-1,2-Dichloroethene		0.450	1.50	U
156-60-5	trans-1,2-Dichloroethene		0.530	1.50	U
78-87-5	1,2-Dichloropropane		0.270	1.00	U
10061-01-5	cis-1,3-Dichloropropene		0.150	1.00	U
10061-02-6	trans-1,3-Dichloropropene		0.170	1.00	U
100-41-4	Ethylbenzene		0.150	1.00	U
591-78-6	2-Hexanone		0.500	5.00	U
98-82-8	Isopropylbenzene		0.150	1.00	U
75-09-2	Methylene chloride		0.270	2.00	U
76-20-9	Methyl Acetate		0.590	2.00	U
108-87-2	Methylcyclohexane		0.180	1.00	U
108-10-1	4-Methyl-2-pentanone		0.500	5.00	U
1634-04-4	Methyl t-Butyl Ether		0.250	1.00	U
100-42-5	Styrene		0.240	1.00	U
79-34-5	1,1,2,2-Tetrachloroethane		0.230	1.00	U
127-18-4	Tetrachloroethene		0.170	1.00	U
108-88-3	Toluene		0.190	1.00	U

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ANALYSIS DATA SHEET

MR21-FB-030410

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1003066-33	File ID:	0306633.D
Sampled:	03/04/10 10:30	Prepared:	03/07/10 00:00	Analyzed:	03/08/10 00:05
Solids:		Preparation:	5030B	Dilution:	1

Batch: 0C07002 Sequence: 0C06705 Calibration: 0061001 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene		0.280	1.00	U
79-00-5	1,1,2-Trichloroethane		0.260	1.00	U
71-55-6	1,1,1-Trichloroethane		0.290	1.00	U
79-01-6	Trichloroethene		0.500	1.50	U
75-69-4	Trichlorofluoromethane		0.250	1.00	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.330	1.00	U
75-01-4	Vinyl chloride		0.200	2.00	U
1330-20-7	Xylenes (total)		0.220	1.00	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	30.00	29.43	98.1	75 - 120	
Dibromofluoromethane	30.00	32.28	108	85 - 115	
1,2-Dichloroethane-d4	30.00	31.13	104	70 - 120	
Toluene-d8	30.00	30.61	102	85 - 120	

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ANALYSIS DATA SHEET

MR21-EB-030310

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1003066-34	File ID:	0306634.D
Sampled:	03/03/10 15:30	Prepared:	03/07/10 00:00	Analyzed:	03/08/10 00:34
Solids:		Preparation:	5030B	Dilution:	1

Batch: 0C07002 Sequence: 0C06705 Calibration: 0061001 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
67-64-1	Acetone	R	1.80	5.00	~~U~~ CC
71-43-2	Benzene		0.140	1.00	U
75-27-4	Bromodichloromethane		0.180	1.00	U
75-25-2	Bromoform		0.500	1.50	U
74-83-9	Bromomethane		0.320	1.00	U
78-93-3	2-Butanone		1.60	5.00	U
75-15-0	Carbon disulfide		0.260	1.00	U
56-23-5	Carbon tetrachloride		0.240	1.00	U
108-90-7	Chlorobenzene		0.210	1.00	U
75-00-3	Chloroethane		0.270	1.00	U
67-66-3	Chloroform		0.230	1.00	U
74-87-3	Chloromethane		0.360	1.00	U
110-82-7	Cyclohexane		0.200	1.00	U
124-48-1	Dibromochloromethane		0.180	1.00	U
96-12-8	1,2-Dibromo-3-chloropropane		0.550	1.50	U
106-93-4	1,2-Dibromoethane (EDB)		0.240	1.00	U
95-50-1	1,2-Dichlorobenzene		0.160	1.00	U
541-73-1	1,3-Dichlorobenzene		0.250	1.00	U
106-46-7	1,4-Dichlorobenzene		0.250	1.00	U
75-71-8	Dichlorodifluoromethane		0.260	1.00	U
75-34-3	1,1-Dichloroethane		0.240	1.00	U
107-06-2	1,2-Dichloroethane		0.220	1.00	U
75-35-4	1,1-Dichloroethene		0.280	1.00	U
156-59-4	cis-1,2-Dichloroethene		0.450	1.50	U
156-60-5	trans-1,2-Dichloroethene		0.530	1.50	U
78-87-5	1,2-Dichloropropane		0.270	1.00	U
10061-01-5	cis-1,3-Dichloropropene		0.150	1.00	U
10061-02-6	trans-1,3-Dichloropropene		0.170	1.00	U
100-41-4	Ethylbenzene		0.150	1.00	U
591-78-6	2-Hexanone		0.500	5.00	U
98-82-8	Isopropylbenzene		0.150	1.00	U
75-09-2	Methylene chloride	0.624	0.270	2.00	J
76-20-9	Methyl Acetate		0.590	2.00	U
108-87-2	Methylcyclohexane		0.180	1.00	U
108-10-1	4-Methyl-2-pentanone		0.500	5.00	U
1634-04-4	Methyl t-Butyl Ether		0.250	1.00	U
100-42-5	Styrene		0.240	1.00	U
79-34-5	1,1,2,2-Tetrachloroethane		0.230	1.00	U
127-18-4	Tetrachloroethene		0.170	1.00	U
108-88-3	Toluene		0.190	1.00	U

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ANALYSIS DATA SHEET

MR21-EB-030310

34

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1003066-34	File ID:	0306634.D
Sampled:	03/03/10 15:30	Prepared:	03/07/10 00:00	Analyzed:	03/08/10 00:34
Solids:		Preparation:	5030B	Dilution:	1

Batch: 0C07002 Sequence: 0C06705 Calibration: 0061001 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene		0.280	1.00	U
79-00-5	1,1,2-Trichloroethane		0.260	1.00	U
71-55-6	1,1,1-Trichloroethane		0.290	1.00	U
79-01-6	Trichloroethene		0.500	1.50	U
75-69-4	Trichlorofluoromethane		0.250	1.00	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.330	1.00	U
75-01-4	Vinyl chloride		0.200	2.00	U
1330-20-7	Xylenes (total)		0.220	1.00	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	30.00	29.36	97.9	75 - 120	
Dibromofluoromethane	30.00	31.85	106	85 - 115	
1,2-Dichloroethane-d4	30.00	30.73	102	70 - 120	
Toluene-d8	30.00	30.68	102	85 - 120	

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ANALYSIS DATA SHEET

MR21-EB-030410

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1003066-35	File ID:	0306635.D
Sampled:	03/04/10 11:45	Prepared:	03/07/10 00:00	Analyzed:	03/08/10 01:04
Solids:		Preparation:	5030B	Dilution:	1

Batch: 0C07002 Sequence: 0C06705 Calibration: 0061001 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
67-64-1	Acetone	R	1.80	5.00	~~U~~ CC
71-43-2	Benzene		0.140	1.00	U
75-27-4	Bromodichloromethane		0.180	1.00	U
75-25-2	Bromoform		0.500	1.50	U
74-83-9	Bromomethane		0.320	1.00	U
78-93-3	2-Butanone		1.60	5.00	U
75-15-0	Carbon disulfide		0.260	1.00	U
56-23-5	Carbon tetrachloride		0.240	1.00	U
108-90-7	Chlorobenzene		0.210	1.00	U
75-00-3	Chloroethane		0.270	1.00	U
67-66-3	Chloroform		0.230	1.00	U
74-87-3	Chloromethane		0.360	1.00	U
110-82-7	Cyclohexane		0.200	1.00	U
124-48-1	Dibromochloromethane		0.180	1.00	U
96-12-8	1,2-Dibromo-3-chloropropane		0.550	1.50	U
106-93-4	1,2-Dibromoethane (EDB)		0.240	1.00	U
95-50-1	1,2-Dichlorobenzene		0.160	1.00	U
541-73-1	1,3-Dichlorobenzene		0.250	1.00	U
106-46-7	1,4-Dichlorobenzene		0.250	1.00	U
75-71-8	Dichlorodifluoromethane		0.260	1.00	U
75-34-3	1,1-Dichloroethane		0.240	1.00	U
107-06-2	1,2-Dichloroethane		0.220	1.00	U
75-35-4	1,1-Dichloroethene		0.280	1.00	U
156-59-4	cis-1,2-Dichloroethene		0.450	1.50	U
156-60-5	trans-1,2-Dichloroethene		0.530	1.50	U
78-87-5	1,2-Dichloropropane		0.270	1.00	U
10061-01-5	cis-1,3-Dichloropropene		0.150	1.00	U
10061-02-6	trans-1,3-Dichloropropene		0.170	1.00	U
100-41-4	Ethylbenzene		0.150	1.00	U
591-78-6	2-Hexanone		0.500	5.00	U
98-82-8	Isopropylbenzene		0.150	1.00	U
75-09-2	Methylene chloride	0.724	0.270	2.00	J
76-20-9	Methyl Acetate		0.590	2.00	U
108-87-2	Methylcyclohexane		0.180	1.00	U
108-10-1	4-Methyl-2-pentanone		0.500	5.00	U
1634-04-4	Methyl t-Butyl Ether		0.250	1.00	U
100-42-5	Styrene		0.240	1.00	U
79-34-5	1,1,2,2-Tetrachloroethane		0.230	1.00	U
127-18-4	Tetrachloroethene		0.170	1.00	U
108-88-3	Toluene		0.190	1.00	U

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ANALYSIS DATA SHEET

MR21-EB-030410

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1003066-35	File ID:	0306635.D
Sampled:	03/04/10 11:45	Prepared:	03/07/10 00:00	Analyzed:	03/08/10 01:04
Solids:		Preparation:	5030B	Dilution:	1

Batch: 0C07002 Sequence: 0C06705 Calibration: 0061001 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene		0.280	1.00	U
79-00-5	1,1,2-Trichloroethane		0.260	1.00	U
71-55-6	1,1,1-Trichloroethane		0.290	1.00	U
79-01-6	Trichloroethene		0.500	1.50	U
75-69-4	Trichlorofluoromethane		0.250	1.00	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.330	1.00	U
75-01-4	Vinyl chloride		0.200	2.00	U
1330-20-7	Xylenes (total)		0.220	1.00	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	30.00	29.25	97.5	75 - 120	
Dibromofluoromethane	30.00	32.27	108	85 - 115	
1,2-Dichloroethane-d4	30.00	30.64	102	70 - 120	
Toluene-d8	30.00	30.18	101	85 - 120	

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ANALYSIS DATA SHEET

MR21-SS33-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-36	File ID:	0306636.D
Sampled:	03/04/10 09:20	Prepared:	03/10/10 11:05	Analyzed:	03/10/10 17:22
Solids:	76.73	Preparation:	5035	Dilution:	1
Batch:	0C10020	Sequence: 0C07011	Calibration:	0057001	Instrument: MS-VOA1

See reanalysis

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-64-1	Acetone	124 J	2.71	13.5	~~Q~~
71-43-2	Benzene	UJ	0.637	13.5	UQ
75-27-4	Bromodichloromethane		0.406	13.5	UQ
75-25-2	Bromoform		1.35	13.5	UQ
74-83-9	Bromomethane		0.975	13.5	UQ
78-93-3	2-Butanone		1.90	13.5	UQ
75-15-0	Carbon disulfide		1.76	13.5	UQ
56-23-5	Carbon tetrachloride		1.19	13.5	UQ
108-90-7	Chlorobenzene		0.461	13.5	UQ
75-00-3	Chloroethane		1.49	13.5	UQ
67-66-3	Chloroform	13.5 ~~0.780~~ UJ	0.745	13.5	~~JQB~~
74-87-3	Chloromethane		0.704	13.5	UQ
110-82-7	Cyclohexane		0.732	13.5	UQ
124-48-1	Dibromochloromethane		0.461	13.5	UQ
96-12-8	1,2-Dibromo-3-chloropropane		1.63	6.77	UQ
106-93-4	1,2-Dibromoethane (EDB)		0.583	13.5	UQ
95-50-1	1,2-Dichlorobenzene		0.501	13.5	UQ
541-73-1	1,3-Dichlorobenzene		1.14	13.5	UQ
106-46-7	1,4-Dichlorobenzene		0.745	13.5	UQ
75-71-8	Dichlorodifluoromethane		1.49	13.5	UQ
75-34-3	1,1-Dichloroethane		0.732	13.5	UQ
107-06-2	1,2-Dichloroethane		0.623	13.5	UQ
75-35-4	1,1-Dichloroethene		1.63	13.5	UQ
156-59-4	cis-1,2-Dichloroethene		1.63	13.5	UQ
156-60-5	trans-1,2-Dichloroethene		1.49	13.5	UQ
78-87-5	1,2-Dichloropropane		0.623	13.5	UQ
10061-01-5	cis-1,3-Dichloropropene		0.677	13.5	UQ
10061-02-6	trans-1,3-Dichloropropene		0.434	13.5	UQ
100-41-4	Ethylbenzene		1.02	13.5	UQ
591-78-6	2-Hexanone		3.12	13.5	UQ
98-82-8	Isopropylbenzene		1.19	13.5	UQ
75-09-2	Methylene chloride	13.5 ~~3.68~~ UJ	0.840	13.5	~~JQB~~
76-20-9	Methyl Acetate		2.17	13.5	UQ
108-87-2	Methylcyclohexane		0.406	13.5	UQ
108-10-1	4-Methyl-2-pentanone		0.786	13.5	UQ
1634-04-4	Methyl t-Butyl Ether		0.434	13.5	UQ
100-42-5	Styrene		0.474	13.5	UQ
79-34-5	1,1,2,2-Tetrachloroethane		0.583	13.5	UQ
127-18-4	Tetrachloroethene		1.31	13.5	UQ
108-88-3	Toluene	1.95 J	1.17	13.5	JQ

exclude

CC SSL

MBL SS SSL

SSL MBL

NW 7/26/10

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ANALYSIS DATA SHEET

MR21-SS33-10A

Laboratory:	Empirical Laboratories, LLC			SDG:	
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Soil	Laboratory ID:	1003066-36	File ID:	0306636.D
Sampled:	03/04/10 09:20	Prepared:	03/10/10 11:05	Analyzed:	03/10/10 17:22
Solids:	76.73	Preparation:	5035	Dilution:	1
Batch:	0C10020	Sequence:	0C07011	Calibration:	0057001
Instrument:	MS-VOA1				

See reanalysis

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene	UJ	0.244	13.5	UQ
79-00-5	1,1,2-Trichloroethane		0.474	13.5	UQ
71-55-6	1,1,1-Trichloroethane		1.22	13.5	UQ
79-01-6	Trichloroethene		1.15	13.5	UQ
75-69-4	Trichlorofluoromethane		1.29	13.5	UQ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		2.26	13.5	UQ
75-01-4	Vinyl chloride		1.49	13.5	UQ
1330-20-7	Xylenes (total)	4.68 J	0.948	13.5	JQ

SSL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	40.64	30.05	73.9	85 - 120	*
Dibromofluoromethane	40.64	45.25	111	80 - 125	
1,2-Dichloroethane-d4	40.64	47.65	117	75 - 140	
Toluene-d8	40.64	55.52	137	85 - 115	*

exclude

MW 7/26/10

36RE

ANALYSIS DATA SHEET

MR21-SS33-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-36RE1	File ID:	0306636.D
Sampled:	03/04/10 09:20	Prepared:	03/11/10 09:58	Analyzed:	03/11/10 14:22
Solids:	76.73	Preparation:	5035	Dilution:	1
Batch:	0C11006	Sequence: 0C07103	Calibration:	0057001	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
67-64-1	Acetone	201 J	2.74	13.7	~~Q~~	CC
71-43-2	Benzene	UJ	0.645	13.7	UQ	SSL
75-27-4	Bromodichloromethane		0.412	13.7	UQ	
75-25-2	Bromoform		1.37	13.7	UQ	
74-83-9	Bromomethane		0.988	13.7	UQ	
78-93-3	2-Butanone		1.92	13.7	UQ	
75-15-0	Carbon disulfide		1.78	13.7	UQ	
56-23-5	Carbon tetrachloride		1.21	13.7	UQ	
108-90-7	Chlorobenzene		0.466	13.7	UQ	
75-00-3	Chloroethane		1.51	13.7	UQ	
67-66-3	Chloroform		0.755	13.7	UQ	
74-87-3	Chloromethane		0.713	13.7	UQ	
110-82-7	Cyclohexane		0.741	13.7	UQ	
124-48-1	Dibromochloromethane		0.466	13.7	UQ	
96-12-8	1,2-Dibromo-3-chloropropane		1.65	6.86	UQ	
106-93-4	1,2-Dibromoethane (EDB)		0.590	13.7	UQ	
95-50-1	1,2-Dichlorobenzene		0.508	13.7	UQ	
541-73-1	1,3-Dichlorobenzene		1.15	13.7	UQ	
106-46-7	1,4-Dichlorobenzene		0.755	13.7	UQ	
75-71-8	Dichlorodifluoromethane		1.51	13.7	UQ	
75-34-3	1,1-Dichloroethane		0.741	13.7	UQ	
107-06-2	1,2-Dichloroethane		0.631	13.7	UQ	
75-35-4	1,1-Dichloroethene		1.65	13.7	UQ	
156-59-4	cis-1,2-Dichloroethene		1.65	13.7	UQ	
156-60-5	trans-1,2-Dichloroethene		1.51	13.7	UQ	
78-87-5	1,2-Dichloropropane		0.631	13.7	UQ	
10061-01-5	cis-1,3-Dichloropropene		0.686	13.7	UQ	
10061-02-6	trans-1,3-Dichloropropene		0.439	13.7	UQ	
100-41-4	Ethylbenzene	1.18 J	1.03	13.7	JQ	
591-78-6	2-Hexanone	UJ	3.16	13.7	UQ	
98-82-8	Isopropylbenzene	UJ	1.21	13.7	UQ	SSL
75-09-2	Methylene chloride	13.7 ~~5.43~~ UJ	0.851	13.7	~~JQB~~	~~MBL~~
76-20-9	Methyl Acetate	5.59 J	2.20	13.7	JQ	SSL
108-87-2	Methylcyclohexane	UJ	0.412	13.7	UQ	
108-10-1	4-Methyl-2-pentanone		0.796	13.7	UQ	
1634-04-4	Methyl t-Butyl Ether		0.439	13.7	UQ	
100-42-5	Styrene		0.480	13.7	UQ	
79-34-5	1,1,2,2-Tetrachloroethane		0.590	13.7	UQ	
127-18-4	Tetrachloroethene		1.33	13.7	UQ	
108-88-3	Toluene	5.04 J	1.18	13.7	JQ	

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36RE

ANALYSIS DATA SHEET

MR21-SS33-10A

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Soil	Laboratory ID:	1003066-36RE1	File ID:	0306636.D
Sampled:	03/04/10 09:20	Prepared:	03/11/10 09:58	Analyzed:	03/11/10 14:22
Solids:	76.73	Preparation:	5035	Dilution:	1
Batch:	0C11006	Sequence: 0C07103	Calibration:	0057001	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene	WJ	0.247	13.7	UQ
79-00-5	1,1,2-Trichloroethane		0.480	13.7	UQ
71-55-6	1,1,1-Trichloroethane		1.23	13.7	UQ
79-01-6	Trichloroethene		1.17	13.7	UQ
75-69-4	Trichlorofluoromethane		1.30	13.7	UQ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		2.29	13.7	UQ
75-01-4	Vinyl chloride		1.51	13.7	UQ
1330-20-7	Xylenes (total)	4.85 J	0.960	13.7	JQ

SSL

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	41.16	30.54	74.2	85 - 120	*
Dibromofluoromethane	41.16	45.91	112	80 - 125	
1,2-Dichloroethane-d4	41.16	46.87	114	75 - 140	
Toluene-d8	41.16	56.03	136	85 - 115	*

kw 7/26/10

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ANALYSIS DATA SHEET

MR21-TB-030410

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1003066-37	File ID:	0306637.D
Sampled:	03/04/10 12:15	Prepared:	03/07/10 00:00	Analyzed:	03/08/10 01:34
Solids:		Preparation:	5030B	Dilution:	1

Batch: 0C07002 Sequence: 0C06705 Calibration: 0061001 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
67-64-1	Acetone	R	1.80	5.00	~~U~~ CC
71-43-2	Benzene		0.140	1.00	U
75-27-4	Bromodichloromethane		0.180	1.00	U
75-25-2	Bromoform		0.500	1.50	U
74-83-9	Bromomethane		0.320	1.00	U
78-93-3	2-Butanone		1.60	5.00	U
75-15-0	Carbon disulfide		0.260	1.00	U
56-23-5	Carbon tetrachloride		0.240	1.00	U
108-90-7	Chlorobenzene		0.210	1.00	U
75-00-3	Chloroethane		0.270	1.00	U
67-66-3	Chloroform		0.230	1.00	U
74-87-3	Chloromethane		0.360	1.00	U
110-82-7	Cyclohexane		0.200	1.00	U
124-48-1	Dibromochloromethane		0.180	1.00	U
96-12-8	1,2-Dibromo-3-chloropropane		0.550	1.50	U
106-93-4	1,2-Dibromoethane (EDB)		0.240	1.00	U
95-50-1	1,2-Dichlorobenzene		0.160	1.00	U
541-73-1	1,3-Dichlorobenzene		0.250	1.00	U
106-46-7	1,4-Dichlorobenzene		0.250	1.00	U
75-71-8	Dichlorodifluoromethane		0.260	1.00	U
75-34-3	1,1-Dichloroethane		0.240	1.00	U
107-06-2	1,2-Dichloroethane		0.220	1.00	U
75-35-4	1,1-Dichloroethene		0.280	1.00	U
156-59-4	cis-1,2-Dichloroethene		0.450	1.50	U
156-60-5	trans-1,2-Dichloroethene		0.530	1.50	U
78-87-5	1,2-Dichloropropane		0.270	1.00	U
10061-01-5	cis-1,3-Dichloropropene		0.150	1.00	U
10061-02-6	trans-1,3-Dichloropropene		0.170	1.00	U
100-41-4	Ethylbenzene		0.150	1.00	U
591-78-6	2-Hexanone		0.500	5.00	U
98-82-8	Isopropylbenzene		0.150	1.00	U
75-09-2	Methylene chloride		0.270	2.00	U
76-20-9	Methyl Acetate		0.590	2.00	U
108-87-2	Methylcyclohexane		0.180	1.00	U
108-10-1	4-Methyl-2-pentanone		0.500	5.00	U
1634-04-4	Methyl t-Butyl Ether		0.250	1.00	U
100-42-5	Styrene		0.240	1.00	U
79-34-5	1,1,2,2-Tetrachloroethane		0.230	1.00	U
127-18-4	Tetrachloroethene		0.170	1.00	U
108-88-3	Toluene		0.190	1.00	U

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ANALYSIS DATA SHEET

MR21-TB-030410

Laboratory:	Empirical Laboratories, LLC		SDG:		
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1003066-37	File ID:	0306637.D
Sampled:	03/04/10 12:15	Prepared:	03/07/10 00:00	Analyzed:	03/08/10 01:34
Solids:		Preparation:	5030B	Dilution:	1

Batch: 0C07002 Sequence: 0C06705 Calibration: 0061001 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene		0.280	1.00	U
79-00-5	1,1,2-Trichloroethane		0.260	1.00	U
71-55-6	1,1,1-Trichloroethane		0.290	1.00	U
79-01-6	Trichloroethene		0.500	1.50	U
75-69-4	Trichlorofluoromethane		0.250	1.00	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.330	1.00	U
75-01-4	Vinyl chloride		0.200	2.00	U
1330-20-7	Xylenes (total)		0.220	1.00	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	30.00	29.80	99.3	75 - 120	
Dibromofluoromethane	30.00	32.85	110	85 - 115	
1,2-Dichloroethane-d4	30.00	32.72	109	70 - 120	
Toluene-d8	30.00	30.84	103	85 - 120	

MW 7/26/10

ENVIRONMENTAL
Data Services, Inc.

EXPLOSIVES

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Area Gas Chamber, CTO-040 SDG #: 1004089

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: July 23, 2010

Laboratory: Empirical Laboratories, Nashville, Tennessee Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR21-SW01D-10B	1004089-02	Water
2	MR21-EB0401110-SS	1004089-03	Water
3	MR21-SW01-10B	1004089-04	Water
4	MR21-SW02-10B	1004089-05	Water
5	MR21-SW05-10B	1004089-06	Water
6	MR21-SW06-10B	1004089-07	Water
7	MR21-SW03-10B	1004089-08	Water
8	MR21-GW02-10B	1004089-09	Water
9	MR21-SW04-10B	1004089-10	Water
9MS	MR21-SW04-10BMS	1004089-10MS	Water
9MSD	MR21-SW04-10BMSD	1004089-10MSD	Water
10	MR21-GW04-10B	1004089-11	Water
10MS	MR21-GW04-10BMS	1004089-11MS	Water
11MSD	MR21-GW04-10BMSD	1004089-11MSD	Water
11	MR21-GW03-10B	1004089-12	Water
12	MR21-GW05-10B	1004089-13	Water
13	MR21-GW01-10B	1004089-14	Water
14	MR21-GW01D-10B	1004089-15	Water
15	MR21-GW10-10B	1004089-16	Water
16	MR21-GW06-10B	1004089-17	Water
17	MR21-GW09-10B	1004089-18	Water
18	MR21-GW07-10B	1004089-19	Water
19	MR21-EB041010-GW	1004089-20	Water
20	MR21-GW08-10B	1004089-21	Water
21	MR21-FB041010	1004089-22	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 extracted within 7 days for water 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
10	HMX	Ok/76.9%/Ok	None - See LCS

Laboratory Control Sample - The LCS samples exhibited acceptable %R values except the following.

LCS ID	Compound	%R	Qualifier	Affected Samples
0D14012-BS1	HMX	78.6%	J/UJ	1, 3-20

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
MR21-EB041010-GW	1,3,5-Trinitrobenzene	0.247	1.235	None	All ND
	2,4,6-Trinitrotoluene	0.156	0.78	U	1, 3-6, 14, 15
	2,4-Dinitrotoluene	0.594	2.97	U	3, 10, 11, 15
	2-Amino-4,6-dinitrotoluene	0.188	0.94	U	1
	2-Nitrotoluene	0.517	2.585	None	All ND
	3-Nitrotoluene	0.709	3.545	U	8, 13, 14, 17, 18
	4-Amino-2,6-dinitrotoluene	0.284	1.42	U	1, 4
	4-Nitrotoluene	0.123	0.615	None	All ND
	Nitrobenzene	0.166	0.83	U	1, 18
	RDX	0.561	2.805	U	3, 4, 6-8, 12, 13, 16
	Tetryl	0.473	2.365	U	13
MR21-FB041010	1,3-Dinitrobenzene	0.222	1.11	U	10, 15, 18, 20
	2,4,6-Trinitrotoluene	0.115	0.575	None	See EB
	2,4-Dinitrotoluene	0.588	2.94	None	See EB
	2,6-Dinitrotoluene	0.145	0.725	None	All ND

MR21-FB041010	2-Amino-4,6-dinitrotoluene	0.108	0.54	None	See EB
	2-Nitrotoluene	59.0	295	U	8, 10, 12, 13, 15, 18
	3-Nitrotoluene	0.175	0.875	None	See EB
	Tetryl	0.330	1.65	None	See EB
MR21-EB041110-SS	2,4,6-Trinitrotoluene	0.142	0.71	None	Applies to 1004092 samples
	2,4-Dinitrotoluene	0.306	1.53		
	2,6-Dinitrotoluene	0.0805	0.4025		
	2-Amino-4,6-dinitrotoluene	0.100	0.500		
	2-Nitrotoluene	0.306	1.53		
	3-Nitrotoluene	0.494	2.47		
	4-Amino-2,6-dinitrotoluene	0.104	0.52		
	HMX	0.116	0.58		

Field Duplicates - Field duplicate results are summarized below.

Compound	MR21-SW01-10B ug/L	MR21-SW01D-10B ug/L	RPD	Qualifier
None	ND	ND	-	-

Compound	MR21-GW01-10B ug/L	MR21-GW01D-10B ug/L	RPD	Qualifier
None	ND	ND	-	-

Compound Identification - Retention times were acceptable and no further action was taken.

Compound Quantitation - Several samples exhibited results with high %D values between columns and have been flagged (P) by the laboratory and further qualified (J).

ANALYSIS DATA SHEET

MR21-SW01D-10B

1

Laboratory:	Empirical Laboratories, LLC			SDG:	1004089
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-02	File ID:	149V5101.D
Sampled:	04/11/10 09:05	Prepared:	04/14/10 12:30	Analyzed:	04/17/10 20:39
Solids:		Preparation:	EXT_EXPL_W	Dilution:	1

Batch: 0D14012 Sequence: 0D10913 Calibration: 0108001 Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
99-35-4	1,3,5-Trinitrobenzene		0.0800	0.240	U
99-65-0	1,3-Dinitrobenzene		0.0800	0.240	U
118-96-7	2,4,6-Trinitrotoluene	0.240 ~~0.114~~ U	0.0800	0.240	~~J~~ ~~2C~~ EBL
121-14-2	2,4-Dinitrotoluene		0.0800	0.240	U
606-20-2	2,6-Dinitrotoluene		0.0800	0.240	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.240 ~~0.163~~ U	0.0800	0.240	~~JPM~~ ~~J~~ ~~2C~~ EBL
88-72-2	2-Nitrotoluene		0.0800	0.240	U
99-08-1	3-Nitrotoluene		0.0800	0.240	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.240 ~~0.0889~~ U	0.0800	0.240	~~JPM~~ ~~J~~ ~~2C~~ EBL
99-99-0	4-Nitrotoluene		0.0800	0.240	U
2691-41-0	HMX		0.0800	0.240	~~UJ~~ UJ BSL
98-95-3	Nitrobenzene	0.240 ~~0.104~~ U	0.0800	0.240	~~JPM~~ ~~J~~ ~~2C~~ EBL
78-11-5	PETN		0.400	1.20	U
121-82-4	RDX		0.0800	0.240	U
479-45-8	Tetryl		0.0800	0.240	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	2.000	2.297	115	40 - 145	
1-Chloro-3-nitrobenzene [2C]	2.000	2.173	109	40 - 145	

* Values outside of QC limits

RW 7/23/10

ANALYSIS DATA SHEET

MR21-EB0401110-SS 2

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-03	File ID:	150V5201.D
Sampled:	04/11/10 10:40	Prepared:	04/14/10 12:30	Analyzed:	04/17/10 21:11
Solids:		Preparation:	EXT_EXPL_W	Dilution:	1

Batch: 0D14012 Sequence: 0D10913 Calibration: 0108001 Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
99-35-4	1,3,5-Trinitrobenzene		0.0784	0.235	U
99-65-0	1,3-Dinitrobenzene		0.0784	0.235	U
118-96-7	2,4,6-Trinitrotoluene	0.142	0.0784	0.235	~~JP~~ J 2C
121-14-2	2,4-Dinitrotoluene	0.306	0.0784	0.235	~~PM~~ J 2C
606-20-2	2,6-Dinitrotoluene	0.0805	0.0784	0.235	J
35572-78-2	2-Amino-4,6-dinitrotoluene	0.100	0.0784	0.235	~~JPM~~ J 2C
88-72-2	2-Nitrotoluene [2C]	0.306	0.0784	0.235	~~PM~~
99-08-1	3-Nitrotoluene [2C]	0.494	0.0784	0.235	~~PM~~
19406-51-0	4-Amino-2,6-dinitrotoluene	0.104	0.0784	0.235	~~JPM~~
99-99-0	4-Nitrotoluene		0.0784	0.235	U
2691-41-0	HMX	0.116	0.0784	0.235	~~JPO~~ J 2C
98-95-3	Nitrobenzene		0.0784	0.235	U
78-11-5	PETN		0.392	1.18	U
121-82-4	RDX		0.0784	0.235	U
479-45-8	Tetryl		0.0784	0.235	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	1.961	1.810	92.3	40 - 145	
1-Chloro-3-nitrobenzene [2C]	1.961	1.591	81.2	40 - 145	

* Values outside of QC limits

NW 7/23/10

ANALYSIS DATA SHEET

MR21-SW01-10B 3

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-04	File ID:	151V5301.D
Sampled:	04/11/10 09:00	Prepared:	04/14/10 12:30	Analyzed:	04/17/10 21:43
Solids:		Preparation:	EXT_EXPL_W	Dilution:	1

Batch: 0D14012 Sequence: 0D10913 Calibration: 0108001 Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
99-35-4	1,3,5-Trinitrobenzene		0.0755	0.226	U
99-65-0	1,3-Dinitrobenzene		0.0755	0.226	U
118-96-7	2,4,6-Trinitrotoluene	0.226 ~~0.140~~ U	0.0755	0.226	~~J~~ EBL
121-14-2	2,4-Dinitrotoluene	0.226 ~~0.0891~~ U	0.0755	0.226	~~JPM~~ ~~J~~ ~~26~~ EBL
606-20-2	2,6-Dinitrotoluene		0.0755	0.226	U
35572-78-2	2-Amino-4,6-dinitrotoluene		0.0755	0.226	U
88-72-2	2-Nitrotoluene		0.0755	0.226	U
99-08-1	3-Nitrotoluene		0.0755	0.226	U
19406-51-0	4-Amino-2,6-dinitrotoluene		0.0755	0.226	U
99-99-0	4-Nitrotoluene		0.0755	0.226	U
2691-41-0	HMX		0.0755	0.226	~~UO~~ UJ BSL
98-95-3	Nitrobenzene		0.0755	0.226	U
78-11-5	PETN		0.377	1.13	U
121-82-4	RDX	0.249 U	0.0755	0.226	~~P~~ ~~J~~ ~~26~~ EBL
479-45-8	Tetryl		0.0755	0.226	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	1.887	1.620	85.8	40 - 145	
1-Chloro-3-nitrobenzene [2C]	1.887	1.645	87.2	40 - 145	

* Values outside of QC limits

MW 7/23/10

ANALYSIS DATA SHEET

MR21-SW02-10B 4

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-05	File ID:	152V5401.D
Sampled:	04/11/10 09:20	Prepared:	04/14/10 12:30	Analyzed:	04/17/10 22:15
Solids:		Preparation:	EXT_EXPL_W	Dilution:	1
Batch:	0D14012	Sequence: 0D10913	Calibration:	0108001	Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
99-35-4	1,3,5-Trinitrobenzene		0.0800	0.240	U
99-65-0	1,3-Dinitrobenzene		0.0800	0.240	U
118-96-7	2,4,6-Trinitrotoluene	0.252 u	0.0800	0.240	EBL
121-14-2	2,4-Dinitrotoluene		0.0800	0.240	U
606-20-2	2,6-Dinitrotoluene		0.0800	0.240	U
35572-78-2	2-Amino-4,6-dinitrotoluene		0.0800	0.240	U
88-72-2	2-Nitrotoluene		0.0800	0.240	U
99-08-1	3-Nitrotoluene		0.0800	0.240	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.240 ~~0.209~~ u	0.0800	0.240	~~J~~ EBL
99-99-0	4-Nitrotoluene		0.0800	0.240	U
2691-41-0	HMX		0.0800	0.240	~~UJ~~ UJ BSL
98-95-3	Nitrobenzene		0.0800	0.240	U
78-11-5	PETN		0.400	1.20	U
121-82-4	RDX	0.620 u	0.0800	0.240	~~P~~ J ~~2C~~ EBL
479-45-8	Tetryl		0.0800	0.240	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	2.000	1.758	87.9	40 - 145	
1-Chloro-3-nitrobenzene [2C]	2.000	1.683	84.2	40 - 145	

* Values outside of QC limits

hw 7/23/10

ANALYSIS DATA SHEET

MR21-SW05-10B 5

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-06	File ID:	153V5501.D
Sampled:	04/11/10 10:10	Prepared:	04/14/10 12:30	Analyzed:	04/17/10 22:47
Solids:		Preparation:	EXT_EXPL_W	Dilution:	1

Batch: 0D14012 Sequence: 0D10913 Calibration: 0108001 Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
99-35-4	1,3,5-Trinitrobenzene		0.0784	0.235	U
99-65-0	1,3-Dinitrobenzene		0.0784	0.235	U
118-96-7	2,4,6-Trinitrotoluene	0.235 ~~0.104~~ u	0.0784	0.235	~~J~~ ~~26~~ EBL
121-14-2	2,4-Dinitrotoluene		0.0784	0.235	U
606-20-2	2,6-Dinitrotoluene		0.0784	0.235	U
35572-78-2	2-Amino-4,6-dinitrotoluene		0.0784	0.235	U
88-72-2	2-Nitrotoluene		0.0784	0.235	U
99-08-1	3-Nitrotoluene		0.0784	0.235	U
19406-51-0	4-Amino-2,6-dinitrotoluene		0.0784	0.235	U
99-99-0	4-Nitrotoluene		0.0784	0.235	U
2691-41-0	HMX		0.0784	0.235	~~UO~~ UJ BSL
98-95-3	Nitrobenzene		0.0784	0.235	U
78-11-5	PETN		0.392	1.18	U
121-82-4	RDX		0.0784	0.235	U
479-45-8	Tetryl		0.0784	0.235	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	1.961	1.550	79.1	40 - 145	
1-Chloro-3-nitrobenzene [2C]	1.961	1.494	76.2	40 - 145	

* Values outside of QC limits

AW 7/23/10

ANALYSIS DATA SHEET

MR21-SW06-10B 6

Laboratory:	Empirical Laboratories, LLC			SDG:	1004089
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-07	File ID:	155V5701.D
Sampled:	04/11/10 10:30	Prepared:	04/14/10 12:30	Analyzed:	04/17/10 23:51
Solids:		Preparation:	EXT_EXPL_W	Dilution:	1

Batch: 0D14012 Sequence: 0D10913 Calibration: 0108001 Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
99-35-4	1,3,5-Trinitrobenzene		0.0755	0.226	U
99-65-0	1,3-Dinitrobenzene		0.0755	0.226	U
118-96-7	2,4,6-Trinitrotoluene	0.226 ~~0.122~~ u	0.0755	0.226	~~J~~ EBL
121-14-2	2,4-Dinitrotoluene		0.0755	0.226	U
606-20-2	2,6-Dinitrotoluene		0.0755	0.226	U
35572-78-2	2-Amino-4,6-dinitrotoluene		0.0755	0.226	U
88-72-2	2-Nitrotoluene		0.0755	0.226	U
99-08-1	3-Nitrotoluene		0.0755	0.226	U
19406-51-0	4-Amino-2,6-dinitrotoluene		0.0755	0.226	U
99-99-0	4-Nitrotoluene		0.0755	0.226	U
2691-41-0	HMX		0.0755	0.226	~~UJ~~ U1 BSL
98-95-3	Nitrobenzene		0.0755	0.226	U
78-11-5	PETN		0.377	1.13	U
121-82-4	RDX	0.293 ~~0.293~~ u	0.0755	0.226	~~J~~ ~~J~~ ~~26~~ EBL
479-45-8	Tetryl		0.0755	0.226	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	1.887	1.615	85.6	40 - 145	
1-Chloro-3-nitrobenzene [2C]	1.887	1.738	92.1	40 - 145	

* Values outside of QC limits

nw 7/23/10

ANALYSIS DATA SHEET

MR21-SW03-10B 7

Laboratory:	Empirical Laboratories, LLC			SDG:	1004089
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-08	File ID:	156V5801.D
Sampled:	04/11/10 09:40	Prepared:	04/14/10 12:30	Analyzed:	04/18/10 00:24
Solids:		Preparation:	EXT_EXPL_W	Dilution:	1

Batch: 0D14012 Sequence: 0D10913 Calibration: 0108001 Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
99-35-4	1,3,5-Trinitrobenzene		0.0800	0.240	U
99-65-0	1,3-Dinitrobenzene		0.0800	0.240	U
118-96-7	2,4,6-Trinitrotoluene		0.0800	0.240	U
121-14-2	2,4-Dinitrotoluene		0.0800	0.240	U
606-20-2	2,6-Dinitrotoluene		0.0800	0.240	U
35572-78-2	2-Amino-4,6-dinitrotoluene		0.0800	0.240	U
88-72-2	2-Nitrotoluene		0.0800	0.240	U
99-08-1	3-Nitrotoluene		0.0800	0.240	U
19406-51-0	4-Amino-2,6-dinitrotoluene		0.0800	0.240	U
99-99-0	4-Nitrotoluene		0.0800	0.240	U
2691-41-0	HMX		0.0800	0.240	~~U~~ UJ BSL
98-95-3	Nitrobenzene		0.0800	0.240	U
78-11-5	PETN		0.400	1.20	U
121-82-4	RDX	0.391 u	0.0800	0.240	~~J~~ ~~2G~~ EBL
479-45-8	Tetryl		0.0800	0.240	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	2.000	1.773	88.6	40 - 145	
1-Chloro-3-nitrobenzene [2C]	2.000	1.704	85.2	40 - 145	

* Values outside of QC limits

MW 7/23/10

ANALYSIS DATA SHEET

MR21-GW02-10B 8

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-09	File ID:	157V5901.D
Sampled:	04/10/10 18:35	Prepared:	04/14/10 12:30	Analyzed:	04/18/10 00:56
Solids:		Preparation:	EXT_EXPL_W	Dilution:	1

Batch: 0D14012 Sequence: 0D10913 Calibration: 0108001 Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
99-35-4	1,3,5-Trinitrobenzene		0.0800	0.240	U
99-65-0	1,3-Dinitrobenzene		0.0800	0.240	U
118-96-7	2,4,6-Trinitrotoluene		0.0800	0.240	U
121-14-2	2,4-Dinitrotoluene		0.0800	0.240	U
606-20-2	2,6-Dinitrotoluene		0.0800	0.240	U
35572-78-2	2-Amino-4,6-dinitrotoluene		0.0800	0.240	U
88-72-2	2-Nitrotoluene	0.240 ~~0.0872~~ U	0.0800	0.240	~~J~~ FB L
99-08-1	3-Nitrotoluene	0.240 ~~0.0947~~ U	0.0800	0.240	~~IPM~~ ~~J 26~~ EBL
19406-51-0	4-Amino-2,6-dinitrotoluene		0.0800	0.240	U
99-99-0	4-Nitrotoluene		0.0800	0.240	U
2691-41-0	HMX		0.0800	0.240	~~UO~~ UJ BSL
98-95-3	Nitrobenzene		0.0800	0.240	U
78-11-5	PETN		0.400	1.20	U
121-82-4	RDX	0.324 U	0.0800	0.240	~~J~~ ~~J 26~~
479-45-8	Tetryl		0.0800	0.240	U EBL

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	2.000	1.887	94.4	40 - 145	
1-Chloro-3-nitrobenzene [2C]	2.000	1.656	82.8	40 - 145	

* Values outside of QC limits

KW 7/23/10

ANALYSIS DATA SHEET

MR21-SW04-10B 9

Laboratory:	Empirical Laboratories, LLC			SDG:	1004089
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-10	File ID:	158V6001.D
Sampled:	04/11/10 09:50	Prepared:	04/14/10 12:30	Analyzed:	04/18/10 01:28
Solids:		Preparation:	EXT_EXPL_W	Dilution:	1

Batch: 0D14012 Sequence: 0D10913 Calibration: 0108001 Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
99-35-4	1,3,5-Trinitrobenzene		0.0755	0.226	U
99-65-0	1,3-Dinitrobenzene		0.0755	0.226	U
118-96-7	2,4,6-Trinitrotoluene		0.0755	0.226	U
121-14-2	2,4-Dinitrotoluene		0.0755	0.226	U
606-20-2	2,6-Dinitrotoluene		0.0755	0.226	U
35572-78-2	2-Amino-4,6-dinitrotoluene		0.0755	0.226	U
88-72-2	2-Nitrotoluene		0.0755	0.226	U
99-08-1	3-Nitrotoluene		0.0755	0.226	U
19406-51-0	4-Amino-2,6-dinitrotoluene		0.0755	0.226	U
99-99-0	4-Nitrotoluene		0.0755	0.226	U
2691-41-0	HMX		0.0755	0.226	~~UJ~~ UJ BSL
98-95-3	Nitrobenzene		0.0755	0.226	U
78-11-5	PETN		0.377	1.13	U
121-82-4	RDX		0.0755	0.226	U
479-45-8	Tetryl		0.0755	0.226	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	1.887	1.687	89.4	40 - 145	
1-Chloro-3-nitrobenzene [2C]	1.887	1.701	90.1	40 - 145	

* Values outside of QC limits

NW 7/23/10

ANALYSIS DATA SHEET

MR21-GW04-10B 10

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-11	File ID:	159V6101.D
Sampled:	04/10/10 14:55	Prepared:	04/14/10 12:30	Analyzed:	04/18/10 02:00
Solids:		Preparation:	EXT_EXPL_W	Dilution:	1

Batch: 0D14012 Sequence: 0D10913 Calibration: 0108001 Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
99-35-4	1,3,5-Trinitrobenzene		0.0800	0.240	U
99-65-0	1,3-Dinitrobenzene	0.240 ~~0.134~~ U	0.0800	0.240	~~Y~~ ~~J~~ ~~26~~ FBL
118-96-7	2,4,6-Trinitrotoluene		0.0800	0.240	U
121-14-2	2,4-Dinitrotoluene	0.240 ~~0.143~~ U	0.0800	0.240	~~Y~~ ~~J~~ ~~26~~ EBL
606-20-2	2,6-Dinitrotoluene		0.0800	0.240	U
35572-78-2	2-Amino-4,6-dinitrotoluene		0.0800	0.240	U
88-72-2	2-Nitrotoluene	0.240 ~~0.0892~~ U	0.0800	0.240	~~Y~~ ~~J~~ ~~2C~~ FBL
99-08-1	3-Nitrotoluene		0.0800	0.240	U
19406-51-0	4-Amino-2,6-dinitrotoluene		0.0800	0.240	U
99-99-0	4-Nitrotoluene		0.0800	0.240	U
2691-41-0	HMX	UJ	0.0800	0.240	~~UQ.R~~ BSL
98-95-3	Nitrobenzene		0.0800	0.240	U
78-11-5	PETN		0.400	1.20	U
121-82-4	RDX		0.0800	0.240	U
479-45-8	Tetryl		0.0800	0.240	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	2.000	1.921	96.1	40 - 145	
1-Chloro-3-nitrobenzene [2C]	2.000	1.760	88.0	40 - 145	

* Values outside of QC limits

MW 7/23/10

ANALYSIS DATA SHEET

MR21-GW03-10B 11

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-12	File ID:	160V6201.D
Sampled:	04/10/10 15:30	Prepared:	04/14/10 12:30	Analyzed:	04/18/10 02:32
Solids:		Preparation:	EXT_EXPL_W	Dilution:	1

Batch: 0D14012 Sequence: 0D10913 Calibration: 0108001 Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
99-35-4	1,3,5-Trinitrobenzene		0.0784	0.235	U
99-65-0	1,3-Dinitrobenzene		0.0784	0.235	U
118-96-7	2,4,6-Trinitrotoluene		0.0784	0.235	U
121-14-2	2,4-Dinitrotoluene	0.235 ~~0.0861~~ u	0.0784	0.235	~~U~~ ~~J~~ ~~2E~~ EBL
606-20-2	2,6-Dinitrotoluene		0.0784	0.235	U
35572-78-2	2-Amino-4,6-dinitrotoluene		0.0784	0.235	U
88-72-2	2-Nitrotoluene		0.0784	0.235	U
99-08-1	3-Nitrotoluene		0.0784	0.235	U
19406-51-0	4-Amino-2,6-dinitrotoluene		0.0784	0.235	U
99-99-0	4-Nitrotoluene		0.0784	0.235	U
2691-41-0	HMX		0.0784	0.235	~~U~~ u J BSL
98-95-3	Nitrobenzene		0.0784	0.235	U
--	--		--		--
78-11-5	PETN		0.392	1.18	U
121-82-4	RDX		0.0784	0.235	U
479-45-8	Tetryl		0.0784	0.235	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	1.961	2.157	110	40 - 145	
1-Chloro-3-nitrobenzene [2C]	1.961	1.948	99.4	40 - 145	

* Values outside of QC limits

MW 7/23/10

ANALYSIS DATA SHEET

MR21-GW05-10B 12

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-13	File ID:	161V6301.D
Sampled:	04/10/10 13:20	Prepared:	04/14/10 12:30	Analyzed:	04/18/10 03:04
Solids:		Preparation:	EXT_EXPL_W	Dilution:	1

Batch: 0D14012 Sequence: 0D10913 Calibration: 0108001 Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
99-35-4	1,3,5-Trinitrobenzene		0.0800	0.240	U
99-65-0	1,3-Dinitrobenzene		0.0800	0.240	U
118-96-7	2,4,6-Trinitrotoluene		0.0800	0.240	U
121-14-2	2,4-Dinitrotoluene		0.0800	0.240	U
606-20-2	2,6-Dinitrotoluene		0.0800	0.240	U
35572-78-2	2-Amino-4,6-dinitrotoluene		0.0800	0.240	U
88-72-2	2-Nitrotoluene	0.280 u	0.0800	0.240	~~P~~ ~~J~~ ~~2C~~ FBL
99-08-1	3-Nitrotoluene		0.0800	0.240	U
19406-51-0	4-Amino-2,6-dinitrotoluene		0.0800	0.240	U
99-99-0	4-Nitrotoluene		0.0800	0.240	U
2691-41-0	HMX		0.0800	0.240	~~UO~~ UJ BJL
98-95-3	Nitrobenzene		0.0800	0.240	U
78-11-5	PETN		0.400	1.20	U
121-82-4	RDX	0.267 u	0.0800	0.240	~~P~~ ~~J~~ ~~2G~~ EBL
479-45-8	Tetryl		0.0800	0.240	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	2.000	1.812	90.6	40 - 145	
1-Chloro-3-nitrobenzene [2C]	2.000	1.742	87.1	40 - 145	

* Values outside of QC limits

hw 7/23/10

ANALYSIS DATA SHEET

MR21-GW01-10B 13

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-14	File ID:	162V6401.D
Sampled:	04/10/10 15:50	Prepared:	04/14/10 12:30	Analyzed:	04/18/10 03:36
Solids:		Preparation:	EXT_EXPL_W	Dilution:	1

Batch: 0D14012 Sequence: 0D10913 Calibration: 0108001 Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
99-35-4	1,3,5-Trinitrobenzene		0.0800	0.240	U
99-65-0	1,3-Dinitrobenzene		0.0800	0.240	U
118-96-7	2,4,6-Trinitrotoluene		0.0800	0.240	U
121-14-2	2,4-Dinitrotoluene		0.0800	0.240	U
606-20-2	2,6-Dinitrotoluene		0.0800	0.240	U
35572-78-2	2-Amino-4,6-dinitrotoluene		0.0800	0.240	U
88-72-2	2-Nitrotoluene	0.240 ~~0.239~~ U	0.0800	0.240	~~Y~~ ~~J~~ ~~26~~ FBL
99-08-1	3-Nitrotoluene	0.593 U	0.0800	0.240	~~P~~ ~~J~~ ~~26~~ EB
19406-51-0	4-Amino-2,6-dinitrotoluene		0.0800	0.240	U
99-99-0	4-Nitrotoluene		0.0800	0.240	U
2691-41-0	HMX		0.0800	0.240	~~UO~~UJ BSL
98-95-3	Nitrobenzene		0.0800	0.240	U
78-11-5	PETN		0.400	1.20	U
121-82-4	RDX	0.381 U	0.0800	0.240	~~P~~ ~~J~~ ~~26~~ EB
479-45-8	Tetryl	0.240 ~~0.0950~~ U	0.0800	0.240	~~JP~~ ~~J~~ ~~26~~ EB

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	2.000	2.344	117	40 - 145	
1-Chloro-3-nitrobenzene [2C]	2.000	2.186	109	40 - 145	

* Values outside of QC limits

NW 7/23/10

ANALYSIS DATA SHEET

MR21-GW01D-10B 14

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-15	File ID:	163V6501.D
Sampled:	04/10/10 15:55	Prepared:	04/14/10 12:30	Analyzed:	04/18/10 04:08
Solids:		Preparation:	EXT_EXPL_W	Dilution:	1

Batch: 0D14012 Sequence: 0D10913 Calibration: 0108001 Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
99-35-4	1,3,5-Trinitrobenzene		0.0748	0.224	U
99-65-0	1,3-Dinitrobenzene		0.0748	0.224	U
118-96-7	2,4,6-Trinitrotoluene	0.224 ~~0.112~~ U	0.0748	0.224	~~J~~ EBL
121-14-2	2,4-Dinitrotoluene		0.0748	0.224	U
606-20-2	2,6-Dinitrotoluene		0.0748	0.224	U
35572-78-2	2-Amino-4,6-dinitrotoluene		0.0748	0.224	U
88-72-2	2-Nitrotoluene		0.0748	0.224	U
99-08-1	3-Nitrotoluene	0.466 U	0.0748	0.224	~~P~~ ~~J~~ EBL 2C
19406-51-0	4-Amino-2,6-dinitrotoluene		0.0748	0.224	U
99-99-0	4-Nitrotoluene		0.0748	0.224	U
2691-41-0	HMX		0.0748	0.224	~~UO~~ UJ BSL
98-95-3	Nitrobenzene		0.0748	0.224	U
					-
78-11-5	PETN		0.374	1.12	U
121-82-4	RDX		0.0748	0.224	U
479-45-8	Tetryl		0.0748	0.224	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	1.869	1.864	99.7	40 - 145	
1-Chloro-3-nitrobenzene [2C]	1.869	1.685	90.1	40 - 145	

* Values outside of QC limits

hw 7/23/10

ANALYSIS DATA SHEET

MR21-GW10-10B 15

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-16	File ID:	164V6601.D
Sampled:	04/10/10 10:10	Prepared:	04/14/10 12:30	Analyzed:	04/18/10 04:41
Solids:		Preparation:	EXT_EXPL_W	Dilution:	1

Batch: 0D14012 Sequence: 0D10913 Calibration: 0108001 Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
99-35-4	1,3,5-Trinitrobenzene		0.0800	0.240	U
99-65-0	1,3-Dinitrobenzene	0.252 u	0.0800	0.240	~~J~~ ~~26~~ FBL
118-96-7	2,4,6-Trinitrotoluene	0.240 ~~0.149~~ u	0.0800	0.240	~~J~~ E BL
121-14-2	2,4-Dinitrotoluene	0.240 ~~0.0960~~ u	0.0800	0.240	~~JP~~ ~~J~~ ~~26~~ E
606-20-2	2,6-Dinitrotoluene		0.0800	0.240	U
35572-78-2	2-Amino-4,6-dinitrotoluene		0.0800	0.240	U
88-72-2	2-Nitrotoluene	0.240 ~~0.127~~ u	0.0800	0.240	~~J~~ ~~J~~ ~~26~~ FBL
99-08-1	3-Nitrotoluene		0.0800	0.240	U
19406-51-0	4-Amino-2,6-dinitrotoluene		0.0800	0.240	U
99-99-0	4-Nitrotoluene		0.0800	0.240	U
2691-41-0	HMX		0.0800	0.240	~~UJ~~ UJ BSL
98-95-3	Nitrobenzene		0.0800	0.240	U
78-11-5	PETN		0.400	1.20	U
121-82-4	RDX		0.0800	0.240	U
479-45-8	Tetryl		0.0800	0.240	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	2.000	1.787	89.4	40 - 145	
1-Chloro-3-nitrobenzene [2C]	2.000	1.712	85.6	40 - 145	

* Values outside of QC limits

NW 7/23/10

ANALYSIS DATA SHEET

MR21-GW06-10B 16

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-17	File ID:	181V8301.D
Sampled:	04/10/10 12:55	Prepared:	04/14/10 12:30	Analyzed:	04/18/10 13:48
Solids:		Preparation:	EXT_EXPL_W	Dilution:	1

Batch: 0D14012 Sequence: 0D10913 Calibration: 0108001 Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
99-35-4	1,3,5-Trinitrobenzene		0.0800	0.240	U
99-65-0	1,3-Dinitrobenzene		0.0800	0.240	U
118-96-7	2,4,6-Trinitrotoluene		0.0800	0.240	U
121-14-2	2,4-Dinitrotoluene		0.0800	0.240	U
606-20-2	2,6-Dinitrotoluene		0.0800	0.240	U
35572-78-2	2-Amino-4,6-dinitrotoluene		0.0800	0.240	U
88-72-2	2-Nitrotoluene		0.0800	0.240	U
99-08-1	3-Nitrotoluene		0.0800	0.240	U
19406-51-0	4-Amino-2,6-dinitrotoluene		0.0800	0.240	U
99-99-0	4-Nitrotoluene		0.0800	0.240	U
2691-41-0	HMX		0.0800	0.240	~~UO~~ UJ BSL
98-95-3	Nitrobenzene		0.0800	0.240	U
78-11-5	PETN		0.400	1.20	U
121-82-4	RDX	0.241 U	0.0800	0.240	~~U~~ ~~J~~ ~~26~~ EBI
479-45-8	Tetryl		0.0800	0.240	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	2.000	1.835	91.8	40 - 145	
1-Chloro-3-nitrobenzene [2C]	2.000	1.690	84.5	40 - 145	

* Values outside of QC limits

MW 7/23/10

ANALYSIS DATA SHEET

MR21-GW09-10B 17

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-18	File ID:	182V8401.D
Sampled:	04/10/10 12:15	Prepared:	04/14/10 12:30	Analyzed:	04/18/10 14:20
Solids:		Preparation:	EXT_EXPL_W	Dilution:	1

Batch: 0D14012 Sequence: 0D10913 Calibration: 0108001 Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
99-35-4	1,3,5-Trinitrobenzene		0.0800	0.240	U
99-65-0	1,3-Dinitrobenzene		0.0800	0.240	U
118-96-7	2,4,6-Trinitrotoluene		0.0800	0.240	U
121-14-2	2,4-Dinitrotoluene		0.0800	0.240	U
606-20-2	2,6-Dinitrotoluene		0.0800	0.240	U
35572-78-2	2-Amino-4,6-dinitrotoluene		0.0800	0.240	U
88-72-2	2-Nitrotoluene		0.0800	0.240	U
99-08-1	3-Nitrotoluene	0.240 ~~0.127~~ u	0.0800	0.240	~~IPM~~ J ~~26~~ EBL
19406-51-0	4-Amino-2,6-dinitrotoluene		0.0800	0.240	U
99-99-0	4-Nitrotoluene		0.0800	0.240	U
2691-41-0	HMX		0.0800	0.240	~~UO~~ UJ BSL
98-95-3	Nitrobenzene		0.0800	0.240	U
78-11-5	PETN		0.400	1.20	U
121-82-4	RDX		0.0800	0.240	U
479-45-8	Tetryl		0.0800	0.240	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	2.000	1.767	88.4	40 - 145	
1-Chloro-3-nitrobenzene [2C]	2.000	1.695	84.8	40 - 145	

* Values outside of QC limits

NW 7/23/10

ANALYSIS DATA SHEET

MR21-GW07-10B

18

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-19	File ID:	183V8501.D
Sampled:	04/10/10 10:25	Prepared:	04/14/10 12:30	Analyzed:	04/18/10 14:52
Solids:		Preparation:	EXT_EXPL_W	Dilution:	1

Batch: 0D14012 Sequence: 0D10913 Calibration: 0108001 Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
99-35-4	1,3,5-Trinitrobenzene		0.0784	0.235	U
99-65-0	1,3-Dinitrobenzene	0.235 ~~0.153~~ U	0.0784	0.235	~~J~~ ~~J~~ ~~2C~~ FBL
118-96-7	2,4,6-Trinitrotoluene		0.0784	0.235	U
121-14-2	2,4-Dinitrotoluene		0.0784	0.235	U
606-20-2	2,6-Dinitrotoluene		0.0784	0.235	U
35572-78-2	2-Amino-4,6-dinitrotoluene		0.0784	0.235	U
88-72-2	2-Nitrotoluene	0.235 ~~0.195~~ U	0.0784	0.235	~~J~~ FB L
99-08-1	3-Nitrotoluene	0.235 ~~0.198~~ U	0.0784	0.235	~~JPM~~ ~~J~~ ~~2C~~
19406-51-0	4-Amino-2,6-dinitrotoluene		0.0784	0.235	U EBL
99-99-0	4-Nitrotoluene		0.0784	0.235	U
2691-41-0	HMX		0.0784	0.235	~~UO~~ UJ BSL
98-95-3	Nitrobenzene	0.235 ~~0.131~~ U	0.0784	0.235	~~J~~ EB L
78-11-5	PETN		0.392	1.18	U
121-82-4	RDX		0.0784	0.235	U
479-45-8	Tetryl		0.0784	0.235	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	1.961	1.826	93.1	40 - 145	
1-Chloro-3-nitrobenzene [2C]	1.961	1.820	92.8	40 - 145	

* Values outside of QC limits

MW 7/23/10

ANALYSIS DATA SHEET

MR21-EB041010-GW

14

Laboratory:	Empirical Laboratories, LLC			SDG:	1004089
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-20	File ID:	184V8601.D
Sampled:	04/10/10 11:00	Prepared:	04/14/10 12:30	Analyzed:	04/18/10 15:24
Solids:		Preparation:	EXT_EXPL_W	Dilution:	1

Batch: 0D14012 Sequence: 0D10913 Calibration: 0108001 Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q	
99-35-4	1,3,5-Trinitrobenzene	0.247	0.0741	0.222	~~P~~ J	2C
99-65-0	1,3-Dinitrobenzene		0.0741	0.222	U	
118-96-7	2,4,6-Trinitrotoluene	0.156	0.0741	0.222	J	
121-14-2	2,4-Dinitrotoluene	0.594	0.0741	0.222	~~PM~~ J	2C
606-20-2	2,6-Dinitrotoluene		0.0741	0.222	U	
35572-78-2	2-Amino-4,6-dinitrotoluene	0.188	0.0741	0.222	~~P~~ J	2C
88-72-2	2-Nitrotoluene [2C]	0.517	0.0741	0.222	~~PM~~	
99-08-1	3-Nitrotoluene [2C]	0.709	0.0741	0.222	~~PM~~	
19406-51-0	4-Amino-2,6-dinitrotoluene	0.284	0.0741	0.222	J	
99-99-0	4-Nitrotoluene	0.123	0.0741	0.222	~~JP~~ J	
2691-41-0	HMX		0.0741	0.222	~~U~~ UJ	BSL
98-95-3	Nitrobenzene	0.166	0.0741	0.222	~~P~~ J	2C
78-11-5	PETN		0.370	1.11	U	
121-82-4	RDX [2C]	0.561	0.0741	0.222	~~PM~~ J	2C
479-45-8	Tetryl	0.473	0.0741	0.222	~~P~~ J	2C

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	1.852	2.200	119	40 - 145	
1-Chloro-3-nitrobenzene [2C]	1.852	1.651	89.1	40 - 145	

* Values outside of QC limits

LW 7/23/10

ANALYSIS DATA SHEET

MR21-GW08-10B 20

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-21	File ID:	185V8701.D
Sampled:	04/10/10 10:55	Prepared:	04/14/10 12:30	Analyzed:	04/18/10 15:57
Solids:		Preparation:	EXT_EXPL_W	Dilution:	1

Batch: 0D14012 Sequence: 0D10913 Calibration: 0108001 Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
99-35-4	1,3,5-Trinitrobenzene		0.0800	0.240	U
99-65-0	1,3-Dinitrobenzene	0.240 ~~0.178~~ U	0.0800	0.240	~~J~~ FBL
118-96-7	2,4,6-Trinitrotoluene		0.0800	0.240	U
121-14-2	2,4-Dinitrotoluene		0.0800	0.240	U
606-20-2	2,6-Dinitrotoluene		0.0800	0.240	U
35572-78-2	2-Amino-4,6-dinitrotoluene		0.0800	0.240	U
88-72-2	2-Nitrotoluene		0.0800	0.240	U
99-08-1	3-Nitrotoluene		0.0800	0.240	U
19406-51-0	4-Amino-2,6-dinitrotoluene		0.0800	0.240	U
99-99-0	4-Nitrotoluene		0.0800	0.240	U
2691-41-0	HMX		0.0800	0.240	~~U~~ UJ BSL
98-95-3	Nitrobenzene		0.0800	0.240	U
78-11-5	PETN		0.400	1.20	U
121-82-4	RDX		0.0800	0.240	U
479-45-8	Tetryl		0.0800	0.240	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	2.000	2.164	108	40 - 145	
1-Chloro-3-nitrobenzene [2C]	2.000	2.004	100	40 - 145	

* Values outside of QC limits

NW 7/23/10

ANALYSIS DATA SHEET

MR21-FB041010

2

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-22	File ID:	102V0301.D
Sampled:	04/10/10 09:30	Prepared:	04/15/10 16:50	Analyzed:	04/22/10 15:09
Solids:		Preparation:	EXT_EXPL_W	Dilution:	1
Batch:	0D15021	Sequence:	0D11619	Calibration:	0118001	Instrument:	GL-HPLC1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
99-35-4	1,3,5-Trinitrobenzene		0.0741	0.222	U
99-65-0	1,3-Dinitrobenzene [2C]	0.222	0.0741	0.222	~~PM~~ J 2C
118-96-7	2,4,6-Trinitrotoluene	0.115	0.0741	0.222	J
121-14-2	2,4-Dinitrotoluene	0.588	0.0741	0.222	~~PO~~ J 2C
606-20-2	2,6-Dinitrotoluene	0.145	0.0741	0.222	~~JP~~ ↓
35572-78-2	2-Amino-4,6-dinitrotoluene	0.108	0.0741	0.222	~~JP~~ ↓
88-72-2	2-Nitrotoluene	59.0	0.0741	0.222	
99-08-1	3-Nitrotoluene [2C]	0.175	0.0741	0.222	~~JPM~~ J 2C
19406-51-0	4-Amino-2,6-dinitrotoluene		0.0741	0.222	~~UO~~
99-99-0	4-Nitrotoluene		0.0741	0.222	U
2691-41-0	HMX		0.0741	0.222	~~UO~~
98-95-3	Nitrobenzene		0.0741	0.222	U
78-11-5	PETN		0.370	1.11	~~UO~~
121-82-4	RDX		0.0741	0.222	U
479-45-8	Tetryl	0.330	0.0741	0.222	~~PM~~ J 2C

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	1.852	2.189	118	40 - 145	
1-Chloro-3-nitrobenzene [2C]	1.852	2.143	116	40 - 145	

* Values outside of QC limits

NW 7/23/10

ENVIRONMENTAL
Data Services, Inc.

METALS

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Area Gas Chamber, CTO-040 SDG #: 1004089

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: July 23, 2010

Laboratory: Empirical Laboratories, Nashville, Tennessee Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR21-SW01D-10B	1004089-02	Water
2	MR21-EB0401110-SS	1004089-03	Water
3	MR21-SW01-10B	1004089-04	Water
4	MR21-SW02-10B	1004089-05	Water
5	MR21-SW05-10B	1004089-06	Water
6	MR21-SW06-10B	1004089-07	Water
7	MR21-SW03-10B	1004089-08	Water
8	MR21-GW02-10B	1004089-09	Water
9	MR21-SW04-10B	1004089-10	Water
9MS	MR21-SW04-10BMS	1004089-10MS	Water
9MSD	MR21-SW04-10BMSD	1004089-10MSD	Water
10	MR21-GW04-10B	1004089-11	Water
10MS	MR21-GW04-10BMS	1004089-11MS	Water
11MSD	MR21-GW04-10BMSD	1004089-11MSD	Water
11	MR21-GW03-10B	1004089-12	Water
12	MR21-GW05-10B	1004089-13	Water
13	MR21-GW01-10B	1004089-14	Water
14	MR21-GW01D-10B	1004089-15	Water
15	MR21-GW10-10B	1004089-16	Water
16	MR21-GW06-10B	1004089-17	Water
17	MR21-GW09-10B	1004089-18	Water
18	MR21-GW07-10B	1004089-19	Water
19	MR21-EB041010-GW	1004089-20	Water
20	MR21-GW08-10B	1004089-21	Water
20MS	MR21-GW08-10BMS	1004089-21MS	Water
20MSD	MR21-GW08-10BMSD	1004089-21MSD	Water
21	MR21-FB041010	1004089-22	Water

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 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 the following contamination.

Compound	Conc. ug/L	Action Level ug/L	Qualifier	Affected Samples
Iron	9.79	48.95	U	20

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/L	Qualifier	Affected Samples
MR21-EB041010-GW	None - ND	-	-	-	-
MR21-EB041110-SS	None - ND	-	-	-	-
MR21-FB041010	Cadmium	0.403	2.015	U	1, 3, 4, 12, 20

ICP Interference Check Sample - All %R values were acceptable.

Matrix Spike/Duplicate - The matrix spike/duplicate samples exhibited acceptable %R and RPD values except the following.

MS/MSD Sample ID	Compound	MS/MSD %R/RPD	Qualifier	Affected Samples
10	Aluminum	125%/152%/Ok	J	1, 3-18
20	Antimony	77.4%	J/UJ	20, 21
	Calcium	77.2%		
	Iron	77.1%		
	Silver	9.64%	J/R	

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	MR21-SW01-10B ug/L	MR21-SW01D-10B ug/L	RPD	Qualifier
Aluminum	393	453	14%	None
Arsenic	2.55	2.75	8%	None
Barium	19.7	22.0	11%	None
Calcium	21500	24200	12%	None
Chromium	1.01	1.09	8%	None
Copper	ND	1.30	NC	None
Iron	2540	3270	25%	None
Magnesium	1030	1140	10%	None
Manganese	60.0	72.0	18%	None
Nickel	1.39	1.53	10%	None
Potassium	757	929	20%	None
Sodium	6180	7000	12%	None
Vanadium	1.31	1.61	21%	None
Zinc	5.98	9.62	47%	None

Compound	MR21-GW01-10B ug/L	MR21-GW01D-10B ug/L	RPD	Qualifier
Aluminum	629	675	7%	None
Barium	145	146	1%	None
Calcium	490	512	4%	None
Chromium	1.12	1.19	6%	None
Cobalt	1.99	1.97	1%	None
Iron	2830	2820	0%	None
Magnesium	3820	3840	1%	None
Manganese	12.1	12.2	1%	None
Nickel	3.45	3.48	1%	None
Potassium	660	670	2%	None
Sodium	14400	14500	1%	None
Vanadium	1.80	1.77	2%	None
Zinc	5.37	5.53	3%	None

Compound Quantitation - No discrepancies were identified.

ANALYSIS DATA SHEET

MR21-SW01D-10B

1

Laboratory: Empirical Laboratories, LLC

Client: CH2M Hill, Inc.

Matrix: Water

Sampled: 04/11/10 09:05

% Solids: 0.00

SDG: 1004089

Project: Lejeune CTO-40 UXO-21

Laboratory ID: 1004089-02

Received: 04/13/10 09:00

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury		0.0800	0.200	1	U	SW7470A	0E05005	05/06/10 12:50
7429-90-5	Aluminum	453 J	12.5	50.0	1	N	SW6010B	0D28020	05/10/10 14:00 MSH
7440-36-0	Antimony		1.25	2.50	1	U	SW6010B	0D28020	05/10/10 14:00
7440-38-2	Arsenic	2.75	0.750	1.50	1		SW6010B	0D28020	05/10/10 14:00
7440-39-3	Barium	22.0	1.25	3.75	1		SW6010B	0D28020	05/10/10 14:00
7440-41-7	Beryllium		0.250	1.25	1	U	SW6010B	0D28020	05/10/10 14:00
7440-43-9	Cadmium	1.00 ~~0.327~~ U	0.250	1.00	1	~~J~~	SW6010B	0D28020	05/10/10 14:00 FBI
7440-70-2	Calcium	24200	250	1250	1		SW6010B	0D28020	05/10/10 14:00
7440-47-3	Chromium	1.09	0.500	1.00	1	J	SW6010B	0D28020	05/10/10 14:00
7440-48-4	Cobalt		1.25	3.12	1	U	SW6010B	0D28020	05/10/10 14:00
7440-50-8	Copper	1.30	1.25	2.50	1	J	SW6010B	0D28020	05/10/10 14:00
7439-89-6	Iron	3270	7.50	25.0	1		SW6010B	0D28020	05/10/10 14:00
7439-92-1	Lead		0.375	0.750	1	U	SW6010B	0D28020	05/10/10 14:00
7439-95-4	Magnesium	1140	250	1250	1	J	SW6010B	0D28020	05/10/10 14:00
7439-96-5	Manganese	72.0	0.750	3.75	1		SW6010B	0D28020	05/10/10 14:00
7440-02-0	Nickel	1.53	0.750	2.50	1	J	SW6010B	0D28020	05/10/10 14:00
7440-09-7	Potassium	929	250	1250	1	J	SW6010B	0D28020	05/10/10 14:00
7782-49-2	Selenium		0.750	1.50	1	U	SW6010B	0D28020	05/10/10 14:00
7440-22-4	Silver		0.250	1.25	1	U	SW6010B	0D28020	05/10/10 14:00
7440-23-5	Sodium	7000	250	1250	1		SW6010B	0D28020	05/10/10 14:00
7440-28-0	Thallium		0.750	2.00	1	U	SW6010B	0D28020	05/10/10 14:00
7440-62-2	Vanadium	1.61	1.25	3.12	1	J	SW6010B	0D28020	05/10/10 14:00
7440-66-6	Zinc	9.62	1.25	5.00	1		SW6010B	0D28020	05/10/10 14:00

MW 7/23/10

ANALYSIS DATA SHEET

MR21-EB0401110-SS

2

Laboratory: Empirical Laboratories, LLC

Client: CH2M Hill, Inc.

Matrix: Water

Sampled: 04/11/10 10:40

% Solids: 0.00

SDG: 1004089

Project: Lejeune CTO-40 UXO-21

Laboratory ID: 1004089-03

Received: 04/13/10 09:00

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury		0.0800	0.200	1	U	SW7470A	0E05005	05/06/10 12:51
7429-90-5	Aluminum		12.5	50.0	1	U	SW6010B	0D28020	05/10/10 14:04
7440-36-0	Antimony		1.25	2.50	1	U	SW6010B	0D28020	05/10/10 14:04
7440-38-2	Arsenic		0.750	1.50	1	U	SW6010B	0D28020	05/10/10 14:04
7440-39-3	Barium		1.25	3.75	1	U	SW6010B	0D28020	05/10/10 14:04
7440-41-7	Beryllium		0.250	1.25	1	U	SW6010B	0D28020	05/10/10 14:04
7440-43-9	Cadmium		0.250	1.00	1	U	SW6010B	0D28020	05/10/10 14:04
7440-70-2	Calcium		250	1250	1	U	SW6010B	0D28020	05/10/10 14:04
7440-47-3	Chromium		0.500	1.00	1	U	SW6010B	0D28020	05/10/10 14:04
7440-48-4	Cobalt		1.25	3.12	1	U	SW6010B	0D28020	05/10/10 14:04
7440-50-8	Copper		1.25	2.50	1	U	SW6010B	0D28020	05/10/10 14:04
7439-89-6	Iron		7.50	25.0	1	U	SW6010B	0D28020	05/10/10 14:04
7439-92-1	Lead		0.375	0.750	1	U	SW6010B	0D28020	05/10/10 14:04
7439-95-4	Magnesium		250	1250	1	U	SW6010B	0D28020	05/10/10 14:04
7439-96-5	Manganese		0.750	3.75	1	U	SW6010B	0D28020	05/10/10 14:04
7440-02-0	Nickel		0.750	2.50	1	U	SW6010B	0D28020	05/10/10 14:04
7440-09-7	Potassium		250	1250	1	U	SW6010B	0D28020	05/10/10 14:04
7782-49-2	Selenium		0.750	1.50	1	U	SW6010B	0D28020	05/10/10 14:04
7440-22-4	Silver		0.250	1.25	1	U	SW6010B	0D28020	05/10/10 14:04
7440-23-5	Sodium		250	1250	1	U	SW6010B	0D28020	05/10/10 14:04
7440-28-0	Thallium		0.750	2.00	1	U	SW6010B	0D28020	05/10/10 14:04
7440-62-2	Vanadium		1.25	3.12	1	U	SW6010B	0D28020	05/10/10 14:04
7440-66-6	Zinc		1.25	5.00	1	U	SW6010B	0D28020	05/10/10 14:04

NW 7/23/10

ANALYSIS DATA SHEET

MR21-SW01-10B

3

Laboratory: Empirical Laboratories, LLC

Client: CH2M Hill, Inc.

Matrix: Water

Sampled: 04/11/10 09:00

% Solids: 0.00

SDG: 1004089

Project: Lejeune CTO-40 UXO-21

Laboratory ID: 1004089-04

Received: 04/13/10 09:00

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury		0.0800	0.200	1	U	SW7470A	0E05005	05/06/10 12:51
7429-90-5	Aluminum	393 J	12.5	50.0	1	✗	SW6010B	0D28020	05/10/10 14:09 MSL
7440-36-0	Antimony		1.25	2.50	1	U	SW6010B	0D28020	05/10/10 14:09
7440-38-2	Arsenic	2.55	0.750	1.50	1		SW6010B	0D28020	05/10/10 14:09
7440-39-3	Barium	19.7	1.25	3.75	1		SW6010B	0D28020	05/10/10 14:09
7440-41-7	Beryllium		0.250	1.25	1	U	SW6010B	0D28020	05/10/10 14:09
7440-43-9	Cadmium	1.00 ~~0.304~~ U	0.250	1.00	1	✗	SW6010B	0D28020	05/10/10 14:09 FBL
7440-70-2	Calcium	21500	250	1250	1		SW6010B	0D28020	05/10/10 14:09
7440-47-3	Chromium	1.01	0.500	1.00	1	J	SW6010B	0D28020	05/10/10 14:09
7440-48-4	Cobalt		1.25	3.12	1	U	SW6010B	0D28020	05/10/10 14:09
7440-50-8	Copper		1.25	2.50	1	U	SW6010B	0D28020	05/10/10 14:09
7439-89-6	Iron	2540	7.50	25.0	1		SW6010B	0D28020	05/10/10 14:09
7439-92-1	Lead		0.375	0.750	1	U	SW6010B	0D28020	05/10/10 14:09
7439-95-4	Magnesium	1030	250	1250	1	J	SW6010B	0D28020	05/10/10 14:09
7439-96-5	Manganese	60.0	0.750	3.75	1		SW6010B	0D28020	05/10/10 14:09
7440-02-0	Nickel	1.39	0.750	2.50	1	J	SW6010B	0D28020	05/10/10 14:09
7440-09-7	Potassium	757	250	1250	1	J	SW6010B	0D28020	05/10/10 14:09
7782-49-2	Selenium		0.750	1.50	1	U	SW6010B	0D28020	05/10/10 14:09
7440-22-4	Silver		0.250	1.25	1	U	SW6010B	0D28020	05/10/10 14:09
7440-23-5	Sodium	6180	250	1250	1		SW6010B	0D28020	05/10/10 14:09
7440-28-0	Thallium		0.750	2.00	1	U	SW6010B	0D28020	05/10/10 14:09
7440-62-2	Vanadium	1.31	1.25	3.12	1	J	SW6010B	0D28020	05/10/10 14:09
7440-66-6	Zinc	5.98	1.25	5.00	1		SW6010B	0D28020	05/10/10 14:09

MW 7/23/10

ANALYSIS DATA SHEET

MR21-SW02-10B

4

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Water
Sampled: 04/11/10 09:20
% Solids: 0.00

SDG: 1004089
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1004089-05
Received: 04/13/10 09:00

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury		0.0800	0.200	1	U	SW7470A	0E05005	05/06/10 12:52
7429-90-5	Aluminum	292 J	12.5	50.0	1	✓	SW6010B	0D28020	05/10/10 14:14 MS
7440-36-0	Antimony		1.25	2.50	1	U	SW6010B	0D28020	05/10/10 14:14
7440-38-2	Arsenic	1.13	0.750	1.50	1	J	SW6010B	0D28020	05/10/10 14:14
7440-39-3	Barium	27.6	1.25	3.75	1		SW6010B	0D28020	05/10/10 14:14
7440-41-7	Beryllium		0.250	1.25	1	U	SW6010B	0D28020	05/10/10 14:14
7440-43-9	Cadmium	1.00 ~~0.265~~ U	0.250	1.00	1	✓	SW6010B	0D28020	05/10/10 14:14 FB
7440-70-2	Calcium	21000	250	1250	1		SW6010B	0D28020	05/10/10 14:14
7440-47-3	Chromium	0.792	0.500	1.00	1	J	SW6010B	0D28020	05/10/10 14:14
7440-48-4	Cobalt		1.25	3.12	1	U	SW6010B	0D28020	05/10/10 14:14
7440-50-8	Copper	2.06	1.25	2.50	1	J	SW6010B	0D28020	05/10/10 14:14
7439-89-6	Iron	409	7.50	25.0	1		SW6010B	0D28020	05/10/10 14:14
7439-92-1	Lead		0.375	0.750	1	U	SW6010B	0D28020	05/10/10 14:14
7439-95-4	Magnesium	1430	250	1250	1		SW6010B	0D28020	05/10/10 14:14
7439-96-5	Manganese	178	0.750	3.75	1		SW6010B	0D28020	05/10/10 14:14
7440-02-0	Nickel	1.37	0.750	2.50	1	J	SW6010B	0D28020	05/10/10 14:14
7440-09-7	Potassium	1450	250	1250	1		SW6010B	0D28020	05/10/10 14:14
7782-49-2	Selenium		0.750	1.50	1	U	SW6010B	0D28020	05/10/10 14:14
7440-22-4	Silver		0.250	1.25	1	U	SW6010B	0D28020	05/10/10 14:14
7440-23-5	Sodium	8330	250	1250	1		SW6010B	0D28020	05/10/10 14:14
7440-28-0	Thallium		0.750	2.00	1	U	SW6010B	0D28020	05/10/10 14:14
7440-62-2	Vanadium		1.25	3.12	1	U	SW6010B	0D28020	05/10/10 14:14
7440-66-6	Zinc	4.75	1.25	5.00	1	J	SW6010B	0D28020	05/10/10 14:14

NW 7/23/10

ANALYSIS DATA SHEET

MR21-SW05-10B

5

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Water
Sampled: 04/11/10 10:10
% Solids: 0.00

SDG: 1004089
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1004089-06
Received: 04/13/10 09:00

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury		0.0800	0.200	1	U	SW7470A	0E05005	05/06/10 12:53
7429-90-5	Aluminum	617 J	12.5	50.0	1	~~J~~	SW6010B	0D28020	05/10/10 14:19 MSH
7440-36-0	Antimony		1.25	2.50	1	U	SW6010B	0D28020	05/10/10 14:19
7440-38-2	Arsenic		0.750	1.50	1	U	SW6010B	0D28020	05/10/10 14:19
7440-39-3	Barium	36.5	1.25	3.75	1		SW6010B	0D28020	05/10/10 14:19
7440-41-7	Beryllium		0.250	1.25	1	U	SW6010B	0D28020	05/10/10 14:19
7440-43-9	Cadmium		0.250	1.00	1	U	SW6010B	0D28020	05/10/10 14:19
7440-70-2	Calcium	22500	250	1250	1		SW6010B	0D28020	05/10/10 14:19
7440-47-3	Chromium	0.629	0.500	1.00	1	J	SW6010B	0D28020	05/10/10 14:19
7440-48-4	Cobalt		1.25	3.12	1	U	SW6010B	0D28020	05/10/10 14:19
7440-50-8	Copper		1.25	2.50	1	U	SW6010B	0D28020	05/10/10 14:19
7439-89-6	Iron	696	7.50	25.0	1		SW6010B	0D28020	05/10/10 14:19
7439-92-1	Lead		0.375	0.750	1	U	SW6010B	0D28020	05/10/10 14:19
7439-95-4	Magnesium	1370	250	1250	1		SW6010B	0D28020	05/10/10 14:19
7439-96-5	Manganese	18.9	0.750	3.75	1		SW6010B	0D28020	05/10/10 14:19
7440-02-0	Nickel	1.37	0.750	2.50	1	J	SW6010B	0D28020	05/10/10 14:19
7440-09-7	Potassium	721	250	1250	1	J	SW6010B	0D28020	05/10/10 14:19
7782-49-2	Selenium		0.750	1.50	1	U	SW6010B	0D28020	05/10/10 14:19
7440-22-4	Silver		0.250	1.25	1	U	SW6010B	0D28020	05/10/10 14:19
7440-23-5	Sodium	7770	250	1250	1		SW6010B	0D28020	05/10/10 14:19
7440-28-0	Thallium		0.750	2.00	1	U	SW6010B	0D28020	05/10/10 14:19
7440-62-2	Vanadium		1.25	3.12	1	U	SW6010B	0D28020	05/10/10 14:19
7440-66-6	Zinc	8.19	1.25	5.00	1		SW6010B	0D28020	05/10/10 14:19

MW 7/23/10

ANALYSIS DATA SHEET

MR21-SW06-10B

6

Laboratory: Empirical Laboratories, LLC

Client: CH2M Hill, Inc.

Matrix: Water

Sampled: 04/11/10 10:30

% Solids: 0.00

SDG: 1004089

Project: Lejeune CTO-40 UXO-21

Laboratory ID: 1004089-07

Received: 04/13/10 09:00

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury		0.0800	0.200	1	U	SW7470A	0E05005	05/06/10 12:54
7429-90-5	Aluminum	634 J	12.5	50.0	1	~~U~~	SW6010B	0D28020	05/10/10 14:24 MSH
7440-36-0	Antimony		1.25	2.50	1	U	SW6010B	0D28020	05/10/10 14:24
7440-38-2	Arsenic		0.750	1.50	1	U	SW6010B	0D28020	05/10/10 14:24
7440-39-3	Barium	34.9	1.25	3.75	1		SW6010B	0D28020	05/10/10 14:24
7440-41-7	Beryllium		0.250	1.25	1	U	SW6010B	0D28020	05/10/10 14:24
7440-43-9	Cadmium		0.250	1.00	1	U	SW6010B	0D28020	05/10/10 14:24
7440-70-2	Calcium	20700	250	1250	1		SW6010B	0D28020	05/10/10 14:24
7440-47-3	Chromium	0.756	0.500	1.00	1	J	SW6010B	0D28020	05/10/10 14:24
7440-48-4	Cobalt		1.25	3.12	1	U	SW6010B	0D28020	05/10/10 14:24
7440-50-8	Copper		1.25	2.50	1	U	SW6010B	0D28020	05/10/10 14:24
7439-89-6	Iron	726	7.50	25.0	1		SW6010B	0D28020	05/10/10 14:24
7439-92-1	Lead		0.375	0.750	1	U	SW6010B	0D28020	05/10/10 14:24
7439-95-4	Magnesium	1330	250	1250	1		SW6010B	0D28020	05/10/10 14:24
7439-96-5	Manganese	19.1	0.750	3.75	1		SW6010B	0D28020	05/10/10 14:24
7440-02-0	Nickel	1.49	0.750	2.50	1	J	SW6010B	0D28020	05/10/10 14:24
7440-09-7	Potassium	705	250	1250	1	J	SW6010B	0D28020	05/10/10 14:24
7782-49-2	Selenium		0.750	1.50	1	U	SW6010B	0D28020	05/10/10 14:24
7440-22-4	Silver		0.250	1.25	1	U	SW6010B	0D28020	05/10/10 14:24
7440-23-5	Sodium	7650	250	1250	1		SW6010B	0D28020	05/10/10 14:24
7440-28-0	Thallium		0.750	2.00	1	U	SW6010B	0D28020	05/10/10 14:24
7440-62-2	Vanadium		1.25	3.12	1	U	SW6010B	0D28020	05/10/10 14:24
7440-66-6	Zinc	8.47	1.25	5.00	1		SW6010B	0D28020	05/10/10 14:24

NW 7/23/10

ANALYSIS DATA SHEET

MR21-SW03-10B

7

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Water
Sampled: 04/11/10 09:40
% Solids: 0.00

SDG: 1004089
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1004089-08
Received: 04/13/10 09:00

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury		0.0800	0.200	1	U	SW7470A	0E05005	05/06/10 12:57
7429-90-5	Aluminum	479 J	12.5	50.0	1	~~N~~	SW6010B	0D28020	05/10/10 14:29 MS
7440-36-0	Antimony		1.25	2.50	1	U	SW6010B	0D28020	05/10/10 14:29
7440-38-2	Arsenic		0.750	1.50	1	U	SW6010B	0D28020	05/10/10 14:29
7440-39-3	Barium	34.3	1.25	3.75	1		SW6010B	0D28020	05/10/10 14:29
7440-41-7	Beryllium		0.250	1.25	1	U	SW6010B	0D28020	05/10/10 14:29
7440-43-9	Cadmium		0.250	1.00	1	U	SW6010B	0D28020	05/10/10 14:29
7440-70-2	Calcium	34200	250	1250	1		SW6010B	0D28020	05/10/10 14:29
7440-47-3	Chromium	0.573	0.500	1.00	1	J	SW6010B	0D28020	05/10/10 14:29
7440-48-4	Cobalt		1.25	3.12	1	U	SW6010B	0D28020	05/10/10 14:29
7440-50-8	Copper		1.25	2.50	1	U	SW6010B	0D28020	05/10/10 14:29
7439-89-6	Iron	844	7.50	25.0	1		SW6010B	0D28020	05/10/10 14:29
7439-92-1	Lead		0.375	0.750	1	U	SW6010B	0D28020	05/10/10 14:29
7439-95-4	Magnesium	1450	250	1250	1		SW6010B	0D28020	05/10/10 14:29
7439-96-5	Manganese	21.3	0.750	3.75	1		SW6010B	0D28020	05/10/10 14:29
7440-02-0	Nickel	1.20	0.750	2.50	1	J	SW6010B	0D28020	05/10/10 14:29
7440-09-7	Potassium	839	250	1250	1	J	SW6010B	0D28020	05/10/10 14:29
7782-49-2	Selenium		0.750	1.50	1	U	SW6010B	0D28020	05/10/10 14:29
7440-22-4	Silver		0.250	1.25	1	U	SW6010B	0D28020	05/10/10 14:29
7440-23-5	Sodium	8030	250	1250	1		SW6010B	0D28020	05/10/10 14:29
7440-28-0	Thallium		0.750	2.00	1	U	SW6010B	0D28020	05/10/10 14:29
7440-62-2	Vanadium		1.25	3.12	1	U	SW6010B	0D28020	05/10/10 14:29
7440-66-6	Zinc	6.55	1.25	5.00	1		SW6010B	0D28020	05/10/10 14:29

NW 7/23/10

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ANALYSIS DATA SHEET

MR21-GW02-10B

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Water
Sampled: 04/10/10 18:35
% Solids: 0.00

SDG: 1004089
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1004089-09
Received: 04/13/10 09:00

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury		0.0800	0.200	1	U	SW7470A	0E05005	05/06/10 12:58
7429-90-5	Aluminum	1980 J	12.5	50.0	1	~~N~~	SW6010B	0D28020	05/10/10 14:33 MS
7440-36-0	Antimony		1.25	2.50	1	U	SW6010B	0D28020	05/10/10 14:33
7440-38-2	Arsenic	2.07	0.750	1.50	1		SW6010B	0D28020	05/10/10 14:33
7440-39-3	Barium	35.1	1.25	3.75	1		SW6010B	0D28020	05/10/10 14:33
7440-41-7	Beryllium		0.250	1.25	1	U	SW6010B	0D28020	05/10/10 14:33
7440-43-9	Cadmium		0.250	1.00	1	U	SW6010B	0D28020	05/10/10 14:33
7440-70-2	Calcium	1260	250	1250	1		SW6010B	0D28020	05/10/10 14:33
7440-47-3	Chromium	2.74	0.500	1.00	1		SW6010B	0D28020	05/10/10 14:33
7440-48-4	Cobalt		1.25	3.12	1	U	SW6010B	0D28020	05/10/10 14:33
7440-50-8	Copper		1.25	2.50	1	U	SW6010B	0D28020	05/10/10 14:33
7439-89-6	Iron	1830	7.50	25.0	1		SW6010B	0D28020	05/10/10 14:33
7439-92-1	Lead	0.651	0.375	0.750	1	J	SW6010B	0D28020	05/10/10 14:33
7439-95-4	Magnesium	623	250	1250	1	J	SW6010B	0D28020	05/10/10 14:33
7439-96-5	Manganese	5.05	0.750	3.75	1		SW6010B	0D28020	05/10/10 14:33
7440-02-0	Nickel	0.929	0.750	2.50	1	J	SW6010B	0D28020	05/10/10 14:33
7440-09-7	Potassium	964	250	1250	1	J	SW6010B	0D28020	05/10/10 14:33
7782-49-2	Selenium		0.750	1.50	1	U	SW6010B	0D28020	05/10/10 14:33
7440-22-4	Silver		0.250	1.25	1	U	SW6010B	0D28020	05/10/10 14:33
7440-23-5	Sodium	6140	250	1250	1		SW6010B	0D28020	05/10/10 14:33
7440-28-0	Thallium		0.750	2.00	1	U	SW6010B	0D28020	05/10/10 14:33
7440-62-2	Vanadium	3.22	1.25	3.12	1		SW6010B	0D28020	05/10/10 14:33
7440-66-6	Zinc	2.26	1.25	5.00	1	J	SW6010B	0D28020	05/10/10 14:33

lw 7/23/10

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ANALYSIS DATA SHEET

MR21-SW04-10B

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Water
Sampled: 04/11/10 09:50
% Solids: 0.00

SDG: 1004089
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1004089-10
Received: 04/13/10 09:00

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury		0.0800	0.200	1	U	SW7470A	0E05005	05/06/10 13:10
7429-90-5	Aluminum	478 J	12.5	50.0	1	~~J~~	SW6010B	0D28020	05/10/10 14:38 MSI
7440-36-0	Antimony		1.25	2.50	1	U	SW6010B	0D28020	05/10/10 14:38
7440-38-2	Arsenic		0.750	1.50	1	U	SW6010B	0D28020	05/10/10 14:38
7440-39-3	Barium	32.6	1.25	3.75	1		SW6010B	0D28020	05/10/10 14:38
7440-41-7	Beryllium		0.250	1.25	1	U	SW6010B	0D28020	05/10/10 14:38
7440-43-9	Cadmium		0.250	1.00	1	U	SW6010B	0D28020	05/10/10 14:38
7440-70-2	Calcium	31300	250	1250	1		SW6010B	0D28020	05/10/10 14:38
7440-47-3	Chromium	0.530	0.500	1.00	1	J	SW6010B	0D28020	05/10/10 14:38
7440-48-4	Cobalt		1.25	3.12	1	U	SW6010B	0D28020	05/10/10 14:38
7440-50-8	Copper		1.25	2.50	1	U	SW6010B	0D28020	05/10/10 14:38
7439-89-6	Iron	784	7.50	25.0	1		SW6010B	0D28020	05/10/10 14:38
7439-92-1	Lead		0.375	0.750	1	U	SW6010B	0D28020	05/10/10 14:38
7439-95-4	Magnesium	1380	250	1250	1		SW6010B	0D28020	05/10/10 14:38
7439-96-5	Manganese	19.7	0.750	3.75	1		SW6010B	0D28020	05/10/10 14:38
7440-02-0	Nickel	1.18	0.750	2.50	1	J	SW6010B	0D28020	05/10/10 14:38
7440-09-7	Potassium	808	250	1250	1	J	SW6010B	0D28020	05/10/10 14:38
7782-49-2	Selenium		0.750	1.50	1	U	SW6010B	0D28020	05/10/10 14:38
7440-22-4	Silver		0.250	1.25	1	U	SW6010B	0D28020	05/10/10 14:38
7440-23-5	Sodium	7740	250	1250	1		SW6010B	0D28020	05/10/10 14:38
7440-28-0	Thallium		0.750	2.00	1	U	SW6010B	0D28020	05/10/10 14:38
7440-62-2	Vanadium		1.25	3.12	1	U	SW6010B	0D28020	05/10/10 14:38
7440-66-6	Zinc	5.91	1.25	5.00	1		SW6010B	0D28020	05/10/10 14:38

MW 7/23/10

ANALYSIS DATA SHEET

MR21-GW04-10B 10

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Water
Sampled: 04/10/10 14:55
% Solids: 0.00

SDG: 1004089
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1004089-11
Received: 04/13/10 09:00

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury		0.0800	0.200	1	U	SW7470A	0E05005	05/06/10 13:12
7429-90-5	Aluminum	378 J	12.5	50.0	1	~~J~~	SW6010B	0D28020	05/10/10 15:16 MSH
7440-36-0	Antimony		1.25	2.50	1	U	SW6010B	0D28020	05/10/10 15:16
7440-38-2	Arsenic		0.750	1.50	1	U	SW6010B	0D28020	05/10/10 15:16
7440-39-3	Barium	80.1	1.25	3.75	1		SW6010B	0D28020	05/10/10 15:16
7440-41-7	Beryllium		0.250	1.25	1	U	SW6010B	0D28020	05/10/10 15:16
7440-43-9	Cadmium		0.250	1.00	1	U	SW6010B	0D28020	05/10/10 15:16
7440-70-2	Calcium	1760	250	1250	1		SW6010B	0D28020	05/10/10 15:16
7440-47-3	Chromium		0.500	1.00	1	U	SW6010B	0D28020	05/10/10 15:16
7440-48-4	Cobalt		1.25	3.12	1	U	SW6010B	0D28020	05/10/10 15:16
7440-50-8	Copper		1.25	2.50	1	U	SW6010B	0D28020	05/10/10 15:16
7439-89-6	Iron	44.1	7.50	25.0	1		SW6010B	0D28020	05/10/10 15:16
7439-92-1	Lead		0.375	0.750	1	U	SW6010B	0D28020	05/10/10 15:16
7439-95-4	Magnesium	3100	250	1250	1		SW6010B	0D28020	05/10/10 15:16
7439-96-5	Manganese	7.66	0.750	3.75	1		SW6010B	0D28020	05/10/10 15:16
7440-02-0	Nickel	1.14	0.750	2.50	1	J	SW6010B	0D28020	05/10/10 15:16
7440-09-7	Potassium	1020	250	1250	1	J	SW6010B	0D28020	05/10/10 15:16
7782-49-2	Selenium		0.750	1.50	1	U	SW6010B	0D28020	05/10/10 15:16
7440-22-4	Silver		0.250	1.25	1	U	SW6010B	0D28020	05/10/10 15:16
7440-23-5	Sodium	10800	250	1250	1		SW6010B	0D28020	05/10/10 15:16
7440-28-0	Thallium		0.750	2.00	1	U	SW6010B	0D28020	05/10/10 15:16
7440-62-2	Vanadium		1.25	3.12	1	U	SW6010B	0D28020	05/10/10 15:16
7440-66-6	Zinc	2.49	1.25	5.00	1	J	SW6010B	0D28020	05/10/10 15:16

Nel 7/23/10

ANALYSIS DATA SHEET

MR21-GW03-10B

11

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Water
Sampled: 04/10/10 15:30
% Solids: 0.00

SDG: 1004089
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1004089-12
Received: 04/13/10 09:00

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury		0.0800	0.200	1	U	SW7470A	0E05005	05/06/10 13:15
7429-90-5	Aluminum	155 J	12.5	50.0	1	~~N~~	SW6010B	0D28020	05/10/10 15:41 MSA
7440-36-0	Antimony		1.25	2.50	1	U	SW6010B	0D28020	05/10/10 15:41
7440-38-2	Arsenic		0.750	1.50	1	U	SW6010B	0D28020	05/10/10 15:41
7440-39-3	Barium	24.0	1.25	3.75	1		SW6010B	0D28020	05/10/10 15:41
7440-41-7	Beryllium		0.250	1.25	1	U	SW6010B	0D28020	05/10/10 15:41
7440-43-9	Cadmium		0.250	1.00	1	U	SW6010B	0D28020	05/10/10 15:41
7440-70-2	Calcium	810	250	1250	1	J	SW6010B	0D28020	05/10/10 15:41
7440-47-3	Chromium		0.500	1.00	1	U	SW6010B	0D28020	05/10/10 15:41
7440-48-4	Cobalt		1.25	3.12	1	U	SW6010B	0D28020	05/10/10 15:41
7440-50-8	Copper		1.25	2.50	1	U	SW6010B	0D28020	05/10/10 15:41
7439-89-6	Iron	164	7.50	25.0	1		SW6010B	0D28020	05/10/10 15:41
7439-92-1	Lead		0.375	0.750	1	U	SW6010B	0D28020	05/10/10 15:41
7439-95-4	Magnesium	1130	250	1250	1	J	SW6010B	0D28020	05/10/10 15:41
7439-96-5	Manganese	3.77	0.750	3.75	1		SW6010B	0D28020	05/10/10 15:41
7440-02-0	Nickel		0.750	2.50	1	U	SW6010B	0D28020	05/10/10 15:41
7440-09-7	Potassium	613	250	1250	1	J	SW6010B	0D28020	05/10/10 15:41
7782-49-2	Selenium		0.750	1.50	1	U	SW6010B	0D28020	05/10/10 15:41
7440-22-4	Silver		0.250	1.25	1	U	SW6010B	0D28020	05/10/10 15:41
7440-23-5	Sodium	5970	250	1250	1		SW6010B	0D28020	05/10/10 15:41
7440-28-0	Thallium		0.750	2.00	1	U	SW6010B	0D28020	05/10/10 15:41
7440-62-2	Vanadium		1.25	3.12	1	U	SW6010B	0D28020	05/10/10 15:41
7440-66-6	Zinc	2.17	1.25	5.00	1	J	SW6010B	0D28020	05/10/10 15:41

nw 7/23/10

ANALYSIS DATA SHEET

12

MR21-GW05-10B

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Water
Sampled: 04/10/10 13:20
% Solids: 0.00

SDG: 1004089
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1004089-13
Received: 04/13/10 09:00

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury		0.0800	0.200	1	U	SW7470A	0E05005	05/06/10 13:16
7429-90-5	Aluminum	107 J	12.5	50.0	1	✗	SW6010B	0D28020	05/10/10 15:45 MSI
7440-36-0	Antimony		1.25	2.50	1	U	SW6010B	0D28020	05/10/10 15:45
7440-38-2	Arsenic	0.886	0.750	1.50	1	J	SW6010B	0D28020	05/10/10 15:45
7440-39-3	Barium	16.0	1.25	3.75	1		SW6010B	0D28020	05/10/10 15:45
7440-41-7	Beryllium		0.250	1.25	1	U	SW6010B	0D28020	05/10/10 15:45
7440-43-9	Cadmium	1.00 ~~0.254~~ U	0.250	1.00	1	✗	SW6010B	0D28020	05/10/10 15:45 FBI
7440-70-2	Calcium	76300	250	1250	1		SW6010B	0D28020	05/10/10 15:45
7440-47-3	Chromium		0.500	1.00	1	U	SW6010B	0D28020	05/10/10 15:45
7440-48-4	Cobalt		1.25	3.12	1	U	SW6010B	0D28020	05/10/10 15:45
7440-50-8	Copper		1.25	2.50	1	U	SW6010B	0D28020	05/10/10 15:45
7439-89-6	Iron	1490	7.50	25.0	1		SW6010B	0D28020	05/10/10 15:45
7439-92-1	Lead		0.375	0.750	1	U	SW6010B	0D28020	05/10/10 15:45
7439-95-4	Magnesium	1620	250	1250	1		SW6010B	0D28020	05/10/10 15:45
7439-96-5	Manganese	20.1	0.750	3.75	1		SW6010B	0D28020	05/10/10 15:45
7440-02-0	Nickel		0.750	2.50	1	U	SW6010B	0D28020	05/10/10 15:45
7440-09-7	Potassium	1010	250	1250	1	J	SW6010B	0D28020	05/10/10 15:45
7782-49-2	Selenium		0.750	1.50	1	U	SW6010B	0D28020	05/10/10 15:45
7440-22-4	Silver		0.250	1.25	1	U	SW6010B	0D28020	05/10/10 15:45
7440-23-5	Sodium	6070	250	1250	1		SW6010B	0D28020	05/10/10 15:45
7440-28-0	Thallium		0.750	2.00	1	U	SW6010B	0D28020	05/10/10 15:45
7440-62-2	Vanadium		1.25	3.12	1	U	SW6010B	0D28020	05/10/10 15:45
7440-66-6	Zinc	2.46	1.25	5.00	1	J	SW6010B	0D28020	05/10/10 15:45

MW 7/23/10

ANALYSIS DATA SHEET

13

MR21-GW01-10B

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Water
Sampled: 04/10/10 15:50
% Solids: 0.00

SDG: 1004089
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1004089-14
Received: 04/13/10 09:00

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury		0.0800	0.200	1	U	SW7470A	0E05005	05/06/10 13:19
7429-90-5	Aluminum	629 J	12.5	50.0	1	X	SW6010B	0D28020	05/10/10 15:50 MSt
7440-36-0	Antimony		1.25	2.50	1	U	SW6010B	0D28020	05/10/10 15:50
7440-38-2	Arsenic		0.750	1.50	1	U	SW6010B	0D28020	05/10/10 15:50
7440-39-3	Barium	145	1.25	3.75	1		SW6010B	0D28020	05/10/10 15:50
7440-41-7	Beryllium		0.250	1.25	1	U	SW6010B	0D28020	05/10/10 15:50
7440-43-9	Cadmium		0.250	1.00	1	U	SW6010B	0D28020	05/10/10 15:50
7440-70-2	Calcium	490	250	1250	1	J	SW6010B	0D28020	05/10/10 15:50
7440-47-3	Chromium	1.12	0.500	1.00	1	J	SW6010B	0D28020	05/10/10 15:50
7440-48-4	Cobalt	1.99	1.25	3.12	1	J	SW6010B	0D28020	05/10/10 15:50
7440-50-8	Copper		1.25	2.50	1	U	SW6010B	0D28020	05/10/10 15:50
7439-89-6	Iron	2830	7.50	25.0	1		SW6010B	0D28020	05/10/10 15:50
7439-92-1	Lead		0.375	0.750	1	U	SW6010B	0D28020	05/10/10 15:50
7439-95-4	Magnesium	3820	250	1250	1		SW6010B	0D28020	05/10/10 15:50
7439-96-5	Manganese	12.1	0.750	3.75	1		SW6010B	0D28020	05/10/10 15:50
7440-02-0	Nickel	3.45	0.750	2.50	1		SW6010B	0D28020	05/10/10 15:50
7440-09-7	Potassium	660	250	1250	1	J	SW6010B	0D28020	05/10/10 15:50
7782-49-2	Selenium		0.750	1.50	1	U	SW6010B	0D28020	05/10/10 15:50
7440-22-4	Silver		0.250	1.25	1	U	SW6010B	0D28020	05/10/10 15:50
7440-23-5	Sodium	14400	250	1250	1		SW6010B	0D28020	05/10/10 15:50
7440-28-0	Thallium		0.750	2.00	1	U	SW6010B	0D28020	05/10/10 15:50
7440-62-2	Vanadium	1.80	1.25	3.12	1	J	SW6010B	0D28020	05/10/10 15:50
7440-66-6	Zinc	5.37	1.25	5.00	1		SW6010B	0D28020	05/10/10 15:50

MW 7/23/10

ANALYSIS DATA SHEET

MR21-GW01D-10B

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Water
Sampled: 04/10/10 15:55
% Solids: 0.00

SDG: 1004089
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1004089-15
Received: 04/13/10 09:00

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury		0.0800	0.200	1	U	SW7470A	0E05005	05/06/10 13:19
7429-90-5	Aluminum	675 J	12.5	50.0	1	~~J~~	SW6010B	0D28020	05/10/10 15:55 MS
7440-36-0	Antimony		1.25	2.50	1	U	SW6010B	0D28020	05/10/10 15:55
7440-38-2	Arsenic		0.750	1.50	1	U	SW6010B	0D28020	05/10/10 15:55
7440-39-3	Barium	146	1.25	3.75	1		SW6010B	0D28020	05/10/10 15:55
7440-41-7	Beryllium		0.250	1.25	1	U	SW6010B	0D28020	05/10/10 15:55
7440-43-9	Cadmium		0.250	1.00	1	U	SW6010B	0D28020	05/10/10 15:55
7440-70-2	Calcium	512	250	1250	1	J	SW6010B	0D28020	05/10/10 15:55
7440-47-3	Chromium	1.19	0.500	1.00	1	J	SW6010B	0D28020	05/10/10 15:55
7440-48-4	Cobalt	1.97	1.25	3.12	1	J	SW6010B	0D28020	05/10/10 15:55
7440-50-8	Copper		1.25	2.50	1	U	SW6010B	0D28020	05/10/10 15:55
7439-89-6	Iron	2820	7.50	25.0	1		SW6010B	0D28020	05/10/10 15:55
7439-92-1	Lead		0.375	0.750	1	U	SW6010B	0D28020	05/10/10 15:55
7439-95-4	Magnesium	3840	250	1250	1		SW6010B	0D28020	05/10/10 15:55
7439-96-5	Manganese	12.2	0.750	3.75	1		SW6010B	0D28020	05/10/10 15:55
7440-02-0	Nickel	3.48	0.750	2.50	1		SW6010B	0D28020	05/10/10 15:55
7440-09-7	Potassium	670	250	1250	1	J	SW6010B	0D28020	05/10/10 15:55
7782-49-2	Selenium		0.750	1.50	1	U	SW6010B	0D28020	05/10/10 15:55
7440-22-4	Silver		0.250	1.25	1	U	SW6010B	0D28020	05/10/10 15:55
7440-23-5	Sodium	14500	250	1250	1		SW6010B	0D28020	05/10/10 15:55
7440-28-0	Thallium		0.750	2.00	1	U	SW6010B	0D28020	05/10/10 15:55
7440-62-2	Vanadium	1.77	1.25	3.12	1	J	SW6010B	0D28020	05/10/10 15:55
7440-66-6	Zinc	5.53	1.25	5.00	1		SW6010B	0D28020	05/10/10 15:55

MW 7/23/10

ANALYSIS DATA SHEET

MR21-GW10-10B

15

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Water
Sampled: 04/10/10 10:10
% Solids: 0.00

SDG: 1004089
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1004089-16
Received: 04/13/10 09:00

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury		0.0800	0.200	1	U	SW7470A	0E05005	05/06/10 13:20
7429-90-5	Aluminum	266 J	12.5	50.0	1	~~U~~	SW6010B	0D28020	05/10/10 16:00 MSI
7440-36-0	Antimony		1.25	2.50	1	U	SW6010B	0D28020	05/10/10 16:00
7440-38-2	Arsenic		0.750	1.50	1	U	SW6010B	0D28020	05/10/10 16:00
7440-39-3	Barium	43.2	1.25	3.75	1		SW6010B	0D28020	05/10/10 16:00
7440-41-7	Beryllium		0.250	1.25	1	U	SW6010B	0D28020	05/10/10 16:00
7440-43-9	Cadmium		0.250	1.00	1	U	SW6010B	0D28020	05/10/10 16:00
7440-70-2	Calcium	1200	250	1250	1	J	SW6010B	0D28020	05/10/10 16:00
7440-47-3	Chromium		0.500	1.00	1	U	SW6010B	0D28020	05/10/10 16:00
7440-48-4	Cobalt		1.25	3.12	1	U	SW6010B	0D28020	05/10/10 16:00
7440-50-8	Copper		1.25	2.50	1	U	SW6010B	0D28020	05/10/10 16:00
7439-89-6	Iron	99.0	7.50	25.0	1		SW6010B	0D28020	05/10/10 16:00
7439-92-1	Lead		0.375	0.750	1	U	SW6010B	0D28020	05/10/10 16:00
7439-95-4	Magnesium	2190	250	1250	1		SW6010B	0D28020	05/10/10 16:00
7439-96-5	Manganese	7.22	0.750	3.75	1		SW6010B	0D28020	05/10/10 16:00
7440-02-0	Nickel		0.750	2.50	1	U	SW6010B	0D28020	05/10/10 16:00
7440-09-7	Potassium	758	250	1250	1	J	SW6010B	0D28020	05/10/10 16:00
7782-49-2	Selenium		0.750	1.50	1	U	SW6010B	0D28020	05/10/10 16:00
7440-22-4	Silver		0.250	1.25	1	U	SW6010B	0D28020	05/10/10 16:00
7440-23-5	Sodium	6260	250	1250	1		SW6010B	0D28020	05/10/10 16:00
7440-28-0	Thallium		0.750	2.00	1	U	SW6010B	0D28020	05/10/10 16:00
7440-62-2	Vanadium		1.25	3.12	1	U	SW6010B	0D28020	05/10/10 16:00
7440-66-6	Zinc	1.41	1.25	5.00	1	J	SW6010B	0D28020	05/10/10 16:00

lew 7/23/10

ANALYSIS DATA SHEET

16

MR21-GW06-10B

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Water
Sampled: 04/10/10 12:55
% Solids: 0.00

SDG: 1004089
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1004089-17
Received: 04/13/10 09:00

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury		0.0800	0.200	1	U	SW7470A	0E05005	05/06/10 13:21
7429-90-5	Aluminum	176 J	12.5	50.0	1	~~J~~	SW6010B	0D28020	05/10/10 16:05 MSI
7440-36-0	Antimony		1.25	2.50	1	U	SW6010B	0D28020	05/10/10 16:05
7440-38-2	Arsenic		0.750	1.50	1	U	SW6010B	0D28020	05/10/10 16:05
7440-39-3	Barium	32.1	1.25	3.75	1		SW6010B	0D28020	05/10/10 16:05
7440-41-7	Beryllium		0.250	1.25	1	U	SW6010B	0D28020	05/10/10 16:05
7440-43-9	Cadmium		0.250	1.00	1	U	SW6010B	0D28020	05/10/10 16:05
7440-70-2	Calcium	1280	250	1250	1		SW6010B	0D28020	05/10/10 16:05
7440-47-3	Chromium		0.500	1.00	1	U	SW6010B	0D28020	05/10/10 16:05
7440-48-4	Cobalt		1.25	3.12	1	U	SW6010B	0D28020	05/10/10 16:05
7440-50-8	Copper		1.25	2.50	1	U	SW6010B	0D28020	05/10/10 16:05
7439-89-6	Iron	101	7.50	25.0	1		SW6010B	0D28020	05/10/10 16:05
7439-92-1	Lead		0.375	0.750	1	U	SW6010B	0D28020	05/10/10 16:05
7439-95-4	Magnesium	1730	250	1250	1		SW6010B	0D28020	05/10/10 16:05
7439-96-5	Manganese	3.08	0.750	3.75	1	J	SW6010B	0D28020	05/10/10 16:05
7440-02-0	Nickel		0.750	2.50	1	U	SW6010B	0D28020	05/10/10 16:05
7440-09-7	Potassium	585	250	1250	1	J	SW6010B	0D28020	05/10/10 16:05
7782-49-2	Selenium		0.750	1.50	1	U	SW6010B	0D28020	05/10/10 16:05
7440-22-4	Silver		0.250	1.25	1	U	SW6010B	0D28020	05/10/10 16:05
7440-23-5	Sodium	7730	250	1250	1		SW6010B	0D28020	05/10/10 16:05
7440-28-0	Thallium		0.750	2.00	1	U	SW6010B	0D28020	05/10/10 16:05
7440-62-2	Vanadium		1.25	3.12	1	U	SW6010B	0D28020	05/10/10 16:05
7440-66-6	Zinc	1.85	1.25	5.00	1	J	SW6010B	0D28020	05/10/10 16:05

JW 7/23/10

ANALYSIS DATA SHEET

MR21-GW09-10B

17

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Water
Sampled: 04/10/10 12:15
% Solids: 0.00

SDG: 1004089
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1004089-18
Received: 04/13/10 09:00

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury		0.0800	0.200	1	U	SW7470A	0E05005	05/06/10 13:22
7429-90-5	Aluminum	301 J	12.5	50.0	1	~~N~~	SW6010B	0D28020	05/10/10 16:09 MS1
7440-36-0	Antimony		1.25	2.50	1	U	SW6010B	0D28020	05/10/10 16:09
7440-38-2	Arsenic		0.750	1.50	1	U	SW6010B	0D28020	05/10/10 16:09
7440-39-3	Barium	23.6	1.25	3.75	1		SW6010B	0D28020	05/10/10 16:09
7440-41-7	Beryllium		0.250	1.25	1	U	SW6010B	0D28020	05/10/10 16:09
7440-43-9	Cadmium		0.250	1.00	1	U	SW6010B	0D28020	05/10/10 16:09
7440-70-2	Calcium	9310	250	1250	1		SW6010B	0D28020	05/10/10 16:09
7440-47-3	Chromium		0.500	1.00	1	U	SW6010B	0D28020	05/10/10 16:09
7440-48-4	Cobalt		1.25	3.12	1	U	SW6010B	0D28020	05/10/10 16:09
7440-50-8	Copper		1.25	2.50	1	U	SW6010B	0D28020	05/10/10 16:09
7439-89-6	Iron	82.8	7.50	25.0	1		SW6010B	0D28020	05/10/10 16:09
7439-92-1	Lead		0.375	0.750	1	U	SW6010B	0D28020	05/10/10 16:09
7439-95-4	Magnesium	2150	250	1250	1		SW6010B	0D28020	05/10/10 16:09
7439-96-5	Manganese	3.22	0.750	3.75	1	J	SW6010B	0D28020	05/10/10 16:09
7440-02-0	Nickel		0.750	2.50	1	U	SW6010B	0D28020	05/10/10 16:09
7440-09-7	Potassium	704	250	1250	1	J	SW6010B	0D28020	05/10/10 16:09
7782-49-2	Selenium	1.20	0.750	1.50	1	J	SW6010B	0D28020	05/10/10 16:09
7440-22-4	Silver		0.250	1.25	1	U	SW6010B	0D28020	05/10/10 16:09
7440-23-5	Sodium	3400	250	1250	1		SW6010B	0D28020	05/10/10 16:09
7440-28-0	Thallium		0.750	2.00	1	U	SW6010B	0D28020	05/10/10 16:09
7440-62-2	Vanadium		1.25	3.12	1	U	SW6010B	0D28020	05/10/10 16:09
7440-66-6	Zinc		1.25	5.00	1	U	SW6010B	0D28020	05/10/10 16:09

LW 7/23/10

ANALYSIS DATA SHEET

MR21-GW07-10B

18

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Water
Sampled: 04/10/10 10:25
% Solids: 0.00

SDG: 1004089
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1004089-19
Received: 04/13/10 09:00

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury		0.0800	0.200	1	U	SW7470A	0E05005	05/06/10 13:23
7429-90-5	Aluminum	203 J	12.5	50.0	1	~~N~~	SW6010B	0D28020	05/10/10 16:14 MSI
7440-36-0	Antimony		1.25	2.50	1	U	SW6010B	0D28020	05/10/10 16:14
7440-38-2	Arsenic		0.750	1.50	1	U	SW6010B	0D28020	05/10/10 16:14
7440-39-3	Barium	13.4	1.25	3.75	1		SW6010B	0D28020	05/10/10 16:14
7440-41-7	Beryllium		0.250	1.25	1	U	SW6010B	0D28020	05/10/10 16:14
7440-43-9	Cadmium		0.250	1.00	1	U	SW6010B	0D28020	05/10/10 16:14
7440-70-2	Calcium	58300	250	1250	1		SW6010B	0D28020	05/10/10 16:14
7440-47-3	Chromium		0.500	1.00	1	U	SW6010B	0D28020	05/10/10 16:14
7440-48-4	Cobalt		1.25	3.12	1	U	SW6010B	0D28020	05/10/10 16:14
7440-50-8	Copper		1.25	2.50	1	U	SW6010B	0D28020	05/10/10 16:14
7439-89-6	Iron	490	7.50	25.0	1		SW6010B	0D28020	05/10/10 16:14
7439-92-1	Lead		0.375	0.750	1	U	SW6010B	0D28020	05/10/10 16:14
7439-95-4	Magnesium	1510	250	1250	1		SW6010B	0D28020	05/10/10 16:14
7439-96-5	Manganese	2.31	0.750	3.75	1	J	SW6010B	0D28020	05/10/10 16:14
7440-02-0	Nickel		0.750	2.50	1	U	SW6010B	0D28020	05/10/10 16:14
7440-09-7	Potassium		250	1250	1	U	SW6010B	0D28020	05/10/10 16:14
7782-49-2	Selenium		0.750	1.50	1	U	SW6010B	0D28020	05/10/10 16:14
7440-22-4	Silver		0.250	1.25	1	U	SW6010B	0D28020	05/10/10 16:14
7440-23-5	Sodium	2290	250	1250	1		SW6010B	0D28020	05/10/10 16:14
7440-28-0	Thallium		0.750	2.00	1	U	SW6010B	0D28020	05/10/10 16:14
7440-62-2	Vanadium	1.82	1.25	3.12	1	J	SW6010B	0D28020	05/10/10 16:14
7440-66-6	Zinc		1.25	5.00	1	U	SW6010B	0D28020	05/10/10 16:14

LW 7/23/10

ANALYSIS DATA SHEET

MR21-EB041010-GW

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Water
Sampled: 04/10/10 11:00
% Solids: 0.00

SDG: 1004089
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1004089-20
Received: 04/13/10 09:00

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury		0.0800	0.200	1	U	SW7470A	0E05005	05/06/10 13:24
7429-90-5	Aluminum		12.5	50.0	1	U	SW6010B	0D28020	05/10/10 16:19
7440-36-0	Antimony		1.25	2.50	1	U	SW6010B	0D28020	05/10/10 16:19
7440-38-2	Arsenic		0.750	1.50	1	U	SW6010B	0D28020	05/10/10 16:19
7440-39-3	Barium		1.25	3.75	1	U	SW6010B	0D28020	05/10/10 16:19
7440-41-7	Beryllium		0.250	1.25	1	U	SW6010B	0D28020	05/10/10 16:19
7440-43-9	Cadmium		0.250	1.00	1	U	SW6010B	0D28020	05/10/10 16:19
7440-70-2	Calcium		250	1250	1	U	SW6010B	0D28020	05/10/10 16:19
7440-47-3	Chromium		0.500	1.00	1	U	SW6010B	0D28020	05/10/10 16:19
7440-48-4	Cobalt		1.25	3.12	1	U	SW6010B	0D28020	05/10/10 16:19
7440-50-8	Copper		1.25	2.50	1	U	SW6010B	0D28020	05/10/10 16:19
7439-89-6	Iron		7.50	25.0	1	U	SW6010B	0D28020	05/10/10 16:19
7439-92-1	Lead		0.375	0.750	1	U	SW6010B	0D28020	05/10/10 16:19
7439-95-4	Magnesium		250	1250	1	U	SW6010B	0D28020	05/10/10 16:19
7439-96-5	Manganese		0.750	3.75	1	U	SW6010B	0D28020	05/10/10 16:19
7440-02-0	Nickel		0.750	2.50	1	U	SW6010B	0D28020	05/10/10 16:19
7440-09-7	Potassium		250	1250	1	U	SW6010B	0D28020	05/10/10 16:19
7782-49-2	Selenium		0.750	1.50	1	U	SW6010B	0D28020	05/10/10 16:19
7440-22-4	Silver		0.250	1.25	1	U	SW6010B	0D28020	05/10/10 16:19
7440-23-5	Sodium		250	1250	1	U	SW6010B	0D28020	05/10/10 16:19
7440-28-0	Thallium		0.750	2.00	1	U	SW6010B	0D28020	05/10/10 16:19
7440-62-2	Vanadium		1.25	3.12	1	U	SW6010B	0D28020	05/10/10 16:19
7440-66-6	Zinc		1.25	5.00	1	U	SW6010B	0D28020	05/10/10 16:19

KW 7/23/10

ANALYSIS DATA SHEET

MR21-GW08-10B

20

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Water
Sampled: 04/10/10 10:55
% Solids: 0.00

SDG: 1004089
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1004089-21
Received: 04/13/10 09:00

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury		0.0800	0.200	1	U	SW7470A	0E05006	05/06/10 13:26
7429-90-5	Aluminum	226	12.5	50.0	1		SW6010B	0D30002	05/06/10 18:37
7440-36-0	Antimony	UJ	1.25	2.50	1	~~UN~~	SW6010B	0D30002	05/06/10 18:37 MSL
7440-38-2	Arsenic		0.750	1.50	1	U	SW6010B	0D30002	05/06/10 18:37
7440-39-3	Barium	51.3	1.25	3.75	1		SW6010B	0D30002	05/06/10 18:37
7440-41-7	Beryllium		0.250	1.25	1	U	SW6010B	0D30002	05/06/10 18:37
7440-43-9	Cadmium	1.00 ~~0.370~~ U	0.250	1.00	1	~~J~~	SW6010B	0D30002	05/06/10 18:37 FBL
7440-70-2	Calcium	1300 J	250	1250	1	~~J~~	SW6010B	0D30002	05/06/10 18:37 MSL
7440-47-3	Chromium		0.500	1.00	1	U	SW6010B	0D30002	05/06/10 18:37
7440-48-4	Cobalt		1.25	3.12	1	U	SW6010B	0D30002	05/06/10 18:37
7440-50-8	Copper		1.25	2.50	1	U	SW6010B	0D30002	05/06/10 18:37
7439-89-6	Iron	42.4 UJ	7.50	25.0	1	~~J~~	SW6010B	0D30002	05/06/10 18:37 MS
7439-92-1	Lead		0.375	0.750	1	U	SW6010B	0D30002	05/06/10 18:37
7439-95-4	Magnesium	1660	250	1250	1		SW6010B	0D30002	05/06/10 18:37
7439-96-5	Manganese	5.24	0.750	3.75	1		SW6010B	0D30002	05/06/10 18:37
7440-02-0	Nickel		0.750	2.50	1	U	SW6010B	0D30002	05/06/10 18:37
7440-09-7	Potassium	1110	250	1250	1	J	SW6010B	0D30002	05/06/10 18:37
7782-49-2	Selenium		0.750	1.50	1	U	SW6010B	0D30002	05/06/10 18:37
7440-22-4	Silver	R	0.250	1.25	1	~~UN~~	SW6010B	0D30002	05/06/10 18:37 MS
7440-23-5	Sodium	5530	250	1250	1		SW6010B	0D30002	05/06/10 18:37
7440-28-0	Thallium		0.750	2.00	1	U	SW6010B	0D30002	05/06/10 18:37
7440-62-2	Vanadium		1.25	3.12	1	U	SW6010B	0D30002	05/06/10 18:37
7440-66-6	Zinc	5.34	1.25	5.00	1		SW6010B	0D30002	05/06/10 18:37

lw 7/23/10

ANALYSIS DATA SHEET

MR21-FB041010

21

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Water
Sampled: 04/10/10 09:30
% Solids: 0.00

SDG: 1004089
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1004089-22
Received: 04/13/10 09:00

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury		0.0800	0.200	1	U	SW7470A	0E05006	05/06/10 13:29
7429-90-5	Aluminum		12.5	50.0	1	U	SW6010B	0D30002	05/06/10 18:56
7440-36-0	Antimony	UJ	1.25	2.50	1	~~UN~~	SW6010B	0D30002	05/06/10 18:56 MSL
7440-38-2	Arsenic		0.750	1.50	1	U	SW6010B	0D30002	05/06/10 18:56
7440-39-3	Barium		1.25	3.75	1	U	SW6010B	0D30002	05/06/10 18:56
7440-41-7	Beryllium		0.250	1.25	1	U	SW6010B	0D30002	05/06/10 18:56
7440-43-9	Cadmium	0.403	0.250	1.00	1	J	SW6010B	0D30002	05/06/10 18:56
7440-70-2	Calcium	UJ	250	1250	1	~~UN~~	SW6010B	0D30002	05/06/10 18:56 MSI
7440-47-3	Chromium		0.500	1.00	1	U	SW6010B	0D30002	05/06/10 18:56
7440-48-4	Cobalt		1.25	3.12	1	U	SW6010B	0D30002	05/06/10 18:56
7440-50-8	Copper		1.25	2.50	1	U	SW6010B	0D30002	05/06/10 18:56
7439-89-6	Iron	UJ	7.50	25.0	1	~~UN~~	SW6010B	0D30002	05/06/10 18:56 MSI
7439-92-1	Lead		0.375	0.750	1	U	SW6010B	0D30002	05/06/10 18:56
7439-95-4	Magnesium		250	1250	1	U	SW6010B	0D30002	05/06/10 18:56
7439-96-5	Manganese		0.750	3.75	1	U	SW6010B	0D30002	05/06/10 18:56
7440-02-0	Nickel		0.750	2.50	1	U	SW6010B	0D30002	05/06/10 18:56
7440-09-7	Potassium		250	1250	1	U	SW6010B	0D30002	05/06/10 18:56
7782-49-2	Selenium		0.750	1.50	1	U	SW6010B	0D30002	05/06/10 18:56
7440-22-4	Silver	R	0.250	1.25	1	~~UN~~	SW6010B	0D30002	05/06/10 18:56 MS
7440-23-5	Sodium		250	1250	1	U	SW6010B	0D30002	05/06/10 18:56
7440-28-0	Thallium		0.750	2.00	1	U	SW6010B	0D30002	05/06/10 18:56
7440-62-2	Vanadium		1.25	3.12	1	U	SW6010B	0D30002	05/06/10 18:56
7440-66-6	Zinc		1.25	5.00	1	U	SW6010B	0D30002	05/06/10 18:56

MW 7/23/10

ENVIRONMENTAL
Data Services, Inc.

PERCHLORATE

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Area Gas Chamber, CTO-040 SDG #: 1004089

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: July 23, 2010

Laboratory: Empirical Laboratories, Nashville, Tennessee Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR21-SW01D-10B	1004089-02	Water
2	MR21-EB0401110-SS	1004089-03	Water
3	MR21-SW01-10B	1004089-04	Water
4	MR21-SW02-10B	1004089-05	Water
5	MR21-SW05-10B	1004089-06	Water
6	MR21-SW06-10B	1004089-07	Water
7	MR21-SW03-10B	1004089-08	Water
8	MR21-GW02-10B	1004089-09	Water
9	MR21-SW04-10B	1004089-10	Water
9MS	MR21-SW04-10BMS	1004089-10MS	Water
9MSD	MR21-SW04-10BMSD	1004089-10MSD	Water
10	MR21-GW04-10B	1004089-11	Water
10MS	MR21-GW04-10BMS	1004089-11MS	Water
10MSD	MR21-GW04-10BMSD	1004089-11MSD	Water
11	MR21-GW03-10B	1004089-12	Water
12	MR21-GW05-10B	1004089-13	Water
13	MR21-GW01-10B	1004089-14	Water
14	MR21-GW01D-10B	1004089-15	Water
15	MR21-GW10-10B	1004089-16	Water
16	MR21-GW06-10B	1004089-17	Water
17	MR21-GW09-10B	1004089-18	Water
18	MR21-GW07-10B	1004089-19	Water
19	MR21-EB041010-GW	1004089-20	Water
20	MR21-GW08-10B	1004089-21	Water
21	MR21-FB041010	1004089-22	Water

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 except the following.

Sample	Date Sampled	Date Analyzed	# of Days	Qualifier
21	04/10/10	05/11/10	31	J/UJ

Calibration - The ICV and CCV %R values were acceptable.

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/L	Qualifier	Affected Samples
MR21-EB041010-GW	None - ND	-	-	-	-
MR21-EB041110-SS	None - ND	-	-	-	-
MR21-FB041010	None - ND	-	-	-	-

Matrix Spike/Duplicate - The matrix spike/duplicate sample exhibited acceptable %R and RPD values.

MS/MSD Sample ID	Compound	MS/MSD %R/RPD	Qualifier	Affected Samples
9	Perchlorate	121%/100%/28	None	All ND
10	Perchlorate	79%/Ok/20.9%	J/UJ	10

LCS - The LCS samples exhibited acceptable %R values.

Field Duplicates - Field duplicate results are summarized below.

Compound	MR21-SW01-10B ug/L	MR21-SW01D-10B ug/L	RPD	Qualifier
None	ND	ND	-	-

Compound	MR21-GW01-10B ug/L	MR21-GW01D-10B ug/L	RPD	Qualifier
None	ND	ND	-	-

Compound Quantitation - No discrepancies were identified.

ANALYSIS DATA SHEET

MR21-SW01D-10B

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Water
Sampled: 04/11/10 09:05
% Solids: 0.00

SDG: 1004089
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1004089-02
Received: 04/13/10 09:00

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.0660	0.200	1	U	SW6850	0D22010	04/22/10 20:13

WW 7/23/10

ANALYSIS DATA SHEET

MR21-EB0401110-SS

2

Laboratory: Empirical Laboratories, LLC

Client: CH2M Hill, Inc.

Matrix: Water

Sampled: 04/11/10 10:40

% Solids: 0.00

SDG: 1004089

Project: Lejeune CTO-40 UXO-21

Laboratory ID: 1004089-03

Received: 04/13/10 09:00

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.0660	0.200	1	U	SW6850	0D22010	04/22/10 20:49

MW 7/23/10

ANALYSIS DATA SHEET

MR21-SW01-10B 3

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Water
Sampled: 04/11/10 09:00
% Solids: 0.00

SDG: 1004089
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1004089-04
Received: 04/13/10 09:00

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.0660	0.200	1	U	SW6850	0D22010	04/22/10 21:24

MW 7/23/10

ANALYSIS DATA SHEET

MR21-SW02-10B

4

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Water
Sampled: 04/11/10 09:20
% Solids: 0.00

SDG: 1004089
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1004089-05
Received: 04/13/10 09:00

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.0660	0.200	1	U	SW6850	0D22010	04/22/10 22:00

NW 7/23/10

ANALYSIS DATA SHEET

MR21-SW05-10B

5

Laboratory: Empirical Laboratories, LLC

Client: CH2M Hill, Inc.

Matrix: Water

Sampled: 04/11/10 10:10

% Solids: 0.00

SDG: 1004089

Project: Lejeune CTO-40 UXO-21

Laboratory ID: 1004089-06

Received: 04/13/10 09:00

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.0660	0.200	1	U	SW6850	0D22010	04/22/10 22:36

NW 7/23/10

ANALYSIS DATA SHEET

MR21-SW06-10B

6

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Water
Sampled: 04/11/10 10:30
% Solids: 0.00

SDG: 1004089
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1004089-07
Received: 04/13/10 09:00

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate	0.170	0.0660	0.200	1	J	SW6850	0D22010	04/22/10 23:11

nw 7/23/10

ANALYSIS DATA SHEET

MR21-SW03-10B

7

Laboratory:	Empirical Laboratories, LLC	SDG:	1004089
Client:	CH2M Hill, Inc.	Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-08
Sampled:	04/11/10 09:40	Received:	04/13/10 09:00
% Solids:	0.00		

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate	0.0772	0.0660	0.200	1	J	SW6850	0D22010	04/22/10 23:47

NW 7/23/10

ANALYSIS DATA SHEET

MR21-GW02-10B

8

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Water
Sampled: 04/10/10 18:35
% Solids: 0.00

SDG: 1004089
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1004089-09
Received: 04/13/10 09:00

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.0660	0.200	1	U	SW6850	0D22010	04/23/10 00:23

NW 7/23/10

ANALYSIS DATA SHEET

MR21-SW04-10B

9

Laboratory:	Empirical Laboratories, LLC	SDG:	1004089
Client:	CH2M Hill, Inc.	Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-10
Sampled:	04/11/10 09:50	Received:	04/13/10 09:00
% Solids:	0.00		

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.0660	0.200	1	~~B~~ U	SW6850	0D22010	04/23/10 00:58

MW 7/23/10

ANALYSIS DATA SHEET

MR21-GW04-10B

10

Laboratory:	Empirical Laboratories, LLC	SDG:	1004089
Client:	CH2M Hill, Inc.	Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-11
Sampled:	04/10/10 14:55	Received:	04/13/10 09:00
% Solids:	0.00		

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate	0.0821 J	0.0660	0.200	1	~~BJ~~	SW6850	0D22010	04/23/10 02:45 M SL

NW 7/23/10

ANALYSIS DATA SHEET

MR21-GW03-10B

11

Laboratory:	Empirical Laboratories, LLC	SDG:	1004089
Client:	CH2M Hill, Inc.	Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-12
Sampled:	04/10/10 15:30	Received:	04/13/10 09:00
% Solids:	0.00		

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate	0.0843	0.0660	0.200	1	J	SW6850	0D22010	04/23/10 05:08

NW 7/23/10

ANALYSIS DATA SHEET

MR21-GW05-10B

12

Laboratory:	Empirical Laboratories, LLC	SDG:	1004089
Client:	CH2M Hill, Inc.	Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-13
Sampled:	04/10/10 13:20	Received:	04/13/10 09:00
% Solids:	0.00		

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.0660	0.200	1	U	SW6850	0D22010	04/23/10 05:44

MW 7/23/10

ANALYSIS DATA SHEET

MR21-GW01-10B

Laboratory:	Empirical Laboratories, LLC	SDG:	1004089
Client:	CH2M Hill, Inc.	Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-14
Sampled:	04/10/10 15:50	Received:	04/13/10 09:00
% Solids:	0.00		

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.0660	0.200	1	U	SW6850	0D22010	04/23/10 06:19

hw 7/23/10

ANALYSIS DATA SHEET

MR21-GW01D-10B

Laboratory:	Empirical Laboratories, LLC	SDG:	1004089
Client:	CH2M Hill, Inc.	Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-15
Sampled:	04/10/10 15:55	Received:	04/13/10 09:00
% Solids:	0.00		

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.0660	0.200	1	U	SW6850	0D22010	04/23/10 06:55

LW 7/23/10

ANALYSIS DATA SHEET

MR21-GW10-10B

15

Laboratory:	Empirical Laboratories, LLC	SDG:	1004089
Client:	CH2M Hill, Inc.	Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-16
Sampled:	04/10/10 10:10	Received:	04/13/10 09:00
% Solids:	0.00		

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate	0.316	0.0660	0.200	1		SW6850	0D22010	04/23/10 07:31

NW 7/23/10

ANALYSIS DATA SHEET

MR21-GW06-10B

16

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Water
Sampled: 04/10/10 12:55
% Solids: 0.00

SDG: 1004089
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1004089-17
Received: 04/13/10 09:00

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate	0.292	0.0660	0.200	1		SW6850	0D22010	04/23/10 08:07

NW 7/23/10

ANALYSIS DATA SHEET

MR21-GW09-10B

Laboratory:	Empirical Laboratories, LLC	SDG:	1004089
Client:	CH2M Hill, Inc.	Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-18
Sampled:	04/10/10 12:15	Received:	04/13/10 09:00
% Solids:	0.00		

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate	0.627	0.0660	0.200	1		SW6850	0D22010	04/23/10 08:42

MW 7/23/10

ANALYSIS DATA SHEET

MR21-GW07-10B

18

Laboratory: Empirical Laboratories, LLC

Client: CH2M Hill, Inc.

Matrix: Water

Sampled: 04/10/10 10:25

% Solids: 0.00

SDG: 1004089

Project: Lejeune CTO-40 UXO-21

Laboratory ID: 1004089-19

Received: 04/13/10 09:00

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.0660	0.200	1	U	SW6850	0D22010	04/23/10 09:18

NW 7/23/10

ANALYSIS DATA SHEET

MR21-EB041010-GW

19

Laboratory:	Empirical Laboratories, LLC	SDG:	1004089
Client:	CH2M Hill, Inc.	Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-20
Sampled:	04/10/10 11:00	Received:	04/13/10 09:00
% Solids:	0.00		

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.0660	0.200	1	U	SW6850	0D22010	04/23/10 09:54

NW 7/23/10

ANALYSIS DATA SHEET

MR21-GW08-10B

20

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Water
Sampled: 04/10/10 10:55
% Solids: 0.00

SDG: 1004089
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1004089-21
Received: 04/13/10 09:00

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate	0.0866	0.0660	0.200	1	J	SW6850	0D22010	04/23/10 10:29

nw 7/23/10

ANALYSIS DATA SHEET

MR21-FB041010

21

Laboratory:	Empirical Laboratories, LLC	SDG:	1004089
Client:	CH2M Hill, Inc.	Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-22
Sampled:	04/10/10 09:30	Received:	04/13/10 09:00
% Solids:	0.00		

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
14797-73-0	Perchlorate		0.0660	0.200	1	~~H1U~~ UJ	SW6850	0D26029	05/11/10 12:17 H1

Rev 7/23/10

ENVIRONMENTAL
Data Services, Inc.

SEMIVOLATILE ORGANIC COMPOUNDS
USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Area Gas Chamber, CTO-040 SDG #: 1004089

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: July 23, 2010

Laboratory: Empirical Laboratories, Nashville, Tennessee Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR21-SW01D-10B	1004089-02	Water
2	MR21-EB0401110-SS	1004089-03	Water
3	MR21-SW01-10B	1004089-04	Water
4	MR21-SW02-10B	1004089-05	Water
5	MR21-SW05-10B	1004089-06	Water
6	MR21-SW06-10B	1004089-07	Water
7	MR21-SW03-10B	1004089-08	Water
8	MR21-GW02-10B	1004089-09	Water
9	MR21-SW04-10B	1004089-10	Water
9MS	MR21-SW04-10BMS	1004089-10MS	Water
9MSD	MR21-SW04-10BMSD	1004089-10MSD	Water
10	MR21-GW04-10B	1004089-11	Water
10MS	MR21-GW04-10BMS	1004089-11MS	Water
11MSD	MR21-GW04-10BMSD	1004089-11MSD	Water
11	MR21-GW03-10B	1004089-12	Water
12	MR21-GW05-10B	1004089-13	Water
13	MR21-GW01-10B	1004089-14	Water
14	MR21-GW01D-10B	1004089-15	Water
15	MR21-GW10-10B	1004089-16	Water
16	MR21-GW06-10B	1004089-17	Water
17	MR21-GW09-10B	1004089-18	Water
18	MR21-GW07-10B	1004089-19	Water
19	MR21-EB041010-GW	1004089-20	Water
20	MR21-GW08-10B	1004089-21	Water
21	MR21-FB041010	1004089-22	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 extracted within 7 days for water 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
04/20/10	Atrazine	31.4%	J/UJ	1, 2, 3, 9
	2-Chlorobenzalmalonitrile	25.2%		
04/22/10	Atrazine	58.6%	J/UJ	4-8, 10-14
	Benzaldehyde	33.0%		
	2-Chlorobenzalmalonitrile	31.2%		
	4-Methylphenol	25.9%	J/UJ	4-7, 10-14
04/23/10	Atrazine	65.4%	J/UJ	15-21
	Benzaldehyde	37.6%		
	2-Chlorobenzalmalonitrile	28.2%		

Surrogates - All samples exhibited acceptable surrogate recoveries except the following.

Sample ID	Surrogate	%R	Qualifier
8	2-Fluorobiphenyl	43.9%	None for 1 per fraction
	2-Fluorophenol	16.6%	J/R - Acid Compounds
	Phenol-d6	9.89%	
	2,4,6-Tribromophenol	38.2%	

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	Acetophenone	127%/138%/Ok	None - Sample ND
	Caprolactam	12.2%/12.3%/Ok	None - See LCS
	2-Chlorobenzalmalonitrile	113%/120%/Ok	None - Sample ND
10	Caprolactam	11.4%/11.7%/Ok	None - See LCS
	2-Chlorobenzalmalonitrile	114%/115%/Ok	None - Sample ND

Laboratory Control Sample - The LCS samples exhibited acceptable %R values except the following

LCS ID	Compound	%R	Qualifier	Affected Samples
0D14006-BS1	Caprolactam	15.0%	J/UJ	4-8, 10-21
	2-Chlorobenzalmalonitrile	116%	None	All ND

LCS ID	Compound	%R	Qualifier	Affected Samples
0D15006-BS1	Acetophenone	131%	None	All ND
	Caprolactam	13.8%	J/UJ	1, 2, 3, 9
	2-Chlorobenzalmalonitrile	114%	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
0D14006-BLK1	Caprolactam	1.56	7.8	U	4, 6, 7, 10, 11, 13
	Bis(2-ethylhexyl)phthalate	2.69	26.9	U	4

Field, Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/L	Qualifier	Affected Samples
MR21-EB041010-GW	Acetophenone	1.83	9.15	None	See FB
	Butylbenzylphthalate	20.4	204	None	All ND
	Caprolactam	1.34	13.4	None	See FB
	Di-n-butylphthalate	2.99	29.9	U	1, 3, 4
	Diethylphthalate	3.38	33.8	None	See FB
MR21-EB041110-SS	Acetophenone	1.88	9.4	None	Applies to 1004092 samples
	Butylbenzylphthalate	25.2	252		
	Di-n-butylphthalate	3.38	33.8		
	Diethylphthalate	3.03	30.3		
MR21-FB041010	Acetophenone	1.85	9.25	None	All ND
	Butylbenzylphthalate	8.49	84.9	None	See EB
	Caprolactam	3.10	31.0	U	1
	Di-n-butylphthalate	2.52	25.2	None	See EB
	Diethylphthalate	3.43	34.3	None	All ND

Field Duplicates - Field duplicate results are summarized below.

Compound	MR21-SW01-10B ug/L	MR21-SW01D-10B ug/L	RPD	Qualifier
Bis(2-ethylhexyl)phthalate	2.53	1.27 U	NC	None

Compound	MR21-GW01-10B ug/L	MR21-GW01D-10B ug/L	RPD	Qualifier
None	ND	ND	-	-

Tentatively Identified Compounds (TICs) - TICs were not reported.

Compound Quantitation - No discrepancies were identified.

ANALYSIS DATA SHEET

MR21-SW01D-10B

1

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-02	File ID:	0408902.D
Sampled:	04/11/10 09:05	Prepared:	04/15/10 09:00	Analyzed:	04/20/10 11:35
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 0D15006 Sequence: 0D11101 Calibration: 0110002 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
91-94-1	3,3'-Dichlorobenzidine		0.873	9.80	U
83-32-9	Acenaphthene		0.618	9.80	U
208-96-8	Acenaphthylene		0.461	9.80	U
98-86-2	Acetophenone		0.735	9.80	~~J~~, U
120-12-7	Anthracene		0.755	9.80	U
1912-24-9	Atrazine	UJ	0.676	9.80	~~X,U~~ CCH
100-52-7	Benzaldehyde		0.559	9.80	U
56-55-3	Benzo (a) anthracene		0.892	9.80	U
50-32-8	Benzo (a) pyrene		0.588	9.80	U
205-99-2	Benzo (b) fluoranthene		0.696	9.80	U
191-24-2	Benzo (g,h,i) perylene		1.47	9.80	U
207-08-9	Benzo (k) fluoranthene		0.490	9.80	U
92-52-4	1,1'-Biphenyl		0.382	9.80	U
101-55-3	4-Bromophenyl phenyl ether		0.559	9.80	U
85-68-7	Butyl benzyl phthalate		0.804	9.80	U
105-60-2	Caprolactam	9.80 ~~1.59~~ UJ	0.353	9.80	~~Q,J~~ BSL ~~EBL~~
86-74-8	Carbazole		0.676	9.80	U
59-50-7	4-Chloro-3-methylphenol		0.569	9.80	U
106-47-8	4-Chloroaniline		0.931	9.80	U
111-91-1	Bis(2-chloroethoxy)methane		0.510	9.80	U
111-44-4	Bis(2-chloroethyl)ether		0.441	9.80	U
39638-32-9	Bis(2-chloroisopropyl)ether		0.833	9.80	U
91-58-7	2-Chloronaphthalene		0.569	9.80	U
95-57-8	2-Chlorophenol		0.578	9.80	U
7005-72-3	4-Chlorophenyl phenyl ether		0.873	9.80	U
218-01-9	Chrysene		0.980	9.80	U
53-70-3	Dibenz (a,h) anthracene		1.67	9.80	U
132-64-9	Dibenzofuran		0.637	9.80	U
84-74-2	Di-n-butyl phthalate	9.80 ~~1.72~~ U	1.27	9.80	~~X,J~~ EBL
120-83-2	2,4-Dichlorophenol		0.431	9.80	U
84-66-2	Diethyl phthalate		0.980	9.80	U
105-67-9	2,4-Dimethylphenol		0.696	9.80	U
131-11-3	Dimethylphthalate		0.725	9.80	U
534-52-1	4,6-Dinitro-2-methylphenol		0.725	9.80	U
51-28-5	2,4-Dinitrophenol		0.833	24.5	U, ~~X~~
121-14-2	2,4-Dinitrotoluene		0.480	9.80	U
606-20-2	2,6-Dinitrotoluene		0.647	9.80	U
117-84-0	Di-n-octyl phthalate		0.324	9.80	U
117-81-7	Bis(2-ethylhexyl)phthalate		1.27	9.80	U
206-44-0	Fluoranthene		0.686	9.80	U

MW 7/23/10

ANALYSIS DATA SHEET

MR21-SW01D-10B

1

Laboratory:	Empirical Laboratories, LLC			SDG:	1004089
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-02	File ID:	0408902.D
Sampled:	04/11/10 09:05	Prepared:	04/15/10 09:00	Analyzed:	04/20/10 11:35
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 0D15006 Sequence: 0D11101 Calibration: 0110002 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
86-73-7	Fluorene		0.539	9.80	U
118-74-1	Hexachlorobenzene		0.461	9.80	U
87-68-3	Hexachlorobutadiene		0.912	9.80	U
77-47-4	Hexachlorocyclopentadiene		0.873	9.80	U
67-72-1	Hexachloroethane		0.451	9.80	U
193-39-5	Indeno (1,2,3-cd) pyrene		1.37	9.80	U
78-59-1	Isophorone		0.539	9.80	✗, U
91-57-6	2-Methylnaphthalene		0.667	9.80	U
95-48-7	2-Methylphenol		0.814	9.80	U
106-44-5	4-Methylphenol		0.755	9.80	U
91-20-3	Naphthalene		0.441	9.80	U
100-01-6	4-Nitroaniline		1.96	24.5	U
99-09-2	3-Nitroaniline		0.980	24.5	U
88-74-4	2-Nitroaniline		1.18	24.5	U
98-95-3	Nitrobenzene		0.608	9.80	U
100-02-7	4-Nitrophenol		0.814	24.5	U
88-75-5	2-Nitrophenol		0.725	9.80	U
86-30-6	N-Nitrosodiphenylamine		0.451	9.80	U
621-64-7	N-Nitrosodi-n-propylamine		0.882	9.80	U
87-86-5	Pentachlorophenol		0.980	24.5	U
85-01-8	Phenanthrene		0.755	9.80	U
108-95-2	Phenol		0.451	9.80	U
129-00-0	Pyrene		0.637	9.80	U
88-06-2	2,4,6-Trichlorophenol		0.716	9.80	U
95-95-4	2,4,5-Trichlorophenol		0.490	24.5	U
532-27-4	2-Chloroacetophenone		0.980	4.90	U
2698-41-1	2-Chlorobenzalmalononitrile	UJ	0.980	4.90	~~U,X,σ~~ CCH

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	49.02	39.24	80.0	50 - 110	
2-Fluorophenol	98.04	33.49	34.2	20 - 110	
Nitrobenzene-d5	49.02	41.93	85.5	40 - 110	
Phenol-d6	98.04	20.26	20.7	15 - 110	
Terphenyl-d14	49.02	50.23	102	50 - 135	
2,4,6-Tribromophenol	98.04	75.84	77.4	40 - 125	

nw 7/23/10

ANALYSIS DATA SHEET

MR21-EB0401110-SS

2

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-03	File ID:	0408903.D
Sampled:	04/11/10 10:40	Prepared:	04/15/10 09:00	Analyzed:	04/20/10 12:07
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 0D15006 Sequence: 0D11101 Calibration: 0110002 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
91-94-1	3,3'-Dichlorobenzidine		0.856	9.62	U
83-32-9	Acenaphthene		0.606	9.62	U
208-96-8	Acenaphthylene		0.452	9.62	U
98-86-2	Acetophenone	1.88	0.721	9.62	~~B~~, J
120-12-7	Anthracene		0.740	9.62	U
1912-24-9	Atrazine	UJ	0.663	9.62	~~Y~~ CCH
100-52-7	Benzaldehyde		0.548	9.62	U
56-55-3	Benzo (a) anthracene		0.875	9.62	U
50-32-8	Benzo (a) pyrene		0.577	9.62	U
205-99-2	Benzo (b) fluoranthene		0.683	9.62	U
191-24-2	Benzo (g,h,i) perylene		1.44	9.62	U
207-08-9	Benzo (k) fluoranthene		0.481	9.62	U
92-52-4	1,1'-Biphenyl		0.375	9.62	U
101-55-3	4-Bromophenyl phenyl ether		0.548	9.62	U
85-68-7	Butyl benzyl phthalate	25.2	0.788	9.62	
105-60-2	Caprolactam	UJ	0.346	9.62	~~Q~~ U BSL
86-74-8	Carbazole		0.663	9.62	U
59-50-7	4-Chloro-3-methylphenol		0.558	9.62	U
106-47-8	4-Chloroaniline		0.913	9.62	U
111-91-1	Bis(2-chloroethoxy)methane		0.500	9.62	U
111-44-4	Bis(2-chloroethyl)ether		0.433	9.62	U
39638-32-9	Bis(2-chloroisopropyl)ether		0.817	9.62	U
91-58-7	2-Chloronaphthalene		0.558	9.62	U
95-57-8	2-Chlorophenol		0.567	9.62	U
7005-72-3	4-Chlorophenyl phenyl ether		0.856	9.62	U
218-01-9	Chrysene		0.962	9.62	U
53-70-3	Dibenz (a,h) anthracene		1.63	9.62	U
132-64-9	Dibenzofuran		0.625	9.62	U
84-74-2	Di-n-butyl phthalate	3.38	1.25	9.62	~~X~~, J
120-83-2	2,4-Dichlorophenol		0.423	9.62	U
84-66-2	Diethyl phthalate	3.03	0.962	9.62	J
105-67-9	2,4-Dimethylphenol		0.683	9.62	U
131-11-3	Dimethylphthalate		0.712	9.62	U
534-52-1	4,6-Dinitro-2-methylphenol		0.712	9.62	U
51-28-5	2,4-Dinitrophenol		0.817	24.0	~~X~~, U
121-14-2	2,4-Dinitrotoluene		0.471	9.62	U
606-20-2	2,6-Dinitrotoluene		0.635	9.62	U
117-84-0	Di-n-octyl phthalate		0.317	9.62	U
117-81-7	Bis(2-ethylhexyl)phthalate		1.25	9.62	U
206-44-0	Fluoranthene		0.673	9.62	U

MW 7/23/10

ANALYSIS DATA SHEET

MR21-EB0401110-SS

2

Laboratory:	Empirical Laboratories, LLC			SDG:	1004089
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-03	File ID:	0408903.D
Sampled:	04/11/10 10:40	Prepared:	04/15/10 09:00	Analyzed:	04/20/10 12:07
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 0D15006 Sequence: 0D11101 Calibration: 0110002 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
86-73-7	Fluorene		0.529	9.62	U
118-74-1	Hexachlorobenzene		0.452	9.62	U
87-68-3	Hexachlorobutadiene		0.894	9.62	U
77-47-4	Hexachlorocyclopentadiene		0.856	9.62	U
67-72-1	Hexachloroethane		0.442	9.62	U
193-39-5	Indeno (1,2,3-cd) pyrene		1.35	9.62	U
78-59-1	Isophorone		0.529	9.62	~~J~~, U
91-57-6	2-Methylnaphthalene		0.654	9.62	U
95-48-7	2-Methylphenol		0.798	9.62	U
106-44-5	4-Methylphenol		0.740	9.62	U
91-20-3	Naphthalene		0.433	9.62	U
100-01-6	4-Nitroaniline		1.92	24.0	U
99-09-2	3-Nitroaniline		0.962	24.0	U
88-74-4	2-Nitroaniline		1.15	24.0	U
98-95-3	Nitrobenzene		0.596	9.62	U
100-02-7	4-Nitrophenol		0.798	24.0	U
88-75-5	2-Nitrophenol		0.712	9.62	U
86-30-6	N-Nitrosodiphenylamine		0.442	9.62	U
621-64-7	N-Nitrosodi-n-propylamine		0.865	9.62	U
87-86-5	Pentachlorophenol		0.962	24.0	U
85-01-8	Phenanthrene		0.740	9.62	U
108-95-2	Phenol		0.442	9.62	U
129-00-0	Pyrene		0.625	9.62	U
88-06-2	2,4,6-Trichlorophenol		0.702	9.62	U
95-95-4	2,4,5-Trichlorophenol		0.481	24.0	U
532-27-4	2-Chloroacetophenone		0.962	4.81	U
2698-41-1	2-Chlorobenzalmalononitrile	UJ	0.962	4.81	~~X Q U~~ CCH

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	48.08	40.91	85.1	50 - 110	
2-Fluorophenol	96.15	35.16	36.6	20 - 110	
Nitrobenzene-d5	48.08	41.79	86.9	40 - 110	
Phenol-d6	96.15	20.11	20.9	15 - 110	
Terphenyl-d14	48.08	61.05	127	50 - 135	
2,4,6-Tribromophenol	96.15	83.81	87.2	40 - 125	

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ANALYSIS DATA SHEET

MR21-SW01-10B 3

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-04	File ID:	0408904.D
Sampled:	04/11/10 09:00	Prepared:	04/15/10 09:00	Analyzed:	04/20/10 12:40
Solids:		Preparation:	EXT_3510	Dilution:	1
Batch:	0D15006	Sequence: 0D11101	Calibration:	0110002	Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
91-94-1	3,3'-Dichlorobenzidine		0.856	9.62	U
83-32-9	Acenaphthene		0.606	9.62	U
208-96-8	Acenaphthylene		0.452	9.62	U
98-86-2	Acetophenone		0.721	9.62	~~X~~, U
120-12-7	Anthracene		0.740	9.62	U
1912-24-9	Atrazine	UJ	0.663	9.62	~~X,U~~ CCH
100-52-7	Benzaldehyde		0.548	9.62	U
56-55-3	Benzo (a) anthracene		0.875	9.62	U
50-32-8	Benzo (a) pyrene		0.577	9.62	U
205-99-2	Benzo (b) fluoranthene		0.683	9.62	U
191-24-2	Benzo (g,h,i) perylene		1.44	9.62	U
207-08-9	Benzo (k) fluoranthene		0.481	9.62	U
92-52-4	1,1'-Biphenyl		0.375	9.62	U
101-55-3	4-Bromophenyl phenyl ether		0.548	9.62	U
85-68-7	Butyl benzyl phthalate		0.788	9.62	U
105-60-2	Caprolactam	UJ	0.346	9.62	~~Q,U~~ BSL
86-74-8	Carbazole		0.663	9.62	U
59-50-7	4-Chloro-3-methylphenol		0.558	9.62	U
106-47-8	4-Chloroaniline		0.913	9.62	U
111-91-1	Bis(2-chloroethoxy)methane		0.500	9.62	U
111-44-4	Bis(2-chloroethyl)ether		0.433	9.62	U
39638-32-9	Bis(2-chloroisopropyl)ether		0.817	9.62	U
91-58-7	2-Chloronaphthalene		0.558	9.62	U
95-57-8	2-Chlorophenol		0.567	9.62	U
7005-72-3	4-Chlorophenyl phenyl ether		0.856	9.62	U
218-01-9	Chrysene		0.962	9.62	U
53-70-3	Dibenz (a,h) anthracene		1.63	9.62	U
132-64-9	Dibenzofuran		0.625	9.62	U
84-74-2	Di-n-butyl phthalate	9.62 ~~2.17~~ U	1.25	9.62	~~X,J~~ EBL
120-83-2	2,4-Dichlorophenol		0.423	9.62	U
84-66-2	Diethyl phthalate		0.962	9.62	U
105-67-9	2,4-Dimethylphenol		0.683	9.62	U
131-11-3	Dimethylphthalate		0.712	9.62	U
534-52-1	4,6-Dinitro-2-methylphenol		0.712	9.62	U
51-28-5	2,4-Dinitrophenol		0.817	24.0	~~X~~, U
121-14-2	2,4-Dinitrotoluene		0.471	9.62	U
606-20-2	2,6-Dinitrotoluene		0.635	9.62	U
117-84-0	Di-n-octyl phthalate		0.317	9.62	U
117-81-7	Bis(2-ethylhexyl)phthalate	2.53	1.25	9.62	J
206-44-0	Fluoranthene		0.673	9.62	U

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ANALYSIS DATA SHEET

MR21-SW01-10B

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Laboratory:	Empirical Laboratories, LLC			SDG:	1004089
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-04	File ID:	0408904.D
Sampled:	04/11/10 09:00	Prepared:	04/15/10 09:00	Analyzed:	04/20/10 12:40
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 0D15006 Sequence: 0D11101 Calibration: 0110002 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
86-73-7	Fluorene		0.529	9.62	U
118-74-1	Hexachlorobenzene		0.452	9.62	U
87-68-3	Hexachlorobutadiene		0.894	9.62	U
77-47-4	Hexachlorocyclopentadiene		0.856	9.62	U
67-72-1	Hexachloroethane		0.442	9.62	U
193-39-5	Indeno (1,2,3-cd) pyrene		1.35	9.62	U
78-59-1	Isophorone		0.529	9.62	✓, U
91-57-6	2-Methylnaphthalene		0.654	9.62	U
95-48-7	2-Methylphenol		0.798	9.62	U
106-44-5	4-Methylphenol		0.740	9.62	U
91-20-3	Naphthalene		0.433	9.62	U
100-01-6	4-Nitroaniline		1.92	24.0	U
99-09-2	3-Nitroaniline		0.962	24.0	U
88-74-4	2-Nitroaniline		1.15	24.0	U
98-95-3	Nitrobenzene		0.596	9.62	U
100-02-7	4-Nitrophenol		0.798	24.0	U
88-75-5	2-Nitrophenol		0.712	9.62	U
86-30-6	N-Nitrosodiphenylamine		0.442	9.62	U
621-64-7	N-Nitrosodi-n-propylamine		0.865	9.62	U
87-86-5	Pentachlorophenol		0.962	24.0	U
85-01-8	Phenanthrene		0.740	9.62	U
108-95-2	Phenol		0.442	9.62	U
129-00-0	Pyrene		0.625	9.62	U
88-06-2	2,4,6-Trichlorophenol		0.702	9.62	U
95-95-4	2,4,5-Trichlorophenol		0.481	24.0	U
532-27-4	2-Chloroacetophenone		0.962	4.81	U
2698-41-1	2-Chlorobenzalmalononitrile	UJ	0.962	4.81	~~X,Q,U~~ CCH

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	48.08	39.50	82.2	50 - 110	
2-Fluorophenol	96.15	30.16	31.4	20 - 110	
Nitrobenzene-d5	48.08	40.77	84.8	40 - 110	
Phenol-d6	96.15	18.01	18.7	15 - 110	
Terphenyl-d14	48.08	46.55	96.8	50 - 135	
2,4,6-Tribromophenol	96.15	72.90	75.8	40 - 125	

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ANALYSIS DATA SHEET

MR21-SW02-10B H

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-05	File ID:	0408905.D
Sampled:	04/11/10 09:20	Prepared:	04/14/10 14:00	Analyzed:	04/22/10 20:06
Solids:		Preparation:	EXT_3510	Dilution:	1
Batch:	0D14006	Sequence: 0E13501	Calibration:	0110002	Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
91-94-1	3,3'-Dichlorobenzidine		0.890	10.0	U
83-32-9	Acenaphthene		0.630	10.0	U
208-96-8	Acenaphthylene		0.470	10.0	U
98-86-2	Acetophenone		0.750	10.0	U
120-12-7	Anthracene		0.770	10.0	U
1912-24-9	Atrazine	UJ	0.690	10.0	~~Y,U~~ CCH
100-52-7	Benzaldehyde	UJ	0.570	10.0	Y, ~~U~~ CCH
56-55-3	Benzo (a) anthracene		0.910	10.0	U
50-32-8	Benzo (a) pyrene		0.600	10.0	U
205-99-2	Benzo (b) fluoranthene		0.710	10.0	U
191-24-2	Benzo (g,h,i) perylene		1.50	10.0	U
207-08-9	Benzo (k) fluoranthene		0.500	10.0	U
92-52-4	1,1'-Biphenyl		0.390	10.0	U
101-55-3	4-Bromophenyl phenyl ether		0.570	10.0	U
85-68-7	Butyl benzyl phthalate		0.820	10.0	U BSL
105-60-2	Caprolactam	10.0 ~~1.71~~ UJ	0.360	10.0	~~Q,J,B~~ MBL
86-74-8	Carbazole		0.690	10.0	U
59-50-7	4-Chloro-3-methylphenol		0.580	10.0	U
106-47-8	4-Chloroaniline		0.950	10.0	U
111-91-1	Bis(2-chloroethoxy)methane		0.520	10.0	U
111-44-4	Bis(2-chloroethyl)ether		0.450	10.0	U
39638-32-9	Bis(2-chloroisopropyl)ether		0.850	10.0	U
91-58-7	2-Chloronaphthalene		0.580	10.0	U
95-57-8	2-Chlorophenol		0.590	10.0	U
7005-72-3	4-Chlorophenyl phenyl ether		0.890	10.0	U
218-01-9	Chrysene		1.00	10.0	U
53-70-3	Dibenz (a,h) anthracene		1.70	10.0	U
132-64-9	Dibenzofuran		0.650	10.0	U
84-74-2	Di-n-butyl phthalate	10.0 ~~1.40~~ U	1.30	10.0	~~J~~ EBL
120-83-2	2,4-Dichlorophenol		0.440	10.0	U
84-66-2	Diethyl phthalate		1.00	10.0	U
105-67-9	2,4-Dimethylphenol		0.710	10.0	~~J~~, U
131-11-3	Dimethylphthalate		0.740	10.0	U
534-52-1	4,6-Dinitro-2-methylphenol		0.740	10.0	U
51-28-5	2,4-Dinitrophenol		0.850	25.0	~~J~~, U
121-14-2	2,4-Dinitrotoluene		0.490	10.0	U
606-20-2	2,6-Dinitrotoluene		0.660	10.0	U
117-84-0	Di-n-octyl phthalate		0.330	10.0	U
117-81-7	Bis(2-ethylhexyl)phthalate	10.0 ~~2.57~~ U	1.30	10.0	~~B,J~~ MB
206-44-0	Fluoranthene		0.700	10.0	~~J~~, U

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ANALYSIS DATA SHEET

MR21-SW02-10B 4

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-05	File ID:	0408905.D
Sampled:	04/11/10 09:20	Prepared:	04/14/10 14:00	Analyzed:	04/22/10 20:06
Solids:		Preparation:	EXT_3510	Dilution:	1
Batch:	0D14006	Sequence:	0E13501	Calibration:	0110002
Instrument:	MS-BNA1				

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
86-73-7	Fluorene		0.550	10.0	U
118-74-1	Hexachlorobenzene		0.470	10.0	U
87-68-3	Hexachlorobutadiene		0.930	10.0	U
77-47-4	Hexachlorocyclopentadiene		0.890	10.0	U
67-72-1	Hexachloroethane		0.460	10.0	U
193-39-5	Indeno (1,2,3-cd) pyrene		1.40	10.0	U
78-59-1	Isophorone		0.550	10.0	U
91-57-6	2-Methylnaphthalene		0.680	10.0	U
95-48-7	2-Methylphenol		0.830	10.0	U
106-44-5	4-Methylphenol	UJ	0.770	10.0	~~X,U~~ CCH
91-20-3	Naphthalene		0.450	10.0	U
100-01-6	4-Nitroaniline		2.00	25.0	U
99-09-2	3-Nitroaniline		1.00	25.0	U
88-74-4	2-Nitroaniline		1.20	25.0	U
98-95-3	Nitrobenzene		0.620	10.0	U
100-02-7	4-Nitrophenol		0.830	25.0	U
88-75-5	2-Nitrophenol		0.740	10.0	U
86-30-6	N-Nitrosodiphenylamine		0.460	10.0	U
621-64-7	N-Nitrosodi-n-propylamine		0.900	10.0	U
87-86-5	Pentachlorophenol		1.00	25.0	U
85-01-8	Phenanthrene		0.770	10.0	U
108-95-2	Phenol		0.460	10.0	U
129-00-0	Pyrene		0.650	10.0	U
88-06-2	2,4,6-Trichlorophenol		0.730	10.0	U
95-95-4	2,4,5-Trichlorophenol		0.500	25.0	U
532-27-4	2-Chloroacetophenone		1.00	5.00	U
2698-41-1	2-Chlorobenzalmalononitrile	UJ	1.00	5.00	~~X,Q,U~~ CCH

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	50.00	37.93	75.9	50 - 110	
2-Fluorophenol	100.0	35.39	35.4	20 - 110	
Nitrobenzene-d5	50.00	42.29	84.6	40 - 110	
Phenol-d6	100.0	20.99	21.0	15 - 110	
Terphenyl-d14	50.00	41.44	82.9	50 - 135	
2,4,6-Tribromophenol	100.0	79.50	79.5	40 - 125	

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ANALYSIS DATA SHEET

MR21-SW05-10B

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Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-06	File ID:	0408906.D
Sampled:	04/11/10 10:10	Prepared:	04/14/10 14:00	Analyzed:	04/22/10 20:38
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 0D14006 Sequence: 0E13501 Calibration: 0110002 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
91-94-1	3,3'-Dichlorobenzidine		0.890	10.0	U
83-32-9	Acenaphthene		0.630	10.0	U
208-96-8	Acenaphthylene		0.470	10.0	U
98-86-2	Acetophenone		0.750	10.0	U
120-12-7	Anthracene		0.770	10.0	U
1912-24-9	Atrazine	UJ	0.690	10.0	~~Y,U~~ CCH
100-52-7	Benzaldehyde	UJ	0.570	10.0	~~Y~~, U CCH
56-55-3	Benzo (a) anthracene		0.910	10.0	U
50-32-8	Benzo (a) pyrene		0.600	10.0	U
205-99-2	Benzo (b) fluoranthene		0.710	10.0	U
191-24-2	Benzo (g,h,i) perylene		1.50	10.0	U
207-08-9	Benzo (k) fluoranthene		0.500	10.0	U
92-52-4	1,1'-Biphenyl		0.390	10.0	U
101-55-3	4-Bromophenyl phenyl ether		0.570	10.0	U
85-68-7	Butyl benzyl phthalate		0.820	10.0	U
105-60-2	Caprolactam	UJ	0.360	10.0	~~Q,U~~ BSL
86-74-8	Carbazole		0.690	10.0	U
59-50-7	4-Chloro-3-methylphenol		0.580	10.0	U
106-47-8	4-Chloroaniline		0.950	10.0	U
111-91-1	Bis(2-chloroethoxy)methane		0.520	10.0	U
111-44-4	Bis(2-chloroethyl)ether		0.450	10.0	U
39638-32-9	Bis(2-chloroisopropyl)ether		0.850	10.0	U
91-58-7	2-Chloronaphthalene		0.580	10.0	U
95-57-8	2-Chlorophenol		0.590	10.0	U
7005-72-3	4-Chlorophenyl phenyl ether		0.890	10.0	U
218-01-9	Chrysene		1.00	10.0	U
53-70-3	Dibenz (a,h) anthracene		1.70	10.0	U
132-64-9	Dibenzofuran		0.650	10.0	U
84-74-2	Di-n-butyl phthalate		1.30	10.0	U
120-83-2	2,4-Dichlorophenol		0.440	10.0	U
84-66-2	Diethyl phthalate		1.00	10.0	U
105-67-9	2,4-Dimethylphenol		0.710	10.0	~~Y~~, U
131-11-3	Dimethylphthalate		0.740	10.0	U
534-52-1	4,6-Dinitro-2-methylphenol		0.740	10.0	U
51-28-5	2,4-Dinitrophenol		0.850	25.0	~~Y~~, U
121-14-2	2,4-Dinitrotoluene		0.490	10.0	U
606-20-2	2,6-Dinitrotoluene		0.660	10.0	U
117-84-0	Di-n-octyl phthalate		0.330	10.0	U
117-81-7	Bis(2-ethylhexyl)phthalate		1.30	10.0	U
206-44-0	Fluoranthene		0.700	10.0	~~Y~~, U

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ANALYSIS DATA SHEET

MR21-SW05-10B

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Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-06	File ID:	0408906.D
Sampled:	04/11/10 10:10	Prepared:	04/14/10 14:00	Analyzed:	04/22/10 20:38
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 0D14006 Sequence: 0E13501 Calibration: 0110002 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
86-73-7	Fluorene		0.550	10.0	U
118-74-1	Hexachlorobenzene		0.470	10.0	U
87-68-3	Hexachlorobutadiene		0.930	10.0	U
77-47-4	Hexachlorocyclopentadiene		0.890	10.0	U
67-72-1	Hexachloroethane		0.460	10.0	U
193-39-5	Indeno (1,2,3-cd) pyrene		1.40	10.0	U
78-59-1	Isophorone		0.550	10.0	U
91-57-6	2-Methylnaphthalene		0.680	10.0	U
95-48-7	2-Methylphenol		0.830	10.0	U
106-44-5	4-Methylphenol	UJ	0.770	10.0	~~Y, U~~ CCH
91-20-3	Naphthalene		0.450	10.0	U
100-01-6	4-Nitroaniline		2.00	25.0	U
99-09-2	3-Nitroaniline		1.00	25.0	U
88-74-4	2-Nitroaniline		1.20	25.0	U
98-95-3	Nitrobenzene		0.620	10.0	U
100-02-7	4-Nitrophenol		0.830	25.0	U
88-75-5	2-Nitrophenol		0.740	10.0	U
86-30-6	N-Nitrosodiphenylamine		0.460	10.0	U
621-64-7	N-Nitrosodi-n-propylamine		0.900	10.0	U
87-86-5	Pentachlorophenol		1.00	25.0	U
85-01-8	Phenanthrene		0.770	10.0	U
108-95-2	Phenol		0.460	10.0	U
129-00-0	Pyrene		0.650	10.0	U
88-06-2	2,4,6-Trichlorophenol		0.730	10.0	U
95-95-4	2,4,5-Trichlorophenol		0.500	25.0	U
532-27-4	2-Chloroacetophenone		1.00	5.00	U
2698-41-1	2-Chlorobenzalmalononitrile	UJ	1.00	5.00	~~X, Q,~~ U CCH

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	50.00	40.70	81.4	50 - 110	
2-Fluorophenol	100.0	39.90	39.9	20 - 110	
Nitrobenzene-d5	50.00	43.96	87.9	40 - 110	
Phenol-d6	100.0	23.41	23.4	15 - 110	
Terphenyl-d14	50.00	53.69	107	50 - 135	
2,4,6-Tribromophenol	100.0	85.03	85.0	40 - 125	

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ANALYSIS DATA SHEET

MR21-SW06-10B 6

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-07	File ID:	0408907.D
Sampled:	04/11/10 10:30	Prepared:	04/14/10 14:00	Analyzed:	04/22/10 21:11
Solids:		Preparation:	EXT_3510	Dilution:	1
Batch:	0D14006	Sequence: 0E13501	Calibration:	0110002	Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
91-94-1	3,3´-Dichlorobenzidine		0.840	9.43	U
83-32-9	Acenaphthene		0.594	9.43	U
208-96-8	Acenaphthylene		0.443	9.43	U
98-86-2	Acetophenone		0.708	9.43	U
120-12-7	Anthracene		0.726	9.43	U
1912-24-9	Atrazine	UJ	0.651	9.43	~~Y,U~~ CCH
100-52-7	Benzaldehyde	UJ	0.538	9.43	~~Y,U~~ CCH
56-55-3	Benzo (a) anthracene		0.858	9.43	U
50-32-8	Benzo (a) pyrene		0.566	9.43	U
205-99-2	Benzo (b) fluoranthene		0.670	9.43	U
191-24-2	Benzo (g,h,i) perylene		1.42	9.43	U
207-08-9	Benzo (k) fluoranthene		0.472	9.43	U
92-52-4	1,1'-Biphenyl		0.368	9.43	U
101-55-3	4-Bromophenyl phenyl ether		0.538	9.43	U
85-68-7	Butyl benzyl phthalate		0.774	9.43	U
105-60-2	Caprolactam	9.43 ~~1.34~~ UJ	0.340	9.43	~~Q, J, B~~ BSL MDL
86-74-8	Carbazole		0.651	9.43	U
59-50-7	4-Chloro-3-methylphenol		0.547	9.43	U
106-47-8	4-Chloroaniline		0.896	9.43	U
111-91-1	Bis(2-chloroethoxy)methane		0.491	9.43	U
111-44-4	Bis(2-chloroethyl)ether		0.425	9.43	U
39638-32-9	Bis(2-chloroisopropyl)ether		0.802	9.43	U
91-58-7	2-Chloronaphthalene		0.547	9.43	U
95-57-8	2-Chlorophenol		0.557	9.43	U
7005-72-3	4-Chlorophenyl phenyl ether		0.840	9.43	U
218-01-9	Chrysene		0.943	9.43	U
53-70-3	Dibenz (a,h) anthracene		1.60	9.43	U
132-64-9	Dibenzofuran		0.613	9.43	U
84-74-2	Di-n-butyl phthalate		1.23	9.43	U
120-83-2	2,4-Dichlorophenol		0.415	9.43	U
84-66-2	Diethyl phthalate		0.943	9.43	U
105-67-9	2,4-Dimethylphenol		0.670	9.43	~~Y~~, U
131-11-3	Dimethylphthalate		0.698	9.43	U
534-52-1	4,6-Dinitro-2-methylphenol		0.698	9.43	U
51-28-5	2,4-Dinitrophenol		0.802	23.6	~~Y~~, U
121-14-2	2,4-Dinitrotoluene		0.462	9.43	U
606-20-2	2,6-Dinitrotoluene		0.623	9.43	U
117-84-0	Di-n-octyl phthalate		0.311	9.43	U
117-81-7	Bis(2-ethylhexyl)phthalate		1.23	9.43	U
206-44-0	Fluoranthene		0.660	9.43	~~Y~~, U

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ANALYSIS DATA SHEET

MR21-SW06-10B 6

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-07	File ID:	0408907.D
Sampled:	04/11/10 10:30	Prepared:	04/14/10 14:00	Analyzed:	04/22/10 21:11
Solids:		Preparation:	EXT_3510	Dilution:	1
Batch:	0D14006	Sequence: 0E13501	Calibration:	0110002	Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
86-73-7	Fluorene		0.519	9.43	U
118-74-1	Hexachlorobenzene		0.443	9.43	U
87-68-3	Hexachlorobutadiene		0.877	9.43	U
77-47-4	Hexachlorocyclopentadiene		0.840	9.43	U
67-72-1	Hexachloroethane		0.434	9.43	U
193-39-5	Indeno (1,2,3-cd) pyrene		1.32	9.43	U
78-59-1	Isophorone		0.519	9.43	U
91-57-6	2-Methylnaphthalene		0.642	9.43	U
95-48-7	2-Methylphenol		0.783	9.43	U
106-44-5	4-Methylphenol	UJ	0.726	9.43	~~Y~~ CCH
91-20-3	Naphthalene		0.425	9.43	U
100-01-6	4-Nitroaniline		1.89	23.6	U
99-09-2	3-Nitroaniline		0.943	23.6	U
88-74-4	2-Nitroaniline		1.13	23.6	U
98-95-3	Nitrobenzene		0.585	9.43	U
100-02-7	4-Nitrophenol		0.783	23.6	U
88-75-5	2-Nitrophenol		0.698	9.43	U
86-30-6	N-Nitrosodiphenylamine		0.434	9.43	U
621-64-7	N-Nitrosodi-n-propylamine		0.849	9.43	U
87-86-5	Pentachlorophenol		0.943	23.6	U
85-01-8	Phenanthrene		0.726	9.43	U
108-95-2	Phenol		0.434	9.43	U
129-00-0	Pyrene		0.613	9.43	U
88-06-2	2,4,6-Trichlorophenol		0.689	9.43	U
95-95-4	2,4,5-Trichlorophenol		0.472	23.6	U
532-27-4	2-Chloroacetophenone		0.943	4.72	U
2698-41-1	2-Chlorobenzalmalononitrile	UJ	0.943	4.72	~~X~~ CCH

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	47.17	39.04	82.8	50 - 110	
2-Fluorophenol	94.34	30.91	32.8	20 - 110	
Nitrobenzene-d5	47.17	40.17	85.2	40 - 110	
Phenol-d6	94.34	19.75	20.9	15 - 110	
Terphenyl-d14	47.17	49.83	106	50 - 135	
2,4,6-Tribromophenol	94.34	75.48	80.0	40 - 125	

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ANALYSIS DATA SHEET

MR21-SW03-10B 7

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-08	File ID:	0408908.D
Sampled:	04/11/10 09:40	Prepared:	04/14/10 14:00	Analyzed:	04/22/10 21:43
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 0D14006 Sequence: 0E13501 Calibration: 0110002 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
91-94-1	3,3'-Dichlorobenzidine		0.890	10.0	U
83-32-9	Acenaphthene		0.630	10.0	U
208-96-8	Acenaphthylene		0.470	10.0	U
98-86-2	Acetophenone		0.750	10.0	U
120-12-7	Anthracene		0.770	10.0	U
1912-24-9	Atrazine	UJ	0.690	10.0	~~Y,U~~ CCH
100-52-7	Benzaldehyde	UJ	0.570	10.0	~~Y,U~~ CCH
56-55-3	Benzo (a) anthracene		0.910	10.0	U
50-32-8	Benzo (a) pyrene		0.600	10.0	U
205-99-2	Benzo (b) fluoranthene		0.710	10.0	U
191-24-2	Benzo (g,h,i) perylene		1.50	10.0	U
207-08-9	Benzo (k) fluoranthene		0.500	10.0	U
92-52-4	1,1'-Biphenyl		0.390	10.0	U
101-55-3	4-Bromophenyl phenyl ether		0.570	10.0	U
85-68-7	Butyl benzyl phthalate		0.820	10.0	U
105-60-2	Caprolactam	10.0 ~~1.44~~ UJ	0.360	10.0	~~Q,J,B~~ BSL MBL
86-74-8	Carbazole		0.690	10.0	U
59-50-7	4-Chloro-3-methylphenol		0.580	10.0	U
106-47-8	4-Chloroaniline		0.950	10.0	U
111-91-1	Bis(2-chloroethoxy)methane		0.520	10.0	U
111-44-4	Bis(2-chloroethyl)ether		0.450	10.0	U
39638-32-9	Bis(2-chloroisopropyl)ether		0.850	10.0	U
91-58-7	2-Chloronaphthalene		0.580	10.0	U
95-57-8	2-Chlorophenol		0.590	10.0	U
7005-72-3	4-Chlorophenyl phenyl ether		0.890	10.0	U
218-01-9	Chrysene		1.00	10.0	U
53-70-3	Dibenz (a,h) anthracene		1.70	10.0	U
132-64-9	Dibenzofuran		0.650	10.0	U
84-74-2	Di-n-butyl phthalate		1.30	10.0	U
120-83-2	2,4-Dichlorophenol		0.440	10.0	U
84-66-2	Diethyl phthalate		1.00	10.0	U
105-67-9	2,4-Dimethylphenol		0.710	10.0	~~Y~~, U
131-11-3	Dimethylphthalate		0.740	10.0	U
534-52-1	4,6-Dinitro-2-methylphenol		0.740	10.0	U
51-28-5	2,4-Dinitrophenol		0.850	25.0	~~Y~~, U
121-14-2	2,4-Dinitrotoluene		0.490	10.0	U
606-20-2	2,6-Dinitrotoluene		0.660	10.0	U
117-84-0	Di-n-octyl phthalate		0.330	10.0	U
117-81-7	Bis(2-ethylhexyl)phthalate		1.30	10.0	U
206-44-0	Fluoranthene		0.700	10.0	~~Y~~, U

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ANALYSIS DATA SHEET

MR21-SW03-10B

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Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-08	File ID:	0408908.D
Sampled:	04/11/10 09:40	Prepared:	04/14/10 14:00	Analyzed:	04/22/10 21:43
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 0D14006 Sequence: 0E13501 Calibration: 0110002 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
86-73-7	Fluorene		0.550	10.0	U
118-74-1	Hexachlorobenzene		0.470	10.0	U
87-68-3	Hexachlorobutadiene		0.930	10.0	U
77-47-4	Hexachlorocyclopentadiene		0.890	10.0	U
67-72-1	Hexachloroethane		0.460	10.0	U
193-39-5	Indeno (1,2,3-cd) pyrene		1.40	10.0	U
78-59-1	Isophorone		0.550	10.0	U
91-57-6	2-Methylnaphthalene		0.680	10.0	U
95-48-7	2-Methylphenol		0.830	10.0	U
106-44-5	4-Methylphenol	UJ	0.770	10.0	~~X,U~~ CCH
91-20-3	Naphthalene		0.450	10.0	U
100-01-6	4-Nitroaniline		2.00	25.0	U
99-09-2	3-Nitroaniline		1.00	25.0	U
88-74-4	2-Nitroaniline		1.20	25.0	U
98-95-3	Nitrobenzene		0.620	10.0	U
100-02-7	4-Nitrophenol		0.830	25.0	U
88-75-5	2-Nitrophenol		0.740	10.0	U
86-30-6	N-Nitrosodiphenylamine		0.460	10.0	U
621-64-7	N-Nitrosodi-n-propylamine		0.900	10.0	U
87-86-5	Pentachlorophenol		1.00	25.0	U
85-01-8	Phenanthrene		0.770	10.0	U
108-95-2	Phenol		0.460	10.0	U
129-00-0	Pyrene		0.650	10.0	U
88-06-2	2,4,6-Trichlorophenol		0.730	10.0	U
95-95-4	2,4,5-Trichlorophenol		0.500	25.0	U
532-27-4	2-Chloroacetophenone		1.00	5.00	U
2698-41-1	2-Chlorobenzalmalononitrile	UJ	1.00	5.00	~~X,Q,U~~ CCH

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	50.00	40.63	81.3	50 - 110	
2-Fluorophenol	100.0	33.69	33.7	20 - 110	
Nitrobenzene-d5	50.00	40.51	81.0	40 - 110	
Phenol-d6	100.0	21.32	21.3	15 - 110	
Terphenyl-d14	50.00	62.62	125	50 - 135	
2,4,6-Tribromophenol	100.0	80.05	80.0	40 - 125	

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ANALYSIS DATA SHEET

MR21-GW02-10B

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Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-09	File ID:	0408909.D
Sampled:	04/10/10 18:35	Prepared:	04/14/10 14:00	Analyzed:	04/22/10 22:16
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 0D14006 Sequence: 0E13501 Calibration: 0110002 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
91-94-1	3,3'-Dichlorobenzidine		0.856	9.62	S, U
83-32-9	Acenaphthene		0.606	9.62	S, U
208-96-8	Acenaphthylene		0.452	9.62	S, U
98-86-2	Acetophenone		0.721	9.62	S, U
120-12-7	Anthracene		0.740	9.62	S, U
1912-24-9	Atrazine	UJ	0.663	9.62	~~Y, S, U~~ CCH
100-52-7	Benzaldehyde	UJ	0.548	9.62	~~Y, S, U~~ CCH
56-55-3	Benzo (a) anthracene		0.875	9.62	S, U
50-32-8	Benzo (a) pyrene		0.577	9.62	S, U
205-99-2	Benzo (b) fluoranthene		0.683	9.62	S, U
191-24-2	Benzo (g,h,i) perylene		1.44	9.62	S, U
207-08-9	Benzo (k) fluoranthene		0.481	9.62	S, U
92-52-4	1,1'-Biphenyl		0.375	9.62	S, U
101-55-3	4-Bromophenyl phenyl ether		0.548	9.62	S, U
85-68-7	Butyl benzyl phthalate		0.788	9.62	S, U
105-60-2	Caprolactam	UJ	0.346	9.62	~~S, Q, U~~ BSL
86-74-8	Carbazole		0.663	9.62	S, U
59-50-7	4-Chloro-3-methylphenol	R	0.558	9.62	~~S, U~~ SSL
106-47-8	4-Chloroaniline		0.913	9.62	S, U
111-91-1	Bis(2-chloroethoxy)methane		0.500	9.62	S, U
111-44-4	Bis(2-chloroethyl)ether		0.433	9.62	S, U
39638-32-9	Bis(2-chloroisopropyl)ether		0.817	9.62	S, U
91-58-7	2-Chloronaphthalene		0.558	9.62	S, U
95-57-8	2-Chlorophenol	R	0.567	9.62	~~S, U~~ SSL
7005-72-3	4-Chlorophenyl phenyl ether		0.856	9.62	S, U
218-01-9	Chrysene		0.962	9.62	S, U
53-70-3	Dibenz (a,h) anthracene		1.63	9.62	S, U
132-64-9	Dibenzofuran		0.625	9.62	S, U
84-74-2	Di-n-butyl phthalate		1.25	9.62	S, U
120-83-2	2,4-Dichlorophenol	R	0.423	9.62	~~S, U~~ SSL
84-66-2	Diethyl phthalate		0.962	9.62	S, U
105-67-9	2,4-Dimethylphenol	R	0.683	9.62	~~S, Y, U~~ SSL
131-11-3	Dimethylphthalate		0.712	9.62	S, U
534-52-1	4,6-Dinitro-2-methylphenol	R	0.712	9.62	~~S, U~~ SSL
51-28-5	2,4-Dinitrophenol	R	0.817	24.0	~~S, X, U~~ SSL
121-14-2	2,4-Dinitrotoluene		0.471	9.62	S, U
606-20-2	2,6-Dinitrotoluene		0.635	9.62	S, U
117-84-0	Di-n-octyl phthalate		0.317	9.62	S, U
117-81-7	Bis(2-ethylhexyl)phthalate		1.25	9.62	S, U
206-44-0	Fluoranthene		0.673	9.62	~~X~~, S, U

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ANALYSIS DATA SHEET

MR21-GW02-10B 8

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-09	File ID:	0408909.D
Sampled:	04/10/10 18:35	Prepared:	04/14/10 14:00	Analyzed:	04/22/10 22:16
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 0D14006 Sequence: 0E13501 Calibration: 0110002 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
86-73-7	Fluorene		0.529	9.62	~~S~~, U
118-74-1	Hexachlorobenzene		0.452	9.62	~~S~~, U
87-68-3	Hexachlorobutadiene		0.894	9.62	~~S~~, U
77-47-4	Hexachlorocyclopentadiene		0.856	9.62	~~S~~, U
67-72-1	Hexachloroethane		0.442	9.62	~~S~~, U
193-39-5	Indeno (1,2,3-cd) pyrene		1.35	9.62	~~S~~, U
78-59-1	Isophorone		0.529	9.62	~~S~~, U
91-57-6	2-Methylnaphthalene		0.654	9.62	~~S~~, U
95-48-7	2-Methylphenol	R	0.798	9.62	~~S, U~~ SSL
106-44-5	4-Methylphenol	R	0.740	9.62	~~Y, S, U~~ SSL
91-20-3	Naphthalene		0.433	9.62	~~S~~, U
100-01-6	4-Nitroaniline		1.92	24.0	~~S~~, U
99-09-2	3-Nitroaniline		0.962	24.0	~~S~~, U
88-74-4	2-Nitroaniline		1.15	24.0	~~S~~, U
98-95-3	Nitrobenzene		0.596	9.62	~~S~~, U
100-02-7	4-Nitrophenol	R	0.798	24.0	~~U~~ SSL
88-75-5	2-Nitrophenol	R	0.712	9.62	~~S, U~~ SSL
86-30-6	N-Nitrosodiphenylamine		0.442	9.62	~~S~~, U
621-64-7	N-Nitrosodi-n-propylamine		0.865	9.62	~~S~~, U
87-86-5	Pentachlorophenol	R	0.962	24.0	~~S, U~~ SSL
85-01-8	Phenanthrene		0.740	9.62	~~S~~, U
108-95-2	Phenol	R	0.442	9.62	~~S, U~~ SSL
129-00-0	Pyrene		0.625	9.62	~~S~~, U
88-06-2	2,4,6-Trichlorophenol	R	0.702	9.62	~~S, U~~ SSL
95-95-4	2,4,5-Trichlorophenol	R	0.481	24.0	~~S, U~~ SSL
532-27-4	2-Chloroacetophenone		0.962	4.81	~~S~~, U
2698-41-1	2-Chlorobenzalmalononitrile	UJ	0.962	4.81	~~S, X, Q, U~~ CCH

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	48.08	21.11	43.9	50 - 110	*
2-Fluorophenol	96.15	16.00	16.6	20 - 110	*
Nitrobenzene-d5	48.08	24.55	51.1	40 - 110	
Phenol-d6	96.15	9.505	9.89	15 - 110	*
Terphenyl-d14	48.08	24.34	50.6	50 - 135	
2,4,6-Tribromophenol	96.15	36.76	38.2	40 - 125	*

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ANALYSIS DATA SHEET

MR21-SW04-10B 9

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-10	File ID:	0408910.D
Sampled:	04/11/10 09:50	Prepared:	04/15/10 09:00	Analyzed:	04/20/10 08:52
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 0D15006 Sequence: 0D11101 Calibration: 0110002 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
91-94-1	3,3´-Dichlorobenzidine		0.840	9.43	U
83-32-9	Acenaphthene		0.594	9.43	U
208-96-8	Acenaphthylene		0.443	9.43	U
98-86-2	Acetophenone		0.708	9.43	~~Q,R~~, U
120-12-7	Anthracene		0.726	9.43	U
1912-24-9	Atrazine	UJ	0.651	9.43	~~X,U~~ CCH
100-52-7	Benzaldehyde		0.538	9.43	U
56-55-3	Benzo (a) anthracene		0.858	9.43	U
50-32-8	Benzo (a) pyrene		0.566	9.43	U
205-99-2	Benzo (b) fluoranthene		0.670	9.43	U
191-24-2	Benzo (g,h,i) perylene		1.42	9.43	U
207-08-9	Benzo (k) fluoranthene		0.472	9.43	U
92-52-4	1,1'-Biphenyl		0.368	9.43	U
101-55-3	4-Bromophenyl phenyl ether		0.538	9.43	U
85-68-7	Butyl benzyl phthalate		0.774	9.43	U
105-60-2	Caprolactam	UJ	0.340	9.43	R ~~Q,U~~ BSL
86-74-8	Carbazole		0.651	9.43	U
59-50-7	4-Chloro-3-methylphenol		0.547	9.43	U
106-47-8	4-Chloroaniline		0.896	9.43	U
111-91-1	Bis(2-chloroethoxy)methane		0.491	9.43	U
111-44-4	Bis(2-chloroethyl)ether		0.425	9.43	U
39638-32-9	Bis(2-chloroisopropyl)ether		0.802	9.43	U
91-58-7	2-Chloronaphthalene		0.547	9.43	U
95-57-8	2-Chlorophenol		0.557	9.43	U
7005-72-3	4-Chlorophenyl phenyl ether		0.840	9.43	U
218-01-9	Chrysene		0.943	9.43	U
53-70-3	Dibenz (a,h) anthracene		1.60	9.43	U
132-64-9	Dibenzofuran		0.613	9.43	U
84-74-2	Di-n-butyl phthalate		1.23	9.43	~~X~~, U
120-83-2	2,4-Dichlorophenol		0.415	9.43	U
84-66-2	Diethyl phthalate		0.943	9.43	U
105-67-9	2,4-Dimethylphenol		0.670	9.43	U
131-11-3	Dimethylphthalate		0.698	9.43	U
534-52-1	4,6-Dinitro-2-methylphenol		0.698	9.43	U
51-28-5	2,4-Dinitrophenol		0.802	23.6	~~X~~, U
121-14-2	2,4-Dinitrotoluene		0.462	9.43	U
606-20-2	2,6-Dinitrotoluene		0.623	9.43	U
117-84-0	Di-n-octyl phthalate		0.311	9.43	U
117-81-7	Bis(2-ethylhexyl)phthalate		1.23	9.43	U
206-44-0	Fluoranthene		0.660	9.43	U

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ANALYSIS DATA SHEET

MR21-SW04-10B

9

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-10	File ID:	0408910.D
Sampled:	04/11/10 09:50	Prepared:	04/15/10 09:00	Analyzed:	04/20/10 08:52
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 0D15006 Sequence: 0D11101 Calibration: 0110002 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
86-73-7	Fluorene		0.519	9.43	U
118-74-1	Hexachlorobenzene		0.443	9.43	U
87-68-3	Hexachlorobutadiene		0.877	9.43	U
77-47-4	Hexachlorocyclopentadiene		0.840	9.43	U
67-72-1	Hexachloroethane		0.434	9.43	U
193-39-5	Indeno (1,2,3-cd) pyrene		1.32	9.43	U
78-59-1	Isophorone		0.519	9.43	~~Y~~, U
91-57-6	2-Methylnaphthalene		0.642	9.43	U
95-48-7	2-Methylphenol		0.783	9.43	U
106-44-5	4-Methylphenol		0.726	9.43	U
91-20-3	Naphthalene		0.425	9.43	U
100-01-6	4-Nitroaniline		1.89	23.6	U
99-09-2	3-Nitroaniline		0.943	23.6	U
88-74-4	2-Nitroaniline		1.13	23.6	U
98-95-3	Nitrobenzene		0.585	9.43	U
100-02-7	4-Nitrophenol		0.783	23.6	U
88-75-5	2-Nitrophenol		0.698	9.43	U
86-30-6	N-Nitrosodiphenylamine		0.434	9.43	U
621-64-7	N-Nitrosodi-n-propylamine		0.849	9.43	U
87-86-5	Pentachlorophenol		0.943	23.6	U
85-01-8	Phenanthrene		0.726	9.43	U
108-95-2	Phenol		0.434	9.43	U
129-00-0	Pyrene		0.613	9.43	U
88-06-2	2,4,6-Trichlorophenol		0.689	9.43	U
95-95-4	2,4,5-Trichlorophenol		0.472	23.6	U
532-27-4	2-Chloroacetophenone		0.943	4.72	U
2698-41-1	2-Chlorobenzalmalononitrile	UJ	0.943	4.72	~~X, R, Q, U~~ C CH

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	47.17	40.69	86.3	50 - 110	
2-Fluorophenol	94.34	33.03	35.0	20 - 110	
Nitrobenzene-d5	47.17	40.51	85.9	40 - 110	
Phenol-d6	94.34	20.32	21.5	15 - 110	
Terphenyl-d14	47.17	53.34	113	50 - 135	
2,4,6-Tribromophenol	94.34	80.43	85.3	40 - 125	

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ANALYSIS DATA SHEET

MR21-GW04-10B

10

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-11	File ID:	0408911.D
Sampled:	04/10/10 14:55	Prepared:	04/14/10 14:00	Analyzed:	04/22/10 22:48
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 0D14006 Sequence: 0E13501 Calibration: 0110002 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
91-94-1	3,3'-Dichlorobenzidine		0.937	10.5	U
83-32-9	Acenaphthene		0.663	10.5	U
208-96-8	Acenaphthylene		0.495	10.5	U
98-86-2	Acetophenone		0.789	10.5	U
120-12-7	Anthracene		0.811	10.5	U
1912-24-9	Atrazine	UJ	0.726	10.5	~~Y,~~ CCH
100-52-7	Benzaldehyde	UJ	0.600	10.5	~~Y,~~ U CCH
56-55-3	Benzo (a) anthracene		0.958	10.5	U
50-32-8	Benzo (a) pyrene		0.632	10.5	U
205-99-2	Benzo (b) fluoranthene		0.747	10.5	U
191-24-2	Benzo (g,h,i) perylene		1.58	10.5	U
207-08-9	Benzo (k) fluoranthene		0.526	10.5	U
92-52-4	1,1'-Biphenyl		0.411	10.5	U
101-55-3	4-Bromophenyl phenyl ether		0.600	10.5	U
85-68-7	Butyl benzyl phthalate		0.863	10.5	U
105-60-2	Caprolactam	10.5 ~~1.47~~ UJ	0.379	10.5	~~Q,R,J,B~~ BSL MBL
86-74-8	Carbazole		0.726	10.5	U
59-50-7	4-Chloro-3-methylphenol		0.611	10.5	U
106-47-8	4-Chloroaniline		1.00	10.5	U
111-91-1	Bis(2-chloroethoxy)methane		0.547	10.5	U
111-44-4	Bis(2-chloroethyl)ether		0.474	10.5	U
39638-32-9	Bis(2-chloroisopropyl)ether		0.895	10.5	U
91-58-7	2-Chloronaphthalene		0.611	10.5	U
95-57-8	2-Chlorophenol		0.621	10.5	U
7005-72-3	4-Chlorophenyl phenyl ether		0.937	10.5	U
218-01-9	Chrysene		1.05	10.5	U
53-70-3	Dibenz (a,h) anthracene		1.79	10.5	U
132-64-9	Dibenzofuran		0.684	10.5	U
84-74-2	Di-n-butyl phthalate		1.37	10.5	U
120-83-2	2,4-Dichlorophenol		0.463	10.5	U
84-66-2	Diethyl phthalate		1.05	10.5	U
105-67-9	2,4-Dimethylphenol		0.747	10.5	~~Y~~, U
131-11-3	Dimethylphthalate		0.779	10.5	U
534-52-1	4,6-Dinitro-2-methylphenol		0.779	10.5	U
51-28-5	2,4-Dinitrophenol		0.895	26.3	~~X~~, U
121-14-2	2,4-Dinitrotoluene		0.516	10.5	U
606-20-2	2,6-Dinitrotoluene		0.695	10.5	U
117-84-0	Di-n-octyl phthalate		0.347	10.5	U
117-81-7	Bis(2-ethylhexyl)phthalate		1.37	10.5	U
206-44-0	Fluoranthene		0.737	10.5	~~X~~, U

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ANALYSIS DATA SHEET

MR21-GW04-10B 10

Laboratory:	Empirical Laboratories, LLC			SDG:	1004089
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-11	File ID:	0408911.D
Sampled:	04/10/10 14:55	Prepared:	04/14/10 14:00	Analyzed:	04/22/10 22:48
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 0D14006 Sequence: 0E13501 Calibration: 0110002 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
86-73-7	Fluorene		0.579	10.5	U
118-74-1	Hexachlorobenzene		0.495	10.5	U
87-68-3	Hexachlorobutadiene		0.979	10.5	U
77-47-4	Hexachlorocyclopentadiene		0.937	10.5	U
67-72-1	Hexachloroethane		0.484	10.5	U
193-39-5	Indeno (1,2,3-cd) pyrene		1.47	10.5	U
78-59-1	Isophorone		0.579	10.5	U
91-57-6	2-Methylnaphthalene		0.716	10.5	U
95-48-7	2-Methylphenol		0.874	10.5	U
106-44-5	4-Methylphenol	UJ	0.811	10.5	~~Y, U~~ CCH
91-20-3	Naphthalene		0.474	10.5	U
100-01-6	4-Nitroaniline		2.11	26.3	U
99-09-2	3-Nitroaniline		1.05	26.3	U
88-74-4	2-Nitroaniline		1.26	26.3	U
98-95-3	Nitrobenzene		0.653	10.5	U
100-02-7	4-Nitrophenol		0.874	26.3	U
88-75-5	2-Nitrophenol		0.779	10.5	U
86-30-6	N-Nitrosodiphenylamine		0.484	10.5	U
621-64-7	N-Nitrosodi-n-propylamine		0.947	10.5	U
87-86-5	Pentachlorophenol		1.05	26.3	U
85-01-8	Phenanthrene		0.811	10.5	U
108-95-2	Phenol		0.484	10.5	U
129-00-0	Pyrene		0.684	10.5	U
88-06-2	2,4,6-Trichlorophenol		0.768	10.5	U
95-95-4	2,4,5-Trichlorophenol		0.526	26.3	U
532-27-4	2-Chloroacetophenone		1.05	5.26	U
2698-41-1	2-Chlorobenzalmalononitrile	UJ	1.05	5.26	~~X, Q, R,~~ U CCH

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	52.63	43.66	83.0	50 - 110	
2-Fluorophenol	105.3	39.28	37.3	20 - 110	
Nitrobenzene-d5	52.63	47.15	89.6	40 - 110	
Phenol-d6	105.3	24.36	23.1	15 - 110	
Terphenyl-d14	52.63	62.06	118	50 - 135	
2,4,6-Tribromophenol	105.3	93.23	88.6	40 - 125	

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ANALYSIS DATA SHEET

MR21-GW03-10B

11

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-12	File ID:	0408912.D
Sampled:	04/10/10 15:30	Prepared:	04/14/10 14:00	Analyzed:	04/22/10 23:21
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 0D14006 Sequence: 0E13501 Calibration: 0110002 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
91-94-1	3,3'-Dichlorobenzidine		0.873	9.80	U
83-32-9	Acenaphthene		0.618	9.80	U
208-96-8	Acenaphthylene		0.461	9.80	U
98-86-2	Acetophenone		0.735	9.80	U
120-12-7	Anthracene		0.755	9.80	U
1912-24-9	Atrazine	UJ	0.676	9.80	~~X,U~~ CCH
100-52-7	Benzaldehyde	UJ	0.559	9.80	~~X,U~~ CCH
56-55-3	Benzo (a) anthracene		0.892	9.80	U
50-32-8	Benzo (a) pyrene		0.588	9.80	U
205-99-2	Benzo (b) fluoranthene		0.696	9.80	U
191-24-2	Benzo (g,h,i) perylene		1.47	9.80	U
207-08-9	Benzo (k) fluoranthene		0.490	9.80	U
92-52-4	1,1'-Biphenyl		0.382	9.80	U
101-55-3	4-Bromophenyl phenyl ether		0.559	9.80	U
85-68-7	Butyl benzyl phthalate		0.804	9.80	U
105-60-2	Caprolactam	9.80 ~~139~~ UJ	0.353	9.80	~~Q,J,B~~ BSL MBt
86-74-8	Carbazole		0.676	9.80	U
59-50-7	4-Chloro-3-methylphenol		0.569	9.80	U
106-47-8	4-Chloroaniline		0.931	9.80	U
111-91-1	Bis(2-chloroethoxy)methane		0.510	9.80	U
111-44-4	Bis(2-chloroethyl)ether		0.441	9.80	U
39638-32-9	Bis(2-chloroisopropyl)ether		0.833	9.80	U
91-58-7	2-Chloronaphthalene		0.569	9.80	U
95-57-8	2-Chlorophenol		0.578	9.80	U
7005-72-3	4-Chlorophenyl phenyl ether		0.873	9.80	U
218-01-9	Chrysene		0.980	9.80	U
53-70-3	Dibenz (a,h) anthracene		1.67	9.80	U
132-64-9	Dibenzofuran		0.637	9.80	U
84-74-2	Di-n-butyl phthalate		1.27	9.80	U
120-83-2	2,4-Dichlorophenol		0.431	9.80	U
84-66-2	Diethyl phthalate		0.980	9.80	U
105-67-9	2,4-Dimethylphenol		0.696	9.80	~~X~~, U
131-11-3	Dimethylphthalate		0.725	9.80	U
534-52-1	4,6-Dinitro-2-methylphenol		0.725	9.80	U
51-28-5	2,4-Dinitrophenol		0.833	24.5	~~X~~, U
121-14-2	2,4-Dinitrotoluene		0.480	9.80	U
606-20-2	2,6-Dinitrotoluene		0.647	9.80	U
117-84-0	Di-n-octyl phthalate		0.324	9.80	U
117-81-7	Bis(2-ethylhexyl)phthalate		1.27	9.80	U
206-44-0	Fluoranthene		0.686	9.80	~~X~~, U

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ANALYSIS DATA SHEET

MR21-GW03-10B

11

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-12	File ID:	0408912.D
Sampled:	04/10/10 15:30	Prepared:	04/14/10 14:00	Analyzed:	04/22/10 23:21
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 0D14006 Sequence: 0E13501 Calibration: 0110002 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
86-73-7	Fluorene		0.539	9.80	U
118-74-1	Hexachlorobenzene		0.461	9.80	U
87-68-3	Hexachlorobutadiene		0.912	9.80	U
77-47-4	Hexachlorocyclopentadiene		0.873	9.80	U
67-72-1	Hexachloroethane		0.451	9.80	U
193-39-5	Indeno (1,2,3-cd) pyrene		1.37	9.80	U
78-59-1	Isophorone		0.539	9.80	U
91-57-6	2-Methylnaphthalene		0.667	9.80	U
95-48-7	2-Methylphenol		0.814	9.80	U
106-44-5	4-Methylphenol	UJ	0.755	9.80	~~U~~ CCH
91-20-3	Naphthalene		0.441	9.80	U
100-01-6	4-Nitroaniline		1.96	24.5	U
99-09-2	3-Nitroaniline		0.980	24.5	U
88-74-4	2-Nitroaniline		1.18	24.5	U
98-95-3	Nitrobenzene		0.608	9.80	U
100-02-7	4-Nitrophenol		0.814	24.5	U
88-75-5	2-Nitrophenol		0.725	9.80	U
86-30-6	N-Nitrosodiphenylamine		0.451	9.80	U
621-64-7	N-Nitrosodi-n-propylamine		0.882	9.80	U
87-86-5	Pentachlorophenol		0.980	24.5	U
85-01-8	Phenanthrene		0.755	9.80	U
108-95-2	Phenol		0.451	9.80	U
129-00-0	Pyrene		0.637	9.80	U
88-06-2	2,4,6-Trichlorophenol		0.716	9.80	U
95-95-4	2,4,5-Trichlorophenol		0.490	24.5	U
532-27-4	2-Chloroacetophenone		0.980	4.90	U
2698-41-1	2-Chlorobenzalmalononitrile	UJ	0.980	4.90	~~X, Q, U~~ CCH

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	49.02	41.84	85.3	50 - 110	
2-Fluorophenol	98.04	33.55	34.2	20 - 110	
Nitrobenzene-d5	49.02	45.11	92.0	40 - 110	
Phenol-d6	98.04	21.59	22.0	15 - 110	
Terphenyl-d14	49.02	53.74	110	50 - 135	
2,4,6-Tribromophenol	98.04	83.07	84.7	40 - 125	

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ANALYSIS DATA SHEET

MR21-GW05-10B

12

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-13	File ID:	0408913.D
Sampled:	04/10/10 13:20	Prepared:	04/14/10 14:00	Analyzed:	04/22/10 23:53
Solids:		Preparation:	EXT_3510	Dilution:	1
Batch:	0D14006	Sequence: 0E13501	Calibration:	0110002	Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
91-94-1	3,3´-Dichlorobenzidine		0.873	9.80	U
83-32-9	Acenaphthene		0.618	9.80	U
208-96-8	Acenaphthylene		0.461	9.80	U
98-86-2	Acetophenone		0.735	9.80	U
120-12-7	Anthracene		0.755	9.80	U
1912-24-9	Atrazine	UJ	0.676	9.80	~~Y,U~~ CCH
100-52-7	Benzaldehyde	UJ	0.559	9.80	~~Y~~,U CCH
56-55-3	Benzo (a) anthracene		0.892	9.80	U
50-32-8	Benzo (a) pyrene		0.588	9.80	U
205-99-2	Benzo (b) fluoranthene		0.696	9.80	U
191-24-2	Benzo (g,h,i) perylene		1.47	9.80	U
207-08-9	Benzo (k) fluoranthene		0.490	9.80	U
92-52-4	1,1'-Biphenyl		0.382	9.80	U
101-55-3	4-Bromophenyl phenyl ether		0.559	9.80	U
85-68-7	Butyl benzyl phthalate		0.804	9.80	U
105-60-2	Caprolactam	UJ	0.353	9.80	~~Q,U~~ BSL
86-74-8	Carbazole		0.676	9.80	U
59-50-7	4-Chloro-3-methylphenol		0.569	9.80	U
106-47-8	4-Chloroaniline		0.931	9.80	U
111-91-1	Bis(2-chloroethoxy)methane		0.510	9.80	U
111-44-4	Bis(2-chloroethyl)ether		0.441	9.80	U
39638-32-9	Bis(2-chloroisopropyl)ether		0.833	9.80	U
91-58-7	2-Chloronaphthalene		0.569	9.80	U
95-57-8	2-Chlorophenol		0.578	9.80	U
7005-72-3	4-Chlorophenyl phenyl ether		0.873	9.80	U
218-01-9	Chrysene		0.980	9.80	U
53-70-3	Dibenz (a,h) anthracene		1.67	9.80	U
132-64-9	Dibenzofuran		0.637	9.80	U
84-74-2	Di-n-butyl phthalate		1.27	9.80	U
120-83-2	2,4-Dichlorophenol		0.431	9.80	U
84-66-2	Diethyl phthalate		0.980	9.80	U
105-67-9	2,4-Dimethylphenol		0.696	9.80	~~Y~~,U
131-11-3	Dimethylphthalate		0.725	9.80	U
534-52-1	4,6-Dinitro-2-methylphenol		0.725	9.80	U
51-28-5	2,4-Dinitrophenol		0.833	24.5	~~X~~,U
121-14-2	2,4-Dinitrotoluene		0.480	9.80	U
606-20-2	2,6-Dinitrotoluene		0.647	9.80	U
117-84-0	Di-n-octyl phthalate		0.324	9.80	U
117-81-7	Bis(2-ethylhexyl)phthalate		1.27	9.80	U
206-44-0	Fluoranthene		0.686	9.80	~~Y~~,U

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ANALYSIS DATA SHEET

MR21-GW05-10B

12

Laboratory:	Empirical Laboratories, LLC			SDG:	1004089
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-13	File ID:	0408913.D
Sampled:	04/10/10 13:20	Prepared:	04/14/10 14:00	Analyzed:	04/22/10 23:53
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 0D14006 Sequence: 0E13501 Calibration: 0110002 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
86-73-7	Fluorene		0.539	9.80	U
118-74-1	Hexachlorobenzene		0.461	9.80	U
87-68-3	Hexachlorobutadiene		0.912	9.80	U
77-47-4	Hexachlorocyclopentadiene		0.873	9.80	U
67-72-1	Hexachloroethane		0.451	9.80	U
193-39-5	Indeno (1,2,3-cd) pyrene		1.37	9.80	U
78-59-1	Isophorone		0.539	9.80	U
91-57-6	2-Methylnaphthalene		0.667	9.80	U
95-48-7	2-Methylphenol		0.814	9.80	U
106-44-5	4-Methylphenol	UJ	0.755	9.80	~~X~~ CCH
91-20-3	Naphthalene		0.441	9.80	U
100-01-6	4-Nitroaniline		1.96	24.5	U
99-09-2	3-Nitroaniline		0.980	24.5	U
88-74-4	2-Nitroaniline		1.18	24.5	U
98-95-3	Nitrobenzene		0.608	9.80	U
100-02-7	4-Nitrophenol		0.814	24.5	U
88-75-5	2-Nitrophenol		0.725	9.80	U
86-30-6	N-Nitrosodiphenylamine		0.451	9.80	U
621-64-7	N-Nitrosodi-n-propylamine		0.882	9.80	U
87-86-5	Pentachlorophenol		0.980	24.5	U
85-01-8	Phenanthrene		0.755	9.80	U
108-95-2	Phenol		0.451	9.80	U
129-00-0	Pyrene		0.637	9.80	U
88-06-2	2,4,6-Trichlorophenol		0.716	9.80	U
95-95-4	2,4,5-Trichlorophenol		0.490	24.5	U
532-27-4	2-Chloroacetophenone		0.980	4.90	U
2698-41-1	2-Chlorobenzalmalononitrile	UJ	0.980	4.90	~~X~~ CCH

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	49.02	41.72	85.1	50 - 110	
2-Fluorophenol	98.04	36.74	37.5	20 - 110	
Nitrobenzene-d5	49.02	44.34	90.4	40 - 110	
Phenol-d6	98.04	21.63	22.1	15 - 110	
Terphenyl-d14	49.02	58.03	118	50 - 135	
2,4,6-Tribromophenol	98.04	80.16	81.8	40 - 125	

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ANALYSIS DATA SHEET

MR21-GW01-10B 13

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-14	File ID:	0408914.D
Sampled:	04/10/10 15:50	Prepared:	04/14/10 14:00	Analyzed:	04/23/10 00:25
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 0D14006 Sequence: 0E13501 Calibration: 0110002 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
91-94-1	3,3'-Dichlorobenzidine		0.856	9.62	U
83-32-9	Acenaphthene		0.606	9.62	U
208-96-8	Acenaphthylene		0.452	9.62	U
98-86-2	Acetophenone		0.721	9.62	U
120-12-7	Anthracene		0.740	9.62	U
1912-24-9	Atrazine	UJ	0.663	9.62	~~Y,U~~ CCH
100-52-7	Benzaldehyde	UJ	0.548	9.62	~~Y,U~~ CCH
56-55-3	Benzo (a) anthracene		0.875	9.62	U
50-32-8	Benzo (a) pyrene		0.577	9.62	U
205-99-2	Benzo (b) fluoranthene		0.683	9.62	U
191-24-2	Benzo (g,h,i) perylene		1.44	9.62	U
207-08-9	Benzo (k) fluoranthene		0.481	9.62	U
92-52-4	1,1'-Biphenyl		0.375	9.62	U
101-55-3	4-Bromophenyl phenyl ether		0.548	9.62	U
85-68-7	Butyl benzyl phthalate		0.788	9.62	U BSL
105-60-2	Caprolactam	9.62 ~~1.34~~ UJ	0.346	9.62	~~Q,J,B~~ MLL
86-74-8	Carbazole		0.663	9.62	U
59-50-7	4-Chloro-3-methylphenol		0.558	9.62	U
106-47-8	4-Chloroaniline		0.913	9.62	U
111-91-1	Bis(2-chloroethoxy)methane		0.500	9.62	U
111-44-4	Bis(2-chloroethyl)ether		0.433	9.62	U
39638-32-9	Bis(2-chloroisopropyl)ether		0.817	9.62	U
91-58-7	2-Chloronaphthalene		0.558	9.62	U
95-57-8	2-Chlorophenol		0.567	9.62	U
7005-72-3	4-Chlorophenyl phenyl ether		0.856	9.62	U
218-01-9	Chrysene		0.962	9.62	U
53-70-3	Dibenz (a,h) anthracene		1.63	9.62	U
132-64-9	Dibenzofuran		0.625	9.62	U
84-74-2	Di-n-butyl phthalate		1.25	9.62	U
120-83-2	2,4-Dichlorophenol		0.423	9.62	U
84-66-2	Diethyl phthalate		0.962	9.62	U
105-67-9	2,4-Dimethylphenol		0.683	9.62	~~Y~~, U
131-11-3	Dimethylphthalate		0.712	9.62	U
534-52-1	4,6-Dinitro-2-methylphenol		0.712	9.62	U
51-28-5	2,4-Dinitrophenol		0.817	24.0	~~K~~, U
121-14-2	2,4-Dinitrotoluene		0.471	9.62	U
606-20-2	2,6-Dinitrotoluene		0.635	9.62	U
117-84-0	Di-n-octyl phthalate		0.317	9.62	U
117-81-7	Bis(2-ethylhexyl)phthalate		1.25	9.62	U
206-44-0	Fluoranthene		0.673	9.62	~~K~~, U

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ANALYSIS DATA SHEET

MR21-GW01-10B

13

Laboratory:	Empirical Laboratories, LLC			SDG:	1004089
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-14	File ID:	0408914.D
Sampled:	04/10/10 15:50	Prepared:	04/14/10 14:00	Analyzed:	04/23/10 00:25
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 0D14006 Sequence: 0E13501 Calibration: 0110002 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
86-73-7	Fluorene		0.529	9.62	U
118-74-1	Hexachlorobenzene		0.452	9.62	U
87-68-3	Hexachlorobutadiene		0.894	9.62	U
77-47-4	Hexachlorocyclopentadiene		0.856	9.62	U
67-72-1	Hexachloroethane		0.442	9.62	U
193-39-5	Indeno (1,2,3-cd) pyrene		1.35	9.62	U
78-59-1	Isophorone		0.529	9.62	U
91-57-6	2-Methylnaphthalene		0.654	9.62	U
95-48-7	2-Methylphenol		0.798	9.62	U
106-44-5	4-Methylphenol	UJ	0.740	9.62	~~X,~~U CCH
91-20-3	Naphthalene		0.433	9.62	U
100-01-6	4-Nitroaniline		1.92	24.0	U
99-09-2	3-Nitroaniline		0.962	24.0	U
88-74-4	2-Nitroaniline		1.15	24.0	U
98-95-3	Nitrobenzene		0.596	9.62	U
100-02-7	4-Nitrophenol		0.798	24.0	U
88-75-5	2-Nitrophenol		0.712	9.62	U
86-30-6	N-Nitrosodiphenylamine		0.442	9.62	U
621-64-7	N-Nitrosodi-n-propylamine		0.865	9.62	U
87-86-5	Pentachlorophenol		0.962	24.0	U
85-01-8	Phenanthrene		0.740	9.62	U
108-95-2	Phenol		0.442	9.62	U
129-00-0	Pyrene		0.625	9.62	U
88-06-2	2,4,6-Trichlorophenol		0.702	9.62	U
95-95-4	2,4,5-Trichlorophenol		0.481	24.0	U
532-27-4	2-Chloroacetophenone		0.962	4.81	U
2698-41-1	2-Chlorobenzalmalononitrile	UJ	0.962	4.81	~~X,Q,~~U C CH

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	48.08	43.30	90.1	50 - 110	
2-Fluorophenol	96.15	33.78	35.1	20 - 110	
Nitrobenzene-d5	48.08	46.46	96.6	40 - 110	
Phenol-d6	96.15	19.65	20.4	15 - 110	
Terphenyl-d14	48.08	53.14	111	50 - 135	
2,4,6-Tribromophenol	96.15	82.50	85.8	40 - 125	

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ANALYSIS DATA SHEET

MR21-GW01D-10B

14

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-15	File ID:	0408915.D
Sampled:	04/10/10 15:55	Prepared:	04/14/10 14:00	Analyzed:	04/23/10 00:57
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 0D14006 Sequence: 0E13501 Calibration: 0110002 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
91-94-1	3,3´-Dichlorobenzidine		0.856	9.62	U
83-32-9	Acenaphthene		0.606	9.62	U
208-96-8	Acenaphthylene		0.452	9.62	U
98-86-2	Acetophenone		0.721	9.62	U
120-12-7	Anthracene		0.740	9.62	U
1912-24-9	Atrazine	UJ	0.663	9.62	~~Y,U~~ CCH
100-52-7	Benzaldehyde	UJ	0.548	9.62	~~Y,U~~ CCH
56-55-3	Benzo (a) anthracene		0.875	9.62	U
50-32-8	Benzo (a) pyrene		0.577	9.62	U
205-99-2	Benzo (b) fluoranthene		0.683	9.62	U
191-24-2	Benzo (g,h,i) perylene		1.44	9.62	U
207-08-9	Benzo (k) fluoranthene		0.481	9.62	U
92-52-4	1,1'-Biphenyl		0.375	9.62	U
101-55-3	4-Bromophenyl phenyl ether		0.548	9.62	U
85-68-7	Butyl benzyl phthalate		0.788	9.62	U
105-60-2	Caprolactam	UJ	0.346	9.62	~~Q,U~~ BSL
86-74-8	Carbazole		0.663	9.62	U
59-50-7	4-Chloro-3-methylphenol		0.558	9.62	U
106-47-8	4-Chloroaniline		0.913	9.62	U
111-91-1	Bis(2-chloroethoxy)methane		0.500	9.62	U
111-44-4	Bis(2-chloroethyl)ether		0.433	9.62	U
39638-32-9	Bis(2-chloroisopropyl)ether		0.817	9.62	U
91-58-7	2-Chloronaphthalene		0.558	9.62	U
95-57-8	2-Chlorophenol		0.567	9.62	U
7005-72-3	4-Chlorophenyl phenyl ether		0.856	9.62	U
218-01-9	Chrysene		0.962	9.62	U
53-70-3	Dibenz (a,h) anthracene		1.63	9.62	U
132-64-9	Dibenzofuran		0.625	9.62	U
84-74-2	Di-n-butyl phthalate		1.25	9.62	U
120-83-2	2,4-Dichlorophenol		0.423	9.62	U
84-66-2	Diethyl phthalate		0.962	9.62	U
105-67-9	2,4-Dimethylphenol		0.683	9.62	~~Y~~, U
131-11-3	Dimethylphthalate		0.712	9.62	U
534-52-1	4,6-Dinitro-2-methylphenol		0.712	9.62	U
51-28-5	2,4-Dinitrophenol		0.817	24.0	~~Y~~, U
121-14-2	2,4-Dinitrotoluene		0.471	9.62	U
606-20-2	2,6-Dinitrotoluene		0.635	9.62	U
117-84-0	Di-n-octyl phthalate		0.317	9.62	U
117-81-7	Bis(2-ethylhexyl)phthalate		1.25	9.62	U
206-44-0	Fluoranthene		0.673	9.62	~~Y~~, U

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ANALYSIS DATA SHEET

MR21-GW01D-10B

14

Laboratory:	Empirical Laboratories, LLC			SDG:	1004089
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-15	File ID:	0408915.D
Sampled:	04/10/10 15:55	Prepared:	04/14/10 14:00	Analyzed:	04/23/10 00:57
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 0D14006 Sequence: 0E13501 Calibration: 0110002 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
86-73-7	Fluorene		0.529	9.62	U
118-74-1	Hexachlorobenzene		0.452	9.62	U
87-68-3	Hexachlorobutadiene		0.894	9.62	U
77-47-4	Hexachlorocyclopentadiene		0.856	9.62	U
67-72-1	Hexachloroethane		0.442	9.62	U
193-39-5	Indeno (1,2,3-cd) pyrene		1.35	9.62	U
78-59-1	Isophorone		0.529	9.62	U
91-57-6	2-Methylnaphthalene		0.654	9.62	U
95-48-7	2-Methylphenol		0.798	9.62	U
106-44-5	4-Methylphenol	UJ	0.740	9.62	~~X~~ CCH
91-20-3	Naphthalene		0.433	9.62	U
100-01-6	4-Nitroaniline		1.92	24.0	U
99-09-2	3-Nitroaniline		0.962	24.0	U
88-74-4	2-Nitroaniline		1.15	24.0	U
98-95-3	Nitrobenzene		0.596	9.62	U
100-02-7	4-Nitrophenol		0.798	24.0	U
88-75-5	2-Nitrophenol		0.712	9.62	U
86-30-6	N-Nitrosodiphenylamine		0.442	9.62	U
621-64-7	N-Nitrosodi-n-propylamine		0.865	9.62	U
87-86-5	Pentachlorophenol		0.962	24.0	U
85-01-8	Phenanthrene		0.740	9.62	U
108-95-2	Phenol		0.442	9.62	U
129-00-0	Pyrene		0.625	9.62	U
88-06-2	2,4,6-Trichlorophenol		0.702	9.62	U
95-95-4	2,4,5-Trichlorophenol		0.481	24.0	U
532-27-4	2-Chloroacetophenone		0.962	4.81	U
2698-41-1	2-Chlorobenzalmalononitrile	UJ	0.962	4.81	~~X~~ CCH

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	48.08	42.26	87.9	50 - 110	
2-Fluorophenol	96.15	34.91	36.3	20 - 110	
Nitrobenzene-d5	48.08	43.18	89.8	40 - 110	
Phenol-d6	96.15	19.42	20.2	15 - 110	
Terphenyl-d14	48.08	51.75	108	50 - 135	
2,4,6-Tribromophenol	96.15	79.95	83.2	40 - 125	

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ANALYSIS DATA SHEET

MR21-GW10-10B

15

Laboratory:	Empirical Laboratories, LLC			SDG:	1004089
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-16	File ID:	0408916.D
Sampled:	04/10/10 10:10	Prepared:	04/14/10 14:00	Analyzed:	04/23/10 07:03
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 0D14006 Sequence: 0E13502 Calibration: 0110002 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
91-94-1	3,3'-Dichlorobenzidine		0.890	10.0	U
83-32-9	Acenaphthene		0.630	10.0	U
208-96-8	Acenaphthylene		0.470	10.0	U
98-86-2	Acetophenone		0.750	10.0	U
120-12-7	Anthracene		0.770	10.0	U
1912-24-9	Atrazine	UJ	0.690	10.0	~~Y,U~~ CCH
100-52-7	Benzaldehyde	UJ	0.570	10.0	~~Y,U~~ CCH
56-55-3	Benzo (a) anthracene		0.910	10.0	U
50-32-8	Benzo (a) pyrene		0.600	10.0	U
205-99-2	Benzo (b) fluoranthene		0.710	10.0	U
191-24-2	Benzo (g,h,i) perylene		1.50	10.0	U
207-08-9	Benzo (k) fluoranthene		0.500	10.0	U
92-52-4	1,1'-Biphenyl		0.390	10.0	U
101-55-3	4-Bromophenyl phenyl ether		0.570	10.0	U
85-68-7	Butyl benzyl phthalate		0.820	10.0	U
105-60-2	Caprolactam	UJ	0.360	10.0	~~Q,U~~ BSL
86-74-8	Carbazole		0.690	10.0	U
59-50-7	4-Chloro-3-methylphenol		0.580	10.0	U
106-47-8	4-Chloroaniline		0.950	10.0	U
111-91-1	Bis(2-chloroethoxy)methane		0.520	10.0	U
111-44-4	Bis(2-chloroethyl)ether		0.450	10.0	U
39638-32-9	Bis(2-chloroisopropyl)ether		0.850	10.0	U
91-58-7	2-Chloronaphthalene		0.580	10.0	U
95-57-8	2-Chlorophenol		0.590	10.0	U
7005-72-3	4-Chlorophenyl phenyl ether		0.890	10.0	U
218-01-9	Chrysene		1.00	10.0	U
53-70-3	Dibenz (a,h) anthracene		1.70	10.0	U
132-64-9	Dibenzofuran		0.650	10.0	U
84-74-2	Di-n-butyl phthalate		1.30	10.0	U
120-83-2	2,4-Dichlorophenol		0.440	10.0	U
84-66-2	Diethyl phthalate		1.00	10.0	U
105-67-9	2,4-Dimethylphenol		0.710	10.0	~~Y~~, U
131-11-3	Dimethylphthalate		0.740	10.0	U
534-52-1	4,6-Dinitro-2-methylphenol		0.740	10.0	U
51-28-5	2,4-Dinitrophenol		0.850	25.0	~~Y~~, U
121-14-2	2,4-Dinitrotoluene		0.490	10.0	U
606-20-2	2,6-Dinitrotoluene		0.660	10.0	U
117-84-0	Di-n-octyl phthalate		0.330	10.0	U
117-81-7	Bis(2-ethylhexyl)phthalate		1.30	10.0	U
206-44-0	Fluoranthene		0.700	10.0	U

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ANALYSIS DATA SHEET

MR21-GW10-10B

15

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-16	File ID:	0408916.D
Sampled:	04/10/10 10:10	Prepared:	04/14/10 14:00	Analyzed:	04/23/10 07:03
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 0D14006 Sequence: 0E13502 Calibration: 0110002 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
86-73-7	Fluorene		0.550	10.0	U
118-74-1	Hexachlorobenzene		0.470	10.0	U
87-68-3	Hexachlorobutadiene		0.930	10.0	U
77-47-4	Hexachlorocyclopentadiene		0.890	10.0	U
67-72-1	Hexachloroethane		0.460	10.0	U
193-39-5	Indeno (1,2,3-cd) pyrene		1.40	10.0	U
78-59-1	Isophorone		0.550	10.0	U
91-57-6	2-Methylnaphthalene		0.680	10.0	U
95-48-7	2-Methylphenol		0.830	10.0	U
106-44-5	4-Methylphenol		0.770	10.0	U
91-20-3	Naphthalene		0.450	10.0	U
100-01-6	4-Nitroaniline		2.00	25.0	U
99-09-2	3-Nitroaniline		1.00	25.0	U
88-74-4	2-Nitroaniline		1.20	25.0	U
98-95-3	Nitrobenzene		0.620	10.0	U
100-02-7	4-Nitrophenol		0.830	25.0	U
88-75-5	2-Nitrophenol		0.740	10.0	U
86-30-6	N-Nitrosodiphenylamine		0.460	10.0	U
621-64-7	N-Nitrosodi-n-propylamine		0.900	10.0	U
87-86-5	Pentachlorophenol		1.00	25.0	U
85-01-8	Phenanthrene		0.770	10.0	U
108-95-2	Phenol		0.460	10.0	U
129-00-0	Pyrene		0.650	10.0	U
88-06-2	2,4,6-Trichlorophenol		0.730	10.0	U
95-95-4	2,4,5-Trichlorophenol		0.500	25.0	U
532-27-4	2-Chloroacetophenone		1.00	5.00	U
2698-41-1	2-Chlorobenzalmalononitrile	UJ	1.00	5.00	~~X, Q, U~~ CCH

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	50.00	43.24	86.5	50 - 110	
2-Fluorophenol	100.0	38.40	38.4	20 - 110	
Nitrobenzene-d5	50.00	45.29	90.6	40 - 110	
Phenol-d6	100.0	22.54	22.5	15 - 110	
Terphenyl-d14	50.00	60.83	122	50 - 135	
2,4,6-Tribromophenol	100.0	82.29	82.3	40 - 125	

UW 7/23/10

ANALYSIS DATA SHEET

MR21-GW06-10B 16

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-17	File ID:	0408917.D
Sampled:	04/10/10 12:55	Prepared:	04/14/10 14:00	Analyzed:	04/23/10 07:35
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 0D14006 Sequence: 0E13502 Calibration: 0110002 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
91-94-1	3,3'-Dichlorobenzidine		0.873	9.80	U
83-32-9	Acenaphthene		0.618	9.80	U
208-96-8	Acenaphthylene		0.461	9.80	U
98-86-2	Acetophenone		0.735	9.80	U
120-12-7	Anthracene		0.755	9.80	U
1912-24-9	Atrazine	UJ	0.676	9.80	~~Y,U~~ CCH
100-52-7	Benzaldehyde	UJ	0.559	9.80	~~Y,U~~ CCH
56-55-3	Benzo (a) anthracene		0.892	9.80	U
50-32-8	Benzo (a) pyrene		0.588	9.80	U
205-99-2	Benzo (b) fluoranthene		0.696	9.80	U
191-24-2	Benzo (g,h,i) perylene		1.47	9.80	U
207-08-9	Benzo (k) fluoranthene		0.490	9.80	U
92-52-4	1,1'-Biphenyl		0.382	9.80	U
101-55-3	4-Bromophenyl phenyl ether		0.559	9.80	U
85-68-7	Butyl benzyl phthalate		0.804	9.80	U
105-60-2	Caprolactam	UJ	0.353	9.80	~~Q,U~~ BSL
86-74-8	Carbazole		0.676	9.80	U
59-50-7	4-Chloro-3-methylphenol		0.569	9.80	U
106-47-8	4-Chloroaniline		0.931	9.80	U
111-91-1	Bis(2-chloroethoxy)methane		0.510	9.80	U
111-44-4	Bis(2-chloroethyl)ether		0.441	9.80	U
39638-32-9	Bis(2-chloroisopropyl)ether		0.833	9.80	U
91-58-7	2-Chloronaphthalene		0.569	9.80	U
95-57-8	2-Chlorophenol		0.578	9.80	U
7005-72-3	4-Chlorophenyl phenyl ether		0.873	9.80	U
218-01-9	Chrysene		0.980	9.80	U
53-70-3	Dibenz (a,h) anthracene		1.67	9.80	U
132-64-9	Dibenzofuran		0.637	9.80	U
84-74-2	Di-n-butyl phthalate		1.27	9.80	U
120-83-2	2,4-Dichlorophenol		0.431	9.80	U
84-66-2	Diethyl phthalate		0.980	9.80	U
105-67-9	2,4-Dimethylphenol		0.696	9.80	~~Y~~, U
131-11-3	Dimethylphthalate		0.725	9.80	U
534-52-1	4,6-Dinitro-2-methylphenol		0.725	9.80	U
51-28-5	2,4-Dinitrophenol		0.833	24.5	~~Y~~, U
121-14-2	2,4-Dinitrotoluene		0.480	9.80	U
606-20-2	2,6-Dinitrotoluene		0.647	9.80	U
117-84-0	Di-n-octyl phthalate		0.324	9.80	U
117-81-7	Bis(2-ethylhexyl)phthalate		1.27	9.80	U
206-44-0	Fluoranthene		0.686	9.80	U

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ANALYSIS DATA SHEET

MR21-GW06-10B

16

Laboratory:	Empirical Laboratories, LLC			SDG:	1004089
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-17	File ID:	0408917.D
Sampled:	04/10/10 12:55	Prepared:	04/14/10 14:00	Analyzed:	04/23/10 07:35
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 0D14006 Sequence: 0E13502 Calibration: 0110002 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
86-73-7	Fluorene		0.539	9.80	U
118-74-1	Hexachlorobenzene		0.461	9.80	U
87-68-3	Hexachlorobutadiene		0.912	9.80	U
77-47-4	Hexachlorocyclopentadiene		0.873	9.80	U
67-72-1	Hexachloroethane		0.451	9.80	U
193-39-5	Indeno (1,2,3-cd) pyrene		1.37	9.80	U
78-59-1	Isophorone		0.539	9.80	U
91-57-6	2-Methylnaphthalene		0.667	9.80	U
95-48-7	2-Methylphenol		0.814	9.80	U
106-44-5	4-Methylphenol		0.755	9.80	U
91-20-3	Naphthalene		0.441	9.80	U
100-01-6	4-Nitroaniline		1.96	24.5	U
99-09-2	3-Nitroaniline		0.980	24.5	U
88-74-4	2-Nitroaniline		1.18	24.5	U
98-95-3	Nitrobenzene		0.608	9.80	U
100-02-7	4-Nitrophenol		0.814	24.5	U
88-75-5	2-Nitrophenol		0.725	9.80	U
86-30-6	N-Nitrosodiphenylamine		0.451	9.80	U
621-64-7	N-Nitrosodi-n-propylamine		0.882	9.80	U
87-86-5	Pentachlorophenol		0.980	24.5	U
85-01-8	Phenanthrene		0.755	9.80	U
108-95-2	Phenol		0.451	9.80	U
129-00-0	Pyrene		0.637	9.80	U
88-06-2	2,4,6-Trichlorophenol		0.716	9.80	U
95-95-4	2,4,5-Trichlorophenol		0.490	24.5	U
532-27-4	2-Chloroacetophenone		0.980	4.90	U
2698-41-1	2-Chlorobenzalmalononitrile	UJ	0.980	4.90	~~X,Q,U~~ CH

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	49.02	39.41	80.4	50 - 110	
2-Fluorophenol	98.04	34.51	35.2	20 - 110	
Nitrobenzene-d5	49.02	42.17	86.0	40 - 110	
Phenol-d6	98.04	20.61	21.0	15 - 110	
Terphenyl-d14	49.02	57.05	116	50 - 135	
2,4,6-Tribromophenol	98.04	77.90	79.5	40 - 125	

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ANALYSIS DATA SHEET

MR21-GW09-10B

17

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-18	File ID:	0408918.D
Sampled:	04/10/10 12:15	Prepared:	04/14/10 14:00	Analyzed:	04/23/10 08:08
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 0D14006 Sequence: 0E13502 Calibration: 0110002 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
91-94-1	3,3´-Dichlorobenzidine		0.937	10.5	U
83-32-9	Acenaphthene		0.663	10.5	U
208-96-8	Acenaphthylene		0.495	10.5	U
98-86-2	Acetophenone		0.789	10.5	U
120-12-7	Anthracene		0.811	10.5	U
1912-24-9	Atrazine	UJ	0.726	10.5	~~X~~ CCH
100-52-7	Benzaldehyde	UJ	0.600	10.5	~~X~~, U CCH
56-55-3	Benzo (a) anthracene		0.958	10.5	U
50-32-8	Benzo (a) pyrene		0.632	10.5	U
205-99-2	Benzo (b) fluoranthene		0.747	10.5	U
191-24-2	Benzo (g,h,i) perylene		1.58	10.5	U
207-08-9	Benzo (k) fluoranthene		0.526	10.5	U
92-52-4	1,1'-Biphenyl		0.411	10.5	U
101-55-3	4-Bromophenyl phenyl ether		0.600	10.5	U
85-68-7	Butyl benzyl phthalate		0.863	10.5	U
105-60-2	Caprolactam	UJ	0.379	10.5	~~Q~~, U BSL
86-74-8	Carbazole		0.726	10.5	U
59-50-7	4-Chloro-3-methylphenol		0.611	10.5	U
106-47-8	4-Chloroaniline		1.00	10.5	U
111-91-1	Bis(2-chloroethoxy)methane		0.547	10.5	U
111-44-4	Bis(2-chloroethyl)ether		0.474	10.5	U
39638-32-9	Bis(2-chloroisopropyl)ether		0.895	10.5	U
91-58-7	2-Chloronaphthalene		0.611	10.5	U
95-57-8	2-Chlorophenol		0.621	10.5	U
7005-72-3	4-Chlorophenyl phenyl ether		0.937	10.5	U
218-01-9	Chrysene		1.05	10.5	U
53-70-3	Dibenz (a,h) anthracene		1.79	10.5	U
132-64-9	Dibenzofuran		0.684	10.5	U
84-74-2	Di-n-butyl phthalate		1.37	10.5	U
120-83-2	2,4-Dichlorophenol		0.463	10.5	U
84-66-2	Diethyl phthalate		1.05	10.5	U
105-67-9	2,4-Dimethylphenol		0.747	10.5	~~X~~, U
131-11-3	Dimethylphthalate		0.779	10.5	U
534-52-1	4,6-Dinitro-2-methylphenol		0.779	10.5	U
51-28-5	2,4-Dinitrophenol		0.895	26.3	~~X~~, U
121-14-2	2,4-Dinitrotoluene		0.516	10.5	U
606-20-2	2,6-Dinitrotoluene		0.695	10.5	U
117-84-0	Di-n-octyl phthalate		0.347	10.5	U
117-81-7	Bis(2-ethylhexyl)phthalate		1.37	10.5	U
206-44-0	Fluoranthene		0.737	10.5	U

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ANALYSIS DATA SHEET

MR21-GW09-10B

17

Laboratory:	Empirical Laboratories, LLC			SDG:	1004089
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-18	File ID:	0408918.D
Sampled:	04/10/10 12:15	Prepared:	04/14/10 14:00	Analyzed:	04/23/10 08:08
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 0D14006 Sequence: 0E13502 Calibration: 0110002 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
86-73-7	Fluorene		0.579	10.5	U
118-74-1	Hexachlorobenzene		0.495	10.5	U
87-68-3	Hexachlorobutadiene		0.979	10.5	U
77-47-4	Hexachlorocyclopentadiene		0.937	10.5	U
67-72-1	Hexachloroethane		0.484	10.5	U
193-39-5	Indeno (1,2,3-cd) pyrene		1.47	10.5	U
78-59-1	Isophorone		0.579	10.5	U
91-57-6	2-Methylnaphthalene		0.716	10.5	U
95-48-7	2-Methylphenol		0.874	10.5	U
106-44-5	4-Methylphenol		0.811	10.5	U
91-20-3	Naphthalene		0.474	10.5	U
100-01-6	4-Nitroaniline		2.11	26.3	U
99-09-2	3-Nitroaniline		1.05	26.3	U
88-74-4	2-Nitroaniline		1.26	26.3	U
98-95-3	Nitrobenzene		0.653	10.5	U
100-02-7	4-Nitrophenol		0.874	26.3	U
88-75-5	2-Nitrophenol		0.779	10.5	U
86-30-6	N-Nitrosodiphenylamine		0.484	10.5	U
621-64-7	N-Nitrosodi-n-propylamine		0.947	10.5	U
87-86-5	Pentachlorophenol		1.05	26.3	U
85-01-8	Phenanthrene		0.811	10.5	U
108-95-2	Phenol		0.484	10.5	U
129-00-0	Pyrene		0.684	10.5	U
88-06-2	2,4,6-Trichlorophenol		0.768	10.5	U
95-95-4	2,4,5-Trichlorophenol		0.526	26.3	U
532-27-4	2-Chloroacetophenone		1.05	5.26	U
2698-41-1	2-Chlorobenzalmalononitrile	UJ	1.05	5.26	~~X Q~~ U CCH

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	52.63	41.25	78.4	50 - 110	
2-Fluorophenol	105.3	37.22	35.4	20 - 110	
Nitrobenzene-d5	52.63	44.96	85.4	40 - 110	
Phenol-d6	105.3	23.20	22.0	15 - 110	
Terphenyl-d14	52.63	56.14	107	50 - 135	
2,4,6-Tribromophenol	105.3	82.70	78.6	40 - 125	

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ANALYSIS DATA SHEET

MR21-GW07-10B

18

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-19	File ID:	0408919.D
Sampled:	04/10/10 10:25	Prepared:	04/14/10 14:00	Analyzed:	04/23/10 08:40
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 0D14006 Sequence: 0E13502 Calibration: 0110002 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
91-94-1	3,3´-Dichlorobenzidine		0.937	10.5	U
83-32-9	Acenaphthene		0.663	10.5	U
208-96-8	Acenaphthylene		0.495	10.5	U
98-86-2	Acetophenone		0.789	10.5	U
120-12-7	Anthracene		0.811	10.5	U
1912-24-9	Atrazine	UJ	0.726	10.5	~~Y~~, U CCH
100-52-7	Benzaldehyde	UJ	0.600	10.5	Y, ~~U~~ CCH
56-55-3	Benzo (a) anthracene		0.958	10.5	U
50-32-8	Benzo (a) pyrene		0.632	10.5	U
205-99-2	Benzo (b) fluoranthene		0.747	10.5	U
191-24-2	Benzo (g,h,i) perylene		1.58	10.5	U
207-08-9	Benzo (k) fluoranthene		0.526	10.5	U
92-52-4	1,1'-Biphenyl		0.411	10.5	U
101-55-3	4-Bromophenyl phenyl ether		0.600	10.5	U
85-68-7	Butyl benzyl phthalate		0.863	10.5	U
105-60-2	Caprolactam	UJ	0.379	10.5	~~Q~~ ~~U~~ BSL
86-74-8	Carbazole		0.726	10.5	U
59-50-7	4-Chloro-3-methylphenol		0.611	10.5	U
106-47-8	4-Chloroaniline		1.00	10.5	U
111-91-1	Bis(2-chloroethoxy)methane		0.547	10.5	U
111-44-4	Bis(2-chloroethyl)ether		0.474	10.5	U
39638-32-9	Bis(2-chloroisopropyl)ether		0.895	10.5	U
91-58-7	2-Chloronaphthalene		0.611	10.5	U
95-57-8	2-Chlorophenol		0.621	10.5	U
7005-72-3	4-Chlorophenyl phenyl ether		0.937	10.5	U
218-01-9	Chrysene		1.05	10.5	U
53-70-3	Dibenz (a,h) anthracene		1.79	10.5	U
132-64-9	Dibenzofuran		0.684	10.5	U
84-74-2	Di-n-butyl phthalate		1.37	10.5	U
120-83-2	2,4-Dichlorophenol		0.463	10.5	U
84-66-2	Diethyl phthalate		1.05	10.5	U
105-67-9	2,4-Dimethylphenol		0.747	10.5	~~Y~~, U
131-11-3	Dimethylphthalate		0.779	10.5	U
534-52-1	4,6-Dinitro-2-methylphenol		0.779	10.5	U
51-28-5	2,4-Dinitrophenol		0.895	26.3	~~Y~~, U
121-14-2	2,4-Dinitrotoluene		0.516	10.5	U
606-20-2	2,6-Dinitrotoluene		0.695	10.5	U
117-84-0	Di-n-octyl phthalate		0.347	10.5	U
117-81-7	Bis(2-ethylhexyl)phthalate		1.37	10.5	U
206-44-0	Fluoranthene		0.737	10.5	U

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ANALYSIS DATA SHEET

MR21-GW07-10B

18

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-19	File ID:	0408919.D
Sampled:	04/10/10 10:25	Prepared:	04/14/10 14:00	Analyzed:	04/23/10 08:40
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 0D14006 Sequence: 0E13502 Calibration: 0110002 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
86-73-7	Fluorene		0.579	10.5	U
118-74-1	Hexachlorobenzene		0.495	10.5	U
87-68-3	Hexachlorobutadiene		0.979	10.5	U
77-47-4	Hexachlorocyclopentadiene		0.937	10.5	U
67-72-1	Hexachloroethane		0.484	10.5	U
193-39-5	Indeno (1,2,3-cd) pyrene		1.47	10.5	U
78-59-1	Isophorone		0.579	10.5	U
91-57-6	2-Methylnaphthalene		0.716	10.5	U
95-48-7	2-Methylphenol		0.874	10.5	U
106-44-5	4-Methylphenol		0.811	10.5	U
91-20-3	Naphthalene		0.474	10.5	U
100-01-6	4-Nitroaniline		2.11	26.3	U
99-09-2	3-Nitroaniline		1.05	26.3	U
88-74-4	2-Nitroaniline		1.26	26.3	U
98-95-3	Nitrobenzene		0.653	10.5	U
100-02-7	4-Nitrophenol		0.874	26.3	U
88-75-5	2-Nitrophenol		0.779	10.5	U
86-30-6	N-Nitrosodiphenylamine		0.484	10.5	U
621-64-7	N-Nitrosodi-n-propylamine		0.947	10.5	U
87-86-5	Pentachlorophenol		1.05	26.3	U
85-01-8	Phenanthrene		0.811	10.5	U
108-95-2	Phenol		0.484	10.5	U
129-00-0	Pyrene		0.684	10.5	U
88-06-2	2,4,6-Trichlorophenol		0.768	10.5	U
95-95-4	2,4,5-Trichlorophenol		0.526	26.3	U
532-27-4	2-Chloroacetophenone		1.05	5.26	U
2698-41-1	2-Chlorobenzalmalononitrile	UJ	1.05	5.26	~~X,Q,U~~ CCH

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	52.63	42.43	80.6	50 - 110	
2-Fluorophenol	105.3	40.30	38.3	20 - 110	
Nitrobenzene-d5	52.63	45.55	86.5	40 - 110	
Phenol-d6	105.3	24.31	23.1	15 - 110	
Terphenyl-d14	52.63	57.63	109	50 - 135	
2,4,6-Tribromophenol	105.3	83.85	79.7	40 - 125	

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ANALYSIS DATA SHEET

MR21-EB041010-GW

19

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-20	File ID:	0408920.D
Sampled:	04/10/10 11:00	Prepared:	04/14/10 14:00	Analyzed:	04/23/10 09:13
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 0D14006 Sequence: 0E13502 Calibration: 0110002 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
91-94-1	3,3'-Dichlorobenzidine		0.824	9.26	U
83-32-9	Acenaphthene		0.583	9.26	U
208-96-8	Acenaphthylene		0.435	9.26	U
98-86-2	Acetophenone	1.83	0.694	9.26	J
120-12-7	Anthracene		0.713	9.26	U
1912-24-9	Atrazine	UJ	0.639	9.26	~~Y,U~~ CCH
100-52-7	Benzaldehyde	UJ	0.528	9.26	~~Y,U~~ CCH
56-55-3	Benzo (a) anthracene		0.843	9.26	U
50-32-8	Benzo (a) pyrene		0.556	9.26	U
205-99-2	Benzo (b) fluoranthene		0.657	9.26	U
191-24-2	Benzo (g,h,i) perylene		1.39	9.26	U
207-08-9	Benzo (k) fluoranthene		0.463	9.26	U
92-52-4	1,1'-Biphenyl		0.361	9.26	U
101-55-3	4-Bromophenyl phenyl ether		0.528	9.26	U
85-68-7	Butyl benzyl phthalate	20.4	0.759	9.26	
105-60-2	Caprolactam	1.34 J	0.333	9.26	~~Q,J,B~~ BSL
86-74-8	Carbazole		0.639	9.26	U
59-50-7	4-Chloro-3-methylphenol		0.537	9.26	U
106-47-8	4-Chloroaniline		0.880	9.26	U
111-91-1	Bis(2-chloroethoxy)methane		0.481	9.26	U
111-44-4	Bis(2-chloroethyl)ether		0.417	9.26	U
39638-32-9	Bis(2-chloroisopropyl)ether		0.787	9.26	U
91-58-7	2-Chloronaphthalene		0.537	9.26	U
95-57-8	2-Chlorophenol		0.546	9.26	U
7005-72-3	4-Chlorophenyl phenyl ether		0.824	9.26	U
218-01-9	Chrysene		0.926	9.26	U
53-70-3	Dibenz (a,h) anthracene		1.57	9.26	U
132-64-9	Dibenzofuran		0.602	9.26	U
84-74-2	Di-n-butyl phthalate	2.99	1.20	9.26	J
120-83-2	2,4-Dichlorophenol		0.407	9.26	U
84-66-2	Diethyl phthalate	3.38	0.926	9.26	J
105-67-9	2,4-Dimethylphenol		0.657	9.26	~~Y~~, U
131-11-3	Dimethylphthalate		0.685	9.26	U
534-52-1	4,6-Dinitro-2-methylphenol		0.685	9.26	U
51-28-5	2,4-Dinitrophenol		0.787	23.1	~~X~~, U
121-14-2	2,4-Dinitrotoluene		0.454	9.26	U
606-20-2	2,6-Dinitrotoluene		0.611	9.26	U
117-84-0	Di-n-octyl phthalate		0.306	9.26	U
117-81-7	Bis(2-ethylhexyl)phthalate		1.20	9.26	U
206-44-0	Fluoranthene		0.648	9.26	U

MW 7/23/10

ANALYSIS DATA SHEET

MR21-EB041010-GW

19

Laboratory:	Empirical Laboratories, LLC			SDG:	1004089
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-20	File ID:	0408920.D
Sampled:	04/10/10 11:00	Prepared:	04/14/10 14:00	Analyzed:	04/23/10 09:13
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 0D14006 Sequence: 0E13502 Calibration: 0110002 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
86-73-7	Fluorene		0.509	9.26	U
118-74-1	Hexachlorobenzene		0.435	9.26	U
87-68-3	Hexachlorobutadiene		0.861	9.26	U
77-47-4	Hexachlorocyclopentadiene		0.824	9.26	U
67-72-1	Hexachloroethane		0.426	9.26	U
193-39-5	Indeno (1,2,3-cd) pyrene		1.30	9.26	U
78-59-1	Isophorone		0.509	9.26	U
91-57-6	2-Methylnaphthalene		0.630	9.26	U
95-48-7	2-Methylphenol		0.769	9.26	U
106-44-5	4-Methylphenol		0.713	9.26	U
91-20-3	Naphthalene		0.417	9.26	U
100-01-6	4-Nitroaniline		1.85	23.1	U
99-09-2	3-Nitroaniline		0.926	23.1	U
88-74-4	2-Nitroaniline		1.11	23.1	U
98-95-3	Nitrobenzene		0.574	9.26	U
100-02-7	4-Nitrophenol		0.769	23.1	U
88-75-5	2-Nitrophenol		0.685	9.26	U
86-30-6	N-Nitrosodiphenylamine		0.426	9.26	U
621-64-7	N-Nitrosodi-n-propylamine		0.833	9.26	U
87-86-5	Pentachlorophenol		0.926	23.1	U
85-01-8	Phenanthrene		0.713	9.26	U
108-95-2	Phenol		0.426	9.26	U
129-00-0	Pyrene		0.602	9.26	U
88-06-2	2,4,6-Trichlorophenol		0.676	9.26	U
95-95-4	2,4,5-Trichlorophenol		0.463	23.1	U
532-27-4	2-Chloroacetophenone		0.926	4.63	U
2698-41-1	2-Chlorobenzalmalononitrile	UJ	0.926	4.63	~~X,Q,U~~ CCH

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	46.30	36.70	79.3	50 - 110	
2-Fluorophenol	92.59	30.43	32.9	20 - 110	
Nitrobenzene-d5	46.30	39.93	86.2	40 - 110	
Phenol-d6	92.59	18.75	20.3	15 - 110	
Terphenyl-d14	46.30	53.12	115	50 - 135	
2,4,6-Tribromophenol	92.59	73.71	79.6	40 - 125	

MW 7/23/10

ANALYSIS DATA SHEET

MR21-GW08-10B 20

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-21	File ID:	0408921.D
Sampled:	04/10/10 10:55	Prepared:	04/14/10 14:00	Analyzed:	04/23/10 09:46
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 0D14006 Sequence: 0E13502 Calibration: 0110002 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
91-94-1	3,3´-Dichlorobenzidine		0.890	10.0	U
83-32-9	Acenaphthene		0.630	10.0	U
208-96-8	Acenaphthylene		0.470	10.0	U
98-86-2	Acetophenone		0.750	10.0	U
120-12-7	Anthracene		0.770	10.0	U
1912-24-9	Atrazine	UJ	0.690	10.0	~~X,U~~ CCH
100-52-7	Benzaldehyde	UJ	0.570	10.0	~~X,U~~ CCH
56-55-3	Benzo (a) anthracene		0.910	10.0	U
50-32-8	Benzo (a) pyrene		0.600	10.0	U
205-99-2	Benzo (b) fluoranthene		0.710	10.0	U
191-24-2	Benzo (g,h,i) perylene		1.50	10.0	U
207-08-9	Benzo (k) fluoranthene		0.500	10.0	U
92-52-4	1,1'-Biphenyl		0.390	10.0	U
101-55-3	4-Bromophenyl phenyl ether		0.570	10.0	U
85-68-7	Butyl benzyl phthalate		0.820	10.0	U
105-60-2	Caprolactam	UJ	0.360	10.0	~~Q,U~~ BSL
86-74-8	Carbazole		0.690	10.0	U
59-50-7	4-Chloro-3-methylphenol		0.580	10.0	U
106-47-8	4-Chloroaniline		0.950	10.0	U
111-91-1	Bis(2-chloroethoxy)methane		0.520	10.0	U
111-44-4	Bis(2-chloroethyl)ether		0.450	10.0	U
39638-32-9	Bis(2-chloroisopropyl)ether		0.850	10.0	U
91-58-7	2-Chloronaphthalene		0.580	10.0	U
95-57-8	2-Chlorophenol		0.590	10.0	U
7005-72-3	4-Chlorophenyl phenyl ether		0.890	10.0	U
218-01-9	Chrysene		1.00	10.0	U
53-70-3	Dibenz (a,h) anthracene		1.70	10.0	U
132-64-9	Dibenzofuran		0.650	10.0	U
84-74-2	Di-n-butyl phthalate		1.30	10.0	U
120-83-2	2,4-Dichlorophenol		0.440	10.0	U
84-66-2	Diethyl phthalate		1.00	10.0	U
105-67-9	2,4-Dimethylphenol		0.710	10.0	~~X~~, U
131-11-3	Dimethylphthalate		0.740	10.0	U
534-52-1	4,6-Dinitro-2-methylphenol		0.740	10.0	U
51-28-5	2,4-Dinitrophenol		0.850	25.0	~~X~~, U
121-14-2	2,4-Dinitrotoluene		0.490	10.0	U
606-20-2	2,6-Dinitrotoluene		0.660	10.0	U
117-84-0	Di-n-octyl phthalate		0.330	10.0	U
117-81-7	Bis(2-ethylhexyl)phthalate		1.30	10.0	U
206-44-0	Fluoranthene		0.700	10.0	U

hw 7/23/10

ANALYSIS DATA SHEET

MR21-GW08-10B

20

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-21	File ID:	0408921.D
Sampled:	04/10/10 10:55	Prepared:	04/14/10 14:00	Analyzed:	04/23/10 09:46
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 0D14006 Sequence: 0E13502 Calibration: 0110002 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
86-73-7	Fluorene		0.550	10.0	U
118-74-1	Hexachlorobenzene		0.470	10.0	U
87-68-3	Hexachlorobutadiene		0.930	10.0	U
77-47-4	Hexachlorocyclopentadiene		0.890	10.0	U
67-72-1	Hexachloroethane		0.460	10.0	U
193-39-5	Indeno (1,2,3-cd) pyrene		1.40	10.0	U
78-59-1	Isophorone		0.550	10.0	U
91-57-6	2-Methylnaphthalene		0.680	10.0	U
95-48-7	2-Methylphenol		0.830	10.0	U
106-44-5	4-Methylphenol		0.770	10.0	U
91-20-3	Naphthalene		0.450	10.0	U
100-01-6	4-Nitroaniline		2.00	25.0	U
99-09-2	3-Nitroaniline		1.00	25.0	U
88-74-4	2-Nitroaniline		1.20	25.0	U
98-95-3	Nitrobenzene		0.620	10.0	U
100-02-7	4-Nitrophenol		0.830	25.0	U
88-75-5	2-Nitrophenol		0.740	10.0	U
86-30-6	N-Nitrosodiphenylamine		0.460	10.0	U
621-64-7	N-Nitrosodi-n-propylamine		0.900	10.0	U
87-86-5	Pentachlorophenol		1.00	25.0	U
85-01-8	Phenanthrene		0.770	10.0	U
108-95-2	Phenol		0.460	10.0	U
129-00-0	Pyrene		0.650	10.0	U
88-06-2	2,4,6-Trichlorophenol		0.730	10.0	U
95-95-4	2,4,5-Trichlorophenol		0.500	25.0	U
532-27-4	2-Chloroacetophenone		1.00	5.00	U
2698-41-1	2-Chlorobenzalmalononitrile	UJ	1.00	5.00	~~X, Q, U~~ CH

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	50.00	40.02	80.0	50 - 110	
2-Fluorophenol	100.0	33.60	33.6	20 - 110	
Nitrobenzene-d5	50.00	44.01	88.0	40 - 110	
Phenol-d6	100.0	19.56	19.6	15 - 110	
Terphenyl-d14	50.00	53.88	108	50 - 135	
2,4,6-Tribromophenol	100.0	75.77	75.8	40 - 125	

MW 7/23/10

ANALYSIS DATA SHEET

MR21-FB041010

21

Laboratory: Empirical Laboratories, LLC SDG: 1004089

Client: CH2M Hill, Inc. Project: Lejeune CTO-40 UXO-21

Matrix: Water Laboratory ID: 1004089-22 File ID: 0408922.D

Sampled: 04/10/10 09:30 Prepared: 04/14/10 14:00 Analyzed: 04/23/10 11:00

Solids: Preparation: EXT_3510 Dilution: 1

Batch: 0D14006 Sequence: 0E13502 Calibration: 0110002 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
91-94-1	3,3'-Dichlorobenzidine		0.824	9.26	U
83-32-9	Acenaphthene		0.583	9.26	U
208-96-8	Acenaphthylene		0.435	9.26	U
98-86-2	Acetophenone	1.85	0.694	9.26	J
120-12-7	Anthracene		0.713	9.26	U
1912-24-9	Atrazine	UJ	0.639	9.26	~~Y~~,U CCH
100-52-7	Benzaldehyde	UJ	0.528	9.26	~~Y~~,U CCH
56-55-3	Benzo (a) anthracene		0.843	9.26	U
50-32-8	Benzo (a) pyrene		0.556	9.26	U
205-99-2	Benzo (b) fluoranthene		0.657	9.26	U
191-24-2	Benzo (g,h,i) perylene		1.39	9.26	U
207-08-9	Benzo (k) fluoranthene		0.463	9.26	U
92-52-4	1,1'-Biphenyl		0.361	9.26	U
101-55-3	4-Bromophenyl phenyl ether		0.528	9.26	U
85-68-7	Butyl benzyl phthalate	8.49	0.759	9.26	J
105-60-2	Caprolactam	3.10 J	0.333	9.26	~~Ø,Y,B~~ BSL
86-74-8	Carbazole		0.639	9.26	U
59-50-7	4-Chloro-3-methylphenol		0.537	9.26	U
106-47-8	4-Chloroaniline		0.880	9.26	U
111-91-1	Bis(2-chloroethoxy)methane		0.481	9.26	U
111-44-4	Bis(2-chloroethyl)ether		0.417	9.26	U
39638-32-9	Bis(2-chloroisopropyl)ether		0.787	9.26	U
91-58-7	2-Chloronaphthalene		0.537	9.26	U
95-57-8	2-Chlorophenol		0.546	9.26	U
7005-72-3	4-Chlorophenyl phenyl ether		0.824	9.26	U
218-01-9	Chrysene		0.926	9.26	U
53-70-3	Dibenz (a,h) anthracene		1.57	9.26	U
132-64-9	Dibenzofuran		0.602	9.26	U
84-74-2	Di-n-butyl phthalate	2.52	1.20	9.26	J
120-83-2	2,4-Dichlorophenol		0.407	9.26	U
84-66-2	Diethyl phthalate	3.43	0.926	9.26	J
105-67-9	2,4-Dimethylphenol		0.657	9.26	~~Y~~,U
131-11-3	Dimethylphthalate		0.685	9.26	U
534-52-1	4,6-Dinitro-2-methylphenol		0.685	9.26	U
51-28-5	2,4-Dinitrophenol		0.787	23.1	~~X~~,U
121-14-2	2,4-Dinitrotoluene		0.454	9.26	U
606-20-2	2,6-Dinitrotoluene		0.611	9.26	U
117-84-0	Di-n-octyl phthalate		0.306	9.26	U
117-81-7	Bis(2-ethylhexyl)phthalate		1.20	9.26	U
206-44-0	Fluoranthene		0.648	9.26	U

hw 7/23/10

ANALYSIS DATA SHEET

MR21-FB041010

21

Laboratory:	Empirical Laboratories, LLC			SDG:	1004089
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-22	File ID:	0408922.D
Sampled:	04/10/10 09:30	Prepared:	04/14/10 14:00	Analyzed:	04/23/10 11:00
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 0D14006 Sequence: 0E13502 Calibration: 0110002 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
86-73-7	Fluorene		0.509	9.26	U
118-74-1	Hexachlorobenzene		0.435	9.26	U
87-68-3	Hexachlorobutadiene		0.861	9.26	U
77-47-4	Hexachlorocyclopentadiene		0.824	9.26	U
67-72-1	Hexachloroethane		0.426	9.26	U
193-39-5	Indeno (1,2,3-cd) pyrene		1.30	9.26	U
78-59-1	Isophorone		0.509	9.26	U
91-57-6	2-Methylnaphthalene		0.630	9.26	U
95-48-7	2-Methylphenol		0.769	9.26	U
106-44-5	4-Methylphenol		0.713	9.26	U
91-20-3	Naphthalene		0.417	9.26	U
100-01-6	4-Nitroaniline		1.85	23.1	U
99-09-2	3-Nitroaniline		0.926	23.1	U
88-74-4	2-Nitroaniline		1.11	23.1	U
98-95-3	Nitrobenzene		0.574	9.26	U
100-02-7	4-Nitrophenol		0.769	23.1	U
88-75-5	2-Nitrophenol		0.685	9.26	U
86-30-6	N-Nitrosodiphenylamine		0.426	9.26	U
621-64-7	N-Nitrosodi-n-propylamine		0.833	9.26	U
87-86-5	Pentachlorophenol		0.926	23.1	U
85-01-8	Phenanthrene		0.713	9.26	U
108-95-2	Phenol		0.426	9.26	U
129-00-0	Pyrene		0.602	9.26	U
88-06-2	2,4,6-Trichlorophenol		0.676	9.26	U
95-95-4	2,4,5-Trichlorophenol		0.463	23.1	U
532-27-4	2-Chloroacetophenone		0.926	4.63	U
2698-41-1	2-Chlorobenzalmalononitrile	UJ	0.926	4.63	~~Q, X, U~~ CCH

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	46.30	40.92	88.4	50 - 110	
2-Fluorophenol	92.59	31.47	34.0	20 - 110	
Nitrobenzene-d5	46.30	40.93	88.4	40 - 110	
Phenol-d6	92.59	19.21	20.8	15 - 110	
Terphenyl-d14	46.30	52.81	114	50 - 135	
2,4,6-Tribromophenol	92.59	75.64	81.7	40 - 125	

LW 7/23/10

ENVIRONMENTAL
Data Services, Inc.

VOLATILE ORGANIC COMPOUNDS
USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Area Gas Chamber, CTO-040 SDG #: 1004089

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: July 23, 2010

Laboratory: Empirical Laboratories, Nashville, Tennessee Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR21-TB041110	1004089-01	Water
2	MR21-SW01D-10B	1004089-02	Water
3	MR21-EB0401110-SS	1004089-03	Water
4	MR21-SW01-10B	1004089-04	Water
5	MR21-SW02-10B	1004089-05	Water
6	MR21-SW05-10B	1004089-06	Water
7	MR21-SW06-10B	1004089-07	Water
8	MR21-SW03-10B	1004089-08	Water
9	MR21-GW02-10B	1004089-09	Water
10	MR21-SW04-10B	1004089-10	Water
10MS	MR21-SW04-10BMS	1004089-10MS	Water
10MSD	MR21-SW04-10BMSD	1004089-10MSD	Water
11	MR21-GW04-10B	1004089-11	Water
11MS	MR21-GW04-10BMS	1004089-11MS	Water
11MSD	MR21-GW04-10BMSD	1004089-11MSD	Water
12	MR21-GW03-10B	1004089-12	Water
13	MR21-GW05-10B	1004089-13	Water
14	MR21-GW01-10B	1004089-14	Water
15	MR21-GW01D-10B	1004089-15	Water
16	MR21-GW10-10B	1004089-16	Water
17	MR21-GW06-10B	1004089-17	Water
18	MR21-GW09-10B	1004089-18	Water
19	MR21-GW07-10B	1004089-19	Water
20	MR21-EB041010-GW	1004089-20	Water
21	MR21-GW08-10B	1004089-21	Water
22	MR21-FB041010	1004089-22	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 preserved water 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
04/23/10	Bromoform	38.4%	J/UJ	9, 11, 12
	Cyclohexane	35.1%		
	Dibromochloromethane	25.5%		
	Methyl Acetate	25.1%		
04/24/10 (0824)	Acetone	0.048 RRF	J/R	1-7, 13-22
	Chloroethane	25.5%	J/UJ	
	Chloromethane	34.6%		
	Vinyl Chloride	26.5%		
04/24/10 (1023)	Acetone	25.6%/0.047 RRF	J/R	8, 10
	Bromomethane	28.3%	J/UJ	
	Chloroethane	30.2%		
	Chloromethane	37.9%		
	Dichlorodifluoromethane	31.1%		
	Methyl Acetate	31.1%		
	Vinyl Chloride	30.5%		

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
10	Isopropylbenzene	140%/139%/Ok	None - Sample ND
	Methyl Acetate	27.2%/27.9%/Ok	None - See CCAL
11	Bromoform	145%/141%/Ok	None - Sample ND
	1,2-Dibromoethane	121%/Ok/Ok	
	Dichlorodifluoromethane	162%/Ok/Ok	
	Isopropylbenzene	129%/127%/Ok	
	Methyl Acetate	16.7%/17.7%/Ok	None - See CCAL

Laboratory Control Sample - The LCS samples exhibited acceptable %R values except the following.

LCS ID	Compound	%R	Qualifier	Affected Samples
0D24001-BS1	Bromoform	147%	None	All ND
0D24006-BS1	Isopropylbenzene	138%	None	All ND
0D24007-BS1	Isopropylbenzene	134%	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
0D24007-BLK1	Chloroform	0.249	1.235	U	21

Trip, Field, Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/L	Qualifier	Affected Samples
MR21-TB041110	Chloroform	0.261	1.305	None	All ND or >5X
	Chloromethane	1.05	5.25	None	See FB
MR21-EB041010-GW	Acetone	3.82	38.2	U	2, 4, 5, 7, 8, 10, 11
	Chloromethane	3.44	17.2	None	See FB
MR21-EB041110-SS	Acetone	6.25	62.5	None	Applies to 1004092 samples
	Chloromethane	3.28	16.4	None	
MR21-FB041010	Acetone	3.40	34.0	None	See EB
	Carbon Disulfide	0.310	1.55	None	All ND
	Chloromethane	7.16	35.8	U	2, 4-19, 21

Field Duplicates - Field duplicate results are summarized below.

Compound	MR21-SW01-10B ug/L	MR21-SW01D-10B ug/L	RPD	Qualifier
Toluene	1.99	2.44	20%	None

Compound	MR21-GW01-10B ug/L	MR21-GW01D-10B ug/L	RPD	Qualifier
Toluene	3.64	3.91	7%	None

Tentatively Identified Compounds (TICs) - TICs were not reported.

Compound Quantitation - No discrepancies were identified.

ANALYSIS DATA SHEET

MR21-TB041110

1

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-01	File ID:	0408901.D
Sampled:	04/11/10 14:00	Prepared:	04/24/10 00:00	Analyzed:	04/24/10 11:52
Solids:		Preparation:	5030B	Dilution:	1

Batch: 0D24006 Sequence: 0D11613 Calibration: 0110007 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q	
67-64-1	Acetone	R	1.80	5.00	~~Y, U~~	ICL
71-43-2	Benzene		0.140	1.00	U	
75-27-4	Bromodichloromethane		0.180	1.00	U	
75-25-2	Bromoform		0.500	1.00	U	
74-83-9	Bromomethane		0.320	1.00	~~Y~~, U	
78-93-3	2-Butanone		1.60	5.00	U	
75-15-0	Carbon disulfide		0.260	1.00	U	
56-23-5	Carbon tetrachloride		0.240	1.00	U	
108-90-7	Chlorobenzene		0.210	1.00	U	
75-00-3	Chloroethane	UJ	0.270	1.00	~~Y, U~~	CCH
67-66-3	Chloroform	0.261	0.230	1.00	J	
74-87-3	Chloromethane	1.05 J	0.360	1.00	~~Y~~	CCH
110-82-7	Cyclohexane		0.200	1.00	U	
124-48-1	Dibromochloromethane		0.180	1.00	U	
96-12-8	1,2-Dibromo-3-chloropropane		0.550	1.50	U	
106-93-4	1,2-Dibromoethane (EDB)		0.240	1.00	U	
95-50-1	1,2-Dichlorobenzene		0.160	1.00	U	
541-73-1	1,3-Dichlorobenzene		0.250	1.00	U	
106-46-7	1,4-Dichlorobenzene		0.250	1.00	U	
75-71-8	Dichlorodifluoromethane		0.260	1.00	~~Y~~, U	
75-34-3	1,1-Dichloroethane		0.240	1.00	U	
107-06-2	1,2-Dichloroethane		0.220	1.00	U	
75-35-4	1,1-Dichloroethene		0.280	1.00	U	
156-59-2	cis-1,2-Dichloroethene		0.450	1.00	U	
156-60-5	trans-1,2-Dichloroethene		0.530	1.50	U	
78-87-5	1,2-Dichloropropane		0.270	1.00	U	
10061-01-5	cis-1,3-Dichloropropene		0.150	1.00	U	
10061-02-6	trans-1,3-Dichloropropene		0.170	1.00	U	
100-41-4	Ethylbenzene		0.150	1.00	U	
591-78-6	2-Hexanone		0.500	5.00	~~Y~~, U	
98-82-8	Isopropylbenzene		0.150	1.00	~~Q~~, U	
75-09-2	Methylene chloride		0.270	2.00	U	
79-20-9	Methyl Acetate		0.590	1.50	~~Y~~, U	
108-87-2	Methylcyclohexane		0.180	1.00	U	
108-10-1	4-Methyl-2-pentanone		0.500	5.00	~~Y~~, U	
1634-04-4	Methyl t-Butyl Ether		0.250	1.00	U	
100-42-5	Styrene		0.240	1.00	U	
79-34-5	1,1,2,2-Tetrachloroethane		0.230	1.00	U	
127-18-4	Tetrachloroethene		0.170	1.00	U	
108-88-3	Toluene		0.190	1.00	U	

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ANALYSIS DATA SHEET

MR21-TB041110

1

Laboratory:	Empirical Laboratories, LLC			SDG:	1004089
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-01	File ID:	0408901.D
Sampled:	04/11/10 14:00	Prepared:	04/24/10 00:00	Analyzed:	04/24/10 11:52
Solids:		Preparation:	5030B	Dilution:	1

Batch: 0D24006 Sequence: 0D11613 Calibration: 0110007 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene		0.280	1.00	U
79-00-5	1,1,2-Trichloroethane		0.260	1.00	U
71-55-6	1,1,1-Trichloroethane		0.290	1.00	U
79-01-6	Trichloroethene		0.500	1.00	U
75-69-4	Trichlorofluoromethane		0.250	1.00	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.330	1.00	U
75-01-4	Vinyl chloride	UJ	0.200	1.00	~~Y~~U CCH
1330-20-7	Xylenes (total)		0.220	1.00	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	30.00	30.92	103	75 - 120	
Dibromofluoromethane	30.00	31.11	104	85 - 115	
1,2-Dichloroethane-d4	30.00	31.34	104	70 - 120	
Toluene-d8	30.00	32.78	109	85 - 120	

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ANALYSIS DATA SHEET

MR21-SW01D-10B 2

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-02	File ID:	0408902.D
Sampled:	04/11/10 09:05	Prepared:	04/24/10 00:00	Analyzed:	04/24/10 16:23
Solids:		Preparation:	5030B	Dilution:	1

Batch: 0D24006 Sequence: 0D11613 Calibration: 0110007 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
67-64-1	Acetone	5.00 ~~4.36~~ R	1.80	5.00	~~Y,J~~ ICL ~~EBL~~
71-43-2	Benzene		0.140	1.00	U
75-27-4	Bromodichloromethane		0.180	1.00	U
75-25-2	Bromoform		0.500	1.00	U
74-83-9	Bromomethane		0.320	1.00	~~Y~~, U
78-93-3	2-Butanone		1.60	5.00	U
75-15-0	Carbon disulfide		0.260	1.00	U
56-23-5	Carbon tetrachloride		0.240	1.00	U
108-90-7	Chlorobenzene		0.210	1.00	U
75-00-3	Chloroethane	UJ	0.270	1.00	~~Y,U~~ CCH
67-66-3	Chloroform		0.230	1.00	U
74-87-3	Chloromethane	2.07 UJ	0.360	1.00	~~Y~~ CCH ~~FBL~~
110-82-7	Cyclohexane		0.200	1.00	U
124-48-1	Dibromochloromethane		0.180	1.00	U
96-12-8	1,2-Dibromo-3-chloropropane		0.550	1.50	U
106-93-4	1,2-Dibromoethane (EDB)		0.240	1.00	U
95-50-1	1,2-Dichlorobenzene		0.160	1.00	U
541-73-1	1,3-Dichlorobenzene		0.250	1.00	U
106-46-7	1,4-Dichlorobenzene		0.250	1.00	U
75-71-8	Dichlorodifluoromethane		0.260	1.00	~~Y~~, U
75-34-3	1,1-Dichloroethane		0.240	1.00	U
107-06-2	1,2-Dichloroethane		0.220	1.00	U
75-35-4	1,1-Dichloroethene		0.280	1.00	U
156-59-2	cis-1,2-Dichloroethene		0.450	1.00	U
156-60-5	trans-1,2-Dichloroethene		0.530	1.50	U
78-87-5	1,2-Dichloropropane		0.270	1.00	U
10061-01-5	cis-1,3-Dichloropropene		0.150	1.00	U
10061-02-6	trans-1,3-Dichloropropene		0.170	1.00	U
100-41-4	Ethylbenzene		0.150	1.00	U
591-78-6	2-Hexanone		0.500	5.00	~~Y~~, U
98-82-8	Isopropylbenzene		0.150	1.00	~~Y~~, U
75-09-2	Methylene chloride		0.270	2.00	U
79-20-9	Methyl Acetate		0.590	1.50	~~Y~~, U
108-87-2	Methylcyclohexane		0.180	1.00	U
108-10-1	4-Methyl-2-pentanone		0.500	5.00	~~Y~~, U
1634-04-4	Methyl t-Butyl Ether		0.250	1.00	U
100-42-5	Styrene		0.240	1.00	U
79-34-5	1,1,2,2-Tetrachloroethane		0.230	1.00	U
127-18-4	Tetrachloroethene		0.170	1.00	U
108-88-3	Toluene	2.44	0.190	1.00	

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ANALYSIS DATA SHEET

MR21-SW01D-10B 2

Laboratory:	Empirical Laboratories, LLC			SDG:	1004089
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-02	File ID:	0408902.D
Sampled:	04/11/10 09:05	Prepared:	04/24/10 00:00	Analyzed:	04/24/10 16:23
Solids:		Preparation:	5030B	Dilution:	1

Batch: 0D24006 Sequence: 0D11613 Calibration: 0110007 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene		0.280	1.00	U
79-00-5	1,1,2-Trichloroethane		0.260	1.00	U
71-55-6	1,1,1-Trichloroethane		0.290	1.00	U
79-01-6	Trichloroethene		0.500	1.00	U
75-69-4	Trichlorofluoromethane		0.250	1.00	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.330	1.00	U
75-01-4	Vinyl chloride	UJ	0.200	1.00	~~J,U~~ CCU
1330-20-7	Xylenes (total)		0.220	1.00	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	30.00	30.45	102	75 - 120	
Dibromofluoromethane	30.00	32.16	107	85 - 115	
1,2-Dichloroethane-d4	30.00	31.64	105	70 - 120	
Toluene-d8	30.00	32.05	107	85 - 120	

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ANALYSIS DATA SHEET

3

MR21-EB0401110-SS

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-03	File ID:	0408903.D
Sampled:	04/11/10 10:40	Prepared:	04/24/10 00:00	Analyzed:	04/24/10 16:53
Solids:		Preparation:	5030B	Dilution:	1
Batch:	0D24006	Sequence: 0D11613	Calibration:	0110007	Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q	
67-64-1	Acetone	6.25 J	1.80	5.00	~~X~~	ICL
71-43-2	Benzene		0.140	1.00	U	
75-27-4	Bromodichloromethane		0.180	1.00	U	
75-25-2	Bromoform		0.500	1.00	U	
74-83-9	Bromomethane		0.320	1.00	~~X~~, U	
78-93-3	2-Butanone		1.60	5.00	U	
75-15-0	Carbon disulfide		0.260	1.00	U	
56-23-5	Carbon tetrachloride		0.240	1.00	U	
108-90-7	Chlorobenzene		0.210	1.00	U	
75-00-3	Chloroethane	UJ	0.270	1.00	~~X~~, U	CCH
67-66-3	Chloroform		0.230	1.00	U	
74-87-3	Chloromethane	3.28 J	0.360	1.00	~~X~~	CCH
110-82-7	Cyclohexane		0.200	1.00	U	
124-48-1	Dibromochloromethane		0.180	1.00	U	
96-12-8	1,2-Dibromo-3-chloropropane		0.550	1.50	U	
106-93-4	1,2-Dibromoethane (EDB)		0.240	1.00	U	
95-50-1	1,2-Dichlorobenzene		0.160	1.00	U	
541-73-1	1,3-Dichlorobenzene		0.250	1.00	U	
106-46-7	1,4-Dichlorobenzene		0.250	1.00	U	
75-71-8	Dichlorodifluoromethane		0.260	1.00	~~X~~, U	
75-34-3	1,1-Dichloroethane		0.240	1.00	U	
107-06-2	1,2-Dichloroethane		0.220	1.00	U	
75-35-4	1,1-Dichloroethene		0.280	1.00	U	
156-59-2	cis-1,2-Dichloroethene		0.450	1.00	U	
156-60-5	trans-1,2-Dichloroethene		0.530	1.50	U	
78-87-5	1,2-Dichloropropane		0.270	1.00	U	
10061-01-5	cis-1,3-Dichloropropene		0.150	1.00	U	
10061-02-6	trans-1,3-Dichloropropene		0.170	1.00	U	
100-41-4	Ethylbenzene		0.150	1.00	U	
591-78-6	2-Hexanone		0.500	5.00	~~X~~, U	
98-82-8	Isopropylbenzene		0.150	1.00	~~X~~, U	
75-09-2	Methylene chloride		0.270	2.00	U	
79-20-9	Methyl Acetate		0.590	1.50	~~X~~, U	
108-87-2	Methylcyclohexane		0.180	1.00	U	
108-10-1	4-Methyl-2-pentanone		0.500	5.00	~~X~~, U	
1634-04-4	Methyl t-Butyl Ether		0.250	1.00	U	
100-42-5	Styrene		0.240	1.00	U	
79-34-5	1,1,2,2-Tetrachloroethane		0.230	1.00	U	
127-18-4	Tetrachloroethene		0.170	1.00	U	
108-88-3	Toluene		0.190	1.00	U	

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ANALYSIS DATA SHEET

MR21-EB0401110-SS

3

Laboratory:	Empirical Laboratories, LLC			SDG:	1004089
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-03	File ID:	0408903.D
Sampled:	04/11/10 10:40	Prepared:	04/24/10 00:00	Analyzed:	04/24/10 16:53
Solids:		Preparation:	5030B	Dilution:	1

Batch: 0D24006 Sequence: 0D11613 Calibration: 0110007 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene		0.280	1.00	U
79-00-5	1,1,2-Trichloroethane		0.260	1.00	U
71-55-6	1,1,1-Trichloroethane		0.290	1.00	U
79-01-6	Trichloroethene		0.500	1.00	U
75-69-4	Trichlorofluoromethane		0.250	1.00	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.330	1.00	U
75-01-4	Vinyl chloride	UJ	0.200	1.00	~~Y,U~~ CCH
1330-20-7	Xylenes (total)		0.220	1.00	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	30.00	31.01	103	75 - 120	
Dibromofluoromethane	30.00	32.01	107	85 - 115	
1,2-Dichloroethane-d4	30.00	32.87	110	70 - 120	
Toluene-d8	30.00	33.15	111	85 - 120	

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ANALYSIS DATA SHEET

MR21-SW01-10B

4

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-04	File ID:	0408904.D
Sampled:	04/11/10 09:00	Prepared:	04/24/10 00:00	Analyzed:	04/24/10 17:23
Solids:		Preparation:	5030B	Dilution:	1
Batch:	0D24006	Sequence: 0D11613	Calibration:	0110007	Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q	
67-64-1	Acetone	5.83 R	1.80	5.00	~~Y~~	JCL ~~FBL~~
71-43-2	Benzene		0.140	1.00	U	
75-27-4	Bromodichloromethane		0.180	1.00	U	
75-25-2	Bromoform		0.500	1.00	U	
74-83-9	Bromomethane		0.320	1.00	Y, U	
78-93-3	2-Butanone		1.60	5.00	U	
75-15-0	Carbon disulfide		0.260	1.00	U	
56-23-5	Carbon tetrachloride		0.240	1.00	U	
108-90-7	Chlorobenzene		0.210	1.00	U	
75-00-3	Chloroethane	UJ	0.270	1.00	~~Y U~~	CCH
67-66-3	Chloroform		0.230	1.00	U	
74-87-3	Chloromethane	4.59 UJ	0.360	1.00	~~Y~~ CCH	~~FBL~~
110-82-7	Cyclohexane		0.200	1.00	U	
124-48-1	Dibromochloromethane		0.180	1.00	U	
96-12-8	1,2-Dibromo-3-chloropropane		0.550	1.50	U	
106-93-4	1,2-Dibromoethane (EDB)		0.240	1.00	U	
95-50-1	1,2-Dichlorobenzene		0.160	1.00	U	
541-73-1	1,3-Dichlorobenzene		0.250	1.00	U	
106-46-7	1,4-Dichlorobenzene		0.250	1.00	U	
75-71-8	Dichlorodifluoromethane		0.260	1.00	Y, U	
75-34-3	1,1-Dichloroethane		0.240	1.00	U	
107-06-2	1,2-Dichloroethane		0.220	1.00	U	
75-35-4	1,1-Dichloroethene		0.280	1.00	U	
156-59-2	cis-1,2-Dichloroethene		0.450	1.00	U	
156-60-5	trans-1,2-Dichloroethene		0.530	1.50	U	
78-87-5	1,2-Dichloropropane		0.270	1.00	U	
10061-01-5	cis-1,3-Dichloropropene		0.150	1.00	U	
10061-02-6	trans-1,3-Dichloropropene		0.170	1.00	U	
100-41-4	Ethylbenzene		0.150	1.00	U	
591-78-6	2-Hexanone		0.500	5.00	Y, U	
98-82-8	Isopropylbenzene		0.150	1.00	Q, U	
75-09-2	Methylene chloride		0.270	2.00	U	
79-20-9	Methyl Acetate		0.590	1.50	Y, U	
108-87-2	Methylcyclohexane		0.180	1.00	U	
108-10-1	4-Methyl-2-pentanone		0.500	5.00	Y, U	
1634-04-4	Methyl t-Butyl Ether		0.250	1.00	U	
100-42-5	Styrene		0.240	1.00	U	
79-34-5	1,1,2,2-Tetrachloroethane		0.230	1.00	U	
127-18-4	Tetrachloroethene		0.170	1.00	U	
108-88-3	Toluene	1.99	0.190	1.00		

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ANALYSIS DATA SHEET

MR21-SW01-10B

4

Laboratory:	Empirical Laboratories, LLC			SDG:	1004089
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-04	File ID:	0408904.D
Sampled:	04/11/10 09:00	Prepared:	04/24/10 00:00	Analyzed:	04/24/10 17:23
Solids:		Preparation:	5030B	Dilution:	1

Batch: 0D24006 Sequence: 0D11613 Calibration: 0110007 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene		0.280	1.00	U
79-00-5	1,1,2-Trichloroethane		0.260	1.00	U
71-55-6	1,1,1-Trichloroethane		0.290	1.00	U
79-01-6	Trichloroethene		0.500	1.00	U
75-69-4	Trichlorofluoromethane		0.250	1.00	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.330	1.00	U
75-01-4	Vinyl chloride	NJ	0.200	1.00	~~Y~~, U CCH
1330-20-7	Xylenes (total)		0.220	1.00	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	30.00	30.86	103	75 - 120	
Dibromofluoromethane	30.00	31.93	106	85 - 115	
1,2-Dichloroethane-d4	30.00	33.17	111	70 - 120	
Toluene-d8	30.00	32.59	109	85 - 120	

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ANALYSIS DATA SHEET

MR21-SW02-10B 5

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-05	File ID:	0408905.D
Sampled:	04/11/10 09:20	Prepared:	04/24/10 00:00	Analyzed:	04/24/10 17:53
Solids:		Preparation:	5030B	Dilution:	1
Batch:	0D24006	Sequence: 0D11613	Calibration:	0110007	Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q	
67-64-1	Acetone	7.10 ~~U~~ R	1.80	5.00	~~Y~~	ICL EBL
71-43-2	Benzene		0.140	1.00	U	
75-27-4	Bromodichloromethane		0.180	1.00	U	
75-25-2	Bromoform		0.500	1.00	U	
74-83-9	Bromomethane		0.320	1.00	~~Y~~, U	
78-93-3	2-Butanone		1.60	5.00	U	
75-15-0	Carbon disulfide		0.260	1.00	U	
56-23-5	Carbon tetrachloride		0.240	1.00	U	
108-90-7	Chlorobenzene		0.210	1.00	U	
75-00-3	Chloroethane	UJ	0.270	1.00	~~Y~~, U	CCH
67-66-3	Chloroform		0.230	1.00	U	
74-87-3	Chloromethane	12.2 UJ	0.360	1.00	~~Y~~ CCH	FBL
110-82-7	Cyclohexane		0.200	1.00	U	
124-48-1	Dibromochloromethane		0.180	1.00	U	
96-12-8	1,2-Dibromo-3-chloropropane		0.550	1.50	U	
106-93-4	1,2-Dibromoethane (EDB)		0.240	1.00	U	
95-50-1	1,2-Dichlorobenzene		0.160	1.00	U	
541-73-1	1,3-Dichlorobenzene		0.250	1.00	U	
106-46-7	1,4-Dichlorobenzene		0.250	1.00	U	
75-71-8	Dichlorodifluoromethane		0.260	1.00	~~Y~~, U	
75-34-3	1,1-Dichloroethane		0.240	1.00	U	
107-06-2	1,2-Dichloroethane		0.220	1.00	U	
75-35-4	1,1-Dichloroethene		0.280	1.00	U	
156-59-2	cis-1,2-Dichloroethene		0.450	1.00	U	
156-60-5	trans-1,2-Dichloroethene		0.530	1.50	U	
78-87-5	1,2-Dichloropropane		0.270	1.00	U	
10061-01-5	cis-1,3-Dichloropropene		0.150	1.00	U	
10061-02-6	trans-1,3-Dichloropropene		0.170	1.00	U	
100-41-4	Ethylbenzene		0.150	1.00	U	
591-78-6	2-Hexanone		0.500	5.00	~~Y~~, U	
98-82-8	Isopropylbenzene		0.150	1.00	~~Y~~, U	
75-09-2	Methylene chloride		0.270	2.00	U	
79-20-9	Methyl Acetate		0.590	1.50	~~Y~~, U	
108-87-2	Methylcyclohexane		0.180	1.00	U	
108-10-1	4-Methyl-2-pentanone		0.500	5.00	~~Y~~, U	
1634-04-4	Methyl t-Butyl Ether		0.250	1.00	U	
100-42-5	Styrene		0.240	1.00	U	
79-34-5	1,1,2,2-Tetrachloroethane		0.230	1.00	U	
127-18-4	Tetrachloroethene		0.170	1.00	U	
108-88-3	Toluene	3.58	0.190	1.00		

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ANALYSIS DATA SHEET

MR21-SW02-10B

5

Laboratory:	Empirical Laboratories, LLC			SDG:	1004089
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-05	File ID:	0408905.D
Sampled:	04/11/10 09:20	Prepared:	04/24/10 00:00	Analyzed:	04/24/10 17:53
Solids:		Preparation:	5030B	Dilution:	1

Batch: 0D24006 Sequence: 0D11613 Calibration: 0110007 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene		0.280	1.00	U
79-00-5	1,1,2-Trichloroethane		0.260	1.00	U
71-55-6	1,1,1-Trichloroethane		0.290	1.00	U
79-01-6	Trichloroethene		0.500	1.00	U
75-69-4	Trichlorofluoromethane		0.250	1.00	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.330	1.00	U
75-01-4	Vinyl chloride	UJ	0.200	1.00	~~X,U~~ CCH
1330-20-7	Xylenes (total)		0.220	1.00	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	30.00	30.20	101	75 - 120	
Dibromofluoromethane	30.00	32.21	107	85 - 115	
1,2-Dichloroethane-d4	30.00	31.52	105	70 - 120	
Toluene-d8	30.00	32.08	107	85 - 120	

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ANALYSIS DATA SHEET

MR21-SW05-10B

6

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-06	File ID:	0408906.D
Sampled:	04/11/10 10:10	Prepared:	04/24/10 00:00	Analyzed:	04/24/10 18:23
Solids:		Preparation:	5030B	Dilution:	1

Batch: 0D24006 Sequence: 0D11613 Calibration: 0110007 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
67-64-1	Acetone	R	1.80	5.00	~~Y,~~U ICL
71-43-2	Benzene		0.140	1.00	U
75-27-4	Bromodichloromethane		0.180	1.00	U
75-25-2	Bromoform		0.500	1.00	U
74-83-9	Bromomethane		0.320	1.00	~~Y~~, U
78-93-3	2-Butanone		1.60	5.00	U
75-15-0	Carbon disulfide		0.260	1.00	U
56-23-5	Carbon tetrachloride		0.240	1.00	U
108-90-7	Chlorobenzene		0.210	1.00	U
75-00-3	Chloroethane	UJ	0.270	1.00	~~Y,~~U CCH
67-66-3	Chloroform		0.230	1.00	U
74-87-3	Chloromethane	2.87 UJ	0.360	1.00	~~Y~~ CCH ~~FBL~~
110-82-7	Cyclohexane		0.200	1.00	U
124-48-1	Dibromochloromethane		0.180	1.00	U
96-12-8	1,2-Dibromo-3-chloropropane		0.550	1.50	U
106-93-4	1,2-Dibromoethane (EDB)		0.240	1.00	U
95-50-1	1,2-Dichlorobenzene		0.160	1.00	U
541-73-1	1,3-Dichlorobenzene		0.250	1.00	U
106-46-7	1,4-Dichlorobenzene		0.250	1.00	U
75-71-8	Dichlorodifluoromethane		0.260	1.00	~~Y~~, U
75-34-3	1,1-Dichloroethane		0.240	1.00	U
107-06-2	1,2-Dichloroethane		0.220	1.00	U
75-35-4	1,1-Dichloroethene		0.280	1.00	U
156-59-2	cis-1,2-Dichloroethene		0.450	1.00	U
156-60-5	trans-1,2-Dichloroethene		0.530	1.50	U
78-87-5	1,2-Dichloropropane		0.270	1.00	U
10061-01-5	cis-1,3-Dichloropropene		0.150	1.00	U
10061-02-6	trans-1,3-Dichloropropene		0.170	1.00	U
100-41-4	Ethylbenzene		0.150	1.00	U
591-78-6	2-Hexanone		0.500	5.00	~~Y~~, U
98-82-8	Isopropylbenzene		0.150	1.00	~~Y~~, U
75-09-2	Methylene chloride		0.270	2.00	U
79-20-9	Methyl Acetate		0.590	1.50	~~Y~~, U
108-87-2	Methylcyclohexane		0.180	1.00	U
108-10-1	4-Methyl-2-pentanone		0.500	5.00	~~Y~~, U
1634-04-4	Methyl t-Butyl Ether		0.250	1.00	U
100-42-5	Styrene		0.240	1.00	U
79-34-5	1,1,2,2-Tetrachloroethane		0.230	1.00	U
127-18-4	Tetrachloroethene		0.170	1.00	U
108-88-3	Toluene		0.190	1.00	U

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ANALYSIS DATA SHEET

MR21-SW05-10B 6

Laboratory:	Empirical Laboratories, LLC			SDG:	1004089
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-06	File ID:	0408906.D
Sampled:	04/11/10 10:10	Prepared:	04/24/10 00:00	Analyzed:	04/24/10 18:23
Solids:		Preparation:	5030B	Dilution:	1

Batch: 0D24006 Sequence: 0D11613 Calibration: 0110007 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene		0.280	1.00	U
79-00-5	1,1,2-Trichloroethane		0.260	1.00	U
71-55-6	1,1,1-Trichloroethane		0.290	1.00	U
79-01-6	Trichloroethene		0.500	1.00	U
75-69-4	Trichlorofluoromethane		0.250	1.00	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.330	1.00	U
75-01-4	Vinyl chloride	UJ	0.200	1.00	~~J~~, U CCH
1330-20-7	Xylenes (total)		0.220	1.00	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	30.00	31.23	104	75 - 120	
Dibromofluoromethane	30.00	31.70	106	85 - 115	
1,2-Dichloroethane-d4	30.00	33.47	112	70 - 120	
Toluene-d8	30.00	32.58	109	85 - 120	

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ANALYSIS DATA SHEET

MR21-SW06-10B

7

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-07	File ID:	0408907.D
Sampled:	04/11/10 10:30	Prepared:	04/24/10 00:00	Analyzed:	04/24/10 18:53
Solids:		Preparation:	5030B	Dilution:	1

Batch: 0D24006 Sequence: 0D11613 Calibration: 0110007 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q	
67-64-1	Acetone	5.00 ~~3.31~~ UR	1.80	5.00	~~Y,J~~	JCL ~~EBL~~
71-43-2	Benzene		0.140	1.00	U	
75-27-4	Bromodichloromethane		0.180	1.00	U	
75-25-2	Bromoform		0.500	1.00	U	
74-83-9	Bromomethane		0.320	1.00	~~Y,U~~	
78-93-3	2-Butanone		1.60	5.00	U	
75-15-0	Carbon disulfide		0.260	1.00	U	
56-23-5	Carbon tetrachloride		0.240	1.00	U	
108-90-7	Chlorobenzene		0.210	1.00	U	
75-00-3	Chloroethane	UJ	0.270	1.00	~~Y,U~~	CCH
67-66-3	Chloroform		0.230	1.00	U	
74-87-3	Chloromethane	1.84 UJ	0.360	1.00	~~Y~~ CCH	~~FBL~~
110-82-7	Cyclohexane		0.200	1.00	U	
124-48-1	Dibromochloromethane		0.180	1.00	U	
96-12-8	1,2-Dibromo-3-chloropropane		0.550	1.50	U	
106-93-4	1,2-Dibromoethane (EDB)		0.240	1.00	U	
95-50-1	1,2-Dichlorobenzene		0.160	1.00	U	
541-73-1	1,3-Dichlorobenzene		0.250	1.00	U	
106-46-7	1,4-Dichlorobenzene		0.250	1.00	U	
75-71-8	Dichlorodifluoromethane		0.260	1.00	Y, U	
75-34-3	1,1-Dichloroethane		0.240	1.00	U	
107-06-2	1,2-Dichloroethane		0.220	1.00	U	
75-35-4	1,1-Dichloroethene		0.280	1.00	U	
156-59-2	cis-1,2-Dichloroethene		0.450	1.00	U	
156-60-5	trans-1,2-Dichloroethene		0.530	1.50	U	
78-87-5	1,2-Dichloropropane		0.270	1.00	U	
10061-01-5	cis-1,3-Dichloropropene		0.150	1.00	U	
10061-02-6	trans-1,3-Dichloropropene		0.170	1.00	U	
100-41-4	Ethylbenzene		0.150	1.00	U	
591-78-6	2-Hexanone		0.500	5.00	Y, U	
98-82-8	Isopropylbenzene		0.150	1.00	Q, U	
75-09-2	Methylene chloride		0.270	2.00	U	
79-20-9	Methyl Acetate		0.590	1.50	Y, U	
108-87-2	Methylcyclohexane		0.180	1.00	U	
108-10-1	4-Methyl-2-pentanone		0.500	5.00	Y, U	
1634-04-4	Methyl t-Butyl Ether		0.250	1.00	U	
100-42-5	Styrene		0.240	1.00	U	
79-34-5	1,1,2,2-Tetrachloroethane		0.230	1.00	U	
127-18-4	Tetrachloroethene		0.170	1.00	U	
108-88-3	Toluene		0.190	1.00	U	

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ANALYSIS DATA SHEET

MR21-SW06-10B

7

Laboratory:	Empirical Laboratories, LLC			SDG:	1004089
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-07	File ID:	0408907.D
Sampled:	04/11/10 10:30	Prepared:	04/24/10 00:00	Analyzed:	04/24/10 18:53
Solids:		Preparation:	5030B	Dilution:	1

Batch: 0D24006 Sequence: 0D11613 Calibration: 0110007 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene		0.280	1.00	U
79-00-5	1,1,2-Trichloroethane		0.260	1.00	U
71-55-6	1,1,1-Trichloroethane		0.290	1.00	U
79-01-6	Trichloroethene		0.500	1.00	U
75-69-4	Trichlorofluoromethane		0.250	1.00	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.330	1.00	U
75-01-4	Vinyl chloride	UJ	0.200	1.00	~~YU~~ CCH
1330-20-7	Xylenes (total)		0.220	1.00	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	30.00	31.05	103	75 - 120	
Dibromofluoromethane	30.00	31.95	106	85 - 115	
1,2-Dichloroethane-d4	30.00	32.50	108	70 - 120	
Toluene-d8	30.00	32.87	110	85 - 120	

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ANALYSIS DATA SHEET

MR21-SW03-10B

8

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-08	File ID:	0408908.D
Sampled:	04/11/10 09:40	Prepared:	04/24/10 00:00	Analyzed:	04/24/10 23:51
Solids:		Preparation:	5030B	Dilution:	1

Batch: 0D24007 Sequence: 0D11702 Calibration: 0110007 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q	
67-64-1	Acetone	5.00 ~~2.70~~ UR	1.80	5.00	~~Y, J~~	ICU ~~EBL~~
71-43-2	Benzene		0.140	1.00	U	
75-27-4	Bromodichloromethane		0.180	1.00	U	
75-25-2	Bromoform		0.500	1.00	U	
74-83-9	Bromomethane	UJ	0.320	1.00	~~Y, U~~	CCH
78-93-3	2-Butanone		1.60	5.00	Y, U	
75-15-0	Carbon disulfide		0.260	1.00	U	
56-23-5	Carbon tetrachloride		0.240	1.00	U	
108-90-7	Chlorobenzene		0.210	1.00	U	
75-00-3	Chloroethane	UJ	0.270	1.00	~~Y, U~~	CCH
67-66-3	Chloroform		0.230	1.00	U	
74-87-3	Chloromethane	1.43 UJ	0.360	1.00	Y CCH ~~EBL~~	
110-82-7	Cyclohexane		0.200	1.00	U	
124-48-1	Dibromochloromethane		0.180	1.00	U	
96-12-8	1,2-Dibromo-3-chloropropane		0.550	1.50	U	
106-93-4	1,2-Dibromoethane (EDB)		0.240	1.00	U	
95-50-1	1,2-Dichlorobenzene		0.160	1.00	U	
541-73-1	1,3-Dichlorobenzene		0.250	1.00	U	
106-46-7	1,4-Dichlorobenzene		0.250	1.00	U	
75-71-8	Dichlorodifluoromethane	UJ	0.260	1.00	~~Y, U~~	CCH
75-34-3	1,1-Dichloroethane		0.240	1.00	U	
107-06-2	1,2-Dichloroethane		0.220	1.00	U	
75-35-4	1,1-Dichloroethene		0.280	1.00	U	
156-59-2	cis-1,2-Dichloroethene		0.450	1.00	U	
156-60-5	trans-1,2-Dichloroethene		0.530	1.50	U	
78-87-5	1,2-Dichloropropane		0.270	1.00	U	
10061-01-5	cis-1,3-Dichloropropene		0.150	1.00	U	
10061-02-6	trans-1,3-Dichloropropene		0.170	1.00	U	
100-41-4	Ethylbenzene		0.150	1.00	U	
591-78-6	2-Hexanone		0.500	5.00	Y, U	
98-82-8	Isopropylbenzene		0.150	1.00	Y, U	
75-09-2	Methylene chloride		0.270	2.00	U	
79-20-9	Methyl Acetate	UJ	0.590	1.50	~~Y, U~~	CCH
108-87-2	Methylcyclohexane		0.180	1.00	U	
108-10-1	4-Methyl-2-pentanone		0.500	5.00	Y, U	
1634-04-4	Methyl t-Butyl Ether		0.250	1.00	U	
100-42-5	Styrene		0.240	1.00	U	
79-34-5	1,1,2,2-Tetrachloroethane		0.230	1.00	U	
127-18-4	Tetrachloroethene		0.170	1.00	U	
108-88-3	Toluene		0.190	1.00	U	

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ANALYSIS DATA SHEET

MR21-SW03-10B

8

Laboratory:	Empirical Laboratories, LLC			SDG:	1004089
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-08	File ID:	0408908.D
Sampled:	04/11/10 09:40	Prepared:	04/24/10 00:00	Analyzed:	04/24/10 23:51
Solids:		Preparation:	5030B	Dilution:	1

Batch: 0D24007 Sequence: 0D11702 Calibration: 0110007 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene		0.280	1.00	U
79-00-5	1,1,2-Trichloroethane		0.260	1.00	U
71-55-6	1,1,1-Trichloroethane		0.290	1.00	U
79-01-6	Trichloroethene		0.500	1.00	U
75-69-4	Trichlorofluoromethane		0.250	1.00	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.330	1.00	~~Y~~, U
75-01-4	Vinyl chloride	UJ	0.200	1.00	~~Y, U~~ CC4
1330-20-7	Xylenes (total)		0.220	1.00	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	30.00	30.39	101	75 - 120	
Dibromofluoromethane	30.00	31.23	104	85 - 115	
1,2-Dichloroethane-d4	30.00	31.80	106	70 - 120	
Toluene-d8	30.00	33.12	110	85 - 120	

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ANALYSIS DATA SHEET

MR21-GW02-10B 9

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-09	File ID:	0408909.D
Sampled:	04/10/10 18:35	Prepared:	04/23/10 00:00	Analyzed:	04/23/10 17:22
Solids:		Preparation:	5030B	Dilution:	1
Batch:	0D24001	Sequence: 0D11507	Calibration:	0112006	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q	
67-64-1	Acetone		1.80	5.00	U	
71-43-2	Benzene		0.140	1.00	U	
75-27-4	Bromodichloromethane		0.180	1.00	U	
75-25-2	Bromoform	UJ	0.500	1.00	~~Q, X, U~~	CCH
74-83-9	Bromomethane		0.320	1.00	U	
78-93-3	2-Butanone		1.60	5.00	U	
75-15-0	Carbon disulfide		0.260	1.00	~~Y~~, U	
56-23-5	Carbon tetrachloride		0.240	1.00	U	
108-90-7	Chlorobenzene		0.210	1.00	U	
75-00-3	Chloroethane		0.270	1.00	U	
67-66-3	Chloroform		0.230	1.00	U	
74-87-3	Chloromethane	5.89 U	0.360	1.00		FBL
110-82-7	Cyclohexane	UJ	0.200	1.00	~~X, U~~	CCH
124-48-1	Dibromochloromethane	UJ	0.180	1.00	~~X, U~~	CCH
96-12-8	1,2-Dibromo-3-chloropropane		0.550	1.50	U	
106-93-4	1,2-Dibromoethane (EDB)		0.240	1.00	U	
95-50-1	1,2-Dichlorobenzene		0.160	1.00	U	
541-73-1	1,3-Dichlorobenzene		0.250	1.00	U	
106-46-7	1,4-Dichlorobenzene		0.250	1.00	U	
75-71-8	Dichlorodifluoromethane		0.260	1.00	~~X~~, U	
75-34-3	1,1-Dichloroethane		0.240	1.00	~~Y~~, U	
107-06-2	1,2-Dichloroethane		0.220	1.00	U	
75-35-4	1,1-Dichloroethene		0.280	1.00	~~Y~~, U	
156-59-2	cis-1,2-Dichloroethene		0.450	1.00	U	
156-60-5	trans-1,2-Dichloroethene		0.530	1.50	U	
78-87-5	1,2-Dichloropropane		0.270	1.00	~~Y~~, U	
10061-01-5	cis-1,3-Dichloropropene		0.150	1.00	U	
10061-02-6	trans-1,3-Dichloropropene		0.170	1.00	U	
100-41-4	Ethylbenzene		0.150	1.00	U	
591-78-6	2-Hexanone		0.500	5.00	U	
98-82-8	Isopropylbenzene		0.150	1.00	U	
75-09-2	Methylene chloride		0.270	2.00	U	
79-20-9	Methyl Acetate	UJ	0.590	1.50	~~X, U~~	CCH
108-87-2	Methylcyclohexane		0.180	1.00	U	
108-10-1	4-Methyl-2-pentanone		0.500	5.00	U	
1634-04-4	Methyl t-Butyl Ether		0.250	1.00	U	
100-42-5	Styrene		0.240	1.00	U	
79-34-5	1,1,2,2-Tetrachloroethane		0.230	1.00	U	
127-18-4	Tetrachloroethene		0.170	1.00	U	
108-88-3	Toluene		0.190	1.00	U	

MW 7/23/10

ANALYSIS DATA SHEET

MR21-GW02-10B

9

Laboratory:	Empirical Laboratories, LLC			SDG:	1004089
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-09	File ID:	0408909.D
Sampled:	04/10/10 18:35	Prepared:	04/23/10 00:00	Analyzed:	04/23/10 17:22
Solids:		Preparation:	5030B	Dilution:	1

Batch: 0D24001 Sequence: 0D11507 Calibration: 0112006 Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene		0.280	1.00	U
79-00-5	1,1,2-Trichloroethane		0.260	1.00	U
71-55-6	1,1,1-Trichloroethane		0.290	1.00	U
79-01-6	Trichloroethene		0.500	1.00	U
75-69-4	Trichlorofluoromethane		0.250	1.00	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.330	1.00	U
75-01-4	Vinyl chloride		0.200	1.00	U
1330-20-7	Xylenes (total)		0.220	1.00	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	30.00	30.47	102	75 - 120	
Dibromofluoromethane	30.00	30.64	102	85 - 115	
1,2-Dichloroethane-d4	30.00	30.35	101	70 - 120	
Toluene-d8	30.00	35.37	118	85 - 120	

nw 7/23/10

ANALYSIS DATA SHEET

MR21-SW04-10B 10

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-10	File ID:	0408910.D
Sampled:	04/11/10 09:50	Prepared:	04/24/10 00:00	Analyzed:	04/25/10 00:21
Solids:		Preparation:	5030B	Dilution:	1
Batch:	0D24007	Sequence: 0D11702	Calibration:	0110007	Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q	
67-64-1	Acetone	5.00 ~~2.03~~ ~~UR~~	1.80	5.00	~~Y, J~~	~~EBL~~ JCL
71-43-2	Benzene		0.140	1.00	U	
75-27-4	Bromodichloromethane		0.180	1.00	U	
75-25-2	Bromoform		0.500	1.00	U	
74-83-9	Bromomethane	UJ	0.320	1.00	~~Y, U~~	CCH
78-93-3	2-Butanone		1.60	5.00	Y, U	
75-15-0	Carbon disulfide		0.260	1.00	U	
56-23-5	Carbon tetrachloride		0.240	1.00	U	
108-90-7	Chlorobenzene		0.210	1.00	U	
75-00-3	Chloroethane	UJ	0.270	1.00	~~Y, U~~	CCH
67-66-3	Chloroform		0.230	1.00	U	
74-87-3	Chloromethane	2.02 UJ	0.360	1.00	~~Y~~ CCH	~~FBL~~
110-82-7	Cyclohexane		0.200	1.00	U	
124-48-1	Dibromochloromethane		0.180	1.00	U	
96-12-8	1,2-Dibromo-3-chloropropane		0.550	1.50	U	
106-93-4	1,2-Dibromoethane (EDB)		0.240	1.00	U	
95-50-1	1,2-Dichlorobenzene		0.160	1.00	U	
541-73-1	1,3-Dichlorobenzene		0.250	1.00	U	
106-46-7	1,4-Dichlorobenzene		0.250	1.00	U	
75-71-8	Dichlorodifluoromethane	UJ	0.260	1.00	~~Y, U~~	CCH
75-34-3	1,1-Dichloroethane		0.240	1.00	U	
107-06-2	1,2-Dichloroethane		0.220	1.00	U	
75-35-4	1,1-Dichloroethene		0.280	1.00	U	
156-59-2	cis-1,2-Dichloroethene		0.450	1.00	U	
156-60-5	trans-1,2-Dichloroethene		0.530	1.50	U	
78-87-5	1,2-Dichloropropane		0.270	1.00	U	
10061-01-5	cis-1,3-Dichloropropene		0.150	1.00	U	
10061-02-6	trans-1,3-Dichloropropene		0.170	1.00	U	
100-41-4	Ethylbenzene		0.150	1.00	U	
591-78-6	2-Hexanone		0.500	5.00	Y, U	
98-82-8	Isopropylbenzene		0.150	1.00	~~Q, N~~, U	
75-09-2	Methylene chloride		0.270	2.00	U	
79-20-9	Methyl Acetate	UJ	0.590	1.50	~~Y, N, U~~	CCH
108-87-2	Methylcyclohexane		0.180	1.00	U	
108-10-1	4-Methyl-2-pentanone		0.500	5.00	Y, U	
1634-04-4	Methyl t-Butyl Ether		0.250	1.00	U	
100-42-5	Styrene		0.240	1.00	U	
79-34-5	1,1,2,2-Tetrachloroethane		0.230	1.00	U	
127-18-4	Tetrachloroethene		0.170	1.00	U	
108-88-3	Toluene		0.190	1.00	U	

MW 7/23/10

ANALYSIS DATA SHEET

MR21-SW04-10B 10

Laboratory:	Empirical Laboratories, LLC			SDG:	1004089
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-10	File ID:	0408910.D
Sampled:	04/11/10 09:50	Prepared:	04/24/10 00:00	Analyzed:	04/25/10 00:21
Solids:		Preparation:	5030B	Dilution:	1

Batch: 0D24007 Sequence: 0D11702 Calibration: 0110007 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene		0.280	1.00	U
79-00-5	1,1,2-Trichloroethane		0.260	1.00	U
71-55-6	1,1,1-Trichloroethane		0.290	1.00	U
79-01-6	Trichloroethene		0.500	1.00	U
75-69-4	Trichlorofluoromethane		0.250	1.00	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.330	1.00	~~U~~, U
75-01-4	Vinyl chloride	UJ	0.200	1.00	~~U~~, U CCH
1330-20-7	Xylenes (total)		0.220	1.00	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	30.00	30.40	101	75 - 120	
Dibromofluoromethane	30.00	31.46	105	85 - 115	
1,2-Dichloroethane-d4	30.00	32.79	109	70 - 120	
Toluene-d8	30.00	32.90	110	85 - 120	

lw 7/23/10

ANALYSIS DATA SHEET

MR21-GW04-10B

11

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-11	File ID:	0408911.D
Sampled:	04/10/10 14:55	Prepared:	04/23/10 00:00	Analyzed:	04/23/10 18:01
Solids:		Preparation:	5030B	Dilution:	1
Batch:	0D24001	Sequence: 0D11507	Calibration:	0112006	Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q	
67-64-1	Acetone	5.00 ~~2.41~~ U	1.80	5.00	~~J~~	EBL
71-43-2	Benzene		0.140	1.00	U	
75-27-4	Bromodichloromethane		0.180	1.00	U	
75-25-2	Bromoform	UJ	0.500	1.00	X, ~~N, Q, U~~	CCH
74-83-9	Bromomethane		0.320	1.00	U	
78-93-3	2-Butanone		1.60	5.00	U	
75-15-0	Carbon disulfide		0.260	1.00	~~Y~~, U	
56-23-5	Carbon tetrachloride		0.240	1.00	U	
108-90-7	Chlorobenzene		0.210	1.00	U	
75-00-3	Chloroethane		0.270	1.00	U	
67-66-3	Chloroform	4.07	0.230	1.00		
74-87-3	Chloromethane	1.67 U	0.360	1.00		FBL
110-82-7	Cyclohexane	UJ	0.200	1.00	~~Y~~, U	CCH
124-48-1	Dibromochloromethane	UJ	0.180	1.00	~~X, U~~	CCH
96-12-8	1,2-Dibromo-3-chloropropane		0.550	1.50	U	
106-93-4	1,2-Dibromoethane (EDB)		0.240	1.00	~~N~~, U	
95-50-1	1,2-Dichlorobenzene		0.160	1.00	U	
541-73-1	1,3-Dichlorobenzene		0.250	1.00	U	
106-46-7	1,4-Dichlorobenzene		0.250	1.00	U	
75-71-8	Dichlorodifluoromethane		0.260	1.00	~~N, X~~, U	
75-34-3	1,1-Dichloroethane		0.240	1.00	~~Y~~, U	
107-06-2	1,2-Dichloroethane		0.220	1.00	U	
75-35-4	1,1-Dichloroethene		0.280	1.00	~~Y~~, U	
156-59-2	cis-1,2-Dichloroethene		0.450	1.00	U	
156-60-5	trans-1,2-Dichloroethene		0.530	1.50	U	
78-87-5	1,2-Dichloropropane		0.270	1.00	~~Y~~, U	
10061-01-5	cis-1,3-Dichloropropene		0.150	1.00	U	
10061-02-6	trans-1,3-Dichloropropene		0.170	1.00	U	
100-41-4	Ethylbenzene		0.150	1.00	U	
591-78-6	2-Hexanone		0.500	5.00	U	
98-82-8	Isopropylbenzene		0.150	1.00	~~N~~, U	
75-09-2	Methylene chloride		0.270	2.00	U	
79-20-9	Methyl Acetate	UJ	0.590	1.50	Y, ~~N, U~~	CCH
108-87-2	Methylcyclohexane		0.180	1.00	U	
108-10-1	4-Methyl-2-pentanone		0.500	5.00	U	
1634-04-4	Methyl t-Butyl Ether		0.250	1.00	U	
100-42-5	Styrene		0.240	1.00	U	
79-34-5	1,1,2,2-Tetrachloroethane		0.230	1.00	U	
127-18-4	Tetrachloroethene		0.170	1.00	U	
108-88-3	Toluene		0.190	1.00	U	

LW 7/23/10

ANALYSIS DATA SHEET

MR21-GW04-10B

11

Laboratory:	Empirical Laboratories, LLC			SDG:	1004089
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-11	File ID:	0408911.D
Sampled:	04/10/10 14:55	Prepared:	04/23/10 00:00	Analyzed:	04/23/10 18:01
Solids:		Preparation:	5030B	Dilution:	1

Batch: 0D24001 Sequence: 0D11507 Calibration: 0112006 Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene		0.280	1.00	U
79-00-5	1,1,2-Trichloroethane		0.260	1.00	U
71-55-6	1,1,1-Trichloroethane		0.290	1.00	U
79-01-6	Trichloroethene		0.500	1.00	U
75-69-4	Trichlorofluoromethane		0.250	1.00	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.330	1.00	U
75-01-4	Vinyl chloride		0.200	1.00	U
1330-20-7	Xylenes (total)		0.220	1.00	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	30.00	30.22	101	75 - 120	
Dibromofluoromethane	30.00	31.01	103	85 - 115	
1,2-Dichloroethane-d4	30.00	31.31	104	70 - 120	
Toluene-d8	30.00	35.32	118	85 - 120	

hw 7/23/10

ANALYSIS DATA SHEET

MR21-GW03-10B 12

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-12	File ID:	0408912.D
Sampled:	04/10/10 15:30	Prepared:	04/23/10 00:00	Analyzed:	04/23/10 18:40
Solids:		Preparation:	5030B	Dilution:	1

Batch: 0D24001 Sequence: 0D11507 Calibration: 0112006 Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q	
67-64-1	Acetone		1.80	5.00	U	
71-43-2	Benzene		0.140	1.00	U	
75-27-4	Bromodichloromethane		0.180	1.00	U	
75-25-2	Bromoform	UJ	0.500	1.00	~~Q, X, U~~	CCH
74-83-9	Bromomethane		0.320	1.00	U	
78-93-3	2-Butanone		1.60	5.00	U	
75-15-0	Carbon disulfide		0.260	1.00	~~Y~~, U	
56-23-5	Carbon tetrachloride		0.240	1.00	U	
108-90-7	Chlorobenzene		0.210	1.00	U	
75-00-3	Chloroethane		0.270	1.00	U	
67-66-3	Chloroform	2.12	0.230	1.00		
74-87-3	Chloromethane	3.79 U	0.360	1.00		FBL
110-82-7	Cyclohexane	UJ	0.200	1.00	~~Y~~, U	CCH
124-48-1	Dibromochloromethane	UJ	0.180	1.00	~~X~~, U	CCH
96-12-8	1,2-Dibromo-3-chloropropane		0.550	1.50	U	
106-93-4	1,2-Dibromoethane (EDB)		0.240	1.00	U	
95-50-1	1,2-Dichlorobenzene		0.160	1.00	U	
541-73-1	1,3-Dichlorobenzene		0.250	1.00	U	
106-46-7	1,4-Dichlorobenzene		0.250	1.00	U	
75-71-8	Dichlorodifluoromethane		0.260	1.00	~~X~~, U	
75-34-3	1,1-Dichloroethane		0.240	1.00	~~Y~~, U	
107-06-2	1,2-Dichloroethane		0.220	1.00	U	
75-35-4	1,1-Dichloroethene		0.280	1.00	~~Y~~, U	
156-59-2	cis-1,2-Dichloroethene		0.450	1.00	U	
156-60-5	trans-1,2-Dichloroethene		0.530	1.50	U	
78-87-5	1,2-Dichloropropane		0.270	1.00	~~Y~~, U	
10061-01-5	cis-1,3-Dichloropropene		0.150	1.00	U	
10061-02-6	trans-1,3-Dichloropropene		0.170	1.00	U	
100-41-4	Ethylbenzene		0.150	1.00	U	
591-78-6	2-Hexanone		0.500	5.00	U	
98-82-8	Isopropylbenzene		0.150	1.00	U	
75-09-2	Methylene chloride		0.270	2.00	U	
79-20-9	Methyl Acetate	UJ	0.590	1.50	~~X, U~~	CCH
108-87-2	Methylcyclohexane		0.180	1.00	U	
108-10-1	4-Methyl-2-pentanone		0.500	5.00	U	
1634-04-4	Methyl t-Butyl Ether		0.250	1.00	U	
100-42-5	Styrene		0.240	1.00	U	
79-34-5	1,1,2,2-Tetrachloroethane		0.230	1.00	U	
127-18-4	Tetrachloroethene		0.170	1.00	U	
108-88-3	Toluene		0.190	1.00	U	

MW 7/23/10

ANALYSIS DATA SHEET

MR21-GW03-10B

12

Laboratory:	Empirical Laboratories, LLC			SDG:	1004089
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-12	File ID:	0408912.D
Sampled:	04/10/10 15:30	Prepared:	04/23/10 00:00	Analyzed:	04/23/10 18:40
Solids:		Preparation:	5030B	Dilution:	1

Batch: 0D24001 Sequence: 0D11507 Calibration: 0112006 Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene		0.280	1.00	U
79-00-5	1,1,2-Trichloroethane		0.260	1.00	U
71-55-6	1,1,1-Trichloroethane		0.290	1.00	U
79-01-6	Trichloroethene		0.500	1.00	U
75-69-4	Trichlorofluoromethane		0.250	1.00	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.330	1.00	U
75-01-4	Vinyl chloride		0.200	1.00	U
1330-20-7	Xylenes (total)		0.220	1.00	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	30.00	29.80	99.3	75 - 120	
Dibromofluoromethane	30.00	30.78	103	85 - 115	
1,2-Dichloroethane-d4	30.00	30.82	103	70 - 120	
Toluene-d8	30.00	35.25	118	85 - 120	

lew 7/23/10

ANALYSIS DATA SHEET

MR21-GW05-10B 13

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-13	File ID:	0408913.D
Sampled:	04/10/10 13:20	Prepared:	04/24/10 00:00	Analyzed:	04/24/10 12:22
Solids:		Preparation:	5030B	Dilution:	1

Batch: 0D24006 Sequence: 0D11613 Calibration: 0110007 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
67-64-1	Acetone	R	1.80	5.00	~~Y,U~~ JCL
71-43-2	Benzene		0.140	1.00	U
75-27-4	Bromodichloromethane		0.180	1.00	U
75-25-2	Bromoform		0.500	1.00	U
74-83-9	Bromomethane		0.320	1.00	Y, U
78-93-3	2-Butanone		1.60	5.00	U
75-15-0	Carbon disulfide		0.260	1.00	U
56-23-5	Carbon tetrachloride		0.240	1.00	U
108-90-7	Chlorobenzene		0.210	1.00	U
75-00-3	Chloroethane	UJ	0.270	1.00	Y, U CCH
67-66-3	Chloroform		0.230	1.00	U
74-87-3	Chloromethane	3.81 UJ	0.360	1.00	~~Y~~ CCH ~~FBL~~
110-82-7	Cyclohexane		0.200	1.00	U
124-48-1	Dibromochloromethane		0.180	1.00	U
96-12-8	1,2-Dibromo-3-chloropropane		0.550	1.50	U
106-93-4	1,2-Dibromoethane (EDB)		0.240	1.00	U
95-50-1	1,2-Dichlorobenzene		0.160	1.00	U
541-73-1	1,3-Dichlorobenzene		0.250	1.00	U
106-46-7	1,4-Dichlorobenzene		0.250	1.00	U
75-71-8	Dichlorodifluoromethane		0.260	1.00	Y, U
75-34-3	1,1-Dichloroethane		0.240	1.00	U
107-06-2	1,2-Dichloroethane		0.220	1.00	U
75-35-4	1,1-Dichloroethene		0.280	1.00	U
156-59-2	cis-1,2-Dichloroethene		0.450	1.00	U
156-60-5	trans-1,2-Dichloroethene		0.530	1.50	U
78-87-5	1,2-Dichloropropane		0.270	1.00	U
10061-01-5	cis-1,3-Dichloropropene		0.150	1.00	U
10061-02-6	trans-1,3-Dichloropropene		0.170	1.00	U
100-41-4	Ethylbenzene		0.150	1.00	U
591-78-6	2-Hexanone		0.500	5.00	Y, U
98-82-8	Isopropylbenzene		0.150	1.00	Y, U
75-09-2	Methylene chloride		0.270	2.00	U
79-20-9	Methyl Acetate		0.590	1.50	Y, U
108-87-2	Methylcyclohexane		0.180	1.00	U
108-10-1	4-Methyl-2-pentanone		0.500	5.00	Y, U
1634-04-4	Methyl t-Butyl Ether		0.250	1.00	U
100-42-5	Styrene		0.240	1.00	U
79-34-5	1,1,2,2-Tetrachloroethane		0.230	1.00	U
127-18-4	Tetrachloroethene		0.170	1.00	U
108-88-3	Toluene		0.190	1.00	U

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ANALYSIS DATA SHEET

MR21-GW05-10B

13

Laboratory:	Empirical Laboratories, LLC			SDG:	1004089
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-13	File ID:	0408913.D
Sampled:	04/10/10 13:20	Prepared:	04/24/10 00:00	Analyzed:	04/24/10 12:22
Solids:		Preparation:	5030B	Dilution:	1

Batch: 0D24006 Sequence: 0D11613 Calibration: 0110007 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene		0.280	1.00	U
79-00-5	1,1,2-Trichloroethane		0.260	1.00	U
71-55-6	1,1,1-Trichloroethane		0.290	1.00	U
79-01-6	Trichloroethene		0.500	1.00	U
75-69-4	Trichlorofluoromethane		0.250	1.00	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.330	1.00	U
75-01-4	Vinyl chloride	UJ	0.200	1.00	~~Y~~ U CCH
1330-20-7	Xylenes (total)		0.220	1.00	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	30.00	30.83	103	75 - 120	
Dibromofluoromethane	30.00	31.41	105	85 - 115	
1,2-Dichloroethane-d4	30.00	32.54	108	70 - 120	
Toluene-d8	30.00	32.33	108	85 - 120	

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ANALYSIS DATA SHEET

MR21-GW01-10B 14

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-14	File ID:	0408914.D
Sampled:	04/10/10 15:50	Prepared:	04/24/10 00:00	Analyzed:	04/24/10 12:52
Solids:		Preparation:	5030B	Dilution:	1
Batch:	0D24006	Sequence: 0D11613	Calibration:	0110007	Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
67-64-1	Acetone	R	1.80	5.00	~~Y,~~U ICL
71-43-2	Benzene		0.140	1.00	U
75-27-4	Bromodichloromethane		0.180	1.00	U
75-25-2	Bromoform		0.500	1.00	U
74-83-9	Bromomethane		0.320	1.00	~~Y~~, U
78-93-3	2-Butanone		1.60	5.00	U
75-15-0	Carbon disulfide		0.260	1.00	U
56-23-5	Carbon tetrachloride		0.240	1.00	U
108-90-7	Chlorobenzene		0.210	1.00	U
75-00-3	Chloroethane	UJ	0.270	1.00	~~Y,~~U CCH
67-66-3	Chloroform		0.230	1.00	U
74-87-3	Chloromethane	1.07 UJ	0.360	1.00	~~Y~~ CCH FBL
110-82-7	Cyclohexane		0.200	1.00	U
124-48-1	Dibromochloromethane		0.180	1.00	U
96-12-8	1,2-Dibromo-3-chloropropane		0.550	1.50	U
106-93-4	1,2-Dibromoethane (EDB)		0.240	1.00	U
95-50-1	1,2-Dichlorobenzene		0.160	1.00	U
541-73-1	1,3-Dichlorobenzene		0.250	1.00	U
106-46-7	1,4-Dichlorobenzene		0.250	1.00	U
75-71-8	Dichlorodifluoromethane		0.260	1.00	~~Y~~, U
75-34-3	1,1-Dichloroethane		0.240	1.00	U
107-06-2	1,2-Dichloroethane		0.220	1.00	U
75-35-4	1,1-Dichloroethene		0.280	1.00	U
156-59-2	cis-1,2-Dichloroethene		0.450	1.00	U
156-60-5	trans-1,2-Dichloroethene		0.530	1.50	U
78-87-5	1,2-Dichloropropane		0.270	1.00	U
10061-01-5	cis-1,3-Dichloropropene		0.150	1.00	U
10061-02-6	trans-1,3-Dichloropropene		0.170	1.00	U
100-41-4	Ethylbenzene		0.150	1.00	U
591-78-6	2-Hexanone		0.500	5.00	~~Y~~, U
98-82-8	Isopropylbenzene		0.150	1.00	~~Q~~, U
75-09-2	Methylene chloride		0.270	2.00	U
79-20-9	Methyl Acetate		0.590	1.50	~~Y~~, U
108-87-2	Methylcyclohexane		0.180	1.00	U
108-10-1	4-Methyl-2-pentanone		0.500	5.00	~~Y~~, U
1634-04-4	Methyl t-Butyl Ether		0.250	1.00	U
100-42-5	Styrene		0.240	1.00	U
79-34-5	1,1,2,2-Tetrachloroethane		0.230	1.00	U
127-18-4	Tetrachloroethene		0.170	1.00	U
108-88-3	Toluene	3.64	0.190	1.00	

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ANALYSIS DATA SHEET

MR21-GW01-10B

14

Laboratory:	Empirical Laboratories, LLC			SDG:	1004089
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-14	File ID:	0408914.D
Sampled:	04/10/10 15:50	Prepared:	04/24/10 00:00	Analyzed:	04/24/10 12:52
Solids:		Preparation:	5030B	Dilution:	1

Batch: 0D24006 Sequence: 0D11613 Calibration: 0110007 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene		0.280	1.00	U
79-00-5	1,1,2-Trichloroethane		0.260	1.00	U
71-55-6	1,1,1-Trichloroethane		0.290	1.00	U
79-01-6	Trichloroethene		0.500	1.00	U
75-69-4	Trichlorofluoromethane		0.250	1.00	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.330	1.00	U
75-01-4	Vinyl chloride	UJ	0.200	1.00	~~U~~ CCH
1330-20-7	Xylenes (total)		0.220	1.00	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	30.00	31.26	104	75 - 120	
Dibromofluoromethane	30.00	32.13	107	85 - 115	
1,2-Dichloroethane-d4	30.00	34.03	113	70 - 120	
Toluene-d8	30.00	32.64	109	85 - 120	

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ANALYSIS DATA SHEET

MR21-GW01D-10B 15

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-15	File ID:	0408915.D
Sampled:	04/10/10 15:55	Prepared:	04/24/10 00:00	Analyzed:	04/24/10 13:22
Solids:		Preparation:	5030B	Dilution:	1
Batch:	0D24006	Sequence: 0D11613	Calibration:	0110007	Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
67-64-1	Acetone	R	1.80	5.00	~~Y,~~U ICL
71-43-2	Benzene		0.140	1.00	U
75-27-4	Bromodichloromethane		0.180	1.00	U
75-25-2	Bromoform		0.500	1.00	U
74-83-9	Bromomethane		0.320	1.00	Y, U
78-93-3	2-Butanone		1.60	5.00	U
75-15-0	Carbon disulfide		0.260	1.00	U
56-23-5	Carbon tetrachloride		0.240	1.00	U
108-90-7	Chlorobenzene		0.210	1.00	U
75-00-3	Chloroethane	UJ	0.270	1.00	~~Y,U~~ CCH
67-66-3	Chloroform		0.230	1.00	U
74-87-3	Chloromethane	3.89 UJ	0.360	1.00	Y CCH FBL
110-82-7	Cyclohexane		0.200	1.00	U
124-48-1	Dibromochloromethane		0.180	1.00	U
96-12-8	1,2-Dibromo-3-chloropropane		0.550	1.50	U
106-93-4	1,2-Dibromoethane (EDB)		0.240	1.00	U
95-50-1	1,2-Dichlorobenzene		0.160	1.00	U
541-73-1	1,3-Dichlorobenzene		0.250	1.00	U
106-46-7	1,4-Dichlorobenzene		0.250	1.00	U
75-71-8	Dichlorodifluoromethane		0.260	1.00	Y, U
75-34-3	1,1-Dichloroethane		0.240	1.00	U
107-06-2	1,2-Dichloroethane		0.220	1.00	U
75-35-4	1,1-Dichloroethene		0.280	1.00	U
156-59-2	cis-1,2-Dichloroethene		0.450	1.00	U
156-60-5	trans-1,2-Dichloroethene		0.530	1.50	U
78-87-5	1,2-Dichloropropane		0.270	1.00	U
10061-01-5	cis-1,3-Dichloropropene		0.150	1.00	U
10061-02-6	trans-1,3-Dichloropropene		0.170	1.00	U
100-41-4	Ethylbenzene		0.150	1.00	U
591-78-6	2-Hexanone		0.500	5.00	Y, U
98-82-8	Isopropylbenzene		0.150	1.00	Q, U
75-09-2	Methylene chloride		0.270	2.00	U
79-20-9	Methyl Acetate		0.590	1.50	Y, U
108-87-2	Methylcyclohexane		0.180	1.00	U
108-10-1	4-Methyl-2-pentanone		0.500	5.00	Y, U
1634-04-4	Methyl t-Butyl Ether		0.250	1.00	U
100-42-5	Styrene		0.240	1.00	U
79-34-5	1,1,2,2-Tetrachloroethane		0.230	1.00	U
127-18-4	Tetrachloroethene		0.170	1.00	U
108-88-3	Toluene	3.91	0.190	1.00	

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ANALYSIS DATA SHEET

MR21-GW01D-10B

15

Laboratory:	Empirical Laboratories, LLC			SDG:	1004089
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-15	File ID:	0408915.D
Sampled:	04/10/10 15:55	Prepared:	04/24/10 00:00	Analyzed:	04/24/10 13:22
Solids:		Preparation:	5030B	Dilution:	1

Batch: 0D24006 Sequence: 0D11613 Calibration: 0110007 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene		0.280	1.00	U
79-00-5	1,1,2-Trichloroethane		0.260	1.00	U
71-55-6	1,1,1-Trichloroethane		0.290	1.00	U
79-01-6	Trichloroethene		0.500	1.00	U
75-69-4	Trichlorofluoromethane		0.250	1.00	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.330	1.00	U
75-01-4	Vinyl chloride	UJ	0.200	1.00	~~X,U~~ CCH
1330-20-7	Xylenes (total)		0.220	1.00	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	30.00	30.25	101	75 - 120	
Dibromofluoromethane	30.00	31.61	105	85 - 115	
1,2-Dichloroethane-d4	30.00	32.20	107	70 - 120	
Toluene-d8	30.00	31.85	106	85 - 120	

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ANALYSIS DATA SHEET

MR21-GW10-10B 16

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-16	File ID:	0408916.D
Sampled:	04/10/10 10:10	Prepared:	04/24/10 00:00	Analyzed:	04/24/10 13:52
Solids:		Preparation:	5030B	Dilution:	1

Batch: 0D24006 Sequence: 0D11613 Calibration: 0110007 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q	
67-64-1	Acetone	R	1.80	5.00	~~Y, U~~	JCL
71-43-2	Benzene		0.140	1.00	U	
75-27-4	Bromodichloromethane		0.180	1.00	U	
75-25-2	Bromoform		0.500	1.00	U	
74-83-9	Bromomethane		0.320	1.00	Y, U	
78-93-3	2-Butanone		1.60	5.00	U	
75-15-0	Carbon disulfide		0.260	1.00	U	
56-23-5	Carbon tetrachloride		0.240	1.00	U	
108-90-7	Chlorobenzene		0.210	1.00	U	
75-00-3	Chloroethane	UJ	0.270	1.00	~~Y, U~~	CCH
67-66-3	Chloroform	28.0	0.230	1.00		
74-87-3	Chloromethane	3.30 UJ	0.360	1.00	~~Y~~ CCH	FBL
110-82-7	Cyclohexane		0.200	1.00	U	
124-48-1	Dibromochloromethane		0.180	1.00	U	
96-12-8	1,2-Dibromo-3-chloropropane		0.550	1.50	U	
106-93-4	1,2-Dibromoethane (EDB)		0.240	1.00	U	
95-50-1	1,2-Dichlorobenzene		0.160	1.00	U	
541-73-1	1,3-Dichlorobenzene		0.250	1.00	U	
106-46-7	1,4-Dichlorobenzene		0.250	1.00	U	
75-71-8	Dichlorodifluoromethane		0.260	1.00	Y, U	
75-34-3	1,1-Dichloroethane		0.240	1.00	U	
107-06-2	1,2-Dichloroethane		0.220	1.00	U	
75-35-4	1,1-Dichloroethene		0.280	1.00	U	
156-59-2	cis-1,2-Dichloroethene		0.450	1.00	U	
156-60-5	trans-1,2-Dichloroethene		0.530	1.50	U	
78-87-5	1,2-Dichloropropane		0.270	1.00	U	
10061-01-5	cis-1,3-Dichloropropene		0.150	1.00	U	
10061-02-6	trans-1,3-Dichloropropene		0.170	1.00	U	
100-41-4	Ethylbenzene		0.150	1.00	U	
591-78-6	2-Hexanone		0.500	5.00	Y, U	
98-82-8	Isopropylbenzene		0.150	1.00	Y, U	
75-09-2	Methylene chloride		0.270	2.00	U	
79-20-9	Methyl Acetate		0.590	1.50	Y, U	
108-87-2	Methylcyclohexane		0.180	1.00	U	
108-10-1	4-Methyl-2-pentanone		0.500	5.00	Y, U	
1634-04-4	Methyl t-Butyl Ether		0.250	1.00	U	
100-42-5	Styrene		0.240	1.00	U	
79-34-5	1,1,2,2-Tetrachloroethane		0.230	1.00	U	
127-18-4	Tetrachloroethene		0.170	1.00	U	
108-88-3	Toluene		0.190	1.00	U	

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ANALYSIS DATA SHEET

MR21-GW10-10B 16

Laboratory:	Empirical Laboratories, LLC			SDG:	1004089
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-16	File ID:	0408916.D
Sampled:	04/10/10 10:10	Prepared:	04/24/10 00:00	Analyzed:	04/24/10 13:52
Solids:		Preparation:	5030B	Dilution:	1

Batch: 0D24006 Sequence: 0D11613 Calibration: 0110007 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene		0.280	1.00	U
79-00-5	1,1,2-Trichloroethane		0.260	1.00	U
71-55-6	1,1,1-Trichloroethane		0.290	1.00	U
79-01-6	Trichloroethene		0.500	1.00	U
75-69-4	Trichlorofluoromethane		0.250	1.00	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.330	1.00	U
75-01-4	Vinyl chloride	UJ	0.200	1.00	~~Y, U~~ CCH
1330-20-7	Xylenes (total)		0.220	1.00	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	30.00	30.80	103	75 - 120	
Dibromofluoromethane	30.00	31.64	105	85 - 115	
1,2-Dichloroethane-d4	30.00	31.06	104	70 - 120	
Toluene-d8	30.00	32.84	109	85 - 120	

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ANALYSIS DATA SHEET

MR21-GW06-10B

17

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-17	File ID:	0408917.D
Sampled:	04/10/10 12:55	Prepared:	04/24/10 00:00	Analyzed:	04/24/10 14:22
Solids:		Preparation:	5030B	Dilution:	1

Batch: 0D24006 Sequence: 0D11613 Calibration: 0110007 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
67-64-1	Acetone	R	1.80	5.00	~~Y,~~U ICL
71-43-2	Benzene		0.140	1.00	U
75-27-4	Bromodichloromethane		0.180	1.00	U
75-25-2	Bromoform		0.500	1.00	U
74-83-9	Bromomethane		0.320	1.00	Y, U
78-93-3	2-Butanone		1.60	5.00	U
75-15-0	Carbon disulfide		0.260	1.00	U
56-23-5	Carbon tetrachloride		0.240	1.00	U
108-90-7	Chlorobenzene		0.210	1.00	U
75-00-3	Chloroethane	UJ	0.270	1.00	~~Y,~~U CCH
67-66-3	Chloroform	8.00	0.230	1.00	
74-87-3	Chloromethane	2.92 UJ	0.360	1.00	~~Y~~CCH FBL
110-82-7	Cyclohexane		0.200	1.00	U
124-48-1	Dibromochloromethane		0.180	1.00	U
96-12-8	1,2-Dibromo-3-chloropropane		0.550	1.50	U
106-93-4	1,2-Dibromoethane (EDB)		0.240	1.00	U
95-50-1	1,2-Dichlorobenzene		0.160	1.00	U
541-73-1	1,3-Dichlorobenzene		0.250	1.00	U
106-46-7	1,4-Dichlorobenzene		0.250	1.00	U
75-71-8	Dichlorodifluoromethane		0.260	1.00	Y, U
75-34-3	1,1-Dichloroethane		0.240	1.00	U
107-06-2	1,2-Dichloroethane		0.220	1.00	U
75-35-4	1,1-Dichloroethene		0.280	1.00	U
156-59-2	cis-1,2-Dichloroethene		0.450	1.00	U
156-60-5	trans-1,2-Dichloroethene		0.530	1.50	U
78-87-5	1,2-Dichloropropane		0.270	1.00	U
10061-01-5	cis-1,3-Dichloropropene		0.150	1.00	U
10061-02-6	trans-1,3-Dichloropropene		0.170	1.00	U
100-41-4	Ethylbenzene		0.150	1.00	U
591-78-6	2-Hexanone		0.500	5.00	Y, U
98-82-8	Isopropylbenzene		0.150	1.00	Q, U
75-09-2	Methylene chloride		0.270	2.00	U
79-20-9	Methyl Acetate		0.590	1.50	Y, U
108-87-2	Methylcyclohexane		0.180	1.00	U
108-10-1	4-Methyl-2-pentanone		0.500	5.00	Y, U
1634-04-4	Methyl t-Butyl Ether		0.250	1.00	U
100-42-5	Styrene		0.240	1.00	U
79-34-5	1,1,2,2-Tetrachloroethane		0.230	1.00	U
127-18-4	Tetrachloroethene		0.170	1.00	U
108-88-3	Toluene		0.190	1.00	U

MW 7/23/10

ANALYSIS DATA SHEET

MR21-GW06-10B

17

Laboratory:	Empirical Laboratories, LLC			SDG:	1004089
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-17	File ID:	0408917.D
Sampled:	04/10/10 12:55	Prepared:	04/24/10 00:00	Analyzed:	04/24/10 14:22
Solids:		Preparation:	5030B	Dilution:	1

Batch: 0D24006 Sequence: 0D11613 Calibration: 0110007 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene		0.280	1.00	U
79-00-5	1,1,2-Trichloroethane		0.260	1.00	U
71-55-6	1,1,1-Trichloroethane		0.290	1.00	U
79-01-6	Trichloroethene		0.500	1.00	U
75-69-4	Trichlorofluoromethane		0.250	1.00	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.330	1.00	U
75-01-4	Vinyl chloride	UJ	0.200	1.00	~~X,U~~ CCH
1330-20-7	Xylenes (total)		0.220	1.00	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	30.00	30.96	103	75 - 120	
Dibromofluoromethane	30.00	31.77	106	85 - 115	
1,2-Dichloroethane-d4	30.00	32.87	110	70 - 120	
Toluene-d8	30.00	33.06	110	85 - 120	

MW 7/23/10

ANALYSIS DATA SHEET

MR21-GW09-10B 18

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-18	File ID:	0408918.D
Sampled:	04/10/10 12:15	Prepared:	04/24/10 00:00	Analyzed:	04/24/10 14:53
Solids:		Preparation:	5030B	Dilution:	1
Batch:	0D24006	Sequence: 0D11613	Calibration:	0110007	Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
67-64-1	Acetone	R	1.80	5.00	~~Y, U~~ ICL
71-43-2	Benzene		0.140	1.00	U
75-27-4	Bromodichloromethane		0.180	1.00	U
75-25-2	Bromoform		0.500	1.00	U
74-83-9	Bromomethane		0.320	1.00	~~Y~~, U
78-93-3	2-Butanone		1.60	5.00	U
75-15-0	Carbon disulfide		0.260	1.00	U
56-23-5	Carbon tetrachloride		0.240	1.00	U
108-90-7	Chlorobenzene		0.210	1.00	U
75-00-3	Chloroethane	UJ	0.270	1.00	~~Y, U~~ CCH
67-66-3	Chloroform		0.230	1.00	U
74-87-3	Chloromethane	3.80 UJ	0.360	1.00	~~Y~~ CCH FBL
110-82-7	Cyclohexane		0.200	1.00	U
124-48-1	Dibromochloromethane		0.180	1.00	U
96-12-8	1,2-Dibromo-3-chloropropane		0.550	1.50	U
106-93-4	1,2-Dibromoethane (EDB)		0.240	1.00	U
95-50-1	1,2-Dichlorobenzene		0.160	1.00	U
541-73-1	1,3-Dichlorobenzene		0.250	1.00	U
106-46-7	1,4-Dichlorobenzene		0.250	1.00	U
75-71-8	Dichlorodifluoromethane		0.260	1.00	~~Y~~, U
75-34-3	1,1-Dichloroethane		0.240	1.00	U
107-06-2	1,2-Dichloroethane		0.220	1.00	U
75-35-4	1,1-Dichloroethene		0.280	1.00	U
156-59-2	cis-1,2-Dichloroethene		0.450	1.00	U
156-60-5	trans-1,2-Dichloroethene		0.530	1.50	U
78-87-5	1,2-Dichloropropane		0.270	1.00	U
10061-01-5	cis-1,3-Dichloropropene		0.150	1.00	U
10061-02-6	trans-1,3-Dichloropropene		0.170	1.00	U
100-41-4	Ethylbenzene		0.150	1.00	U
591-78-6	2-Hexanone		0.500	5.00	~~Y~~, U
98-82-8	Isopropylbenzene		0.150	1.00	~~Q~~, U
75-09-2	Methylene chloride		0.270	2.00	U
79-20-9	Methyl Acetate		0.590	1.50	~~Y~~, U
108-87-2	Methylcyclohexane		0.180	1.00	U
108-10-1	4-Methyl-2-pentanone		0.500	5.00	~~Y~~, U
1634-04-4	Methyl t-Butyl Ether		0.250	1.00	U
100-42-5	Styrene		0.240	1.00	U
79-34-5	1,1,2,2-Tetrachloroethane		0.230	1.00	U
127-18-4	Tetrachloroethene		0.170	1.00	U
108-88-3	Toluene		0.190	1.00	U

MW 8/2/10

ANALYSIS DATA SHEET

MR21-GW09-10B 18

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-18	File ID:	0408918.D
Sampled:	04/10/10 12:15	Prepared:	04/24/10 00:00	Analyzed:	04/24/10 14:53
Solids:		Preparation:	5030B	Dilution:	1

Batch: 0D24006 Sequence: 0D11613 Calibration: 0110007 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene		0.280	1.00	U
79-00-5	1,1,2-Trichloroethane		0.260	1.00	U
71-55-6	1,1,1-Trichloroethane		0.290	1.00	U
79-01-6	Trichloroethene		0.500	1.00	U
75-69-4	Trichlorofluoromethane		0.250	1.00	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.330	1.00	U
75-01-4	Vinyl chloride	UJ	0.200	1.00	~~X,U~~ CCH
1330-20-7	Xylenes (total)		0.220	1.00	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	30.00	31.40	105	75 - 120	
Dibromofluoromethane	30.00	31.45	105	85 - 115	
1,2-Dichloroethane-d4	30.00	32.63	109	70 - 120	
Toluene-d8	30.00	33.70	112	85 - 120	

MW 7/23/10

ANALYSIS DATA SHEET

MR21-GW07-10B

19

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-19	File ID:	0408919.D
Sampled:	04/10/10 10:25	Prepared:	04/24/10 00:00	Analyzed:	04/24/10 15:23
Solids:		Preparation:	5030B	Dilution:	1

Batch: 0D24006 Sequence: 0D11613 Calibration: 0110007 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
67-64-1	Acetone	R	1.80	5.00	~~Y,~~U ICC
71-43-2	Benzene		0.140	1.00	U
75-27-4	Bromodichloromethane		0.180	1.00	U
75-25-2	Bromoform		0.500	1.00	U
74-83-9	Bromomethane		0.320	1.00	Y, U
78-93-3	2-Butanone		1.60	5.00	U
75-15-0	Carbon disulfide		0.260	1.00	U
56-23-5	Carbon tetrachloride		0.240	1.00	U
108-90-7	Chlorobenzene		0.210	1.00	U
75-00-3	Chloroethane	UJ	0.270	1.00	~~Y,~~U CCH
67-66-3	Chloroform		0.230	1.00	U
74-87-3	Chloromethane	3.76 UJ	0.360	1.00	~~Y~~ CCH ~~EBC~~
110-82-7	Cyclohexane		0.200	1.00	U
124-48-1	Dibromochloromethane		0.180	1.00	U
96-12-8	1,2-Dibromo-3-chloropropane		0.550	1.50	U
106-93-4	1,2-Dibromoethane (EDB)		0.240	1.00	U
95-50-1	1,2-Dichlorobenzene		0.160	1.00	U
541-73-1	1,3-Dichlorobenzene		0.250	1.00	U
106-46-7	1,4-Dichlorobenzene		0.250	1.00	U
75-71-8	Dichlorodifluoromethane		0.260	1.00	Y, U
75-34-3	1,1-Dichloroethane		0.240	1.00	U
107-06-2	1,2-Dichloroethane		0.220	1.00	U
75-35-4	1,1-Dichloroethene		0.280	1.00	U
156-59-2	cis-1,2-Dichloroethene		0.450	1.00	U
156-60-5	trans-1,2-Dichloroethene		0.530	1.50	U
78-87-5	1,2-Dichloropropane		0.270	1.00	U
10061-01-5	cis-1,3-Dichloropropene		0.150	1.00	U
10061-02-6	trans-1,3-Dichloropropene		0.170	1.00	U
100-41-4	Ethylbenzene		0.150	1.00	U
591-78-6	2-Hexanone		0.500	5.00	Y, U
98-82-8	Isopropylbenzene		0.150	1.00	Q, U
75-09-2	Methylene chloride		0.270	2.00	U
79-20-9	Methyl Acetate		0.590	1.50	Y, U
108-87-2	Methylcyclohexane		0.180	1.00	U
108-10-1	4-Methyl-2-pentanone		0.500	5.00	Y, U
1634-04-4	Methyl t-Butyl Ether		0.250	1.00	U
100-42-5	Styrene		0.240	1.00	U
79-34-5	1,1,2,2-Tetrachloroethane		0.230	1.00	U
127-18-4	Tetrachloroethene		0.170	1.00	U
108-88-3	Toluene		0.190	1.00	U

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ANALYSIS DATA SHEET

MR21-GW07-10B

19

Laboratory:	Empirical Laboratories, LLC			SDG:	1004089
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-19	File ID:	0408919.D
Sampled:	04/10/10 10:25	Prepared:	04/24/10 00:00	Analyzed:	04/24/10 15:23
Solids:		Preparation:	5030B	Dilution:	1

Batch: 0D24006 Sequence: 0D11613 Calibration: 0110007 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene		0.280	1.00	U
79-00-5	1,1,2-Trichloroethane		0.260	1.00	U
71-55-6	1,1,1-Trichloroethane		0.290	1.00	U
79-01-6	Trichloroethene		0.500	1.00	U
75-69-4	Trichlorofluoromethane		0.250	1.00	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.330	1.00	U
75-01-4	Vinyl chloride	UJ	0.200	1.00	~~X,U~~ CCH
1330-20-7	Xylenes (total)		0.220	1.00	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	30.00	30.16	101	75 - 120	
Dibromofluoromethane	30.00	32.00	107	85 - 115	
1,2-Dichloroethane-d4	30.00	31.68	106	70 - 120	
Toluene-d8	30.00	32.16	107	85 - 120	

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ANALYSIS DATA SHEET

MR21-EB041010-GW

20

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-20	File ID:	0408920.D
Sampled:	04/10/10 11:00	Prepared:	04/24/10 00:00	Analyzed:	04/24/10 10:52
Solids:		Preparation:	5030B	Dilution:	1

Batch: 0D24006 Sequence: 0D11613 Calibration: 0110007 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q	
67-64-1	Acetone	3.82 J	1.80	5.00	~~Y, J~~	EU
71-43-2	Benzene		0.140	1.00	U	
75-27-4	Bromodichloromethane		0.180	1.00	U	
75-25-2	Bromoform		0.500	1.00	U	
74-83-9	Bromomethane		0.320	1.00	Y, U	
78-93-3	2-Butanone		1.60	5.00	U	
75-15-0	Carbon disulfide		0.260	1.00	U	
56-23-5	Carbon tetrachloride		0.240	1.00	U	
108-90-7	Chlorobenzene		0.210	1.00	U	
75-00-3	Chloroethane	UJ	0.270	1.00	~~Y, U~~	CCH
67-66-3	Chloroform		0.230	1.00	U	
74-87-3	Chloromethane	3.44 J	0.360	1.00	Y	CCH
110-82-7	Cyclohexane		0.200	1.00	U	
124-48-1	Dibromochloromethane		0.180	1.00	U	
96-12-8	1,2-Dibromo-3-chloropropane		0.550	1.50	U	
106-93-4	1,2-Dibromoethane (EDB)		0.240	1.00	U	
95-50-1	1,2-Dichlorobenzene		0.160	1.00	U	
541-73-1	1,3-Dichlorobenzene		0.250	1.00	U	
106-46-7	1,4-Dichlorobenzene		0.250	1.00	U	
75-71-8	Dichlorodifluoromethane		0.260	1.00	Y, U	
75-34-3	1,1-Dichloroethane		0.240	1.00	U	
107-06-2	1,2-Dichloroethane		0.220	1.00	U	
75-35-4	1,1-Dichloroethene		0.280	1.00	U	
156-59-2	cis-1,2-Dichloroethene		0.450	1.00	U	
156-60-5	trans-1,2-Dichloroethene		0.530	1.50	U	
78-87-5	1,2-Dichloropropane		0.270	1.00	U	
10061-01-5	cis-1,3-Dichloropropene		0.150	1.00	U	
10061-02-6	trans-1,3-Dichloropropene		0.170	1.00	U	
100-41-4	Ethylbenzene		0.150	1.00	U	
591-78-6	2-Hexanone		0.500	5.00	Y, U	
98-82-8	Isopropylbenzene		0.150	1.00	Y, U	
75-09-2	Methylene chloride		0.270	2.00	U	
79-20-9	Methyl Acetate		0.590	1.50	Y, U	
108-87-2	Methylcyclohexane		0.180	1.00	U	
108-10-1	4-Methyl-2-pentanone		0.500	5.00	Y, U	
1634-04-4	Methyl t-Butyl Ether		0.250	1.00	U	
100-42-5	Styrene		0.240	1.00	U	
79-34-5	1,1,2,2-Tetrachloroethane		0.230	1.00	U	
127-18-4	Tetrachloroethene		0.170	1.00	U	
108-88-3	Toluene		0.190	1.00	U	

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ANALYSIS DATA SHEET

MR21-EB041010-GW 20

Laboratory:	Empirical Laboratories, LLC			SDG:	1004089
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-20	File ID:	0408920.D
Sampled:	04/10/10 11:00	Prepared:	04/24/10 00:00	Analyzed:	04/24/10 10:52
Solids:		Preparation:	5030B	Dilution:	1

Batch: 0D24006 Sequence: 0D11613 Calibration: 0110007 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene		0.280	1.00	U
79-00-5	1,1,2-Trichloroethane		0.260	1.00	U
71-55-6	1,1,1-Trichloroethane		0.290	1.00	U
79-01-6	Trichloroethene		0.500	1.00	U
75-69-4	Trichlorofluoromethane		0.250	1.00	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.330	1.00	U
75-01-4	Vinyl chloride	UJ	0.200	1.00	~~X,U~~ CCH
1330-20-7	Xylenes (total)		0.220	1.00	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	30.00	31.41	105	75 - 120	
Dibromofluoromethane	30.00	31.14	104	85 - 115	
1,2-Dichloroethane-d4	30.00	31.28	104	70 - 120	
Toluene-d8	30.00	33.33	111	85 - 120	

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ANALYSIS DATA SHEET

MR21-GW08-10B 21

Laboratory:	Empirical Laboratories, LLC		SDG:	1004089	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004089-21	File ID:	0408921.D
Sampled:	04/10/10 10:55	Prepared:	04/24/10 00:00	Analyzed:	04/24/10 15:53
Solids:		Preparation:	5030B	Dilution:	1

Batch: 0D24006 Sequence: 0D11613 Calibration: 0110007 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q	
67-64-1	Acetone	R	1.80	5.00	~~Y~~, U	ICL
71-43-2	Benzene		0.140	1.00	U	
75-27-4	Bromodichloromethane		0.180	1.00	U	
75-25-2	Bromoform		0.500	1.00	U	
74-83-9	Bromomethane		0.320	1.00	Y, U	
78-93-3	2-Butanone		1.60	5.00	U	
75-15-0	Carbon disulfide		0.260	1.00	U	
56-23-5	Carbon tetrachloride		0.240	1.00	U	
108-90-7	Chlorobenzene		0.210	1.00	U	
75-00-3	Chloroethane	UJ	0.270	1.00	Y, ~~U~~	CCV
67-66-3	Chloroform	1.05 U	0.230	1.00		MBL
74-87-3	Chloromethane	11.7 UJ	0.360	1.00	Y CCV	FBL
110-82-7	Cyclohexane		0.200	1.00	U	
124-48-1	Dibromochloromethane		0.180	1.00	U	
96-12-8	1,2-Dibromo-3-chloropropane		0.550	1.50	U	
106-93-4	1,2-Dibromoethane (EDB)		0.240	1.00	U	
95-50-1	1,2-Dichlorobenzene		0.160	1.00	U	
541-73-1	1,3-Dichlorobenzene		0.250	1.00	U	
106-46-7	1,4-Dichlorobenzene		0.250	1.00	U	
75-71-8	Dichlorodifluoromethane		0.260	1.00	Y, U	
75-34-3	1,1-Dichloroethane		0.240	1.00	U	
107-06-2	1,2-Dichloroethane		0.220	1.00	U	
75-35-4	1,1-Dichloroethene		0.280	1.00	U	
156-59-2	cis-1,2-Dichloroethene		0.450	1.00	U	
156-60-5	trans-1,2-Dichloroethene		0.530	1.50	U	
78-87-5	1,2-Dichloropropane		0.270	1.00	U	
10061-01-5	cis-1,3-Dichloropropene		0.150	1.00	U	
10061-02-6	trans-1,3-Dichloropropene		0.170	1.00	U	
100-41-4	Ethylbenzene		0.150	1.00	U	
591-78-6	2-Hexanone		0.500	5.00	Y, U	
98-82-8	Isopropylbenzene		0.150	1.00	Y, U	
75-09-2	Methylene chloride		0.270	2.00	U	
79-20-9	Methyl Acetate		0.590	1.50	Y, U	
108-87-2	Methylcyclohexane		0.180	1.00	U	
108-10-1	4-Methyl-2-pentanone		0.500	5.00	Y, U	
1634-04-4	Methyl t-Butyl Ether		0.250	1.00	U	
100-42-5	Styrene		0.240	1.00	U	
79-34-5	1,1,2,2-Tetrachloroethane		0.230	1.00	U	
127-18-4	Tetrachloroethene		0.170	1.00	U	
108-88-3	Toluene		0.190	1.00	U	

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ANALYSIS DATA SHEET

MR21-GW08-10B 21

Laboratory:	Empirical Laboratories, LLC			SDG:	1004089
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-21	File ID:	0408921.D
Sampled:	04/10/10 10:55	Prepared:	04/24/10 00:00	Analyzed:	04/24/10 15:53
Solids:		Preparation:	5030B	Dilution:	1

Batch: 0D24006 Sequence: 0D11613 Calibration: 0110007 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene		0.280	1.00	U
79-00-5	1,1,2-Trichloroethane		0.260	1.00	U
71-55-6	1,1,1-Trichloroethane		0.290	1.00	U
79-01-6	Trichloroethene		0.500	1.00	U
75-69-4	Trichlorofluoromethane		0.250	1.00	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.330	1.00	U
75-01-4	Vinyl chloride	UJ	0.200	1.00	~~U~~ CCH
1330-20-7	Xylenes (total)		0.220	1.00	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	30.00	30.32	101	75 - 120	
Dibromofluoromethane	30.00	31.45	105	85 - 115	
1,2-Dichloroethane-d4	30.00	32.31	108	70 - 120	
Toluene-d8	30.00	31.74	106	85 - 120	

MW 7/23/10

ANALYSIS DATA SHEET

MR21-FB041010

22

Laboratory: Empirical Laboratories, LLC SDG: 1004089

Client: CH2M Hill, Inc. Project: Lejeune CTO-40 UXO-21

Matrix: Water Laboratory ID: 1004089-22 File ID: 0408922.D

Sampled: 04/10/10 09:30 Prepared: 04/24/10 00:00 Analyzed: 04/24/10 11:22

Solids: Preparation: 5030B Dilution: 1

Batch: 0D24006 Sequence: 0D11613 Calibration: 0110007 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q	
67-64-1	Acetone	3.40 J	1.80	5.00	~~Y, J~~	Ice
71-43-2	Benzene		0.140	1.00	U	
75-27-4	Bromodichloromethane		0.180	1.00	U	
75-25-2	Bromoform		0.500	1.00	U	
74-83-9	Bromomethane		0.320	1.00	~~Y~~, U	
78-93-3	2-Butanone		1.60	5.00	U	
75-15-0	Carbon disulfide	0.310	0.260	1.00	J	
56-23-5	Carbon tetrachloride		0.240	1.00	U	
108-90-7	Chlorobenzene		0.210	1.00	U	
75-00-3	Chloroethane	UJ	0.270	1.00	~~Y, U~~	CCH
67-66-3	Chloroform		0.230	1.00	U	
74-87-3	Chloromethane	7.16 J	0.360	1.00	~~Y~~	CCH
110-82-7	Cyclohexane		0.200	1.00	U	
124-48-1	Dibromochloromethane		0.180	1.00	U	
96-12-8	1,2-Dibromo-3-chloropropane		0.550	1.50	U	
106-93-4	1,2-Dibromoethane (EDB)		0.240	1.00	U	
95-50-1	1,2-Dichlorobenzene		0.160	1.00	U	
541-73-1	1,3-Dichlorobenzene		0.250	1.00	U	
106-46-7	1,4-Dichlorobenzene		0.250	1.00	U	
75-71-8	Dichlorodifluoromethane		0.260	1.00	~~Y~~, U	
75-34-3	1,1-Dichloroethane		0.240	1.00	U	
107-06-2	1,2-Dichloroethane		0.220	1.00	U	
75-35-4	1,1-Dichloroethene		0.280	1.00	U	
156-59-2	cis-1,2-Dichloroethene		0.450	1.00	U	
156-60-5	trans-1,2-Dichloroethene		0.530	1.50	U	
78-87-5	1,2-Dichloropropane		0.270	1.00	U	
10061-01-5	cis-1,3-Dichloropropene		0.150	1.00	U	
10061-02-6	trans-1,3-Dichloropropene		0.170	1.00	U	
100-41-4	Ethylbenzene		0.150	1.00	U	
591-78-6	2-Hexanone		0.500	5.00	~~Y~~, U	
98-82-8	Isopropylbenzene		0.150	1.00	~~Q~~, U	
75-09-2	Methylene chloride		0.270	2.00	U	
79-20-9	Methyl Acetate		0.590	1.50	~~Y~~, U	
108-87-2	Methylcyclohexane		0.180	1.00	U	
108-10-1	4-Methyl-2-pentanone		0.500	5.00	~~Y~~, U	
1634-04-4	Methyl t-Butyl Ether		0.250	1.00	U	
100-42-5	Styrene		0.240	1.00	U	
79-34-5	1,1,2,2-Tetrachloroethane		0.230	1.00	U	
127-18-4	Tetrachloroethene		0.170	1.00	U	
108-88-3	Toluene		0.190	1.00	U	

NW 7/23/10

ANALYSIS DATA SHEET

MR21-FB041010

22

Laboratory:	Empirical Laboratories, LLC			SDG:	1004089
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004089-22	File ID:	0408922.D
Sampled:	04/10/10 09:30	Prepared:	04/24/10 00:00	Analyzed:	04/24/10 11:22
Solids:		Preparation:	5030B	Dilution:	1

Batch: 0D24006 Sequence: 0D11613 Calibration: 0110007 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene		0.280	1.00	U
79-00-5	1,1,2-Trichloroethane		0.260	1.00	U
71-55-6	1,1,1-Trichloroethane		0.290	1.00	U
79-01-6	Trichloroethene		0.500	1.00	U
75-69-4	Trichlorofluoromethane		0.250	1.00	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.330	1.00	U
75-01-4	Vinyl chloride	UJ	0.200	1.00	~~U~~ UJ
1330-20-7	Xylenes (total)		0.220	1.00	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	30.00	30.50	102	75 - 120	
Dibromofluoromethane	30.00	30.73	102	85 - 115	
1,2-Dichloroethane-d4	30.00	31.78	106	70 - 120	
Toluene-d8	30.00	31.87	106	85 - 120	

NW 7/23/10

ENVIRONMENTAL
Data Services, Inc.

EXPLOSIVES

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Area Gas Chamber, CTO-040 SDG #: 1004092

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: July 27, 2010

Laboratory: Empirical Laboratories, Nashville, Tennessee Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR21-SD01-10B	1004092-01	Soil
2	MR21-SD02-10B	1004092-02	Soil
3	MR21-SD02D-10B	1004092-03	Soil
4	MR21-SD03-10B	1004092-04	Soil
5	MR21-SD04-10B	1004092-05	Soil
6	MR21-SD05-10B	1004092-06	Soil
6MS	MR21-SD05-10BMS	1004092-06MS	Soil
6MSD	MR21-SD05-10BMSD	1004092-06MSD	Soil
7	MR21-SD06-10B	1004092-07	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
6	PETN	Ok/142%/Ok	None - Sample ND

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 mg/kg	Qualifier	Affected Samples
MR21-EB041110-SS	2,4,6-Trinitrotoluene	0.142	0.0024	None	All ND or >5X
	2,4-Dinitrotoluene	0.306	0.0051	None	See FB
	2,6-Dinitrotoluene	0.0805	0.0013	None	See FB
	2-Amino-4,6-dinitrotoluene	0.100	0.0017	None	See FB
	2-Nitrotoluene	0.306	0.0051	None	See FB
	3-Nitrotoluene	0.494	0.0082	None	All ND or >5X
	4-Amino-2,6-dinitrotoluene	0.104	0.0017	None	All ND or >5X
	HMX	0.116	0.0019	None	All ND or >5X
MR21-FB041010	1,3-Dinitrobenzene	0.222	0.0037	None	All ND or >5X
	2,4,6-Trinitrotoluene	0.115	0.0019	None	See EB
	2,4-Dinitrotoluene	0.588	0.0098	None	All ND or >5X
	2,6-Dinitrotoluene	0.145	0.0024	None	All ND or >5X
	2-Amino-4,6-dinitrotoluene	0.108	0.0018	None	All ND or >5X
	2-Nitrotoluene	59.0	0.9833	None	All ND or >5X
	3-Nitrotoluene	0.175	0.0029	None	See EB
	Tetryl	0.330	0.0055	None	All ND or >5X

Field Duplicates - Field duplicate results are summarized below.

Compound	MR21-SD02-10B mg/kg	MR21-SD02D-10B mg/kg	RPD	Qualifier
1,3,5-Trinitrobenzene	0.200	0.103	64%	None
2,4-Dinitrotoluene	0.0416	0.0720	54%	None
2-Nitrotoluene	0.0672	ND	NC	None
4-Amino-2,6-dinitrotoluene	0.687	ND	NC	None
4-Nitrotoluene	0.0603	ND	NC	None
HMX	0.0683	ND	NC	None
Nitrobenzene	ND	0.0825	NC	None
RDX	0.310	0.129	82%	None
Tetryl	0.0749	0.141	61%	None

Compound Identification - Retention times were acceptable and no further action was taken.

Compound Quantitation - Several samples exhibited results with high %D values between columns and have been flagged (P) by the laboratory and further qualified (J).

ANALYSIS DATA SHEET

MR21-SD01-10B

Laboratory:	Empirical Laboratories, LLC			SDG:	1004092
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Sediment	Laboratory ID:	1004092-01	File ID:	133V3401.D
Sampled:	04/11/10 09:05	Prepared:	04/19/10 16:45	Analyzed:	04/23/10 07:45
Solids:	74.01	Preparation:	EXT_EXPL_S	Dilution:	1

Batch: 0D16008 Sequence: 0D11619 Calibration: 0118001 Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (mg/Kg)	MDL	MRL	Q
99-35-4	1,3,5-Trinitrobenzene		0.0333	0.100	U
99-65-0	1,3-Dinitrobenzene		0.0333	0.100	U
118-96-7	2,4,6-Trinitrotoluene		0.0333	0.100	U
121-14-2	2,4-Dinitrotoluene		0.0333	0.100	U
606-20-2	2,6-Dinitrotoluene		0.0333	0.100	U
35572-78-2	2-Amino-4,6-dinitrotoluene		0.0333	0.100	U
88-72-2	2-Nitrotoluene		0.0333	0.100	U
99-08-1	3-Nitrotoluene		0.0333	0.100	U
19406-51-0	4-Amino-2,6-dinitrotoluene		0.0333	0.100	U
99-99-0	4-Nitrotoluene		0.0333	0.100	U
2691-41-0	HMX		0.0333	0.100	U
98-95-3	Nitrobenzene		0.0333	0.100	U
78-11-5	PETN		0.0833	0.167	U
121-82-4	RDX		0.0333	0.100	U
479-45-8	Tetryl		0.0333	0.100	U

SYSTEM MONITORING COMPOUND	ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	0.3333	0.3500	105	55 - 140	

* Values outside of QC limits

LW 7/27/10

ANALYSIS DATA SHEET

MR21-SD02-10B 2

Laboratory:	Empirical Laboratories, LLC		SDG:	1004092	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Solid	Laboratory ID:	1004092-02	File ID:	139V4001.D
Sampled:	04/11/10 09:25	Prepared:	04/19/10 16:45	Analyzed:	04/23/10 10:58
Solids:	68.52	Preparation:	EXT_EXPL_S	Dilution:	1
Batch:	0D16008	Sequence: 0D11619	Calibration:	0118001	Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (mg/Kg)	MDL	MRL	Q	
99-35-4	1,3,5-Trinitrobenzene	0.200 J	0.0333	0.100	~~PM~~	2C
99-65-0	1,3-Dinitrobenzene		0.0333	0.100	U	
118-96-7	2,4,6-Trinitrotoluene		0.0333	0.100	U	
121-14-2	2,4-Dinitrotoluene	0.0416	0.0333	0.100	J	
606-20-2	2,6-Dinitrotoluene		0.0333	0.100	U	
35572-78-2	2-Amino-4,6-dinitrotoluene		0.0333	0.100	U	
88-72-2	2-Nitrotoluene	0.0672 J	0.0333	0.100	~~JPM~~	2C
99-08-1	3-Nitrotoluene		0.0333	0.100	U	
19406-51-0	4-Amino-2,6-dinitrotoluene	0.687 J	0.0333	0.100	~~P~~	2C
99-99-0	4-Nitrotoluene	0.0603 J	0.0333	0.100	~~JPM~~	↓
2691-41-0	HMX	0.0683 J	0.0333	0.100	~~JP~~	↓
98-95-3	Nitrobenzene		0.0333	0.100	U	
78-11-5	PETN		0.0833	0.167	U	
121-82-4	RDX	0.310 J	0.0333	0.100	~~P~~	2C
479-45-8	Tetryl	0.0749 J	0.0333	0.100	~~JP~~	2C

SYSTEM MONITORING COMPOUND	ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	0.3333	0.3354	101	55 - 140	
1-Chloro-3-nitrobenzene [2C]	0.3333	0.5639	169	55 - 140	*S

* Values outside of QC limits

lw 7/27/10

ANALYSIS DATA SHEET

MR21-SD02D-10B 3

Laboratory:	Empirical Laboratories, LLC		SDG:	1004092	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Solid	Laboratory ID:	1004092-03	File ID:	140V4101.D
Sampled:	04/11/10 09:35	Prepared:	04/19/10 16:45	Analyzed:	04/23/10 11:30
Solids:	67.03	Preparation:	EXT_EXPL_S	Dilution:	1

Batch: 0D16008 Sequence: 0D11619 Calibration: 0118001 Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (mg/Kg)	MDL	MRL	Q	
99-35-4	1,3,5-Trinitrobenzene	0.103 J	0.0333	0.100	~~P~~	2C
99-65-0	1,3-Dinitrobenzene		0.0333	0.100	U	
118-96-7	2,4,6-Trinitrotoluene		0.0333	0.100	U	
121-14-2	2,4-Dinitrotoluene	0.0720 J	0.0333	0.100	~~JP~~	2C
606-20-2	2,6-Dinitrotoluene		0.0333	0.100	U	
35572-78-2	2-Amino-4,6-dinitrotoluene		0.0333	0.100	U	
88-72-2	2-Nitrotoluene		0.0333	0.100	U	
99-08-1	3-Nitrotoluene		0.0333	0.100	U	
19406-51-0	4-Amino-2,6-dinitrotoluene		0.0333	0.100	U	
99-99-0	4-Nitrotoluene		0.0333	0.100	U	
2691-41-0	HMX		0.0333	0.100	U	
98-95-3	Nitrobenzene	0.0825 J	0.0333	0.100	~~JPM~~	2C
78-11-5	PETN		0.0833	0.167	U	
121-82-4	RDX	0.129 J	0.0333	0.100	~~PM~~	2C
479-45-8	Tetryl	0.141 J	0.0333	0.100		2C

SYSTEM MONITORING COMPOUND	ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	0.3333	0.3845	115	55 - 140	
1-Chloro-3-nitrobenzene [2C]	0.3333	0.3618	109	55 - 140	

* Values outside of QC limits

hw 7/27/10

ANALYSIS DATA SHEET

MR21-SD03-10B 4

Laboratory:	Empirical Laboratories, LLC		SDG:	1004092	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Solid	Laboratory ID:	1004092-04	File ID:	141V4201.D
Sampled:	04/11/10 09:45	Prepared:	04/19/10 16:45	Analyzed:	04/23/10 12:02
Solids:	67.79	Preparation:	EXT_EXPL_S	Dilution:	1
Batch:	0D16008	Sequence:	0D11619	Calibration:	0118001	Instrument:	GL-HPLC1

CAS NO.	COMPOUND	CONC. (mg/Kg)	MDL	MRL	Q	
99-35-4	1,3,5-Trinitrobenzene	0.0458 J	0.0333	0.100	~~JP~~	2C
99-65-0	1,3-Dinitrobenzene		0.0333	0.100	U	
118-96-7	2,4,6-Trinitrotoluene	0.0613 J	0.0333	0.100	~~JP~~	2C
121-14-2	2,4-Dinitrotoluene	0.0385	0.0333	0.100	J	
606-20-2	2,6-Dinitrotoluene		0.0333	0.100	U	
35572-78-2	2-Amino-4,6-dinitrotoluene		0.0333	0.100	U	
88-72-2	2-Nitrotoluene	0.0512	0.0333	0.100	J	
99-08-1	3-Nitrotoluene		0.0333	0.100	U	
19406-51-0	4-Amino-2,6-dinitrotoluene		0.0333	0.100	U	
99-99-0	4-Nitrotoluene		0.0333	0.100	U	
2691-41-0	HMX		0.0333	0.100	U	
98-95-3	Nitrobenzene	0.0620	0.0333	0.100	J	
78-11-5	PETN		0.0833	0.167	U	
121-82-4	RDX	0.0906 J	0.0333	0.100	~~JP~~	2C
479-45-8	Tetryl	0.222 J	0.0333	0.100		2C

SYSTEM MONITORING COMPOUND	ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	0.3333	0.3672	110	55 - 140	
1-Chloro-3-nitrobenzene [2C]	0.3333	0.3787	114	55 - 140	

* Values outside of QC limits

MW 7/27/10

ANALYSIS DATA SHEET

MR21-SD04-10B

5

Laboratory:	Empirical Laboratories, LLC		SDG:	1004092	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Solid	Laboratory ID:	1004092-05	File ID:	142V4301.D
Sampled:	04/11/10 09:55	Prepared:	04/19/10 16:45	Analyzed:	04/23/10 12:35
Solids:	74.30	Preparation:	EXT_EXPL_S	Dilution:	1

Batch: 0D16008 Sequence: 0D11619 Calibration: 0118001 Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (mg/Kg)	MDL	MRL	Q
99-35-4	1,3,5-Trinitrobenzene		0.0333	0.100	U
99-65-0	1,3-Dinitrobenzene		0.0333	0.100	U
118-96-7	2,4,6-Trinitrotoluene		0.0333	0.100	U
121-14-2	2,4-Dinitrotoluene		0.0333	0.100	U
606-20-2	2,6-Dinitrotoluene		0.0333	0.100	U
35572-78-2	2-Amino-4,6-dinitrotoluene		0.0333	0.100	U
88-72-2	2-Nitrotoluene		0.0333	0.100	U
99-08-1	3-Nitrotoluene		0.0333	0.100	U
19406-51-0	4-Amino-2,6-dinitrotoluene		0.0333	0.100	U
99-99-0	4-Nitrotoluene		0.0333	0.100	U
2691-41-0	HMX		0.0333	0.100	U
98-95-3	Nitrobenzene		0.0333	0.100	U
78-11-5	PETN		0.0833	0.167	U
121-82-4	RDX		0.0333	0.100	U
479-45-8	Tetryl		0.0333	0.100	U

SYSTEM MONITORING COMPOUND	ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	0.3333	0.3563	107	55 - 140	

* Values outside of QC limits

hw 7/27/10

ANALYSIS DATA SHEET

MR21-SD05-10B 6

Laboratory:	Empirical Laboratories, LLC		SDG:	1004092	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Solid	Laboratory ID:	1004092-06	File ID:	143V4401.D
Sampled:	04/11/10 10:15	Prepared:	04/19/10 16:45	Analyzed:	04/23/10 13:07
Solids:	72.13	Preparation:	EXT_EXPL_S	Dilution:	1

Batch: 0D16008 Sequence: 0D11619 Calibration: 0118001 Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (mg/Kg)	MDL	MRL	Q	
99-35-4	1,3,5-Trinitrobenzene		0.0333	0.100	U	
99-65-0	1,3-Dinitrobenzene		0.0333	0.100	U	
118-96-7	2,4,6-Trinitrotoluene	0.0456 J	0.0333	0.100	~~JPM~~	2C
121-14-2	2,4-Dinitrotoluene		0.0333	0.100	U	
606-20-2	2,6-Dinitrotoluene		0.0333	0.100	U	
35572-78-2	2-Amino-4,6-dinitrotoluene		0.0333	0.100	U	
88-72-2	2-Nitrotoluene		0.0333	0.100	U	
99-08-1	3-Nitrotoluene		0.0333	0.100	U	
19406-51-0	4-Amino-2,6-dinitrotoluene		0.0333	0.100	U	
99-99-0	4-Nitrotoluene		0.0333	0.100	U	
2691-41-0	HMX		0.0333	0.100	U	
98-95-3	Nitrobenzene	0.0464	0.0333	0.100	J	
78-11-5	PETN		0.0833	0.167	UR	
121-82-4	RDX	0.0659 J	0.0333	0.100	~~JP~~	2C
479-45-8	Tetryl	0.125 J	0.0333	0.100		2C

SYSTEM MONITORING COMPOUND	ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	0.3333	0.3539	106	55 - 140	
1-Chloro-3-nitrobenzene [2C]	0.3333	0.3775	113	55 - 140	

* Values outside of QC limits

nw 7/27/10

ANALYSIS DATA SHEET

MR21-SD06-10B

7

Laboratory:	Empirical Laboratories, LLC		SDG:	1004092	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Solid	Laboratory ID:	1004092-07	File ID:	144V4501.D
Sampled:	04/11/10 10:35	Prepared:	04/19/10 16:45	Analyzed:	04/23/10 13:39
Solids:	79.00	Preparation:	EXT_EXPL_S	Dilution:	1

Batch: 0D16008 Sequence: 0D11619 Calibration: 0118001 Instrument: GL-HPLC1

CAS NO.	COMPOUND	CONC. (mg/Kg)	MDL	MRL	Q
99-35-4	1,3,5-Trinitrobenzene		0.0333	0.100	U
99-65-0	1,3-Dinitrobenzene		0.0333	0.100	U
118-96-7	2,4,6-Trinitrotoluene		0.0333	0.100	U
121-14-2	2,4-Dinitrotoluene		0.0333	0.100	U
606-20-2	2,6-Dinitrotoluene		0.0333	0.100	U
35572-78-2	2-Amino-4,6-dinitrotoluene		0.0333	0.100	U
88-72-2	2-Nitrotoluene		0.0333	0.100	U
99-08-1	3-Nitrotoluene		0.0333	0.100	U
19406-51-0	4-Amino-2,6-dinitrotoluene		0.0333	0.100	U
99-99-0	4-Nitrotoluene		0.0333	0.100	U
2691-41-0	HMX		0.0333	0.100	U
98-95-3	Nitrobenzene		0.0333	0.100	U
78-11-5	PETN		0.0833	0.167	U
121-82-4	RDX	0.113 J	0.0333	0.100	2C
479-45-8	Tetryl	0.0647 J	0.0333	0.100	~~JPM~~ 2C

SYSTEM MONITORING COMPOUND	ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene	0.3333	0.3593	108	55 - 140	
1-Chloro-3-nitrobenzene [2C]	0.3333	0.3980	119	55 - 140	

* Values outside of QC limits

MW 7/27/10

ENVIRONMENTAL
Data Services, Inc.

METALS

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Area Gas Chamber, CTO-040 SDG #: 1004092

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: July 27, 2010

Laboratory: Empirical Laboratories, Nashville, Tennessee Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR21-SD01-10B	1004092-01	Soil
2	MR21-SD02-10B	1004092-02	Soil
3	MR21-SD02D-10B	1004092-03	Soil
4	MR21-SD03-10B	1004092-04	Soil
5	MR21-SD04-10B	1004092-05	Soil
6	MR21-SD05-10B	1004092-06	Soil
6MS	MR21-SD05-10BMS	1004092-06MS	Soil
6MSD	MR21-SD05-10BMSD	1004092-06MSD	Soil
7	MR21-SD06-10B	1004092-07	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 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 the following contamination.

Compound	Conc. mg/kg	Action Level mg/kg	Qualifier	Affected Samples
Zinc	0.254	1.27	None	All >5X

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level mg/kg	Qualifier	Affected Samples
MR21-EB041010-GW	None - ND	-	-	-	-
MR21-EB041110-SS	None - ND	-	-	-	-
MR21-FB041010	Cadmium	0.403	0.1008	U	2, 4

ICP Interference Check Sample - All %R values were acceptable.

Matrix Spike/Duplicate - The matrix spike/duplicate samples exhibited acceptable %R and RPD values except the following.

MS/MSD Sample ID	Compound	MS/MSD %R/RPD	Qualifier	Affected Samples
6	Calcium	166%/Ok/Ok	J	All 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	MR21-SD02-10B mg/kg	MR21-SD02D-10B mg/kg	RPD	Qualifier
Mercury	0.0241	0.0215	11%	None
Aluminum	2030	2030	0%	None
Arsenic	0.232	0.310	29%	None
Barium	11.4	11.6	2%	None
Calcium	1770	1850	4%	None
Chromium	2.57	2.44	5%	None
Copper	1.07	1.02	5%	None
Iron	606	609	0%	None
Lead	6.69	6.73	1%	None
Magnesium	100	97.3	3%	None
Manganese	8.69	8.83	2%	None
Nickel	0.935	0.917	2%	None
Potassium	99.9	97.8	2%	None
Selenium	0.242	ND	NC	None
Vanadium	2.78	2.70	3%	None
Zinc	4.08	3.85	6%	None

Compound Quantitation - No discrepancies were identified.

ANALYSIS DATA SHEET

MR21-SD01-10B

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Sediment
Sampled: 04/11/10 09:05
% Solids: 74.01

SDG: 1004092
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1004092-01
Received: 04/13/10 09:00

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury		0.0170	0.0432	1	U	SW7471A	0E06022	05/07/10 11:02
7429-90-5	Aluminum	1440	3.22	12.9	1		SW6010B	0D28018	05/10/10 16:52
7440-36-0	Antimony		0.322	0.965	1	U	SW6010B	0D28018	05/10/10 16:52
7440-38-2	Arsenic	0.235	0.193	0.322	1	J	SW6010B	0D28018	05/10/10 16:52
7440-39-3	Barium	8.22	0.322	2.57	1		SW6010B	0D28018	05/10/10 16:52
7440-41-7	Beryllium		0.0643	0.322	1	U	SW6010B	0D28018	05/10/10 16:52
7440-43-9	Cadmium		0.0643	0.322	1	U	SW6010B	0D28018	05/10/10 16:52
7440-70-2	Calcium	898 J	64.3	322	1	~~J~~	SW6010B	0D28018	05/10/10 16:52 MSI
7440-47-3	Chromium	1.78	0.129	0.322	1		SW6010B	0D28018	05/10/10 16:52
7440-48-4	Cobalt		0.322	0.804	1	U	SW6010B	0D28018	05/10/10 16:52
7440-50-8	Copper	0.742	0.322	0.643	1		SW6010B	0D28018	05/10/10 16:52
7439-89-6	Iron	660	1.93	6.43	1		SW6010B	0D28018	05/10/10 16:52
7439-92-1	Lead	3.90	0.0965	0.193	1		SW6010B	0D28018	05/10/10 16:52
7439-95-4	Magnesium	72.6	64.3	322	1	J	SW6010B	0D28018	05/10/10 16:52
7439-96-5	Manganese	3.15	0.193	0.965	1		SW6010B	0D28018	05/10/10 16:52
7440-02-0	Nickel	0.987	0.322	0.643	1		SW6010B	0D28018	05/10/10 16:52
7440-09-7	Potassium	66.4	64.3	322	1	J	SW6010B	0D28018	05/10/10 16:52
7782-49-2	Selenium		0.193	0.386	1	U	SW6010B	0D28018	05/10/10 16:52
7440-22-4	Silver		0.0643	0.322	1	U	SW6010B	0D28018	05/10/10 16:52
7440-23-5	Sodium		64.3	322	1	U	SW6010B	0D28018	05/10/10 16:52
7440-28-0	Thallium		0.193	0.515	1	U	SW6010B	0D28018	05/10/10 16:52
7440-62-2	Vanadium	2.69	0.322	0.804	1		SW6010B	0D28018	05/10/10 16:52
7440-66-6	Zinc	3.23	0.322	1.29	1		SW6010B	0D28018	05/10/10 16:52

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ANALYSIS DATA SHEET

MR21-SD02-10B 2

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Solid
Sampled: 04/11/10 09:25
% Solids: 68.52

SDG: 1004092
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1004092-02
Received: 04/13/10 09:00

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury	0.0241	0.0184	0.0466	1	J	SW7471A	0E06022	05/07/10 11:03
7429-90-5	Aluminum	2030	3.51	14.0	1		SW6010B	0D28018	05/10/10 16:56
7440-36-0	Antimony		0.351	1.05	1	U	SW6010B	0D28018	05/10/10 16:56
7440-38-2	Arsenic	0.232	0.210	0.351	1	J	SW6010B	0D28018	05/10/10 16:56
7440-39-3	Barium	11.4	0.351	2.81	1		SW6010B	0D28018	05/10/10 16:56
7440-41-7	Beryllium		0.0702	0.351	1	U	SW6010B	0D28018	05/10/10 16:56
7440-43-9	Cadmium 0.351	~~0.0725~~ U	0.0702	0.351	1	~~J~~	SW6010B	0D28018	05/10/10 16:56 FI
7440-70-2	Calcium	1770 J	70.2	351	1	~~N~~	SW6010B	0D28018	05/10/10 16:56 MS1
7440-47-3	Chromium	2.57	0.140	0.351	1		SW6010B	0D28018	05/10/10 16:56
7440-48-4	Cobalt		0.351	0.877	1	U	SW6010B	0D28018	05/10/10 16:56
7440-50-8	Copper	1.07	0.351	0.702	1		SW6010B	0D28018	05/10/10 16:56
7439-89-6	Iron	606	2.10	7.02	1		SW6010B	0D28018	05/10/10 16:56
7439-92-1	Lead	6.69	0.105	0.210	1		SW6010B	0D28018	05/10/10 16:56
7439-95-4	Magnesium	100	70.2	351	1	J	SW6010B	0D28018	05/10/10 16:56
7439-96-5	Manganese	8.69	0.210	1.05	1		SW6010B	0D28018	05/10/10 16:56
7440-02-0	Nickel	0.935	0.351	0.702	1		SW6010B	0D28018	05/10/10 16:56
7440-09-7	Potassium	99.9	70.2	351	1	J	SW6010B	0D28018	05/10/10 16:56
7782-49-2	Selenium	0.242	0.210	0.421	1	J	SW6010B	0D28018	05/10/10 16:56
7440-22-4	Silver		0.0702	0.351	1	U	SW6010B	0D28018	05/10/10 16:56
7440-23-5	Sodium		70.2	351	1	U	SW6010B	0D28018	05/10/10 16:56
7440-28-0	Thallium		0.210	0.561	1	U	SW6010B	0D28018	05/10/10 16:56
7440-62-2	Vanadium	2.78	0.351	0.877	1		SW6010B	0D28018	05/10/10 16:56
7440-66-6	Zinc	4.08	0.351	1.40	1		SW6010B	0D28018	05/10/10 16:56

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ANALYSIS DATA SHEET

MR21-SD02D-10B 3

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Solid
Sampled: 04/11/10 09:35
% Solids: 67.03

SDG: 1004092
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1004092-03
Received: 04/13/10 09:00

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury	0.0215	0.0182	0.0462	1	J	SW7471A	0E06022	05/07/10 11:07
7429-90-5	Aluminum	2030	3.62	14.5	1		SW6010B	0D28018	05/10/10 17:01
7440-36-0	Antimony		0.362	1.09	1	U	SW6010B	0D28018	05/10/10 17:01
7440-38-2	Arsenic	0.310	0.217	0.362	1	J	SW6010B	0D28018	05/10/10 17:01
7440-39-3	Barium	11.6	0.362	2.90	1		SW6010B	0D28018	05/10/10 17:01
7440-41-7	Beryllium		0.0724	0.362	1	U	SW6010B	0D28018	05/10/10 17:01
7440-43-9	Cadmium		0.0724	0.362	1	U	SW6010B	0D28018	05/10/10 17:01
7440-70-2	Calcium	1850 J	72.4	362	1	~~J~~	SW6010B	0D28018	05/10/10 17:01 MSI
7440-47-3	Chromium	2.44	0.145	0.362	1		SW6010B	0D28018	05/10/10 17:01
7440-48-4	Cobalt		0.362	0.905	1	U	SW6010B	0D28018	05/10/10 17:01
7440-50-8	Copper	1.02	0.362	0.724	1		SW6010B	0D28018	05/10/10 17:01
7439-89-6	Iron	609	2.17	7.24	1		SW6010B	0D28018	05/10/10 17:01
7439-92-1	Lead	6.73	0.109	0.217	1		SW6010B	0D28018	05/10/10 17:01
7439-95-4	Magnesium	97.3	72.4	362	1	J	SW6010B	0D28018	05/10/10 17:01
7439-96-5	Manganese	8.83	0.217	1.09	1		SW6010B	0D28018	05/10/10 17:01
7440-02-0	Nickel	0.917	0.362	0.724	1		SW6010B	0D28018	05/10/10 17:01
7440-09-7	Potassium	97.8	72.4	362	1	J	SW6010B	0D28018	05/10/10 17:01
7782-49-2	Selenium		0.217	0.435	1	U	SW6010B	0D28018	05/10/10 17:01
7440-22-4	Silver		0.0724	0.362	1	U	SW6010B	0D28018	05/10/10 17:01
7440-23-5	Sodium		72.4	362	1	U	SW6010B	0D28018	05/10/10 17:01
7440-28-0	Thallium		0.217	0.579	1	U	SW6010B	0D28018	05/10/10 17:01
7440-62-2	Vanadium	2.70	0.362	0.905	1		SW6010B	0D28018	05/10/10 17:01
7440-66-6	Zinc	3.85	0.362	1.45	1		SW6010B	0D28018	05/10/10 17:01

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ANALYSIS DATA SHEET

MR21-SD03-10B 4

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Solid
Sampled: 04/11/10 09:45
% Solids: 67.79

SDG: 1004092
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1004092-04
Received: 04/13/10 09:00

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury		0.0192	0.0487	1	U	SW7471A	0E06022	05/07/10 11:08
7429-90-5	Aluminum	1280	3.55	14.2	1		SW6010B	0D28018	05/10/10 17:06
7440-36-0	Antimony		0.355	1.06	1	U	SW6010B	0D28018	05/10/10 17:06
7440-38-2	Arsenic		0.213	0.355	1	U	SW6010B	0D28018	05/10/10 17:06
7440-39-3	Barium	8.35	0.355	2.84	1		SW6010B	0D28018	05/10/10 17:06
7440-41-7	Beryllium	0.0796	0.0709	0.355	1	J	SW6010B	0D28018	05/10/10 17:06
7440-43-9	Cadmium 0.355	~~0.0937~~ U	0.0709	0.355	1	✓	SW6010B	0D28018	05/10/10 17:06 F1
7440-70-2	Calcium	968 J	70.9	355	1	~~N~~	SW6010B	0D28018	05/10/10 17:06 MS
7440-47-3	Chromium	1.72	0.142	0.355	1		SW6010B	0D28018	05/10/10 17:06
7440-48-4	Cobalt		0.355	0.886	1	U	SW6010B	0D28018	05/10/10 17:06
7440-50-8	Copper	0.973	0.355	0.709	1		SW6010B	0D28018	05/10/10 17:06
7439-89-6	Iron	1050	2.13	7.09	1		SW6010B	0D28018	05/10/10 17:06
7439-92-1	Lead	3.66	0.106	0.213	1		SW6010B	0D28018	05/10/10 17:06
7439-95-4	Magnesium		70.9	355	1	U	SW6010B	0D28018	05/10/10 17:06
7439-96-5	Manganese	2.04	0.213	1.06	1		SW6010B	0D28018	05/10/10 17:06
7440-02-0	Nickel	0.672	0.355	0.709	1	J	SW6010B	0D28018	05/10/10 17:06
7440-09-7	Potassium		70.9	355	1	U	SW6010B	0D28018	05/10/10 17:06
7782-49-2	Selenium		0.213	0.425	1	U	SW6010B	0D28018	05/10/10 17:06
7440-22-4	Silver		0.0709	0.355	1	U	SW6010B	0D28018	05/10/10 17:06
7440-23-5	Sodium		70.9	355	1	U	SW6010B	0D28018	05/10/10 17:06
7440-28-0	Thallium		0.213	0.567	1	U	SW6010B	0D28018	05/10/10 17:06
7440-62-2	Vanadium	2.04	0.355	0.886	1		SW6010B	0D28018	05/10/10 17:06
7440-66-6	Zinc	11.0	0.355	1.42	1		SW6010B	0D28018	05/10/10 17:06

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ANALYSIS DATA SHEET

MR21-SD04-10B

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Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Solid
Sampled: 04/11/10 09:55
% Solids: 74.30

SDG: 1004092
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1004092-05
Received: 04/13/10 09:00

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury		0.0142	0.0360	1	U	SW7471A	0E06022	05/07/10 11:09
7429-90-5	Aluminum	729	3.28	13.1	1		SW6010B	0D28018	05/10/10 17:10
7440-36-0	Antimony		0.328	0.985	1	U	SW6010B	0D28018	05/10/10 17:10
7440-38-2	Arsenic		0.197	0.328	1	U	SW6010B	0D28018	05/10/10 17:10
7440-39-3	Barium	3.50	0.328	2.63	1		SW6010B	0D28018	05/10/10 17:10
7440-41-7	Beryllium		0.0657	0.328	1	U	SW6010B	0D28018	05/10/10 17:10
7440-43-9	Cadmium		0.0657	0.328	1	U	SW6010B	0D28018	05/10/10 17:10
7440-70-2	Calcium	242 J	65.7	328	1	~~J N~~	SW6010B	0D28018	05/10/10 17:10 MSI
7440-47-3	Chromium	1.30	0.131	0.328	1		SW6010B	0D28018	05/10/10 17:10
7440-48-4	Cobalt		0.328	0.821	1	U	SW6010B	0D28018	05/10/10 17:10
7440-50-8	Copper	3.67	0.328	0.657	1		SW6010B	0D28018	05/10/10 17:10
7439-89-6	Iron	355	1.97	6.57	1		SW6010B	0D28018	05/10/10 17:10
7439-92-1	Lead	3.05	0.0985	0.197	1		SW6010B	0D28018	05/10/10 17:10
7439-95-4	Magnesium		65.7	328	1	U	SW6010B	0D28018	05/10/10 17:10
7439-96-5	Manganese	1.62	0.197	0.985	1		SW6010B	0D28018	05/10/10 17:10
7440-02-0	Nickel	0.331	0.328	0.657	1	J	SW6010B	0D28018	05/10/10 17:10
7440-09-7	Potassium		65.7	328	1	U	SW6010B	0D28018	05/10/10 17:10
7782-49-2	Selenium		0.197	0.394	1	U	SW6010B	0D28018	05/10/10 17:10
7440-22-4	Silver		0.0657	0.328	1	U	SW6010B	0D28018	05/10/10 17:10
7440-23-5	Sodium		65.7	328	1	U	SW6010B	0D28018	05/10/10 17:10
7440-28-0	Thallium		0.197	0.525	1	U	SW6010B	0D28018	05/10/10 17:10
7440-62-2	Vanadium	1.36	0.328	0.821	1		SW6010B	0D28018	05/10/10 17:10
7440-66-6	Zinc	6.82	0.328	1.31	1		SW6010B	0D28018	05/10/10 17:10

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ANALYSIS DATA SHEET

MR21-SD05-10B

b

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Solid
Sampled: 04/11/10 10:15
% Solids: 72.13

SDG: 1004092
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1004092-06
Received: 04/13/10 09:00

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury		0.0142	0.0361	1	U	SW7471A	0E06022	05/07/10 11:11
7429-90-5	Aluminum	657	3.36	13.5	1		SW6010B	0D28018	05/10/10 17:15
7440-36-0	Antimony		0.336	1.01	1	U	SW6010B	0D28018	05/10/10 17:15
7440-38-2	Arsenic		0.202	0.336	1	U	SW6010B	0D28018	05/10/10 17:15
7440-39-3	Barium	3.20	0.336	2.69	1		SW6010B	0D28018	05/10/10 17:15
7440-41-7	Beryllium		0.0673	0.336	1	U	SW6010B	0D28018	05/10/10 17:15
7440-43-9	Cadmium		0.0673	0.336	1	U	SW6010B	0D28018	05/10/10 17:15
7440-70-2	Calcium	487 J	67.3	336	1	~~N~~	SW6010B	0D28018	05/10/10 17:15 MSt
7440-47-3	Chromium	1.39	0.135	0.336	1		SW6010B	0D28018	05/10/10 17:15
7440-48-4	Cobalt		0.336	0.841	1	U	SW6010B	0D28018	05/10/10 17:15
7440-50-8	Copper	0.534	0.336	0.673	1	J	SW6010B	0D28018	05/10/10 17:15
7439-89-6	Iron	312	2.02	6.73	1		SW6010B	0D28018	05/10/10 17:15
7439-92-1	Lead	3.11	0.101	0.202	1		SW6010B	0D28018	05/10/10 17:15
7439-95-4	Magnesium		67.3	336	1	U	SW6010B	0D28018	05/10/10 17:15
7439-96-5	Manganese	1.15	0.202	1.01	1		SW6010B	0D28018	05/10/10 17:15
7440-02-0	Nickel	0.429	0.336	0.673	1	J	SW6010B	0D28018	05/10/10 17:15
7440-09-7	Potassium		67.3	336	1	U	SW6010B	0D28018	05/10/10 17:15
7782-49-2	Selenium		0.202	0.404	1	U	SW6010B	0D28018	05/10/10 17:15
7440-22-4	Silver		0.0673	0.336	1	U	SW6010B	0D28018	05/10/10 17:15
7440-23-5	Sodium		67.3	336	1	U	SW6010B	0D28018	05/10/10 17:15
7440-28-0	Thallium		0.202	0.538	1	U	SW6010B	0D28018	05/10/10 17:15
7440-62-2	Vanadium	1.23	0.336	0.841	1		SW6010B	0D28018	05/10/10 17:15
7440-66-6	Zinc	7.46	0.336	1.35	1		SW6010B	0D28018	05/10/10 17:15

MW 7/27/10

ANALYSIS DATA SHEET

MR21-SD06-10B

7

Laboratory: Empirical Laboratories, LLC
Client: CH2M Hill, Inc.
Matrix: Solid
Sampled: 04/11/10 10:35
% Solids: 79.00

SDG: 1004092
Project: Lejeune CTO-40 UXO-21
Laboratory ID: 1004092-07
Received: 04/13/10 09:00

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury		0.0137	0.0348	1	U	SW7471A	0E06022	05/07/10 11:15
7429-90-5	Aluminum	382	3.12	12.5	1		SW6010B	0D28018	05/10/10 17:39
7440-36-0	Antimony		0.312	0.935	1	U	SW6010B	0D28018	05/10/10 17:39
7440-38-2	Arsenic		0.187	0.312	1	U	SW6010B	0D28018	05/10/10 17:39
7440-39-3	Barium	1.99	0.312	2.49	1	J	SW6010B	0D28018	05/10/10 17:39
7440-41-7	Beryllium		0.0624	0.312	1	U	SW6010B	0D28018	05/10/10 17:39
7440-43-9	Cadmium		0.0624	0.312	1	U	SW6010B	0D28018	05/10/10 17:39
7440-70-2	Calcium	116 J	62.4	312	1	~~J~~	SW6010B	0D28018	05/10/10 17:39 MSI
7440-47-3	Chromium	1.00	0.125	0.312	1		SW6010B	0D28018	05/10/10 17:39
7440-48-4	Cobalt		0.312	0.779	1	U	SW6010B	0D28018	05/10/10 17:39
7440-50-8	Copper		0.312	0.624	1	U	SW6010B	0D28018	05/10/10 17:39
7439-89-6	Iron	182	1.87	6.24	1		SW6010B	0D28018	05/10/10 17:39
7439-92-1	Lead	2.09	0.0935	0.187	1		SW6010B	0D28018	05/10/10 17:39
7439-95-4	Magnesium		62.4	312	1	U	SW6010B	0D28018	05/10/10 17:39
7439-96-5	Manganese	1.65	0.187	0.935	1		SW6010B	0D28018	05/10/10 17:39
7440-02-0	Nickel		0.312	0.624	1	U	SW6010B	0D28018	05/10/10 17:39
7440-09-7	Potassium		62.4	312	1	U	SW6010B	0D28018	05/10/10 17:39
7782-49-2	Selenium		0.187	0.374	1	U	SW6010B	0D28018	05/10/10 17:39
7440-22-4	Silver		0.0624	0.312	1	U	SW6010B	0D28018	05/10/10 17:39
7440-23-5	Sodium		62.4	312	1	U	SW6010B	0D28018	05/10/10 17:39
7440-28-0	Thallium		0.187	0.499	1	U	SW6010B	0D28018	05/10/10 17:39
7440-62-2	Vanadium	0.957	0.312	0.779	1		SW6010B	0D28018	05/10/10 17:39
7440-66-6	Zinc	3.43	0.312	1.25	1		SW6010B	0D28018	05/10/10 17:39

MW 7/27/10

ENVIRONMENTAL
Data Services, Inc.

POLYNUCLEAR AROMATIC HYDROCARBONS

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Area Gas Chamber, CTO-040 SDG #: 1004092

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: July 27, 2010

Laboratory: Empirical Laboratories, Nashville, Tennessee Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR21-SD01-10B	1004092-01	Soil
2	MR21-SD02-10B	1004092-02	Soil
3	MR21-SD02D-10B	1004092-03	Soil
4	MR21-SD03-10B	1004092-04	Soil
5	MR21-SD04-10B	1004092-05	Soil
6	MR21-SD05-10B	1004092-06	Soil
6MS	MR21-SD05-10BMS	1004092-06MS	Soil
6MSD	MR21-SD05-10BMSD	1004092-06MSD	Soil
7	MR21-SD06-10B	1004092-07	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
05/13/10	n-Nitroso-di-n-propylamine	29.0%	J/UJ	All Samples

Surrogates - All samples exhibited acceptable surrogate recoveries except the following.

Sample ID	Surrogate	%R	Qualifier
6	2-Fluorobiphenyl	41.6%	None for only 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
6	Benzo(b)fluoranthene	Ok/Ok/41	None for RPD alone
	Dibenz(a,h)anthracene	Ok/Ok/32	
	Indeno(1,2,3-cd)pyrene	Ok/Ok/35	
	Pentachlorophenol	Ok/Ok/39	

Laboratory Control Sample - The LCS samples exhibited acceptable %R values except the following.

LCS ID	Compound	%R	Qualifier	Affected Samples
0D22016-BS1	Pentachlorophenol	126%	None	All ND

Internal Standard (IS) Area Performance - All internal standards met response and retention time (RT) criteria.

Method Blank - The method blanks were free of contamination.

Field, Equipment Blank - Field QC samples were not analyzed.

Field Duplicates - Field duplicate results are summarized below.

Compound	MR21-SD02-10A ug/kg	MR21-SD02D-10A ug/kg	RPD	Qualifier
Benzo(a)anthracene	3.31	4.02	19%	None
Benzo(b)fluoranthene	8.17	7.94	3%	None

Compound Quantitation - No discrepancies were identified.

ANALYSIS DATA SHEET

MR21-SD01-10B

1

Laboratory:	Empirical Laboratories, LLC			SDG:	1004092
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Sediment	Laboratory ID:	1004092-01	File ID:	0409201.D
Sampled:	04/11/10 09:05	Prepared:	04/22/10 19:00	Analyzed:	05/13/10 22:36
Solids:	74.01	Preparation:	EXT_3546	Dilution:	1

Batch: 0D22016 Sequence: 0E13411 Calibration: 0132007 Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
56-55-3	Benzo (a) anthracene		1.76	67.6	U, ~~X~~
50-32-8	Benzo (a) pyrene		1.76	9.01	U
205-99-2	Benzo (b) fluoranthene		1.76	67.6	U
53-70-3	Dibenz (a,h) anthracene		1.76	9.01	U
193-39-5	Indeno (1,2,3-cd) pyrene		1.76	67.6	U
78-59-1	Isophorone		1.76	67.6	U, ~~X~~
621-64-7	N-Nitrosodi-n-propylamine	UJ	1.76	101	~~U, X~~ CCH
87-86-5	Pentachlorophenol		1.76	23.0	~~U, Q~~

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	4504	2259	50.2	45 - 105	
Terphenyl-d14	4504	2054	45.6	30 - 125	
2,4,6-Tribromophenol	9008	7402	82.2	35 - 125	

lw 7/27/10

ANALYSIS DATA SHEET

MR21-SD02-10B

2

Laboratory:	Empirical Laboratories, LLC			SDG:	1004092
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Solid	Laboratory ID:	1004092-02	File ID:	0409202.D
Sampled:	04/11/10 09:25	Prepared:	04/22/10 19:00	Analyzed:	05/13/10 23:12
Solids:	68.52	Preparation:	EXT_3546	Dilution:	1

Batch: 0D22016 Sequence: 0E13411 Calibration: 0132007 Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
56-55-3	Benzo (a) anthracene	3.31	1.90	73.0	~~X~~, J
50-32-8	Benzo (a) pyrene		1.90	9.73	U
205-99-2	Benzo (b) fluoranthene	8.17	1.90	73.0	J
53-70-3	Dibenz (a,h) anthracene		1.90	9.73	U
193-39-5	Indeno (1,2,3-cd) pyrene		1.90	73.0	U
78-59-1	Isophorone		1.90	73.0	U, ~~X~~
621-64-7	N-Nitrosodi-n-propylamine	UJ	1.90	109	~~U~~, X CCU
87-86-5	Pentachlorophenol		1.90	24.8	~~U~~, U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	4865	2438	50.1	45 - 105	
Terphenyl-d14	4865	2452	50.4	30 - 125	
2,4,6-Tribromophenol	9729	7693	79.1	35 - 125	

RW 7/27/10

ANALYSIS DATA SHEET

MR21-SD02D-10B 3

Laboratory:	Empirical Laboratories, LLC		SDG:	1004092	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Solid	Laboratory ID:	1004092-03	File ID:	0409203.D
Sampled:	04/11/10 09:35	Prepared:	04/22/10 19:00	Analyzed:	05/13/10 23:47
Solids:	67.03	Preparation:	EXT_3546	Dilution:	1

Batch: 0D22016 Sequence: 0E13411 Calibration: 0132007 Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
56-55-3	Benzo (a) anthracene	4.02	1.94	74.6	~~X~~, J
50-32-8	Benzo (a) pyrene		1.94	9.95	U
205-99-2	Benzo (b) fluoranthene	7.94	1.94	74.6	J
53-70-3	Dibenz (a,h) anthracene		1.94	9.95	U
193-39-5	Indeno (1,2,3-cd) pyrene		1.94	74.6	U
78-59-1	Isophorone		1.94	74.6	~~X~~, U
621-64-7	N-Nitrosodi-n-propylamine	UJ	1.94	112	~~X, U~~ CCU
87-86-5	Pentachlorophenol		1.94	25.4	~~Q~~, U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	4973	3213	64.6	45 - 105	
Terphenyl-d14	4973	3716	74.7	30 - 125	
2,4,6-Tribromophenol	9945	10960	110	35 - 125	

MW 7/27/10

ANALYSIS DATA SHEET

MR21-SD03-10B

4

Laboratory:	Empirical Laboratories, LLC		SDG:	1004092	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Solid	Laboratory ID:	1004092-04	File ID:	0409204.D
Sampled:	04/11/10 09:45	Prepared:	04/22/10 19:00	Analyzed:	05/14/10 00:23
Solids:	67.79	Preparation:	EXT_3546	Dilution:	1

Batch: 0D22016 Sequence: 0E13411 Calibration: 0132007 Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
56-55-3	Benzo (a) anthracene	7.06	1.92	73.8	~~X~~, J
50-32-8	Benzo (a) pyrene		1.92	9.84	U
205-99-2	Benzo (b) fluoranthene	11.5	1.92	73.8	J
53-70-3	Dibenz (a,h) anthracene		1.92	9.84	U
193-39-5	Indeno (1,2,3-cd) pyrene		1.92	73.8	U
78-59-1	Isophorone		1.92	73.8	~~X~~, U
621-64-7	N-Nitrosodi-n-propylamine	UJ	1.92	111	~~X~~, U CCH
87-86-5	Pentachlorophenol		1.92	25.1	~~Q~~, U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	4917	2916	59.3	45 - 105	
Terphenyl-d14	4917	3277	66.6	30 - 125	
2,4,6-Tribromophenol	9834	9878	100	35 - 125	

MW 7/27/10

ANALYSIS DATA SHEET

MR21-SD04-10B

5

Laboratory:	Empirical Laboratories, LLC		SDG:	1004092	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Solid	Laboratory ID:	1004092-05	File ID:	0409205.D
Sampled:	04/11/10 09:55	Prepared:	04/22/10 19:00	Analyzed:	05/14/10 00:58
Solids:	74.30	Preparation:	EXT_3546	Dilution:	1

Batch: 0D22016 Sequence: 0E13411 Calibration: 0132007 Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
56-55-3	Benzo (a) anthracene		1.75	67.3	~~X~~, U
50-32-8	Benzo (a) pyrene		1.75	8.98	U
205-99-2	Benzo (b) fluoranthene	5.86	1.75	67.3	J
53-70-3	Dibenz (a,h) anthracene		1.75	8.98	U
193-39-5	Indeno (1,2,3-cd) pyrene		1.75	67.3	U
78-59-1	Isophorone		1.75	67.3	~~X~~, U
621-64-7	N-Nitrosodi-n-propylamine	UJ	1.75	101	~~X~~ ~~U~~ CCH
87-86-5	Pentachlorophenol		1.75	22.9	~~Q~~, U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	4487	2446	54.5	45 - 105	
Terphenyl-d14	4487	3076	68.6	30 - 125	
2,4,6-Tribromophenol	8973	8271	92.2	35 - 125	

MW 7/27/10

ANALYSIS DATA SHEET

MR21-SD05-10B 6

Laboratory:	Empirical Laboratories, LLC		SDG:	1004092	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Solid	Laboratory ID:	1004092-06	File ID:	0409206.D
Sampled:	04/11/10 10:15	Prepared:	04/22/10 19:00	Analyzed:	05/14/10 01:34
Solids:	72.13	Preparation:	EXT_3546	Dilution:	1
Batch:	0D22016	Sequence: 0E13411	Calibration:	0132007	Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
56-55-3	Benzo (a) anthracene		1.80	69.3	~~S, X~~, U
50-32-8	Benzo (a) pyrene		1.80	9.25	S, U
205-99-2	Benzo (b) fluoranthene	7.99	1.80	69.3	R, S, J
53-70-3	Dibenz (a,h) anthracene		1.80	9.25	R, S, U
193-39-5	Indeno (1,2,3-cd) pyrene		1.80	69.3	R, S, U
78-59-1	Isophorone		1.80	69.3	S, X, U
621-64-7	N-Nitrosodi-n-propylamine	NJ	1.80	104	~~S, X~~, U CU
87-86-5	Pentachlorophenol		1.80	23.6	~~Q, R, S~~, U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	4621	1924	41.6	45 - 105	*
Terphenyl-d14	4621	2524	54.6	30 - 125	
2,4,6-Tribromophenol	9242	7134	77.2	35 - 125	

tlw 7/27/10

ANALYSIS DATA SHEET

MR21-SD06-10B

7

Laboratory:	Empirical Laboratories, LLC			SDG:	1004092
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Solid	Laboratory ID:	1004092-07	File ID:	0409207.D
Sampled:	04/11/10 10:35	Prepared:	04/22/10 19:00	Analyzed:	05/14/10 02:10
Solids:	79.00	Preparation:	EXT_3546	Dilution:	1

Batch: 0D22016 Sequence: 0E13411 Calibration: 0132007 Instrument: MS-BNA3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
56-55-3	Benzo (a) anthracene		1.65	63.3	~~X~~, U
50-32-8	Benzo (a) pyrene		1.65	8.44	U
205-99-2	Benzo (b) fluoranthene		1.65	63.3	U
53-70-3	Dibenz (a,h) anthracene		1.65	8.44	U
193-39-5	Indeno (1,2,3-cd) pyrene		1.65	63.3	U
78-59-1	Isophorone		1.65	63.3	~~X~~, U
621-64-7	N-Nitrosodi-n-propylamine	UJ	1.65	94.9	~~X U~~ ccl
87-86-5	Pentachlorophenol		1.65	21.5	Q, U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	4219	2147	50.9	45 - 105	
Terphenyl-d14	4219	2888	68.5	30 - 125	
2,4,6-Tribromophenol	8439	7198	85.3	35 - 125	

KW 7/27/10

ENVIRONMENTAL
Data Services, Inc.

PERCHLORATE

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Area Gas Chamber, CTO-040 SDG #: 1004092

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: July 27, 2010

Laboratory: Empirical Laboratories, Nashville, Tennessee Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR21-SD01-10B	1004092-01	Soil
2	MR21-SD02-10B	1004092-02	Soil
3	MR21-SD02D-10B	1004092-03	Soil
4	MR21-SD03-10B	1004092-04	Soil
5	MR21-SD04-10B	1004092-05	Soil
6	MR21-SD05-10B	1004092-06	Soil
6MS	MR21-SD05-10BMS	1004092-06MS	Soil
6MSD	MR21-SD05-10BMSD	1004092-06MSD	Soil
7	MR21-SD06-10B	1004092-07	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.

Calibration - The ICV and CCV %R values were acceptable.

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
MR21-EB041110-SS	None - ND	-	-	-	-
MR21-FB041010	None - ND	-	-	-	-

Matrix Spike/Duplicate - The matrix spike/duplicate sample exhibited acceptable %R and RPD values.

LCS - The LCS samples exhibited acceptable %R values.

Field Duplicates - Field duplicate results are summarized below.

Compound	MR21-SD02-10B ug/kg	MR21-SD02D-10B ug/kg	RPD	Qualifier
None	ND	ND	-	-

Compound Quantitation - No discrepancies were identified.

ANALYSIS DATA SHEET

MR21-SD01-10B

Laboratory:	Empirical Laboratories, LLC			SDG:	1004092
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Sediment	Laboratory ID:	1004092-01	File ID:	PERC000016.D
Sampled:	04/11/10 09:05	Prepared:	04/18/10 16:29	Analyzed:	04/19/10 21:22
Solids:	74.01	Preparation:	LCMS_PERC6850_S	Dilution:	1
Batch:	0D18005	Sequence:	0D11211	Calibration:	0104006
Instrument:	LCMS1				

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
14797-73-0	Perchlorate		0.811	2.70	U

MW 7/27/10

ANALYSIS DATA SHEET

MR21-SD02-10B

2

Laboratory:	Empirical Laboratories, LLC			SDG:	1004092
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Solid	Laboratory ID:	1004092-02	File ID:	PERC000018.D
Sampled:	04/11/10 09:25	Prepared:	04/18/10 16:29	Analyzed:	04/19/10 21:58
Solids:	68.52	Preparation:	LCMS_PERC6850_S	Dilution:	1

Batch: 0D18005 Sequence: 0D11211 Calibration: 0104006 Instrument: LCMS1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
14797-73-0	Perchlorate		0.876	2.92	U

kw 7/27/10

ANALYSIS DATA SHEET

MR21-SD02D-10B 3

Laboratory:	Empirical Laboratories, LLC			SDG:	1004092
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Solid	Laboratory ID:	1004092-03	File ID:	PERC000020.D
Sampled:	04/11/10 09:35	Prepared:	04/18/10 16:29	Analyzed:	04/19/10 22:33
Solids:	67.03	Preparation:	LCMS_PERC6850_S	Dilution:	1
Batch:	0D18005	Sequence:	0D11211	Calibration:	0104006
Instrument:	LCMS1				

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
14797-73-0	Perchlorate		0.895	2.98	~~J~~, U

MW 7/27/10

ANALYSIS DATA SHEET

MR21-SD03-10B

4

Laboratory:	Empirical Laboratories, LLC			SDG:	1004092
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Solid	Laboratory ID:	1004092-04	File ID:	PERC000022.D
Sampled:	04/11/10 09:45	Prepared:	04/18/10 16:29	Analyzed:	04/19/10 23:09
Solids:	67.79	Preparation:	LCMS_PERC6850_S	Dilution:	1
Batch:	0D18005	Sequence:	0D11211	Calibration:	0104006
Instrument:	LCMS1				

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
14797-73-0	Perchlorate		0.885	2.95	U

MW 7/27/10

ANALYSIS DATA SHEET

MR21-SD04-10B

5

Laboratory:	Empirical Laboratories, LLC			SDG:	1004092
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Solid	Laboratory ID:	1004092-05	File ID:	PERC000024.D
Sampled:	04/11/10 09:55	Prepared:	04/18/10 16:29	Analyzed:	04/19/10 23:45
Solids:	74.30	Preparation:	LCMS_PERC6850_S	Dilution:	1
Batch:	0D18005	Sequence:	0D11211	Calibration:	0104006
Instrument:	LCMS1				

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
14797-73-0	Perchlorate		0.808	2.69	U

MW 7/27/10

ANALYSIS DATA SHEET

MR21-SD05-10B

6

Laboratory:	Empirical Laboratories, LLC			SDG:	1004092
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Solid	Laboratory ID:	1004092-06	File ID:	PERC000026.D
Sampled:	04/11/10 10:15	Prepared:	04/18/10 16:29	Analyzed:	04/20/10 00:21
Solids:	72.13	Preparation:	LCMS_PERC6850_S	Dilution:	1
Batch:	0D18005	Sequence:	0D11211	Calibration:	0104006
Instrument:	LCMS1				

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
14797-73-0	Perchlorate		0.832	2.77	U

NW 7/27/10

ANALYSIS DATA SHEET

MR21-SD06-10B 7

Laboratory:	Empirical Laboratories, LLC			SDG:	1004092
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Solid	Laboratory ID:	1004092-07	File ID:	PERC000032.D
Sampled:	04/11/10 10:35	Prepared:	04/18/10 16:29	Analyzed:	04/20/10 02:07
Solids:	79.00	Preparation:	LCMS_PERC6850_S	Dilution:	1
Batch:	0D18005	Sequence:	0D11211	Calibration:	0104006
Instrument:	LCMS1				

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
14797-73-0	Perchlorate		0.759	2.53	U

MW 7/27/10

ENVIRONMENTAL
Data Services, Inc.

SEMIVOLATILE ORGANIC COMPOUNDS

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Area Gas Chamber, CTO-040 SDG #: 1004092

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: July 27, 2010

Laboratory: Empirical Laboratories, Nashville, Tennessee Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR21-SD01-10B	1004092-01	Soil
2	MR21-SD02-10B	1004092-02	Soil
3	MR21-SD02D-10B	1004092-03	Soil
4	MR21-SD03-10B	1004092-04	Soil
5	MR21-SD04-10B	1004092-05	Soil
6	MR21-SD05-10B	1004092-06	Soil
6MS	MR21-SD05-10BMS	1004092-06MS	Soil
6MSD	MR21-SD05-10BMSD	1004092-06MSD	Soil
7	MR21-SD06-10B	1004092-07	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
05/18/10	Benzo(g,h,i)perylene	27.7%	J/UJ	All Samples
	4,6-Dinitro-2-methylphenol	28.9%		
	2,4-Dinitrophenol	48.7%		

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
6	Benzaldehyde	5.88%/5.71%/Ok	None - See LCS
	Hexachlorocyclopentadiene	6.09%/Ok/56	J/R
	2,4-Dinitrophenol	Ok/56.7%/42	None - See CCAL
	Nitrobenzene	Ok/Ok/33.8	None for RPD Alone

Laboratory Control Sample - The LCS samples exhibited acceptable %R values except the following

LCS ID	Compound	%R	Qualifier	Affected Samples
0D22016-BS1	Benzaldehyde	7.64%	J/R	All Samples

Internal Standard (IS) Area Performance - All internal standards met response and retention time (RT) criteria.

Method Blank - The method blanks were free of contamination.

Field, Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/kg	Qualifier	Affected Samples
MR21-EB041110-SS	Acetophenone	1.88	300	None	See FB
	Butylbenzylphthalate	25.2	8400	None	All ND
	Di-n-butylphthalate	3.38	1126	None	All ND
	Diethylphthalate	3.03	1010	None	See FB
MR21-FB041010	Acetophenone	1.85	308	None	All ND
	Butylbenzylphthalate	8.49	2830	None	See EB
	Caprolactam	3.10	517	U	2, 3, 4
	Di-n-butylphthalate	2.52	840	None	See EB
	Diethylphthalate	3.43	1143	None	All ND

Field Duplicates - Field duplicate results are summarized below.

Compound	MR21-SD02-10B ug/kg	MR21-SD02D-10B ug/kg	RPD	Qualifier
Benzaldehyde	90.8	108	17%	None
Bis(2-ethylhexyl)phthalate	ND	248	NC	None
4-Methylphenol	211	295	33%	None

Tentatively Identified Compounds (TICs) - TICs were not reported.

Compound Quantitation - No discrepancies were identified.

ANALYSIS DATA SHEET

MR21-SD01-10B

Laboratory:	Empirical Laboratories, LLC		SDG:	1004092	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Sediment	Laboratory ID:	1004092-01	File ID:	0409201A.D
Sampled:	04/11/10 09:05	Prepared:	04/22/10 19:00	Analyzed:	05/18/10 09:42
Solids:	74.01	Preparation:	EXT_3546	Dilution:	1
Batch:	0D22016	Sequence: 0E14022	Calibration:	0110002	Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
91-94-1	3,3'-Dichlorobenzidine		41.9	338	U
83-32-9	Acenaphthene		35.1	338	U
208-96-8	Acenaphthylene		27.0	338	U
98-86-2	Acetophenone		55.4	338	U
120-12-7	Anthracene		36.5	338	U
1912-24-9	Atrazine		37.8	338	U
100-52-7	Benzaldehyde	R	74.3	338	~~J~~ BSL
191-24-2	Benzo (g,h,i) perylene	UJ	94.6	338	~~J~~ CCH
207-08-9	Benzo (k) fluoranthene		52.7	338	U
92-52-4	1,1'-Biphenyl		39.2	338	U
101-55-3	4-Bromophenyl phenyl ether		35.1	338	U
85-68-7	Butyl benzyl phthalate		40.5	338	U
105-60-2	Caprolactam		90.5	338	~~J~~, U
86-74-8	Carbazole		48.6	338	U
59-50-7	4-Chloro-3-methylphenol		37.8	338	U
106-47-8	4-Chloroaniline		64.9	338	U
111-91-1	Bis(2-chloroethoxy)methane		41.9	338	U
111-44-4	Bis(2-chloroethyl)ether		55.4	338	U
39638-32-9	Bis(2-chloroisopropyl)ether		68.9	338	U
91-58-7	2-Chloronaphthalene		43.2	338	U
95-57-8	2-Chlorophenol		55.4	338	U
7005-72-3	4-Chlorophenyl phenyl ether		41.9	338	U
218-01-9	Chrysene		41.9	338	U
132-64-9	Dibenzofuran		32.4	338	U
84-74-2	Di-n-butyl phthalate		40.5	338	U
120-83-2	2,4-Dichlorophenol		25.7	338	U
84-66-2	Diethyl phthalate		45.9	338	U
105-67-9	2,4-Dimethylphenol		28.4	338	~~J~~, U
131-11-3	Dimethylphthalate		40.5	338	U
534-52-1	4,6-Dinitro-2-methylphenol	UJ	29.7	676	~~J~~ CCH
51-28-5	2,4-Dinitrophenol	UJ	176	676	~~J~~ CCH
121-14-2	2,4-Dinitrotoluene		32.4	338	U
606-20-2	2,6-Dinitrotoluene		51.3	338	U
117-84-0	Di-n-octyl phthalate		36.5	338	U
117-81-7	Bis(2-ethylhexyl)phthalate		48.6	338	U
206-44-0	Fluoranthene		73.0	338	U
86-73-7	Fluorene		35.1	338	U
118-74-1	Hexachlorobenzene		47.3	338	U
87-68-3	Hexachlorobutadiene		44.6	338	U
77-47-4	Hexachlorocyclopentadiene		82.4	338	U

CW 7/27/10

ANALYSIS DATA SHEET

MR21-SD01-10B

Laboratory:	Empirical Laboratories, LLC		SDG:	1004092	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Sediment	Laboratory ID:	1004092-01	File ID:	0409201A.D
Sampled:	04/11/10 09:05	Prepared:	04/22/10 19:00	Analyzed:	05/18/10 09:42
Solids:	74.01	Preparation:	EXT_3546	Dilution:	1
Batch:	0D22016	Sequence:	0E14022	Calibration:	0110002	Instrument:	MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-72-1	Hexachloroethane		52.7	338	U
91-57-6	2-Methylnaphthalene		47.3	338	U
95-48-7	2-Methylphenol		52.7	338	U
106-44-5	4-Methylphenol		35.1	338	U
91-20-3	Naphthalene		43.2	338	~~X~~, U
100-01-6	4-Nitroaniline		135	676	U
99-09-2	3-Nitroaniline		63.5	676	U
88-74-4	2-Nitroaniline		43.2	676	U
98-95-3	Nitrobenzene		45.9	338	U
100-02-7	4-Nitrophenol		109	676	U
88-75-5	2-Nitrophenol		29.7	338	U
86-30-6	N-Nitrosodiphenylamine		43.2	338	U
85-01-8	Phenanthrene		31.1	338	U
108-95-2	Phenol		48.6	338	U
129-00-0	Pyrene		54.0	338	U
88-06-2	2,4,6-Trichlorophenol		47.3	338	U
95-95-4	2,4,5-Trichlorophenol		36.5	676	U
532-27-4	2-Chloroacetophenone		90.5	338	U
2698-41-1	2-Chlorobenzalmalononitrile		90.5	338	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	4504	2746	61.0	45 - 105	
2-Fluorophenol	9008	5046	56.0	35 - 105	
Nitrobenzene-d5	4504	2911	64.6	35 - 100	
Phenol-d6	9008	5748	63.8	40 - 100	
Terphenyl-d14	4504	2821	62.6	30 - 125	

MW 7/27/10

ANALYSIS DATA SHEET

MR21-SD02-10B 2

Laboratory:	Empirical Laboratories, LLC		SDG:	1004092	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Solid	Laboratory ID:	1004092-02	File ID:	0409202A.D
Sampled:	04/11/10 09:25	Prepared:	04/22/10 19:00	Analyzed:	05/18/10 10:15
Solids:	68.52	Preparation:	EXT_3546	Dilution:	1
Batch:	0D22016	Sequence: 0E14022	Calibration:	0110002	Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
91-94-1	3,3´-Dichlorobenzidine		45.2	365	U
83-32-9	Acenaphthene		37.9	365	U
208-96-8	Acenaphthylene		29.2	365	U
98-86-2	Acetophenone		59.8	365	U
120-12-7	Anthracene		39.4	365	U
1912-24-9	Atrazine		40.9	365	U
100-52-7	Benzaldehyde	90.8 J	80.3	365	~~X,J~~ BSL
191-24-2	Benzo (g,h,i) perylene	UJ	102	365	~~X,J~~ CCH
207-08-9	Benzo (k) fluoranthene		56.9	365	U
92-52-4	1,1'-Biphenyl		42.3	365	U
101-55-3	4-Bromophenyl phenyl ether		37.9	365	U
85-68-7	Butyl benzyl phthalate		43.8	365	U
105-60-2	Caprolactam	365 ~~145~~ U	97.8	365	~~X,J~~ FBL
86-74-8	Carbazole		52.5	365	U
59-50-7	4-Chloro-3-methylphenol		40.9	365	U
106-47-8	4-Chloroaniline		70.1	365	U
111-91-1	Bis(2-chloroethoxy)methane		45.2	365	U
111-44-4	Bis(2-chloroethyl)ether		59.8	365	U
39638-32-9	Bis(2-chloroisopropyl)ether		74.4	365	U
91-58-7	2-Chloronaphthalene		46.7	365	U
95-57-8	2-Chlorophenol		59.8	365	U
7005-72-3	4-Chlorophenyl phenyl ether		45.2	365	U
218-01-9	Chrysene		45.2	365	U
132-64-9	Dibenzofuran		35.0	365	U
84-74-2	Di-n-butyl phthalate		43.8	365	U
120-83-2	2,4-Dichlorophenol		27.7	365	U
84-66-2	Diethyl phthalate		49.6	365	U
105-67-9	2,4-Dimethylphenol		30.6	365	~~X~~, U
131-11-3	Dimethylphthalate		43.8	365	U
534-52-1	4,6-Dinitro-2-methylphenol	UJ	32.1	730	~~X,J~~ CCH
51-28-5	2,4-Dinitrophenol	UJ	190	730	~~X,J~~ CCH
121-14-2	2,4-Dinitrotoluene		35.0	365	U
606-20-2	2,6-Dinitrotoluene		55.5	365	U
117-84-0	Di-n-octyl phthalate		39.4	365	U
117-81-7	Bis(2-ethylhexyl)phthalate		52.5	365	U
206-44-0	Fluoranthene		78.8	365	U
86-73-7	Fluorene		37.9	365	U
118-74-1	Hexachlorobenzene		51.1	365	U
87-68-3	Hexachlorobutadiene		48.2	365	U
77-47-4	Hexachlorocyclopentadiene		89.0	365	U

MW 7/27/10

ANALYSIS DATA SHEET

MR21-SD02-10B 2

Laboratory:	Empirical Laboratories, LLC			SDG:	1004092
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Solid	Laboratory ID:	1004092-02	File ID:	0409202A.D
Sampled:	04/11/10 09:25	Prepared:	04/22/10 19:00	Analyzed:	05/18/10 10:15
Solids:	68.52	Preparation:	EXT_3546	Dilution:	1

Batch: 0D22016 Sequence: 0E14022 Calibration: 0110002 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-72-1	Hexachloroethane		56.9	365	U
91-57-6	2-Methylnaphthalene		51.1	365	U
95-48-7	2-Methylphenol		56.9	365	U
106-44-5	4-Methylphenol	211	37.9	365	J
91-20-3	Naphthalene		46.7	365	~~X~~, U
100-01-6	4-Nitroaniline		146	730	U
99-09-2	3-Nitroaniline		68.6	730	U
88-74-4	2-Nitroaniline		46.7	730	U
98-95-3	Nitrobenzene		49.6	365	U
100-02-7	4-Nitrophenol		118	730	U
88-75-5	2-Nitrophenol		32.1	365	U
86-30-6	N-Nitrosodiphenylamine		46.7	365	U
85-01-8	Phenanthrene		33.6	365	U
108-95-2	Phenol		52.5	365	U
129-00-0	Pyrene		58.4	365	U
88-06-2	2,4,6-Trichlorophenol		51.1	365	U
95-95-4	2,4,5-Trichlorophenol		39.4	730	U
532-27-4	2-Chloroacetophenone		97.8	365	U
2698-41-1	2-Chlorobenzalmalononitrile		97.8	365	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	4865	3407	70.0	45 - 105	
2-Fluorophenol	9729	6420	66.0	35 - 105	
Nitrobenzene-d5	4865	2977	61.2	35 - 100	
Phenol-d6	9729	6450	66.3	40 - 100	
Terphenyl-d14	4865	3481	71.6	30 - 125	

MW 7/27/10

ANALYSIS DATA SHEET

MR21-SD02D-10B 3

Laboratory:	Empirical Laboratories, LLC		SDG:	1004092	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Solid	Laboratory ID:	1004092-03	File ID:	0409203A.D
Sampled:	04/11/10 09:35	Prepared:	04/22/10 19:00	Analyzed:	05/18/10 10:47
Solids:	67.03	Preparation:	EXT_3546	Dilution:	1
Batch:	0D22016	Sequence: 0E14022	Calibration:	0110002	Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
91-94-1	3,3'-Dichlorobenzidine		46.2	373	U
83-32-9	Acenaphthene		38.8	373	U
208-96-8	Acenaphthylene		29.8	373	U
98-86-2	Acetophenone		61.2	373	U
120-12-7	Anthracene		40.3	373	U
1912-24-9	Atrazine		41.8	373	U
100-52-7	Benzaldehyde	108 J	82.0	373	~~J~~ BSL
191-24-2	Benzo (g,h,i) perylene	UJ	104	373	~~J~~ CCH
207-08-9	Benzo (k) fluoranthene		58.2	373	U
92-52-4	1,1'-Biphenyl		43.3	373	U
101-55-3	4-Bromophenyl phenyl ether		38.8	373	U
85-68-7	Butyl benzyl phthalate		44.8	373	U
105-60-2	Caprolactam	373 ~~152~~ U	100	373	~~X~~ FBL
86-74-8	Carbazole		53.7	373	U
59-50-7	4-Chloro-3-methylphenol		41.8	373	U
106-47-8	4-Chloroaniline		71.6	373	U
111-91-1	Bis(2-chloroethoxy)methane		46.2	373	U
111-44-4	Bis(2-chloroethyl)ether		61.2	373	U
39638-32-9	Bis(2-chloroisopropyl)ether		76.1	373	U
91-58-7	2-Chloronaphthalene		47.7	373	U
95-57-8	2-Chlorophenol		61.2	373	U
7005-72-3	4-Chlorophenyl phenyl ether		46.2	373	U
218-01-9	Chrysene		46.2	373	U
132-64-9	Dibenzofuran		35.8	373	U
84-74-2	Di-n-butyl phthalate		44.8	373	U
120-83-2	2,4-Dichlorophenol		28.3	373	U
84-66-2	Diethyl phthalate		50.7	373	U
105-67-9	2,4-Dimethylphenol		31.3	373	~~J~~, U
131-11-3	Dimethylphthalate		44.8	373	U
534-52-1	4,6-Dinitro-2-methylphenol	UJ	32.8	746	~~J~~ CCH
51-28-5	2,4-Dinitrophenol	UJ	194	746	~~J~~ CCH
121-14-2	2,4-Dinitrotoluene		35.8	373	U
606-20-2	2,6-Dinitrotoluene		56.7	373	U
117-84-0	Di-n-octyl phthalate		40.3	373	U
117-81-7	Bis(2-ethylhexyl)phthalate	248	53.7	373	J
206-44-0	Fluoranthene		80.6	373	U
86-73-7	Fluorene		38.8	373	U
118-74-1	Hexachlorobenzene		52.2	373	U
87-68-3	Hexachlorobutadiene		49.2	373	U
77-47-4	Hexachlorocyclopentadiene		91.0	373	U

LW 7/27/10

ANALYSIS DATA SHEET

MR21-SD02D-10B

3

Laboratory:	Empirical Laboratories, LLC			SDG:	1004092
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Solid	Laboratory ID:	1004092-03	File ID:	0409203A.D
Sampled:	04/11/10 09:35	Prepared:	04/22/10 19:00	Analyzed:	05/18/10 10:47
Solids:	67.03	Preparation:	EXT_3546	Dilution:	1

Batch: 0D22016 Sequence: 0E14022 Calibration: 0110002 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-72-1	Hexachloroethane		58.2	373	U
91-57-6	2-Methylnaphthalene		52.2	373	U
95-48-7	2-Methylphenol		58.2	373	U
106-44-5	4-Methylphenol	295	38.8	373	J
91-20-3	Naphthalene		47.7	373	K, U
100-01-6	4-Nitroaniline		149	746	U
99-09-2	3-Nitroaniline		70.1	746	U
88-74-4	2-Nitroaniline		47.7	746	U
98-95-3	Nitrobenzene		50.7	373	U
100-02-7	4-Nitrophenol		121	746	U
88-75-5	2-Nitrophenol		32.8	373	U
86-30-6	N-Nitrosodiphenylamine		47.7	373	U
85-01-8	Phenanthrene		34.3	373	U
108-95-2	Phenol		53.7	373	U
129-00-0	Pyrene		59.7	373	U
88-06-2	2,4,6-Trichlorophenol		52.2	373	U
95-95-4	2,4,5-Trichlorophenol		40.3	746	U
532-27-4	2-Chloroacetophenone		100	373	U
2698-41-1	2-Chlorobenzalmalononitrile		100	373	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	4973	3680	74.0	45 - 105	
2-Fluorophenol	9945	6692	67.3	35 - 105	
Nitrobenzene-d5	4973	3282	66.0	35 - 100	
Phenol-d6	9945	7054	70.9	40 - 100	
Terphenyl-d14	4973	3974	79.9	30 - 125	

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ANALYSIS DATA SHEET

MR21-SD03-10B 4

Laboratory:	Empirical Laboratories, LLC		SDG:	1004092	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Solid	Laboratory ID:	1004092-04	File ID:	0409204A.D
Sampled:	04/11/10 09:45	Prepared:	04/22/10 19:00	Analyzed:	05/18/10 11:20
Solids:	67.79	Preparation:	EXT_3546	Dilution:	1
Batch:	0D22016	Sequence:	0E14022	Calibration:	0110002	Instrument:	MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
91-94-1	3,3´-Dichlorobenzidine		45.7	369	U
83-32-9	Acenaphthene		38.4	369	U
208-96-8	Acenaphthylene		29.5	369	U
98-86-2	Acetophenone		60.5	369	U
120-12-7	Anthracene		39.8	369	U
1912-24-9	Atrazine		41.3	369	U
100-52-7	Benzaldehyde	R	81.1	369	~~J~~ BSL
191-24-2	Benzo (g,h,i) perylene	UJ	103	369	~~J~~ CCH
207-08-9	Benzo (k) fluoranthene		57.5	369	U
92-52-4	1,1'-Biphenyl		42.8	369	U
101-55-3	4-Bromophenyl phenyl ether		38.4	369	U
85-68-7	Butyl benzyl phthalate		44.3	369	U
105-60-2	Caprolactam	369 ~~171~~ U	98.8	369	~~X,J~~ FBL
86-74-8	Carbazole		53.1	369	U
59-50-7	4-Chloro-3-methylphenol		41.3	369	U
106-47-8	4-Chloroaniline		70.8	369	U
111-91-1	Bis(2-chloroethoxy)methane		45.7	369	U
111-44-4	Bis(2-chloroethyl)ether		60.5	369	U
39638-32-9	Bis(2-chloroisopropyl)ether		75.2	369	U
91-58-7	2-Chloronaphthalene		47.2	369	U
95-57-8	2-Chlorophenol		60.5	369	U
7005-72-3	4-Chlorophenyl phenyl ether		45.7	369	U
218-01-9	Chrysene		45.7	369	U
132-64-9	Dibenzofuran		35.4	369	U
84-74-2	Di-n-butyl phthalate		44.3	369	U
120-83-2	2,4-Dichlorophenol		28.0	369	U
84-66-2	Diethyl phthalate		50.2	369	U
105-67-9	2,4-Dimethylphenol		31.0	369	~~J~~, U
131-11-3	Dimethylphthalate		44.3	369	U
534-52-1	4,6-Dinitro-2-methylphenol	UJ	32.5	738	~~J~~ CCH
51-28-5	2,4-Dinitrophenol	UJ	192	738	~~J~~ CCH
121-14-2	2,4-Dinitrotoluene		35.4	369	U
606-20-2	2,6-Dinitrotoluene		56.1	369	U
117-84-0	Di-n-octyl phthalate		39.8	369	U
117-81-7	Bis(2-ethylhexyl)phthalate		53.1	369	U
206-44-0	Fluoranthene		79.7	369	U
86-73-7	Fluorene		38.4	369	U
118-74-1	Hexachlorobenzene		51.6	369	U
87-68-3	Hexachlorobutadiene		48.7	369	U
77-47-4	Hexachlorocyclopentadiene		90.0	369	U

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ANALYSIS DATA SHEET

MR21-SD03-10B

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Laboratory:	Empirical Laboratories, LLC		SDG:	1004092	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Solid	Laboratory ID:	1004092-04	File ID:	0409204A.D
Sampled:	04/11/10 09:45	Prepared:	04/22/10 19:00	Analyzed:	05/18/10 11:20
Solids:	67.79	Preparation:	EXT_3546	Dilution:	1

Batch: 0D22016 Sequence: 0E14022 Calibration: 0110002 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-72-1	Hexachloroethane		57.5	369	U
91-57-6	2-Methylnaphthalene		51.6	369	U
95-48-7	2-Methylphenol		57.5	369	U
106-44-5	4-Methylphenol		38.4	369	U
91-20-3	Naphthalene		47.2	369	~~X~~, U
100-01-6	4-Nitroaniline		148	738	U
99-09-2	3-Nitroaniline		69.3	738	U
88-74-4	2-Nitroaniline		47.2	738	U
98-95-3	Nitrobenzene		50.2	369	U
100-02-7	4-Nitrophenol		119	738	U
88-75-5	2-Nitrophenol		32.5	369	U
86-30-6	N-Nitrosodiphenylamine		47.2	369	U
85-01-8	Phenanthrene		33.9	369	U
108-95-2	Phenol		53.1	369	U
129-00-0	Pyrene		59.0	369	U
88-06-2	2,4,6-Trichlorophenol		51.6	369	U
95-95-4	2,4,5-Trichlorophenol		39.8	738	U
532-27-4	2-Chloroacetophenone		98.8	369	U
2698-41-1	2-Chlorobenzalmalononitrile		98.8	369	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	4917	2935	59.7	45 - 105	
2-Fluorophenol	9834	6215	63.2	35 - 105	
Nitrobenzene-d5	4917	2972	60.5	35 - 100	
Phenol-d6	9834	6369	64.8	40 - 100	
Terphenyl-d14	4917	3514	71.5	30 - 125	

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MR21-SD04-10B

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Laboratory:	Empirical Laboratories, LLC		SDG:	1004092	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Solid	Laboratory ID:	1004092-05	File ID:	0409205.D
Sampled:	04/11/10 09:55	Prepared:	04/22/10 19:00	Analyzed:	05/18/10 07:32
Solids:	74.30	Preparation:	EXT_3546	Dilution:	1
Batch:	0D22016	Sequence: 0E14022	Calibration:	0110002	Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
91-94-1	3,3'-Dichlorobenzidine		41.7	336	U
83-32-9	Acenaphthene		35.0	336	U
208-96-8	Acenaphthylene		26.9	336	U
98-86-2	Acetophenone		55.2	336	U
120-12-7	Anthracene		36.3	336	U
1912-24-9	Atrazine		37.7	336	U
100-52-7	Benzaldehyde	R	74.0	336	~~U~~ BSL
191-24-2	Benzo (g,h,i) perylene	UJ	94.2	336	~~U~~ CCH
207-08-9	Benzo (k) fluoranthene		52.5	336	U
92-52-4	1,1'-Biphenyl		39.0	336	U
101-55-3	4-Bromophenyl phenyl ether		35.0	336	U
85-68-7	Butyl benzyl phthalate		40.4	336	U
105-60-2	Caprolactam		90.2	336	~~J~~, U
86-74-8	Carbazole		48.5	336	U
59-50-7	4-Chloro-3-methylphenol		37.7	336	U
106-47-8	4-Chloroaniline		64.6	336	U
111-91-1	Bis(2-chloroethoxy)methane		41.7	336	U
111-44-4	Bis(2-chloroethyl)ether		55.2	336	U
39638-32-9	Bis(2-chloroisopropyl)ether		68.6	336	U
91-58-7	2-Chloronaphthalene		43.1	336	U
95-57-8	2-Chlorophenol		55.2	336	U
7005-72-3	4-Chlorophenyl phenyl ether		41.7	336	U
218-01-9	Chrysene		41.7	336	U
132-64-9	Dibenzofuran		32.3	336	U
84-74-2	Di-n-butyl phthalate		40.4	336	U
120-83-2	2,4-Dichlorophenol		25.6	336	U
84-66-2	Diethyl phthalate		45.8	336	U
105-67-9	2,4-Dimethylphenol		28.3	336	~~J~~, U
131-11-3	Dimethylphthalate		40.4	336	U
534-52-1	4,6-Dinitro-2-methylphenol	UJ	29.6	673	~~U~~ CCH
51-28-5	2,4-Dinitrophenol	UJ	175	673	~~U~~ CCH
121-14-2	2,4-Dinitrotoluene		32.3	336	U
606-20-2	2,6-Dinitrotoluene		51.1	336	U
117-84-0	Di-n-octyl phthalate		36.3	336	U
117-81-7	Bis(2-ethylhexyl)phthalate		48.5	336	U
206-44-0	Fluoranthene		72.7	336	U
86-73-7	Fluorene		35.0	336	U
118-74-1	Hexachlorobenzene		47.1	336	U
87-68-3	Hexachlorobutadiene		44.4	336	U
77-47-4	Hexachlorocyclopentadiene		82.1	336	U

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MR21-SD04-10B

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Laboratory:	Empirical Laboratories, LLC			SDG:	1004092
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Solid	Laboratory ID:	1004092-05	File ID:	0409205.D
Sampled:	04/11/10 09:55	Prepared:	04/22/10 19:00	Analyzed:	05/18/10 07:32
Solids:	74.30	Preparation:	EXT_3546	Dilution:	1

Batch: 0D22016 Sequence: 0E14022 Calibration: 0110002 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-72-1	Hexachloroethane		52.5	336	U
91-57-6	2-Methylnaphthalene		47.1	336	U
95-48-7	2-Methylphenol		52.5	336	U
106-44-5	4-Methylphenol		35.0	336	U
91-20-3	Naphthalene		43.1	336	~~X~~, U
100-01-6	4-Nitroaniline		135	673	U
99-09-2	3-Nitroaniline		63.3	673	U
88-74-4	2-Nitroaniline		43.1	673	U
98-95-3	Nitrobenzene		45.8	336	U
100-02-7	4-Nitrophenol		109	673	U
88-75-5	2-Nitrophenol		29.6	336	U
86-30-6	N-Nitrosodiphenylamine		43.1	336	U
85-01-8	Phenanthrene		31.0	336	U
108-95-2	Phenol		48.5	336	U
129-00-0	Pyrene		53.8	336	U
88-06-2	2,4,6-Trichlorophenol		47.1	336	U
95-95-4	2,4,5-Trichlorophenol		36.3	673	U
532-27-4	2-Chloroacetophenone		90.2	336	U
2698-41-1	2-Chlorobenzalmalononitrile		90.2	336	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	4487	3143	70.1	45 - 105	
2-Fluorophenol	8973	5607	62.5	35 - 105	
Nitrobenzene-d5	4487	2842	63.3	35 - 100	
Phenol-d6	8973	6179	68.9	40 - 100	
Terphenyl-d14	4487	3123	69.6	30 - 125	

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Laboratory:	Empirical Laboratories, LLC		SDG:	1004092	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Solid	Laboratory ID:	1004092-06	File ID:	0409206.D
Sampled:	04/11/10 10:15	Prepared:	04/22/10 19:00	Analyzed:	05/18/10 08:04
Solids:	72.13	Preparation:	EXT_3546	Dilution:	1
Batch:	0D22016	Sequence: 0E14022	Calibration:	0110002	Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
91-94-1	3,3'-Dichlorobenzidine		43.0	347	U
83-32-9	Acenaphthene		36.0	347	U
208-96-8	Acenaphthylene		27.7	347	U
98-86-2	Acetophenone		56.8	347	U
120-12-7	Anthracene		37.4	347	U
1912-24-9	Atrazine		38.8	347	U
100-52-7	Benzaldehyde	R	76.2	347	~~Q, R, U~~ BSL
191-24-2	Benzo (g,h,i) perylene	UJ	97.0	347	~~X, U~~ CCH
207-08-9	Benzo (k) fluoranthene		54.1	347	U
92-52-4	1,1'-Biphenyl		40.2	347	U
101-55-3	4-Bromophenyl phenyl ether		36.0	347	U
85-68-7	Butyl benzyl phthalate		41.6	347	U
105-60-2	Caprolactam		92.9	347	~~X~~, U
86-74-8	Carbazole		49.9	347	U
59-50-7	4-Chloro-3-methylphenol		38.8	347	U
106-47-8	4-Chloroaniline		66.5	347	U
111-91-1	Bis(2-chloroethoxy)methane		43.0	347	U
111-44-4	Bis(2-chloroethyl)ether		56.8	347	U
39638-32-9	Bis(2-chloroisopropyl)ether		70.7	347	U
91-58-7	2-Chloronaphthalene		44.4	347	U
95-57-8	2-Chlorophenol		56.8	347	U
7005-72-3	4-Chlorophenyl phenyl ether		43.0	347	U
218-01-9	Chrysene		43.0	347	U
132-64-9	Dibenzofuran		33.3	347	U
84-74-2	Di-n-butyl phthalate		41.6	347	U
120-83-2	2,4-Dichlorophenol		26.3	347	U
84-66-2	Diethyl phthalate		47.1	347	U
105-67-9	2,4-Dimethylphenol		29.1	347	~~Y~~, U
131-11-3	Dimethylphthalate		41.6	347	U
534-52-1	4,6-Dinitro-2-methylphenol	UJ	30.5	693	~~X, U~~ CCH
51-28-5	2,4-Dinitrophenol	UJ	180	693	~~R, X, U~~ CCH
121-14-2	2,4-Dinitrotoluene		33.3	347	U
606-20-2	2,6-Dinitrotoluene		52.7	347	U
117-84-0	Di-n-octyl phthalate		37.4	347	U
117-81-7	Bis(2-ethylhexyl)phthalate	227	49.9	347	J
206-44-0	Fluoranthene		74.9	347	U
86-73-7	Fluorene		36.0	347	U
118-74-1	Hexachlorobenzene		48.5	347	U
87-68-3	Hexachlorobutadiene		45.7	347	U
77-47-4	Hexachlorocyclopentadiene	R	84.6	347	~~R, U~~ MSL

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MR21-SD05-10B

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Laboratory:	Empirical Laboratories, LLC			SDG:	1004092
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Solid	Laboratory ID:	1004092-06	File ID:	0409206.D
Sampled:	04/11/10 10:15	Prepared:	04/22/10 19:00	Analyzed:	05/18/10 08:04
Solids:	72.13	Preparation:	EXT_3546	Dilution:	1

Batch: 0D22016 Sequence: 0E14022 Calibration: 0110002 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-72-1	Hexachloroethane		54.1	347	U
91-57-6	2-Methylnaphthalene		48.5	347	U
95-48-7	2-Methylphenol		54.1	347	U
106-44-5	4-Methylphenol		36.0	347	U
91-20-3	Naphthalene		44.4	347	~~X~~, U
100-01-6	4-Nitroaniline		139	693	U
99-09-2	3-Nitroaniline		65.2	693	U
88-74-4	2-Nitroaniline		44.4	693	U
98-95-3	Nitrobenzene		47.1	347	~~X~~, U
100-02-7	4-Nitrophenol		112	693	U
88-75-5	2-Nitrophenol		30.5	347	U
86-30-6	N-Nitrosodiphenylamine		44.4	347	U
85-01-8	Phenanthrene		31.9	347	U
108-95-2	Phenol		49.9	347	U
129-00-0	Pyrene		55.5	347	U
88-06-2	2,4,6-Trichlorophenol		48.5	347	U
95-95-4	2,4,5-Trichlorophenol		37.4	693	U
532-27-4	2-Chloroacetophenone		92.9	347	U
2698-41-1	2-Chlorobenzalmalononitrile		92.9	347	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	4621	2533	54.8	45 - 105	
2-Fluorophenol	9242	3818	41.3	35 - 105	
Nitrobenzene-d5	4621	2372	51.3	35 - 100	
Phenol-d6	9242	4990	54.0	40 - 100	
Terphenyl-d14	4621	2772	60.0	30 - 125	

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MR21-SD06-10B 7

Laboratory:	Empirical Laboratories, LLC		SDG:	1004092	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Solid	Laboratory ID:	1004092-07	File ID:	0409207.D
Sampled:	04/11/10 10:35	Prepared:	04/22/10 19:00	Analyzed:	05/18/10 08:37
Solids:	79.00	Preparation:	EXT_3546	Dilution:	1
Batch:	0D22016	Sequence: 0E14022	Calibration:	0110002	Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
91-94-1	3,3´-Dichlorobenzidine		39.2	316	U
83-32-9	Acenaphthene		32.9	316	U
208-96-8	Acenaphthylene		25.3	316	U
98-86-2	Acetophenone		51.9	316	U
120-12-7	Anthracene		34.2	316	U
1912-24-9	Atrazine		35.4	316	U
100-52-7	Benzaldehyde	R	69.6	316	~~Q~~, ~~U~~ BSL
191-24-2	Benzo (g,h,i) perylene	UJ	88.6	316	~~X~~, ~~U~~ CCH
207-08-9	Benzo (k) fluoranthene		49.4	316	U
92-52-4	1,1'-Biphenyl		36.7	316	U
101-55-3	4-Bromophenyl phenyl ether		32.9	316	U
85-68-7	Butyl benzyl phthalate		38.0	316	U
105-60-2	Caprolactam		84.8	316	~~X~~, U
86-74-8	Carbazole		45.6	316	U
59-50-7	4-Chloro-3-methylphenol		35.4	316	U
106-47-8	4-Chloroaniline		60.8	316	U
111-91-1	Bis(2-chloroethoxy)methane		39.2	316	U
111-44-4	Bis(2-chloroethyl)ether		51.9	316	U
39638-32-9	Bis(2-chloroisopropyl)ether		64.6	316	U
91-58-7	2-Chloronaphthalene		40.5	316	U
95-57-8	2-Chlorophenol		51.9	316	U
7005-72-3	4-Chlorophenyl phenyl ether		39.2	316	U
218-01-9	Chrysene		39.2	316	U
132-64-9	Dibenzofuran		30.4	316	U
84-74-2	Di-n-butyl phthalate		38.0	316	U
120-83-2	2,4-Dichlorophenol		24.1	316	U
84-66-2	Diethyl phthalate		43.0	316	U
105-67-9	2,4-Dimethylphenol		26.6	316	~~X~~, U
131-11-3	Dimethylphthalate		38.0	316	U
534-52-1	4,6-Dinitro-2-methylphenol	UJ	27.8	633	~~X~~, ~~U~~ CCH
51-28-5	2,4-Dinitrophenol	UJ	165	633	~~X~~, ~~U~~ CCH
121-14-2	2,4-Dinitrotoluene		30.4	316	U
606-20-2	2,6-Dinitrotoluene		48.1	316	U
117-84-0	Di-n-octyl phthalate		34.2	316	U
117-81-7	Bis(2-ethylhexyl)phthalate		45.6	316	U
206-44-0	Fluoranthene		68.4	316	U
86-73-7	Fluorene		32.9	316	U
118-74-1	Hexachlorobenzene		44.3	316	U
87-68-3	Hexachlorobutadiene		41.8	316	U
77-47-4	Hexachlorocyclopentadiene		77.2	316	U

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MR21-SD06-10B

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Laboratory:	Empirical Laboratories, LLC			SDG:	1004092
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Solid	Laboratory ID:	1004092-07	File ID:	0409207.D
Sampled:	04/11/10 10:35	Prepared:	04/22/10 19:00	Analyzed:	05/18/10 08:37
Solids:	79.00	Preparation:	EXT_3546	Dilution:	1
Batch:	0D22016	Sequence:	0E14022	Calibration:	0110002	Instrument:	MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-72-1	Hexachloroethane		49.4	316	U
91-57-6	2-Methylnaphthalene		44.3	316	U
95-48-7	2-Methylphenol		49.4	316	U
106-44-5	4-Methylphenol		32.9	316	U
91-20-3	Naphthalene		40.5	316	~~X~~, U
100-01-6	4-Nitroaniline		127	633	U
99-09-2	3-Nitroaniline		59.5	633	U
88-74-4	2-Nitroaniline		40.5	633	U
98-95-3	Nitrobenzene		43.0	316	U
100-02-7	4-Nitrophenol		103	633	U
88-75-5	2-Nitrophenol		27.8	316	U
86-30-6	N-Nitrosodiphenylamine		40.5	316	U
85-01-8	Phenanthrene		29.1	316	U
108-95-2	Phenol		45.6	316	U
129-00-0	Pyrene		50.6	316	U
88-06-2	2,4,6-Trichlorophenol		44.3	316	U
95-95-4	2,4,5-Trichlorophenol		34.2	633	U
532-27-4	2-Chloroacetophenone		84.8	316	U
2698-41-1	2-Chlorobenzalmalononitrile		84.8	316	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	4219	3009	71.3	45 - 105	
2-Fluorophenol	8439	5822	69.0	35 - 105	
Nitrobenzene-d5	4219	2993	70.9	35 - 100	
Phenol-d6	8439	6320	74.9	40 - 100	
Terphenyl-d14	4219	3007	71.3	30 - 125	

dw 7/27/10

ENVIRONMENTAL
Data Services, Inc.

VOLATILE ORGANIC COMPOUNDS
USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, Area Gas Chamber, CTO-040 SDG #: 1004092

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: July 27, 2010

Laboratory: Empirical Laboratories, Nashville, Tennessee Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR21-SD01-10B	1004092-01	Soil
2	MR21-SD02-10B	1004092-02	Soil
2RE	MR21-SD02-10BRE	1004092-02RE	Soil
3	MR21-SD02D-10B	1004092-03	Soil
3RE	MR21-SD02D-10BRE	1004092-03RE	Soil
4	MR21-SD03-10B	1004092-04	Soil
5	MR21-SD04-10B	1004092-05	Soil
6	MR21-SD05-10B	1004092-06	Soil
6MS	MR21-SD05-10BMS	1004092-06MS	Soil
6MSD	MR21-SD05-10BMSD	1004092-06MSD	Soil
7	MR21-SD06-10B	1004092-07	Soil
8	MR21-TB041210	1004092-08	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 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
04/20/10	Chloromethane	27.4%	J/UJ	2RE, 3RE
	Dichlorodifluoromethane	48.8%		

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
6	Methylcyclohexane	Ok/59.3%/Ok	J/UJ
	Methyl Acetate	33.0%/Ok/87.4	
	Styrene	32.9%/24.7%/Ok	
	1,2,4-Trichlorobenzene	31.7%/26.7%/Ok	
	cis-1,3-Dichloropropene	Ok/68.2%/Ok	
	Chlorobenzene	69.4%/64.7%/Ok	
	1,2-Dichlorobenzene	53.5%/45.1%/Ok	
	1,3-Dichlorobenzene	51.2%/47.2%/Ok	
	1,4-Dichlorobenzene	51.8%/43.4%/Ok	
	Ethylbenzene	70.6%/68.9%/Ok	
	Isopropylbenzene	68.9%/Ok/Ok	
	Trichloroethene	Ok/72.6%/Ok	
	Xylenes (total)	Ok/74.3%/Ok	

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
0D18001-BLK1	Methylene Chloride	0.686	6.86	U	1, 2, 3, 4, 6, 7
	Methyl Acetate	3.37	16.85	None	All ND
0D20021-BLK1	Acetone	495	4950	U	2RE
	Methylene Chloride	239	2390	U	2RE, 3RE

Blank ID	Compound	Conc. ug/L	Action Level ug/L	Qualifier	Affected Samples
0D26022-BLK1	Methylene Chloride	1.50	15.0	None	All ND

Trip, Field, Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/kg	Qualifier	Affected Samples
MR21-TB041210	Acetone	8.03	80.3	U	5, 6, 7
MR21-EB041110-SS	Acetone	6.25	62.5	None	See TB
	Chloromethane	3.28	16.4	None	See FB
MR21-FB041010	Acetone	3.40	34.0	None	See TB
	Carbon Disulfide	0.310	1.55	U	5, 6, 7
	Chloromethane	7.16	35.8	None	All ND

Field Duplicates - Field duplicate results are summarized below.

Compound	MR21-SD02-10B ug/kg	MR21-SD02D-10B ug/kg	RPD	Qualifier
Acetone	355	368	4%	None
2-Butanone	21.7	27.8	25%	None
2-Hexanone	13.2 U	3.25	NC	None
Toluene	661	694	5%	None

Tentatively Identified Compounds (TICs) - TICs were not reported.

Compound Quantitation - Samples SD02 and SD02D exhibited acetone and toluene over the linear range of the instrument and were flagged (E) by the laboratory. The samples were diluted and reanalyzed and the dilution results for toluene should be used for reporting. The acetone was affected by blank contamination in the reanalysis for both samples so the original results for acetone should be used for reporting.

ANALYSIS DATA SHEET

MR21-SD01-10B

1

Laboratory:	Empirical Laboratories, LLC		SDG:	1004092	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Sediment	Laboratory ID:	1004092-01	File ID:	0409201.D
Sampled:	04/11/10 09:05	Prepared:	04/11/10 09:05	Analyzed:	04/19/10 00:14
Solids:	74.01	Preparation:	5035	Dilution:	1
Batch:	0D18001	Sequence: 0D11304	Calibration:	0104007	Instrument: MS-VOA4

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-64-1	Acetone	153	2.26	11.3	
71-43-2	Benzene		0.531	11.3	U
75-27-4	Bromodichloromethane		0.339	11.3	U
75-25-2	Bromoform		1.13	11.3	U
74-83-9	Bromomethane		0.813	11.3	~~X~~, U
78-93-3	2-Butanone	9.01	1.58	11.3	J
75-15-0	Carbon disulfide		1.47	11.3	U
56-23-5	Carbon tetrachloride		0.994	11.3	U
108-90-7	Chlorobenzene		0.384	11.3	U
75-00-3	Chloroethane		1.24	11.3	U
67-66-3	Chloroform		0.621	11.3	U
74-87-3	Chloromethane		0.587	11.3	U
110-82-7	Cyclohexane		0.610	11.3	U
124-48-1	Dibromochloromethane		0.384	11.3	U
96-12-8	1,2-Dibromo-3-chloropropane		1.36	5.65	U
106-93-4	1,2-Dibromoethane (EDB)		0.486	11.3	U
95-50-1	1,2-Dichlorobenzene		0.418	11.3	U
541-73-1	1,3-Dichlorobenzene		0.949	11.3	U
106-46-7	1,4-Dichlorobenzene		0.621	11.3	U
75-71-8	Dichlorodifluoromethane		1.24	11.3	U
75-34-3	1,1-Dichloroethane		0.610	11.3	U
107-06-2	1,2-Dichloroethane		0.520	11.3	U
75-35-4	1,1-Dichloroethene		1.36	11.3	U
156-59-2	cis-1,2-Dichloroethene		1.36	11.3	U
156-60-5	trans-1,2-Dichloroethene		1.24	11.3	U
78-87-5	1,2-Dichloropropane		0.520	11.3	U
10061-01-5	cis-1,3-Dichloropropene		0.565	11.3	U
10061-02-6	trans-1,3-Dichloropropene		0.362	11.3	U
100-41-4	Ethylbenzene		0.847	11.3	U
591-78-6	2-Hexanone		2.60	11.3	U
98-82-8	Isopropylbenzene		0.994	11.3	U
75-09-2	Methylene chloride	11.3 ~~1.20~~ U	0.700	11.3	~~B, J~~ MBL
79-20-9	Methyl Acetate		1.81	11.3	U
108-87-2	Methylcyclohexane		0.339	11.3	U
108-10-1	4-Methyl-2-pentanone	1.97	0.655	11.3	J
1634-04-4	Methyl t-Butyl Ether		0.362	11.3	U
100-42-5	Styrene		0.395	11.3	U
79-34-5	1,1,2,2-Tetrachloroethane		0.486	11.3	U
127-18-4	Tetrachloroethene		1.10	11.3	U
108-88-3	Toluene	26.4	0.972	11.3	

MW 7/27/10

ANALYSIS DATA SHEET

MR21-SD01-10B

Laboratory:	Empirical Laboratories, LLC			SDG:	1004092
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Sediment	Laboratory ID:	1004092-01	File ID:	0409201.D
Sampled:	04/11/10 09:05	Prepared:	04/11/10 09:05	Analyzed:	04/19/10 00:14
Solids:	74.01	Preparation:	5035	Dilution:	1

Batch: 0D18001 Sequence: 0D11304 Calibration: 0104007 Instrument: MS-VOA4

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene		0.203	11.3	U
79-00-5	1,1,2-Trichloroethane		0.395	11.3	U
71-55-6	1,1,1-Trichloroethane		1.02	11.3	U
79-01-6	Trichloroethene		0.960	11.3	U
75-69-4	Trichlorofluoromethane		1.07	11.3	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		1.89	11.3	U
75-01-4	Vinyl chloride		1.24	11.3	U
1330-20-7	Xylenes (total)		0.791	11.3	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	33.89	33.54	99.0	85 - 120	
Dibromofluoromethane	33.89	36.37	107	80 - 125	
1,2-Dichloroethane-d4	33.89	34.76	103	75 - 140	
Toluene-d8	33.89	35.20	104	85 - 115	

MW 7/27/10

ANALYSIS DATA SHEET

MR21-SD02-10B 2

Laboratory:	Empirical Laboratories, LLC		SDG:	1004092	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Solid	Laboratory ID:	1004092-02	File ID:	0409202.D
Sampled:	04/11/10 09:25	Prepared:	04/11/10 09:25	Analyzed:	04/19/10 00:45
Solids:	68.52	Preparation:	5035	Dilution:	1
Batch:	0D18001	Sequence: 0D11304	Calibration:	0104007	Instrument: MS-VOA4

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-64-1	Acetone	355 ~~355~~ J	~~2.65~~ 2.63	~~13.2~~ 13.2	~~E~~ LR
71-43-2	Benzene		0.619	13.2	U
75-27-4	Bromodichloromethane		0.395	13.2	U
75-25-2	Bromoform		1.32	13.2	U
74-83-9	Bromomethane		0.948	13.2	~~X~~, U
78-93-3	2-Butanone	21.7	1.84	13.2	
75-15-0	Carbon disulfide		1.71	13.2	U
56-23-5	Carbon tetrachloride		1.16	13.2	U
108-90-7	Chlorobenzene		0.448	13.2	U
75-00-3	Chloroethane		1.45	13.2	U
67-66-3	Chloroform		0.724	13.2	U
74-87-3	Chloromethane		0.685	13.2	U
110-82-7	Cyclohexane		0.711	13.2	U
124-48-1	Dibromochloromethane		0.448	13.2	U
96-12-8	1,2-Dibromo-3-chloropropane		1.58	6.59	U
106-93-4	1,2-Dibromoethane (EDB)		0.566	13.2	U
95-50-1	1,2-Dichlorobenzene		0.487	13.2	U
541-73-1	1,3-Dichlorobenzene		1.11	13.2	U
106-46-7	1,4-Dichlorobenzene		0.724	13.2	U
75-71-8	Dichlorodifluoromethane		1.45	13.2	U
75-34-3	1,1-Dichloroethane		0.711	13.2	U
107-06-2	1,2-Dichloroethane		0.606	13.2	U
75-35-4	1,1-Dichloroethene		1.58	13.2	U
156-59-2	cis-1,2-Dichloroethene		1.58	13.2	U
156-60-5	trans-1,2-Dichloroethene		1.45	13.2	U
78-87-5	1,2-Dichloropropane		0.606	13.2	U
10061-01-5	cis-1,3-Dichloropropene		0.659	13.2	U
10061-02-6	trans-1,3-Dichloropropene		0.421	13.2	U
100-41-4	Ethylbenzene		0.988	13.2	U
591-78-6	2-Hexanone		3.03	13.2	U
98-82-8	Isopropylbenzene		1.16	13.2	U
75-09-2	Methylene chloride	13.2 ~~1.24~~ U	0.817	13.2	~~B,J~~ MBL
79-20-9	Methyl Acetate		2.11	13.2	U
108-87-2	Methylcyclohexane		0.395	13.2	U
108-10-1	4-Methyl-2-pentanone		0.764	13.2	U
1634-04-4	Methyl t-Butyl Ether		0.421	13.2	U
100-42-5	Styrene		0.461	13.2	U
79-34-5	1,1,2,2-Tetrachloroethane		0.566	13.2	U
127-18-4	Tetrachloroethene		1.28	13.2	U
108-88-3	Toluene	661 ~~395~~ J	59.8 ~~1.13~~	695 ~~13.2~~	~~E~~

NW 7/27/10

ANALYSIS DATA SHEET

MR21-SD02-10B

2

Laboratory:	Empirical Laboratories, LLC			SDG:	1004092
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Solid	Laboratory ID:	1004092-02	File ID:	0409202.D
Sampled:	04/11/10 09:25	Prepared:	04/11/10 09:25	Analyzed:	04/19/10 00:45
Solids:	68.52	Preparation:	5035	Dilution:	1

Batch: 0D18001 Sequence: 0D11304 Calibration: 0104007 Instrument: MS-VOA4

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene		0.237	13.2	U
79-00-5	1,1,2-Trichloroethane		0.461	13.2	U
71-55-6	1,1,1-Trichloroethane		1.19	13.2	U
79-01-6	Trichloroethene		1.12	13.2	U
75-69-4	Trichlorofluoromethane		1.25	13.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		2.20	13.2	U
75-01-4	Vinyl chloride		1.45	13.2	U
1330-20-7	Xylenes (total)		0.922	13.2	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	39.51	36.39	92.1	85 - 120	
Dibromofluoromethane	39.51	41.18	104	80 - 125	
1,2-Dichloroethane-d4	39.51	39.02	98.8	75 - 140	
Toluene-d8	39.51	43.08	109	85 - 115	

NW 7/27/10

ANALYSIS DATA SHEET

MR21-SD02-10B

2RE

Laboratory:	Empirical Laboratories, LLC		SDG:	1004092	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Solid	Laboratory ID:	1004092-02RE1	File ID:	0409202D.D
Sampled:	04/11/10 09:25	Prepared:	04/20/10 14:00	Analyzed:	04/20/10 22:57
Solids:	68.52	Preparation:	5035	Dilution:	50
Batch:	0D20021	Sequence: 0D11604	Calibration:	0104007	Instrument: MS-VOA4

use original

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-64-1	Acetone	695 ~~460~~ U	139	695	~~B, J, D~~ MBL
71-43-2	Benzene		32.7	695	U
75-27-4	Bromodichloromethane		20.8	695	U
75-25-2	Bromoform		69.5	695	U
74-83-9	Bromomethane		50.0	695	U
78-93-3	2-Butanone		97.3	695	U
75-15-0	Carbon disulfide		90.3	695	U
56-23-5	Carbon tetrachloride		61.2	695	U
108-90-7	Chlorobenzene		23.6	695	U
75-00-3	Chloroethane		76.4	695	U
67-66-3	Chloroform		38.2	695	U
74-87-3	Chloromethane	UJ	36.1	695	~~Y, U~~ CCH
110-82-7	Cyclohexane		37.5	695	U
124-48-1	Dibromochloromethane		23.6	695	U
96-12-8	1,2-Dibromo-3-chloropropane		83.4	347	U
106-93-4	1,2-Dibromoethane (EDB)		29.9	695	U
95-50-1	1,2-Dichlorobenzene		25.7	695	U
541-73-1	1,3-Dichlorobenzene		58.4	695	U
106-46-7	1,4-Dichlorobenzene		38.2	695	U
75-71-8	Dichlorodifluoromethane	UJ	76.4	695	~~Y, U~~ CCH
75-34-3	1,1-Dichloroethane		37.5	695	U
107-06-2	1,2-Dichloroethane		32.0	695	U
75-35-4	1,1-Dichloroethene		83.4	695	U
156-59-2	cis-1,2-Dichloroethene		83.4	695	U
156-60-5	trans-1,2-Dichloroethene		76.4	695	U
78-87-5	1,2-Dichloropropane		32.0	695	U
10061-01-5	cis-1,3-Dichloropropene		34.7	695	U
10061-02-6	trans-1,3-Dichloropropene		22.2	695	U
100-41-4	Ethylbenzene		52.1	695	U
591-78-6	2-Hexanone		160	695	U
98-82-8	Isopropylbenzene		61.2	695	U
75-09-2	Methylene chloride	695 ~~445~~ U	43.1	695	~~B, D, J~~ MBL
79-20-9	Methyl Acetate	332	111	695	J, D
108-87-2	Methylcyclohexane		20.8	695	U
108-10-1	4-Methyl-2-pentanone		40.3	695	U
1634-04-4	Methyl t-Butyl Ether		22.2	695	U
100-42-5	Styrene		24.3	695	U
79-34-5	1,1,2,2-Tetrachloroethane		29.9	695	U
127-18-4	Tetrachloroethene		67.4	695	U
108-88-3	Toluene	661	59.8	695	~~B~~, J

exclude

KW 7/27/10

ANALYSIS DATA SHEET

MR21-SD02-10B

2RE

Laboratory:	Empirical Laboratories, LLC			SDG:	1004092
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Solid	Laboratory ID:	1004092-02RE1	File ID:	0409202D.D
Sampled:	04/11/10 09:25	Prepared:	04/20/10 14:00	Analyzed:	04/20/10 22:57
Solids:	68.52	Preparation:	5035	Dilution:	50
Batch:	0D20021	Sequence:	0D11604	Calibration:	0104007
Instrument:	MS-VOA4				

use original

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene		12.5	695	U
79-00-5	1,1,2-Trichloroethane		24.3	695	U
71-55-6	1,1,1-Trichloroethane		62.5	695	U
79-01-6	Trichloroethene		59.1	695	U
75-69-4	Trichlorofluoromethane		66.0	695	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		116	695	U
75-01-4	Vinyl chloride		76.4	695	U
1330-20-7	Xylenes (total)		48.6	695	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	41.70	45.92	110	85 - 120	
Dibromofluoromethane	41.70	43.10	103	80 - 125	
1,2-Dichloroethane-d4	41.70	42.19	101	75 - 140	
Toluene-d8	41.70	42.26	101	85 - 115	

exclude

RW 7/27/10

ANALYSIS DATA SHEET

MR21-SD02D-10B 3

Laboratory:	Empirical Laboratories, LLC		SDG:	1004092	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Solid	Laboratory ID:	1004092-03	File ID:	0409203.D
Sampled:	04/11/10 09:35	Prepared:	04/11/10 09:35	Analyzed:	04/19/10 01:15
Solids:	67.03	Preparation:	5035	Dilution:	1
Batch:	0D18001	Sequence: 0D11304	Calibration:	0104007	Instrument: MS-VOA4

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-64-1	Acetone	368 ~~368~~ J	2.57 ~~2.57~~	12.8 ~~12.8~~	~~E~~ L R
71-43-2	Benzene		0.603	12.8	U
75-27-4	Bromodichloromethane		0.385	12.8	U
75-25-2	Bromoform		1.28	12.8	U
74-83-9	Bromomethane		0.924	12.8	~~X~~, U
78-93-3	2-Butanone	27.8	1.80	12.8	
75-15-0	Carbon disulfide		1.67	12.8	U
56-23-5	Carbon tetrachloride		1.13	12.8	U
108-90-7	Chlorobenzene		0.437	12.8	U
75-00-3	Chloroethane		1.41	12.8	U
67-66-3	Chloroform		0.706	12.8	U
74-87-3	Chloromethane		0.668	12.8	U
110-82-7	Cyclohexane		0.693	12.8	U
124-48-1	Dibromochloromethane		0.437	12.8	U
96-12-8	1,2-Dibromo-3-chloropropane		1.54	6.42	U
106-93-4	1,2-Dibromoethane (EDB)		0.552	12.8	U
95-50-1	1,2-Dichlorobenzene		0.475	12.8	U
541-73-1	1,3-Dichlorobenzene		1.08	12.8	U
106-46-7	1,4-Dichlorobenzene		0.706	12.8	U
75-71-8	Dichlorodifluoromethane		1.41	12.8	U
75-34-3	1,1-Dichloroethane		0.693	12.8	U
107-06-2	1,2-Dichloroethane		0.591	12.8	U
75-35-4	1,1-Dichloroethene		1.54	12.8	U
156-59-2	cis-1,2-Dichloroethene		1.54	12.8	U
156-60-5	trans-1,2-Dichloroethene		1.41	12.8	U
78-87-5	1,2-Dichloropropane		0.591	12.8	U
10061-01-5	cis-1,3-Dichloropropene		0.642	12.8	U
10061-02-6	trans-1,3-Dichloropropene		0.411	12.8	U
100-41-4	Ethylbenzene		0.963	12.8	U
591-78-6	2-Hexanone	3.25	2.95	12.8	J
98-82-8	Isopropylbenzene		1.13	12.8	U
75-09-2	Methylene chloride	12.8 ~~0.832~~ U	0.796	12.8	~~B,L~~ MBL
79-20-9	Methyl Acetate		2.05	12.8	U
108-87-2	Methylcyclohexane		0.385	12.8	U
108-10-1	4-Methyl-2-pentanone		0.745	12.8	U
1634-04-4	Methyl t-Butyl Ether		0.411	12.8	U
100-42-5	Styrene		0.449	12.8	U
79-34-5	1,1,2,2-Tetrachloroethane		0.552	12.8	U
127-18-4	Tetrachloroethene		1.25	12.8	U
108-88-3	Toluene	694 ~~360~~	54.4 ~~1.10~~	632 ~~12.8~~	~~E~~

KW 7/27/10

ANALYSIS DATA SHEET

MR21-SD02D-10B

3

Laboratory:	Empirical Laboratories, LLC			SDG:	1004092
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Solid	Laboratory ID:	1004092-03	File ID:	0409203.D
Sampled:	04/11/10 09:35	Prepared:	04/11/10 09:35	Analyzed:	04/19/10 01:15
Solids:	67.03	Preparation:	5035	Dilution:	1

Batch: 0D18001 Sequence: 0D11304 Calibration: 0104007 Instrument: MS-VOA4

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene		0.231	12.8	U
79-00-5	1,1,2-Trichloroethane		0.449	12.8	U
71-55-6	1,1,1-Trichloroethane		1.16	12.8	U
79-01-6	Trichloroethene		1.09	12.8	U
75-69-4	Trichlorofluoromethane		1.22	12.8	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		2.14	12.8	U
75-01-4	Vinyl chloride		1.41	12.8	U
1330-20-7	Xylenes (total)		0.899	12.8	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	38.52	34.52	89.6	85 - 120	
Dibromofluoromethane	38.52	41.47	108	80 - 125	
1,2-Dichloroethane-d4	38.52	43.39	113	75 - 140	
Toluene-d8	38.52	41.19	107	85 - 115	

AW 7/27/10

3RE

ANALYSIS DATA SHEET

MR21-SD02D-10B

Laboratory:	Empirical Laboratories, LLC		SDG:	1004092	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Solid	Laboratory ID:	1004092-03RE1	File ID:	0409203D.D
Sampled:	04/11/10 09:35	Prepared:	04/20/10 14:00	Analyzed:	04/20/10 23:28
Solids:	67.03	Preparation:	5035	Dilution:	50
Batch:	0D20021	Sequence: 0D11604	Calibration:	0104007	Instrument: MS-VOA4

use original

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-64-1	Acetone		126	632	U
71-43-2	Benzene		29.7	632	U
75-27-4	Bromodichloromethane		19.0	632	U
75-25-2	Bromoform		63.2	632	U
74-83-9	Bromomethane		45.5	632	U
78-93-3	2-Butanone		88.5	632	U
75-15-0	Carbon disulfide		82.2	632	U
56-23-5	Carbon tetrachloride		55.6	632	U
108-90-7	Chlorobenzene		21.5	632	U
75-00-3	Chloroethane		69.5	632	U
67-66-3	Chloroform		34.8	632	U
74-87-3	Chloromethane	UJ	32.9	632	~~Y U~~ CCH
110-82-7	Cyclohexane		34.1	632	U
124-48-1	Dibromochloromethane		21.5	632	U
96-12-8	1,2-Dibromo-3-chloropropane		75.9	316	U
106-93-4	1,2-Dibromoethane (EDB)		27.2	632	U
95-50-1	1,2-Dichlorobenzene		23.4	632	U
541-73-1	1,3-Dichlorobenzene		53.1	632	U
106-46-7	1,4-Dichlorobenzene		34.8	632	U
75-71-8	Dichlorodifluoromethane	UJ	69.5	632	~~Y U~~ CCH
75-34-3	1,1-Dichloroethane		34.1	632	U
107-06-2	1,2-Dichloroethane		29.1	632	U
75-35-4	1,1-Dichloroethene		75.9	632	U
156-59-2	cis-1,2-Dichloroethene		75.9	632	U
156-60-5	trans-1,2-Dichloroethene		69.5	632	U
78-87-5	1,2-Dichloropropane		29.1	632	U
10061-01-5	cis-1,3-Dichloropropene		31.6	632	U
10061-02-6	trans-1,3-Dichloropropene		20.2	632	U
100-41-4	Ethylbenzene	63.7	47.4	632	J, ~~D~~
591-78-6	2-Hexanone		145	632	U
98-82-8	Isopropylbenzene		55.6	632	U
75-09-2	Methylene chloride	632 ~~501~~ U	39.2	632	~~B, D, J~~ MBL
79-20-9	Methyl Acetate	357	101	632	J, ~~D~~
108-87-2	Methylcyclohexane		19.0	632	U
108-10-1	4-Methyl-2-pentanone		36.7	632	U
1634-04-4	Methyl t-Butyl Ether		20.2	632	U
100-42-5	Styrene		22.1	632	U
79-34-5	1,1,2,2-Tetrachloroethane		27.2	632	U
127-18-4	Tetrachloroethene		61.3	632	U
108-88-3	Toluene	694	54.4	632	~~D~~

exclude

NW 7/27/10

ANALYSIS DATA SHEET

MR21-SD02D-10B

3RE

Laboratory:	Empirical Laboratories, LLC			SDG:	1004092
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Solid	Laboratory ID:	1004092-03RE1	File ID:	0409203D.D
Sampled:	04/11/10 09:35	Prepared:	04/20/10 14:00	Analyzed:	04/20/10 23:28
Solids:	67.03	Preparation:	5035	Dilution:	50
Batch:	0D20021	Sequence:	0D11604	Calibration:	0104007
Instrument:	MS-VOA4				

use ORIGINAL

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene		11.4	632	U
79-00-5	1,1,2-Trichloroethane		22.1	632	U
71-55-6	1,1,1-Trichloroethane		56.9	632	U
79-01-6	Trichloroethene		53.7	632	U
75-69-4	Trichlorofluoromethane		60.1	632	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		106	632	U
75-01-4	Vinyl chloride		69.5	632	U
1330-20-7	Xylenes (total)		44.2	632	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	37.93	38.88	103	85 - 120	
Dibromofluoromethane	37.93	39.14	103	80 - 125	
1,2-Dichloroethane-d4	37.93	36.46	96.1	75 - 140	
Toluene-d8	37.93	37.20	98.1	85 - 115	

exclude

MW 7/27/10

ANALYSIS DATA SHEET

MR21-SD03-10B 4

Laboratory:	Empirical Laboratories, LLC		SDG:	1004092	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Solid	Laboratory ID:	1004092-04	File ID:	0409204.D
Sampled:	04/11/10 09:45	Prepared:	04/11/10 09:45	Analyzed:	04/19/10 01:46
Solids:	67.79	Preparation:	5035	Dilution:	1

Batch: 0D18001 Sequence: 0D11304 Calibration: 0104007 Instrument: MS-VOA4

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-64-1	Acetone	83.9	2.39	12.0	
71-43-2	Benzene		0.563	12.0	U
75-27-4	Bromodichloromethane		0.359	12.0	U
75-25-2	Bromoform		1.20	12.0	U
74-83-9	Bromomethane		0.862	12.0	~~J~~, U
78-93-3	2-Butanone		1.68	12.0	U
75-15-0	Carbon disulfide	4.45	1.56	12.0	J
56-23-5	Carbon tetrachloride		1.05	12.0	U
108-90-7	Chlorobenzene		0.407	12.0	U
75-00-3	Chloroethane		1.32	12.0	U
67-66-3	Chloroform		0.659	12.0	U
74-87-3	Chloromethane		0.623	12.0	U
110-82-7	Cyclohexane		0.647	12.0	U
124-48-1	Dibromochloromethane		0.407	12.0	U
96-12-8	1,2-Dibromo-3-chloropropane		1.44	5.99	U
106-93-4	1,2-Dibromoethane (EDB)		0.515	12.0	U
95-50-1	1,2-Dichlorobenzene		0.443	12.0	U
541-73-1	1,3-Dichlorobenzene		1.01	12.0	U
106-46-7	1,4-Dichlorobenzene		0.659	12.0	U
75-71-8	Dichlorodifluoromethane		1.32	12.0	U
75-34-3	1,1-Dichloroethane		0.647	12.0	U
107-06-2	1,2-Dichloroethane		0.551	12.0	U
75-35-4	1,1-Dichloroethene		1.44	12.0	U
156-59-2	cis-1,2-Dichloroethene		1.44	12.0	U
156-60-5	trans-1,2-Dichloroethene		1.32	12.0	U
78-87-5	1,2-Dichloropropane		0.551	12.0	U
10061-01-5	cis-1,3-Dichloropropene		0.599	12.0	U
10061-02-6	trans-1,3-Dichloropropene		0.383	12.0	U
100-41-4	Ethylbenzene		0.898	12.0	U
591-78-6	2-Hexanone		2.75	12.0	U
98-82-8	Isopropylbenzene		1.05	12.0	U
75-09-2	Methylene chloride	12 ~~1.53~~ U	0.742	12.0	~~B~~ MBL
79-20-9	Methyl Acetate		1.92	12.0	U
108-87-2	Methylcyclohexane		0.359	12.0	U
108-10-1	4-Methyl-2-pentanone		0.694	12.0	U
1634-04-4	Methyl t-Butyl Ether		0.383	12.0	U
100-42-5	Styrene		0.419	12.0	U
79-34-5	1,1,2,2-Tetrachloroethane		0.515	12.0	U
127-18-4	Tetrachloroethene		1.16	12.0	U
108-88-3	Toluene	1.95	1.03	12.0	J

MW 7/27/10

ANALYSIS DATA SHEET

MR21-SD03-10B

4

Laboratory:	Empirical Laboratories, LLC			SDG:	1004092
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Solid	Laboratory ID:	1004092-04	File ID:	0409204.D
Sampled:	04/11/10 09:45	Prepared:	04/11/10 09:45	Analyzed:	04/19/10 01:46
Solids:	67.79	Preparation:	5035	Dilution:	1

Batch: 0D18001 Sequence: 0D11304 Calibration: 0104007 Instrument: MS-VOA4

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene		0.216	12.0	U
79-00-5	1,1,2-Trichloroethane		0.419	12.0	U
71-55-6	1,1,1-Trichloroethane		1.08	12.0	U
79-01-6	Trichloroethene		1.02	12.0	U
75-69-4	Trichlorofluoromethane		1.14	12.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		2.00	12.0	U
75-01-4	Vinyl chloride		1.32	12.0	U
1330-20-7	Xylenes (total)		0.838	12.0	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	35.92	36.51	102	85 - 120	
Dibromofluoromethane	35.92	38.43	107	80 - 125	
1,2-Dichloroethane-d4	35.92	36.23	101	75 - 140	
Toluene-d8	35.92	37.16	103	85 - 115	

MW 7/27/10

ANALYSIS DATA SHEET

MR21-SD04-10B

5

Laboratory:	Empirical Laboratories, LLC		SDG:	1004092	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Solid	Laboratory ID:	1004092-05	File ID:	0409205.D
Sampled:	04/11/10 09:55	Prepared:	04/11/10 09:55	Analyzed:	04/19/10 02:16
Solids:	74.30	Preparation:	5035	Dilution:	1
Batch:	0D18001	Sequence: 0D11304	Calibration:	0104007	Instrument: MS-VOA4

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-64-1	Acetone	28.7 U	2.31	11.6	TBL
71-43-2	Benzene		0.543	11.6	U
75-27-4	Bromodichloromethane		0.347	11.6	U
75-25-2	Bromoform		1.16	11.6	U
74-83-9	Bromomethane		0.833	11.6	~~X~~, U
78-93-3	2-Butanone		1.62	11.6	U
75-15-0	Carbon disulfide	11.6 ~~1.53~~ U	1.50	11.6	~~J~~ FBL
56-23-5	Carbon tetrachloride		1.02	11.6	U
108-90-7	Chlorobenzene		0.393	11.6	U
75-00-3	Chloroethane		1.27	11.6	U
67-66-3	Chloroform		0.636	11.6	U
74-87-3	Chloromethane		0.601	11.6	U
110-82-7	Cyclohexane		0.624	11.6	U
124-48-1	Dibromochloromethane		0.393	11.6	U
96-12-8	1,2-Dibromo-3-chloropropane		1.39	5.78	U
106-93-4	1,2-Dibromoethane (EDB)		0.497	11.6	U
95-50-1	1,2-Dichlorobenzene		0.428	11.6	U
541-73-1	1,3-Dichlorobenzene		0.971	11.6	U
106-46-7	1,4-Dichlorobenzene		0.636	11.6	U
75-71-8	Dichlorodifluoromethane		1.27	11.6	U
75-34-3	1,1-Dichloroethane		0.624	11.6	U
107-06-2	1,2-Dichloroethane		0.532	11.6	U
75-35-4	1,1-Dichloroethene		1.39	11.6	U
156-59-2	cis-1,2-Dichloroethene		1.39	11.6	U
156-60-5	trans-1,2-Dichloroethene		1.27	11.6	U
78-87-5	1,2-Dichloropropane		0.532	11.6	U
10061-01-5	cis-1,3-Dichloropropene		0.578	11.6	U
10061-02-6	trans-1,3-Dichloropropene		0.370	11.6	U
100-41-4	Ethylbenzene		0.867	11.6	U
591-78-6	2-Hexanone		2.66	11.6	U
98-82-8	Isopropylbenzene		1.02	11.6	U
75-09-2	Methylene chloride		0.717	11.6	U
79-20-9	Methyl Acetate		1.85	11.6	U
108-87-2	Methylcyclohexane		0.347	11.6	U
108-10-1	4-Methyl-2-pentanone		0.671	11.6	U
1634-04-4	Methyl t-Butyl Ether		0.370	11.6	U
100-42-5	Styrene		0.405	11.6	U
79-34-5	1,1,2,2-Tetrachloroethane		0.497	11.6	U
127-18-4	Tetrachloroethene		1.12	11.6	U
108-88-3	Toluene		0.994	11.6	U

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ANALYSIS DATA SHEET

MR21-SD04-10B

Laboratory:	Empirical Laboratories, LLC			SDG:	1004092
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Solid	Laboratory ID:	1004092-05	File ID:	0409205.D
Sampled:	04/11/10 09:55	Prepared:	04/11/10 09:55	Analyzed:	04/19/10 02:16
Solids:	74.30	Preparation:	5035	Dilution:	1

Batch: 0D18001 Sequence: 0D11304 Calibration: 0104007 Instrument: MS-VOA4

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene		0.208	11.6	U
79-00-5	1,1,2-Trichloroethane		0.405	11.6	U
71-55-6	1,1,1-Trichloroethane		1.04	11.6	U
79-01-6	Trichloroethene		0.983	11.6	U
75-69-4	Trichlorofluoromethane		1.10	11.6	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		1.93	11.6	U
75-01-4	Vinyl chloride		1.27	11.6	U
1330-20-7	Xylenes (total)		0.809	11.6	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	34.69	36.55	105	85 - 120	
Dibromofluoromethane	34.69	37.00	107	80 - 125	
1,2-Dichloroethane-d4	34.69	36.58	105	75 - 140	
Toluene-d8	34.69	34.50	99.4	85 - 115	

MW 7/27/10

ANALYSIS DATA SHEET

MR21-SD05-10B

6

Laboratory:	Empirical Laboratories, LLC		SDG:	1004092	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Solid	Laboratory ID:	1004092-06	File ID:	0409206.D
Sampled:	04/11/10 10:15	Prepared:	04/11/10 10:15	Analyzed:	04/19/10 02:47
Solids:	72.13	Preparation:	5035	Dilution:	1
Batch:	0D18001	Sequence:	0D11304	Calibration:	0104007	Instrument:	MS-VOA4

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-64-1	Acetone	40.6 ~~U~~	2.21	11.1	~~J~~BL
71-43-2	Benzene		0.520	11.1	U
75-27-4	Bromodichloromethane		0.332	11.1	U
75-25-2	Bromoform		1.11	11.1	U
74-83-9	Bromomethane		0.797	11.1	~~J~~, U
78-93-3	2-Butanone		1.55	11.1	U
75-15-0	Carbon disulfide	11.1 ~~148~~ U	1.44	11.1	~~J~~ FBL
56-23-5	Carbon tetrachloride		0.974	11.1	U
108-90-7	Chlorobenzene	UJ	0.376	11.1	~~R, U~~ MSL
75-00-3	Chloroethane		1.22	11.1	U
67-66-3	Chloroform		0.609	11.1	U
74-87-3	Chloromethane		0.576	11.1	U
110-82-7	Cyclohexane		0.598	11.1	U
124-48-1	Dibromochloromethane		0.376	11.1	U
96-12-8	1,2-Dibromo-3-chloropropane		1.33	5.54	U
106-93-4	1,2-Dibromoethane (EDB)		0.476	11.1	U
95-50-1	1,2-Dichlorobenzene	UJ	0.410	11.1	~~R, U~~ MSL
541-73-1	1,3-Dichlorobenzene	↓	0.930	11.1	~~R, U~~ ↓
106-46-7	1,4-Dichlorobenzene	↓	0.609	11.1	~~R, U~~ ↓
75-71-8	Dichlorodifluoromethane		1.22	11.1	U
75-34-3	1,1-Dichloroethane		0.598	11.1	U
107-06-2	1,2-Dichloroethane		0.509	11.1	U
75-35-4	1,1-Dichloroethene		1.33	11.1	U
156-59-2	cis-1,2-Dichloroethene		1.33	11.1	U
156-60-5	trans-1,2-Dichloroethene		1.22	11.1	U
78-87-5	1,2-Dichloropropane		0.509	11.1	U
10061-01-5	cis-1,3-Dichloropropene	UJ	0.554	11.1	~~R, U~~ MSL
10061-02-6	trans-1,3-Dichloropropene		0.354	11.1	U
100-41-4	Ethylbenzene	UJ	0.830	11.1	~~R, U~~ MSL
591-78-6	2-Hexanone		2.55	11.1	U
98-82-8	Isopropylbenzene	UJ	0.974	11.1	~~R, U~~ MSL
75-09-2	Methylene chloride	11.1 ~~2.17~~ U	0.687	11.1	~~B, J~~ MBL
79-20-9	Methyl Acetate	UJ	1.77	11.1	~~R, U~~ MSL
108-87-2	Methylcyclohexane	UJ	0.332	11.1	~~R, U~~ MSL
108-10-1	4-Methyl-2-pentanone		0.642	11.1	U
1634-04-4	Methyl t-Butyl Ether		0.354	11.1	U
100-42-5	Styrene	UJ	0.388	11.1	~~R, U~~ MSL
79-34-5	1,1,2,2-Tetrachloroethane		0.476	11.1	U
127-18-4	Tetrachloroethene		1.07	11.1	U
108-88-3	Toluene		0.952	11.1	U

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ANALYSIS DATA SHEET

MR21-SD05-10B 6

Laboratory:	Empirical Laboratories, LLC			SDG:	1004092
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Solid	Laboratory ID:	1004092-06	File ID:	0409206.D
Sampled:	04/11/10 10:15	Prepared:	04/11/10 10:15	Analyzed:	04/19/10 02:47
Solids:	72.13	Preparation:	5035	Dilution:	1

Batch: 0D18001 Sequence: 0D11304 Calibration: 0104007 Instrument: MS-VOA4

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q	
120-82-1	1,2,4-Trichlorobenzene	UJ	0.199	11.1	~~B,U~~	MSL
79-00-5	1,1,2-Trichloroethane		0.388	11.1	U	
71-55-6	1,1,1-Trichloroethane		0.997	11.1	U	
79-01-6	Trichloroethene	UJ	0.941	11.1	~~B,U~~	MSL
75-69-4	Trichlorofluoromethane		1.05	11.1	U	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		1.85	11.1	U	
75-01-4	Vinyl chloride		1.22	11.1	U	
1330-20-7	Xylenes (total)	UJ	0.775	11.1	~~B,U~~	MS

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	33.22	35.65	107	85 - 120	
Dibromofluoromethane	33.22	34.75	105	80 - 125	
1,2-Dichloroethane-d4	33.22	35.22	106	75 - 140	
Toluene-d8	33.22	35.13	106	85 - 115	

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ANALYSIS DATA SHEET

MR21-SD06-10B 7

Laboratory:	Empirical Laboratories, LLC		SDG:	1004092	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Solid	Laboratory ID:	1004092-07	File ID:	0409207.D
Sampled:	04/11/10 10:35	Prepared:	04/11/10 10:35	Analyzed:	04/19/10 03:17
Solids:	79.00	Preparation:	5035	Dilution:	1
Batch:	0D18001	Sequence:	0D11304	Calibration:	0104007
Instrument:	MS-VOA4				

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-64-1	Acetone	22.9 U	2.05	10.3	TBL
71-43-2	Benzene		0.482	10.3	U
75-27-4	Bromodichloromethane		0.308	10.3	U
75-25-2	Bromoform		1.03	10.3	U
74-83-9	Bromomethane		0.739	10.3	~~X~~, U
78-93-3	2-Butanone		1.44	10.3	U
75-15-0	Carbon disulfide	10.3 ~~1.40~~ U	1.33	10.3	~~B~~ FBL
56-23-5	Carbon tetrachloride		0.903	10.3	U
108-90-7	Chlorobenzene		0.349	10.3	U
75-00-3	Chloroethane		1.13	10.3	U
67-66-3	Chloroform		0.564	10.3	U
74-87-3	Chloromethane		0.533	10.3	U
110-82-7	Cyclohexane		0.554	10.3	U
124-48-1	Dibromochloromethane		0.349	10.3	U
96-12-8	1,2-Dibromo-3-chloropropane		1.23	5.13	U
106-93-4	1,2-Dibromoethane (EDB)		0.441	10.3	U
95-50-1	1,2-Dichlorobenzene		0.380	10.3	U
541-73-1	1,3-Dichlorobenzene		0.862	10.3	U
106-46-7	1,4-Dichlorobenzene		0.564	10.3	U
75-71-8	Dichlorodifluoromethane		1.13	10.3	U
75-34-3	1,1-Dichloroethane		0.554	10.3	U
107-06-2	1,2-Dichloroethane		0.472	10.3	U
75-35-4	1,1-Dichloroethene		1.23	10.3	U
156-59-2	cis-1,2-Dichloroethene		1.23	10.3	U
156-60-5	trans-1,2-Dichloroethene		1.13	10.3	U
78-87-5	1,2-Dichloropropane		0.472	10.3	U
10061-01-5	cis-1,3-Dichloropropene		0.513	10.3	U
10061-02-6	trans-1,3-Dichloropropene		0.328	10.3	U
100-41-4	Ethylbenzene		0.769	10.3	U
591-78-6	2-Hexanone		2.36	10.3	U
98-82-8	Isopropylbenzene		0.903	10.3	U
75-09-2	Methylene chloride	10.3 ~~0.789~~ U	0.636	10.3	~~B~~ MBL
79-20-9	Methyl Acetate		1.64	10.3	U
108-87-2	Methylcyclohexane		0.308	10.3	U
108-10-1	4-Methyl-2-pentanone		0.595	10.3	U
1634-04-4	Methyl t-Butyl Ether		0.328	10.3	U
100-42-5	Styrene		0.359	10.3	U
79-34-5	1,1,2,2-Tetrachloroethane		0.441	10.3	U
127-18-4	Tetrachloroethene		0.995	10.3	U
108-88-3	Toluene		0.882	10.3	U

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ANALYSIS DATA SHEET

MR21-SD06-10B

Laboratory:	Empirical Laboratories, LLC		SDG:	1004092	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Solid	Laboratory ID:	1004092-07	File ID:	0409207.D
Sampled:	04/11/10 10:35	Prepared:	04/11/10 10:35	Analyzed:	04/19/10 03:17
Solids:	79.00	Preparation:	5035	Dilution:	1

Batch: 0D18001 Sequence: 0D11304 Calibration: 0104007 Instrument: MS-VOA4

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene		0.185	10.3	U
79-00-5	1,1,2-Trichloroethane		0.359	10.3	U
71-55-6	1,1,1-Trichloroethane		0.923	10.3	U
79-01-6	Trichloroethene		0.872	10.3	U
75-69-4	Trichlorofluoromethane		0.974	10.3	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		1.71	10.3	U
75-01-4	Vinyl chloride		1.13	10.3	U
1330-20-7	Xylenes (total)		0.718	10.3	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	30.77	32.85	107	85 - 120	
Dibromofluoromethane	30.77	33.01	107	80 - 125	
1,2-Dichloroethane-d4	30.77	31.32	102	75 - 140	
Toluene-d8	30.77	31.26	102	85 - 115	

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ANALYSIS DATA SHEET

MR21-TB041210

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Laboratory:	Empirical Laboratories, LLC		SDG:	1004092	
Client:	CH2M Hill, Inc.		Project:	Lejeune CTO-40 UXO-21	
Matrix:	Water	Laboratory ID:	1004092-08	File ID:	0409208.D
Sampled:	04/12/10 10:00	Prepared:	04/26/10 10:24	Analyzed:	04/26/10 19:59
Solids:		Preparation:	5030B	Dilution:	1

Batch: 0D26022 Sequence: 0E12605 Calibration: 0116003 Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
67-64-1	Acetone	8.03	1.80	5.00	
71-43-2	Benzene		0.140	1.00	U
75-27-4	Bromodichloromethane		0.180	1.00	U
75-25-2	Bromoform		0.500	1.50	U
74-83-9	Bromomethane		0.320	1.00	U
78-93-3	2-Butanone		1.60	5.00	U
75-15-0	Carbon disulfide		0.260	1.00	~~X~~, U
56-23-5	Carbon tetrachloride		0.240	1.00	U
108-90-7	Chlorobenzene		0.210	1.00	U
75-00-3	Chloroethane		0.270	1.00	U
67-66-3	Chloroform		0.230	1.00	U
74-87-3	Chloromethane		0.360	1.00	U
110-82-7	Cyclohexane		0.200	1.00	U
124-48-1	Dibromochloromethane		0.180	1.00	U
96-12-8	1,2-Dibromo-3-chloropropane		0.550	1.50	U
106-93-4	1,2-Dibromoethane (EDB)		0.240	1.00	U
95-50-1	1,2-Dichlorobenzene		0.160	1.00	U
541-73-1	1,3-Dichlorobenzene		0.250	1.00	U
106-46-7	1,4-Dichlorobenzene		0.250	1.00	U
75-71-8	Dichlorodifluoromethane		0.260	1.00	~~X~~, ~~X~~, U
75-34-3	1,1-Dichloroethane		0.240	1.00	U
107-06-2	1,2-Dichloroethane		0.220	1.00	U
75-35-4	1,1-Dichloroethene		0.280	1.00	U
156-59-2	cis-1,2-Dichloroethene		0.450	1.50	U
156-60-5	trans-1,2-Dichloroethene		0.530	1.50	U
78-87-5	1,2-Dichloropropane		0.270	1.00	U
10061-01-5	cis-1,3-Dichloropropene		0.150	1.00	U
10061-02-6	trans-1,3-Dichloropropene		0.170	1.00	U
100-41-4	Ethylbenzene		0.150	1.00	U
591-78-6	2-Hexanone		0.500	5.00	U
98-82-8	Isopropylbenzene		0.150	1.00	U
75-09-2	Methylene chloride		0.270	2.00	U
79-20-9	Methyl Acetate		0.590	2.00	U
108-87-2	Methylcyclohexane		0.180	1.00	U
108-10-1	4-Methyl-2-pentanone		0.500	5.00	U
1634-04-4	Methyl t-Butyl Ether		0.250	1.00	U
100-42-5	Styrene		0.240	1.00	U
79-34-5	1,1,2,2-Tetrachloroethane		0.230	1.00	U
127-18-4	Tetrachloroethene		0.170	1.00	U
108-88-3	Toluene		0.190	1.00	U

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ANALYSIS DATA SHEET

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MR21-TB041210

Laboratory:	Empirical Laboratories, LLC			SDG:	1004092
Client:	CH2M Hill, Inc.			Project:	Lejeune CTO-40 UXO-21
Matrix:	Water	Laboratory ID:	1004092-08	File ID:	0409208.D
Sampled:	04/12/10 10:00	Prepared:	04/26/10 10:24	Analyzed:	04/26/10 19:59
Solids:		Preparation:	5030B	Dilution:	1

Batch: 0D26022 Sequence: 0E12605 Calibration: 0116003 Instrument: MS-VOA1

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	MRL	Q
120-82-1	1,2,4-Trichlorobenzene		0.280	1.00	U
79-00-5	1,1,2-Trichloroethane		0.260	1.00	U
71-55-6	1,1,1-Trichloroethane		0.290	1.00	U
79-01-6	Trichloroethene		0.500	1.50	U
75-69-4	Trichlorofluoromethane		0.250	1.00	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.330	1.00	U, X
75-01-4	Vinyl chloride		0.200	2.00	U
1330-20-7	Xylenes (total)		0.220	1.00	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	30.00	27.43	91.4	75 - 120	
Dibromofluoromethane	30.00	32.04	107	85 - 115	
1,2-Dichloroethane-d4	30.00	31.59	105	70 - 120	
Toluene-d8	30.00	31.09	104	85 - 120	

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Appendix I
MEC Intrusive Investigation Dig Sheets

TABLE 1

MEC Intrusive Investigation Results

Site UXO-21 Former D-Area Gas Chambe

MCB CamLej, North Carolina

Anomaly ID	Grid	Amplitude	Dig Date	X1	Y1	Item Group	Class	Category	Filler	Fuze	Quantity	Depth	Weight	Action Taken	Demo Req?	Item Comment
F4D9B6-00001	F4D9B6	8686.688373	3/6/2009	287275	3838278.98	Cultural Debris	Scrap	N / A	N / A	N / A	1	0	0	Left in Place	None	Previously Dug on 03/06/09. Marston Matting
F4D9B6-00002	F4D9B6	3455.232048	3/6/2009	287274.2	3838278.1	Cultural Debris	Scrap	N / A	N / A	N / A	1	0	0	Left in Place	None	Previously Dug on 03/06/09. Marston Matting.
F4D9B6-00003	F4D9B6	1322.439041	3/6/2009	287299.75	3838272.93	Cultural Debris	Scrap	N / A	N / A	N / A	8	6	10	Scrap Bin	None	Previously Dug on 03/06/09. Angle iron/wire.
F4D9B6-00004	F4D9B6	327.7398294	3/6/2009	287286	3838272.65	Cultural Debris	Scrap	N / A	N / A	N / A	1	6	1.5	Scrap Bin	None	Previously Dug on 03/06/09. Scrap / oil filter.
F4D9B6-00005	F4D9B6	105.9335109	3/6/2009	287294.65	3838274.95	QC	QC Seed	QC Seed	N / A	N / A	1	6	1	Consolidation Point	None	Previously Dug on 03/06/09. QC Seed item #4.
F4D9B6-00006	F4D9B6	90.41938648	3/6/2009	287295.75	3838273.25	Cultural Debris	Scrap	N / A	N / A	N / A	1	12	0.5	Scrap Bin	None	Previously Dug on 03/06/09. 2 ft. pipe.
F4D9B6-00007	F4D9B6	78.27973791	3/6/2009	287272.75	3838294.43	MD	Grenade	Grenade			1	2		Consolidation Point	None	Previously Dug on 03/06/09. Expended rifle Grenade.
F4D9B6-00008	F4D9B6	56.66958705	3/6/2009	287299	3838260.48	MD	Grenade	Grenade			1	4		Consolidation Point	None	Previously Dug on 03/06/09. Expended rifle Grenade.
F4D9B6-00009	F4D9B6	49.909649	3/6/2009	287272.75	3838297.86	Cultural Debris	Nail	N / A	N / A	N / A	1	0		Scrap Bin	None	Previously Dug on 03/06/09. Survey Nail.
F4D9B6-00010	F4D9B6	34.05991429	3/6/2009	287281.5	3838277.9	Cultural Debris	Scrap	N / A	N / A	N / A	1	12	15	Scrap Bin	None	Previously Dug on 03/06/09. Scrap.
F4D9B6-00011	F4D9B6	30.97137253	3/6/2009	287296	3838259.8	Cultural Debris	Scrap	N / A	N / A	N / A	1	6		Scrap Bin	None	Previously Dug on 03/06/09. Tail boom.
F4D9B6-00012	F4D9B6	26.41908482	3/6/2009	287272	3838298.44	Cultural Debris	Nail	N / A	N / A	N / A	1	0		Scrap Bin	None	Previously Dug on 03/06/09. Survey Nail.
F4D9B6-00013	F4D9B6	26.37094053	3/6/2009	287299.4	3838270.2	Cultural Debris	Wire	N / A	N / A	N / A	1	0		Scrap Bin	None	Previously Dug on 03/06/09. Wire.
F4D9B6-00014	F4D9B6	25.36987725	3/6/2009	287281	3838278.45	Cultural Debris	Scrap	N / A	N / A	N / A	1	12	15	Scrap Bin	None	Previously Dug on 03/06/09. Scrap.
F4D9B6-00015	F4D9B6	24.03664492	3/6/2009	287298.4	3838268.27	Cultural Debris	Scrap	N / A	N / A	N / A	1	0		Scrap Bin	None	Previously Dug on 03/06/09. Wire/Can.
F4D9B6-00016	F4D9B6	18.01623805	3/6/2009	287282.35	3838299.91	QC	QC Seed	QC Seed	N / A	N / A	1			Consolidation Point	None	Previously Dug on 03/06/09. QC Seed item #3.
F4D9B6-00017	F4D9B6	16.09452431	3/6/2009	287293.75	3838286	Cultural Debris	Scrap	N / A	N / A	N / A	1	12	5	Scrap Bin	None	Previously Dug on 03/06/09. Clevis.
F4D9B6-00018	F4D9B6	12.55503024	3/6/2009	287296.75	3838273.73	Cultural Debris	Scrap	N / A	N / A	N / A	1	12	0.5	Scrap Bin	None	Previously Dug on 03/06/09. 2 ft. pipe.
F4D9B6-00019	F4D9B6	10.20849713	3/6/2009	287297.15	3838278	Cultural Debris	Scrap	N / A	N / A	N / A	1	12		Scrap Bin	None	Previously Dug on 03/06/09. Box Wrench.
F4D9B6-00020	F4D9B6	10.12917182	3/6/2009	287291.25	3838282	Cultural Debris	Scrap	N / A	N / A	N / A	1	12	3	Scrap Bin	None	Previously Dug on 03/06/09. Scrap.
F4D9B6-00021	F4D9B6	9.70881197	3/6/2009	287296.75	3838274.97	Cultural Debris	Scrap	N / A	N / A	N / A	2	6		Scrap Bin	None	Previously Dug on 03/06/09. Scrap metal.
F4D9B6-00022	F4D9B6	9.268342507	3/6/2009	287293.75	3838282.52	Cultural Debris	Scrap	N / A	N / A	N / A	1	12	5	Scrap Bin	None	Previously Dug on 03/06/09. Clevis.
F4D9B6-00023	F4D9B6	9.197475507	3/6/2009	287296.5	3838283.4	Cultural Debris	Scrap	N / A	N / A	N / A	3	6		Scrap Bin	None	Previously Dug on 03/06/09. Metal bar.
F4D9B6-00024	F4D9B6	8.519490454	3/6/2009	287292.25	3838284.3	Cultural Debris	Scrap	N / A	N / A	N / A	1	12	5	Scrap Bin	None	Previously Dug on 03/06/09. Clevis.
F4D9B6-00025	F4D9B6	6.463044372	3/6/2009	287298.25	3838283.42	Cultural Debris	Scrap	N / A	N / A	N / A	3	6		Scrap Bin	None	Previously Dug on 03/06/09. Metal bar.
F4D9B6-00026	F4D9B6	5.935239667	3/6/2009	287298.25	3838267.31	Cultural Debris	Wire	N / A	N / A	N / A	2	4		Scrap Bin	None	Previously Dug on 03/06/09. Wire.
F4D9B6-00027	F4D9B6	5.462287591	3/6/2009	287296.75	3838279.36	Cultural Debris	Scrap	N / A	N / A	N / A	1	12		Scrap Bin	None	Previously Dug on 03/06/09. Box Wrench.
F4D9B6-00028	F4D9B6	5.357494611	3/6/2009	287297.5	3838288.93	Cultural Debris	Nail	N / A	N / A	N / A	1	0		Scrap Bin	None	Previously Dug on 03/06/09. Nail.
F4D9B6-00029	F4D9B6	4.740147942	3/6/2009	287296.1	3838266.1	Cultural Debris	Wire	N / A	N / A	N / A	1	4		Scrap Bin	None	Previously Dug on 03/06/09. Wire.
F4D9B6-00030	F4D9B6	4.474737988	3/6/2009	287297	3838267.21	Cultural Debris	Wire	N / A	N / A	N / A	1	4		Scrap Bin	None	Previously Dug on 03/06/09. Wire.
F4D9B6-00031	F4D9B6	4.1667938	3/6/2009	287299.75	3838269.13	Cultural Debris	Wire	N / A	N / A	N / A	1	12		Scrap Bin	None	Previously Dug on 03/06/09. Wire.
F4D9B6-00032	F4D9B6	4.123545205	3/6/2009	287294.5	3838265	Cultural Debris	Wire	N / A	N / A	N / A	1	4		Scrap Bin	None	Previously Dug on 03/06/09. Wire.
F4D9B6-00033	F4D9B6	4.003119908	3/6/2009	287290.75	3838298.44	Cultural Debris	Nail	N / A	N / A	N / A	1	0		Scrap Bin	None	Previously Dug on 03/06/09. Nail.
F4D9B6-00034	F4D9B6	3.861752456	3/6/2009	287297.1	3838287.35	Cultural Debris	Nail	N / A	N / A	N / A	1	6		Scrap Bin	None	Previously Dug on 03/06/09. Nail.
F4D9B6-00035	F4D9B6	3.545236308	3/6/2009	287296.75	3838281.46	Cultural Debris	Nail	N / A	N / A	N / A	1	8		Scrap Bin	None	Previously Dug on 03/06/09. Nail.
F4D9B6-00036	F4D9B6	3.449675254	3/6/2009	287296	3838286.17	Cultural Debris	Bolt	N / A	N / A	N / A	1	12	0.5	Scrap Bin	None	Previously Dug on 03/06/09. Bolt.
F4D9B6-00037	F4D9B6	3.267581279	3/6/2009	287269.75	3838298.44	Cultural Debris	Scrap	N / A	N / A	N / A	2	6		Scrap Bin	None	Previously Dug on 03/06/09. Small arms brass/alumn can.
F4D9B7-00001	F4D9B7	98.98054792	3/6/2009	287275	3838308	MD	Grenade	Grenade			1	6	0.5	Consolidation Point	None	Previously Dug on 03/06/09. Expended rifle Grenade body.
F4D9B7-00002	F4D9B7	55.93911787	3/6/2009	287281.4	3838310.5	Cultural Debris	Scrap	N / A	N / A	N / A	7	6	4	Scrap Bin	None	Previously Dug on 03/06/09. Railroad spike.
F4D9B7-00003	F4D9B7	49.44305843	3/6/2009	287266.75	3838347.7	Cultural Debris	Nail	N / A	N / A	N / A	3	6		Scrap Bin	None	Previously Dug on 03/06/09. Nails.
F4D9B7-00004	F4D9B7	40.40633587	3/6/2009	287262.15	3838347.7	Cultural Debris	Scrap	N / A	N / A	N / A	1	6	1	Scrap Bin	None	Previously Dug on 03/06/09. Scrap.
F4D9B7-00005	F4D9B7	39.30977591	3/6/2009	287254	3838327	Cultural Debris	Scrap	N / A	N / A	N / A	12	8	3	Scrap Bin	None	Previously Dug on 03/06/09. Pipe / small arms brass.
F4D9B7-00006	F4D9B7	38.43234496	3/6/2009	287282.5	3838311.1	Cultural Debris	Scrap	N / A	N / A	N / A	7	6	4	Scrap Bin	None	Previously Dug on 03/06/09. Railroad spike.
F4D9B7-00007	F4D9B7	32.21478649	3/6/2009	287280.25	3838304.63	Cultural Debris	Nail	N / A	N / A	N / A	1	0		Scrap Bin	None	Previously Dug on 03/06/09. Survey Nail.
F4D9B7-00008	F4D9B7	31.87959723	3/6/2009	287254.4	3838338.75	Cultural Debris	Scrap	N / A	N / A	N / A	1	0	20	Scrap Bin	None	Previously Dug on 03/06/09. Ramp.
F4D9B7-00009	F4D9B7	27.0315919	3/6/2009	287270.5	3838343.73	Cultural Debris	Nail	N / A	N / A	N / A	10	3		Scrap Bin	None	Previously Dug on 03/06/09. Nails.
F4D9B7-00010	F4D9B7	26.42792448	3/6/2009	287266.15	3838320	Cultural Debris	Nail	N / A	N / A	N / A	2	8		Scrap Bin	None	Previously Dug on 03/06/09. Survey Nail.
F4D9B7-00011	F4D9B7	26.13037387	3/6/2009	287263.75	3838335.99	Cultural Debris	Scrap	N / A	N / A	N / A	1	12	15	Scrap Bin	None	Previously Dug on 03/06/09. Scrap.
F4D9B7-00012	F4D9B7	24.28349595	3/6/2009	287261.5	3838308.09	MD	Grenade	Grenade			1	12	0.5	Consolidation Point	None	Previously Dug on 03/06/09. Expended rifle grenade body.
F4D9B7-00013	F4D9B7	22.15928393	3/6/2009	287254.75	3838340.15	Cultural Debris	Scrap	N / A	N / A	N / A	1	0	20	Scrap Bin	None	Previously Dug on 03/06/09. Ramp.
F4D9B7-00014	F4D9B7	21.10945896	3/6/2009	287263.75	3838336.68	QC	QC Seed	QC Seed	N / A	N / A	1	6	0.5	Consolidation Point	None	Previously Dug on 03/06/09. QC Seed Item #2.
F4D9B7-00015	F4D9B7	20.75269922	3/6/2009	287280.35	3838315	MD	Grenade	Tail Boom			1	3	0.5	Consolidation Point	None	Previously Dug on 03/06/09. Tail boom.
F4D9B7-00016	F4D9B7	18.731547	3/6/2009	287256.5	3838337.55	MD	Grenade	Tail Boom			1	2	0.5	Consolidation Point	None	Previously Dug on 03/06/09. Tail boom.
F4D9B7-00017	F4D9B7	18.35254541	3/6/2009	287284.15	3838303	MD	Grenade	Tail Boom			1	2	0.5	Consolidation Point	None	Previously Dug on 03/06/09. Tail boom.
F4D9B7-00018	F4D9B7	18.21923225	3/6/2009	287289.25	3838311.96	Cultural Debris	Nail	N / A	N / A	N / A	1	6		Scrap Bin	None	Previously Dug on 03/06/09. Nail.
F4D9B7-00019	F4D9B7	17.59668422	3/6/2009	287270.5	3838301.82	MD	Grenade	Tail Boom			1	6	0.5	Consolidation Point	None	Previously Dug on 03/06/09. Tail boom.
F4D9B7-00020	F4D9B7	17.24477045	3/6/2009	287269.45	3838312.8	Cultural Debris	Nail	N / A	N / A	N / A	2	3		Scrap Bin	None	Previously Dug on 03/06/09. Nails.
F4D9B7-00021	F4D9B7	16.41984411	3/6/2009	287273.3	3838300.4	MD	Grenade	Tail Boom			1	2	0.5	Consolidation Point	None	Previously Dug on 03/06/09. Tail boom.
F4D9B7-00022	F4D9B7	14.19185148	3/6/2009	287256.25	3838339.15	Cultural Debris	Scrap	N / A	N / A	N / A	1	0	20	Scrap Bin	None	Previously Dug on 03/06/09. Ramp.
F4D9B7-00023	F4D9B7	13.13600935	3/6/2009	287272	3838339.67	Cultural Debris	Nail	N / A	N / A	N / A	3	6		Scrap Bin	None	Previously Dug on 03/06/09. Nails.
F4D9B7-00024	F4D9B7	12.03223841	3/6/2009	287269	3838311.92	Cultural Debris	Nail	N / A	N / A	N / A	2	6		Scrap Bin	None	Previously Dug on 03/06/09. Nails.
F4D9B7-00025	F4D9B7	11.25248184	3/6/2009	287262.25	3838338.74	Cultural Debris	Scrap	N / A	N / A	N / A	1	6		Scrap Bin	None	Previously Dug on 03/06/09. Aluminum cans.

TABLE 1
MEC Intrusive Investigation Results
Site UXO-21 Former D-Area Gas Chambe
MCB CamLej, North Carolina

Anomaly ID	Grid	Amplitude	Dig Date	X1	Y1	Item Group	Class	Category	Filler	Fuze	Quantity	Depth	Weight	Action Taken	Demo Req?	Item Comment
F4D9B7-00026	F4D9B7	10.20968868	3/6/2009	287258.5	3838325.26	Cultural Debris	Scrap	N / A	N / A	N / A	7	2		Scrap Bin	None	Previously Dug on 03/06/09. Small arms brass/alumn can.
F4D9B7-00027	F4D9B7	9.600084229	3/6/2009	287261.5	3838349.9	Cultural Debris	Nail	N / A	N / A	N / A	1	2		Scrap Bin	None	Previously Dug on 03/06/09. Nail.
F4D9B7-00028	F4D9B7	8.928787829	3/6/2009	287259.25	3838326.13	Cultural Debris	Scrap	N / A	N / A	N / A	6	2		Scrap Bin	None	Previously Dug on 03/06/09. Spike / small arms brass.
F4D9B7-00029	F4D9B7	8.913632885	3/6/2009	287262.25	3838348.99	Cultural Debris	Nail	N / A	N / A	N / A	2	0		Scrap Bin	None	Previously Dug on 03/06/09. Nail.
F4D9B7-00030	F4D9B7	8.010545841	3/6/2009	287274.5	3838335.11	Cultural Debris	Nail	N / A	N / A	N / A	1	0		Scrap Bin	None	Previously Dug on 03/06/09. Nail.
F4D9B7-00031	F4D9B7	7.713152321	3/6/2009	287265.25	3838342.32	Cultural Debris	Nail	N / A	N / A	N / A	1	12		Scrap Bin	None	Previously Dug on 03/06/09. Nail.
F4D9B7-00032	F4D9B7	6.179896721	3/6/2009	287262.1	3838305.9	Cultural Debris	Scrap	N / A	N / A	N / A	1	6		Scrap Bin	None	Previously Dug on 03/06/09. Scrap.
F4D9B7-00033	F4D9B7	5.407890961	3/6/2009	287266	3838328.16	Cultural Debris	Nail	N / A	N / A	N / A	1	2		Scrap Bin	None	Previously Dug on 03/06/09. Nail.
F4D9B7-00034	F4D9B7	5.38951943	3/6/2009	287292.6	3838300.7	Cultural Debris	Nail	N / A	N / A	N / A	1	0		Scrap Bin	None	Previously Dug on 03/06/09. Survey Nail.
F4D9B7-00035	F4D9B7	4.913087564	3/6/2009	287257.75	3838337.57	MD	Grenade	Tail Boom			1	2	0.5	Consolidation Point	None	Previously Dug on 03/06/09. Tail boom.
F4D9B7-00036	F4D9B7	4.65951943	3/6/2009	287292.25	3838301.33	Cultural Debris	Nail	N / A	N / A	N / A	1	0		Scrap Bin	None	Previously Dug on 03/06/09. Survey Nail.
F4D9B7-00037	F4D9B7	4.613007309	3/6/2009	287267.5	3838304.19	MD	Grenade	Tail Boom			1	8	0.5	Consolidation Point	None	Previously Dug on 03/06/09. Tail boom.
F4D9B7-00038	F4D9B7	4.422079682	3/6/2009	287261.5	3838346.55	Cultural Debris	Scrap	N / A	N / A	N / A	1	6		Scrap Bin	None	Previously Dug on 03/06/09. Scrap.
F4D9B7-00039	F4D9B7	4.275006536	3/6/2009	287255.5	3838332.06	Cultural Debris	Wire	N / A	N / A	N / A	1			Scrap Bin	None	Previously Dug on 03/06/09. Wire.
F4D9B7-00040	F4D9B7	3.762701339	3/6/2009	287256.25	3838307.73	Cultural Debris	Scrap	N / A	N / A	N / A	2	0		Scrap Bin	None	Previously Dug on 03/06/09. Scrap.
F4D9B7-00041	F4D9B7	3.761375406	3/6/2009	287264.5	3838347.05	Cultural Debris	Nail	N / A	N / A	N / A	2	0		Scrap Bin	None	Previously Dug on 03/06/09. Nails.
F4D9B7-00042	F4D9B7	3.55501884	3/6/2009	287272.75	3838336.03	Cultural Debris	Nail	N / A	N / A	N / A	3	2		Scrap Bin	None	Previously Dug on 03/06/09. Nails.
F4D9B7-00043	F4D9B7	3.537826881	3/6/2009	287264.5	3838337.93	Cultural Debris	Nail	N / A	N / A	N / A	1	6		Scrap Bin	None	Previously Dug on 03/06/09. Nails.
F4D9B7-00044	F4D9B7	3.268236218	3/6/2009	287270.5	3838303.36	MD	Grenade	Tail Boom			1	12	0.5	Consolidation Point	None	Previously Dug on 03/06/09. Tail boom.
F4D9B7-00045	F4D9B7	3.262741002	3/6/2009	287270.5	3838319.52	Cultural Debris	Wire	N / A	N / A	N / A	1	3		Scrap Bin	None	Previously Dug on 03/06/09. Wire.
F4D9B7-00046	F4D9B7	3.170662377	3/6/2009	287270.5	3838302.73	MD	Grenade	Tail Boom			1	12	0.5	Consolidation Point	None	Previously Dug on 03/06/09. Tail boom.
F4D9B7-00047	F4D9B7	3.156163677	3/6/2009	287260	3838344.51	MD	Small Arms	Brass			2	0		Consolidation Point	None	Previously Dug on 03/06/09. Small arms brass.
F4D9B8-00001	F4D9B8	46.57856523	3/6/2009	287265.5	3838367	MD	Grenade		0		1	8	0.5	Consolidation Point	None	Previously Dug on 03/06/09. Expended rifle grenade body.
F4D9B8-00002	F4D9B8	45.65944966	3/6/2009	287289.9	3838371.15	QC	QC Seed	QC Seed	N / A	N / A	1	12	1	Consolidation Point	None	Previously Dug on 03/06/09. QC Seed Item #5 Geo
F4D9B8-00003	F4D9B8	41.56427945	3/6/2009	287285.15	3838383.7	QC	QC Seed	QC Seed	N / A	N / A	1	3	0.5	Consolidation Point	None	Previously Dug on 03/06/09. QC Seed Item #5
F4D9B8-00004	F4D9B8	35.77785694	3/6/2009	287285	3838357.35	Cultural Debris	Nail	N / A	N / A	N / A	1	3		Scrap Bin	None	Previously Dug on 03/06/09. Nail.
F4D9B8-00005	F4D9B8	33.75369772	3/6/2009	287272.25	3838380.55	MD	Grenade	Tail Boom			1	3	0.5	Consolidation Point	None	Previously Dug on 03/06/09. Tail boom.
F4D9B8-00006	F4D9B8	30.17984674	3/6/2009	287291.75	3838363.95	Cultural Debris	Scrap	N / A	N / A	N / A	1	0		Left in Place	None	Previously Dug on 03/06/09. Obstacle ramp.
F4D9B8-00007	F4D9B8	28.54978983	3/6/2009	287282.75	3838389.68	Cultural Debris	Scrap	N / A	N / A	N / A	1	0		Left in Place	None	Previously Dug on 03/06/09. Platform.
F4D9B8-00008	F4D9B8	26.65741538	3/6/2009	287275.75	3838356.9	Cultural Debris	Scrap	N / A	N / A	N / A	1	0		Left in Place	None	Previously Dug on 03/06/09. Bridge.
F4D9B8-00009	F4D9B8	26.27618569	3/6/2009	287285.75	3838372.89	Cultural Debris	Nail	N / A	N / A	N / A	2	0		Scrap Bin	None	Previously Dug on 03/06/09. Nails.
F4D9B8-00010	F4D9B8	19.11811124	3/6/2009	287283.5	3838359.59	Cultural Debris	Wire	N / A	N / A	N / A	2	0		Scrap Bin	None	Previously Dug on 03/06/09. Wire.
F4D9B8-00011	F4D9B8	15.5187858	3/6/2009	287285.75	3838358.47	Cultural Debris	Nail	N / A	N / A	N / A	1	3		Scrap Bin	None	Previously Dug on 03/06/09. Nail.
F4D9B8-00012	F4D9B8	15.17983111	3/6/2009	287288.75	3838358.11	Cultural Debris	Nail	N / A	N / A	N / A	2	3		Scrap Bin	None	Previously Dug on 03/06/09. Nails.
F4D9B8-00013	F4D9B8	15.09120725	3/6/2009	287296.25	3838380.3	Cultural Debris	Scrap	N / A	N / A	N / A	1			Left in Place	None	Previously Dug on 03/06/09. Wall.
F4D9B8-00014	F4D9B8	13.89568794	3/6/2009	287297.35	3838356.3	Cultural Debris	Bolt	N / A	N / A	N / A	2	12		Scrap Bin	None	Previously Dug on 03/06/09. Bolts.
F4D9B8-00015	F4D9B8	13.01819691	3/6/2009	287271.65	3838378	Cultural Debris	Wire	N / A	N / A	N / A	1	6	2	Scrap Bin	None	Previously Dug on 03/06/09. Wire.
F4D9B8-00016	F4D9B8	12.288807	3/6/2009	287285.75	3838373.65	MD	Grenade	Tail Boom			1	6	0.5	Consolidation Point	None	Previously Dug on 03/06/09. Tail boom.
F4D9B8-00017	F4D9B8	10.88437135	3/6/2009	287280.5	3838388.72	Cultural Debris	Scrap	N / A	N / A	N / A	1			Left in Place	None	Previously Dug on 03/06/09. Platform.
F4D9B8-00018	F4D9B8	10.61456939	3/6/2009	287296	3838360	Cultural Debris	Bolt	N / A	N / A	N / A	1	6		Scrap Bin	None	Previously Dug on 03/06/09. Bolt.
F4D9B8-00019	F4D9B8	9.966546495	3/6/2009	287298.75	3838357.61	Cultural Debris	Bolt	N / A	N / A	N / A	1	6		Scrap Bin	None	Previously Dug on 03/06/09. Bolt.
F4D9B8-00020	F4D9B8	9.457291607	3/6/2009	287288	3838357.36	Cultural Debris	Nail	N / A	N / A	N / A	2	6		Scrap Bin	None	Previously Dug on 03/06/09. Nail.
F4D9B8-00021	F4D9B8	7.973785915	3/6/2009	287274.9	3838363.3	Cultural Debris	Scrap	N / A	N / A	N / A	1	6	1	Scrap Bin	None	Previously Dug on 03/06/09. Scrap.
F4D9B8-00022	F4D9B8	7.689866707	3/6/2009	287295.5	3838381.72	Cultural Debris	Scrap	N / A	N / A	N / A	1			Left in Place	None	Previously Dug on 03/06/09. Wall.
F4D9B8-00023	F4D9B8	5.91866032	3/6/2009	287294.75	3838362.53	Cultural Debris	Scrap	N / A	N / A	N / A	1			Left in Place	None	Previously Dug on 03/06/09. Obstacle ramp.
F4D9B8-00024	F4D9B8	4.914844565	3/6/2009	287281.25	3838387.7	Cultural Debris	Scrap	N / A	N / A	N / A	1			Left in Place	None	Previously Dug on 03/06/09. Platform.
F4D9B8-00025	F4D9B8	4.7294752	3/6/2009	287286.85	3838357.67	Cultural Debris	Nail	N / A	N / A	N / A	2	6		Scrap Bin	None	Previously Dug on 03/06/09. Nail.
F4D9B8-00026	F4D9B8	4.711851776	3/6/2009	287278.25	3838359	Cultural Debris	Nail	N / A	N / A	N / A	1	3		Scrap Bin	None	Previously Dug on 03/06/09. Nail.
F4D9B8-00027	F4D9B8	4.417323947	3/6/2009	287295.5	3838354.96	Cultural Debris	Nail	N / A	N / A	N / A	1	6		Scrap Bin	None	Previously Dug on 03/06/09. Nail.
F4D9B8-00028	F4D9B8	4.179525101	3/6/2009	287278.25	3838371.16	Cultural Debris	Nail	N / A	N / A	N / A	1	3		Scrap Bin	None	Previously Dug on 03/06/09. Nail.
F4D9B8-00029	F4D9B8	4.095522586	3/6/2009	287287.25	3838370.67	Cultural Debris	Nail	N / A	N / A	N / A	1	0		Scrap Bin	None	Previously Dug on 03/06/09. Nail.
F4D9B8-00030	F4D9B8	3.765247572	3/6/2009	287297.75	3838381.06	Cultural Debris	Scrap	N / A	N / A	N / A	1			Left in Place	None	Previously Dug on 03/06/09. Wall.
F4D9B8-00031	F4D9B8	3.683824604	3/6/2009	287287.25	3838375.24	Cultural Debris	Nail	N / A	N / A	N / A	1	2		Scrap Bin	None	Previously Dug on 03/06/09. Nail.
F4D9B8-00032	F4D9B8	3.650056888	3/6/2009	287276.75	3838358.59	Cultural Debris	Scrap	N / A	N / A	N / A	1			Left in Place	None	Previously Dug on 03/06/09. Bridge.
F4D9B8-00033	F4D9B8	3.638004775	3/6/2009	287293.25	3838355.45	Cultural Debris	Nail	N / A	N / A	N / A	1	6		Scrap Bin	None	Previously Dug on 03/06/09. Nail.
F4D9B8-00034	F4D9B8	3.615289557	3/6/2009	287267.75	3838366.87	Cultural Debris	Nail	N / A	N / A	N / A	1	3		Scrap Bin	None	Previously Dug on 03/06/09. Nail.
F4D9B8-00035	F4D9B8	3.329673202	3/6/2009	287282.75	3838376.61	Cultural Debris	Nail	N / A	N / A	N / A	1	3		Scrap Bin	None	Previously Dug on 03/06/09. Nail.
F4D9B8-00036	F4D9B8	3.249141214	3/6/2009	287294.75	3838361.78	Cultural Debris	Scrap	N / A	N / A	N / A	1			Left in Place	None	Previously Dug on 03/06/09. Obstacle ramp.
F4D9B8-00037	F4D9B8	3.173094885	3/6/2009	287260	3838359.88	Cultural Debris	Nail	N / A	N / A	N / A	1	0		Scrap Bin	None	Previously Dug on 03/06/09. Nail.
F4D9B8-00038	F4D9B8	3.119680042	3/6/2009	287272.25	3838371.81	Cultural Debris	Scrap	N / A	N / A	N / A	3	8		Scrap Bin	None	Previously Dug on 03/06/09. Aluminum cans.
F4D9B8-00039	F4D9B8	3.070009001	3/6/2009	287274.5	3838362.26	Cultural Debris	Nail	N / A	N / A	N / A	1	0		Scrap Bin	None	Previously Dug on 03/06/09. Nail.
F4D9C5-00001	F4D9C5	68.98028057	3/6/2009	287331	3838249.63	Cultural Debris	Nail	N / A	N / A	N / A	1	0		Left in Place	None	Previously Dug on 03/06/09. Survey Nail.

TABLE 1

MEC Intrusive Investigation Results

Site UXO-21 Former D-Area Gas Chambe

MCB CamLej, North Carolina

Anomaly ID	Grid	Amplitude	Dig Date	X1	Y1	Item Group	Class	Category	Filler	Fuze	Quantity	Depth	Weight	Action Taken	Demo Req?	Item Comment
F4D9C5-00002	F4D9C5	36.82384721	3/6/2009	287341.85	3838249.5	Cultural Debris	Nail	N / A	N / A	N / A	1	0		Left in Place	None	Previously Dug on 03/06/09. Survey Nail.
F4D9C5-00003	F4D9C5	30.51518535	3/6/2009	287334	3838247.99	Cultural Debris	Scrap	N / A	N / A	N / A	1	8		Scrap Bin	None	Previously Dug on 03/06/09. Can lid.
F4D9C5-00004	F4D9C5	25.97240347	3/6/2009	287333.5	3838249.4	Cultural Debris	Wire	N / A	N / A	N / A	2	6	1	Scrap Bin	None	Previously Dug on 03/06/09. Wire.
F4D9C5-00005	F4D9C5	15.71447861	3/6/2009	287332.5	3838248.59	Cultural Debris	Wire	N / A	N / A	N / A	1	6		Scrap Bin	None	Previously Dug on 03/06/09. Wire.
F4D9C6-00001	F4D9C6	2413.301515	3/6/2009	287300.75	3838272.94	Cultural Debris	Scrap	N / A	N / A	N / A	2	6	4	Scrap Bin	None	Previously Dug on 03/06/09. Scrap.
F4D9C6-00002	F4D9C6	1546.20499	3/6/2009	287303.75	3838273	Cultural Debris	Scrap	N / A	N / A	N / A	1	6	4	Scrap Bin	None	Previously Dug on 03/06/09. Cable.
F4D9C6-00003	F4D9C6	1040.607672	3/6/2009	287311.25	3838250.39	Cultural Debris	Scrap	N / A	N / A	N / A	1	6		Left in Place	None	Previously Dug on 03/06/09. Culvert.
F4D9C6-00004	F4D9C6	423.7863025		287340.35	3838255.96	Cultural Debris	Scrap	N / A	N / A	N / A	1	0	0.5	Left in Place	None	
F4D9C6-00005	F4D9C6	289.9714095	3/6/2009	287313.5	3838252.4	Cultural Debris	Scrap	N / A	N / A	N / A	1	0		Left in Place	None	Previously Dug on 03/06/09. Culvert.
F4D9C6-00006	F4D9C6	240.9660588	3/6/2009	287307.85	3838266.64	Cultural Debris	Scrap	N / A	N / A	N / A	3	6	6	Scrap Bin	None	Previously Dug on 03/06/09. Metal bar.
F4D9C6-00007	F4D9C6	225.2071658	3/6/2009	287305	3838267.73	Cultural Debris	Scrap	N / A	N / A	N / A	2	8	2	Scrap Bin	None	Previously Dug on 03/06/09. Metal bar.
F4D9C6-00008	F4D9C6	134.5246049	10/29/2009	287336.25	3838258.92	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.5	Scrap Bin	None	
F4D9C6-00009	F4D9C6	124.0885602	3/6/2009	287305	3838266.3	Cultural Debris	Scrap	N / A	N / A	N / A	1	12	1	Scrap Bin	None	Previously Dug on 03/06/09. Metal bar.
F4D9C6-00010	F4D9C6	118.8535459	10/28/2009	287301.75	3838277.9	Cultural Debris	Scrap	N / A	N / A	N / A	5	6	3	Scrap Bin	None	
F4D9C6-00011	F4D9C6	115.9733687	10/29/2009	287345.25	3838278.22	Cultural Debris	Scrap	N / A	N / A	N / A	1	0	2	Scrap Bin	None	
F4D9C6-00012	F4D9C6	99.05338841	3/6/2009	287303	3838268.7	Cultural Debris	Scrap	N / A	N / A	N / A	3	6		Scrap Bin	None	Previously Dug on 03/06/09. Scrap.
F4D9C6-00013	F4D9C6	84.0227024	10/28/2009	287312.3	3838252.2	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	Influence from 48 inch pipe 8 ft east
F4D9C6-00014	F4D9C6	81.32342229	10/28/2009	287344.2	3838252.7	Cultural Debris	Scrap	N / A	N / A	N / A	1	6	2	Scrap Bin	None	Unknown container
F4D9C6-00015	F4D9C6	78.50340808	10/28/2009	287348.25	3838257.31	MD	Grenade	M20A1, Grenade, Rifle, Star, Clust	None (empty)	N / A	1	3	0.5	Consolidation Point	Demil	M20A1 body expended
F4D9C6-00016	F4D9C6	68.22879873	10/28/2009	287303.25	3838263.13	MD	Grenade	M20A1, Grenade, Rifle, Star, Clust	None (empty)	N / A	1	6	0.25	Consolidation Point	Demil	M20A1 rifle renade body expended
F4D9C6-00017	F4D9C6	67.02008383	10/28/2009	287334	3838261.01	Cultural Debris	Scrap	N / A	N / A	N / A	1	6	0.5	Scrap Bin	None	
F4D9C6-00018	F4D9C6	66.46384721	10/28/2009	287341.5	3838250.25	Cultural Debris	Scrap	N / A	N / A	N / A	5	12	2	Scrap Bin	None	
F4D9C6-00019	F4D9C6	49.0095654	3/6/2009	287306	3838255.36	Cultural Debris	Nail	N / A	N / A	N / A	1	0		Scrap Bin	None	Previously Dug on 03/06/09. Nail.
F4D9C6-00020	F4D9C6	42.63277398	3/6/2009	287308	3838277.81	Cultural Debris	Scrap	N / A	N / A	N / A	1	6		Scrap Bin	None	Previously Dug on 03/06/09. Scrap.
F4D9C6-00021	F4D9C6	41.84322674	3/6/2009	287306.75	3838274.73	Cultural Debris	Scrap	N / A	N / A	N / A	1	12	1	Scrap Bin	None	Previously Dug on 03/06/09. Scrap.
F4D9C6-00022	F4D9C6	41.5381365	3/6/2009	287306	3838275.6	Cultural Debris	Wire	N / A	N / A	N / A	1	3		Scrap Bin	None	Previously Dug on 03/06/09. Wire.
F4D9C6-00023	F4D9C6	37.95384721	10/28/2009	287341.7	3838251.6	Cultural Debris	Scrap	N / A	N / A	N / A	1	12	3	Scrap Bin	None	
F4D9C6-00024	F4D9C6	34.54964185	10/28/2009	287340.75	3838257.43	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	1	Scrap Bin	None	
F4D9C6-00025	F4D9C6	31.88288048	3/6/2009	287300	3838270.53	Cultural Debris	Scrap	N / A	N / A	N / A	1	8		Scrap Bin	None	Previously Dug on 03/06/09. Scrap.
F4D9C6-00026	F4D9C6	29.26563413	10/29/2009	287317.75	3838288.29	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.2	Scrap Bin	None	
F4D9C6-00027	F4D9C6	25.27313036	10/29/2009	287316.7	3838275.09	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.2	Scrap Bin	None	
F4D9C6-00028	F4D9C6	25.16083725	10/29/2009	287318.75	3838275.5	Cultural Debris	Scrap	N / A	N / A	N / A	1	12	0.5	Scrap Bin	None	Metal in tree. 2 ft west
F4D9C6-00029	F4D9C6	24.45432183	10/28/2009	287333.25	3838252.95	Cultural Debris	Scrap	N / A	N / A	N / A	1	12	0.2	Scrap Bin	None	
F4D9C6-00030	F4D9C6	24.22720107	11/1/2009	287323.1	3838261.4	Cultural Debris	Scrap	N / A	N / A	N / A	3	3	0.25	Scrap Bin	None	
F4D9C6-00031	F4D9C6	22.65154923	3/6/2009	287309.5	3838273.4	Cultural Debris	Scrap	N / A	N / A	N / A	3	6		Scrap Bin	None	Previously Dug on 03/06/09. Nails / wire / aluminum cans.
F4D9C6-00032	F4D9C6	21.41632594	10/28/2009	287341.5	3838259.4	Cultural Debris	Scrap	N / A	N / A	N / A	1	0	0.2	Scrap Bin	None	
F4D9C6-00033	F4D9C6	21.29832695	10/28/2009	287333.5	3838252.1	Cultural Debris	Scrap	N / A	N / A	N / A	5	6	0.25	Scrap Bin	None	
F4D9C6-00034	F4D9C6	20.52200604	10/29/2009	287319.2	3838296.25	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	2	Scrap Bin	None	
F4D9C6-00035	F4D9C6	17.98166358	10/28/2009	287333.25	3838261.83	Cultural Debris	Scrap	N / A	N / A	N / A	3	6	0.2	Scrap Bin	None	
F4D9C6-00036	F4D9C6	17.81200311	10/29/2009	287327.5	3838286.4	MD	Grenade	M20A1, Grenade, Rifle, Star, Clust	None (empty)	N / A	1	3	0.2	Consolidation Point	Demil	Tail boom
F4D9C6-00037	F4D9C6	17.71618946	10/28/2009	287333.15	3838271.1	MD	Grenade	M20A1, Grenade, Rifle, Star, Clust	None (empty)	N / A	1	6	0.3	Consolidation Point	Demil	Tail boom
F4D9C6-00038	F4D9C6	17.65526416	3/6/2009	287303.9	3838284.86	Cultural Debris	Scrap	N / A	N / A	N / A	1	6		Scrap Bin	None	Previously Dug on 03/06/09. Sardine Can.
F4D9C6-00039	F4D9C6	16.5734765	10/29/2009	287318.9	3838273	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.25	Scrap Bin	None	
F4D9C6-00040	F4D9C6	15.04701561	10/28/2009	287348	3838251.5	Cultural Debris	Scrap	N / A	N / A	N / A	3	6	0.25	Scrap Bin	None	
F4D9C6-00041	F4D9C6	13.74782203	10/29/2009	287319.5	3838285.47	Cultural Debris	Scrap	N / A	N / A	N / A	3	6	0.5	Scrap Bin	None	
F4D9C6-00042	F4D9C6	13.71926815	10/28/2009	287333.5	3838266.9	MD	Grenade	M20A1, Grenade, Rifle, Star, Clust	None (empty)	N / A	1	3	0.3	Consolidation Point	Demil	Tail boom
F4D9C6-00043	F4D9C6	13.47701769	3/6/2009	287315.9	3838265.14	QC	QC Seed	QC Seed	N / A	N / A	1	2		Consolidation Point	None	Previously Dug on 03/06/09. QC Seed Item #4.
F4D9C6-00044	F4D9C6	12.5876649	3/6/2009	287316.75	3838258.5	MD	Grenade	M27 A1 R1 Signal			1	2		Consolidation Point	None	Previously Dug on 03/06/09. M27 A1 Signal High Burst.
F4D9C6-00045	F4D9C6	12.22094999	3/6/2009	287311.1	3838265.9	Cultural Debris	Scrap	N / A	N / A	N / A	1	6		Scrap Bin	None	Previously Dug on 03/06/09. Scrap.
F4D9C6-00046	F4D9C6	12.21129121	10/29/2009	287318.75	3838279.3	Cultural Debris	Scrap	N / A	N / A	N / A	1	12	0.1	Scrap Bin	None	
F4D9C6-00047	F4D9C6	11.8919563	10/28/2009	287329.15	3838250.7	Cultural Debris	Scrap	N / A	N / A	N / A	2	6	0.2	Scrap Bin	None	
F4D9C6-00048	F4D9C6	11.77038838	10/28/2009	287334	3838271.52	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.2	Scrap Bin	None	
F4D9C6-00049	F4D9C6	11.67104278	10/29/2009	287311.25	3838279.71	Cultural Debris	Scrap	N / A	N / A	N / A	1	6	0.2	Scrap Bin	None	
F4D9C6-00050	F4D9C6	11.12513711	10/29/2009	287315.25	3838295.65	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.25	Scrap Bin	None	
F4D9C6-00051	F4D9C6	10.45176938	3/6/2009	287304.5	3838292.12	Cultural Debris	Scrap	N / A	N / A	N / A	1	0		Scrap Bin	None	Previously Dug on 03/06/09. Aluminum cans.
F4D9C6-00052	F4D9C6	10.31935471	10/28/2009	287349	3838254.34	Cultural Debris	Scrap	N / A	N / A	N / A	3	3	0.2	Scrap Bin	None	
F4D9C6-00053	F4D9C6	9.301027684	10/29/2009	287317.25	3838276.54	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.2	Scrap Bin	None	
F4D9C6-00054	F4D9C6	8.798366359	10/28/2009	287349.5	3838270.9	Cultural Debris	Scrap	N / A	N / A	N / A	3	3	0.2	Scrap Bin	None	
F4D9C6-00055	F4D9C6	7.718692542	10/29/2009	287309.75	3838299.14	Cultural Debris	Scrap	N / A	N / A	N / A	1	12	0.5	Scrap Bin	None	
F4D9C6-00056	F4D9C6	7.713375365	10/28/2009	287320.25	3838262.41	Cultural Debris	Scrap	N / A	N / A	N / A	1	6	0.25	Scrap Bin	None	
F4D9C6-00057	F4D9C6	7.694467946	10/28/2009	287330.65	3838259.75	Cultural Debris	Scrap	N / A	N / A	N / A	2	6	0.25	Scrap Bin	None	
F4D9C6-00058	F4D9C6	7.678415759	10/29/2009	287316.75	3838273.7	Cultural Debris	Scrap	N / A	N / A	N / A	1	6	0.25	Scrap Bin	None	

TABLE 1

MEC Intrusive Investigation Results

Site UXO-21 Former D-Area Gas Chambe

MCB CamLej, North Carolina

Anomaly ID	Grid	Amplitude	Dig Date	X1	Y1	Item Group	Class	Category	Filler	Fuze	Quantity	Depth	Weight	Action Taken	Demo Req?	Item Comment
F4D9C6-00059	F4D9C6	7.541623685	10/28/2009	287346.75	3838253.59	Cultural Debris	Scrap	N / A	N / A	N / A	3	3	0.25	Scrap Bin	None	
F4D9C6-00060	F4D9C6	7.530618708	10/29/2009	287329.5	3838295.71	Cultural Debris	Scrap	N / A	N / A	N / A	2	12	0.5	Scrap Bin	None	
F4D9C6-00061	F4D9C6	7.235933994	10/29/2009	287321	3838263.29	MD	Grenade	M20A1, Grenade, Rifle, Star, Clust	None (empty)	N / A	1	3	0.3	Consolidation Point	Demil	Tail boom
F4D9C6-00062	F4D9C6	7.057747369	10/29/2009	287311.5	3838280.48	Cultural Debris	Scrap	N / A	N / A	N / A	1	6	0.2	Scrap Bin	None	
F4D9C6-00063	F4D9C6	6.948167974	10/29/2009	287347.5	3838254.15	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.2	Scrap Bin	None	
F4D9C6-00064	F4D9C6	6.74126307	11/1/2009	287312	3838276.95	Cultural Debris	Scrap	N / A	N / A	N / A	3	6	0.2	Scrap Bin	None	
F4D9C6-00065	F4D9C6	6.481415007	10/29/2009	287334	3838250.99	Cultural Debris	Scrap	N / A	N / A	N / A	1	6	0.2	Scrap Bin	None	
F4D9C6-00066	F4D9C6	6.078791792	10/29/2009	287310.5	3838298.29	Cultural Debris	Scrap	N / A	N / A	N / A	2	6	0.5	Scrap Bin	None	
F4D9C6-00067	F4D9C6	5.961442093	10/29/2009	287332.5	3838256.29	Cultural Debris	Scrap	N / A	N / A	N / A	1	6	0.25	Scrap Bin	None	
F4D9C6-00068	F4D9C6	5.837512527	10/29/2009	287343.75	3838278.65	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	
F4D9C6-00069	F4D9C6	5.769626754	3/6/2009	287300	3838260.68	Cultural Debris	Scrap	N / A	N / A	N / A	2	6		Scrap Bin	None	Previously Dug on 03/06/09. Small arms brass.
F4D9C6-00070	F4D9C6	5.054638402	3/6/2009	287300	3838268.98	Cultural Debris	Scrap	N / A	N / A	N / A	1	12		Scrap Bin	None	Previously Dug on 03/06/09. Scrap.
F4D9C6-00071	F4D9C6	4.806425822	11/1/2009	287313.5	3838272.72	Cultural Debris	Scrap	N / A	N / A	N / A	1	6	0.25	Scrap Bin	None	
F4D9C6-00072	F4D9C6	4.662274991	3/6/2009	287300.75	3838294.31	Cultural Debris	Scrap	N / A	N / A	N / A	1	6	15	Left in Place	None	Previously Dug on 03/06/09. Heavy braided cable. Cut off 1m from flag.
F4D9C6-00073	F4D9C6	4.574699741	11/1/2009	287310.5	3838275.71	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.25	Scrap Bin	None	
F4D9C6-00074	F4D9C6	4.522741876	10/29/2009	287317.25	3838277.89	Cultural Debris	Scrap	N / A	N / A	N / A	5	12	0.2	Scrap Bin	None	
F4D9C6-00075	F4D9C6	4.489780261	10/29/2009	287310.5	3838281.23	Cultural Debris	Scrap	N / A	N / A	N / A	1	6	0.2	Scrap Bin	None	
F4D9C6-00076	F4D9C6	4.45566344	10/29/2009	287315.75	3838281.52	MD	Grenade	M20A1, Grenade, Rifle, Star, Clust	None (empty)	N / A	1	3	0.25	Consolidation Point	Demil	M20A1 rifle grenade body expended
F4D9C6-00077	F4D9C6	4.375165346	10/29/2009	287343.25	3838268.64	MD	Grenade	M20A1, Grenade, Rifle, Star, Clust	None (empty)	N / A	1	6	0.25	Consolidation Point	Demil	M20A1 rifle grenade tail boom
F4D9C6-00078	F4D9C6	4.284726339	10/28/2009	287325.75	3838251.17	Cultural Debris	Scrap	N / A	N / A	N / A	10	9	0.25	Scrap Bin	None	
F4D9C6-00079	F4D9C6	4.191811235	10/29/2009	287321.75	3838285.91	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	
F4D9C6-00080	F4D9C6	4.132750638	10/28/2009	287349.75	3838250.02	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.1	Scrap Bin	None	
F4D9C6-00081	F4D9C6	3.966851019	10/29/2009	287344.5	3838282.26	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.25	Scrap Bin	None	
F4D9C6-00082	F4D9C6	3.958603034	10/28/2009	287323.25	3838254.08	Cultural Debris	Scrap	N / A	N / A	N / A	3	6	0.2	Scrap Bin	None	
F4D9C6-00083	F4D9C6	3.945309252	10/28/2009	287312	3838258.54	Cultural Debris	Scrap	N / A	N / A	N / A	2	6	0.2	Scrap Bin	None	
F4D9C6-00084	F4D9C6	3.901337322	10/29/2009	287317.25	3838280.86	Cultural Debris	Scrap	N / A	N / A	N / A	2	6	0.2	Scrap Bin	None	
F4D9C6-00085	F4D9C6	3.895670823	10/29/2009	287318	3838263.76	Cultural Debris	Scrap	N / A	N / A	N / A	3	6	0.2	Scrap Bin	None	
F4D9C6-00086	F4D9C6	3.840821614	10/29/2009	287311.25	3838296.85	Cultural Debris	Scrap	N / A	N / A	N / A	1	0	0.5	Scrap Bin	None	
F4D9C6-00087	F4D9C6	3.723308267	10/29/2009	287320.6	3838267	Cultural Debris	Scrap	N / A	N / A	N / A	5	2	0.2	Scrap Bin	None	
F4D9C6-00088	F4D9C6	3.588503112	10/29/2009	287315.75	3838273.02	Cultural Debris	Scrap	N / A	N / A	N / A	1	6	0.2	Scrap Bin	None	
F4D9C6-00089	F4D9C6	3.431659223	10/29/2009	287343.75	3838296.73	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	
F4D9C6-00090	F4D9C6	3.397804542	10/29/2009	287306	3838293.81	Cultural Debris	Scrap	N / A	N / A	N / A	3	6	0.2	Scrap Bin	None	
F4D9C6-00091	F4D9C6	3.385946833	3/6/2009	287307.5	3838270.66	Cultural Debris	Nail	N / A	N / A	N / A	1	6		Scrap Bin	None	Previously Dug on 03/06/09. Nail.
F4D9C6-00092	F4D9C6	3.176007842	3/6/2009	287303	3838287.36	Cultural Debris	Nail	N / A	N / A	N / A	1	6		Scrap Bin	None	Previously Dug on 03/06/09. Nail.
F4D9C6-00093	F4D9C6	3.156285701	10/29/2009	287345.25	3838298.92	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	
F4D9C6-00094	F4D9C6	3.148528008	10/29/2009	287320.25	3838287.38	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.2	Scrap Bin	None	
F4D9C7-00001	F4D9C7	753.1927392	10/28/2009	287340.75	3838333.71	Cultural Debris	Scrap	N / A	N / A	N / A	1	0	0.5	Scrap Bin	None	
F4D9C7-00002	F4D9C7	138.1859321	10/28/2009	287322.75	3838346.4	Cultural Debris	Scrap	N / A	N / A	N / A	1	6	2	Scrap Bin	None	
F4D9C7-00003	F4D9C7	89.01091578	10/28/2009	287332.5	3838326.8	Cultural Debris	Scrap	N / A	N / A	N / A	1	0	2	Scrap Bin	None	
F4D9C7-00004	F4D9C7	75.33387883	10/28/2009	287330.75	3838330.3	MD	Grenade	M20A1, Grenade, Rifle, Star, Clust	None (empty)	N / A	1	1	0.25	Consolidation Point	Demil	Tail boom
F4D9C7-00005	F4D9C7	48.27192884	10/28/2009	287325	3838345.38	Cultural Debris	Scrap	N / A	N / A	N / A	5	12	0.5	Scrap Bin	None	
F4D9C7-00006	F4D9C7	45.43009566	10/28/2009	287325.5	3838343.35	Cultural Debris	Scrap	N / A	N / A	N / A	1	12	0.75	Scrap Bin	None	
F4D9C7-00007	F4D9C7	35.55193095	10/28/2009	287323.75	3838348.2	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.5	Scrap Bin	None	
F4D9C7-00008	F4D9C7	33.98792468	10/28/2009	287325.4	3838347.53	Cultural Debris	Scrap	N / A	N / A	N / A	1	12	2	Scrap Bin	None	
F4D9C7-00009	F4D9C7	33.36794046	10/28/2009	287331	3838335.58	Cultural Debris	Scrap	N / A	N / A	N / A	1	6	1	Scrap Bin	None	
F4D9C7-00010	F4D9C7	32.32390139	11/1/2009	287329.5	3838343.75	Cultural Debris	Scrap	N / A	N / A	N / A	5	6	0.5	Scrap Bin	None	
F4D9C7-00011	F4D9C7	30.05506525	10/28/2009	287325.75	3838346.36	Cultural Debris	Scrap	N / A	N / A	N / A	5	3	0.5	Scrap Bin	None	
F4D9C7-00012	F4D9C7	25.23297688	10/27/2009	287313.75	3838332.77	MD	Grenade	M20A1, Grenade, Rifle, Star, Clust	None (empty)	N / A	1	3	0.25	Consolidation Point	Demil	Rifle gremade tail boom
F4D9C7-00013	F4D9C7	19.88261257	10/28/2009	287328.75	3838342.81	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.25	Scrap Bin	None	
F4D9C7-00014	F4D9C7	19.81469164	10/27/2009	287323	3838349.8	Cultural Debris	Scrap	N / A	N / A	N / A	10	3	0.5	Scrap Bin	None	
F4D9C7-00015	F4D9C7	17.52424008	10/28/2009	287334.35	3838349.34	MD	Grenade	M20A1, Grenade, Rifle, Star, Clust	None (empty)	N / A	1	6	0.25	Consolidation Point	Demil	M20A1 rifle grenade
F4D9C7-00016	F4D9C7	17.25688794	10/29/2009	287310.2	3838300.7	Cultural Debris	Scrap	N / A	N / A	N / A	1	24	20	Scrap Bin	None	
F4D9C7-00017	F4D9C7	17.12632281	10/28/2009	287328.75	3838341.73	Cultural Debris	Scrap	N / A	N / A	N / A	1	6	0.25	Scrap Bin	None	
F4D9C7-00018	F4D9C7	15.8658267	10/28/2009	287327.25	3838341.12	Cultural Debris	Scrap	N / A	N / A	N / A	1	6	0.25	Scrap Bin	None	
F4D9C7-00019	F4D9C7	14.90843268	10/28/2009	287327.6	3838342.28	Cultural Debris	Scrap	N / A	N / A	N / A	1	6	0.5	Scrap Bin	None	
F4D9C7-00020	F4D9C7	14.39030389	10/28/2009	287332.5	3838331.3	Cultural Debris	Scrap	N / A	N / A	N / A	1	12	0.5	Scrap Bin	None	
F4D9C7-00021	F4D9C7	12.82420474	10/27/2009	287304.45	3838347.8	Cultural Debris	Scrap	N / A	N / A	N / A	1	6	0.25	Scrap Bin	None	
F4D9C7-00022	F4D9C7	10.94305183	10/28/2009	287329.5	3838345.67	Cultural Debris	Scrap	N / A	N / A	N / A	1	6	0.5	Scrap Bin	None	
F4D9C7-00023	F4D9C7	10.88447328	10/28/2009	287332.5	3838336.19	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.25	Scrap Bin	None	
F4D9C7-00024	F4D9C7	9.960905101	10/28/2009	287332.9	3838330	Cultural Debris	Scrap	N / A	N / A	N / A	1	12	0.5	Scrap Bin	None	
F4D9C7-00025	F4D9C7	8.643197928	10/27/2009	287305.1	3838348.4	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.25	Scrap Bin	None	
F4D9C7-00026	F4D9C7	8.272137233	10/28/2009	287329.25	3838339.4	Cultural Debris	Scrap	N / A	N / A	N / A	1	0	0.25	Scrap Bin	None	

TABLE 1
MEC Intrusive Investigation Results
Site UXO-21 Former D-Area Gas Chambe
MCB CamLej, North Carolina

Anomaly ID	Grid	Amplitude	Dig Date	X1	Y1	Item Group	Class	Category	Filler	Fuze	Quantity	Depth	Weight	Action Taken	Demo Req?	Item Comment
F4D9C7-00027	F4D9C7	7.893492654	10/28/2009	287324.25	3838343.95	Cultural Debris	Scrap	N / A	N / A	N / A	3	6	0.25	Scrap Bin	None	
F4D9C7-00028	F4D9C7	7.741492163	10/28/2009	287327.65	3838344	Cultural Debris	Scrap	N / A	N / A	N / A	3	3	0.25	Scrap Bin	None	
F4D9C7-00029	F4D9C7	7.538503006	10/28/2009	287331	3838331.61	Cultural Debris	Scrap	N / A	N / A	N / A	1	6	0.25	Scrap Bin	None	
F4D9C7-00030	F4D9C7	6.863702908	10/28/2009	287328	3838347.09	Cultural Debris	Scrap	N / A	N / A	N / A	3	3	0.25	Scrap Bin	None	
F4D9C7-00031	F4D9C7	6.296438393	10/28/2009	287322	3838347.52	Cultural Debris	Scrap	N / A	N / A	N / A	3	6	0.25	Scrap Bin	None	
F4D9C7-00032	F4D9C7	6.292715448	10/28/2009	287331	3838334.42	Cultural Debris	Scrap	N / A	N / A	N / A	1	6	0.25	Scrap Bin	None	
F4D9C7-00033	F4D9C7	5.831658826	10/28/2009	287327.25	3838349.28	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.25	Scrap Bin	None	
F4D9C7-00034	F4D9C7	4.887051774	10/28/2009	287329.5	3838338.06	Cultural Debris	Scrap	N / A	N / A	N / A	2	6	0.2	Scrap Bin	None	
F4D9C7-00035	F4D9C7	4.506832159	10/28/2009	287322.75	3838325.39	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	
F4D9C7-00036	F4D9C7	4.196451701	10/27/2009	287318.25	3838334.54	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.25	Scrap Bin	None	
F4D9C7-00037	F4D9C7	3.920233581	10/28/2009	287336.65	3838328.4	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.25	Scrap Bin	None	
F4D9C7-00038	F4D9C7	3.755725004	10/27/2009	287313.75	3838336.47	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	
F4D9C7-00039	F4D9C7	3.566947242	11/1/2009	287304.75	3838344.97	Cultural Debris	Scrap	N / A	N / A	N / A	4	3	0.2	Scrap Bin	None	
F4D9C7-00040	F4D9C7	3.558840803	10/29/2009	287333.65	3838307.12	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	
F4D9C7-00041	F4D9C7	3.484669826	10/28/2009	287343	3838339.58	Cultural Debris	Scrap	N / A	N / A	N / A	3	6	0.2	Scrap Bin	None	
F4D9C7-00042	F4D9C7	3.467363542	10/28/2009	287327.25	3838339.85	Cultural Debris	Scrap	N / A	N / A	N / A	4	6	0.2	Scrap Bin	None	
F4D9C7-00043	F4D9C7	3.29228161	10/28/2009	287332.5	3838334.7	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.1	Scrap Bin	None	
F4D9C7-00044	F4D9C7	3.149779354	10/27/2009	287318.25	3838335.28	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	
F4D9C7-00045	F4D9C7	3.124881292	10/28/2009	287325	3838339.95	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.1	Scrap Bin	None	
F4D9C8-00001	F4D9C8	699.4403661	10/27/2009	287308	3838397.2	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	40	Scrap Bin	None	
F4D9C8-00002	F4D9C8	132.3311077	10/27/2009	287325	3838354.63	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	Nails in ramp 1ft N
F4D9C8-00003	F4D9C8	115.0308146	10/27/2009	287321.25	3838379.17	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	2	Scrap Bin	None	
F4D9C8-00004	F4D9C8	88.67676431	10/27/2009	287342	3838380.2	QC	QC Seed	QC Seed	N / A	N / A	1	3	0.5	Consolidation Point	None	QC Seed #2
F4D9C8-00005	F4D9C8	80.85145849	10/27/2009	287324.25	3838390.87	Cultural Debris	Scrap	N / A	N / A	N / A	1	6	0.75	Scrap Bin	None	
F4D9C8-00006	F4D9C8	58.0778611	10/27/2009	287325.75	3838390.58	Cultural Debris	Scrap	N / A	N / A	N / A	1	6	0.75	Scrap Bin	None	
F4D9C8-00007	F4D9C8	50.58871973	10/27/2009	287304.4	3838353.05	MD	Grenade	M20A1, Grenade, Rifle, Star, Clust	None (empty)	N / A	1	3	0.25	Consolidation Point	Demil	M20A1 rifle grenade
F4D9C8-00008	F4D9C8	40.08947413	10/27/2009	287312.25	3838395.19	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.75	Scrap Bin	None	
F4D9C8-00009	F4D9C8	30.61133392	10/27/2009	287320.8	3838353.25	Cultural Debris	Scrap	N / A	N / A	N / A	6	3	0.5	Scrap Bin	None	
F4D9C8-00010	F4D9C8	25.53406209	10/27/2009	287320.5	3838377.7	Cultural Debris	Scrap	N / A	N / A	N / A	4	3	2	Scrap Bin	None	
F4D9C8-00011	F4D9C8	23.99793437	10/27/2009	287322	3838386.48	Cultural Debris	Scrap	N / A	N / A	N / A	1	0	0.25	Scrap Bin	None	
F4D9C8-00012	F4D9C8	22.19419379	10/28/2009	287326	3838352.3	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.25	Scrap Bin	None	
F4D9C8-00013	F4D9C8	16.22076975	10/27/2009	287322	3838351.13	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.5	Scrap Bin	None	
F4D9C8-00014	F4D9C8	14.61812299	10/27/2009	287326.5	3838370.55	Cultural Debris	Scrap	N / A	N / A	N / A	5	6	0.5	Scrap Bin	None	
F4D9C8-00015	F4D9C8	14.60913568	10/28/2009	287334.2	3838357.95	Cultural Debris	Scrap	N / A	N / A	N / A	3	3	0.2	Scrap Bin	None	
F4D9C8-00016	F4D9C8	14.16102939	10/27/2009	287319	3838374.72	Cultural Debris	Scrap	N / A	N / A	N / A	3	6	0.5	Scrap Bin	None	
F4D9C8-00017	F4D9C8	13.83206294	10/27/2009	287301.75	3838362.52	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.5	Scrap Bin	None	
F4D9C8-00018	F4D9C8	13.00964443	10/27/2009	287349	3838355.9	Cultural Debris	Scrap	N / A	N / A	N / A	5	3	0.5	Scrap Bin	None	
F4D9C8-00019	F4D9C8	12.93413295	11/1/2009	287323.2	3838350.87	Cultural Debris	Scrap	N / A	N / A	N / A	2	3	0.5	Scrap Bin	None	
F4D9C8-00020	F4D9C8	12.92503668	10/27/2009	287320.8	3838365.2	MD	Grenade	M20A1, Grenade, Rifle, Star, Clust	None (empty)	N / A	1	3	0.25	Consolidation Point	Demil	M20A1 tail boom
F4D9C8-00021	F4D9C8	12.54564685	10/27/2009	287301.2	3838363.14	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.5	Scrap Bin	None	
F4D9C8-00022	F4D9C8	11.96938388	10/27/2009	287320.65	3838350.35	Cultural Debris	Scrap	N / A	N / A	N / A	3	3	0.25	Scrap Bin	None	
F4D9C8-00023	F4D9C8	10.75952407	10/27/2009	287323.5	3838391.64	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.1	Scrap Bin	None	
F4D9C8-00024	F4D9C8	10.45114013	10/27/2009	287322.3	3838389.4	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.25	Scrap Bin	None	
F4D9C8-00025	F4D9C8	9.750565802	10/27/2009	287328	3838367.9	Cultural Debris	Scrap	N / A	N / A	N / A	3	3	0.2	Scrap Bin	None	
F4D9C8-00026	F4D9C8	9.045376818	10/27/2009	287322.75	3838380.78	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.25	Scrap Bin	None	
F4D9C8-00027	F4D9C8	8.23356097	10/27/2009	287330.8	3838370.51	Cultural Debris	Scrap	N / A	N / A	N / A	3	3	0.2	Scrap Bin	None	
F4D9C8-00028	F4D9C8	7.89777565	10/27/2009	287328.75	3838367.22	Cultural Debris	Scrap	N / A	N / A	N / A	3	6	0.2	Scrap Bin	None	
F4D9C8-00029	F4D9C8	7.858147495	10/27/2009	287320.85	3838380.26	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.25	Scrap Bin	None	
F4D9C8-00030	F4D9C8	7.827041306	11/1/2009	287319	3838353	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.25	Scrap Bin	None	
F4D9C8-00031	F4D9C8	6.998473657	10/27/2009	287326.75	3838368.5	Cultural Debris	Scrap	N / A	N / A	N / A	4	6	0.25	Scrap Bin	None	
F4D9C8-00032	F4D9C8	6.985015308	11/1/2009	287318	3838352.29	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.25	Scrap Bin	None	
F4D9C8-00033	F4D9C8	6.635670507	10/27/2009	287327.25	3838355.69	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	Nails in ramp 2ft S
F4D9C8-00034	F4D9C8	6.597674987	10/28/2009	287349.5	3838353.5	Cultural Debris	Scrap	N / A	N / A	N / A	1	1	0.1	Scrap Bin	None	
F4D9C8-00035	F4D9C8	6.429835152	10/27/2009	287322	3838375.6	Cultural Debris	Scrap	N / A	N / A	N / A	5	6	0.25	Scrap Bin	None	
F4D9C8-00036	F4D9C8	5.863752486	10/27/2009	287334.75	3838369.83	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	
F4D9C8-00037	F4D9C8	5.725035867	10/28/2009	287348.25	3838355.19	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.1	Scrap Bin	None	
F4D9C8-00038	F4D9C8	5.596583974	10/27/2009	287324.25	3838359.44	Cultural Debris	Scrap	N / A	N / A	N / A	4	0	0.1	Scrap Bin	None	Nails in ramp 2ftNE
F4D9C8-00039	F4D9C8	5.553269456	10/27/2009	287332.5	3838365.46	Cultural Debris	Scrap	N / A	N / A	N / A	3	6	0.2	Scrap Bin	None	
F4D9C8-00040	F4D9C8	5.299835152	10/27/2009	287322	3838369.2	Cultural Debris	Scrap	N / A	N / A	N / A	5	6	0.25	Scrap Bin	None	
F4D9C8-00041	F4D9C8	5.202527949	10/27/2009	287333.25	3838381.92	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	
F4D9C8-00042	F4D9C8	5.104029548	10/28/2009	287341.1	3838354.3	Cultural Debris	Scrap	N / A	N / A	N / A	1	0	0.1	Scrap Bin	None	
F4D9C8-00043	F4D9C8	4.572222822	10/27/2009	287327.25	3838358.21	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	Nails in ramp 2ft S

TABLE 1
MEC Intrusive Investigation Results
Site UXO-21 Former D-Area Gas Chambe
MCB CamLej, North Carolina

Anomaly ID	Grid	Amplitude	Dig Date	X1	Y1	Item Group	Class	Category	Filler	Fuze	Quantity	Depth	Weight	Action Taken	Demo Req?	Item Comment
F4D9C8-00044	F4D9C8	4.398909012	10/27/2009	287303.25	3838369.04	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	
F4D9C8-00045	F4D9C8	4.295027771	10/27/2009	287343	3838374.05	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	
F4D9C8-00046	F4D9C8	4.185047925	10/27/2009	287313	3838397.83	Cultural Debris	Scrap	N / A	N / A	N / A	1	6	0.2	Scrap Bin	None	
F4D9C8-00047	F4D9C8	4.084316039	10/28/2009	287349.75	3838358.01	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.1	Scrap Bin	None	
F4D9C8-00048	F4D9C8	4.003773483	10/27/2009	287318.25	3838396.18	Cultural Debris	Scrap	N / A	N / A	N / A	1	0	0	Scrap Bin	None	
F4D9C8-00049	F4D9C8	3.98279006	10/27/2009	287315.25	3838375.66	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	
F4D9C8-00050	F4D9C8	3.975652745	10/27/2009	287316.75	3838396.61	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	
F4D9C8-00051	F4D9C8	3.95176248	10/27/2009	287301.75	3838375.59	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	
F4D9C8-00052	F4D9C8	3.946232999	10/27/2009	287304.75	3838369.58	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	
F4D9C8-00053	F4D9C8	3.873512115	10/28/2009	287349.4	3838351.5	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.1	Scrap Bin	None	
F4D9C8-00054	F4D9C8	3.741640599	10/27/2009	287325	3838356.69	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	Nails in ramp 2ft N
F4D9C8-00055	F4D9C8	3.71751899	10/27/2009	287307.75	3838395.4	Cultural Debris	Scrap	N / A	N / A	N / A	1	0	0.1	Scrap Bin	None	
F4D9C8-00056	F4D9C8	3.704025835	10/27/2009	287312.25	3838373.76	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	
F4D9C8-00057	F4D9C8	3.638953162	10/27/2009	287349.75	3838383.53	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.1	Scrap Bin	None	
F4D9C8-00058	F4D9C8	3.530692486	10/27/2009	287312.25	3838393.24	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	
F4D9C8-00059	F4D9C8	3.512132838	10/28/2009	287339.25	3838352.71	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	
F4D9C8-00060	F4D9C8	3.268316768	10/28/2009	287340.75	3838352.36	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	
F4D9C8-00061	F4D9C8	3.173831316	10/27/2009	287324.25	3838374.53	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	
F4D9C8-00062	F4D9C8	3.130896964	10/27/2009	287322	3838363.41	Cultural Debris	Scrap	N / A	N / A	N / A	1	0	0.1	Scrap Bin	None	
F4D9C9-00001	F4D9C9	4.724672338	11/1/2009	287318.25	3838405.42	Cultural Debris	Scrap	N / A	N / A	N / A	3	6	0.25	Scrap Bin	None	
F4D9D5-00001	F4D9D5	5.26	10/28/2009	287355.3	3838249.9	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	
F4D9D6-00001	F4D9D6	723.92	3/6/2009	287360.2	3838280	Cultural Debris	Scrap	N / A	N / A	N / A	1	12	65	Scrap Bin	None	Previously Dug on 03/06/09. 24" x 10" scrap metal.
F4D9D6-00002	F4D9D6	65.68	3/6/2009	287355.4	3838274.3	Cultural Debris	Scrap	N / A	N / A	N / A	1	0	1	Scrap Bin	None	Previously Dug on 03/06/09. Heavy chain link.
F4D9D6-00003	F4D9D6	64.5	3/6/2009	287352.1	3838251.5	Cultural Debris	Scrap	N / A	N / A	N / A	2	4		Scrap Bin	None	Previously Dug on 03/06/09. 36" wire and aluminum can.
F4D9D6-00004	F4D9D6	60.03	3/6/2009	287379.5	3838264.2	Cultural Debris	Scrap	N / A	N / A	N / A	2	8		Scrap Bin	None	Previously Dug on 03/06/09. Aluminum cans.
F4D9D6-00005	F4D9D6	46.03	10/28/2009	287394.5	3838278.4	Cultural Debris	Scrap	N / A	N / A	N / A	1	0	0.25	Scrap Bin	None	
F4D9D6-00006	F4D9D6	45.88	3/6/2009	287353	3838273.2	QC	QC Seed	QC Seed	N / A	N / A	1			Consolidation Point	None	Previously Dug on 03/06/09. QC Seed #3.
F4D9D6-00007	F4D9D6	29.37	10/29/2009	287352.3	3838285.4	Cultural Debris	Scrap	N / A	N / A	N / A	1	0	0.5	Scrap Bin	None	
F4D9D6-00008	F4D9D6	28.38	10/29/2009	287356.9	3838297	QC	QC Seed	QC Seed	N / A	N / A	1	3	0.5	Consolidation Point	None	QC Seed #1
F4D9D6-00009	F4D9D6	26.99	3/6/2009	287356.6	3838266.3	MD	Grenade	Tail Boom			1	3		Consolidation Point	None	Previously Dug on 03/06/09. Rifle Grenade boom.
F4D9D6-00010	F4D9D6	25.86	3/6/2009	287356	3838275.1	Cultural Debris	Scrap	N / A	N / A	N / A	1	0		Scrap Bin	None	Previously Dug on 03/06/09. Heavy chain link.
F4D9D6-00011	F4D9D6	24.49	3/6/2009	287362.8	3838274	UXO	Signal	M22 A1 Signal			1	3	1	Left in Place	Demo	Previously Dug on 03/06/09. M22 A1 Signal (LIVE)
F4D9D6-00012	F4D9D6	14.58	3/6/2009	287350.8	3838270.6	Cultural Debris	Nail	N / A	N / A	N / A	1	0		Scrap Bin	None	Previously Dug on 03/06/09. Survey Nail.
F4D9D6-00013	F4D9D6	13.03	10/28/2009	287358.2	3838296.7	Cultural Debris	Scrap	N / A	N / A	N / A	1	0	0.25	Scrap Bin	None	
F4D9D6-00014	F4D9D6	12.3	10/28/2009	287395.3	3838277.9	Cultural Debris	Scrap	N / A	N / A	N / A	1	0	0.25	Scrap Bin	None	
F4D9D6-00015	F4D9D6	12.13	10/29/2009	287361.3	3838254.4	MD	Grenade	M20A1, Grenade, Rifle, Star, Clust	None (empty)	N / A	1	3	0.5	Consolidation Point	Demil	Expended
F4D9D6-00016	F4D9D6	12.03	3/6/2009	287357	3838273.4	Cultural Debris	Scrap	N / A	N / A	N / A	1	4		Scrap Bin	None	Previously Dug on 03/06/09. Aluminum cans.
F4D9D6-00017	F4D9D6	10.72	3/6/2009	287352.5	3838268.5	Cultural Debris	Scrap	N / A	N / A	N / A	1	6		Scrap Bin	None	Previously Dug on 03/06/09. Aluminum cans.
F4D9D6-00018	F4D9D6	6.56	3/6/2009	287350	3838271.2	Cultural Debris	Nail	N / A	N / A	N / A	12	6		Scrap Bin	None	Previously Dug on 03/06/09. Nails.
F4D9D6-00019	F4D9D6	6.15	3/6/2009	287356.8	3838271.9	Cultural Debris	Scrap	N / A	N / A	N / A	1	6		Scrap Bin	None	Previously Dug on 03/06/09. Aluminum cans.
F4D9D6-00020	F4D9D6	5.13	11/1/2009	287392.2	3838274.2	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.25	Scrap Bin	None	
F4D9D6-00021	F4D9D6	4.71	10/28/2009	287380.3	3838276.3	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	
F4D9D6-00022	F4D9D6	4.51	10/28/2009	287383.2	3838294.2	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	
F4D9D6-00023	F4D9D6	3.98	3/6/2009	287353.7	3838251.2	Cultural Debris	Scrap	N / A	N / A	N / A	2	6		Scrap Bin	None	Previously Dug on 03/06/09. Wire/aluminum cans.
F4D9D6-00024	F4D9D6	3.9	10/28/2009	287376.5	3838269.7	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	
F4D9D6-00025	F4D9D6	3.88	10/28/2009	287358.2	3838270.7	Cultural Debris	Scrap	N / A	N / A	N / A	4	6	0.2	Scrap Bin	None	
F4D9D6-00026	F4D9D6	3.73	10/28/2009	287361.3	3838274.6	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.1	Scrap Bin	None	
F4D9D6-00027	F4D9D6	3.71	10/28/2009	287384	3838295.3	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	
F4D9D6-00028	F4D9D6	3.63	11/1/2009	287353.8	3838250.3	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.2	Scrap Bin	None	
F4D9D6-00029	F4D9D6	3.39	10/29/2009	287365.8	3838300	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	
F4D9D6-00030	F4D9D6	3.31	10/28/2009	287373.3	3838284.1	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	
F4D9D6-00031	F4D9D6	3.02	10/29/2009	287370.3	3838290.3	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.1	Scrap Bin	None	
F4D9D7-00001	F4D9D7	124.48	10/26/2009	287373.2	3838344.2	Cultural Debris	Scrap	N / A	N / A	N / A	25	10	0.5	Scrap Bin	None	Large qty of nails and screws
F4D9D7-00002	F4D9D7	108.69	10/26/2009	287371.8	3838342.5	Cultural Debris	Scrap	N / A	N / A	N / A	25	10	0.5	Scrap Bin	None	Large qty of nails and screws.
F4D9D7-00003	F4D9D7	94.76	10/28/2009	287378	3838305	Cultural Debris	Scrap	N / A	N / A	N / A	1	6	0.5	Scrap Bin	None	
F4D9D7-00004	F4D9D7	93.15	10/30/2009	287357.4	3838345.8	Cultural Debris	Scrap	N / A	N / A	N / A	1	12	4	Scrap Bin	None	
F4D9D7-00005	F4D9D7	87.45	10/30/2009	287364.5	3838343.9	Cultural Debris	Scrap	N / A	N / A	N / A	10	6	2	Scrap Bin	None	
F4D9D7-00006	F4D9D7	68.61	10/26/2009	287361.4	3838345.8	Cultural Debris	Scrap	N / A	N / A	N / A	3	3	0.5	Scrap Bin	None	
F4D9D7-00007	F4D9D7	52.73	10/26/2009	287376.9	3838349.1	Cultural Debris	Scrap	N / A	N / A	N / A	1	6	4	Scrap Bin	None	
F4D9D7-00008	F4D9D7	50.09	10/29/2009	287371	3838324	Cultural Debris	Scrap	N / A	N / A	N / A	1	0	0.5	Scrap Bin	None	
F4D9D7-00009	F4D9D7	49.82	10/26/2009	287399.5	3838312	QC	QC Seed	QC Seed	N / A	N / A	1	6	0.5	Consolidation Point	None	QC Seed #1
F4D9D7-00010	F4D9D7	49.09	10/30/2009	287360.5	3838341.8	Cultural Debris	Scrap	N / A	N / A	N / A	1	6	0.75	Scrap Bin	None	

TABLE 1
MEC Intrusive Investigation Results
Site UXO-21 Former D-Area Gas Chambe
MCB CamLej, North Carolina

Anomaly ID	Grid	Amplitude	Dig Date	X1	Y1	Item Group	Class	Category	Filler	Fuze	Quantity	Depth	Weight	Action Taken	Demo Req?	Item Comment
F4D9D7-00011	F4D9D7	47.91	10/29/2009	287364.3	3838315.1	Cultural Debris	Scrap	N / A	N / A	N / A	1	0	0.5	Scrap Bin	None	
F4D9D7-00012	F4D9D7	44.44	10/30/2009	287363.2	3838337.3	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	1.5	Scrap Bin	None	
F4D9D7-00013	F4D9D7	40.3	10/30/2009	287363.1	3838345.2	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	1	Scrap Bin	None	
F4D9D7-00014	F4D9D7	38.72	11/1/2009	287359.7	3838345.4	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.25	Scrap Bin	None	
F4D9D7-00015	F4D9D7	37.28	10/30/2009	287359.8	3838340.7	Cultural Debris	Scrap	N / A	N / A	N / A	1	6	0.5	Scrap Bin	None	
F4D9D7-00016	F4D9D7	36.42	10/30/2009	287364.3	3838336	Cultural Debris	Scrap	N / A	N / A	N / A	10	6	2	Scrap Bin	None	
F4D9D7-00017	F4D9D7	34.11	10/30/2009	287370.3	3838335.1	Cultural Debris	Scrap	N / A	N / A	N / A	1	12	2	Scrap Bin	None	
F4D9D7-00018	F4D9D7	32.31	10/26/2009	287392	3838340.8	QC	QC Seed	QC Seed	N / A	N / A	1	6	1	Consolidation Point	None	QC Seed #1
F4D9D7-00019	F4D9D7	31.73	10/30/2009	287369.5	3838342.3	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.25	Scrap Bin	None	
F4D9D7-00020	F4D9D7	31.63	10/30/2009	287365.8	3838343.2	Cultural Debris	Scrap	N / A	N / A	N / A	5	6	1	Scrap Bin	None	
F4D9D7-00021	F4D9D7	28.74	10/29/2009	287359.7	3838338.6	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	5	Scrap Bin	None	
F4D9D7-00022	F4D9D7	28.14	10/29/2009	287361.5	3838312.1	Cultural Debris	Scrap	N / A	N / A	N / A	1	0	0.5	Scrap Bin	None	
F4D9D7-00023	F4D9D7	26.57	10/29/2009	287370.3	3838334	Cultural Debris	Scrap	N / A	N / A	N / A	1	12	1	Scrap Bin	None	
F4D9D7-00024	F4D9D7	25.58	10/30/2009	287359	3838346	Cultural Debris	Scrap	N / A	N / A	N / A	5	6	0.5	Scrap Bin	None	
F4D9D7-00025	F4D9D7	23.98	10/30/2009	287363.3	3838347.1	Cultural Debris	Scrap	N / A	N / A	N / A	5	6	0.25	Scrap Bin	None	
F4D9D7-00026	F4D9D7	22.77	10/30/2009	287362.8	3838341	Cultural Debris	Scrap	N / A	N / A	N / A	1	0	0.5	Scrap Bin	None	
F4D9D7-00027	F4D9D7	22.34	10/30/2009	287365	3838346.7	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.5	Scrap Bin	None	
F4D9D7-00028	F4D9D7	20.77	10/30/2009	287369.1	3838341.1	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.25	Scrap Bin	None	
F4D9D7-00029	F4D9D7	20.48	10/29/2009	287368.4	3838333	Cultural Debris	Scrap	N / A	N / A	N / A	7	24	3	Scrap Bin	None	
F4D9D7-00030	F4D9D7	20.13	10/30/2009	287361.3	3838344.1	Cultural Debris	Scrap	N / A	N / A	N / A	3	6	0.5	Scrap Bin	None	
F4D9D7-00031	F4D9D7	18.96	10/29/2009	287368.5	3838332.2	Cultural Debris	Scrap	N / A	N / A	N / A	10	24	3	Scrap Bin	None	
F4D9D7-00032	F4D9D7	18.31	10/30/2009	287359	3838347.2	Cultural Debris	Scrap	N / A	N / A	N / A	5	6	0.5	Scrap Bin	None	
F4D9D7-00033	F4D9D7	18.05	10/29/2009	287370.3	3838343	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.25	Scrap Bin	None	
F4D9D7-00034	F4D9D7	17.79	10/30/2009	287359.7	3838348.8	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	25	Scrap Bin	None	
F4D9D7-00035	F4D9D7	17.23	10/30/2009	287367.6	3838338.8	Cultural Debris	Scrap	N / A	N / A	N / A	5	3	0.25	Scrap Bin	None	
F4D9D7-00036	F4D9D7	16.87	10/29/2009	287362.3	3838348.8	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.25	Scrap Bin	None	
F4D9D7-00037	F4D9D7	16.43	10/30/2009	287365.8	3838345.4	Cultural Debris	Scrap	N / A	N / A	N / A	3	0	0.25	Scrap Bin	None	
F4D9D7-00038	F4D9D7	15.78	10/30/2009	287359	3838341.6	Cultural Debris	Scrap	N / A	N / A	N / A	1	12	0.5	Scrap Bin	None	
F4D9D7-00039	F4D9D7	15.64	10/28/2009	287357.5	3838349.3	Cultural Debris	Scrap	N / A	N / A	N / A	5	3	0.25	Scrap Bin	None	
F4D9D7-00040	F4D9D7	15.08	10/30/2009	287367.3	3838347.1	Cultural Debris	Scrap	N / A	N / A	N / A	1	6	0.5	Scrap Bin	None	
F4D9D7-00041	F4D9D7	14.28	10/30/2009	287358.7	3838344.3	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.25	Scrap Bin	None	
F4D9D7-00042	F4D9D7	12.98	10/29/2009	287361.7	3838347.8	Cultural Debris	Scrap	N / A	N / A	N / A	5	6	0.5	Scrap Bin	None	
F4D9D7-00043	F4D9D7	12.47	10/30/2009	287370.3	3838340.9	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.25	Scrap Bin	None	
F4D9D7-00044	F4D9D7	12.33	10/29/2009	287365	3838333.6	Cultural Debris	Scrap	N / A	N / A	N / A	6	3	0.5	Scrap Bin	None	
F4D9D7-00045	F4D9D7	11.88	10/30/2009	287360.5	3838346.3	Cultural Debris	Scrap	N / A	N / A	N / A	5	3	0.5	Scrap Bin	None	
F4D9D7-00046	F4D9D7	11.81	10/26/2009	287383.8	3838349.1	Cultural Debris	Scrap	N / A	N / A	N / A	1	0.1	0.1	Scrap Bin	None	
F4D9D7-00047	F4D9D7	11.02	10/30/2009	287364.3	3838335	Cultural Debris	Scrap	N / A	N / A	N / A	3	3	0.25	Scrap Bin	None	
F4D9D7-00048	F4D9D7	10.4	10/30/2009	287359	3838349.6	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.25	Scrap Bin	None	
F4D9D7-00049	F4D9D7	10.21	10/30/2009	287360.5	3838343.3	Cultural Debris	Scrap	N / A	N / A	N / A	1	12	0.5	Scrap Bin	None	
F4D9D7-00050	F4D9D7	10.02	10/26/2009	287372.8	3838331.9	Cultural Debris	Nail	N / A	N / A	N / A	5	1	0.2	Scrap Bin	None	
F4D9D7-00051	F4D9D7	9.94	10/29/2009	287363.5	3838349.3	Cultural Debris	Scrap	N / A	N / A	N / A	3	0	0.25	Scrap Bin	None	
F4D9D7-00052	F4D9D7	9.87	10/29/2009	287369.5	3838336	Cultural Debris	Scrap	N / A	N / A	N / A	3	12	0.5	Scrap Bin	None	
F4D9D7-00053	F4D9D7	9.34	10/30/2009	287367	3838343.9	Cultural Debris	Scrap	N / A	N / A	N / A	1	6	0.5	Scrap Bin	None	
F4D9D7-00054	F4D9D7	9.24	11/1/2009	287361.3	3838338.2	Cultural Debris	Scrap	N / A	N / A	N / A	3	3	0.25	Scrap Bin	None	
F4D9D7-00055	F4D9D7	8.53	10/30/2009	287361.3	3838339.7	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.25	Scrap Bin	None	
F4D9D7-00056	F4D9D7	8.5	10/29/2009	287369.1	3838334.7	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.2	Scrap Bin	None	
F4D9D7-00057	F4D9D7	8.29	10/30/2009	287367.3	3838341.4	Cultural Debris	Scrap	N / A	N / A	N / A	6	6	0.25	Scrap Bin	None	
F4D9D7-00058	F4D9D7	8.11	10/26/2009	287380	3838345.8	Cultural Debris	Nail	N / A	N / A	N / A	6	0	0.1	Scrap Bin	None	
F4D9D7-00059	F4D9D7	7.94	10/30/2009	287369.5	3838339.2	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.2	Scrap Bin	None	
F4D9D7-00060	F4D9D7	7.43	10/29/2009	287365.8	3838337.1	Cultural Debris	Scrap	N / A	N / A	N / A	2	3	0.2	Scrap Bin	None	
F4D9D7-00061	F4D9D7	7.27	10/30/2009	287366.5	3838339.7	Cultural Debris	Scrap	N / A	N / A	N / A	5	3	0.25	Scrap Bin	None	
F4D9D7-00062	F4D9D7	7.07	10/30/2009	287366.5	3838340.5	Cultural Debris	Scrap	N / A	N / A	N / A	5	3	0.2	Scrap Bin	None	
F4D9D7-00063	F4D9D7	7.04	10/30/2009	287370.3	3838338.5	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.25	Scrap Bin	None	
F4D9D7-00064	F4D9D7	6.81	10/29/2009	287367.3	3838334.4	Cultural Debris	Scrap	N / A	N / A	N / A	1	6	0.2	Scrap Bin	None	
F4D9D7-00065	F4D9D7	6.77	10/29/2009	287366.5	3838335.2	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.2	Scrap Bin	None	
F4D9D7-00066	F4D9D7	6.61	10/26/2009	287381.8	3838345.9	Cultural Debris	Nail	N / A	N / A	N / A	1	4	0.1	Scrap Bin	None	Nails
F4D9D7-00067	F4D9D7	6.44	10/29/2009	287366.9	3838337.5	Cultural Debris	Scrap	N / A	N / A	N / A	3	3	0.2	Scrap Bin	None	
F4D9D7-00068	F4D9D7	6.32	10/26/2009	287399.8	3838325.3	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	
F4D9D7-00069	F4D9D7	6.13	10/26/2009	287376.2	3838343.5	Cultural Debris	Nail	N / A	N / A	N / A	1	0	0.1	Scrap Bin	None	
F4D9D7-00070	F4D9D7	5.98	10/29/2009	287368	3838337	Cultural Debris	Scrap	N / A	N / A	N / A	3	12	0.2	Scrap Bin	None	
F4D9D7-00071	F4D9D7	5.75	10/26/2009	287383.3	3838345.3	Cultural Debris	Scrap	N / A	N / A	N / A	1	1	0.1	Scrap Bin	None	Nails
F4D9D7-00072	F4D9D7	5.66	10/26/2009	287378	3838346.4	Cultural Debris	Nail	N / A	N / A	N / A	1	0	0.1	Scrap Bin	None	

TABLE 1

MEC Intrusive Investigation Results

Site UXO-21 Former D-Area Gas Chambe

MCB CamLej, North Carolina

Anomaly ID	Grid	Amplitude	Dig Date	X1	Y1	Item Group	Class	Category	Filler	Fuze	Quantity	Depth	Weight	Action Taken	Demo Req?	Item Comment
F4D9D7-00073	F4D9D7	5.65	10/26/2009	287375.7	3838348.4	Cultural Debris	Nail	N / A	N / A	N / A	1	6	0.1	Scrap Bin	None	
F4D9D7-00074	F4D9D7	5.61	10/26/2009	287399.8	3838330.1	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	
F4D9D7-00075	F4D9D7	5.27	10/26/2009	287381.8	3838345	Cultural Debris	Nail	N / A	N / A	N / A	3	0	0.1	Scrap Bin	None	Nails
F4D9D7-00076	F4D9D7	4.98	10/29/2009	287366.9	3838331.8	Cultural Debris	Scrap	N / A	N / A	N / A	3	6	0.5	Scrap Bin	None	
F4D9D7-00077	F4D9D7	4.87	10/28/2009	287350.8	3838339.8	Cultural Debris	Scrap	N / A	N / A	N / A	1	0	0.1	Scrap Bin	None	
F4D9D7-00078	F4D9D7	4.85	10/29/2009	287358.3	3838338.2	Cultural Debris	Scrap	N / A	N / A	N / A	3	3	0.2	Scrap Bin	None	
F4D9D7-00079	F4D9D7	4.82	10/26/2009	287378	3838347.1	SHD	Shared	Shared	N / A	N / A	1	0	0.1	N / A	None	Same as 72
F4D9D7-00080	F4D9D7	4.82	10/26/2009	287383.3	3838346.3	Cultural Debris	Nail	N / A	N / A	N / A	1	0	0.1	Scrap Bin	None	Nails
F4D9D7-00081	F4D9D7	4.65	10/29/2009	287363.5	3838324.6	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	
F4D9D7-00082	F4D9D7	4.63	10/26/2009	287388.1	3838342.7	Cultural Debris	Scrap	N / A	N / A	N / A	1	1	0.1	Scrap Bin	None	
F4D9D7-00083	F4D9D7	4.44	10/28/2009	287353.8	3838349.5	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.2	Scrap Bin	None	
F4D9D7-00084	F4D9D7	4.43	10/29/2009	287365.8	3838334.5	Cultural Debris	Scrap	N / A	N / A	N / A	5	6	0.25	Scrap Bin	None	
F4D9D7-00085	F4D9D7	4.35	10/29/2009	287374.8	3838325.5	Cultural Debris	Scrap	N / A	N / A	N / A	1	0	0.1	Scrap Bin	None	
F4D9D7-00086	F4D9D7	4.34	10/28/2009	287356	3838349.8	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.1	Scrap Bin	None	
F4D9D7-00087	F4D9D7	4.26	10/30/2009	287366.5	3838349.1	Cultural Debris	Scrap	N / A	N / A	N / A	3	12	0.25	Scrap Bin	None	
F4D9D7-00088	F4D9D7	4.14	10/26/2009	287385.5	3838349.4	Cultural Debris	Scrap	N / A	N / A	N / A	2	1	0.1	Scrap Bin	None	
F4D9D7-00089	F4D9D7	3.91	10/29/2009	287371.8	3838346.8	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.1	Scrap Bin	None	
F4D9D7-00090	F4D9D7	3.8	10/26/2009	287388.5	3838341.9	Cultural Debris	Scrap	N / A	N / A	N / A	1	5	0.1	Scrap Bin	None	
F4D9D7-00091	F4D9D7	3.74	10/26/2009	287375.8	3838345.8	Cultural Debris	Nail	N / A	N / A	N / A	1	2	0.1	Scrap Bin	None	
F4D9D7-00092	F4D9D7	3.67	10/29/2009	287376.5	3838324.5	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	
F4D9D7-00093	F4D9D7	3.57	10/29/2009	287364.3	3838332.4	Cultural Debris	Scrap	N / A	N / A	N / A	3	6	0.2	Scrap Bin	None	
F4D9D7-00094	F4D9D7	3.49	10/29/2009	287363.5	3838309.9	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	
F4D9D7-00095	F4D9D7	3.41	11/1/2009	287399.7	3838336.2	Cultural Debris	Scrap	N / A	N / A	N / A	1	6	0.2	Scrap Bin	None	
F4D9D7-00096	F4D9D7	3.36	10/29/2009	287353	3838315.7	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	
F4D9D7-00097	F4D9D7	3.33	10/29/2009	287369.5	3838345.2	Cultural Debris	Scrap	N / A	N / A	N / A	2	3	0.1	Scrap Bin	None	
F4D9D7-00098	F4D9D7	3.3	10/29/2009	287353.8	3838337.9	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.1	Scrap Bin	None	
F4D9D7-00099	F4D9D7	3.26	10/26/2009	287395.3	3838322.4	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	
F4D9D7-00100	F4D9D7	3.24	10/26/2009	287381	3838344.5	Cultural Debris	Nail	N / A	N / A	N / A	5	0	0.1	Scrap Bin	None	Nails
F4D9D7-00101	F4D9D7	3.22	10/29/2009	287360.5	3838308	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	
F4D9D7-00102	F4D9D7	3.22	10/29/2009	287368.7	3838343.6	Cultural Debris	Scrap	N / A	N / A	N / A	2	3	0.1	Scrap Bin	None	
F4D9D7-00103	F4D9D7	3.15	10/26/2009	287395.3	3838325.4	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	
F4D9D7-00104	F4D9D7	3.06	11/1/2009	287396.8	3838338.6	Cultural Debris	Scrap	N / A	N / A	N / A	1	6	0.2	Scrap Bin	None	
F4D9D8-00001	F4D9D8	194.82	10/27/2009	287389.6	3838374.4	Cultural Debris	Nail	N / A	N / A	N / A	200	24	20	Scrap Bin	None	Large nail- pit
F4D9D8-00002	F4D9D8	173.09	10/27/2009	287389.3	3838377.2	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.5	Scrap Bin	None	
F4D9D8-00003	F4D9D8	70.62	10/27/2009	287378.5	3838376.4	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.5	Scrap Bin	None	
F4D9D8-00004	F4D9D8	59.5	10/27/2009	287392.3	3838367.7	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	1	Scrap Bin	None	
F4D9D8-00005	F4D9D8	49.85	11/1/2009	287389.5	3838382.7	Cultural Debris	Scrap	N / A	N / A	N / A	1	0	1	Scrap Bin	None	
F4D9D8-00006	F4D9D8	42.04	10/28/2009	287355.2	3838355	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.5	Scrap Bin	None	
F4D9D8-00007	F4D9D8	32.31	10/29/2009	287374.9	3838353	Cultural Debris	Scrap	N / A	N / A	N / A	1	0	0.1	Scrap Bin	None	
F4D9D8-00008	F4D9D8	25.88	10/28/2009	287357.7	3838350.6	Cultural Debris	Scrap	N / A	N / A	N / A	5	3	0.25	Scrap Bin	None	
F4D9D8-00009	F4D9D8	15.33	10/27/2009	287390.5	3838369.4	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.25	Scrap Bin	None	
F4D9D8-00010	F4D9D8	14.96	10/27/2009	287398.5	3838367.6	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.2	Scrap Bin	None	
F4D9D8-00011	F4D9D8	14.44	10/27/2009	287373.2	3838369.3	Cultural Debris	Scrap	N / A	N / A	N / A	1	6	0.2	Scrap Bin	None	
F4D9D8-00012	F4D9D8	13.62	10/27/2009	287394.5	3838360.7	MD	Projectile	40mm, Ground Marker, Green Smo	None (empty)	M733 (M715)	1	6	0.25	Consolidation Point	Demil	40mm, projectile smoke, expended, functioned as designed, M715 green smoke ground marker
F4D9D8-00013	F4D9D8	12.5	10/27/2009	287399.8	3838363.5	Cultural Debris	Scrap	N / A	N / A	N / A	10	6	0.5	Scrap Bin	None	
F4D9D8-00014	F4D9D8	12.49	10/28/2009	287352.6	3838352.3	Cultural Debris	Scrap	N / A	N / A	N / A	3	3	0.2	Scrap Bin	None	
F4D9D8-00015	F4D9D8	11.68	10/28/2009	287350.8	3838352.1	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.2	Scrap Bin	None	
F4D9D8-00016	F4D9D8	11.67	10/28/2009	287350	3838353.5	Cultural Debris	Scrap	N / A	N / A	N / A	1	6	0.25	Scrap Bin	None	
F4D9D8-00017	F4D9D8	11.38	10/28/2009	287354.5	3838353.3	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.2	Scrap Bin	None	
F4D9D8-00018	F4D9D8	10.86	10/28/2009	287354.5	3838352.4	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.2	Scrap Bin	None	
F4D9D8-00019	F4D9D8	10.49	10/28/2009	287351.8	3838356	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.1	Scrap Bin	None	
F4D9D8-00020	F4D9D8	10.36	10/28/2009	287351.5	3838353.1	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.25	Scrap Bin	None	
F4D9D8-00021	F4D9D8	9.72	10/27/2009	287391.8	3838372	Cultural Debris	Scrap	N / A	N / A	N / A	1	12	1	Scrap Bin	None	
F4D9D8-00022	F4D9D8	9.08	10/28/2009	287356	3838352.5	Cultural Debris	Scrap	N / A	N / A	N / A	3	6	0.25	Scrap Bin	None	
F4D9D8-00023	F4D9D8	8.44	10/27/2009	287357.5	3838384.7	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.1	Scrap Bin	None	
F4D9D8-00024	F4D9D8	7.13	10/27/2009	287393.5	3838377.6	Cultural Debris	Scrap	N / A	N / A	N / A	1	12	1	Scrap Bin	None	
F4D9D8-00025	F4D9D8	6.07	10/27/2009	287369.3	3838368.8	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.2	Scrap Bin	None	
F4D9D8-00026	F4D9D8	5.81	10/28/2009	287357.5	3838351.7	Cultural Debris	Scrap	N / A	N / A	N / A	3	3	0.2	Scrap Bin	None	
F4D9D8-00027	F4D9D8	5.48	11/1/2009	287388.1	3838367.8	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.2	Scrap Bin	None	
F4D9D8-00028	F4D9D8	5.39	10/28/2009	287358.5	3838352.3	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.2	Scrap Bin	None	
F4D9D8-00029	F4D9D8	5.28	10/27/2009	287356	3838377.7	Cultural Debris	Scrap	N / A	N / A	N / A	1	6	0.1	Scrap Bin	None	

TABLE 1
MEC Intrusive Investigation Results
Site UXO-21 Former D-Area Gas Chambe
MCB CamLej, North Carolina

Anomaly ID	Grid	Amplitude	Dig Date	X1	Y1	Item Group	Class	Category	Filler	Fuze	Quantity	Depth	Weight	Action Taken	Demo Req?	Item Comment
F4D9D8-00030	F4D9D8	4.94	10/27/2009	287381	3838371.5	Cultural Debris	Scrap	N / A	N / A	N / A	1	6	0.2	Scrap Bin	None	
F4D9D8-00031	F4D9D8	4.82	10/27/2009	287395.8	3838375.3	Cultural Debris	Scrap	N / A	N / A	N / A	1	12	0.5	Scrap Bin	None	
F4D9D8-00032	F4D9D8	4.79	10/28/2009	287350.3	3838358.1	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.1	Scrap Bin	None	
F4D9D8-00033	F4D9D8	4.74	10/27/2009	287396.8	3838369.9	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	1	Scrap Bin	None	
F4D9D8-00034	F4D9D8	4.65	10/27/2009	287393	3838375.4	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	
F4D9D8-00035	F4D9D8	4.61	10/29/2009	287378	3838356.1	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.2	Scrap Bin	None	
F4D9D8-00036	F4D9D8	4.44	10/27/2009	287361.3	3838374.9	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	
F4D9D8-00037	F4D9D8	4.42	10/27/2009	287359.7	3838374	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	
F4D9D8-00038	F4D9D8	4.4	10/27/2009	287398.3	3838360.4	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.1	Scrap Bin	None	
F4D9D8-00039	F4D9D8	4.23	10/27/2009	287382.5	3838371.7	Cultural Debris	Scrap	N / A	N / A	N / A	1	6	0.2	Scrap Bin	None	
F4D9D8-00040	F4D9D8	4.2	10/26/2009	287387.8	3838355.6	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	
F4D9D8-00041	F4D9D8	4.19	10/27/2009	287396	3838362.9	Cultural Debris	Scrap	N / A	N / A	N / A	3	3	0.25	Scrap Bin	None	
F4D9D8-00042	F4D9D8	4.13	10/26/2009	287390	3838354.6	Cultural Debris	Scrap	N / A	N / A	N / A	1	4	0.1	Scrap Bin	None	
F4D9D8-00043	F4D9D8	4.1	10/27/2009	287393	3838372.9	Cultural Debris	Scrap	N / A	N / A	N / A	4	12	0.25	Scrap Bin	None	
F4D9D8-00044	F4D9D8	4.05	10/28/2009	287357.5	3838359.6	Cultural Debris	Scrap	N / A	N / A	N / A	2	6	0.2	Scrap Bin	None	
F4D9D8-00045	F4D9D8	4.02	10/28/2009	287358.3	3838359.1	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.1	Scrap Bin	None	
F4D9D8-00046	F4D9D8	3.96	10/27/2009	287397.5	3838368.8	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.1	Scrap Bin	None	
F4D9D8-00047	F4D9D8	3.93	10/27/2009	287392.3	3838373.3	Cultural Debris	Scrap	N / A	N / A	N / A	4	12	0.5	Scrap Bin	None	
F4D9D8-00048	F4D9D8	3.92	10/27/2009	287385.1	3838350.2	Cultural Debris	Scrap	N / A	N / A	N / A	1	4	0.1	Scrap Bin	None	
F4D9D8-00049	F4D9D8	3.92	10/27/2009	287378.8	3838385.2	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.1	Scrap Bin	None	
F4D9D8-00050	F4D9D8	3.84	10/29/2009	287383.3	3838365	Cultural Debris	Scrap	N / A	N / A	N / A	8	12	0.2	Scrap Bin	None	
F4D9D8-00051	F4D9D8	3.68	10/27/2009	287380.3	3838367	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	
F4D9D8-00052	F4D9D8	3.67	10/27/2009	287356.8	3838399.8	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.1	Scrap Bin	None	
F4D9D8-00053	F4D9D8	3.54	10/27/2009	287378.8	3838366	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.2	Scrap Bin	None	
F4D9D8-00054	F4D9D8	3.43	10/26/2009	287390.7	3838353.1	Cultural Debris	Scrap	N / A	N / A	N / A	1	4	0.1	Scrap Bin	None	
F4D9D8-00055	F4D9D8	3.42	10/28/2009	287356	3838351.8	Cultural Debris	Scrap	N / A	N / A	N / A	3	6	0.2	Scrap Bin	None	
F4D9D8-00056	F4D9D8	3.33	10/27/2009	287378.8	3838365.1	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	
F4D9D8-00057	F4D9D8	3.3	10/27/2009	287366.5	3838390	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.1	Scrap Bin	None	
F4D9D8-00058	F4D9D8	3.23	10/28/2009	287353.8	3838355	Cultural Debris	Scrap	N / A	N / A	N / A	1	6	0.2	Scrap Bin	None	
F4D9E6-00001	F4D9E6	79.57	10/26/2009	287406.9	3838298	Cultural Debris	Scrap	N / A	N / A	N / A	1	4	0.2	Scrap Bin	None	
F4D9E6-00002	F4D9E6	50.61	10/26/2009	287401.3	3838287.3	Cultural Debris	Scrap	N / A	N / A	N / A	1	4	0.2	Scrap Bin	None	
F4D9E7-00001	F4D9E7	3216.49	11/1/2009	287410.3	3838342.3	Cultural Debris	Scrap	N / A	N / A	N / A	10	6	5	Scrap Bin	None	
F4D9E7-00002	F4D9E7	238.05	10/26/2009	287404.5	3838336	Cultural Debris	Scrap	N / A	N / A	N / A	3	3	2	Scrap Bin	None	
F4D9E7-00003	F4D9E7	112.25	10/26/2009	287406.8	3838340.8	Cultural Debris	Scrap	N / A	N / A	N / A	1	6	2	Scrap Bin	None	
F4D9E7-00004	F4D9E7	100.29	10/26/2009	287408.8	3838316.2	Cultural Debris	Scrap	N / A	N / A	N / A	1	0	1	Scrap Bin	None	
F4D9E7-00005	F4D9E7	64.62	10/26/2009	287400.8	3838345.7	Cultural Debris	Scrap	N / A	N / A	N / A	3	3	0.25	Scrap Bin	None	
F4D9E7-00006	F4D9E7	27.58	10/26/2009	287405.9	3838314.8	MD	Grenade	MKII, Hand, Practice, Standard	None (empty)	Unfuzed	1	3	0.5	Consolidation Point	Demil	Body only, expended
F4D9E7-00007	F4D9E7	19.21	10/26/2009	287411.8	3838332.5	MD	Grenade	MKII, Hand, Practice, Standard	None (empty)	Unfuzed	1	3	0.5	Consolidation Point	Demil	Body only, expended
F4D9E7-00008	F4D9E7	12.73	11/1/2009	287402.4	3838343.9	Cultural Debris	Scrap	N / A	N / A	N / A	1	12	0.75	Scrap Bin	None	
F4D9E7-00009	F4D9E7	12.26	11/1/2009	287406.5	3838345.3	Cultural Debris	Scrap	N / A	N / A	N / A	3	6	0.2	Scrap Bin	None	
F4D9E7-00010	F4D9E7	11.05	11/1/2009	287405.8	3838339	Cultural Debris	Scrap	N / A	N / A	N / A	1	0	0.25	Scrap Bin	None	
F4D9E7-00011	F4D9E7	10.62	10/26/2009	287408.5	3838319.4	Cultural Debris	Scrap	N / A	N / A	N / A	3	6	0.2	Scrap Bin	None	
F4D9E7-00012	F4D9E7	10.51	11/1/2009	287403.5	3838344.3	Cultural Debris	Scrap	N / A	N / A	N / A	2	3	0.5	Scrap Bin	None	
F4D9E7-00013	F4D9E7	8.99	10/26/2009	287404.8	3838349.9	Cultural Debris	Nail	N / A	N / A	N / A	4	4	0.1	Scrap Bin	None	Nails
F4D9E7-00014	F4D9E7	5.68	10/26/2009	287406.9	3838349	Cultural Debris	Scrap	N / A	N / A	N / A	3	3	0.1	Scrap Bin	None	
F4D9E7-00015	F4D9E7	5.52	10/26/2009	287408.8	3838346.1	Cultural Debris	Scrap	N / A	N / A	N / A	5	3	0.2	Scrap Bin	None	
F4D9E7-00016	F4D9E7	5.47	10/26/2009	287408	3838341.8	Cultural Debris	Scrap	N / A	N / A	N / A	3	3	0.2	Scrap Bin	None	
F4D9E7-00017	F4D9E7	5.29	10/26/2009	287402	3838328.3	Cultural Debris	Scrap	N / A	N / A	N / A	1	6	0.75	Scrap Bin	None	
F4D9E7-00018	F4D9E7	5.04	10/26/2009	287403.5	3838334.4	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	Possible influence from D9E7-2
F4D9E7-00019	F4D9E7	4.98	11/1/2009	287408	3838342.8	Cultural Debris	Scrap	N / A	N / A	N / A	1	12	0.5	Scrap Bin	None	
F4D9E7-00020	F4D9E7	4.92	10/26/2009	287409.9	3838322	Cultural Debris	Scrap	N / A	N / A	N / A	3	1	0.1	Scrap Bin	None	
F4D9E7-00021	F4D9E7	4.9	10/26/2009	287408	3838317.3	Cultural Debris	Scrap	N / A	N / A	N / A	1	0	0.1	Scrap Bin	None	
F4D9E7-00022	F4D9E7	4.67	10/26/2009	287407.3	3838338.8	Cultural Debris	Scrap	N / A	N / A	N / A	3	3	0.2	Scrap Bin	None	
F4D9E7-00023	F4D9E7	4.61	10/26/2009	287408.4	3838347.3	Cultural Debris	Scrap	N / A	N / A	N / A	2	3	0.1	Scrap Bin	None	
F4D9E7-00024	F4D9E7	4.56	10/26/2009	287406.9	3838347.6	Cultural Debris	Scrap	N / A	N / A	N / A	4	6	0.2	Scrap Bin	None	
F4D9E7-00025	F4D9E7	4.51	10/26/2009	287400.5	3838333.3	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	
F4D9E7-00026	F4D9E7	4.38	10/26/2009	287409.5	3838336.5	Cultural Debris	Scrap	N / A	N / A	N / A	3	3	0.1	Scrap Bin	None	
F4D9E7-00027	F4D9E7	3.74	10/26/2009	287400.5	3838334	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	
F4D9E7-00028	F4D9E7	3.68	10/26/2009	287405.8	3838308.7	No Contact	No Contact	N / A	N / A	N / A	0	0	0	Left in Place	None	
F4D9E7-00029	F4D9E7	3.55	10/26/2009	287408.8	3838325.3	Cultural Debris	Scrap	N / A	N / A	N / A	2	3	0.1	Scrap Bin	None	
F4D9E8-00001	F4D9E8	194.18	10/26/2009	287407.3	3838352.9	Cultural Debris	Scrap	N / A	N / A	N / A	6	3	5	Scrap Bin	None	Several pieces of metal on surface plus nails in the ground
F4D9E8-00002	F4D9E8	99.48	10/27/2009	287404.2	3838360	Cultural Debris	Scrap	N / A	N / A	N / A	1	0	2	Scrap Bin	None	Brake pad from vehicle. Piece of hubcap.

TABLE 1

MEC Intrusive Investigation Results

Site UXO-21 Former D-Area Gas Chambe

MCB CamLej, North Carolina

Anomaly ID	Grid	Amplitude	Dig Date	X1	Y1	Item Group	Class	Category	Filler	Fuze	Quantity	Depth	Weight	Action Taken	Demo Req?	Item Comment
F4D9E8-00003	F4D9E8	97.54	10/27/2009	287405.7	3838354.8	Cultural Debris	Scrap	N / A	N / A	N / A	1	0	3	Scrap Bin	None	
F4D9E8-00004	F4D9E8	80.63	10/26/2009	287406.9	3838353.6	Cultural Debris	Scrap	N / A	N / A	N / A	2	0	3	Scrap Bin	None	Metal and nails.
F4D9E8-00005	F4D9E8	40.97	10/26/2009	287405.3	3838357	Cultural Debris	Scrap	N / A	N / A	N / A	3	4	6	Scrap Bin	None	Several pieces of crumpled sheet metal.
F4D9E8-00006	F4D9E8	35.51	10/27/2009	287402.8	3838365.1	Cultural Debris	Scrap	N / A	N / A	N / A	1	0	0.75	Scrap Bin	None	
F4D9E8-00007	F4D9E8	21.85	10/27/2009	287400.2	3838364.6	Cultural Debris	Scrap	N / A	N / A	N / A	6	6	0.25	Scrap Bin	None	
F4D9E8-00008	F4D9E8	14.89	10/27/2009	287402	3838360.5	Cultural Debris	Scrap	N / A	N / A	N / A	1	3	0.2	Scrap Bin	None	
F4D9E8-00009	F4D9E8	12.33	10/26/2009	287403.5	3838351.9	Cultural Debris	Nail	N / A	N / A	N / A	15	4	0.1	Scrap Bin	None	Nails
F4D9E8-00010	F4D9E8	11.57	10/26/2009	287405	3838352.1	Cultural Debris	Nail	N / A	N / A	N / A	15	4	0.1	Scrap Bin	None	Nails
F4D9E8-00011	F4D9E8	10.56	10/27/2009	287401	3838366	Cultural Debris	Scrap	N / A	N / A	N / A	5	6	0.25	Scrap Bin	None	
F4D9E8-00012	F4D9E8	8.09	10/26/2009	287404.3	3838351.1	Cultural Debris	Nail	N / A	N / A	N / A	15	4	0.1	Scrap Bin	None	Numerous nails
F4D9E8-00013	F4D9E8	3.74	10/26/2009	287403.5	3838354.4	Cultural Debris	Nail	N / A	N / A	N / A	10	4	0.1	Scrap Bin	None	Numerous small nails that took over an hour to clear
F4D9E8-00014	F4D9E8	3.47	10/27/2009	287402.8	3838356.3	Cultural Debris	Scrap	N / A	N / A	N / A	1	0	0.75	Scrap Bin	None	

Generated by: David Seed *Checked By:*

Attachment 1

Discovered Items Information and Photos

Signal, Illumination, Ground, M22A1

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General Specifications

ID:	Nomen:	Category:
3639	U.S. SIGNAL, 1.6-IN, GROUND, WHITE STAR M17 - M33	Pyrotechnics And Flares

Descriptions

Outline Description:

Pyrotechnic compositions are complex chemical mixtures. On burning, they produce illuminations ranging in intensity from the "dark fire" used as an element of blinker signals to the brilliant flash produced by the photoflash bombs. Standard pyrotechnics, in general, consist of compounds to provide oxygen for burning, such as chlorates and nitrates; aluminum or magnesium for fuel; salts of barium, copper, or strontium for color; and agents such as asphalt and paraffin for binding and waterproofing. Pyrotechnics usually functions by means of an igniter train. In general, ignition is initiated by a primer mixture and intensified by a "first-fire" composition which ignites the luminous candle. The signal is assembled in a cylindrical case, and equipped with a finned tail assembly for stabilization purposes. The primer is located in the head of the signal, and the propelling charge is contained in a small cavity under the head. The end opposite the primer is closed by a press-fit cap to which the tail assembly is attached. The signal has a solid tail stem and an X-shaped fin. Embossed letters on the fin indicate the color and type of star(s).

Structure:

Assemblies:

Markings:

Method of Operation:

Alert:

Specifications

Diameter (mm):	40.64
Length(mm):	152.4
Width (mm):	
Height (mm):	
Weight (g):	0
Metallic Weight (g):	
Explosive Weight (g):	-1
Frag range (m):	10

Component Materials:
The body is made of cardboard.

Case Material:
Cardboard

Detectability:

Explosive:
Pyrotechnic Composition

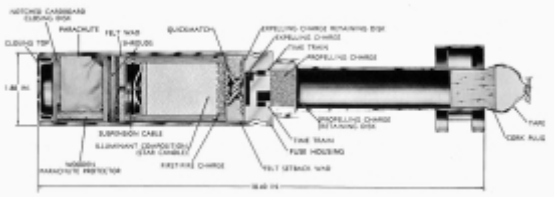
Transport:
Do not transport

Hazard:
Ejection
Smoke/Incendiary

Images

Original Ordata Photo

Original Ordata Thumb



Diagram

Additional image 2

Primary

Thumb

Disposal

Neutralization:
Do not neutralize

Disarming:
Do not disarm

Close

M27A1B1 Projectile Air Burst Simulator

55-44
13

ORDATA online

Help us improve ORDATA! Take this five-minute survey to provide your feedback. Your assistance is appreciated.

General Specifications

ID:
2234

Nomen:
U.S. SIMULATOR, PROJECTILE, AIR BURST, M27A1B1

Category:
Pyrotechnics And Flares

Descriptions

Outline Description:

The figure shows the appearance and dimensions of the M27A1B1 simulator.

Structure:

Assemblies:

Markings:

The body is blue gray with black markings

Method of Operation:

Alert:

Specifications

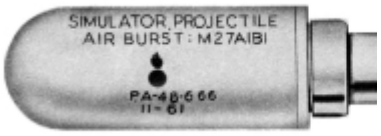
Diameter (mm):	48	**Component Materials:** The body is plastic.	**Countries**
Length(mm):	213	**Case Material:** Plastic	
Width (mm):		**Detectability:**	
Height (mm):		**Explosive:** Black Powder	
Weight (g):	263.088	**Transport:** Do not transport	
Metallic Weight (g):		**Hazard:** Explosive (HE) Frag	
Explosive Weight (g):	62.37		
Frag range (m):	15		

Images

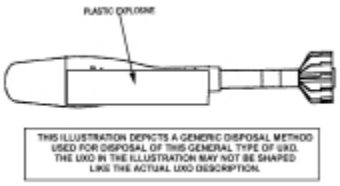
Original Ordata Thumb

K4549U02TN.jpg

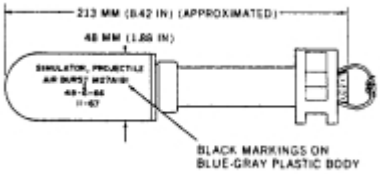
Original Ordata Image



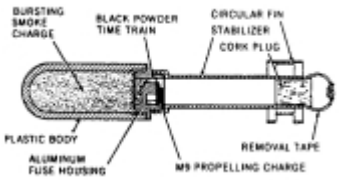
Original Ord



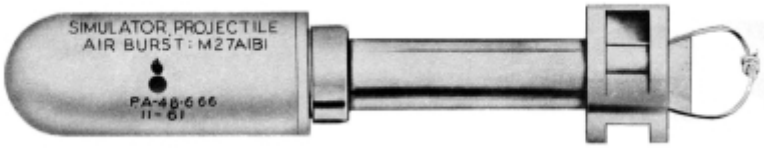
Thumb



Primary



Diagram



Additional image 1

Disposal

Neutralization:
Do not neutralize

Disarming:
Do not disarm

Demolition:
Charge Weig
Placement:

Close

Appendix J
Human Health Risk Screening Results

Final

Human Health Risk Screening Report
MMRP Site UXO-21 Former D-Area Gas Chamber
(2D MARDIV) (ASR#2.204)

Marine Corps Base Camp Lejeune
Jacksonville, North Carolina

Contract Task Order 040

November 2011

Prepared for

Department of the Navy
Naval Facilities Engineering Command
Mid-Atlantic

Under the

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

Prepared by

CH2MHILL

Raleigh, North Carolina

Acronyms and Abbreviations

AF	attenuation factor
bgs	below ground surface
COPC	constituent of potential concern
cPAH	carcinogenic polycyclic aromatic hydrocarbon
CSM	Conceptual Site Model
HHRS	Human Health Risk Screening
HI	hazard index
HQ	hazard quotient
IRIS	Integrated Risk Information System
MCB CamLej	Marine Corps Base Camp Lejeune
MCL	maximum contaminant level
NC 2B Standards	North Carolina Administrative Code Title 15A, Subchapter 2B Surface Water Quality Standards
NC 2L Standards	North Carolina Administrative Code Title 15A, Subchapter 2L Groundwater Quality Standards
NC SSL	North Carolina Soil Screening Level
NCAC	North Carolina Administrative
NRWQC	North Carolina Water Quality Criteria
RSL	Regional Screening Level
SVOC	semivolatile organic compound
UCL	upper confidence limit
USEPA	United States Environmental Protection Agency
VOC	volatile organic compound

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1 Conceptual Site Model for HHRS – Phase I Investigation Area
2 Conceptual Site Model for HHRS – Phase II Investigation Area

1 Overview

A Human Health Risk Screening (HHRS) was performed for Site UXO-21 for Phase I and Phase II of the investigation to evaluate potential risks associated with exposure to site media by potential current and future receptor populations. The results of the HHRS provide a preliminary indication of potential risks from constituents of potential concern (COPCs) and are used to help determine whether the site requires further evaluation (e.g., a baseline risk assessment or additional data collection), or future unrestricted use (residential use, the most conservative site use, or any other potential future site use, including construction activities) of the site is acceptable based on human health risks.

Phase I investigation activities included a HHRS for soil and groundwater, and Phase II investigation activities included a HHRS for soil, groundwater, surface water, and sediment. The results of the HHRS are used to evaluate whether future residential use of the site is acceptable based on human health risks or if the site requires further evaluation (e.g., a baseline risk assessment, additional data collection).

The data included in the risk screening were all validated. The validated data were evaluated to determine the reliability of the data for use in the HHRS. A review of the data identified the following criteria for data usability:

- Estimated values flagged with a J qualifier were treated as detected concentrations
- For duplicate samples, the maximum concentration between the two samples was used as the sample concentration
- Unfiltered groundwater samples were analyzed in the risk evaluations following United States Environmental Protection Agency (USEPA) Region IV guidance (2000).

2 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. The human health CSM for soil and groundwater for the Phase I investigation area is presented in **Figure 1**, and the human health CSM for soil, groundwater, surface water and sediment for the Phase II investigation area is presented in **Figure 2**.

Potential current receptors for Site UXO-21 include visitors, trespassers, Base/industrial workers, and maintenance workers. 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, surface water, and sediment, and inhalation of volatile and particulate emissions from the surface soil.

Future site use is to change from current site use to residential use; therefore, potential future receptors include current receptors and construction workers who perform any future construction projects at the site and future residents. Future receptors could be exposed to surface and subsurface soil if future construction at the site results in re-working the soil, and exposing the subsurface soil. Exposure routes for future exposure to the surface soil are the same as those for current surface soil: incidental ingestion of and dermal contact

with the soil, and inhalation of volatile and particulate emissions from the soil. The construction worker could also be exposed to the surface water and sediment, through incidental ingestion and dermal contact. Future residential exposure to surface water and sediment would be the same as for a trespasser/visitor; therefore, residential exposure to these media were not evaluated.

Potable water supplies for Marine Corps Base Camp Lejeune (MCB CamLej) and the surrounding residential area are provided by water supply wells that pump groundwater from the Castle Hayne aquifer, and therefore, there is no current exposure to shallow groundwater at the site. The groundwater use patterns are already established for the Base and area around the site, thus, use of shallow groundwater from the site for industrial or residential purposes is unlikely. Additionally, the surficial aquifer at MCB CamLej is not suitable for potable water use due to high dissolved solids, hardness and fluctuating water levels that negatively affect water yields. However, state and federal governing policies assume that underground fresh water resources are potable, and should be maintained as such, and therefore, a potable use scenario was evaluated in this risk assessment. It was conservatively 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 depth to groundwater at Site UXO-21 (from 5 to 15 feet below ground surface [bgs]), construction workers could be exposed to the groundwater through dermal contact and inhalation of vapors in an excavation during construction activities.

Volatile organic compounds (VOCs) were detected in groundwater; therefore, vapor intrusion into current or future buildings was considered a potentially complete exposure pathway and was evaluated in the risk screening.

3 Human Health Risk-Based Screening and Risk Ratio Evaluation Methodology

The HHRS was conducted in three steps using a risk ratio technique (Navy, 2000). If COPCs were identified after Step 1, they were evaluated in Step 2. If COPCs were identified after Step 2, they were evaluated in Step 3. The three-step screening process is described below.

3.1.1 Step 1

The maximum detected analyte concentrations for each medium were compared to USEPA Regional Screening Levels (RSLs) (USEPA, 2010a), other HHRS levels (if appropriate), and two times the mean background concentration (for inorganic constituents in soil and groundwater). RSLs based on noncarcinogenic effects were divided by 10 to account for exposure to multiple constituents (i.e., were adjusted to a hazard quotient [HQ] of 0.1, from the HQ of 1.0 used on the RSL table). RSLs based on carcinogenic endpoints were used as presented in the RSL table and are based on a carcinogenic risk of 1×10^{-6}.

The soil and sediment data were compared to Adjusted (for noncarcinogens) Residential Soil RSLs. Residential Soil RSLs are lower than Industrial Soil RSLs and are therefore protective of all potential receptors (e.g., residents, industrial workers, construction workers). North Carolina Soil Screening Levels (NC SSLs) are also shown on the Step 1

screening tables for comparison but were not used to identify COPCs for further evaluation in the following steps.

The groundwater data were compared to Adjusted (for noncarcinogens) Tap Water RSLs. Groundwater data were also compared to maximum contaminant levels (MCLs) and the North Carolina Administrative Code (NCAC) Title 15A, Subchapter 2L Groundwater Quality Standards (NC 2L Standards); however, these comparisons were not used to identify the groundwater COPCs to carry forward to Step 2.

The surface water data were compared to the lower of NCAC Title 15A, Subchapter 2B Surface Water Quality Standards (NC 2B Standards) (if available), or the National Recommended Water Quality Criteria (NRWQC) for human health (water and organisms criteria). If neither of these was available for a detected constituent, the Adjusted Tap Water RSL was used for comparison and identification of COPCs.

If the maximum detected concentration in soil, groundwater, surface water, or sediment exceeded the appropriate screening value and background concentration, the screening level risk evaluation proceeded to Step 2. In addition, if a carcinogenic polycyclic aromatic hydrocarbon (cPAH) (benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene) was selected as a COPC, all detected cPAHs were carried over to Step 2 based on the selection criteria of a chemical from the same class, cPAH.

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

3.1.2 Step 2

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

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

The concentration is the maximum detected concentration (the same concentration that was used in Step 1). The acceptable risk level is 1 for noncarcinogens and 10^{-6} for carcinogens. RSLs for noncarcinogenic effects were not adjusted by 10 as was done in Step 1; they were used as presented in the RSL table.

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

3.1.3 Step 3

A corresponding risk level was calculated as discussed above for Step 2; however, the 95 percent upper confidence limit (UCL) was used in place of the maximum detected concentration if more than five samples were available for that medium, to obtain a more site-specific risk ratio. If the cumulative corresponding HI by target organ/effect was greater than 0.5, or the cumulative corresponding carcinogenic risk was greater than 5×10^{-5}, then constituents contributing to these values were considered COPCs.

ProUCL Version 4.00.05 (USEPA, 2010b) was used to test the data distribution and calculate the 95 percent UCLs used for the Step 3 risk ratio calculations.

Vapor Intrusion from Groundwater to Indoor Air

Groundwater risk-based screening levels protective of the vapor intrusion exposure pathway were calculated using the methodology described in Appendix D of the *OSWER Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance)* (USEPA, 2002). The target groundwater concentration was calculated by dividing the target indoor air concentration by an attenuation factor (AF) that accounts for the diffusion resistance across the capillary fringe, and then converting the vapor concentration to an equivalent groundwater concentration, assuming the equilibrium partitioning obeys Henry's Law. The equation is as follows (USEPA, 2002):

$$C_{gw}\ [\mu g/L] = C_{target,ia}\ (\mu g/m^3) * 10^{-3}\ m^3/L * 1/H'_{TS} * 1/\alpha$$

where,

C_{gw} = target groundwater concentration (i.e., GWSL)

$C_{target,ia}$ = target indoor air concentration (RSLs for residential air)

MW = molecular weight (g/mole)

α = AF (default ratio of indoor air concentration to source vapor concentration; 1E-03)

H'_{TS} = Henry's Law Constant at system (groundwater) temperature (dimensionless)

The dimensionless form of the Henry's Law constant at the system temperature (i.e., at the average groundwater temperature) was estimated using the following equation:

$$H'_{TS} = \frac{\exp\left[-\frac{\Delta H_{v,TS}}{RT_s}\left(\frac{1}{T_S}-\frac{1}{T_R}\right)\right]H_R}{RT_S}$$

where,

H'_{TS} = Henry's Law constant at the system temperature (dimensionless)

$\Delta H_{v,TS}$ = Enthalpy of vaporization at the system temperature (cal/mol)

T_S = System temperature (°K)

T_R = Henry's Law constant reference temperature (°K)

H_R = Henry's Law constant at the reference temperature (atm-m^3/mol)

RC = Gas constant (= 1.9872 cal/mol - °K)

R = Gas constant (= 8.205 E-05 atm-m^3/mol-°K)

The enthalpy of vaporization at the system temperature is calculated using the following equation:

$$\Delta H_{v,TS} = \Delta H_{v,b}\left[\frac{(1-T_S/T_C)}{(1-T_B/T_C)}\right]^n$$

where,

$\Delta H_{v,TS}$ = Enthalpy of vaporization at the system temperature (cal/mol)

$\Delta H_{v,b}$ = Enthalpy of vaporization at the normal boiling point (cal/mol)

T_S = System temperature (°K)

T_C = Critical temperature (°K)

T_B = Normal boiling point (°K)

n = Constant (unitless) (The value of n is a function of the ratio of T_B /T_C.)

The groundwater risk-based screening levels were calculated for noncarcinogenic and carcinogenic endpoints. If the calculated indoor air screening level was below the MCL, the MCL was used as the screening level. Only volatile chemicals that were detected in groundwater were screened for the vapor intrusion exposure pathway.

4 HHRS Results – Phase I Investigation Area

The human health risk-based screening (comparison to risk-based criteria and background levels, Step 1) and risk ratio evaluation (Steps 2 and 3) were performed for surface soil, subsurface soil, and groundwater.

4.1.1 Soil

Tables 1 and 2 show the results of the Step 1 surface soil screening and subsurface soil screenings, respectively. There were no constituents retained as COPCs for either surface or subsurface soil. Therefore, exposure to soil would not be expected to result in any unacceptable human health risks, and no further evaluation of soil is required in the HHRS.

4.1.2 Groundwater

The risk-based screening and risk ratio evaluation for groundwater data are presented in **Tables 3 through 3a**. As shown on **Table 3,** two metals (aluminum and chromium) exceeded the first step of the screening and were identified as COPCs for evaluation in Step 2. Based on Step 2 (**Table 3**), chromium could not be eliminated as a COPC. Step 3 was not performed because there were only three samples and the 95 percent UCL could not be calculated. Therefore, chromium was retained as a COPC.

Chromium is the only COPC that contributes a carcinogenic risk above target level of 5×10^{-5}. In the absence of chromium speciation information, the Tap Water RSL for hexavalent chromium, the more toxic (and carcinogenic) form or oxidation state of chromium, was used as the screening value for total chromium. The use of hexavalent chromium for comparison to total chromium is extremely conservative since the presence of trivalent chromium is strongly favored in natural waters. The concentrations of constituents known to reduce hexavalent chromium to trivalent chromium generally far outweigh the concentrations of the few constituents known to oxidize trivalent chromium to hexavalent chromium. Furthermore, once reduced, trivalent chromium is very stable in aquatic environments and highly unlikely to oxidize to hexavalent chromium. Thus, chromium in groundwater is more likely to be in its trivalent form than its hexavalent form (Fendorf and Zasoski, 1992; Milacic and Stupar, 1995; Weaver and Hochella, 2003).

The maximum detected concentration of total chromium in the groundwater is below the Tap Water RSL for trivalent chromium. Additionally, prior to including the New Jersey USEPA oral cancer slope factor for hexavalent chromium in the table, the groundwater RSL for hexavalent chromium was over three orders of magnitude higher than the value on the current RSL table. It should also be noted that there is some uncertainty associated with the hexavalent chromium oral cancer slope factor and RSL, as the value is from New Jersey Environmental Protection Agency, and has not been included in USEPA's Integrated Risk Information System (IRIS) database. Elimination of chromium as a COPC would also result in elimination of risk from groundwater.

Tables 4 and 4a, present the vapor intrusion from groundwater into indoor air evaluation. Toluene and xylene were the only volatile chemicals detected in groundwater. The concentrations of toluene and xylene in the groundwater were below the vapor intrusion screening level. Exposure to indoor air associated with vapor intrusion from groundwater into a future onsite building is not expected to result in any unacceptable human health risks, and no further evaluation of groundwater is required in the HHRS.

4.1.3 Non-Detected Analytes

For surface and subsurface soil, there were a number of VOC, semivolatile organic compounds (SVOCs), and metals with detection limits that exceeded the screening levels for those analytes; however, most of the detection limits were within an order of magnitude of the screening value or NC SSL.

For groundwater, there were a number of VOCs, SVOCs, and metals with detection limits that exceeded the screening level, however, most of the detection limits were within an order of magnitude of the screening value or MCL. There were a few VOCs and SVOCs in groundwater with detection limits over an order of magnitude greater than the screening level. However, due to the limited amount of VOCs and SVOCs detected in the groundwater it is not expected that they are present in the groundwater, and if they are, it is likely they would be below levels of potential concern for human health.

Therefore, there is some uncertainty associated with constituents that were not detected with detection limits above the screening levels; however, based on past site use and results of the constituents detected in the site media, this is not expected to affect the results of this risk evaluation.

5 HHRS Results – Phase II Investigation Area

The human health risk-based screening (comparison to risk-based criteria and background levels, Step 1) and risk ratio evaluation (Steps 2 and 3) were performed for surface soil, sediment, surface water, and groundwater.

5.1.1 Surface Soil

Tables 5 and 5a present the risk-based screening and risk ratio evaluation for surface soil. As shown in **Table 5**, one SVOC (benzo(a)pyrene), three explosives residues (nitrobenzene, 3-nitrotoluene, and nitroglycerin), and three metals (aluminum, arsenic, and chromium) were identified as COPCs. One SVOC (benzo(b)fluoranthene) was selected as a COPC, based on the selection criteria of a chemical from the same class,. Based on Step 2 of the screening process (**Table 5a**), the cumulative corresponding HIs for all target organs were below 0.5, and the cumulative corresponding cancer risk did not exceed $5x10^{-5}$; therefore, all COPCs, were eliminated. Exposure to surface soil would not pose any unacceptable risks, and no further evaluation of surface soil is required in the HHRS.

5.1.2 Surface Water

Tables 6, 6a, and 6b present the risk-based screening for surface water. As shown on **Table 6**, one SVOC (bis(2-ethyl)hexylphthalate) and three metals (arsenic, iron, and manganese) exceeded Step 1 of the screening and were identified as COPCs for evaluation in Step 2. Step 2 of the surface water screening (**Table 6a**) used the Tap Water RSLs (USEPA, 2010a) as the screening values, even if North Carolina Water Quality Standards and/or Federal Ambient Water Quality Criteria were available, because these screening values are not necessarily risk-based. Based on Step 2 (risk ratio using maximum detected concentrations), bis(2-ethylhexylphthalate and arsenic were retained as COPCs and were carried forward to Step 3 (**Table 6b**), where the 95 percent UCL concentration resulted in a cumulative carcinogenic risk below the screening criteria. Therefore, exposure to surface water at Site UXO-21 is not expected to result in any unacceptable human health risks, and no further evaluation of surface water is required in the HHRS.

5.1.3 Sediment

Tables 7 and 7a present the risk-based screening and risk ratio evaluation for sediment. As shown in **Table 7**, one metal (chromium) exceeded Step 1 of the screening and was identified as a COPC for evaluation in Step 2. Based on Step 2 (risk ratio using maximum detected concentrations, **Table 7a,** chromium was eliminated as a COPC. Therefore, exposure to sediment would not result in any unacceptable human health risks, and no further evaluation of sediment is required in the HHRS.

5.1.4 Groundwater

The risk-based screening and risk ratio evaluation for groundwater are presented in **Tables 8 and 8a.** As shown on Table J5.4, one VOC (chloroform) exceeded Step 1 of the screening and was identified as a COPC for evaluation in Step 2. Based on Step 2 (**Table 8a**), chloroform was retained as a COPC and was carried forward to Step 3, where the 95 percent UCL concentration resulted in a cumulative carcinogenic risk above the screening criteria

(**Table 8b**). It should be noted that chloroform is a common laboratory contaminant, and the chloroform may not be associated with the site.

Tables 9 and 9a present the vapor intrusion from groundwater into indoor air evaluation. Chloroform and toluene were the only volatile chemicals detected in groundwater. The concentrations of chloroform and toluene in the groundwater were below the vapor intrusion screening levels. Exposure to indoor air associated with vapor intrusion from groundwater into a future onsite building is not expected to result in any unacceptable human health risks.

5.1.5 Non-Detected Analytes

For surface soil, there was one VOC, several SVOCs, and one metal with detection limits that exceeded screening levels; however, the detection limits were within an order of magnitude of the screening value or NC SSL. For surface water and groundwater, several VOCs, SVOCs, and metals had detection limits that exceeded screening levels; however, most of the detection limits were within an order of magnitude of the screening value or MCL. There were a few VOCs and SVOCs in groundwater with detection limits over an order of magnitude greater than the screening level. However, because of the limited number of VOCs and SVOCs detected in groundwater, it is not expected that they are present in groundwater, and if they are, it is likely they would be below levels of potential concern for human health. For sediment, one VOC and four SVOCs had detection limits that exceeded screening levels; however the detection limits were within an order of magnitude of the screening value. Therefore, some uncertainty is associated with constituents that were not detected at detection limits above screening levels. However, based on past site use and results of the constituents detected in the site media, the presence of these constituents is not expected to affect the results of this risk screening.

6 Human Health Risk Screening Conclusions

In the UXO-21 Phase I and Phase II investigation areas, constituents detected in the surface and subsurface soil, groundwater, surface water, and sediment are not expected to result in unacceptable heath risks to potential human receptors.

7 References

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Tables

TABLE 1
Occurrence, Distribution, and Selection of COPCs - Surface Soil (Phase I)
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)
Phase I Investigation Area
PA/SI Report
MCB CamLej, North Carolina

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

Exposure Point	CAS Number	Chemical	Minimum [1] Concentration Qualifier	Maximum [1] Concentration Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration [2] Used for Screening	Background [3] Value	Screening [4] Toxicity Value	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for [5] Contaminant Deletion or Selection
Surface Soil	71-55-6	1,1,1-Trichloroethane	ND	ND	MG/KG		0/10	0.0091 - 0.014	1.4E-02	N/A	6.4E+02 NS	1.2E+00	NCSSL	NO	DLBSL
	79-34-5	1,1,2,2-Tetrachloroethane	ND	ND	MG/KG		0/10	0.0091 - 0.014	1.4E-02	N/A	5.6E-01 C	1.2E-03	NCSSL	NO	DLBSL
	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	ND	ND	MG/KG		0/10	0.0091 - 0.014	1.4E-02	N/A	9.1E+02 NS	9.2E+03	NCSSL	NO	DLBSL
	79-00-5	1,1,2-Trichloroethane	ND	ND	MG/KG		0/10	0.0091 - 0.014	1.4E-02	N/A	1.1E+00 C	N/A		NO	DLBSL
	75-34-3	1,1-Dichloroethane	ND	ND	MG/KG		0/10	0.0091 - 0.014	1.4E-02	N/A	3.3E+00 C	3.0E-02	NCSSL	NO	DLBSL
	75-35-4	1,1-Dichloroethene	ND	ND	MG/KG		0/10	0.0091 - 0.014	1.4E-02	N/A	2.4E+01 N	4.6E-02	NCSSL	NO	DLBSL
	120-82-1	1,2,4-Trichlorobenzene	ND	ND	MG/KG		0/10	0.0091 - 0.014	1.4E-02	N/A	6.2E+00 C**	2.2E+00	NCSSL	NO	DLBSL
	96-12-8	1,2-Dibromo-3-chloropropane	ND	ND	MG/KG		0/10	0.0091 - 0.014	1.4E-02	N/A	5.4E-03 C	2.5E-04	NCSSL	YES	DLASL
	106-93-4	1,2-Dibromoethane	ND	ND	MG/KG		0/10	0.0091 - 0.014	1.4E-02	N/A	3.4E-02 C	9.7E-05	NCSSL	NO	DLBSL
	95-50-1	1,2-Dichlorobenzene	ND	ND	MG/KG		0/10	0.0091 - 0.014	1.4E-02	N/A	1.9E+02 NS	2.4E-01	NCSSL	NO	DLBSL
	107-06-2	1,2-Dichloroethane	ND	ND	MG/KG		0/10	0.0091 - 0.014	1.4E-02	N/A	4.3E-01 C	2.0E-03	NCSSL	NO	DLBSL
	78-87-5	1,2-Dichloropropane	ND	ND	MG/KG		0/10	0.0091 - 0.014	1.4E-02	N/A	8.9E-01 C*	3.3E-03	NCSSL	NO	DLBSL
	541-73-1	1,3-Dichlorobenzene	ND	ND	MG/KG		0/10	0.0091 - 0.014	1.4E-02	N/A	2.4E+00 C	7.6E+00	NCSSL	NO	DLBSL
	106-46-7	1,4-Dichlorobenzene	ND	ND	MG/KG		0/10	0.0091 - 0.014	1.4E-02	N/A	2.4E+00 C	7.0E-02	NCSSL	NO	DLBSL
	78-93-3	2-Butanone	5.7E-03 J	1.0E-02	MG/KG	GC-IS05-0-1-07C	2/10	0.01 - 0.014	1.0E-02	N/A	2.8E+03 N	1.6E+01	NCSSL	NO	BSL
	591-78-6	2-Hexanone	ND	ND	MG/KG		0/10	0.0091 - 0.014	1.4E-02	N/A	2.1E+01 N	1.2E+00	NCSSL	NO	DLBSL
	108-10-1	4-Methyl-2-pentanone	ND	ND	MG/KG		0/10	0.0091 - 0.014	1.4E-02	N/A	5.3E+02 NS	N/A		NO	DLBSL
	67-64-1	Acetone	7.5E-03 J	2.8E-01 J	MG/KG	GC-IS05-0-1-07C	9/10	0.0091 - 0.014	2.8E-01	N/A	6.1E+03 N	2.4E+01	NCSSL	NO	BSL
	71-43-2	Benzene	ND	ND	MG/KG		0/10	0.0091 - 0.014	1.4E-02	N/A	1.1E+00 C*	7.3E-03	NCSSL	NO	DLBSL
	75-27-4	Bromodichloromethane	ND	ND	MG/KG		0/10	0.0091 - 0.014	1.4E-02	N/A	2.7E-01 C	2.9E-03	NCSSL	NO	DLBSL
	75-25-2	Bromoform	ND	ND	MG/KG		0/10	0.0091 - 0.014	1.4E-02	N/A	6.1E+01 C*	1.9E-02	NCSSL	NO	DLBSL
	74-83-9	Bromomethane	ND	ND	MG/KG		0/10	0.0091 - 0.014	1.4E-02	N/A	7.3E-01 N	N/A		NO	DLBSL
	75-15-0	Carbon disulfide	ND	ND	MG/KG		0/10	0.0091 - 0.014	1.4E-02	N/A	8.2E+01 NS	3.8E+00	NCSSL	NO	DLBSL
	56-23-5	Carbon tetrachloride	ND	ND	MG/KG		0/10	0.0091 - 0.014	1.4E-02	N/A	6.1E-01 C	2.0E-03	NCSSL	NO	DLBSL
	108-90-7	Chlorobenzene	ND	ND	MG/KG		0/10	0.0091 - 0.014	1.4E-02	N/A	2.9E+01 N	4.5E-01	NCSSL	NO	DLBSL
	75-00-3	Chloroethane	ND	ND	MG/KG		0/10	0.0091 - 0.014	1.4E-02	N/A	1.5E+03 NS	1.6E+01	NCSSL	NO	DLBSL
	67-66-3	Chloroform	ND	ND	MG/KG		0/10	0.0091 - 0.014	1.4E-02	N/A	2.9E-01 C	3.4E-01	NCSSL	NO	DLBSL
	74-87-3	Chloromethane	ND	ND	MG/KG		0/10	0.0091 - 0.014	1.4E-02	N/A	1.2E+01 N	1.5E-02	NCSSL	NO	DLBSL
	156-59-2	cis-1,2-Dichloroethene	ND	ND	MG/KG		0/10	0.0091 - 0.014	1.4E-02	N/A	7.8E+01 N	3.6E-01	NCSSL	NO	DLBSL
	10061-01-5	cis-1,3-Dichloropropene	ND	ND	MG/KG		0/10	0.0091 - 0.014	1.4E-02	N/A	1.7E+00 C*	2.3E-03	NCSSL	NO	DLBSL
	110-82-7	Cyclohexane	ND	ND	MG/KG		0/10	0.0091 - 0.014	1.4E-02	N/A	1.2E+02 NS	N/A		NO	DLBSL
	124-48-1	Dibromochloromethane	ND	ND	MG/KG		0/10	0.0091 - 0.014	1.4E-02	N/A	6.8E-01 C	1.9E-03	NCSSL	NO	DLBSL
	75-71-8	Dichlorodifluoromethane (Freon-12)	ND	ND	MG/KG		0/10	0.0091 - 0.014	1.4E-02	N/A	1.8E+01 N	2.9E+01	NCSSL	NO	DLBSL
	100-41-4	Ethylbenzene	ND	ND	MG/KG		0/10	0.0091 - 0.014	1.4E-02	N/A	5.4E+00 C	8.1E+00	NCSSL	NO	DLBSL
	98-82-8	Isopropylbenzene	ND	ND	MG/KG		0/10	0.0091 - 0.014	1.4E-02	N/A	2.1E+02 NS	1.3E+00	NCSSL	NO	DLBSL
	79-20-9	Methyl acetate	ND	ND	MG/KG		0/10	0.0091 - 0.014	1.4E-02	N/A	7.8E+03 NS	N/A		NO	DLBSL

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Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)
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MCB CamLej, North Carolina

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Medium: Surface Soil
Exposure Medium: Surface Soil

Exposure Point	CAS Number	Chemical	Minimum [1] Concentration Qualifier	Maximum [1] Concentration Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration [2] Used for Screening	Background [3] Value	Screening [4] Toxicity Value	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for [5] Contaminant Deletion or Selection
	108-87-2	Methylcyclohexane	ND	ND	MG/KG		0/10	0.0091 - 0.014	1.4E-02	N/A	5.7E+01 N	N/A		NO	DLBSL
	75-09-2	Methylene chloride	5.7E-03 J	1.5E-02	MG/KG	GC-IS01-0-1-07C	5/10	0.0091 - 0.014	1.5E-02	N/A	1.1E+01 C	2.3E-02	NCSSL	NO	BSL
	1634-04-4	Methyl-tert-butyl ether (MTBE)	ND	ND	MG/KG		0/10	0.0091 - 0.014	1.4E-02	N/A	4.3E+01 C	8.5E-02	NCSSL	NO	DLBSL
	100-42-5	Styrene	ND	ND	MG/KG		0/10	0.0091 - 0.014	1.4E-02	N/A	6.3E+02 NS	9.2E-01	NCSSL	NO	DLBSL
	127-18-4	Tetrachloroethene	ND	ND	MG/KG		0/10	0.0091 - 0.014	1.4E-02	N/A	5.5E-01 C	5.0E-03	NCSSL	NO	DLBSL
	108-88-3	Toluene	4.6E-03 J	4.6E-03 J	MG/KG	GC-IS06-0-1-07C	1/10	0.0091 - 0.014	4.6E-03	N/A	5.0E+02 NS	5.5E+00	NCSSL	NO	BSL
	156-60-5	trans-1,2-Dichloroethene	ND	ND	MG/KG		0/10	0.0091 - 0.014	1.4E-02	N/A	1.5E+01 N	5.1E-01	NCSSL	NO	DLBSL
	10061-02-6	trans-1,3-Dichloropropene	ND	ND	MG/KG		0/10	0.0091 - 0.014	1.4E-02	N/A	1.7E+00 C*	2.3E-03	NCSSL	NO	DLBSL
	79-01-6	Trichloroethene	ND	ND	MG/KG		0/10	0.0091 - 0.014	1.4E-02	N/A	2.8E+00 C	1.8E-02	NCSSL	NO	DLBSL
	75-69-4	Trichlorofluoromethane(Freon-11)	ND	ND	MG/KG		0/10	0.0091 - 0.014	1.4E-02	N/A	7.9E+01 N	2.4E+01	NCSSL	NO	DLBSL
	75-01-4	Vinyl chloride	ND	ND	MG/KG		0/10	0.0091 - 0.014	1.4E-02	N/A	6.0E-02 C	1.9E-04	NCSSL	NO	DLBSL
	1330-20-7	Xylene, total	ND	ND	MG/KG		0/10	0.0091 - 0.014	1.4E-02	N/A	6.3E+01 NS	6.0E+00	NCSSL	NO	DLBSL
	92-52-4	1,1-Biphenyl	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	2.1E+02 NS	4.3E+01	NCSSL	NO	DLBSL
	108-60-1	2,2'-Oxybis(1-chloropropane)	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	4.6E+00 C	N/A		NO	DLBSL
	95-95-4	2,4,5-Trichlorophenol	ND	ND	MG/KG		0/10	0.89 - 1	1.0E+00	N/A	6.1E+02 N	N/A		NO	DLBSL
	88-06-2	2,4,6-Trichlorophenol	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	6.1E+00 C**	N/A		NO	DLBSL
	120-83-2	2,4-Dichlorophenol	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	1.8E+01 N	N/A		NO	DLBSL
	105-67-9	2,4-Dimethylphenol	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	1.2E+02 N	1.4E+00	NCSSL	NO	DLBSL
	51-28-5	2,4-Dinitrophenol	ND	ND	MG/KG		0/10	0.89 - 1	1.0E+00	N/A	1.2E+01 N	N/A		NO	DLBSL
	121-14-2	2,4-Dinitrotoluene	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	1.6E+00 C*	N/A		NO	DLBSL
	606-20-2	2,6-Dinitrotoluene	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	6.1E+00 N	N/A		NO	DLBSL
	532-27-4	2-Chloroacetophenone	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	4.3E+03 N	N/A		NO	DLBSL
	2698-41-1	2-Chlorobenzalmalononitrile	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	N/A	N/A		NO	NTX
	91-58-7	2-Chloronaphthalene	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	1.8E+02 NS	N/A		NO	DLBSL
	95-57-8	2-Chlorophenol	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	3.9E+01 N	4.1E-03	NCSSL	NO	DLBSL
	91-57-6	2-Methylnaphthalene	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	3.1E+01 N	1.6E+00	NCSSL	NO	DLBSL
	95-48-7	2-Methylphenol	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	3.1E+02 N	N/A		NO	DLBSL
	88-74-4	2-Nitroaniline	ND	ND	MG/KG		0/10	0.89 - 1	1.0E+00	N/A	6.1E+01 N	N/A		NO	DLBSL
	88-75-5	2-Nitrophenol	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	3.9E+01 N	N/A		NO	DLBSL
	91-94-1	3,3'-Dichlorobenzidine	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	1.1E+00 C	N/A		NO	DLBSL
	99-09-2	3-Nitroaniline	ND	ND	MG/KG		0/10	0.89 - 1	1.0E+00	N/A	6.1E+01 N	N/A		NO	DLBSL
	534-52-1	4,6-Dinitro-2-methylphenol	ND	ND	MG/KG		0/10	0.89 - 1	1.0E+00	N/A	4.9E-01 N	N/A		YES	DLASL
	101-55-3	4-Bromophenyl-phenylether	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	N/A	N/A		NO	NTX
	59-50-7	4-Chloro-3-methylphenol	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	6.1E+02 N	N/A		NO	DLBSL
	106-47-8	4-Chloroaniline	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	2.4E+00 C	N/A		NO	DLBSL
	7005-72-3	4-Chlorophenyl-phenylether	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	3.1E+01 N	N/A		NO	DLBSL
	106-44-5	4-Methylphenol	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	3.1E+01 N	4.0E-01		NO	DLBSL

TABLE 1
Occurrence, Distribution, and Selection of COPCs - Surface Soil (Phase I)
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)
Phase I Investigation Area
PA/SI Report
MCB CamLej, North Carolina

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

Exposure Point	CAS Number	Chemical	Minimum [1] Concentration Qualifier	Maximum [1] Concentration Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration [2] Used for Screening	Background [3] Value	Screening [4] Toxicity Value	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for [5] Contaminant Deletion or Selection
	100-01-6	4-Nitroaniline	ND	ND	MG/KG		0/10	0.89 - 1	1.0E+00	N/A	2.4E+01 C*	N/A		NO	DLBSL
	100-02-7	4-Nitrophenol	ND	ND	MG/KG		0/10	0.89 - 1	1.0E+00	N/A	4.8E+00 C*	N/A		NO	DLBSL
	83-32-9	Acenaphthene	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	3.4E+02 N	8.4E+00	NCSSL	NO	DLBSL
	208-96-8	Acenaphthylene	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	3.4E+02 N	1.1E+01	NCSSL	NO	DLBSL
	98-86-2	Acetophenone	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	7.8E+02 NS	N/A		NO	DLBSL
	120-12-7	Anthracene	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	1.7E+03 N	6.6E+02	NCSSL	NO	DLBSL
	1912-24-9	Atrazine	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	2.1E+00 C	2.5E-02	NCSSL	NO	DLBSL
	100-52-7	Benzaldehyde	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	7.8E+02 NS	N/A		NO	DLBSL
	56-55-3	Benzo(a)anthracene	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	1.5E-01 C	1.8E-01	NCSSL	YES	DLASL
	50-32-8	Benzo(a)pyrene	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	1.5E-02 C	5.9E-02	NCSSL	YES	DLASL
	205-99-2	Benzo(b)fluoranthene	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	1.5E-01 C	6.0E-01	NCSSL	YES	DLASL
	191-24-2	Benzo(g,h,i)perylene	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	1.7E+02 N	3.6E+02	NCSSL	NO	DLBSL
	207-08-9	Benzo(k)fluoranthene	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	1.5E+00 C	5.9E+00	NCSSL	NO	DLBSL
	111-91-1	bis(2-Chloroethoxy)methane	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	1.8E+01 N	N/A		NO	DLBSL
	111-44-4	bis(2-Chloroethyl)ether	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	2.1E-01 C	1.4E-04	NCSSL	YES	DLASL
	117-81-7	bis(2-Ethylhexyl)phthalate	4.7E-02 J	3.9E-01 J	MG/KG	GC-IS09-0-1-07C	4/10	0.35 - 0.41	3.9E-01	N/A	3.5E+01 C*	7.2E+00	NCSSL	NO	BSL
	85-68-7	Butylbenzylphthalate	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	2.6E+02 C*	1.5E+02	NCSSL	NO	DLBSL
	105-60-2	Caprolactam	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	3.1E+03 N	1.8E+01	NCSSL	NO	DLBSL
	86-74-8	Carbazole	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	N/A	N/A		NO	NTX
	218-01-9	Chrysene	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	1.5E+01 C	1.8E+01	NCSSL	NO	DLBSL
	53-70-3	Dibenz(a,h)anthracene	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	1.5E-02 C	1.9E-01	NCSSL	YES	DLASL
	132-64-9	Dibenzofuran	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	7.8E+00 N	4.7E+00	NCSSL	NO	DLBSL
	84-66-2	Diethylphthalate	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	4.9E+03 N	3.7E+01	NCSSL	NO	DLBSL
	131-11-3	Dimethyl phthalate	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	N/A	N/A		NO	NTX
	84-74-2	Di-n-butylphthalate	3.7E-02 J	7.7E-02 J	MG/KG	GC-IS09-0-1-07C	3/10	0.35 - 0.42	7.7E-02	N/A	6.1E+02 N	1.9E+01	NCSSL	NO	BSL
	117-84-0	Di-n-octylphthalate	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	3.5E+01 C*	3.8E+01	NCSSL	NO	DLBSL
	206-44-0	Fluoranthene	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	2.3E+02 N	3.3E+02	NCSSL	NO	DLBSL
	86-73-7	Fluorene	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	2.3E+02 N	5.6E+01	NCSSL	NO	DLBSL
	118-74-1	Hexachlorobenzene	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	3.0E-01 C	2.6E-03	NCSSL	YES	DLASL
	87-68-3	Hexachlorobutadiene	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	6.1E+00 C**	8.7E-03	NCSSL	NO	DLBSL
	77-47-4	Hexachlorocyclopentadiene	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	3.7E+01 N	N/A		NO	DLBSL
	67-72-1	Hexachloroethane	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	6.1E+00 C**	N/A		NO	DLBSL
	193-39-5	Indeno(1,2,3-cd)pyrene	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	1.5E-01 C	2.0E+00	NCSSL	YES	DLASL
	78-59-1	Isophorone	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	5.1E+02 C*	2.1E-01	NCSSL	NO	DLBSL
	91-20-3	Naphthalene	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	3.6E+00 C*	2.1E-01	NCSSL	NO	DLBSL
	621-64-7	n-Nitroso-di-n-propylamine	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	6.9E-02 C	N/A		YES	DLASL
	86-30-6	n-Nitrosodiphenylamine	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	9.9E+01 C	N/A		NO	DLBSL

TABLE 1
Occurrence, Distribution, and Selection of COPCs - Surface Soil (Phase I)
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)
Phase I Investigation Area
PA/SI Report
MCB CamLej, North Carolina

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

Exposure Point	CAS Number	Chemical	Minimum [1] Concentration Qualifier	Maximum [1] Concentration Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration [2] Used for Screening	Background [3] Value	Screening [4] Toxicity Value	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for [5] Contaminant Deletion or Selection
	98-95-3	Nitrobenzene	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	4.8E+00 C*	N/A		NO	DLBSL
	87-86-5	Pentachlorophenol	ND	ND	MG/KG		0/10	0.89 - 1	1.0E+00	N/A	3.0E+00 C	3.1E-02	NCSSL	NO	DLBSL
	85-01-8	Phenanthrene	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	1.7E+03 N	5.7E+01	NCSSL	NO	DLBSL
	108-95-2	Phenol	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	1.8E+03 N	2.3E-01	NCSSL	NO	DLBSL
	129-00-0	Pyrene	ND	ND	MG/KG		0/10	0.35 - 0.41	4.1E-01	N/A	1.7E+02 N	2.2E+02	NCSSL	NO	DLBSL
	7429-90-5	Aluminum	2.7E+02	4.8E+03	MG/KG	GC-IS04-0-1-07C	10/10	15.5 - 17.9	4.8E+03	5.5E+03	7.7E+03 N	N/A		NO	BSL
	7440-36-0	Antimony	ND	ND	MG/KG		0/10	4.7 - 5.6	5.6E+00	4.5E-01	3.1E+00 N	N/A		YES	DLASL
	7440-38-2	Arsenic	2.0E-01 J	6.2E-01 J	MG/KG	GC-IS07-0-1-07C	6/10	0.78 - 0.89	6.2E-01	6.3E-01	3.9E-01 C*	5.8E+00	NCSSL	NO	BBK
	7440-39-3	Barium	2.9E+00 J	1.4E+01 J	MG/KG	GC-IS05-0-1-07C	10/10	15.5 - 19.2	1.4E+01	1.5E+01	1.5E+03 N	5.8E+02	NCSSL	NO	BSL
	7440-41-7	Beryllium	1.7E-02 J	1.3E-01 J	MG/KG	GC-IS05-0-1-07C	4/10	0.39 - 0.45	1.3E-01	1.0E-01	1.6E+01 N	N/A		NO	BSL
	7440-43-9	Cadmium	2.1E-02 J	8.9E-02 J	MG/KG	GC-IS05-0-1-07C	6/10	0.39 - 0.48	8.9E-02	3.3E-02	7.0E+00 N	3.0E+00	NCSSL	NO	BSL
	7440-70-2	Calcium	3.8E+01 J	4.8E+02	MG/KG	GC-IS05-0-1-07C	10/10	388 - 480	4.8E+02	6.4E+03	N/A	N/A		NO	NUT
	7440-47-3	Chromium	6.6E-01 J	3.7E+00	MG/KG	GC-IS05-0-1-07C	10/10	0.78 - 0.89	3.7E+00	6.1E+00	2.9E-01 C	3.8E+00	NCSSL	NO	BBK
	7440-48-4	Cobalt	3.4E-01 J	3.4E-01 J	MG/KG	GC-IS05-0-1-07C	1/10	3.9 - 4.3	3.4E-01	2.9E-01	2.3E+00 N	N/A		NO	BSL
	7440-50-8	Copper	9.8E-02 J	2.3E+00 J	MG/KG	GC-IS05-0-1-07C	10/10	1.9 - 2.4	2.3E+00	4.8E+00	3.1E+02 N	7.0E+02	NCSSL	NO	BSL
	7439-89-6	Iron	8.8E+01	1.6E+03	MG/KG	GC-IS07-0-1-07C	10/10	7.8 - 8.9	1.6E+03	3.2E+03	5.5E+03 N	1.5E+02	NCSSL	NO	BSL
	7439-92-1	Lead	1.4E+00	1.3E+01	MG/KG	GC-IS01-0-1-07C	10/10	0.78 - 0.96	1.3E+01	1.2E+01	4.0E+02 NL	2.7E+02	NCSSL	NO	BSL
	7439-95-4	Magnesium	1.8E+01 J	8.0E+01 J	MG/KG	GC-IS05-0-1-07C	10/10	388 - 447	8.0E+01	2.4E+02	N/A	N/A		NO	NUT
	7439-96-5	Manganese	2.0E+00	6.8E+00	MG/KG	GC-IS07-0-1-07C	10/10	1.2 - 1.4	6.8E+00	1.4E+01	1.8E+02 N	6.5E+01	NCSSL	NO	BSL
	7439-97-6	Mercury	6.3E-03 J	9.8E-02	MG/KG	GC-IS08-0-1-07C	10/10	0.033 - 0.039	9.8E-02	8.1E-02	2.4E+00 N	1.0E+00	NCSSL	NO	BSL
	7440-02-0	Nickel	1.0E-01 J	1.2E+00 J	MG/KG	GC-IS05-0-1-07C	6/10	3.1 - 3.6	1.2E+00	1.2E+00	1.5E+02 N	1.3E+02	NCSSL	NO	BSL
	7440-09-7	Potassium	1.9E+01 J	6.7E+01 J	MG/KG	GC-IS05-0-1-07C	10/10	388 - 432	6.7E+01	1.2E+02	N/A	N/A		NO	NUT
	7782-49-2	Selenium	3.6E-01 J	1.0E+00 J	MG/KG	GC-IS05-0-1-07C	7/10	2.7 - 3.4	1.0E+00	5.6E-01	3.9E+01 N	2.1E+00	NCSSL	NO	BSL
	7440-22-4	Silver	ND	ND	MG/KG		0/10	0.78 - 0.93	9.3E-01	1.4E-01	3.9E+01 N	3.4E+00	NCSSL	NO	DLBSL
	7440-23-5	Sodium	5.7E+01 J	6.9E+01 J	MG/KG	GC-IS01-0-1-07C	10/10	388 - 480	6.9E+01	8.1E+01	N/A	N/A		NO	NUT
	7440-28-0	Thallium	ND	ND	MG/KG		0/10	1.9 - 2.3	2.3E+00	3.6E-01	N/A	N/A		NO	NTX
	7440-62-2	Vanadium	7.8E-01 J	5.1E+00	MG/KG	GC-IS07-0-1-07C	10/10	3.9 - 4.5	5.1E+00	8.9E+00	3.9E+01 N	N/A		NO	BSL
	7440-66-6	Zinc	1.4E+00 J	6.8E+00	MG/KG	GC-IS05-0-1-07C	10/10	4.7 - 5.8	6.8E+00	1.1E+01	2.3E+03 N	1.2E+03	NCSSL	NO	BSL

TABLE 1

Occurrence, Distribution, and Selection of COPCs - Surface Soil (Phase I)

Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)

Phase I Investigation Area

PA/SI Report

MCB CamLej, North Carolina

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

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

[1] Minimum/Maximum detected concentrations.

[2] Maximum concentration is used for screening.

[3] Background values are two times the arithmetic mean basewide background surface soil concentrations.
Background values are from *Final Base Background Soil Study Report, Marine Corps Base Camp Lejeune, North Carolina*, Baker Environmental, April 25, 2001.

[4] Oak Ridge National Laboratory (ORNL). December 10, 2009. Regional Screening Levels (RSLs) for Chemical Contaminants at Superfund Sites.
Available: http://epa-prgs.ornl.gov/chemicals/index.shtml. Adjusted (noncarcinogenic RSLs adjusted by dividing by 10) residential soil RSLs.
RSL for 1,4-Dichlorobenzene used as surrogate for 1,3-Dichlorobenzene.
RSL value for n-Hexane used as surrogate for Methylcyclohexane.
RSL value for 2-Nitroaniline used as surrogate for 3-Nitroaniline.
RSL value for Methoxychlor used as surrogate for 4-Chlorophenyl-phenylether.
RSL value for Nitrobenzene used as surrogate for 4-Nitrophenol.
RSL value for Acenaphthene used as surrogate for Acenaphthylene.
RSL value for Pyrene used as surrogate for Benzo(g,h,i)perylene.
RSL value for Anthracene used as surrogate for Phenanthrene.
RSL value for Chromium(VI) used for Chromium.
The soil value of 400 mg/kg for lead is from the Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities, USEPA, July 14, 1994.
RSL value for Manganese (water) used for Manganese.
RSL value for Mercury (inorganic salts) used for Mercury.
RSL value for 1,3-Dichloropropene used as a surrogate for cis-1,3-Dichloropropene and trans-1,3-Dichloropropene.
RSL value for 2-Chlorophenol used as surrogate for 4-Chloro-3-methylphenol and 2-Nitrophenol.

[5] Rationale Codes

Selection Reason:	Above Screening Levels (ASL)
	Detection Limit Above Screening Level (DLASL), not quantitatively evaluated in HHRA
	Chemical from same class (carcinogenic PAH) identified as a COPC (CPAH)
Deletion Reason:	No Toxicity Information (NTX)
	Essential Nutrient (NUT)
	Below Screening Level (BSL)
	Below Background (BBK)
	Detection Limit Below Screening Level (DLBSL)

COPC = Chemical of Potential Concern
ARAR/TBC = Applicable or Relevant and Appropriate Requirement/ To Be Considered
NCSSL = North Carolina Soil Screening Levels (NCDENR, 2010)
J = Estimated Value
N/A = Not Applicable/Not Available
ND = Not Detected
NL = Noncarcinogenic lead residential soil RSL not adjusted by dividing by 10.
C = Carcinogenic
N = Noncarcinogenic
C* = N screening level < 100x C screening level, therefore N screening value/10 used as screening level
C** = N screening level < 10x C screening level, therefore N screening value/10 used as screening level
S or NS = concentration exceeds Csat, used Csat as screening value

Generated by: R. Warren
Checked by: D. Stannard

TABLE 2
Occurrence, Distribution, and Selection of COPCs - Subsurface Soil (Phase I)
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)
Phase I Investigation Area
PA/SI Report
MCB CamLej, North Carolina

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

Exposure Point	CAS Number	Chemical	Minimum [1] Concentration Qualifier	Maximum [1] Concentration Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration [2] Used for Screening	Background [3] Value	Screening [4] Toxicity Value	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for [5] Contaminant Deletion or Selection
Subsurface Soil	71-55-6	1,1,1-Trichloroethane	ND	ND	MG/KG		0/10	0.0075 - 0.011	1.1E-02	N/A	6.4E+02 S	1.2E+00	NCSSL	NO	DLBSL
Site UXO-21	79-34-5	1,1,2,2-Tetrachloroethane	ND	ND	MG/KG		0/10	0.0075 - 0.011	1.1E-02	N/A	5.6E-01 C	1.2E-03	NCSSL	NO	DLBSL
	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	ND	ND	MG/KG		0/10	0.0075 - 0.011	1.1E-02	N/A	9.1E+02 S	9.2E+03	NCSSL	NO	DLBSL
	79-00-5	1,1,2-Trichloroethane	ND	ND	MG/KG		0/10	0.0075 - 0.011	1.1E-02	N/A	1.1E+00 C	N/A	N/A	NO	DLBSL
	75-34-3	1,1-Dichloroethane	ND	ND	MG/KG		0/10	0.0075 - 0.011	1.1E-02	N/A	3.3E+00 C	3.0E-02	NCSSL	NO	DLBSL
	75-35-4	1,1-Dichloroethene	ND	ND	MG/KG		0/10	0.0075 - 0.011	1.1E-02	N/A	2.4E+01 N	4.6E-02	NCSSL	NO	DLBSL
	120-82-1	1,2,4-Trichlorobenzene	ND	ND	MG/KG		0/10	0.0075 - 0.011	1.1E-02	N/A	6.2E+00 C**	2.2E+00	NCSSL	NO	DLBSL
	96-12-8	1,2-Dibromo-3-chloropropane	ND	ND	MG/KG		0/10	0.0075 - 0.011	1.1E-02	N/A	5.4E-03 C	2.5E-04	NCSSL	YES	DLASL
	106-93-4	1,2-Dibromoethane	ND	ND	MG/KG		0/10	0.0075 - 0.011	1.1E-02	N/A	3.4E-02 C	9.7E-05	NCSSL	NO	DLBSL
	95-50-1	1,2-Dichlorobenzene	ND	ND	MG/KG		0/10	0.0075 - 0.011	1.1E-02	N/A	1.9E+02 S	2.4E-01	NCSSL	NO	DLBSL
	107-06-2	1,2-Dichloroethane	ND	ND	MG/KG		0/10	0.0075 - 0.011	1.1E-02	N/A	4.3E-01 C	2.0E-03	NCSSL	NO	DLBSL
	78-87-5	1,2-Dichloropropane	ND	ND	MG/KG		0/10	0.0075 - 0.011	1.1E-02	N/A	8.9E-01 C*	3.3E-03	NCSSL	NO	DLBSL
	541-73-1	1,3-Dichlorobenzene	ND	ND	MG/KG		0/10	0.0075 - 0.011	1.1E-02	N/A	2.4E+00 C	7.6E+00	NCSSL	NO	DLBSL
	106-46-7	1,4-Dichlorobenzene	ND	ND	MG/KG		0/10	0.0075 - 0.011	1.1E-02	N/A	2.4E+00 C	7.0E-02	NCSSL	NO	DLBSL
	78-93-3	2-Butanone	5.9E-02 J	5.9E-02 J	MG/KG	GC-IS05-2-4-07C	1/10	0.0075 - 0.011	5.9E-02	N/A	2.8E+03 N	1.6E+01	NCSSL	NO	BSL
	591-78-6	2-Hexanone	ND	ND	MG/KG		0/10	0.0075 - 0.011	1.1E-02	N/A	2.1E+01 N	1.2E+00	NCSSL	NO	DLBSL
	108-10-1	4-Methyl-2-pentanone	ND	ND	MG/KG		0/10	0.0075 - 0.011	1.1E-02	N/A	5.3E+02 S	N/A	N/A	NO	DLBSL
	67-64-1	Acetone	7.2E-03 J	1.9E-01 J	MG/KG	GC-IS05-2-4-07C	6/10	0.0075 - 0.011	1.9E-01	N/A	6.1E+03 N	2.4E+01	NCSSL	NO	BSL
	71-43-2	Benzene	ND	ND	MG/KG		0/10	0.0075 - 0.011	1.1E-02	N/A	1.1E+00 C*	7.3E-03	NCSSL	NO	DLBSL
	75-27-4	Bromodichloromethane	ND	ND	MG/KG		0/10	0.0075 - 0.011	1.1E-02	N/A	2.7E-01 C	2.9E-03	NCSSL	NO	DLBSL
	75-25-2	Bromoform	ND	ND	MG/KG		0/10	0.0075 - 0.011	1.1E-02	N/A	6.1E+01 C*	1.9E-02	NCSSL	NO	DLBSL
	74-83-9	Bromomethane	ND	ND	MG/KG		0/10	0.0075 - 0.011	1.1E-02	N/A	7.3E-01 N	N/A	N/A	NO	DLBSL
	75-15-0	Carbon disulfide	ND	ND	MG/KG		0/10	0.0075 - 0.011	1.1E-02	N/A	8.2E+01 S	3.8E+00	NCSSL	NO	DLBSL
	56-23-5	Carbon tetrachloride	ND	ND	MG/KG		0/10	0.0075 - 0.011	1.1E-02	N/A	6.1E-01 C	2.0E-03	NCSSL	NO	DLBSL
	108-90-7	Chlorobenzene	ND	ND	MG/KG		0/10	0.0075 - 0.011	1.1E-02	N/A	2.9E+01 N	4.5E-01	NCSSL	NO	DLBSL
	75-00-3	Chloroethane	ND	ND	MG/KG		0/10	0.0075 - 0.011	1.1E-02	N/A	1.5E+03 S	1.6E+01	NCSSL	NO	DLBSL
	67-66-3	Chloroform	ND	ND	MG/KG		0/10	0.0075 - 0.011	1.1E-02	N/A	2.9E-01 C	3.4E-01	NCSSL	NO	DLBSL
	74-87-3	Chloromethane	ND	ND	MG/KG		0/10	0.0075 - 0.011	1.1E-02	N/A	1.2E+01 N	1.5E-02	NCSSL	NO	DLBSL
	156-59-2	cis-1,2-Dichloroethene	ND	ND	MG/KG		0/10	0.0075 - 0.011	1.1E-02	N/A	7.8E+01 N	3.6E-01	NCSSL	NO	DLBSL
	10061-01-5	cis-1,3-Dichloropropene	ND	ND	MG/KG		0/10	0.0075 - 0.011	1.1E-02	N/A	1.7E+00 C*	2.3E-03	NCSSL	NO	DLBSL
	110-82-7	Cyclohexane	ND	ND	MG/KG		0/10	0.0075 - 0.011	1.1E-02	N/A	1.2E+02 S	N/A	N/A	NO	DLBSL
	124-48-1	Dibromochloromethane	ND	ND	MG/KG		0/10	0.0075 - 0.011	1.1E-02	N/A	6.8E-01 C	1.9E-03	NCSSL	NO	DLBSL
	75-71-8	Dichlorodifluoromethane (Freon-12)	ND	ND	MG/KG		0/10	0.0075 - 0.011	1.1E-02	N/A	1.8E+01 N	2.9E+01	NCSSL	NO	DLBSL
	100-41-4	Ethylbenzene	ND	ND	MG/KG		0/10	0.0075 - 0.011	1.1E-02	N/A	5.4E+00 C	8.1E+00	NCSSL	NO	DLBSL
	98-82-8	Isopropylbenzene	ND	ND	MG/KG		0/10	0.0075 - 0.011	1.1E-02	N/A	2.1E+02 S	1.3E+00	NCSSL	NO	DLBSL
	79-20-9	Methyl acetate	1.1E-02 J	1.1E-02 J	MG/KG	GC-IS08-6-8-07C	1/10	0.0075 - 0.011	1.1E-02	N/A	7.8E+03 S	N/A	N/A	NO	BSL

TABLE 2
Occurrence, Distribution, and Selection of COPCs - Subsurface Soil (Phase I)
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)
Phase I Investigation Area
PA/SI Report
MCB CamLej, North Carolina

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

Exposure Point	CAS Number	Chemical	Minimum [1] Concentration Qualifier	Maximum [1] Concentration Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration [2] Used for Screening	Background [3] Value	Screening [4] Toxicity Value	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for [5] Contaminant Deletion or Selection
	108-87-2	Methylcyclohexane	ND	ND	MG/KG		0/10	0.0075 - 0.011	1.1E-02	N/A	5.7E+01 N	N/A	N/A	NO	DLBSL
	75-09-2	Methylene chloride	6.8E-03 J	1.0E-02	MG/KG	GC-IS09-8-10-07C	6/10	0.0075 - 0.011	1.0E-02	N/A	1.1E+01 C	2.3E-02	NCSSL	NO	BSL
	1634-04-4	Methyl-tert-butyl ether (MTBE)	ND	ND	MG/KG		0/10	0.0075 - 0.011	1.1E-02	N/A	4.3E+01 C	8.5E-02	NCSSL	NO	DLBSL
	100-42-5	Styrene	ND	ND	MG/KG		0/10	0.0075 - 0.011	1.1E-02	N/A	6.3E+02 S	9.2E-01	NCSSL	NO	DLBSL
	127-18-4	Tetrachloroethene	ND	ND	MG/KG		0/10	0.0075 - 0.011	1.1E-02	N/A	5.5E-01 C	5.0E-03	NCSSL	NO	DLBSL
	108-88-3	Toluene	ND	ND	MG/KG		0/10	0.0075 - 0.011	1.1E-02	N/A	5.0E+02 S	5.5E+00	NCSSL	NO	DLBSL
	156-60-5	trans-1,2-Dichloroethene	ND	ND	MG/KG		0/10	0.0075 - 0.011	1.1E-02	N/A	1.5E+01 N	5.1E-01	NCSSL	NO	DLBSL
	10061-02-6	trans-1,3-Dichloropropene	ND	ND	MG/KG		0/10	0.0075 - 0.011	1.1E-02	N/A	1.7E+00 C*	2.3E-03	NCSSL	NO	DLBSL
	79-01-6	Trichloroethene	ND	ND	MG/KG		0/10	0.0075 - 0.011	1.1E-02	N/A	2.8E+00 C	1.8E-02	NCSSL	NO	DLBSL
	75-69-4	Trichlorofluoromethane(Freon-11)	ND	ND	MG/KG		0/10	0.0075 - 0.011	1.1E-02	N/A	7.9E+01 N	2.4E+01	NCSSL	NO	DLBSL
	75-01-4	Vinyl chloride	ND	ND	MG/KG		0/10	0.0075 - 0.011	1.1E-02	N/A	6.0E-02 C	1.9E-04	NCSSL	NO	DLBSL
	1330-20-7	Xylene, total	ND	ND	MG/KG		0/10	0.0075 - 0.011	1.1E-02	N/A	6.3E+01 S	6.0E+00	NCSSL	NO	DLBSL
	92-52-4	1,1-Biphenyl	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	2.1E+02 S	4.3E+01	NCSSL	NO	DLBSL
	108-60-1	2,2'-Oxybis(1-chloropropane)	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	4.6E+00 C	N/A	N/A	NO	DLBSL
	95-95-4	2,4,5-Trichlorophenol	ND	ND	MG/KG		0/10	0.88 - 0.98	9.8E-01	N/A	6.1E+02 N	N/A	N/A	NO	DLBSL
	88-06-2	2,4,6-Trichlorophenol	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	6.1E+00 C**	N/A	N/A	NO	DLBSL
	120-83-2	2,4-Dichlorophenol	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	1.8E+01 N	1.4E+00	NCSSL	NO	DLBSL
	105-67-9	2,4-Dimethylphenol	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	1.2E+02 N	1.4E+00	NCSSL	NO	DLBSL
	51-28-5	2,4-Dinitrophenol	ND	ND	MG/KG		0/10	0.88 - 0.98	9.8E-01	N/A	1.2E+01 N	N/A	N/A	NO	DLBSL
	121-14-2	2,4-Dinitrotoluene	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	1.6E+00 C*	N/A	N/A	NO	DLBSL
	606-20-2	2,6-Dinitrotoluene	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	6.1E+00 N	N/A	N/A	NO	DLBSL
	532-27-4	2-Chloroacetophenone	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	4.3E+03 N	N/A	N/A	NO	DLBSL
	2698-41-1	2-Chlorobenzalmalononitrile	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	N/A	N/A	N/A	NO	NTX
	91-58-7	2-Chloronaphthalene	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	1.8E+02 S	N/A	N/A	NO	DLBSL
	95-57-8	2-Chlorophenol	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	3.9E+01 N	4.1E-03	NCSSL	NO	DLBSL
	91-57-6	2-Methylnaphthalene	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	3.1E+01 N	1.6E+00	NCSSL	NO	DLBSL
	95-48-7	2-Methylphenol	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	3.1E+02 N	N/A	N/A	NO	DLBSL
	88-74-4	2-Nitroaniline	ND	ND	MG/KG		0/10	0.88 - 0.98	9.8E-01	N/A	6.1E+01 N	N/A	N/A	NO	DLBSL
	88-75-5	2-Nitrophenol	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	3.9E+01 N	N/A	N/A	NO	DLBSL
	91-94-1	3,3'-Dichlorobenzidine	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	1.1E+00 C	N/A	N/A	NO	DLBSL
	99-09-2	3-Nitroaniline	ND	ND	MG/KG		0/10	0.88 - 0.98	9.8E-01	N/A	6.1E+01 N	N/A	N/A	NO	DLBSL
	534-52-1	4,6-Dinitro-2-methylphenol	ND	ND	MG/KG		0/10	0.88 - 0.98	9.8E-01	N/A	4.9E-01 N	N/A	N/A	YES	DLASL
	101-55-3	4-Bromophenyl-phenylether	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	N/A	N/A	N/A	NO	NTX
	59-50-7	4-Chloro-3-methylphenol	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	6.1E+02 N	N/A	N/A	NO	DLBSL
	106-47-8	4-Chloroaniline	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	2.4E+00 C	N/A	N/A	NO	DLBSL
	7005-72-3	4-Chlorophenyl-phenylether	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	3.1E+01 N	N/A	N/A	NO	DLBSL
	106-44-5	4-Methylphenol	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	3.1E+01 N	4.0E-01	NCSSL	NO	DLBSL

TABLE 2
Occurrence, Distribution, and Selection of COPCs - Subsurface Soil (Phase I)
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)
Phase I Investigation Area
PA/SI Report
MCB CamLej, North Carolina

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

Exposure Point	CAS Number	Chemical	Minimum [1] Concentration Qualifier	Maximum [1] Concentration Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration [2] Used for Screening	Background [3] Value	Screening [4] Toxicity Value	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for [5] Contaminant Deletion or Selection
	100-01-6	4-Nitroaniline	ND	ND	MG/KG		0/10	0.88 - 0.98	9.8E-01	N/A	2.4E+01 C*	N/A	N/A	NO	DLBSL
	100-02-7	4-Nitrophenol	ND	ND	MG/KG		0/10	0.88 - 0.98	9.8E-01	N/A	4.8E+00 C*	N/A	N/A	NO	DLBSL
	83-32-9	Acenaphthene	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	3.4E+02 N	8.4E+00	NCSSL	NO	DLBSL
	208-96-8	Acenaphthylene	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	3.4E+02 N	1.1E+01	NCSSL	NO	DLBSL
	98-86-2	Acetophenone	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	7.8E+02 S	N/A	N/A	NO	DLBSL
	120-12-7	Anthracene	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	1.7E+03 N	6.6E+02	NCSSL	NO	DLBSL
	1912-24-9	Atrazine	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	2.1E+00 C	2.5E-02	NCSSL	NO	DLBSL
	100-52-7	Benzaldehyde	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	7.8E+02 S	N/A	N/A	NO	DLBSL
	56-55-3	Benzo(a)anthracene	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	1.5E-01 C	1.8E-01	NCSSL	YES	DLASL
	50-32-8	Benzo(a)pyrene	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	1.5E-02 C	5.9E-02	NCSSL	YES	DLASL
	205-99-2	Benzo(b)fluoranthene	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	1.5E-01 C	6.0E-01	NCSSL	YES	DLASL
	191-24-2	Benzo(g,h,i)perylene	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	1.7E+02 N	3.6E+02	NCSSL	NO	DLBSL
	207-08-9	Benzo(k)fluoranthene	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	1.5E+00 C	5.9E+00	NCSSL	NO	DLBSL
	111-91-1	bis(2-Chloroethoxy)methane	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	1.8E+01 N	N/A	N/A	NO	DLBSL
	111-44-4	bis(2-Chloroethyl)ether	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	2.1E-01 C	1.4E-04	NCSSL	YES	DLASL
	117-81-7	bis(2-Ethylhexyl)phthalate	4.1E-02 J	6.7E-02 J	MG/KG	GC-IS010-3-5-07C	2/10	0.35 - 0.39	6.7E-02	N/A	3.5E+01 C*	7.2E+00	NCSSL	NO	BSL
	85-68-7	Butylbenzylphthalate	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	2.6E+02 C*	1.5E+02	NCSSL	NO	DLBSL
	105-60-2	Caprolactam	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	3.1E+03 N	1.8E+01	NCSSL	NO	DLBSL
	86-74-8	Carbazole	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	N/A	N/A	N/A	NO	NTX
	218-01-9	Chrysene	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	1.5E+01 C	1.8E+01	NCSSL	NO	DLBSL
	53-70-3	Dibenz(a,h)anthracene	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	1.5E-02 C	1.9E-01	NCSSL	YES	DLASL
	132-64-9	Dibenzofuran	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	7.8E+00 N	4.7E+00	NCSSL	NO	DLBSL
	84-66-2	Diethylphthalate	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	4.9E+03 N	3.7E+01	NCSSL	NO	DLBSL
	131-11-3	Dimethyl phthalate	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	N/A	N/A	N/A	NO	NTX
	84-74-2	Di-n-butylphthalate	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	6.1E+02 N	1.9E+01	NCSSL	NO	DLBSL
	117-84-0	Di-n-octylphthalate	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	3.5E+01 C*	3.8E+01	NCSSL	NO	BSL
	206-44-0	Fluoranthene	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	2.3E+02 N	3.3E+02	NCSSL	NO	DLBSL
	86-73-7	Fluorene	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	2.3E+02 N	5.6E+01	NCSSL	NO	DLBSL
	118-74-1	Hexachlorobenzene	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	3.0E-01 C	2.6E-03	NCSSL	YES	DLASL
	87-68-3	Hexachlorobutadiene	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	6.1E+00 C**	8.7E-03	NCSSL	NO	DLBSL
	77-47-4	Hexachlorocyclopentadiene	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	3.7E+01 N	N/A	N/A	NO	DLBSL
	67-72-1	Hexachloroethane	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	6.1E+00 C**	N/A	N/A	NO	DLBSL
	193-39-5	Indeno(1,2,3-cd)pyrene	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	1.5E-01 C	2.0E+00	NCSSL	YES	DLASL
	78-59-1	Isophorone	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	5.1E+02 C*	2.1E-01	NCSSL	NO	DLBSL
	91-20-3	Naphthalene	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	3.6E+00 C*	2.1E-01	NCSSL	NO	DLBSL
	621-64-7	n-Nitroso-di-n-propylamine	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	6.9E-02 C	N/A	N/A	YES	DLASL
	86-30-6	n-Nitrosodiphenylamine	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	9.9E+01 C	N/A	N/A	NO	DLBSL

TABLE 2
Occurrence, Distribution, and Selection of COPCs - Subsurface Soil (Phase I)
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)
Phase I Investigation Area
PA/SI Report
MCB CamLej, North Carolina

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

Exposure Point	CAS Number	Chemical	Minimum [1] Concentration Qualifier	Maximum [1] Concentration Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration [2] Used for Screening	Background [3] Value	Screening [4] Toxicity Value	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for [5] Contaminant Deletion or Selection
	98-95-3	Nitrobenzene	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	4.8E+00 C*	N/A	N/A	NO	DLBSL
	87-86-5	Pentachlorophenol	ND	ND	MG/KG		0/10	0.88 - 0.98	9.8E-01	N/A	3.0E+00 C	3.1E-02	NCSSL	NO	DLBSL
	85-01-8	Phenanthrene	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	1.7E+03 N	5.7E+01	NCSSL	NO	DLBSL
	108-95-2	Phenol	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	1.8E+03 N	2.3E-01	NCSSL	NO	DLBSL
	129-00-0	Pyrene	ND	ND	MG/KG		0/10	0.35 - 0.39	3.9E-01	N/A	1.7E+02 N	2.2E+02	NCSSL	NO	DLBSL
	7429-90-5	Aluminum	1.1E+03 J	9.7E+03	MG/KG	GC-IS05-2-4-07C	10/10	15.1 - 21.4	9.7E+03	1.0E+04	7.7E+03 N	N/A	N/A	NO	BBK
	7440-36-0	Antimony	2.7E-01 J	2.7E-01 J	MG/KG	GC-IS09-8-10-07C	1/10	4.5 - 5.2	2.7E-01	3.6E-01	3.1E+00 N	N/A	N/A	NO	BSL
	7440-38-2	Arsenic	2.0E-01 J	8.0E-01	MG/KG	GC-IS01-5-8-07C	8/10	0.76 - 1.1	8.0E-01	2.1E+00	3.9E-01 C*	5.8E-03	NCSSL	NO	BBK
	7440-39-3	Barium	2.0E+00 J	4.4E+01	MG/KG	GC-IS05-2-4-07C	10/10	15.1 - 21.4	4.4E+01	1.7E+01	1.5E+03 N	5.8E-01	NCSSL	NO	BSL
	7440-41-7	Beryllium	1.7E-02 J	4.9E-01 J	MG/KG	GC-IS05-2-4-07C	9/10	0.38 - 0.53	4.9E-01	1.7E-01	1.6E+01 N	N/A	N/A	NO	BSL
	7440-43-9	Cadmium	2.5E-02 J	8.3E-02 J	MG/KG	GC-IS05-2-4-07C	2/10	0.38 - 0.44	8.3E-02	2.3E-02	7.0E+00 N	3.0E-03	NCSSL	NO	BSL
	7440-70-2	Calcium	2.9E+01 J	4.1E+03	MG/KG	GC-IS05-2-4-07C	10/10	378 - 535	4.1E+03	4.4E+02	N/A	N/A	N/A	NO	NUT
	7440-47-3	Chromium	1.5E+00	1.0E+01	MG/KG	GC-IS04-6-8-07C	10/10	0.76 - 1.1	1.0E+01	1.5E+01	2.9E-01 C	3.8E-03	NCSSL	NO	BBK
	7440-48-4	Cobalt	3.9E-02 J	6.6E-01 J	MG/KG	GC-IS09-8-10-07C	6/10	3.8 - 5.3	6.6E-01	8.2E-01	2.3E+00 N	N/A	N/A	NO	BSL
	7440-50-8	Copper	2.4E-01 J	1.7E+00 J	MG/KG	GC-IS04-6-8-07C	10/10	1.9 - 2.2	1.7E+00	2.6E+00	3.1E+02 N	7.0E-01	NCSSL	NO	BSL
	7439-89-6	Iron	1.7E+02 J	4.4E+03	MG/KG	GC-IS05-2-4-07C	10/10	7.6 - 10.7	4.4E+03	5.4E+03	5.5E+03 N	1.5E-01	NCSSL	NO	BSL
	7439-92-1	Lead	1.9E+00	7.2E+00	MG/KG	GC-IS05-2-4-07C	10/10	0.76 - 1.1	7.2E+00	8.5E+00	4.0E+02 NL	2.7E-01	NCSSL	NO	BSL
	7439-95-4	Magnesium	4.1E+01 J	2.2E+02 J	MG/KG	GC-IS04-6-8-07C	10/10	378 - 535	2.2E+02	3.6E+02	N/A	N/A	N/A	NO	NUT
	7439-96-5	Manganese	1.6E+00	1.4E+01	MG/KG	GC-IS09-8-10-07C	10/10	1.1 - 1.6	1.4E+01	9.3E+00	1.8E+02 N	6.5E-02	NCSSL	NO	BSL
	7439-97-6	Mercury	1.0E-02 J	8.4E-02	MG/KG	GC-IS05-2-4-07C	9/10	0.034 - 0.047	8.4E-02	7.1E-02	2.4E+00 N	1.0E-03	NCSSL	NO	BSL
	7440-02-0	Nickel	1.4E-01 J	3.4E+00 J	MG/KG	GC-IS05-2-4-07C	9/10	3 - 4.3	3.4E+00	2.3E+00	1.5E+02 N	1.3E-01	NCSSL	NO	BSL
	7440-09-7	Potassium	4.4E+01 J	3.3E+02 J	MG/KG	GC-IS04-6-8-07C	10/10	375 - 535	3.3E+02	3.6E+02	N/A	N/A	N/A	NO	NUT
	7782-49-2	Selenium	2.7E-01 J	1.2E+00 J	MG/KG	GC-IS05-2-4-07C	6/10	2.6 - 3.7	1.2E+00	5.1E-01	3.9E+01 N	2.1E-03	NCSSL	NO	BSL
	7440-22-4	Silver	ND	ND	MG/KG		0/10	0.75 - 0.87	8.7E-01	1.3E-01	3.9E+01 N	3.4E-03	NCSSL	NO	DLBSL
	7440-23-5	Sodium	5.4E+01 J	8.7E+01 J	MG/KG	GC-IS05-2-4-07C	10/10	378 - 535	8.7E+01	6.8E+01	N/A	N/A	N/A	NO	NUT
	7440-28-0	Thallium	ND	ND	MG/KG		0/10	1.9 - 2.2	2.2E+00	3.8E-01	N/A	N/A	N/A	NO	NTX
	7440-62-2	Vanadium	1.4E+00 J	1.1E+01	MG/KG	GC-IS04-6-8-07C	10/10	3.8 - 5.3	1.1E+01	1.7E+01	3.9E+01 N	N/A	N/A	NO	BSL
	7440-66-6	Zinc	2.0E+00 J	4.8E+00 J	MG/KG	GC-IS05-2-4-07C	10/10	4.5 - 5.2	4.8E+00	6.6E+00	2.3E+03 N	1.2E+00	NCSSL	NO	BSL

[1] Minimum/Maximum detected concentrations.
[2] Maximum concentration is used for screening.
[3] Background values are two times the arithmetic mean basewide background surface soil concentrations.
Background values are from *Final Base Background Soil Study Report, Marine Corps Base Camp Lejeune, North Carolina* , Baker Environmental, April 25, 2001.
[4] Oak Ridge National Laboratory (ORNL). December 10, 2009. Regional Screening Levels (RSLs) for Chemical Contaminants at Superfund Sites. Available: http://epa-prgs.ornl.gov/chemicals/index.shtml. Adjusted (noncarcinogenic RSLs adjusted by dividing by 10) residential soil RSLs.
RSL value for 1,4-Dichlorobenzene used as surrogate for 1,3-Dichlorobenzene.

COPC = Chemical of Potential Concern
ARAR/TBC = Applicable or Relevant and Appropriate Requirement/ To Be Considered
NCSSL = North Carolina Soil Screening Levels (NCDENR, 2010)
J = Estimated Value
N/A = Not Applicable/Not Available
ND = Not Detected
NL = Noncarcinogenic lead residential soil RSL not adjusted by dividing by 10.

TABLE 2
Occurrence, Distribution, and Selection of COPCs - Subsurface Soil (Phase I)
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)
Phase I Investigation Area
PA/SI Report
MCB CamLej, North Carolina

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

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

RSL value for Methyl Isobutyl Ketone (4-methyl-2-pentanone) used as surrogate for 2-Hexanone.
RSL value for n-Hexane used as surrogate for Methylcyclohexane.
RSL value for Methoxychlor used as surrogate for 4-Chlorophenyl-phenylether.
RSL value for 2-Nitroaniline used as surrogate for 3-Nitroaniline.
RSL value for Nitrobenzene used as surrogate for 4-Nitrophenol.
RSL value for Acenaphthene used as surrogate for Acenaphthylene.
RSL value for Pyrene used as surrogate for Benzo(g,h,i)perylene.
RSL value for Anthracene used as surrogate for Phenanthrene.
RSL value for Chromium(VI) used for Chromium.
The soil value of 400 mg/kg for lead is from the Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities, USEPA, July 14, 1994.
RSL value for Manganese (water) used for Manganese.
RSL value for Mercury (inorganic salts) used for Mercury.
RSL value for 1,3-Dichloropropene used as a surrogate for cis-1,3-Dichloropropene and trans-1,3-Dichloropropene.
RSL value for 2-Chlorophenol used as surrogate for 4-Chloro-3-methylphenol and 2-Nitrophenol.

C = Carcinogenic
N = Noncarcinogenic
C* = N screening level < 100x C screening level, therefore N screening value/10 used as screening level
C** = N screening level < 10x C screening level, therefore N screening value/10 used as screening level
S = concentration exceeds Csat, used Csat as screening value

[5] Rationale Codes

Selection Reason:	Above Screening Levels (ASL)
	Detection Limit Above Screening Level (DLASL), not quantitatively evaluated in HHRA
	Chemical from same class (carcinogenic PAH) identified as a COPC (CPAH)
Deletion Reason:	No Toxicity Information (NTX)
	Essential Nutrient (NUT)
	Below Screening Level (BSL)

TABLE 3
Occurrence, Distribution, and Selection of COPCs - Groundwater (Phase I)
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)
Phase I Investigation Area
PA/SI Report
MCB CamLej, North Carolina

Scenario Timeframe: 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
Tap Water	71-55-6	1,1,1-Trichloroethane	ND	ND	UG/L		0/3	10 - 10	1.0E+01	N/A	9.1E+02 N	2.0E+02	MCL, 15A NCAC 2L	NO	DLBSL
Site UXO-21	79-34-5	1,1,2,2-Tetrachloroethane	ND	ND	UG/L		0/3	10 - 10	1.0E+01	N/A	6.7E-02 C	2.0E-01	15A NCAC 2L	YES	DLASL
	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	ND	ND	UG/L		0/3	10 - 10	1.0E+01	N/A	5.9E+03 N	2.1E+05	15A NCAC 2L	NO	DLBSL
	79-00-5	1,1,2-Trichloroethane	ND	ND	UG/L		0/3	10 - 10	1.0E+01	N/A	2.4E-01 C	5.0E+00	MCL	YES	DLASL
	75-34-3	1,1-Dichloroethane	ND	ND	UG/L		0/3	10 - 10	1.0E+01	N/A	2.4E+00 C	6.0E+00	15A NCAC 2L	YES	DLASL
	75-35-4	1,1-Dichloroethene	ND	ND	UG/L		0/3	10 - 10	1.0E+01	N/A	3.4E+01 N	7.0E+00	MCL, 15A NCAC 2L	NO	DLBSL
	120-82-1	1,2,4-Trichlorobenzene	ND	ND	UG/L		0/3	10 - 10	1.0E+01	N/A	4.1E-01 C**	7.0E+01	MCL, 15A NCAC 2L	YES	DLASL
	96-12-8	1,2-Dibromo-3-chloropropane	ND	ND	UG/L		0/3	10 - 10	1.0E+01	N/A	3.2E-04 C	2.0E-01	MCL	YES	DLASL
												4.0E-02	15A NCAC 2L		
	106-93-4	1,2-Dibromoethane	ND	ND	UG/L		0/3	10 - 10	1.0E+01	N/A	6.5E-03 C	5.0E-02	MCL	YES	DLASL
												2.0E-02	15A NCAC 2L		
	95-50-1	1,2-Dichlorobenzene	ND	ND	UG/L		0/3	10 - 10	1.0E+01	N/A	3.7E+01 N	6.0E+02	MCL	NO	DLBSL
												2.0E+01	15A NCAC 2L		
	107-06-2	1,2-Dichloroethane	ND	ND	UG/L		0/3	10 - 10	1.0E+01	N/A	1.5E-01 C	5.0E+00	MCL	YES	DLASL
												4.0E-01	15A NCAC 2L		
	78-87-5	1,2-Dichloropropane	ND	ND	UG/L		0/3	10 - 10	1.0E+01	N/A	3.9E-01 C*	5.0E+00	MCL	YES	DLASL
												6.0E-01	15A NCAC 2L		
	541-73-1	1,3-Dichlorobenzene	ND	ND	UG/L		0/3	10 - 10	1.0E+01	N/A	4.3E-01 C	2.0E+02	15A NCAC 2L	YES	DLASL
	106-46-7	1,4-Dichlorobenzene	ND	ND	UG/L		0/3	10 - 10	1.0E+01	N/A	4.3E-01 C	7.5E+01	MCL	YES	DLASL
												6.0E+00	15A NCAC 2L		
	78-93-3	2-Butanone	ND	ND	UG/L		0/3	10 - 10	1.0E+01	N/A	7.1E+02 N	4.0E+03	15A NCAC 2L	NO	DLBSL
	591-78-6	2-Hexanone	ND	ND	UG/L		0/3	10 - 10	1.0E+01	N/A	4.7E+00 N	N/A	N/A	YES	DLASL
	108-10-1	4-Methyl-2-pentanone	ND	ND	UG/L		0/3	10 - 10	1.0E+01	N/A	2.0E+02 N	N/A	N/A	NO	DLBSL
	67-64-1	Acetone	ND	ND	UG/L		0/3	10 - 10	1.0E+01	N/A	2.2E+03 N	6.0E+03	15A NCAC 2L	NO	DLBSL
	71-43-2	Benzene	ND	ND	UG/L		0/3	10 - 10	1.0E+01	N/A	4.1E-01 C	1.0E+00	15A NCAC 2L	YES	DLASL
												5.0E+00	MCL		
	75-27-4	Bromodichloromethane	ND	ND	UG/L		0/3	10 - 10	1.0E+01	N/A	1.2E-01 C	6.0E-01	15A NCAC 2L	YES	DLASL
												8.0E+01	MCL		
	75-25-2	Bromoform	ND	ND	UG/L		0/3	10 - 10	1.0E+01	N/A	8.5E+00 C*	4.0E+00	15A NCAC 2L	YES	DLASL
												8.0E+01	MCL		
	74-83-9	Bromomethane	ND	ND	UG/L		0/3	10 - 10	1.0E+01	N/A	8.7E-01 N	N/A	N/A	YES	DLASL
	75-15-0	Carbon disulfide	ND	ND	UG/L		0/3	10 - 10	1.0E+01	N/A	1.0E+02 N	7.0E+02	15A NCAC 2L	NO	DLBSL
	56-23-5	Carbon tetrachloride	ND	ND	UG/L		0/3	10 - 10	1.0E+01	N/A	4.4E-01 C	5.0E+00	MCL	YES	DLASL
												3.0E-01	15A NCAC 2L		
	108-90-7	Chlorobenzene	ND	ND	UG/L		0/3	10 - 10	1.0E+01	N/A	9.1E+00 N	1.0E+02	MCL	YES	DLASL
												5.0E+01	15A NCAC 2L		

Occurrence, Distribution, and Selection of COPCs - Groundwater (Phase I)
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)
Phase I Investigation Area
PA/SI Report
MCB CamLej, North Carolina

Scenario Timeframe: 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
	75-00-3	Chloroethane	ND	ND	UG/L		0/3	10 - 10	1.0E+01	N/A	2.1E+03 N	3.0E+03	15A NCAC 2L	NO	DLBSL
	67-66-3	Chloroform	ND	ND	UG/L		0/3	10 - 10	1.0E+01	N/A	1.9E-01 C	8.0E+01	MCL	YES	DLASL
												7.0E+01	15A NCAC 2L		
	74-87-3	Chloromethane	ND	ND	UG/L		0/3	10 - 10	1.0E+01	N/A	1.9E+01 N	3.0E+00	15A NCAC 2L	NO	DLBSL
	156-59-2	cis-1,2-Dichloroethene	ND	ND	UG/L		0/3	10 - 10	1.0E+01	N/A	3.7E+01 N	7.0E+01	MCL, 15A NCAC 2L	NO	DLBSL
	10061-01-5	cis-1,3-Dichloropropene	ND	ND	UG/L		0/3	10 - 10	1.0E+01	N/A	4.3E-01 C*	4.0E-01	15A NCAC 2L	YES	DLASL
	110-82-7	Cyclohexane	ND	ND	UG/L		0/3	10 - 10	1.0E+01	N/A	1.3E+03 N	N/A	N/A	NO	DLBSL
	124-48-1	Dibromochloromethane	ND	ND	UG/L		0/3	10 - 10	1.0E+01	N/A	1.5E-01 C	8.0E+01	MCL	YES	DLASL
												4.0E-01	15A NCAC 2L		
	75-71-8	Dichlorodifluoromethane (Freon-12)	ND	ND	UG/L		0/3	10 - 10	1.0E+01	N/A	3.9E+01 N	1.0E+03	15A NCAC 2L	NO	DLBSL
	100-41-4	Ethylbenzene	ND	ND	UG/L		0/3	10 - 10	1.0E+01	N/A	1.5E+00 C	7.0E+02	MCL	YES	DLASL
												6.0E+02	15A NCAC 2L		
	98-82-8	Isopropylbenzene	ND	ND	UG/L		0/3	10 - 10	1.0E+01	N/A	6.8E+01 N	7.0E+01	15A NCAC 2L	NO	DLBSL
	79-20-9	Methyl acetate	ND	ND	UG/L		0/3	10 - 10	1.0E+01	N/A	3.7E+03 N	N/A	N/A	NO	DLBSL
	108-87-2	Methylcyclohexane	ND	ND	UG/L		0/3	10 - 10	1.0E+01	N/A	8.8E+01 N	N/A	N/A	NO	DLBSL
	75-09-2	Methylene chloride	ND	ND	UG/L		0/3	10 - 10	1.0E+01	N/A	4.8E+00 C	5.0E+00	MCL, 15A NCAC 2L	YES	DLASL
	1634-04-4	Methyl-tert-butyl ether (MTBE)	ND	ND	UG/L		0/3	10 - 10	1.0E+01	N/A	1.2E+01 C	2.0E+01	15A NCAC 2L	NO	DLBSL
	100-42-5	Styrene	ND	ND	UG/L		0/3	10 - 10	1.0E+01	N/A	1.6E+02 N	1.0E+02	MCL	NO	DLBSL
												7.0E+01	15A NCAC 2L		
	127-18-4	Tetrachloroethene	ND	ND	UG/L		0/3	10 - 10	1.0E+01	N/A	1.1E-01 C	5.0E+00	MCL	YES	DLASL
												7.0E-01	15A NCAC 2L		
	108-88-3	Toluene	6.1E+00 J	6.1E+00 J	UG/L	GC-TW02-07C	1/3	10 - 10	6.1E+00	N/A	2.3E+02 N	1.0E+03	MCL	NO	BSL
												6.0E+02	15A NCAC 2L		
	156-60-5	trans-1,2-Dichloroethene	ND	ND	UG/L		0/3	10 - 10	1.0E+01	N/A	1.1E+01 N	1.0E+02	MCL, 15A NCAC 2L	NO	DLBSL
	10061-02-6	trans-1,3-Dichloropropene	ND	ND	UG/L		0/3	10 - 10	1.0E+01	N/A	4.3E-01 C*	4.0E-01	15A NCAC 2L	YES	DLASL
	79-01-6	Trichloroethene	ND	ND	UG/L		0/3	10 - 10	1.0E+01	N/A	2.0E+00 C	5.0E+00	MCL	YES	DLASL
												3.0E+00	15A NCAC 2L		
	75-69-4	Trichlorofluoromethane(Freon-11)	ND	ND	UG/L		0/3	10 - 10	1.0E+01	N/A	1.3E+02 N	2.0E+03	15A NCAC 2L	NO	DLBSL
	75-01-4	Vinyl chloride	ND	ND	UG/L		0/3	10 - 10	1.0E+01	N/A	1.6E-02 C	2.0E+00	MCL	YES	DLASL
												3.0E-02	15A NCAC 2L		
	1330-20-7	Xylene, total	1.0E+01 J	1.0E+01 J	UG/L	GC-TW02-07C	1/3	10 - 10	1.0E+01	N/A	2.0E+01 N	1.0E+04	MCL	NO	BSL
												5.0E+02	15A NCAC 2L		
	92-52-4	1,1-Biphenyl	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	1.8E+02 N	4.0E+02	15A NCAC 2L	NO	DLBSL
	108-60-1	2,2'-Oxybis(1-chloropropane)	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	3.2E-01 C	N/A	N/A	YES	DLASL
	95-95-4	2,4,5-Trichlorophenol	ND	ND	UG/L		0/3	28 - 29	2.9E+01	N/A	3.7E+02 N	N/A	N/A	NO	DLBSL
	88-06-2	2,4,6-Trichlorophenol	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	3.7E+00 C**	N/A	N/A	YES	DLASL
	120-83-2	2,4-Dichlorophenol	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	1.1E+01 N	N/A	N/A	YES	DLASL
	105-67-9	2,4-Dimethylphenol	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	7.3E+01 N	1.0E+02	15A NCAC 2L	NO	DLBSL

Occurrence, Distribution, and Selection of COPCs - Groundwater (Phase I)
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)
Phase I Investigation Area
PA/SI Report
MCB CamLej, North Carolina

Scenario Timeframe: 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
	51-28-5	2,4-Dinitrophenol	ND	ND	UG/L		0/3	28 - 29	2.9E+01	N/A	7.3E+00 N	N/A	N/A	YES	DLASL
	121-14-2	2,4-Dinitrotoluene	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	2.2E-01 C	N/A	N/A	YES	DLASL
	606-20-2	2,6-Dinitrotoluene	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	3.7E+00 N	N/A	N/A	YES	DLASL
	532-27-4	2-Chloroacetophenone	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	N/A	N/A	N/A	NO	NTX
	2698-41-1	2-Chlorobenzalmalononitrile	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	N/A	N/A	N/A	NO	NTX
	91-58-7	2-Chloronaphthalene	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	2.9E+02 N	N/A	N/A	NO	DLBSL
	95-57-8	2-Chlorophenol	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	1.8E+01 N	4.0E-01	15A NCAC 2L	NO	DLBSL
	91-57-6	2-Methylnaphthalene	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	1.5E+01 N	3.0E+01	15A NCAC 2L	NO	DLBSL
	95-48-7	2-Methylphenol	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	1.8E+02 N	N/A	N/A	NO	DLBSL
	88-74-4	2-Nitroaniline	ND	ND	UG/L		0/3	28 - 29	2.9E+01	N/A	3.7E+01 N	N/A	N/A	NO	DLBSL
	88-75-5	2-Nitrophenol	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	1.8E+01 N	N/A	N/A	NO	DLBSL
	91-94-1	3,3'-Dichlorobenzidine	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	1.5E-01 C	N/A	N/A	YES	DLASL
	99-09-2	3-Nitroaniline	ND	ND	UG/L		0/3	28 - 29	2.9E+01	N/A	3.7E+01 N	N/A	N/A	NO	DLBSL
	534-52-1	4,6-Dinitro-2-methylphenol	ND	ND	UG/L		0/3	28 - 29	2.9E+01	N/A	2.9E-01 N	N/A	N/A	YES	DLASL
	101-55-3	4-Bromophenyl-phenylether	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	N/A	N/A	N/A	NO	NTX
	59-50-7	4-Chloro-3-methylphenol	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	3.7E+02 N	N/A	N/A	NO	DLBSL
	106-47-8	4-Chloroaniline	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	3.4E-01 C	N/A	N/A	YES	DLASL
	7005-72-3	4-Chlorophenyl-phenylether	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	1.8E+01 N	N/A	N/A	NO	DLBSL
	106-44-5	4-Methylphenol	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	1.8E+01 N	4.0E+01	15A NCAC 2L	NO	DLBSL
	100-01-6	4-Nitroaniline	ND	ND	UG/L		0/3	28 - 29	2.9E+01	N/A	3.4E+00 C*	N/A	N/A	YES	DLASL
	100-02-7	4-Nitrophenol	ND	ND	UG/L		0/3	28 - 29	2.9E+01	N/A	1.2E-01 C	N/A	N/A	YES	DLASL
	83-32-9	Acenaphthene	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	2.2E+02 N	8.0E+01	15A NCAC 2L	NO	DLBSL
	208-96-8	Acenaphthylene	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	2.2E+02 N	2.0E+02	15A NCAC 2L	NO	DLBSL
	98-86-2	Acetophenone	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	3.7E+02 N	N/A	N/A	NO	DLBSL
	120-12-7	Anthracene	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	1.1E+03 N	2.0E+03	15A NCAC 2L	NO	DLBSL
	1912-24-9	Atrazine	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	2.9E-01 C	3.0E+00	MCL, 15A NCAC 2L	YES	DLASL
	100-52-7	Benzaldehyde	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	3.7E+02 N	N/A	N/A	NO	DLBSL
	56-55-3	Benzo(a)anthracene	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	2.9E-02 C	5.0E-02	15A NCAC 2L	YES	DLASL
	50-32-8	Benzo(a)pyrene	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	2.9E-03 C	2.0E-01	MCL	YES	DLASL
												5.0E-03	15A NCAC 2L		
	205-99-2	Benzo(b)fluoranthene	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	2.9E-02 C	5.0E-02	15A NCAC 2L	YES	DLASL
	191-24-2	Benzo(g,h,i)perylene	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	1.1E+02 N	2.0E+02	15A NCAC 2L	NO	DLBSL
	207-08-9	Benzo(k)fluoranthene	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	2.9E-01 C	5.0E-01	15A NCAC 2L	YES	DLASL
	111-91-1	bis(2-Chloroethoxy)methane	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	1.1E+01 N	N/A	N/A	YES	DLASL
	111-44-4	bis(2-Chloroethyl)ether	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	1.2E-02 C	3.0E-02	15A NCAC 2L	YES	DLASL
	117-81-7	bis(2-Ethylhexyl)phthalate	2.0E+00 J	3.3E+00 J	UG/L	GC-TW02-07C	3/3	11 - 12	3.3E+00	N/A	4.8E+00 C	6.0E+00	MCL	NO	BSL
												3.0E+00	15A NCAC 2L		
	85-68-7	Butylbenzylphthalate	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	3.5E+01 C	1.0E+03	15A NCAC 2L	NO	DLBSL

Occurrence, Distribution, and Selection of COPCs - Groundwater (Phase I)
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)
Phase I Investigation Area
PA/SI Report
MCB CamLej, North Carolina

Scenario Timeframe: 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
	105-60-2	Caprolactam	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	1.8E+03 N	4.0E+03	15A NCAC 2L	NO	DLBSL
	86-74-8	Carbazole	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	N/A	N/A	N/A	NO	NTX
	218-01-9	Chrysene	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	2.9E+00 C	5.0E+00	15A NCAC 2L	YES	DLASL
	53-70-3	Dibenz(a,h)anthracene	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	2.9E-03 C	5.0E-03	15A NCAC 2L	YES	DLASL
	132-64-9	Dibenzofuran	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	3.7E+00 N	N/A	N/A	YES	DLASL
	84-66-2	Diethylphthalate	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	2.9E+03 N	6.0E+03	15A NCAC 2L	NO	DLBSL
	131-11-3	Dimethyl phthalate	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	N/A	N/A	N/A	NO	NTX
	84-74-2	Di-n-butylphthalate	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	3.7E+02 N	7.0E+02	15A NCAC 2L	NO	DLBSL
	117-84-0	Di-n-octylphthalate	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	4.8E+00 C	1.0E+02	15A NCAC 2L	YES	DLASL
	206-44-0	Fluoranthene	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	1.5E+02 N	3.0E+02	15A NCAC 2L	NO	DLBSL
	86-73-7	Fluorene	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	1.5E+02 N	3.0E+02	15A NCAC 2L	NO	DLBSL
	118-74-1	Hexachlorobenzene	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	4.2E-02 C	1.0E+00	MCL	YES	DLASL
												2.0E-02	15A NCAC 2L		
	87-68-3	Hexachlorobutadiene	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	8.6E-01 C*	4.0E-01	15A NCAC 2L	YES	DLASL
	77-47-4	Hexachlorocyclopentadiene	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	2.2E+01 N	5.0E+01	MCL	NO	DLBSL
	67-72-1	Hexachloroethane	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	3.7E+00 C**	N/A	N/A	YES	DLASL
	193-39-5	Indeno(1,2,3-cd)pyrene	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	2.9E-02 C	5.0E-02	15A NCAC 2L	YES	DLASL
	78-59-1	Isophorone	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	7.1E+01 C	4.0E+01	15A NCAC 2L	NO	DLBSL
	91-20-3	Naphthalene	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	1.4E-01 C*	6.0E+00	15A NCAC 2L	YES	DLASL
	621-64-7	n-Nitroso-di-n-propylamine	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	9.6E-03 C	N/A	N/A	YES	DLASL
	86-30-6	n-Nitrosodiphenylamine	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	1.4E+01 C	N/A	N/A	NO	DLBSL
	98-95-3	Nitrobenzene	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	1.2E-01 C	N/A	N/A	YES	DLASL
	87-86-5	Pentachlorophenol	ND	ND	UG/L		0/3	28 - 29	2.9E+01	N/A	5.6E-01 C	1.0E+00	MCL	YES	DLASL
												3.0E-01	15A NCAC 2L		
	85-01-8	Phenanthrene	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	1.1E+03 N	2.0E+02	15A NCAC 2L	NO	DLBSL
	108-95-2	Phenol	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	1.1E+03 N	3.0E+01	15A NCAC 2L	NO	DLBSL
	129-00-0	Pyrene	ND	ND	UG/L		0/3	11 - 12	1.2E+01	N/A	1.1E+02 N	2.0E+02	15A NCAC 2L	NO	DLBSL
	7429-90-5	**Aluminum**	**2.0E+02 J**	**5.7E+03 J**	**UG/L**	**GC-TW02-07C**	**3/3**	**200 - 200**	**5.7E+03**	**1.9E+03**	**3.7E+03 N**	**50 - 200**	**SMCL**	**YES**	**ASL**
	7440-36-0	Antimony	ND	ND	UG/L		0/3	60 - 60	6.0E+01	3.3E+00	1.5E+00 N	6.0E+00	MCL	YES	DLASL
	7440-38-2	Arsenic	2.9E+00 J	2.9E+00 J	UG/L	GC-TW05-07C	1/3	10 - 10	2.9E+00	5.8E+00	4.5E-02 C	1.0E+01	MCL	YES	ASL
												1.0E+01	15A NCAC 2L		
	7440-39-3	Barium	2.3E+01 J	3.3E+01 J	UG/L	GC-TW08-07C	3/3	200 - 200	3.3E+01	8.6E+01	7.3E+02 N	2.0E+03	MCL	NO	BSL
												7.0E+02	15A NCAC 2L		
	7440-41-7	Beryllium	ND	ND	UG/L		0/3	5 - 5	5.0E+00	3.1E-01	7.3E+00 N	4.0E+00	MCL	NO	DLBSL
	7440-43-9	Cadmium	ND	ND	UG/L		0/3	5 - 5	5.0E+00	3.6E-01	1.8E+00 N	5.0E+00	MCL	YES	DLASL
												2.0E+00	15A NCAC 2L		
	7440-70-2	Calcium	8.5E+02 J	6.7E+04	UG/L	GC-TW05-07C	3/3	5000 - 5000	6.7E+04	6.9E+04	N/A	N/A	N/A	NO	NUT

Occurrence, Distribution, and Selection of COPCs - Groundwater (Phase I)
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)
Phase I Investigation Area
PA/SI Report
MCB CamLej, North Carolina

Scenario Timeframe: 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
	7440-47-3	**Chromium**	**1.2E+00 J**	**1.0E+01**	**UG/L**	**GC-TW02-07C**	**2/3**	**10 - 10**	**1.0E+01**	**3.1E+00**	**4.3E-02 C**	**1.0E+02**	**MCL**	**YES**	**ASL**
												1.0E+01	15A NCAC 2L		
	7440-48-4	Cobalt	6.3E-01 J	1.2E+00 J	UG/L	GC-TW08-07C	2/3	50 - 50	1.2E+00	3.4E+00	1.1E+00 N	N/A	N/A	NO	BBK
	7440-50-8	Copper	1.7E+00 J	2.2E+00 J	UG/L	GC-TW02-07C	3/3	25 - 25	2.2E+00	2.8E+00	1.5E+02 N	1.3E+03	MCL	NO	BSL
												1.0E+03	15A NCAC 2L		
	7439-89-6	Iron	1.6E+03	5.8E+03	UG/L	GC-TW02-07C	3/3	100 - 100	5.8E+03	6.0E+03	2.6E+03 N	3.0E+02	15A NCAC 2L	NO	BBK
	7439-92-1	Lead	5.1E+00 J	5.1E+00 J	UG/L	GC-TW02-07C	1/3	10 - 10	5.1E+00	2.8E+00	1.5E+01	1.5E+01	MCL, 15A NCAC 2L	NO	BSL
	7439-95-4	Magnesium	9.1E+02 J	1.9E+03 J	UG/L	GC-TW05-07C	3/3	5000 - 5000	1.9E+03	6.4E+03	N/A	N/A	N/A	NO	NUT
	7439-96-5	Manganese	4.5E+00 J	9.8E+00 J	UG/L	GC-TW05-07C	3/3	15 - 15	9.8E+00	2.1E+02	8.8E+01 N	5.0E+01	15A NCAC 2L	NO	BSL
	7439-97-6	Mercury	3.5E-02 J	4.2E-02 J	UG/L	GC-TW02-07C	2/3	0.2 - 0.2	4.2E-02	1.0E-01	1.1E+00 N	2.0E+00	MCL	NO	BSL
												1.0E+00	15A NCAC 2L		
	7440-02-0	Nickel	1.2E+00 J	1.2E+00 J	UG/L	GC-TW08-07C	1/3	40 - 40	1.2E+00	8.0E+00	7.3E+01 N	1.0E+02	15A NCAC 2L	NO	BSL
	7440-09-7	Potassium	1.0E+03 J	1.2E+03 J	UG/L	GC-TW02-07C	3/3	5000 - 5000	1.2E+03	3.3E+03	N/A	N/A	N/A	NO	NUT
	7782-49-2	Selenium	ND	ND	UG/L		0/3	35 - 35	3.5E+01	3.1E+00	1.8E+01 N	5.0E+01	MCL, 15A	YES	DLASL
												2.0E+01	15A NCAC 2L		
	7440-22-4	Silver	ND	ND	UG/L		0/3	10 - 10	1.0E+01	7.7E-01	1.8E+01 N	2.0E+01	15A NCAC 2L	NO	DLBSL
	7440-23-5	Sodium	5.7E+03	6.8E+03	UG/L	GC-TW05-07C	3/3	5000 - 5000	6.8E+03	2.3E+04	N/A	N/A	N/A	NO	NUT
	7440-28-0	Thallium	5.6E+00 J	5.6E+00 J	UG/L	GC-TW02-07C	1/3	25 - 25	5.6E+00	3.8E+00	N/A	2.0E+00	MCL	NO	NTX
	7440-62-2	Vanadium	1.2E+00 J	9.4E+00 J	UG/L	GC-TW02-07C	2/3	50 - 50	9.4E+00	4.7E+00	1.8E+01 N	N/A	N/A	NO	BSL
	7440-66-6	Zinc	9.1E+00 J	1.3E+01 J	UG/L	GC-TW02-07C	3/3	60 - 60	1.3E+01	4.2E+01	1.1E+03 N	1.0E+03	15A NCAC 2L	NO	BSL

[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.
[4] Oak Ridge National Laboratory (ORNL). May, 2010. Regional Screening Levels for Chemical Contaminants at Superfund Sites.
Available: http://epa-prgs.ornl.gov/chemicals/index.shtml. Adjusted (noncarcinogenic RSLs adjusted by dividing by 10) tap water RSLs.
RSL value for 1,4-dichlorobenzene used as surrogate for 1,3-dichlorobenzene.
RSL value for 1,3-dichloropropene used as a surrogate for cis-1,3-dichloropropene and trans-1,3-dichloropropene.
RSL value for 2-chlorophenol used as surrogate for 2-nitrophenol.
RSL value for methoxychlor used as surrogate for 4-Chlorophenyl-phenylether.
RSL value for 2-nitroaniline used as surrogate for 3-nitroaniline.
RSL value for Nitrobenzene used as surrogate for 4-Nitrophenol.
RSL value for Acenaphthene used as surrogate for Acenaphthylene.
RSL value for pyrene used as surrogate for benzo(g,h,i)perylene.
RSL value for anthracene used as surrogate for phenanthrene.
RSL value for Chromium(VI) used as surrogate for chromium.
RSL value for Manganese (water) used as surrogate for manganese.
RSL value for Mercury (inorganic salts) used as surrogate for mercury.

MCL = Maximum Contaminant Level from EPA's National Primary Drinking Water Standards
SMCL = Secondary Maximum Contaminant Level from EPA's National Primary Drinking Water S
15A NCAC 2L = North Carolina Classifications and Groundwater Quality Standards, Amended January 2010.
COPC = Chemical of Potential Concern
ARAR/TBC = Applicable or Relevant and Appropriate Requirement/ To Be Considered
J = Estimated Value
C = Carcinogenic
N = Noncarcinogenic
ND = Not detected
ug/L = micrograms per liter
C* = N screening level < 100x C screening level, therefore N screening value/10 used as screening level
C** = N screening level < 10x C screening level, therefore N screening value/10 used as screening level
N/A = Not available

Occurrence, Distribution, and Selection of COPCs - Groundwater (Phase I)
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)
Phase I Investigation Area
PA/SI Report
MCB CamLej, North Carolina

Scenario Timeframe: 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

[5] Rationale Codes

Selection Reason: Above Screening Levels (ASL)
Detection Limit Above Screening Level (DLASL), not quantitatively evaluated in HHRA
Chemical from same class (carcinogenic PAH) identified as a COPC (CPAH)

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

Generated by: D. Stannard
Checked by: R. Warren

TABLE 3a

Risk Ratio Screening for Groundwater, Maximum Detected Concentration (Phase I)

Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)

Phase I Investigation Area

PA/SI Report

MCB CamLej, North Carolina

Analyte	Detection Frequency	Maximum Detected Concentration (Qualifier)	Sample Location of Maximum Detected Concentration	Tap Water RSL	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (ug/L)								
Aluminum	3 / 3	5.7E+03 J	GC-TW02-07C	3.7E+04	1	0.2	NA	Neurological, Developmental
Chromium	**2 / 3**	**1.0E+01**	**GC-TW02-07C**	**4.3E-02**	**1E-06**	**NA**	**2E-04**	**NA**
Cumulative Corresponding Hazard Index[c]						**0.2**		
Cumulative Corresponding Cancer Risk[d]							**2E-04**	
						Total Neurological HI =		0.2
						Total Developmental HI =		0.2

Notes:

a Corresponding Hazard Index equals maximum detected concentration divided by the RSL divided by the acceptable risk level.

b Corresponding Cancer Risk equals maximum detected concentration divided by the RSL divided by the acceptable risk level.

c Cumulative Corresponding Hazard 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

ug/L = micrograms per liter

NA = Not available/not applicable.

Generated by: D. Stannard

Checked by: R. Warren

TABLE 4

Occurrence, Distribution, and Selection of COPCs - Indoor Air (Phase I)

Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)

Phase I Investigation Area

PA/SI Report

MCB CamLej, North Carolina

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Indoor Air

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 (Vapor Intrusion Into Indoor Air)	108-88-3	Toluene	6.1E+00	J	6.1E+00	J	UG/L	GC-TW02-07C	1/3	10 - 10	6.1E+00	N/A	2.3E+03	N	NA	NA	NO	BSL
	1330-20-7	Xylene, total	1.0E+01	J	1.0E+01	J	UG/L	GC-TW02-07C	1/3	10 - 10	1.0E+01	N/A	5.8E+01	N	NA	NA	NO	BSL

[1] Minimum/Maximum detected concentrations.
[2] Maximum concentration is used for screening.
[3] Background values not available.
[4] Generic groundwater vapor intrusion screening levels (USEPA, 2002); see Table 2.4a.
[5] Rationale Codes

Selection Reason: Above Screening Levels (ASL)
Chemical from same class (carcinogenic PAH) identified as a COPC (CPAH)

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* = N screening level < 100x C screening level, therefore N screening value/10 used as screening level
C = Carcinogenic
N = Noncarcinogenic
µg/L = microgram per liter
N/A = Not available

Generated by: D. Stannard
Checked by: R. Warren

TABLE 4a

Calculation of Target Groundwater Concentrations for Vapor Intrusion Screening (Phase I) [1]

Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)

Phase I Investigation Area

PA/SI Report

MCB CamLej, North Carolina

CAS Number	Constituent	Target Indoor Air Concentration[2], carcinogen (C_{Cancer}) ug/m^3	Target Indoor Air Concentration[2], non-carcinogen ($C_{non\text{-}Cancer}$) ug/m^3	Target Indoor Air Concentration ($C_{target,ia}$) ug/m^3	System Temperature Henry's Law Constant (H'TS)[3] Dimensionless	MCL ug/L	Final Target Groundwater Concentration[4] (C_{gw}) ug/L
108-88-3	Toluene	N/A	5.2E+02	5.2E+02	2.3E-01	1.0E+03	2.3E+03
1330-20-7	Xylene, total	N/A	1.0E+01	1.0E+01	1.7E-01	1.0E+04	5.8E+01

Notes:

[1] The vapor intrusion screening levels [i.e., target groundwater concentration from Table 2c, Subsurface Vapor Intrusion Guidance (EPA, 2002)] were updated using the methodology presented in Appendix D of Subsurface Vapor Intrusion Guidance (EPA, 2002).

[2] Values are Regional Screening Levels (RSL) for residential air (based on 10^{-6} for carcinogens and HQ of 0.1 for noncarcinogens). [Oak Ridge National Laboratory (ORNL), May 2010].

[3] H'TS = Henry's Law Constant (dimensionless) at system (i.e., groundwater) temperature. [Oak Ridge National Laboratory (ORNL), May 2010].

[4] If the calculated groundwater target concentration is less than the Maximum Contaminant Level (MCL) for the compound, the target concentration is set at the MCL (EPA, 2002).

MCL = maximum contaminant level (EPA, 2010).
N/A = Not available
ug/L = microgram per liter
ug/m^3 = microgram per cubic meter

Variables	Units	Value
$C_{target,ia}$ = Target indoor air conc., minimum	ug/m^3	Solved by Eq. 1
C_{gw} = Target groundwater conc.	ug/L	Solved by Eq. 2
TCR = Target Cancer Risk	unitless	1.00E-06
THQ = Target Hazard Quotient	unitless	1
H'TS = Dimensionless Henry's Law Constant	unitless	Chemical-specific
alpha (α) = Attenuation Factor	unitless	0.001

Equation 1: $C_{target,ia}$ = Minimum(C_{cancer}, $C_{non\text{-}cancer}$)

Equation 2: Cgw = $C_{target,ia}$ x 10^{-3} m^3/L * 1/H'TS * 1/α

Generated by: D. Stannard
Checked by: R. Warren

TABLE 4a

Calculation of Target Groundwater Concentrations for Vapor Intrusion Screening (Phase I) [1]

Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)

Phase I Investigation Area

PA/SI Report

MCB CamLej, North Carolina

CAS Number	Constituent	Target Indoor Air Concentration[2], carcinogen (C_{Cancer}) ug/m^3	Target Indoor Air Concentration[2], non-carcinogen ($C_{non\text{-}Cancer}$) ug/m^3	Target Indoor Air Concentration ($C_{target,ia}$) ug/m^3	System Temperature Henry's Law Constant (H'TS)[3] Dimensionless	MCL ug/L	Final Target Groundwater Concentration[4] (C_{gw}) ug/L
108-88-3	Toluene	N/A	5.2E+02	5.2E+02	2.3E-01	1.0E+03	2.3E+03
1330-20-7	Xylene, total	N/A	1.0E+01	1.0E+01	1.7E-01	1.0E+04	5.8E+01

Notes:

[1] The vapor intrusion screening levels [i.e., target groundwater concentration from Table 2c, Subsurface Vapor Intrusion Guidance (EPA, 2002)] were updated using the methodology presented in Appendix D of Subsurface Vapor Intrusion Guidance (EPA, 2002).

[2] Values are Regional Screening Levels (RSL) for residential air (based on 10^{-6} for carcinogens and HQ of 0.1 for noncarcinogens). [Oak Ridge National Laboratory (ORNL), May 2010].

[3] H'TS = Henry's Law Constant (dimensionless) at system (i.e., groundwater) temperature. [Oak Ridge National Laboratory (ORNL), May 2010].

[4] If the calculated groundwater target concentration is less than the Maximum Contaminant Level (MCL) for the compound, the target concentration is set at the MCL (EPA, 2002).

MCL = maximum contaminant level (EPA, 2010).
N/A = Not available
ug/L = microgram per liter
ug/m^3 = microgram per cubic meter

Variables	Units	Value
$C_{target,ia}$ = Target indoor air conc., minimum	ug/m^3	Solved by Eq. 1
C_{gw} = Target groundwater conc.	ug/L	Solved by Eq. 2
TCR = Target Cancer Risk	unitless	1.00E-06
THQ = Target Hazard Quotient	unitless	1
H'TS = Dimensionless Henry's Law Constant	unitless	Chemical-specific
alpha (α) = Attenuation Factor	unitless	0.001

Equation 1: $C_{target,ia}$ = Minimum(C_{cancer}, $C_{non\text{-}cancer}$)

Equation 2: Cgw = $C_{target,ia}$ x 10^{-3} m^3/L * 1/H'TS * 1/α

Generated by: D. Stannard
Checked by: R. Warren

TABLE 5
Occurrence, Distribution, and Selection of COPCs - Surface Soil (Phase II)
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)
Phase II Investigation Area
PA/SI Report
MCB CamLej, North Carolina

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

Exposure Point	CAS Number	Chemical	Minimum [1] Concentration Qualifier	Maximum [1] Concentration Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration [2] Used for Screening	Background [3] Value	Screening [4] Toxicity Value	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for [5] Contaminant Deletion or Selection
Surface Soil	71-55-6	1,1,1-Trichloroethane	ND	ND	MG/KG		0/28	0.0115 - 0.0214	2.1E-02	N/A	6.4E+02 NS	1.2E+00	NCSSL	NO	DLBSL
Site UXO-21	79-34-5	1,1,2,2-Tetrachloroethane	ND	ND	MG/KG		0/28	0.0115 - 0.0214	2.1E-02	N/A	5.6E-01 C	1.2E-03	NCSSL	NO	DLBSL
Expanded Area	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	ND	ND	MG/KG		0/28	0.0115 - 0.0214	2.1E-02	N/A	9.1E+02 NS	9.2E+03	NCSSL	NO	DLBSL
	79-00-5	1,1,2-Trichloroethane	ND	ND	MG/KG		0/28	0.0115 - 0.0214	2.1E-02	N/A	1.1E+00 C	N/A		NO	DLBSL
	75-34-3	1,1-Dichloroethane	ND	ND	MG/KG		0/28	0.0115 - 0.0214	2.1E-02	N/A	3.3E+00 C	3.0E-02	NCSSL	NO	DLBSL
	75-35-4	1,1-Dichloroethene	ND	ND	MG/KG		0/28	0.0115 - 0.0214	2.1E-02	N/A	2.4E+01 N	4.6E-02	NCSSL	NO	DLBSL
	120-82-1	1,2,4-Trichlorobenzene	ND	ND	MG/KG		0/28	0.0115 - 0.0214	2.1E-02	N/A	6.2E+00 C**	2.2E+00	NCSSL	NO	DLBSL
	96-12-8	1,2-Dibromo-3-chloropropane	ND	ND	MG/KG		0/28	0.00574 - 0.0107	1.1E-02	N/A	5.4E-03 C	2.5E-04	NCSSL	YES	DLASL
	106-93-4	1,2-Dibromoethane	ND	ND	MG/KG		0/28	0.0115 - 0.0214	2.1E-02	N/A	3.4E-02 C	9.7E-05	NCSSL	NO	DLBSL
	95-50-1	1,2-Dichlorobenzene	1.0E-03 J	1.0E-03 J	MG/KG	MR21-SS18D-10A	1/28	0.0115 - 0.0214	1.0E-03	N/A	1.9E+02 NS	2.4E-01	NCSSL	NO	BSL
	107-06-2	1,2-Dichloroethane	ND	ND	MG/KG		0/28	0.0115 - 0.0214	2.1E-02	N/A	4.3E-01 C	2.0E-03	NCSSL	NO	DLBSL
	78-87-5	1,2-Dichloropropane	ND	ND	MG/KG		0/28	0.0115 - 0.0214	2.1E-02	N/A	8.9E-01 C*	3.3E-03	NCSSL	NO	DLBSL
	541-73-1	1,3-Dichlorobenzene	ND	ND	MG/KG		0/28	0.0115 - 0.0214	2.1E-02	N/A	2.4E+00 C	7.6E+00	NCSSL	NO	DLBSL
	106-46-7	1,4-Dichlorobenzene	1.7E-03 J	1.7E-03 J	MG/KG	MR21-SS18D-10A	1/28	0.0115 - 0.0214	1.7E-03	N/A	2.4E+00 C	7.0E-02	NCSSL	NO	BSL
	78-93-3	2-Butanone	4.3E-02 J	4.3E-02 J	MG/KG	MR21-SS24-10A	1/28	0.0115 - 0.0214	4.3E-02	N/A	2.8E+03 N	1.6E+01	NCSSL	NO	BSL
	591-78-6	2-Hexanone	1.0E-02 J	1.3E-02 J	MG/KG	MR21-SS38-10A	2/28	0.0115 - 0.0214	1.3E-02	N/A	2.1E+01 N	1.2E+00	NCSSL	NO	BSL
	108-10-1	4-Methyl-2-pentanone	ND	ND	MG/KG		0/28	0.0115 - 0.0214	2.1E-02	N/A	5.3E+02 NS	N/A		NO	DLBSL
	67-64-1	Acetone	2.3E-02 J	6.0E-01 J	MG/KG	MR21-SS15-10A	28/28	0.0115 - 0.0214	6.0E-01	N/A	6.1E+03 N	2.4E+01	NCSSL	NO	BSL
	71-43-2	Benzene	7.7E-04 J	7.7E-04 J	MG/KG	MR21-SS20-10A	1/28	0.0115 - 0.0214	7.7E-04	N/A	1.1E+00 C*	7.3E-03	NCSSL	NO	BSL
	75-27-4	Bromodichloromethane	ND	ND	MG/KG		0/28	0.0115 - 0.0214	2.1E-02	N/A	2.7E-01 C	2.9E-03	NCSSL	NO	DLBSL
	75-25-2	Bromoform	ND	ND	MG/KG		0/28	0.0115 - 0.0214	2.1E-02	N/A	6.1E+01 C*	1.9E-02	NCSSL	NO	DLBSL
	74-83-9	Bromomethane	ND	ND	MG/KG		0/28	0.0115 - 0.0214	2.1E-02	N/A	7.3E-01 N	N/A		NO	DLBSL
	75-15-0	Carbon disulfide	2.1E-03 J	2.1E-03 J	MG/KG	MR21-SS20-10A	1/28	0.0115 - 0.0214	2.1E-03	N/A	8.2E+01 NS	3.8E+00	NCSSL	NO	BSL
	56-23-5	Carbon tetrachloride	ND	ND	MG/KG		0/28	0.0115 - 0.0214	2.1E-02	N/A	6.1E-01 C	2.0E-03	NCSSL	NO	DLBSL
	108-90-7	Chlorobenzene	ND	ND	MG/KG		0/28	0.0115 - 0.0214	2.1E-02	N/A	2.9E+01 N	4.5E-01	NCSSL	NO	DLBSL
	75-00-3	Chloroethane	ND	ND	MG/KG		0/28	0.0115 - 0.0214	2.1E-02	N/A	1.5E+03 NS	1.6E+01	NCSSL	NO	DLBSL
	67-66-3	Chloroform	1.0E-03 J	1.0E-01 J	MG/KG	MR21-SS36-10A	5/28	0.0115 - 1.02	1.0E-01	N/A	2.9E-01 C	3.4E-01	NCSSL	NO	BSL
	74-87-3	Chloromethane	ND	ND	MG/KG		0/28	0.0115 - 0.0214	2.1E-02	N/A	1.2E+01 N	1.5E-02	NCSSL	NO	DLBSL
	156-59-2	cis-1,2-Dichloroethene	ND	ND	MG/KG		0/28	0.0115 - 0.0214	2.1E-02	N/A	7.8E+01 N	3.6E-01	NCSSL	NO	DLBSL
	10061-01-5	cis-1,3-Dichloropropene	ND	ND	MG/KG		0/28	0.0115 - 0.0214	2.1E-02	N/A	1.7E+00 C*	2.3E-03	NCSSL	NO	DLBSL
	110-82-7	Cyclohexane	ND	ND	MG/KG		0/28	0.0115 - 0.0214	2.1E-02	N/A	1.2E+02 NS	N/A		NO	DLBSL
	124-48-1	Dibromochloromethane	ND	ND	MG/KG		0/28	0.0115 - 0.0214	2.1E-02	N/A	6.8E-01 C	1.9E-03	NCSSL	NO	DLBSL
	75-71-8	Dichlorodifluoromethane (Freon-12)	ND	ND	MG/KG		0/28	0.0115 - 0.0214	2.1E-02	N/A	1.8E+01 N	2.9E+01	NCSSL	NO	DLBSL
	100-41-4	Ethylbenzene	1.2E-03 J	2.3E-03 J	MG/KG	MR21-SS34-10A	4/28	0.0115 - 0.0238	2.3E-03	N/A	5.4E+00 C	8.1E+00	NCSSL	NO	BSL
	98-82-8	Isopropylbenzene	ND	ND	MG/KG		0/28	0.0115 - 0.0214	2.1E-02	N/A	2.1E+02 NS	1.3E+00	NCSSL	NO	DLBSL
	79-20-9	Methyl acetate	2.2E-03 J	3.8E-01	MG/KG	MR21-SS12-10A	15/28	0.0115 - 1.02	3.8E-01	N/A	7.8E+03 NS	N/A		NO	BSL
	108-87-2	Methylcyclohexane	ND	ND	MG/KG		0/28	0.0115 - 0.0214	2.1E-02	N/A	5.7E+01 N	N/A		NO	DLBSL
	75-09-2	Methylene chloride	ND	ND	MG/KG		0/28	0.0115 - 0.0214	2.1E-02	N/A	1.1E+01 C	2.3E-02	NCSSL	NO	DLBSL

TABLE 5
Occurrence, Distribution, and Selection of COPCs - Surface Soil (Phase II)
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)
Phase II Investigation Area
PA/SI Report
MCB CamLej, North Carolina

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

Exposure Point	CAS Number	Chemical	Minimum [1] Concentration Qualifier	Maximum [1] Concentration Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration [2] Used for Screening	Background [3] Value	Screening [4] Toxicity Value	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for [5] Contaminant Deletion or Selection
	1634-04-4	Methyl-tert-butyl ether (MTBE)	ND	ND	MG/KG		0/28	0.0115 - 0.0214	2.1E-02	N/A	4.3E+01 C	8.5E-02	NCSSL	NO	DLBSL
	100-42-5	Styrene	ND	ND	MG/KG		0/28	0.0115 - 0.0214	2.1E-02	N/A	6.3E+02 NS	9.2E-01	NCSSL	NO	DLBSL
	127-18-4	Tetrachloroethene	ND	ND	MG/KG		0/28	0.0115 - 0.0214	2.1E-02	N/A	5.5E-01 C	5.0E-03	NCSSL	NO	DLBSL
	108-88-3	Toluene	1.1E-03 J	8.9E-03 J	MG/KG	MR21-SS24-10A	16/28	0.0115 - 0.0214	8.9E-03	N/A	5.0E+02 NS	5.5E+00	NCSSL	NO	BSL
	156-60-5	trans-1,2-Dichloroethene	ND	ND	MG/KG		0/28	0.0115 - 0.0214	2.1E-02	N/A	1.5E+01 N	5.1E-01	NCSSL	NO	DLBSL
	10061-02-6	trans-1,3-Dichloropropene	ND	ND	MG/KG		0/28	0.0115 - 0.0214	2.1E-02	N/A	1.7E+00 C*	2.3E-03	NCSSL	NO	DLBSL
	79-01-6	Trichloroethene	ND	ND	MG/KG		0/28	0.0115 - 0.0214	2.1E-02	N/A	2.8E+00 C	1.8E-02	NCSSL	NO	DLBSL
	75-69-4	Trichlorofluoromethane(Freon-11)	ND	ND	MG/KG		0/28	0.0115 - 0.0214	2.1E-02	N/A	7.9E+01 N	2.4E+01	NCSSL	NO	DLBSL
	75-01-4	Vinyl chloride	ND	ND	MG/KG		0/28	0.0115 - 0.0214	2.1E-02	N/A	6.0E-02 C	1.9E-04	NCSSL	NO	DLBSL
	1330-20-7	Xylene, total	1.8E-03 J	6.0E-03 J	MG/KG	MR21-SS18D-10A	14/28	0.0115 - 0.0214	6.0E-03	N/A	6.3E+01 NS	6.0E+00	NCSSL	NO	BSL
	92-52-4	1,1-Biphenyl	ND	ND	MG/KG		0/28	0.287 - 0.484	4.8E-01	N/A	2.1E+02 NS	4.3E+01	NCSSL	NO	DLBSL
	95-95-4	2,4,5-Trichlorophenol	ND	ND	MG/KG		0/28	0.575 - 0.968	9.7E-01	N/A	6.1E+02 N	N/A		NO	DLBSL
	88-06-2	2,4,6-Trichlorophenol	ND	ND	MG/KG		0/28	0.287 - 0.484	4.8E-01	N/A	6.1E+00 C**	N/A		NO	DLBSL
	120-83-2	2,4-Dichlorophenol	ND	ND	MG/KG		0/28	0.287 - 0.484	4.8E-01	N/A	1.8E+01 N	N/A		NO	DLBSL
	105-67-9	2,4-Dimethylphenol	ND	ND	MG/KG		0/28	0.287 - 0.484	4.8E-01	N/A	1.2E+02 N	1.4E+00	NCSSL	NO	DLBSL
	51-28-5	2,4-Dinitrophenol	ND	ND	MG/KG		0/28	0.575 - 0.968	9.7E-01	N/A	1.2E+01 N	N/A		NO	DLBSL
	121-14-2	2,4-Dinitrotoluene	1.4E-01 J	3.0E-01 J	MG/KG	MR21-SS13-10A	2/28	0.3 - 0.3	3.0E-01	N/A	1.6E+00 C*	N/A		NO	BSL
	606-20-2	2,6-Dinitrotoluene	3.2E-01 J	3.2E-01 J	MG/KG	MR21-SS33-10A	1/28	0.3 - 0.3	3.2E-01	N/A	6.1E+00 N	N/A		NO	BSL
	532-27-4	2-Chloroacetophenone	ND	ND	MG/KG		0/28	0.287 - 0.484	4.8E-01	N/A	4.3E+03 N	N/A		NO	DLBSL
	2698-41-1	2-Chlorobenzalmalononitrile	ND	ND	MG/KG		0/28	0.287 - 0.484	4.8E-01	N/A	N/A	N/A		NO	NTX
	91-58-7	2-Chloronaphthalene	ND	ND	MG/KG		0/28	0.287 - 0.484	4.8E-01	N/A	1.8E+02 NS	N/A		NO	DLBSL
	95-57-8	2-Chlorophenol	ND	ND	MG/KG		0/28	0.287 - 0.484	4.8E-01	N/A	3.9E+01 N	4.1E-03	NCSSL	NO	DLBSL
	91-57-6	2-Methylnaphthalene	ND	ND	MG/KG		0/28	0.287 - 0.484	4.8E-01	N/A	3.1E+01 N	1.6E+00	NCSSL	NO	DLBSL
	95-48-7	2-Methylphenol	ND	ND	MG/KG		0/28	0.287 - 0.484	4.8E-01	N/A	3.1E+02 N	N/A		NO	DLBSL
	88-74-4	2-Nitroaniline	ND	ND	MG/KG		0/28	0.575 - 0.968	9.7E-01	N/A	6.1E+01 N	N/A		NO	DLBSL
	88-75-5	2-Nitrophenol	ND	ND	MG/KG		0/28	0.287 - 0.484	4.8E-01	N/A	3.9E+01 N	N/A		NO	DLBSL
	91-94-1	3,3'-Dichlorobenzidine	ND	ND	MG/KG		0/27	0.287 - 0.385	3.9E-01	N/A	1.1E+00 C	N/A		NO	DLBSL
	99-09-2	3-Nitroaniline	ND	ND	MG/KG		0/27	0.575 - 0.77	7.7E-01	N/A	6.1E+01 N	N/A		NO	DLBSL
	534-52-1	4,6-Dinitro-2-methylphenol	ND	ND	MG/KG		0/28	0.575 - 0.968	9.7E-01	N/A	4.9E-01 N	N/A		YES	DLASL
	101-55-3	4-Bromophenyl-phenylether	ND	ND	MG/KG		0/28	0.287 - 0.484	4.8E-01	N/A	N/A	N/A		NO	NTX
	59-50-7	4-Chloro-3-methylphenol	ND	ND	MG/KG		0/28	0.287 - 0.484	4.8E-01	N/A	6.1E+02 N	N/A		NO	DLBSL
	106-47-8	4-Chloroaniline	ND	ND	MG/KG		0/27	0.287 - 0.385	3.9E-01	N/A	2.4E+00 C	N/A		NO	DLBSL
	7005-72-3	4-Chlorophenyl-phenylether	ND	ND	MG/KG		0/28	0.287 - 0.484	4.8E-01	N/A	3.1E+01 N	N/A		NO	DLBSL
	106-44-5	4-Methylphenol	ND	ND	MG/KG		0/28	0.287 - 0.484	4.8E-01	N/A	3.1E+01 N	4.0E-01		NO	DLBSL
	100-01-6	4-Nitroaniline	ND	ND	MG/KG		0/27	0.575 - 0.77	7.7E-01	N/A	2.4E+01 C*	N/A		NO	DLBSL
	100-02-7	4-Nitrophenol	ND	ND	MG/KG		0/28	0.575 - 0.968	9.7E-01	N/A	4.8E+00 C*	N/A		NO	DLBSL
	83-32-9	Acenaphthene	ND	ND	MG/KG		0/28	0.287 - 0.484	4.8E-01	N/A	3.4E+02 N	8.4E+00	NCSSL	NO	DLBSL
	208-96-8	Acenaphthylene	ND	ND	MG/KG		0/28	0.287 - 0.484	4.8E-01	N/A	3.4E+02 N	1.1E+01	NCSSL	NO	DLBSL
	98-86-2	Acetophenone	ND	ND	MG/KG		0/28	0.287 - 0.484	4.8E-01	N/A	7.8E+02 NS	N/A		NO	DLBSL

TABLE 5
Occurrence, Distribution, and Selection of COPCs - Surface Soil (Phase II)
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)
Phase II Investigation Area
PA/SI Report
MCB CamLej, North Carolina

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

Exposure Point	CAS Number	Chemical	Minimum [1] Concentration Qualifier	Maximum [1] Concentration Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration [2] Used for Screening	Background [3] Value	Screening [4] Toxicity Value	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for [5] Contaminant Deletion or Selection
	120-12-7	Anthracene	ND	ND	MG/KG		0/28	0.287 - 0.484	4.8E-01	N/A	1.7E+03 N	6.6E+02	NCSSL	NO	DLBSL
	1912-24-9	Atrazine	ND	ND	MG/KG		0/28	0.287 - 0.484	4.8E-01	N/A	2.1E+00 C	2.5E-02	NCSSL	NO	DLBSL
	100-52-7	Benzaldehyde	7.7E-02 J	1.2E+00 J	MG/KG	MR21-SS25-10A	15/15	0.319 - 0.484	1.2E+00	N/A	7.8E+02 NS	N/A		NO	BSL
	56-55-3	Benzo(a)anthracene	ND	ND	MG/KG		0/28	0.057 - 0.097	9.7E-02	N/A	1.5E-01 C	1.8E-01	NCSSL	NO	DLBSL
	50-32-8	**Benzo(a)pyrene**	**4.5E-03 J**	**3.0E-02**	**MG/KG**	**MR21-SS24-10A**	**6/28**	**0.0057 - 0.0097**	**3.0E-02**	**N/A**	**1.5E-02 C**	**5.9E-02**	**NCSSL**	**YES**	**ASL**
	205-99-2	**Benzo(b)fluoranthene**	**1.1E-02 J**	**5.3E-02 J**	**MG/KG**	**MR21-SS24-10A**	**12/28**	**0.057 - 0.097**	**5.3E-02**	**N/A**	**1.5E-01 C**	**6.0E-01**	**NCSSL**	**YES**	**CPAH**
	191-24-2	Benzo(g,h,i)perylene	ND	ND	MG/KG		0/28	0.287 - 0.484	4.8E-01	N/A	1.7E+02 N	3.6E+02	NCSSL	NO	DLBSL
	207-08-9	Benzo(k)fluoranthene	ND	ND	MG/KG		0/28	0.287 - 0.484	4.8E-01	N/A	1.5E+00 C	5.9E+00	NCSSL	NO	DLBSL
	111-91-1	bis(2-Chloroethoxy)methane	ND	ND	MG/KG		0/28	0.287 - 0.484	4.8E-01	N/A	1.8E+01 N	N/A		NO	DLBSL
	111-44-4	bis(2-Chloroethyl)ether	ND	ND	MG/KG		0/28	0.287 - 0.484	4.8E-01	N/A	2.1E-01 C	1.4E-04	NCSSL	YES	DLASL
	39638-32-9	bis(2-Chloroisopropyl)ether	ND	ND	MG/KG		0/28	0.287 - 0.484	4.8E-01	N/A	N/A	N/A		NO	NTX
	117-81-7	bis(2-Ethylhexyl)phthalate	ND	ND	MG/KG		0/28	0.287 - 0.484	4.8E-01	N/A	3.5E+01 C*	7.2E+00	NCSSL	NO	DLBSL
	85-68-7	Butylbenzylphthalate	ND	ND	MG/KG		0/28	0.287 - 0.484	4.8E-01	N/A	2.6E+02 C*	1.5E+02	NCSSL	NO	DLBSL
	105-60-2	Caprolactam	ND	ND	MG/KG		0/28	0.287 - 0.484	4.8E-01	N/A	3.1E+03 N	1.8E+01	NCSSL	NO	DLBSL
	86-74-8	Carbazole	ND	ND	MG/KG		0/28	0.287 - 0.484	4.8E-01	N/A	N/A	N/A		NO	NTX
	218-01-9	Chrysene	ND	ND	MG/KG		0/28	0.287 - 0.484	4.8E-01	N/A	1.5E+01 C	1.8E+01	NCSSL	NO	DLBSL
	53-70-3	Dibenz(a,h)anthracene	ND	ND	MG/KG		0/28	0.0057 - 0.0097	9.7E-03	N/A	1.5E-02 C	1.9E-01	NCSSL	NO	DLBSL
	132-64-9	Dibenzofuran	ND	ND	MG/KG		0/28	0.287 - 0.484	4.8E-01	N/A	7.8E+00 N	4.7E+00	NCSSL	NO	DLBSL
	84-66-2	Diethylphthalate	ND	ND	MG/KG		0/28	0.287 - 0.484	4.8E-01	N/A	4.9E+03 N	3.7E+01	NCSSL	NO	DLBSL
	131-11-3	Dimethyl phthalate	ND	ND	MG/KG		0/28	0.287 - 0.484	4.8E-01	N/A	N/A	N/A		NO	NTX
	84-74-2	Di-n-butylphthalate	ND	ND	MG/KG		0/28	0.287 - 0.484	4.8E-01	N/A	6.1E+02 N	1.9E+01	NCSSL	NO	DLBSL
	117-84-0	Di-n-octylphthalate	ND	ND	MG/KG		0/28	0.287 - 0.484	4.8E-01	N/A	3.5E+01 C*	3.8E+01	NCSSL	NO	DLBSL
	206-44-0	Fluoranthene	ND	ND	MG/KG		0/28	0.287 - 0.484	4.8E-01	N/A	2.3E+02 N	3.3E+02	NCSSL	NO	DLBSL
	86-73-7	Fluorene	ND	ND	MG/KG		0/28	0.287 - 0.484	4.8E-01	N/A	2.3E+02 N	5.6E+01	NCSSL	NO	DLBSL
	118-74-1	Hexachlorobenzene	ND	ND	MG/KG		0/28	0.287 - 0.484	4.8E-01	N/A	3.0E-01 C	2.6E-03	NCSSL	YES	DLASL
	87-68-3	Hexachlorobutadiene	ND	ND	MG/KG		0/28	0.287 - 0.484	4.8E-01	N/A	6.1E+00 C**	8.7E-03	NCSSL	NO	DLBSL
	77-47-4	Hexachlorocyclopentadiene	ND	ND	MG/KG		0/28	0.287 - 0.484	4.8E-01	N/A	3.7E+01 N	N/A		NO	DLBSL
	67-72-1	Hexachloroethane	ND	ND	MG/KG		0/28	0.287 - 0.484	4.8E-01	N/A	6.1E+00 C**	N/A		NO	DLBSL
	193-39-5	Indeno(1,2,3-cd)pyrene	ND	ND	MG/KG		0/28	0.057 - 0.097	9.7E-02	N/A	1.5E-01 C	2.0E+00	NCSSL	NO	DLBSL
	78-59-1	Isophorone	ND	ND	MG/KG		0/28	0.057 - 0.097	9.7E-02	N/A	5.1E+02 C*	2.1E-01	NCSSL	NO	DLBSL
	91-20-3	Naphthalene	ND	ND	MG/KG		0/28	0.287 - 0.484	4.8E-01	N/A	3.6E+00 C*	2.1E-01	NCSSL	NO	DLBSL
	621-64-7	n-Nitroso-di-n-propylamine	ND	ND	MG/KG		0/28	0.086 - 0.14	1.4E-01	N/A	6.9E-02 C	N/A		YES	DLASL
	86-30-6	n-Nitrosodiphenylamine	ND	ND	MG/KG		0/28	0.287 - 0.484	4.8E-01	N/A	9.9E+01 C	N/A		NO	DLBSL
	98-95-3	**Nitrobenzene**	**4.0E-01 J**	**1.2E+01 J**	**MG/KG**	**MR21-SS24-10A**	**5/28**	**0.3 - 0.3**	**1.2E+01**	**N/A**	**4.8E+00 C***	**N/A**		**YES**	**ASL**
	87-86-5	Pentachlorophenol	ND	ND	MG/KG		0/28	0.019 - 0.032	3.2E-02	N/A	3.0E+00 C	3.1E-02	NCSSL	NO	DLBSL
	85-01-8	Phenanthrene	ND	ND	MG/KG		0/28	0.287 - 0.484	4.8E-01	N/A	1.7E+03 N	5.7E+01	NCSSL	NO	DLBSL
	108-95-2	Phenol	ND	ND	MG/KG		0/28	0.287 - 0.484	4.8E-01	N/A	1.8E+03 N	2.3E-01	NCSSL	NO	DLBSL
	129-00-0	Pyrene	5.9E-02 J	5.9E-02 J	MG/KG	MR21-SS24-10A	1/28	0.287 - 0.484	5.9E-02	N/A	1.7E+02 N	2.2E+02	NCSSL	NO	BSL
	99-35-4	1,3,5-Trinitrobenzene	1.0E-01 J	3.9E-01 J	MG/KG	MR21-SS13-10A	11/28	0.3 - 0.3	3.9E-01	N/A	2.2E+02 N	N/A		NO	BSL

TABLE 5
Occurrence, Distribution, and Selection of COPCs - Surface Soil (Phase II)
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)
Phase II Investigation Area
PA/SI Report
MCB CamLej, North Carolina

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

Exposure Point	CAS Number	Chemical	Minimum [1] Concentration Qualifier	Maximum [1] Concentration Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration [2] Used for Screening	Background [3] Value	Screening [4] Toxicity Value	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for [5] Contaminant Deletion or Selection
	99-65-0	1,3-Dinitrobenzene	2.0E-01 J	2.2E-01 J	MG/KG	MR21-SS19-10A	3/28	0.3 - 0.3	2.2E-01	N/A	6.1E-01 N	N/A		NO	BSL
	118-96-7	2,4,6-Trinitrotoluene	1.3E-01 J	7.5E-01 J	MG/KG	MR21-SS13-10A	4/28	0.3 - 0.3	7.5E-01	N/A	3.6E+00 C**	N/A		NO	BSL
	35572-78-2	2-Amino-4,6-dinitrotoluene	1.1E-01 J	3.5E-01 J	MG/KG	MR21-SS13-10A	5/28	0.3 - 0.3	3.5E-01	N/A	1.5E+01 N	N/A		NO	BSL
	88-72-2	2-Nitrotoluene	1.1E-01 J	3.6E-01 J	MG/KG	MR21-SS40-10A	6/28	0.3 - 0.3	3.6E-01	N/A	2.9E+00 C*	N/A		NO	BSL
	99-08-1	**3-Nitrotoluene**	**1.1E-01 J**	**2.7E+00 J**	**MG/KG**	**MR21-SS31-10A**	**5/28**	**0.3 - 0.3**	**2.7E+00**	**N/A**	**6.1E-01 N**	**N/A**		**YES**	**ASL**
	19406-51-0	4-Amino-2,6-dinitrotoluene	1.6E-01 J	1.6E-01 J	MG/KG	MR21-SS12-10A	1/28	0.3 - 0.3	1.6E-01	N/A	1.5E+01 N	N/A		NO	BSL
	99-99-0	4-Nitrotoluene	1.3E-01 J	3.8E+00 J	MG/KG	MR21-SS29-10A	2/28	0.3 - 0.3	3.8E+00	N/A	2.4E+01 C**	N/A		NO	BSL
	2691-41-0	HMX	2.8E-01 J	1.1E+00 J	MG/KG	MR21-SS34-10A	5/28	0.3 - 0.3	1.1E+00	N/A	3.8E+02 N	N/A		NO	BSL
	55-63-0	**Nitroglycerin**	**4.6E-01 J**	**1.9E+00 J**	**MG/KG**	**MR21-SS18-10A**	**7/28**	**0.75 - 0.75**	**1.9E+00**	**N/A**	**6.1E-01 N**	**N/A**		**YES**	**ASL**
	14797-73-0	Perchlorate	ND	ND	MG/KG		0/28	0.0023 - 0.00387	3.9E-03	N/A	5.5E+00 N	N/A		NO	DLBSL
	78-11-5	PETN	5.2E-01 J	1.5E+00	MG/KG	MR21-SS36-10A	3/28	0.5 - 0.5	1.5E+00	N/A	N/A	N/A		NO	NTX
	121-82-4	RDX	1.1E-01 J	2.7E+00 J	MG/KG	MR21-SS29-10A	17/28	0.3 - 0.3	2.7E+00	N/A	5.5E+00 C*	N/A		NO	BSL
	479-45-8	Tetryl	1.1E-01 J	7.0E-01 J	MG/KG	MR21-SS26-10A	4/28	0.3 - 0.3	7.0E-01	N/A	2.4E+01 N	N/A		NO	BSL
	7429-90-5	**Aluminum**	**3.9E+02**	**9.1E+03**	**MG/KG**	**MR21-SS40-10A**	**28/28**	**11.1 - 19.3**	**9.1E+03**	**5.5E+03**	**7.7E+03 N**	**N/A**		**YES**	**ASL**
	7440-36-0	Antimony	ND	ND	MG/KG		0/28	0.829 - 1.44	1.4E+00	4.5E-01	3.1E+00 N	N/A		NO	DLBSL
	7440-38-2	**Arsenic**	**2.5E-01 J**	**1.6E+00**	**MG/KG**	**MR21-SS40-10A**	**27/28**	**0.276 - 0.481**	**1.6E+00**	**6.3E-01**	**3.9E-01 C***	**5.8E+00**	**NCSSL**	**YES**	**ASL**
	7440-39-3	Barium	5.7E+00	6.4E+01	MG/KG	MR21-SS29-10A	28/28	2.21 - 3.85	6.4E+01	1.5E+01	1.5E+03 N	5.8E+02	NCSSL	NO	BSL
	7440-41-7	Beryllium	7.0E-02 J	1.3E-01 J	MG/KG	MR21-SS30-10A	7/28	0.276 - 0.481	1.3E-01	1.0E-01	1.6E+01 N	N/A		NO	BSL
	7440-43-9	Cadmium	8.5E-02 J	2.6E-01 J	MG/KG	MR21-SS24-10A	12/28	0.276 - 0.481	2.6E-01	3.3E-02	7.0E+00 N	3.0E+00	NCSSL	NO	BSL
	7440-70-2	Calcium	1.4E+02 J	6.7E+03	MG/KG	MR21-SS20-10A	28/28	276 - 481	6.7E+03	6.4E+03	N/A	N/A		NO	NUT
	7440-47-3	**Chromium**	**5.7E-01**	**8.8E+00**	**MG/KG**	**MR21-SS40-10A**	**28/28**	**0.276 - 0.481**	**8.8E+00**	**6.1E+00**	**2.9E-01 C**	**3.8E+00**	**NCSSL**	**YES**	**ASL**
	7440-48-4	Cobalt	5.3E-01 J	6.7E-01 J	MG/KG	MR21-SS24-10A	3/28	0.691 - 1.2	6.7E-01	2.9E-01	2.3E+00 N	N/A		NO	BSL
	7440-50-8	Copper	4.1E-01 J	6.5E+00	MG/KG	MR21-SS40-10A	28/28	0.553 - 0.963	6.5E+00	4.8E+00	3.1E+02 N	7.0E+02	NCSSL	NO	BSL
	7439-89-6	Iron	1.5E+02	3.0E+03	MG/KG	MR21-SS40-10A	28/28	5.53 - 9.63	3.0E+03	3.2E+03	5.5E+03 N	1.5E+02	NCSSL	NO	BSL
	7439-92-1	Lead	2.7E+00	2.9E+01	MG/KG	MR21-SS40-10A	28/28	0.166 - 0.289	2.9E+01	1.2E+01	4.0E+02 NL	2.7E+02	NCSSL	NO	BSL
	7439-95-4	Magnesium	7.8E+01 J	3.9E+02	MG/KG	MR21-SS24-10A	23/28	276 - 481	3.9E+02	2.4E+02	N/A	N/A		NO	NUT
	7439-96-5	Manganese	2.0E+00	1.4E+02	MG/KG	MR21-SS34-10A	28/28	0.829 - 1.44	1.4E+02	1.4E+01	1.8E+02 N	6.5E+01	NCSSL	NO	BSL
	7439-97-6	Mercury	1.4E-02 J	8.5E-02	MG/KG	MR21-SS24-10A	26/28	0.033 - 0.0599	8.5E-02	8.1E-02	2.4E+00 N	1.0E+00	NCSSL	NO	BSL
	7440-02-0	Nickel	4.4E-01 J	3.9E+00	MG/KG	MR21-SS40-10A	27/28	0.553 - 0.963	3.9E+00	1.2E+00	1.5E+02 N	1.3E+02	NCSSL	NO	BSL
	7440-09-7	Potassium	6.8E+01 J	3.5E+02 J	MG/KG	MR21-SS24-10A	22/28	276 - 481	3.5E+02	1.2E+02	N/A	N/A		NO	NUT
	7782-49-2	Selenium	2.0E-01 J	6.6E-01	MG/KG	MR21-SS13-10A	24/28	0.332 - 0.578	6.6E-01	5.6E-01	3.9E+01 N	2.1E+00	NCSSL	NO	BSL
	7440-22-4	Silver	2.1E-01 J	4.4E-01	MG/KG	MR21-SS24-10A	3/28	0.276 - 0.481	4.4E-01	1.4E-01	3.9E+01 N	3.4E+00	NCSSL	NO	BSL
	7440-23-5	Sodium	ND	ND	MG/KG		0/28	276 - 481	4.8E+02	8.1E+01	N/A	N/A		NO	NUT
	7440-28-0	Thallium	ND	ND	MG/KG		0/28	0.442 - 0.77	7.7E-01	3.6E-01	N/A	N/A		NO	NTX
	7440-62-2	Vanadium	6.6E-01 J	1.2E+01	MG/KG	MR21-SS40-10A	28/28	0.691 - 1.2	1.2E+01	8.9E+00	3.9E+01 N	N/A		NO	BSL
	7440-66-6	Zinc	1.2E+00	4.2E+01	MG/KG	MR21-SS24-10A	28/28	1.11 - 1.93	4.2E+01	1.1E+01	2.3E+03 N	1.2E+03	NCSSL	NO	BSL

TABLE 5
Occurrence, Distribution, and Selection of COPCs - Surface Soil (Phase II)
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)
Phase II Investigation Area
PA/SI Report
MCB CamLej, North Carolina

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

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

[1] Minimum/Maximum detected concentrations.
[2] Maximum concentration is used for screening. If ND, maximum detection limit used for screening.
[3] Background values are two times the arithmetic mean basewide background surface soil concentrations.
Background values are from *Final Base Background Soil Study Report, Marine Corps Base Camp Lejeune, North Carolina*, Baker Environmental, April 25, 2001.
[4] Oak Ridge National Laboratory (ORNL). May 17, 2010. Regional Screening Levels (RSLs) for Chemical Contaminants at Superfund Sites.
Available: http://epa-prgs.ornl.gov/chemicals/index.shtml. Adjusted (noncarcinogenic RSLs adjusted by dividing by 10) residential soil RSLs.
RSL for 1,4-Dichlorobenzene used as surrogate for 1,3-Dichlorobenzene.
RSL value for n-Hexane used as surrogate for Methylcyclohexane.
RSL value for 2-Nitroaniline used as surrogate for 3-Nitroaniline.
RSL value for Methoxychlor used as surrogate for 4-Chlorophenyl-phenylether.
RSL value for Nitrobenzene used as surrogate for 4-Nitrophenol.
RSL value for Acenaphthene used as surrogate for Acenaphthylene.
RSL value for Pyrene used as surrogate for Benzo(g,h,i)perylene.
RSL value for Anthracene used as surrogate for Phenanthrene.
RSL value for Chromium(VI) used for Chromium.
The soil value of 400 mg/kg for lead is from the Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities, USEPA, July 14, 1994.
RSL value for Manganese (water) used for Manganese.
RSL value for Mercury (inorganic salts) used for Mercury.
RSL value for 1,3-Dichloropropene used as a surrogate for cis-1,3-Dichloropropene and trans-1,3-Dichloropropene.
RSL value for 2-Chlorophenol used as surrogate for 4-Chloro-3-methylphenol and 2-Nitrophenol.
[5] Rationale Codes

Selection Reason:	Above Screening Levels (ASL)
	Detection Limit Above Screening Level (DLASL), not quantitatively evaluated in HHRA
	Chemical from same class (carcinogenic PAH) identified as a COPC (CPAH)
Deletion Reason:	No Toxicity Information (NTX)
	Essential Nutrient (NUT)
	Below Screening Level (BSL)
	Below Background (BBK)
	Detection Limit Below Screening Level (DLBSL)

COPC = Chemical of Potential Concern
ARAR/TBC = Applicable or Relevant and Appropriate Requirement/ To Be Considered
NCSSL = North Carolina Soil Screening Levels (NCDENR, 2010)
J = Estimated Value
N/A = Not Applicable/Not Available
ND = Not Detected
NL = Noncarcinogenic lead residential soil RSL not adjusted by dividing by 10.
C = Carcinogenic
N = Noncarcinogenic
C* = N screening level < 100x C screening level
C** = N screening level < 10x C screening level, therefore N screening value/10 used as screening level
S or NS = concentration exceeds Csat, used Csat as screening value

TABLE 5a

Risk Ratio Screening for Surface Soil, Maximum Detected Concentration (Phase II)

Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)

Phase II Investigation Area

PA/SI Report

MCB CamLej, North Carolina

Analyte	Detection Frequency	Maximum Detected Concentration (Qualifier)		Sample Location of Maximum Detected Concentration	Residential Soil RSL	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Semivolatile Organic Compunds (mg/kg)									
Benzo(a)pyrene	6 / 28	3.0E-02		MR21-SS24-10A	1.5E-02	1E-06	NA	2E-06	NA
Benzo(b)fluoranthene	12 / 28	5.3E-02	J	MR21-SS24-10A	1.5E-01	1E-06	NA	4E-07	NA
Explosives (mg/kg)									
Nitrobenzene	5 / 28	1.2E+01	J	MR21-SS24-10A	4.8E+00	1E-06	NA	2E-06	NA
3-Nitrotoluene	5 / 28	2.7E+00	J	MR21-SS31-10A	6.1E+00	1	4.4E-01	NA	Blood
Nitroglycerin	7 / 28	1.9E+00	J	MR21-SS18-10A	6.1E+00	1	3.1E-01	NA	Cardiovascular System
Metals (mg/kg)									
Aluminum	28 / 28	9.1E+03		MR21-SS40-10A	7.7E+04	1	1.2E-01	NA	Neurological, Developmental
Arsenic	27 / 28	1.6E+00		MR21-SS40-10A	3.9E-01	1E-06	NA	4E-06	NA
Chromium	28 / 28	8.8E+00		MR21-SS40-10A	2.9E-01	1E-06	NA	3E-05	NA
Cumulative Corresponding Hazard Index[c]							**1**		
Cumulative Corresponding Cancer Risk[d]								**4E-05**	

Total Cardiovascular System HI =	0.3
Total Blood HI =	0.4
Total Neurological HI =	0.1
Total Developmental HI =	0.1

Notes:

a Corresponding Hazard Index equals maximum detected concentration divided by the RSL divided by the acceptable risk level.

b Corresponding Cancer Risk equals maximum detected concentration divided by the RSL divided by the acceptable risk level.

c Cumulative Corresponding Hazard 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 = Cnetral Nervous System

COPC = Constituent of Potential Concern

mg/kg = micrograms per kilogram

NA = Not available/not applicable.

Generated by: D. Stannard Checked by: T. Carleton

TABLE 6
Occurrence, Distribution, and Selection of COPCs - Surface Water (Phase II)
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)
Phase II Investigation Area
PA/SI Report
MCB CamLej, North Carolina

Scenario Timeframe: 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
Surface Water	71-55-6	1,1,1-Trichloroethane	ND	ND	UG/L		0/6	1 - 1	1.0E+00	N/A	2.0E+02	A			NO	DLBSL
Site UXO-21	79-34-5	1,1,2,2-Tetrachloroethane	ND	ND	UG/L		0/6	1 - 1	1.0E+00	N/A	1.7E-01	A	4.0E+00	N	YES	DLASL
Expanded Area	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	ND	ND	UG/L		0/6	1 - 1	1.0E+00	N/A	5.9E+03	R-n			NO	DLBSL
	79-00-5	1,1,2-Trichloroethane	ND	ND	UG/L		0/6	1 - 1	1.0E+00	N/A	5.9E-01	A			YES	DLASL
	75-34-3	1,1-Dichloroethane	ND	ND	UG/L		0/6	1 - 1	1.0E+00	N/A	2.4E+00	R-c			NO	DLBSL
	75-35-4	1,1-Dichloroethene	ND	ND	UG/L		0/6	1 - 1	1.0E+00	N/A	3.3E+02	A			NO	DLBSL
	120-82-1	1,2,4-Trichlorobenzene	ND	ND	UG/L		0/6	1 - 1	1.0E+00	N/A	3.5E+01	A			NO	DLBSL
	96-12-8	1,2-Dibromo-3-chloropropane	ND	ND	UG/L		0/6	1.5 - 1.5	1.5E+00	N/A	3.2E-04	R-c			YES	DLASL
	106-93-4	1,2-Dibromoethane	ND	ND	UG/L		0/6	1 - 1	1.0E+00	N/A	6.5E-03	R-c			YES	DLASL
	95-50-1	1,2-Dichlorobenzene	ND	ND	UG/L		0/6	1 - 1	1.0E+00	N/A	4.2E+02	A			NO	DLBSL
	107-06-2	1,2-Dichloroethane	ND	ND	UG/L		0/6	1 - 1	1.0E+00	N/A	3.8E-01	A			YES	DLASL
	78-87-5	1,2-Dichloropropane	ND	ND	UG/L		0/6	1 - 1	1.0E+00	N/A	5.0E-01	A			YES	DLASL
	541-73-1	1,3-Dichlorobenzene	ND	ND	UG/L		0/6	1 - 1	1.0E+00	N/A	3.2E+02	A			NO	DLBSL
	106-46-7	1,4-Dichlorobenzene	ND	ND	UG/L		0/6	1 - 1	1.0E+00	N/A	6.3E+01	A			NO	DLBSL
	78-93-3	2-Butanone	ND	ND	UG/L		0/6	5 - 5	5.0E+00	N/A	7.1E+02	R-n			NO	DLBSL
	591-78-6	2-Hexanone	ND	ND	UG/L		0/6	5 - 5	5.0E+00	N/A	4.7E+00	R-n			YES	DLASL
	108-10-1	4-Methyl-2-pentanone	ND	ND	UG/L		0/6	5 - 5	5.0E+00	N/A	2.0E+02	R-n			NO	DLBSL
	71-43-2	Benzene	ND	ND	UG/L		0/6	1 - 1	1.0E+00	N/A	2.2E+00	A	5.1E+01	N	NO	DLBSL
	75-27-4	Bromodichloromethane	ND	ND	UG/L		0/6	1 - 1	1.0E+00	N/A	5.5E-01	A			YES	DLASL
	75-25-2	Bromoform	ND	ND	UG/L		0/6	1 - 1	1.0E+00	N/A	4.3E+00	A			NO	DLBSL
	74-83-9	Bromomethane	ND	ND	UG/L		0/6	1 - 1	1.0E+00	N/A	4.7E+01	A			NO	DLBSL
	75-15-0	Carbon disulfide	ND	ND	UG/L		0/6	1 - 1	1.0E+00	N/A	1.0E+02	R-n			NO	DLBSL
	56-23-5	Carbon tetrachloride	ND	ND	UG/L		0/6	1 - 1	1.0E+00	N/A	1.0E+02	A	1.6E+00	N	NO	DLBSL
	108-90-7	Chlorobenzene	ND	ND	UG/L		0/6	1 - 1	1.0E+00	N/A	1.3E+02	A			NO	DLBSL
	75-00-3	Chloroethane	ND	ND	UG/L		0/6	1 - 1	1.0E+00	N/A	2.1E+03	R-n			NO	DLBSL
	67-66-3	Chloroform	ND	ND	UG/L		0/6	1 - 1	1.0E+00	N/A	5.7E+00	A			NO	DLBSL
	74-87-3	Chloromethane	ND	ND	UG/L		0/6	1 - 1	1.0E+00	N/A	1.9E+01	R-n			NO	DLBSL
	156-59-2	cis-1,2-Dichloroethene	ND	ND	UG/L		0/6	1 - 1	1.0E+00	N/A	3.7E+01	R-n			NO	DLBSL
	10061-01-5	cis-1,3-Dichloropropene	ND	ND	UG/L		0/6	1 - 1	1.0E+00	N/A	3.4E-01	A			YES	DLASL
	110-82-7	Cyclohexane	ND	ND	UG/L		0/6	1 - 1	1.0E+00	N/A	1.3E+03	R-n			NO	DLBSL
	124-48-1	Dibromochloromethane	ND	ND	UG/L		0/6	1 - 1	1.0E+00	N/A	4.0E-01	A			YES	DLASL
	75-71-8	Dichlorodifluoromethane (Freon-12)	ND	ND	UG/L		0/6	1 - 1	1.0E+00	N/A	3.9E+01	R-n			NO	DLBSL
	100-41-4	Ethylbenzene	ND	ND	UG/L		0/6	1 - 1	1.0E+00	N/A	5.3E+02	A			NO	DLBSL
	98-82-8	Isopropylbenzene	ND	ND	UG/L		0/6	1 - 1	1.0E+00	N/A	6.8E+01	R-n			NO	DLBSL
	79-20-9	Methyl acetate	ND	ND	UG/L		0/6	1.5 - 1.5	1.5E+00	N/A	3.7E+03	R-n			NO	DLBSL
	108-87-2	Methylcyclohexane	ND	ND	UG/L		0/6	1 - 1	1.0E+00	N/A	N/A				NO	NTX
	75-09-2	Methylene chloride	ND	ND	UG/L		0/6	2 - 2	2.0E+00	N/A	4.6E+00	A			NO	DLBSL

TABLE 6
Occurrence, Distribution, and Selection of COPCs - Surface Water (Phase II)
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)
Phase II Investigation Area
PA/SI Report
MCB CamLej, North Carolina

Scenario Timeframe: 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
	1634-04-4	Methyl-tert-butyl ether (MTBE)	ND	ND	UG/L		0/6	1 - 1	1.0E+00	N/A	1.2E+01 R-c			NO	DLBSL
	100-42-5	Styrene	ND	ND	UG/L		0/6	1 - 1	1.0E+00	N/A	1.6E+02 R-n			NO	DLBSL
	127-18-4	Tetrachloroethene	ND	ND	UG/L		0/6	1 - 1	1.0E+00	N/A	6.9E-01 A	3.3E+00	N	YES	DLASL
	108-88-3	Toluene	2.4E+00	3.6E+00	UG/L	MR21-SW02-10B	2/6	1 - 1	3.6E+00	N/A	1.3E+03 A			NO	BSL
	156-60-5	trans-1,2-Dichloroethene	ND	ND	UG/L		0/6	1.5 - 1.5	1.5E+00	N/A	1.0E+02 N			NO	DLBSL
	10061-02-6	trans-1,3-Dichloropropene	ND	ND	UG/L		0/6	1 - 1	1.0E+00	N/A	3.4E-01 A			YES	DLASL
	79-01-6	Trichloroethene	ND	ND	UG/L		0/6	1 - 1	1.0E+00	N/A	2.5E+00 A	3.0E+01	N	NO	DLBSL
	75-69-4	Trichlorofluoromethane(Freon-11)	ND	ND	UG/L		0/6	1 - 1	1.0E+00	N/A	1.3E+02 R-n			NO	DLBSL
	75-01-4	Vinyl chloride	ND	ND	UG/L		0/6	1 - 1	1.0E+00	N/A	2.5E-02 A	2.4E+00	N	YES	DLASL
	1330-20-7	Xylene, total	ND	ND	UG/L		0/6	1 - 1	1.0E+00		2.0E+01 N			NO	DLBSL
	92-52-4	1,1-Biphenyl	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	1.8E+02 R-n			NO	DLBSL
	95-95-4	2,4,5-Trichlorophenol	ND	ND	UG/L		0/6	23.6 - 25	2.5E+01	N/A	1.8E+03 A			NO	DLBSL
	88-06-2	2,4,6-Trichlorophenol	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	1.4E+00 A			YES	DLASL
	120-83-2	2,4-Dichlorophenol	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	7.7E+01 A			NO	DLBSL
	105-67-9	2,4-Dimethylphenol	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	3.8E+02 A			NO	DLBSL
	51-28-5	2,4-Dinitrophenol	ND	ND	UG/L		0/6	23.6 - 25	2.5E+01	N/A	6.9E+01 A			NO	DLBSL
	121-14-2	2,4-Dinitrotoluene	ND	ND	UG/L		0/6	0.226 - 0.24	2.4E-01	N/A	1.1E-01 A			YES	DLASL
	606-20-2	2,6-Dinitrotoluene	ND	ND	UG/L		0/6	0.226 - 0.24	2.4E-01	N/A	3.7E+00 R-n			NO	DLBSL
	532-27-4	2-Chloroacetophenone	ND	ND	UG/L		0/6	4.72 - 5	5.0E+00	N/A	N/A			NO	NTX
	2698-41-1	2-Chlorobenzalmalononitrile	ND	ND	UG/L		0/6	4.72 - 5	5.0E+00	N/A	N/A			NO	NTX
	91-58-7	2-Chloronaphthalene	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	1.0E+03 A			NO	DLBSL
	95-57-8	2-Chlorophenol	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	8.1E+01 A			NO	DLBSL
	91-57-6	2-Methylnaphthalene	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	1.5E+01 R-n			NO	DLBSL
	95-48-7	2-Methylphenol	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	1.8E+02 R-n			NO	DLBSL
	88-74-4	2-Nitroaniline	ND	ND	UG/L		0/6	23.6 - 25	2.5E+01	N/A	3.7E+01 R-n			NO	DLBSL
	88-75-5	2-Nitrophenol	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	1.8E+01 R-n			NO	DLBSL
	91-94-1	3,3'-Dichlorobenzidine	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	2.1E-02 A			YES	DLASL
	99-09-2	3-Nitroaniline	ND	ND	UG/L		0/6	23.6 - 25	2.5E+01	N/A	3.7E+01 R-n			NO	DLBSL
	534-52-1	4,6-Dinitro-2-methylphenol	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	1.3E+01 A			NO	DLBSL
	101-55-3	4-Bromophenyl-phenylether	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	N/A			NO	NTX
	59-50-7	4-Chloro-3-methylphenol	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	3.0E+03 A			NO	DLBSL
	106-47-8	4-Chloroaniline	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	3.4E-01 R-c			YES	DLASL
	7005-72-3	4-Chlorophenyl-phenylether	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	1.8E+01 R-n			NO	DLBSL
	106-44-5	4-Methylphenol	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	1.8E+01 R-n			NO	DLBSL
	100-01-6	4-Nitroaniline	ND	ND	UG/L		0/6	23.6 - 25	2.5E+01	N/A	3.4E+00 R-c*			YES	DLASL
	100-02-7	4-Nitrophenol	ND	ND	UG/L		0/6	23.6 - 25	2.5E+01	N/A	1.2E-01 R-c			YES	DLASL
	83-32-9	Acenaphthene	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	6.7E+02 A			NO	DLBSL
	208-96-8	Acenaphthylene	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	2.2E+02 R-n			NO	DLBSL

TABLE 6
Occurrence, Distribution, and Selection of COPCs - Surface Water (Phase II)
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)
Phase II Investigation Area
PA/SI Report
MCB CamLej, North Carolina

Scenario Timeframe: 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
	98-86-2	Acetophenone	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	3.7E+02 R-n			NO	DLBSL
	120-12-7	Anthracene	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	8.3E+03 A			NO	DLBSL
	1912-24-9	Atrazine	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	2.9E-01 R-c			YES	DLASL
	100-52-7	Benzaldehyde	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	3.7E+02 R-n			NO	DLBSL
	56-55-3	Benzo(a)anthracene	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	3.8E-03 A	3.1E-02	N	YES	DLASL
	50-32-8	Benzo(a)pyrene	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	3.8E-03 A	3.1E-02	N	YES	DLASL
	205-99-2	Benzo(b)fluoranthene	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	3.8E-03 A	3.1E-02	N	YES	DLASL
	191-24-2	Benzo(g,h,i)perylene	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	1.1E+02 R-n			NO	DLBSL
	207-08-9	Benzo(k)fluoranthene	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	3.8E-03 A	3.1E-02	N	YES	DLASL
	111-91-1	bis(2-Chloroethoxy)methane	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	1.1E+01 R-n			NO	DLBSL
	111-44-4	bis(2-Chloroethyl)ether	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	3.0E-02 A			YES	DLASL
	39638-32-9	bis(2-Chloroisopropyl)ether	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	N/A			NO	NTX
	117-81-7	**bis(2-Ethylhexyl)phthalate**	**2.5E+00 J**	**2.5E+00 J**	**UG/L**	**MR21-SW01-10B**	**1/6**	**9.43 - 10**	**2.5E+00**	**N/A**	**1.2E+00 A**			**YES**	**ASL**
	85-68-7	Butylbenzylphthalate	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	1.5E+03 A			NO	DLBSL
	105-60-2	Caprolactam	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	1.8E+03 R-n			NO	DLBSL
	86-74-8	Carbazole	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	N/A			NO	NTX
	218-01-9	Chrysene	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	3.8E-03 A			YES	DLASL
	53-70-3	Dibenz(a,h)anthracene	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	3.8E-03 A			YES	DLASL
	132-64-9	Dibenzofuran	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	3.7E+00 R-n			YES	DLASL
	84-66-2	Diethylphthalate	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	1.7E+04 A			NO	DLBSL
	131-11-3	Dimethyl phthalate	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	2.7E+05 A			NO	DLBSL
	84-74-2	Di-n-butylphthalate	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	2.0E+03 A			NO	DLBSL
	117-84-0	Di-n-octylphthalate	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	N/A			NO	NTX
	206-44-0	Fluoranthene	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	1.3E+02 A			NO	DLBSL
	86-73-7	Fluorene	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	1.1E+03 A			NO	DLBSL
	118-74-1	Hexachlorobenzene	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	2.8E-04 A			YES	DLASL
	87-68-3	Hexachlorobutadiene	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	4.4E-01 A	1.8E+01	N	YES	DLASL
	77-47-4	Hexachlorocyclopentadiene	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	4.0E+01 A			NO	DLBSL
	67-72-1	Hexachloroethane	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	1.4E+00 A			YES	DLASL
	193-39-5	Indeno(1,2,3-cd)pyrene	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	3.8E-03 A	3.1E-02	N	YES	DLASL
	78-59-1	Isophorone	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	3.5E+01 A			NO	DLBSL
	91-20-3	Naphthalene	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	1.4E-01 R-c*			YES	DLASL
	621-64-7	n-Nitroso-di-n-propylamine	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	5.0E-03 A			YES	DLASL
	86-30-6	n-Nitrosodiphenylamine	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	3.3E+00 A			YES	DLASL
	98-95-3	Nitrobenzene	ND	ND	UG/L		0/6	0.226 - 0.24	2.4E-01	N/A	1.7E+01 A			NO	DLBSL
	87-86-5	Pentachlorophenol	ND	ND	UG/L		0/6	23.6 - 25	2.5E+01	N/A	2.7E-01 A			YES	DLASL
	85-01-8	Phenanthrene	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	1.1E+03 R-n			NO	DLBSL
	108-95-2	Phenol	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	2.1E+04 A			NO	DLBSL

TABLE 6
Occurrence, Distribution, and Selection of COPCs - Surface Water (Phase II)
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)
Phase II Investigation Area
PA/SI Report
MCB CamLej, North Carolina

Scenario Timeframe: 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
	129-00-0	Pyrene	ND	ND	UG/L		0/6	9.43 - 10	1.0E+01	N/A	8.3E+02 A			NO	DLBSL
	99-35-4	1,3,5-Trinitrobenzene	ND	ND	UG/L		0/6	0.226 - 0.24	2.4E-01	N/A	1.1E+02 R-n			NO	DLBSL
	99-65-0	1,3-Dinitrobenzene	ND	ND	UG/L		0/6	0.226 - 0.24	2.4E-01	N/A	3.7E-01 R-n			NO	DLBSL
	118-96-7	2,4,6-Trinitrotoluene	ND	ND	UG/L		0/6	0.226 - 0.24	2.4E-01	N/A	1.8E+00 R-c**			NO	DLBSL
	35572-78-2	2-Amino-4,6-dinitrotoluene	ND	ND	UG/L		0/6	0.226 - 0.24	2.4E-01	N/A	7.3E+00 R-n			NO	DLBSL
	88-72-2	2-Nitrotoluene	ND	ND	UG/L		0/6	0.226 - 0.24	2.4E-01	N/A	3.1E-01 R-c			NO	DLBSL
	99-08-1	3-Nitrotoluene	ND	ND	UG/L		0/6	0.226 - 0.24	2.4E-01	N/A	3.7E-01 R-n			NO	DLBSL
	19406-51-0	4-Amino-2,6-dinitrotoluene	ND	ND	UG/L		0/6	0.226 - 0.24	2.4E-01	N/A	7.3E+00 R-n			NO	DLBSL
	99-99-0	4-Nitrotoluene	ND	ND	UG/L		0/6	0.226 - 0.24	2.4E-01	N/A	4.2E+00 R-c*			NO	DLBSL
	2691-41-0	HMX	ND	ND	UG/L		0/6	0.226 - 0.24	2.4E-01	N/A	1.8E+02 R-n			NO	DLBSL
	14797-73-0	Perchlorate	7.7E-02 J	1.7E-01 J	UG/L	MR21-SW06-10B	2/6	0.2 - 0.2	1.7E-01	N/A	2.6E+00 R-n			NO	BSL
	78-11-5	PETN	ND	ND	UG/L		0/6	1.13 - 1.2	1.2E+00	N/A	N/A			NO	NTX
	121-82-4	RDX	ND	ND	UG/L		0/6	0.226 - 0.24	2.4E-01	N/A	6.1E-01 R-c			NO	DLBSL
	479-45-8	Tetryl	ND	ND	UG/L		0/6	0.226 - 0.24	2.4E-01	N/A	1.5E+01 R-n			NO	DLBSL
	7429-90-5	Aluminum	2.9E+02 J	6.3E+02 J	UG/L	MR21-SW06-10B	6/6	50 - 50	6.3E+02	N/A	3.7E+03 R-n			NO	BSL
	7440-36-0	Antimony	ND	ND	UG/L		0/6	2.5 - 2.5	2.5E+00	N/A	5.6E+00 A			NO	DLBSL
	7440-38-2	**Arsenic**	**1.1E+00 J**	**2.8E+00**	**UG/L**	**MR21-SW01D-10B**	**2/6**	**1.5 - 1.5**	**2.8E+00**	**N/A**	**1.8E-02 A**	**1.0E+01**	**N**	**YES**	**ASL**
	7440-39-3	Barium	2.2E+01	3.7E+01	UG/L	MR21-SW05-10B	6/6	3.75 - 3.75	3.7E+01	N/A	1.0E+03 A			NO	BSL
	7440-41-7	Beryllium	ND	ND	UG/L		0/6	1.25 - 1.25	1.3E+00	N/A	4.0E+00 A			NO	DLBSL
	7440-43-9	Cadmium	ND	ND	UG/L		0/6	1 - 1	1.0E+00	N/A	5.0E+00 A			NO	DLBSL
	7440-70-2	Calcium	2.1E+04	3.4E+04	UG/L	MR21-SW03-10B	6/6	1250 - 1250	3.4E+04	N/A	N/A			NO	NUT
	7440-47-3	Chromium	5.3E-01 J	1.1E+00	UG/L	MR21-SW01D-10B	6/6	1 - 1	1.1E+00	N/A	1.0E+02 A			NO	BSL
	7440-48-4	Cobalt	ND	ND	UG/L		0/6	3.12 - 3.12	3.1E+00	N/A	1.1E+00 R-n			YES	DLASL
	7440-50-8	Copper	1.3E+00 J	2.1E+00 J	UG/L	MR21-SW02-10B	2/6	2.5 - 2.5	2.1E+00	N/A	1.3E+03 A			NO	BSL
	7439-89-6	**Iron**	**4.1E+02**	**3.3E+03**	**UG/L**	**MR21-SW01D-10B**	**6/6**	**25 - 25**	**3.3E+03**	**N/A**	**3.0E+02 A**			**YES**	**ASL**
	7439-92-1	Lead	ND	ND	UG/L		0/6	0.75 - 0.75	7.5E-01	N/A	1.5E+01 M			NO	DLBSL
	7439-95-4	Magnesium	1.1E+03 J	1.5E+03	UG/L	MR21-SW03-10B	6/6	1250 - 1250	1.5E+03	N/A	N/A			NO	NUT
	7439-96-5	**Manganese**	**1.9E+01**	**1.8E+02**	**UG/L**	**MR21-SW02-10B**	**6/6**	**3.75 - 3.75**	**1.8E+02**	**N/A**	**5.0E+01 A**			**YES**	**ASL**
	7439-97-6	Mercury	ND	ND	UG/L		0/6	0.2 - 0.2	2.0E-01	N/A	1.1E+00 R-n			NO	DLBSL
	7440-02-0	Nickel	1.2E+00 J	1.5E+00 J	UG/L	MR21-SW01D-10B	6/6	2.5 - 2.5	1.5E+00	N/A	6.1E+02 A			NO	BSL
	7440-09-7	Potassium	7.1E+02 J	1.5E+03	UG/L	MR21-SW02-10B	6/6	1250 - 1250	1.5E+03	N/A	N/A			NO	NUT
	7782-49-2	Selenium	ND	ND	UG/L		0/6	1.5 - 1.5	1.5E+00	N/A	5.0E+01 A			NO	DLBSL
	7440-22-4	Silver	ND	ND	UG/L		0/6	1.25 - 1.25	1.3E+00	N/A	1.8E+01 R-n			NO	DLBSL
	7440-23-5	Sodium	7.0E+03	8.3E+03	UG/L	MR21-SW02-10B	6/6	1250 - 1250	8.3E+03	N/A	N/A			NO	NUT
	7440-28-0	Thallium	ND	ND	UG/L		0/6	2 - 2	2.0E+00	N/A	2.4E-01 A			YES	DLASL
	7440-62-2	Vanadium	1.6E+00 J	1.6E+00 J	UG/L	MR21-SW01D-10B	1/6	3.12 - 3.12	1.6E+00	N/A	1.8E+01 R-n			NO	BSL
	7440-66-6	Zinc	4.8E+00 J	9.6E+00	UG/L	MR21-SW01D-10B	6/6	5 - 5	9.6E+00	N/A	7.4E+03 A			NO	BSL

TABLE 6
Occurrence, Distribution, and Selection of COPCs - Surface Water (Phase II)
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)
Phase II Investigation Area
PA/SI Report
MCB CamLej, North Carolina

Scenario Timeframe: 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.
[2] Maximum concentration is used for screening. If ND, maximum detection limit used for screening.
[3] Background values not available.
[4] North Carolina WQS for Human Health and Water Supply, Federal Ambient Water Quality Criteria, Consumption of Water and Organisms, or USEPA Regional Screening Levels for Tap Water.
Safe Drinking Water Act Action Level for Lead used as screening level for lead.
RSL value for methoxychlor used as surrogate for 4-Chlorophenyl-phenylether.
RSL value for Nitrobenzene used as surrogate for 4-Nitrophenol.
RSL value for Acenaphthene used as surrogate for Acenaphthylene.
RSL value for pyrene used as surrogate for benzo(g,h,i)perylene.
RSL value for anthracene used as surrogate for phenanthrene.
RSL value for Chromium(VI) used as surrogate for chromium.
RSL value for Manganese (water) used as surrogate for manganese.
RSL value for Mercury (inorganic salts) used as surrogate for mercury.
RSL value for 1,3-dichloropropene used as a surrogate for cis-1,3-dichloropropene and trans-1,3-dichloropropene.
RSL value for 2-chlorophenol used as surrogate for 4-chloro-3-methylphenol and 2-nitrophenol.
[5] Rationale Codes

Selection Reason:
- Above Screening Levels (ASL)
- Detection Limit Above Screening Level (DLASL), not quantitatively evaluated in HHRA
- Chemical from same class (carcinogenic PAH) identified as a COPC (CPAH)

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

COPC = Chemical of Potential Concern
ARAR/TBC = Applicable or Relevant and Appropriate Requirement/ To Be Considered
J = Estimated Value
N = North Carolina 15A NCAC 2B Human Health, Amended Feb. 2010.
A= Federal Ambient Water Quality Criteria, Consumption of Water and Organisms
M = Action level for lead from Federal Drinking Water MCLs
R-n = USEPA Regional Screening Level, noncarcinogenic (therefore, RSL divided by 10, see text)
R-c = USEPA Regional Screening Level, Carcinogenic
R-c* = R-n screening level < 100x R-c screening level
R-c** = R-n screening level < 10x R-c screening level, therefore R-n screening value/10 used as screening level
N/A = Not available

TABLE 7a

Risk Ratio Screening for Surface Water, Maximum Detected Concentration (Phase II)

Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)

Phase II Investigation Area

PA/SI Report

MCB CamLej, North Carolina

Analyte	Detection Frequency	Maximum Detected Concentration (Qualifier)	Sample	Screening Level	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Index[b]	Target Organ
Semivolatile Organic Compunds (ug/L)								
bis(2-Ethylhexyl)phthalate	**6 / 6**	**2.5E+00 J**	**MR21-SW01-10B**	**4.8E+00**	**1.E-06**	**NA**	**5.E-07**	**NA**
Metals (ug/L)								
Arsenic	**2 / 6**	**2.8E+00**	**MR21-SW01D-10B**	**4.5E-02**	**1.E-06**	**NA**	**6.E-05**	**NA**
Iron	2 / 6	3.3E+03	MR21-SW01D-10B	2.6E+04	1	0.1	NA	Gastrointestinal
Manganese	6 / 6	1.8E+02	MR21-SW02-10B	8.8E+02	1	0.2	NA	CNS
Cumulative Corresponding Hazard Index[c]						**0.3**		
Cumulative Corresponding Cancer Risk[d]							**6E-05**	
						Total Gastrointestinal HI =		0.1
						Total CNS HI =		0.2

Screening level used for Step 2, risk ratio evaluation is the Tap Water RSL, May 2010. The North Carolina WQS for Human Health and Federal Ambient Water Quality Criteria are not risk-based, and are not appropriate for use in Step 2.

[a] Corresponding Hazard Index equals maximum detected concentration divided by the SL divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the SL divided by the acceptable risk level.

[c] Cumulative Corresponding Hazard 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

ug/L = micrograms per liter

TABLE 7
Occurrence, Distribution, and Selection of COPCs - Sediment (Phase II)
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)
Phase II Investigation Area
PA/SI Report
MCB CamLej, North Carolina

Scenario Timeframe: 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
Sediment	71-55-6	1,1,1-Trichloroethane	ND	ND	MG/KG		0/6	0.0103 - 0.0132	1.3E-02	N/A	6.4E+02 S	N/A	N/A	NO	DLBSL
Site UXO-21	79-34-5	1,1,2,2-Tetrachloroethane	ND	ND	MG/KG		0/6	0.0103 - 0.0132	1.3E-02	N/A	5.6E-01 C	N/A	N/A	NO	DLBSL
Expanded Area	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	ND	ND	MG/KG		0/6	0.0103 - 0.0132	1.3E-02	N/A	9.1E+02 S	N/A	N/A	NO	DLBSL
	79-00-5	1,1,2-Trichloroethane	ND	ND	MG/KG		0/6	0.0103 - 0.0132	1.3E-02	N/A	1.1E+00 C	N/A	N/A	NO	DLBSL
	75-34-3	1,1-Dichloroethane	ND	ND	MG/KG		0/6	0.0103 - 0.0132	1.3E-02	N/A	3.3E+00 C	N/A	N/A	NO	DLBSL
	75-35-4	1,1-Dichloroethene	ND	ND	MG/KG		0/6	0.0103 - 0.0132	1.3E-02	N/A	2.4E+01 N	N/A	N/A	NO	DLBSL
	120-82-1	1,2,4-Trichlorobenzene	ND	ND	MG/KG		0/6	0.0103 - 0.0132	1.3E-02	N/A	6.2E+00 C**	N/A	N/A	NO	DLBSL
	96-12-8	1,2-Dibromo-3-chloropropane	ND	ND	MG/KG		0/6	0.00513 - 0.00659	6.6E-03	N/A	5.4E-03 C	N/A	N/A	YES	DLASL
	106-93-4	1,2-Dibromoethane	ND	ND	MG/KG		0/6	0.0103 - 0.0132	1.3E-02	N/A	3.4E-02 C	N/A	N/A	NO	DLBSL
	95-50-1	1,2-Dichlorobenzene	ND	ND	MG/KG		0/6	0.0103 - 0.0132	1.3E-02	N/A	1.9E+02 N	N/A	N/A	NO	DLBSL
	107-06-2	1,2-Dichloroethane	ND	ND	MG/KG		0/6	0.0103 - 0.0132	1.3E-02	N/A	4.3E-01 C	N/A	N/A	NO	DLBSL
	78-87-5	1,2-Dichloropropane	ND	ND	MG/KG		0/6	0.0103 - 0.0132	1.3E-02	N/A	8.9E-01 C*	N/A	N/A	NO	DLBSL
	541-73-1	1,3-Dichlorobenzene	ND	ND	MG/KG		0/6	0.0103 - 0.0132	1.3E-02	N/A	2.4E+00 C	N/A	N/A	NO	DLBSL
	106-46-7	1,4-Dichlorobenzene	ND	ND	MG/KG		0/6	0.0103 - 0.0132	1.3E-02	N/A	2.4E+00 C	N/A	N/A	NO	DLBSL
	78-93-3	2-Butanone	9.0E-03 J	2.8E-02	MG/KG	MR21-SD02D-10B	2/6	0.0103 - 0.0132	2.8E-02	N/A	2.8E+03 N	N/A	N/A	NO	BSL
	591-78-6	2-Hexanone	3.3E-03 J	3.3E-03 J	MG/KG	MR21-SD02D-10B	1/6	0.0103 - 0.0132	3.3E-03	N/A	2.1E+01 N	N/A	N/A	NO	BSL
	108-10-1	4-Methyl-2-pentanone	2.0E-03 J	2.0E-03 J	MG/KG	MR21-SD01-10B	1/6	0.0103 - 0.0132	2.0E-03	N/A	5.3E+02 N	N/A	N/A	NO	BSL
	67-64-1	Acetone	8.4E-02	3.7E-01 J	MG/KG	MR21-SD02D-10B	3/6	0.0103 - 0.0132	3.7E-01	N/A	6.1E+03 N	N/A	N/A	NO	BSL
	71-43-2	Benzene	ND	ND	MG/KG		0/6	0.0103 - 0.0132	1.3E-02	N/A	1.1E+00 C*	N/A	N/A	NO	DLBSL
	75-27-4	Bromodichloromethane	ND	ND	MG/KG		0/6	0.0103 - 0.0132	1.3E-02	N/A	2.7E-01 C	N/A	N/A	NO	DLBSL
	75-25-2	Bromoform	ND	ND	MG/KG		0/6	0.0103 - 0.0132	1.3E-02	N/A	6.1E+01 C*	N/A	N/A	NO	DLBSL
	74-83-9	Bromomethane	ND	ND	MG/KG		0/6	0.0103 - 0.0132	1.3E-02	N/A	7.3E-01 N	N/A	N/A	NO	DLBSL
	75-15-0	Carbon disulfide	4.5E-03 J	4.5E-03 J	MG/KG	MR21-SD03-10B	1/6	0.0103 - 0.0132	4.5E-03	N/A	8.2E+01 N	N/A	N/A	NO	BSL
	56-23-5	Carbon tetrachloride	ND	ND	MG/KG		0/6	0.0103 - 0.0132	1.3E-02	N/A	6.1E-01 C	N/A	N/A	NO	DLBSL
	108-90-7	Chlorobenzene	ND	ND	MG/KG		0/6	0.0103 - 0.0132	1.3E-02	N/A	2.9E+01 N	N/A	N/A	NO	DLBSL
	75-00-3	Chloroethane	ND	ND	MG/KG		0/6	0.0103 - 0.0132	1.3E-02	N/A	1.5E+03 N	N/A	N/A	NO	DLBSL
	67-66-3	Chloroform	ND	ND	MG/KG		0/6	0.0103 - 0.0132	1.3E-02	N/A	2.9E-01 C	N/A	N/A	NO	DLBSL
	74-87-3	Chloromethane	ND	ND	MG/KG		0/6	0.0103 - 0.0132	1.3E-02	N/A	1.2E+01 N	N/A	N/A	NO	DLBSL
	156-59-2	cis-1,2-Dichloroethene	ND	ND	MG/KG		0/6	0.0103 - 0.0132	1.3E-02	N/A	7.8E+01 N	N/A	N/A	NO	DLBSL
	10061-01-5	cis-1,3-Dichloropropene	ND	ND	MG/KG		0/6	0.0103 - 0.0132	1.3E-02	N/A	1.7E+00 C*	N/A	N/A	NO	DLBSL
	110-82-7	Cyclohexane	ND	ND	MG/KG		0/6	0.0103 - 0.0132	1.3E-02	N/A	1.2E+02 S	N/A	N/A	NO	DLBSL
	124-48-1	Dibromochloromethane	ND	ND	MG/KG		0/6	0.0103 - 0.0132	1.3E-02	N/A	6.8E-01 C	N/A	N/A	NO	DLBSL
	75-71-8	Dichlorodifluoromethane (Freon-12)	ND	ND	MG/KG		0/6	0.0103 - 0.0132	1.3E-02	N/A	1.8E+01 N	N/A	N/A	NO	DLBSL

TABLE 7
Occurrence, Distribution, and Selection of COPCs - Sediment (Phase II)
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)
Phase II Investigation Area
PA/SI Report
MCB CamLej, North Carolina

Scenario Timeframe: 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
	100-41-4	Ethylbenzene	ND	ND	MG/KG		0/6	0.0103 - 0.0132	1.3E-02	N/A	5.4E+00 C	N/A	N/A	NO	DLBSL
	98-82-8	Isopropylbenzene	ND	ND	MG/KG		0/6	0.0103 - 0.0132	1.3E-02	N/A	2.1E+02 N	N/A	N/A	NO	DLBSL
	79-20-9	Methyl acetate	ND	ND	MG/KG		0/6	0.0103 - 0.0132	1.3E-02	N/A	7.8E+03 N	N/A	N/A	NO	DLBSL
	108-87-2	Methylcyclohexane	ND	ND	MG/KG		0/6	0.0103 - 0.0132	1.3E-02	N/A	5.7E+01 N	N/A	N/A	NO	DLBSL
	75-09-2	Methylene chloride	ND	ND	MG/KG		0/6	0.0103 - 0.0132	1.3E-02	N/A	1.1E+01 C	N/A	N/A	NO	DLBSL
	1634-04-4	Methyl-tert-butyl ether (MTBE)	ND	ND	MG/KG		0/6	0.0103 - 0.0132	1.3E-02	N/A	4.3E+01 C	N/A	N/A	NO	DLBSL
	100-42-5	Styrene	ND	ND	MG/KG		0/6	0.0103 - 0.0132	1.3E-02	N/A	6.3E+02 N	N/A	N/A	NO	DLBSL
	127-18-4	Tetrachloroethene	ND	ND	MG/KG		0/6	0.0103 - 0.0132	1.3E-02	N/A	5.5E-01 C	N/A	N/A	NO	DLBSL
	108-88-3	Toluene	2.0E-03 J	6.9E-01	MG/KG	MR21-SD02D-10B	3/6	0.0103 - 0.695	6.9E-01	N/A	5.0E+02 N	N/A	N/A	NO	BSL
	156-60-5	trans-1,2-Dichloroethene	ND	ND	MG/KG		0/6	0.0103 - 0.0132	1.3E-02	N/A	1.5E+01 N	N/A	N/A	NO	DLBSL
	10061-02-6	trans-1,3-Dichloropropene	ND	ND	MG/KG		0/6	0.0103 - 0.0132	1.3E-02	N/A	1.7E+00 C*	N/A	N/A	NO	DLBSL
	79-01-6	Trichloroethene	ND	ND	MG/KG		0/6	0.0103 - 0.0132	1.3E-02	N/A	2.8E+00 C	N/A	N/A	NO	DLBSL
	75-69-4	Trichlorofluoromethane(Freon-11)	ND	ND	MG/KG		0/6	0.0103 - 0.0132	1.3E-02	N/A	7.9E+01 N	N/A	N/A	NO	DLBSL
	75-01-4	Vinyl chloride	ND	ND	MG/KG		0/6	0.0103 - 0.0132	1.3E-02	N/A	6.0E-02 C	N/A	N/A	NO	DLBSL
	1330-20-7	Xylene, total	ND	ND	MG/KG		0/6	0.0103 - 0.0132	1.3E-02	N/A	6.3E+01 N	N/A	N/A	NO	DLBSL
	92-52-4	1,1-Biphenyl	ND	ND	MG/KG		0/6	0.316 - 0.373	3.7E-01	N/A	2.1E+02 S	N/A	N/A	NO	DLBSL
	95-95-4	2,4,5-Trichlorophenol	ND	ND	MG/KG		0/6	0.633 - 0.746	7.5E-01	N/A	6.1E+02 N	N/A	N/A	NO	DLBSL
	88-06-2	2,4,6-Trichlorophenol	ND	ND	MG/KG		0/6	0.316 - 0.373	3.7E-01	N/A	6.1E+00 C**	N/A	N/A	NO	DLBSL
	120-83-2	2,4-Dichlorophenol	ND	ND	MG/KG		0/6	0.316 - 0.373	3.7E-01	N/A	1.8E+01 N	N/A	N/A	NO	DLBSL
	105-67-9	2,4-Dimethylphenol	ND	ND	MG/KG		0/6	0.316 - 0.373	3.7E-01	N/A	1.2E+02 N	N/A	N/A	NO	DLBSL
	51-28-5	2,4-Dinitrophenol	ND	ND	MG/KG		0/6	0.633 - 0.746	7.5E-01	N/A	1.2E+01 N	N/A	N/A	NO	DLBSL
	121-14-2	2,4-Dinitrotoluene	3.9E-02 J	7.2E-02 J	MG/KG	MR21-SD02D-10B	2/6	0.1 - 0.1	7.2E-02	N/A	1.6E+00 C*	N/A	N/A	NO	BSL
	606-20-2	2,6-Dinitrotoluene	ND	ND	MG/KG		0/6	0.1 - 0.1	1.0E-01	N/A	6.1E+00 N	N/A	N/A	NO	DLBSL
	532-27-4	2-Chloroacetophenone	ND	ND	MG/KG		0/6	0.316 - 0.373	3.7E-01	N/A	4.3E+03 N	N/A	N/A	NO	DLBSL
	2698-41-1	2-Chlorobenzalmalononitrile	ND	ND	MG/KG		0/6	0.316 - 0.373	3.7E-01	N/A	N/A	N/A	N/A	NO	NTX
	91-58-7	2-Chloronaphthalene	ND	ND	MG/KG		0/6	0.316 - 0.373	3.7E-01	N/A	1.8E+02 S	N/A	N/A	NO	DLBSL
	95-57-8	2-Chlorophenol	ND	ND	MG/KG		0/6	0.316 - 0.373	3.7E-01	N/A	3.9E+01 N	N/A	N/A	NO	DLBSL
	91-57-6	2-Methylnaphthalene	ND	ND	MG/KG		0/6	0.316 - 0.373	3.7E-01	N/A	3.1E+01 N	N/A	N/A	NO	DLBSL
	95-48-7	2-Methylphenol	ND	ND	MG/KG		0/6	0.316 - 0.373	3.7E-01	N/A	3.1E+02 N	N/A	N/A	NO	DLBSL
	88-74-4	2-Nitroaniline	ND	ND	MG/KG		0/6	0.633 - 0.746	7.5E-01	N/A	6.1E+01 N	N/A	N/A	NO	DLBSL
	88-75-5	2-Nitrophenol	ND	ND	MG/KG		0/6	0.316 - 0.373	3.7E-01	N/A	3.9E+01 N	N/A	N/A	NO	DLBSL
	91-94-1	3,3'-Dichlorobenzidine	ND	ND	MG/KG		0/6	0.316 - 0.373	3.7E-01	N/A	1.1E+00 C	N/A	N/A	NO	DLBSL
	99-09-2	3-Nitroaniline	ND	ND	MG/KG		0/6	0.633 - 0.746	7.5E-01	N/A	6.1E+01 N	N/A	N/A	NO	DLBSL
	534-52-1	4,6-Dinitro-2-methylphenol	ND	ND	MG/KG		0/6	0.633 - 0.746	7.5E-01	N/A	4.9E-01 N	N/A	N/A	YES	DLASL

TABLE 7
Occurrence, Distribution, and Selection of COPCs - Sediment (Phase II)
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)
Phase II Investigation Area
PA/SI Report
MCB CamLej, North Carolina

Scenario Timeframe: 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
	101-55-3	4-Bromophenyl-phenylether	ND	ND	MG/KG		0/6	0.316 - 0.373	3.7E-01	N/A	N/A	N/A	N/A	NO	NTX
	59-50-7	4-Chloro-3-methylphenol	ND	ND	MG/KG		0/6	0.316 - 0.373	3.7E-01	N/A	6.1E+02 N	N/A	N/A	NO	DLBSL
	106-47-8	4-Chloroaniline	ND	ND	MG/KG		0/6	0.316 - 0.373	3.7E-01	N/A	2.4E+00 C	N/A	N/A	NO	DLBSL
	7005-72-3	4-Chlorophenyl-phenylether	ND	ND	MG/KG		0/6	0.316 - 0.373	3.7E-01	N/A	3.1E+01 N	N/A	N/A	NO	DLBSL
	106-44-5	4-Methylphenol	3.0E-01 J	3.0E-01 J	MG/KG	MR21-SD02D-10B	1/6	0.316 - 0.373	3.0E-01	N/A	3.1E+01 N	N/A	N/A	NO	BSL
	100-01-6	4-Nitroaniline	ND	ND	MG/KG		0/6	0.633 - 0.746	7.5E-01	N/A	2.4E+01 C*	N/A	N/A	NO	DLBSL
	100-02-7	4-Nitrophenol	ND	ND	MG/KG		0/6	0.633 - 0.746	7.5E-01	N/A	4.8E+00 C*	N/A	N/A	NO	DLBSL
	83-32-9	Acenaphthene	ND	ND	MG/KG		0/6	0.316 - 0.373	3.7E-01	N/A	3.4E+02 N	N/A	N/A	NO	DLBSL
	208-96-8	Acenaphthylene	ND	ND	MG/KG		0/6	0.316 - 0.373	3.7E-01	N/A	3.4E+02 N	N/A	N/A	NO	DLBSL
	98-86-2	Acetophenone	ND	ND	MG/KG		0/6	0.316 - 0.373	3.7E-01	N/A	7.8E+02 N	N/A	N/A	NO	DLBSL
	120-12-7	Anthracene	ND	ND	MG/KG		0/6	0.316 - 0.373	3.7E-01	N/A	1.7E+03 N	N/A	N/A	NO	DLBSL
	1912-24-9	Atrazine	ND	ND	MG/KG		0/6	0.316 - 0.373	3.7E-01	N/A	2.1E+00 C	N/A	N/A	NO	DLBSL
	100-52-7	Benzaldehyde	1.1E-01 J	1.1E-01 J	MG/KG	MR21-SD02D-10B	1/1	0.365 - 0.373	1.1E-01	N/A	7.8E+02 N	N/A	N/A	NO	BSL
	56-55-3	Benzo(a)anthracene	4.0E-03 J	7.1E-03 J	MG/KG	MR21-SD03-10B	2/6	0.0633 - 0.0746	7.1E-03	N/A	1.5E-01 C	N/A	N/A	NO	BSL
	50-32-8	Benzo(a)pyrene	ND	ND	MG/KG		0/6	0.00844 - 0.00995	1.0E-02	N/A	1.5E-02 C	N/A	N/A	NO	DLBSL
	205-99-2	Benzo(b)fluoranthene	5.9E-03 J	1.2E-02 J	MG/KG	MR21-SD03-10B	4/6	0.0633 - 0.0746	1.2E-02	N/A	1.5E-01 C	N/A	N/A	NO	BSL
	191-24-2	Benzo(g,h,i)perylene	ND	ND	MG/KG		0/6	0.316 - 0.373	3.7E-01	N/A	1.7E+02 N	N/A	N/A	NO	DLBSL
	207-08-9	Benzo(k)fluoranthene	ND	ND	MG/KG		0/6	0.316 - 0.373	3.7E-01	N/A	1.5E+00 C	N/A	N/A	NO	DLBSL
	111-91-1	bis(2-Chloroethoxy)methane	ND	ND	MG/KG		0/6	0.316 - 0.373	3.7E-01	N/A	1.8E+01 N	N/A	N/A	NO	DLBSL
	111-44-4	bis(2-Chloroethyl)ether	ND	ND	MG/KG		0/6	0.316 - 0.373	3.7E-01	N/A	2.1E-01 C	N/A	N/A	YES	DLASL
	39638-32-9	bis(2-Chloroisopropyl)ether	ND	ND	MG/KG		0/6	0.316 - 0.373	3.7E-01	N/A	N/A	N/A	N/A	NO	NTX
	117-81-7	bis(2-Ethylhexyl)phthalate	2.3E-01 J	2.5E-01 J	MG/KG	MR21-SD02D-10B	2/6	0.316 - 0.373	2.5E-01	N/A	3.5E+01 C*	N/A	N/A	NO	BSL
	85-68-7	Butylbenzylphthalate	ND	ND	MG/KG		0/6	0.316 - 0.373	3.7E-01	N/A	2.6E+02 C*	N/A	N/A	NO	DLBSL
	105-60-2	Caprolactam	ND	ND	MG/KG		0/6	0.316 - 0.373	3.7E-01	N/A	3.1E+03 N	N/A	N/A	NO	DLBSL
	86-74-8	Carbazole	ND	ND	MG/KG		0/6	0.316 - 0.373	3.7E-01	N/A	N/A	N/A	N/A	NO	NTX
	218-01-9	Chrysene	ND	ND	MG/KG		0/6	0.316 - 0.373	3.7E-01	N/A	1.5E+01 C	N/A	N/A	NO	DLBSL
	53-70-3	Dibenz(a,h)anthracene	ND	ND	MG/KG		0/6	0.00844 - 0.00995	1.0E-02	N/A	1.5E-02 C	N/A	N/A	NO	DLBSL
	132-64-9	Dibenzofuran	ND	ND	MG/KG		0/6	0.316 - 0.373	3.7E-01	N/A	7.8E+00 N	N/A	N/A	NO	DLBSL
	84-66-2	Diethylphthalate	ND	ND	MG/KG		0/6	0.316 - 0.373	3.7E-01	N/A	4.9E+03 N	N/A	N/A	NO	DLBSL
	131-11-3	Dimethyl phthalate	ND	ND	MG/KG		0/6	0.316 - 0.373	3.7E-01	N/A	7.8E+00 NC	N/A	N/A	NO	DLBSL
	84-74-2	Di-n-butylphthalate	ND	ND	MG/KG		0/6	0.316 - 0.373	3.7E-01	N/A	6.1E+02 N	N/A	N/A	NO	DLBSL
	117-84-0	Di-n-octylphthalate	ND	ND	MG/KG		0/6	0.316 - 0.373	3.7E-01	N/A	N/A	N/A	N/A	NO	NTX
	206-44-0	Fluoranthene	ND	ND	MG/KG		0/6	0.316 - 0.373	3.7E-01	N/A	2.3E+02 N	N/A	N/A	NO	DLBSL
	86-73-7	Fluorene	ND	ND	MG/KG		0/6	0.316 - 0.373	3.7E-01	N/A	2.3E+02 N	N/A	N/A	NO	DLBSL

TABLE 7
Occurrence, Distribution, and Selection of COPCs - Sediment (Phase II)
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)
Phase II Investigation Area
PA/SI Report
MCB CamLej, North Carolina

Scenario Timeframe: 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
	118-74-1	Hexachlorobenzene	ND	ND	MG/KG		0/6	0.316 - 0.373	3.7E-01	N/A	3.0E-01 C	N/A	N/A	YES	DLASL
	87-68-3	Hexachlorobutadiene	ND	ND	MG/KG		0/6	0.316 - 0.373	3.7E-01	N/A	6.2E+00 C**	N/A	N/A	NO	DLBSL
	77-47-4	Hexachlorocyclopentadiene	ND	ND	MG/KG		0/5	0.316 - 0.373	3.7E-01	N/A	3.7E+01 N	N/A	N/A	NO	DLBSL
	67-72-1	Hexachloroethane	ND	ND	MG/KG		0/6	0.316 - 0.373	3.7E-01	N/A	6.1E+00 C**	N/A	N/A	NO	DLBSL
	193-39-5	Indeno(1,2,3-cd)pyrene	ND	ND	MG/KG		0/6	0.0633 - 0.0746	7.5E-02	N/A	1.5E-01 C	N/A	N/A	NO	DLBSL
	78-59-1	Isophorone	ND	ND	MG/KG		0/6	0.0633 - 0.0746	7.5E-02	N/A	5.1E+02 C*	N/A	N/A	NO	DLBSL
	91-20-3	Naphthalene	ND	ND	MG/KG		0/6	0.316 - 0.373	3.7E-01	N/A	3.6E+00 C*	N/A	N/A	NO	DLBSL
	621-64-7	n-Nitroso-di-n-propylamine	ND	ND	MG/KG		0/6	0.0949 - 0.112	1.1E-01	N/A	6.9E-02 C	N/A	N/A	YES	DLASL
	86-30-6	n-Nitrosodiphenylamine	ND	ND	MG/KG		0/6	0.316 - 0.373	3.7E-01	N/A	9.9E+01 C	N/A	N/A	NO	DLBSL
	98-95-3	Nitrobenzene	4.6E-02 J	8.3E-02 J	MG/KG	MR21-SD02D-10B	3/6	0.1 - 0.1	8.3E-02	N/A	4.8E+00 C*	N/A	N/A	NO	BSL
	87-86-5	Pentachlorophenol	ND	ND	MG/KG		0/6	0.0215 - 0.0254	2.5E-02	N/A	3.0E+00 C	N/A	N/A	NO	DLBSL
	85-01-8	Phenanthrene	ND	ND	MG/KG		0/6	0.316 - 0.373	3.7E-01	N/A	1.7E+03 N	N/A	N/A	NO	DLBSL
	108-95-2	Phenol	ND	ND	MG/KG		0/6	0.316 - 0.373	3.7E-01	N/A	1.8E+03 N	N/A	N/A	NO	DLBSL
	129-00-0	Pyrene	ND	ND	MG/KG		0/6	0.316 - 0.373	3.7E-01	N/A	1.7E+02 N	N/A	N/A	NO	DLBSL
	99-35-4	1,3,5-Trinitrobenzene	4.6E-02 J	2.0E-01 J	MG/KG	MR21-SD02-10B	2/6	0.1 - 0.1	2.0E-01	N/A	2.2E+02 N	N/A	N/A	NO	BSL
	99-65-0	1,3-Dinitrobenzene	ND	ND	MG/KG		0/6	0.1 - 0.1	1.0E-01	N/A	6.1E-01 N	N/A	N/A	NO	DLBSL
	118-96-7	2,4,6-Trinitrotoluene	4.6E-02 J	6.1E-02 J	MG/KG	MR21-SD03-10B	2/6	0.1 - 0.1	6.1E-02	N/A	3.6E+00 C**	N/A	N/A	NO	BSL
	35572-78-2	2-Amino-4,6-dinitrotoluene	ND	ND	MG/KG		0/6	0.1 - 0.1	1.0E-01	N/A	1.5E+01 N	N/A	N/A	NO	DLBSL
	88-72-2	2-Nitrotoluene	5.1E-02 J	6.7E-02 J	MG/KG	MR21-SD02-10B	2/6	0.1 - 0.1	6.7E-02	N/A	2.9E+00 C*	N/A	N/A	NO	BSL
	99-08-1	3-Nitrotoluene	ND	ND	MG/KG		0/6	0.1 - 0.1	1.0E-01	N/A	6.1E-01 N	N/A	N/A	NO	DLBSL
	19406-51-0	4-Amino-2,6-dinitrotoluene	6.9E-01 J	6.9E-01 J	MG/KG	MR21-SD02-10B	1/6	0.1 - 0.1	6.9E-01	N/A	1.5E+01 N	N/A	N/A	NO	BSL
	99-99-0	4-Nitrotoluene	6.0E-02 J	6.0E-02 J	MG/KG	MR21-SD02-10B	1/6	0.1 - 0.1	6.0E-02	N/A	2.4E+01 C**	N/A	N/A	NO	BSL
	2691-41-0	HMX	6.8E-02 J	6.8E-02 J	MG/KG	MR21-SD02-10B	1/6	0.1 - 0.1	6.8E-02	N/A	3.8E+02 N	N/A	N/A	NO	BSL
	14797-73-0	Perchlorate	ND	ND	MG/KG		0/6	0.00253 - 0.00298	3.0E-03	N/A	5.5E+00 N	N/A	N/A	NO	DLBSL
	78-11-5	PETN	ND	ND	MG/KG		0/6	0.167 - 0.167	1.7E-01	N/A	N/A	N/A	N/A	NO	NTX
	121-82-4	RDX	6.6E-02 J	3.1E-01 J	MG/KG	MR21-SD02-10B	4/6	0.1 - 0.1	3.1E-01	N/A	5.5E+00 C*	N/A	N/A	NO	BSL
	479-45-8	Tetryl	6.5E-02 J	2.2E-01 J	MG/KG	MR21-SD03-10B	4/6	0.1 - 0.1	2.2E-01	N/A	2.4E+01 N	N/A	N/A	NO	BSL
	7429-90-5	Aluminum	3.8E+02	2.0E+03	MG/KG	MR21-SD02-10B : MR21-SD02D-10B	6/6	12.5 - 14.5	2.0E+03	N/A	7.7E+03 N	N/A	N/A	NO	BSL
	7440-36-0	Antimony	ND	ND	MG/KG		0/6	0.935 - 1.09	1.1E+00	N/A	3.1E+00 N	N/A	N/A	NO	DLBSL
	7440-38-2	Arsenic	2.4E-01 J	3.1E-01 J	MG/KG	MR21-SD02D-10B	2/6	0.312 - 0.362	3.1E-01	N/A	3.9E-01 C*	N/A	N/A	NO	BSL
	7440-39-3	Barium	2.0E+00 J	1.2E+01	MG/KG	MR21-SD02D-10B	6/6	2.49 - 2.9	1.2E+01	N/A	1.5E+03 N	N/A	N/A	NO	BSL
	7440-41-7	Beryllium	8.0E-02 J	8.0E-02 J	MG/KG	MR21-SD03-10B	1/6	0.312 - 0.362	8.0E-02	N/A	1.6E+01 N	N/A	N/A	NO	BSL
	7440-43-9	Cadmium	ND	ND	MG/KG		0/6	0.312 - 0.362	3.6E-01	N/A	7.0E+00 N	N/A	N/A	NO	DLBSL
	7440-70-2	Calcium	1.2E+02 J	1.9E+03 J	MG/KG	MR21-SD02D-10B	6/6	312 - 362	1.9E+03	N/A	N/A	N/A	N/A	NO	NUT

TABLE 7
Occurrence, Distribution, and Selection of COPCs - Sediment (Phase II)
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)
Phase II Investigation Area
PA/SI Report
MCB CamLej, North Carolina

Scenario Timeframe: 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
	7440-47-3	**Chromium**	**1.0E+00**	**2.6E+00**	**MG/KG**	**MR21-SD02-10B**	**6/6**	**0.312 - 0.362**	**2.6E+00**	**N/A**	**2.9E-01 C**	**N/A**	**N/A**	**YES**	**ASL**
	7440-48-4	Cobalt	ND	ND	MG/KG		0/6	0.779 - 0.905	9.1E-01	N/A	2.3E+00 N	N/A	N/A	NO	DLBSL
	7440-50-8	Copper	5.3E-01 J	3.7E+00	MG/KG	MR21-SD04-10B	5/6	0.624 - 0.724	3.7E+00	N/A	3.1E+02 N	N/A	N/A	NO	BSL
	7439-89-6	Iron	1.8E+02	1.1E+03	MG/KG	MR21-SD03-10B	6/6	6.24 - 7.24	1.1E+03	N/A	5.5E+03 N	N/A	N/A	NO	BSL
	7439-92-1	Lead	2.1E+00	6.7E+00	MG/KG	MR21-SD02D-10B	6/6	0.187 - 0.217	6.7E+00	N/A	4.0E+02 NL	N/A	N/A	NO	BSL
	7439-95-4	Magnesium	7.3E+01 J	1.0E+02 J	MG/KG	MR21-SD02-10B	2/6	312 - 362	1.0E+02	N/A	N/A	N/A	N/A	NO	NUT
	7439-96-5	Manganese	1.2E+00	8.8E+00	MG/KG	MR21-SD02D-10B	6/6	0.935 - 1.09	8.8E+00	N/A	1.8E+02 N	N/A	N/A	NO	BSL
	7439-97-6	Mercury	2.4E-02 J	2.4E-02 J	MG/KG	MR21-SD02-10B	1/6	0.0348 - 0.0487	2.4E-02	N/A	2.3E+00 N	N/A	N/A	NO	BSL
	7440-02-0	Nickel	3.3E-01 J	9.9E-01	MG/KG	MR21-SD01-10B	5/6	0.624 - 0.724	9.9E-01	N/A	1.5E+02 N	N/A	N/A	NO	BSL
	7440-09-7	Potassium	6.6E+01 J	1.0E+02 J	MG/KG	MR21-SD02-10B	2/6	312 - 362	1.0E+02	N/A	N/A	N/A	N/A	NO	NUT
	7782-49-2	Selenium	2.4E-01 J	2.4E-01 J	MG/KG	MR21-SD02-10B	1/6	0.374 - 0.435	2.4E-01	N/A	3.9E+01 N	N/A	N/A	NO	BSL
	7440-22-4	Silver	ND	ND	MG/KG		0/6	0.312 - 0.362	3.6E-01	N/A	3.9E+01 N	N/A	N/A	NO	DLBSL
	7440-23-5	Sodium	ND	ND	MG/KG		0/6	312 - 362	3.6E+02	N/A	N/A	N/A	N/A	NO	NUT
	7440-28-0	Thallium	ND	ND	MG/KG		0/6	0.499 - 0.579	5.8E-01	N/A	N/A	N/A	N/A	NO	NTX
	7440-62-2	Vanadium	9.6E-01	2.8E+00	MG/KG	MR21-SD02-10B	6/6	0.779 - 0.905	2.8E+00	N/A	3.9E+01 N	N/A	N/A	NO	BSL
	7440-66-6	Zinc	3.2E+00	1.1E+01	MG/KG	MR21-SD03-10B	6/6	1.25 - 1.45	1.1E+01	N/A	2.3E+03 N	N/A	N/A	NO	BSL

[1] Minimum/Maximum detected concentrations.
[2] Maximum concentration is used for screening. If not detected (ND), used maximum detection limit.
[3] Background values not available.
[4] Oak Ridge National Laboratory (ORNL).May 2010. Residential Soil Regional Screening Levels for Chemical Contaminants at Superfund Sites(based on 10-6 for carcinogens . and HQ of 0.1 for noncarcinogens). [Online]. Available: http://epa-prgs.ornl.gov/chemicals/index.shtml
RSL value for 1,4-dichlorobenzene used as a surrogate for 1,3-dichlorobenzene.
RSL value for Methyl Isobutyl Ketone (4-methyl-2-pentanone) used as surrogate for 2-Hexanone.
RSL value for methoxychlor used as surrogate for 4-Chlorophenyl-phenylether.
RSL value for Nitrobenzene used as surrogate for 4-Nitrophenol.
RSL value for 2-nitroaniline used as a surrogate for 3-nitroaniline.
RSL value for Acenaphthene used as surrogate for Acenaphthylene.
RSL value for pyrene used as surrogate for benzo(g,h,i)perylene.
RSL value for anthracene used as surrogate for phenanthrene.
RSL value for Chromium(VI) used as surrogate for chromium.
The soil value of 400 mg/kg for lead is from the Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities, USEPA, July 14, 1994.
RSL value for Manganese (water) used as surrogate for manganese.

COPC = Chemical of Potential Concern
ARAR/TBC = Applicable or Relevant and Appropriate Requirement/ To Be Considered
J = Estimated Value
C = Carcinogenic
N = Noncarcinogenic
C* = N screening level < 100x C screening level
C** = N screening level < 10x C screening level, therefore N screening value/10 used as screening level
S = RSL concentration exceeds Csat, used Csat as screening value
N/A = Not available
ND = Not Detected
NL = Noncarcinogenic lead residential soil RSL not adjusted by dividing by 10.
mg/kg = milligram per kilogram

TABLE 7

Occurrence, Distribution, and Selection of COPCs - Sediment (Phase II)

Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)

Phase II Investigation Area

PA/SI Report

MCB CamLej, North Carolina

Scenario Timeframe: 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

RSL value for Mercury (inorganic salts) used as surrogate for mercury.

RSL value for 1,3-dichloropropene used as a surrogate for cis-1,3-dichloropropene and trans-1,3-dichloropropene.

RSL value for 2-chlorophenol used as surrogate for 4-chloro-3-methylphenol and 2-nitrophenol.

[5] Rationale Codes

Selection Reason:
- Above Screening Levels (ASL)
- Chemical from same class (carcinogenic PAH) identified as a COPC (CPAH)
- Detection Limit Above Screening Level (DLASL), not quantitatively evaluated in HHRA but discussed in uncertainty assessment

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

TABLE 7a

Risk Ratio Screening for Sediment, Maximum Detected Concentration (Phase II)

Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)

Phase II Investigation Area

PA/SI Report

MCB CamLej, North Carolina

Analyte	Detection Frequency	Maximum Detected Concentration (Qualifier)	Sample	Residential Soil RSL	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (mg/kg)								
Chromium	6 / 6	2.6E+00	MR21-SD02-10B	2.9E-01	1E-06	NA	9E-06	
Cumulative Corresponding Hazard Index[c]								
Cumulative Corresponding Cancer Risk[d]							**9E-06**	

[a] Corresponding Hazard Index equals maximum detected concentration divided by the SL divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals maximum detected concentration divided by the SL divided by the acceptable risk level.

[c] Cumulative Corresponding Hazard 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

RSL = Oak Ridge National Laboratory (ORNL). May 2010. Regional Screening Levels (RSLs) for Chemical Contaminants at Superfund Sites. [Online]. Available: http://epa-prgs.ornl.gov/chemicals/index.shtml

Generated by: D. Stannard

Checked by: T. Carleton

TABLE 8
Occurrence, Distribution, and Selection of COPCs - Groundwater (Phase II)
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)
Phase II Investigation Area
PA/SI Report
MCB CamLej, North Carolina

Scenario Timeframe: 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
Tap Water	71-55-6	1,1,1-Trichloroethane	ND	ND	UG/L		0/10	1 - 1	1.0E+00	N/A	9.1E+02 N	2.0E+02	MCL, 15A NCAC 2L	NO	DLBSL
Site UXO-21	79-34-5	1,1,2,2-Tetrachloroethane	ND	ND	UG/L		0/10	1 - 1	1.0E+00	N/A	6.7E-02 C	2.0E-01	15A NCAC 2L	YES	DLASL
Expanded Area	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	ND	ND	UG/L		0/10	1 - 1	1.0E+00	N/A	5.9E+03 N	2.1E+05	15A NCAC 2L	NO	DLBSL
	79-00-5	1,1,2-Trichloroethane	ND	ND	UG/L		0/10	1 - 1	1.0E+00	N/A	2.4E-01 C	5.0E+00	MCL	YES	DLASL
	75-34-3	1,1-Dichloroethane	ND	ND	UG/L		0/10	1 - 1	1.0E+00	N/A	2.4E+00 C	6.0E+00	15A NCAC 2L	NO	DLBSL
	75-35-4	1,1-Dichloroethene	ND	ND	UG/L		0/10	1 - 1	1.0E+00	N/A	3.4E+01 N	7.0E+00	MCL, 15A NCAC 2L	NO	DLBSL
	120-82-1	1,2,4-Trichlorobenzene	ND	ND	UG/L		0/10	1 - 1	1.0E+00	N/A	4.1E-01 C**	7.0E+01	MCL, 15A NCAC 2L	YES	DLASL
	96-12-8	1,2-Dibromo-3-chloropropane	ND	ND	UG/L		0/10	1.5 - 1.5	1.5E+00	N/A	3.2E-04 C	2.0E-01	MCL	YES	DLASL
												4.0E-02	15A NCAC 2L		
	106-93-4	1,2-Dibromoethane	ND	ND	UG/L		0/10	1 - 1	1.0E+00	N/A	6.5E-03 C	5.0E-02	MCL	YES	DLASL
												2.0E-02	15A NCAC 2L		
	95-50-1	1,2-Dichlorobenzene	ND	ND	UG/L		0/10	1 - 1	1.0E+00	N/A	3.7E+01 N	6.0E+02	MCL	NO	DLBSL
												2.0E+01	15A NCAC 2L		
	107-06-2	1,2-Dichloroethane	ND	ND	UG/L		0/10	1 - 1	1.0E+00	N/A	1.5E-01 C	5.0E+00	MCL	YES	DLASL
												4.0E-01	15A NCAC 2L		
	78-87-5	1,2-Dichloropropane	ND	ND	UG/L		0/10	1 - 1	1.0E+00	N/A	3.9E-01 C*	5.0E+00	MCL	YES	DLASL
												6.0E-01	15A NCAC 2L		
	541-73-1	1,3-Dichlorobenzene	ND	ND	UG/L		0/10	1 - 1	1.0E+00	N/A	4.3E-01 C	2.0E+02	15A NCAC 2L	YES	DLASL
	106-46-7	1,4-Dichlorobenzene	ND	ND	UG/L		0/10	1 - 1	1.0E+00	N/A	4.3E-01 C	7.5E+01	MCL	YES	DLASL
												6.0E+00	15A NCAC 2L		
	78-93-3	2-Butanone	ND	ND	UG/L		0/10	5 - 5	5.0E+00	N/A	7.1E+02 N	4.0E+03	15A NCAC 2L	NO	DLBSL
	591-78-6	2-Hexanone	ND	ND	UG/L		0/10	5 - 5	5.0E+00	N/A	4.7E+00 N	N/A	N/A	YES	DLASL
	108-10-1	4-Methyl-2-pentanone	ND	ND	UG/L		0/10	5 - 5	5.0E+00	N/A	2.0E+02 N	N/A	N/A	NO	DLBSL
	67-64-1	Acetone	ND	ND	UG/L		0/3	5 - 5	5.0E+00	N/A	2.2E+03 N	6.0E+03	15A NCAC 2L	NO	DLBSL
	71-43-2	Benzene	ND	ND	UG/L		0/10	1 - 1	1.0E+00	N/A	4.1E-01 C	1.0E+00	15A NCAC 2L	YES	DLASL
												5.0E+00	MCL		
	75-27-4	Bromodichloromethane	ND	ND	UG/L		0/10	1 - 1	1.0E+00	N/A	1.2E-01 C	6.0E-01	15A NCAC 2L	YES	DLASL
												8.0E+01	MCL		
	75-25-2	Bromoform	ND	ND	UG/L		0/10	1 - 1	1.0E+00	N/A	8.5E+00 C*	4.0E+00	15A NCAC 2L	NO	DLBSL
												8.0E+01	MCL		
	74-83-9	Bromomethane	ND	ND	UG/L		0/10	1 - 1	1.0E+00	N/A	8.7E-01 N	N/A	N/A	YES	DLASL
	75-15-0	Carbon disulfide	ND	ND	UG/L		0/10	1 - 1	1.0E+00	N/A	1.0E+02 N	7.0E+02	15A NCAC 2L	NO	DLBSL
	56-23-5	Carbon tetrachloride	ND	ND	UG/L		0/10	1 - 1	1.0E+00	N/A	4.4E-01 C	5.0E+00	MCL	YES	DLASL
												3.0E-01	15A NCAC 2L		
	108-90-7	Chlorobenzene	ND	ND	UG/L		0/10	1 - 1	1.0E+00	N/A	9.1E+00 N	1.0E+02	MCL	NO	DLBSL
												5.0E+01	15A NCAC 2L		
	75-00-3	Chloroethane	ND	ND	UG/L		0/10	1 - 1	1.0E+00	N/A	2.1E+03 N	3.0E+03	15A NCAC 2L	NO	DLBSL

TABLE 8
Occurrence, Distribution, and Selection of COPCs - Groundwater (Phase II)
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)
Phase II Investigation Area
PA/SI Report
MCB CamLej, North Carolina

Scenario Timeframe: 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
	67-66-3	**Chloroform**	**2.1E+00**	**2.8E+01**	**UG/L**	**MR21-GW10-10B**	**4/10**	**1 - 1**	**2.8E+01**	**N/A**	**1.9E-01 C**	**8.0E+01**	**MCL**	**YES**	**ASL**
												7.0E+01	**15A NCAC 2L**		
	74-87-3	Chloromethane	ND	ND	UG/L		0/10	1 - 1	1.0E+00	N/A	1.9E+01 N	3.0E+00	15A NCAC 2L	NO	DLBSL
	156-59-2	cis-1,2-Dichloroethene	ND	ND	UG/L		0/10	1 - 1	1.0E+00	N/A	3.7E+01 N	7.0E+01	MCL, 15A NCAC 2L	NO	DLBSL
	10061-01-5	cis-1,3-Dichloropropene	ND	ND	UG/L		0/10	1 - 1	1.0E+00	N/A	4.3E-01 C*	4.0E-01	15A NCAC 2L	YES	DLASL
	110-82-7	Cyclohexane	ND	ND	UG/L		0/10	1 - 1	1.0E+00	N/A	1.3E+03 N	N/A	N/A	NO	DLBSL
	124-48-1	Dibromochloromethane	ND	ND	UG/L		0/10	1 - 1	1.0E+00	N/A	1.5E-01 C	8.0E+01	MCL	YES	DLASL
												4.0E-01	15A NCAC 2L		
	75-71-8	Dichlorodifluoromethane (Freon-12)	ND	ND	UG/L		0/10	1 - 1	1.0E+00	N/A	3.9E+01 N	1.0E+03	15A NCAC 2L	NO	DLBSL
	100-41-4	Ethylbenzene	ND	ND	UG/L		0/10	1 - 1	1.0E+00	N/A	1.5E+00 C	7.0E+02	MCL	NO	DLBSL
												6.0E+02	15A NCAC 2L		
	98-82-8	Isopropylbenzene	ND	ND	UG/L		0/10	1 - 1	1.0E+00	N/A	6.8E+01 N	7.0E+01	15A NCAC 2L	NO	DLBSL
	79-20-9	Methyl acetate	ND	ND	UG/L		0/10	1.5 - 1.5	1.5E+00	N/A	3.7E+03 N	N/A	N/A	NO	DLBSL
	108-87-2	Methylcyclohexane	ND	ND	UG/L		0/10	1 - 1	1.0E+00	N/A	8.8E+01 N	N/A	N/A	NO	DLBSL
	75-09-2	Methylene chloride	ND	ND	UG/L		0/10	2 - 2	2.0E+00	N/A	4.8E+00 C	5.0E+00	MCL, 15A NCAC 2L	NO	DLBSL
	1634-04-4	Methyl-tert-butyl ether (MTBE)	ND	ND	UG/L		0/10	1 - 1	1.0E+00	N/A	1.2E+01 C	2.0E+01	15A NCAC 2L	NO	DLBSL
	100-42-5	Styrene	ND	ND	UG/L		0/10	1 - 1	1.0E+00	N/A	1.6E+02 N	1.0E+02	MCL	NO	DLBSL
												7.0E+01	15A NCAC 2L		
	127-18-4	Tetrachloroethene	ND	ND	UG/L		0/10	1 - 1	1.0E+00	N/A	1.1E-01 C	5.0E+00	MCL	YES	DLASL
												7.0E-01	15A NCAC 2L		
	108-88-3	Toluene	3.9E+00	3.9E+00	UG/L	MR21-GW01D-10B	1/10	1 - 1	3.9E+00	N/A	2.3E+02 N	1.0E+03	MCL	NO	BSL
												6.0E+02	15A NCAC 2L		
	156-60-5	trans-1,2-Dichloroethene	ND	ND	UG/L		0/10	1.5 - 1.5	1.5E+00	N/A	1.1E+01 N	1.0E+02	MCL, 15A NCAC 2L	NO	DLBSL
	10061-02-6	trans-1,3-Dichloropropene	ND	ND	UG/L		0/10	1 - 1	1.0E+00	N/A	4.3E-01 C*	4.0E-01	15A NCAC 2L	YES	DLASL
	79-01-6	Trichloroethene	ND	ND	UG/L		0/10	1 - 1	1.0E+00	N/A	2.0E+00 C	5.0E+00	MCL	NO	DLBSL
												3.0E+00	15A NCAC 2L		
	75-69-4	Trichlorofluoromethane(Freon-11)	ND	ND	UG/L		0/10	1 - 1	1.0E+00	N/A	1.3E+02 N	2.0E+03	15A NCAC 2L	NO	DLBSL
	75-01-4	Vinyl chloride	ND	ND	UG/L		0/10	1 - 1	1.0E+00	N/A	1.6E-02 C	2.0E+00	MCL	YES	DLASL
												3.0E-02	15A NCAC 2L		
	1330-20-7	Xylene, total	ND	ND	UG/L		0/10	1 - 1	1.0E+00	N/A	2.0E+01 N	1.0E+04	MCL	NO	DLBSL
												5.0E+02	15A NCAC 2L		
	92-52-4	1,1-Biphenyl	ND	ND	UG/L		0/10	9.62 - 10.5	1.1E+01	N/A	1.8E+02 N	4.0E+02	15A NCAC 2L	NO	DLBSL
	95-95-4	2,4,5-Trichlorophenol	ND	ND	UG/L		0/9	24 - 26.3	2.6E+01	N/A	3.7E+02 N	N/A	N/A	NO	DLBSL
	88-06-2	2,4,6-Trichlorophenol	ND	ND	UG/L		0/9	9.62 - 10.5	1.1E+01	N/A	3.7E+00 C**	N/A	N/A	YES	DLASL
	120-83-2	2,4-Dichlorophenol	ND	ND	UG/L		0/9	9.62 - 10.5	1.1E+01	N/A	1.1E+01 N	N/A	N/A	NO	DLBSL
	105-67-9	2,4-Dimethylphenol	ND	ND	UG/L		0/9	9.62 - 10.5	1.1E+01	N/A	7.3E+01 N	1.0E+02	15A NCAC 2L	NO	DLBSL
	51-28-5	2,4-Dinitrophenol	ND	ND	UG/L		0/9	24 - 26.3	2.6E+01	N/A	7.3E+00 N	N/A	N/A	YES	DLASL
	121-14-2	2,4-Dinitrotoluene	ND	ND	UG/L		0/10	0.224 - 0.24	2.4E-01	N/A	2.2E-01 C	N/A	N/A	YES	DLASL

TABLE 8
Occurrence, Distribution, and Selection of COPCs - Groundwater (Phase II)
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)
Phase II Investigation Area
PA/SI Report
MCB CamLej, North Carolina

Scenario Timeframe: 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
	606-20-2	2,6-Dinitrotoluene	ND	ND	UG/L		0/10	0.224 - 0.24	2.4E-01	N/A	3.7E+00 N	N/A	N/A	NO	DLBSL
	532-27-4	2-Chloroacetophenone	ND	ND	UG/L		0/10	4.81 - 5.26	5.3E+00	N/A	N/A	N/A	N/A	NO	NTX
	2698-41-1	2-Chlorobenzalmalononitrile	ND	ND	UG/L		0/10	4.81 - 5.26	5.3E+00	N/A	N/A	N/A	N/A	NO	NTX
	91-58-7	2-Chloronaphthalene	ND	ND	UG/L		0/10	9.62 - 10.5	1.1E+01	N/A	2.9E+02 N	N/A	N/A	NO	DLBSL
	95-57-8	2-Chlorophenol	ND	ND	UG/L		0/9	9.62 - 10.5	1.1E+01	N/A	1.8E+01 N	4.0E-01	15A NCAC 2L	NO	DLBSL
	91-57-6	2-Methylnaphthalene	ND	ND	UG/L		0/10	9.62 - 10.5	1.1E+01	N/A	1.5E+01 N	3.0E+01	15A NCAC 2L	NO	DLBSL
	95-48-7	2-Methylphenol	ND	ND	UG/L		0/9	9.62 - 10.5	1.1E+01	N/A	1.8E+02 N	N/A	N/A	NO	DLBSL
	88-74-4	2-Nitroaniline	ND	ND	UG/L		0/10	24 - 26.3	2.6E+01	N/A	3.7E+01 N	N/A	N/A	NO	DLBSL
	88-75-5	2-Nitrophenol	ND	ND	UG/L		0/9	9.62 - 10.5	1.1E+01	N/A	1.8E+01 N	N/A	N/A	NO	DLBSL
	91-94-1	3,3'-Dichlorobenzidine	ND	ND	UG/L		0/10	9.62 - 10.5	1.1E+01	N/A	1.5E-01 C	N/A	N/A	YES	DLASL
	99-09-2	3-Nitroaniline	ND	ND	UG/L		0/10	24 - 26.3	2.6E+01	N/A	3.7E+01 N	N/A	N/A	NO	DLBSL
	534-52-1	4,6-Dinitro-2-methylphenol	ND	ND	UG/L		0/9	9.62 - 10.5	1.1E+01	N/A	2.9E-01 N	N/A	N/A	YES	DLASL
	101-55-3	4-Bromophenyl-phenylether	ND	ND	UG/L		0/10	9.62 - 10.5	1.1E+01	N/A	N/A	N/A	N/A	NO	NTX
	59-50-7	4-Chloro-3-methylphenol	ND	ND	UG/L		0/9	9.62 - 10.5	1.1E+01	N/A	3.7E+02 N	N/A	N/A	NO	DLBSL
	106-47-8	4-Chloroaniline	ND	ND	UG/L		0/10	9.62 - 10.5	1.1E+01	N/A	3.4E-01 C	N/A	N/A	YES	DLASL
	7005-72-3	4-Chlorophenyl-phenylether	ND	ND	UG/L		0/10	9.62 - 10.5	1.1E+01	N/A	1.8E+01 N	N/A	N/A	NO	DLBSL
	106-44-5	4-Methylphenol	ND	ND	UG/L		0/9	9.62 - 10.5	1.1E+01	N/A	1.8E+01 N	4.0E+01	15A NCAC 2L	NO	DLBSL
	100-01-6	4-Nitroaniline	ND	ND	UG/L		0/10	24 - 26.3	2.6E+01	N/A	3.4E+00 C*	N/A	N/A	YES	DLASL
	100-02-7	4-Nitrophenol	ND	ND	UG/L		0/9	24 - 26.3	2.6E+01	N/A	1.2E-01 C	N/A	N/A	YES	DLASL
	83-32-9	Acenaphthene	ND	ND	UG/L		0/10	9.62 - 10.5	1.1E+01	N/A	2.2E+02 N	8.0E+01	15A NCAC 2L	NO	DLBSL
	208-96-8	Acenaphthylene	ND	ND	UG/L		0/10	9.62 - 10.5	1.1E+01	N/A	2.2E+02 N	2.0E+02	15A NCAC 2L	NO	DLBSL
	98-86-2	Acetophenone	ND	ND	UG/L		0/10	9.62 - 10.5	1.1E+01	N/A	3.7E+02 N	N/A	N/A	NO	DLBSL
	120-12-7	Anthracene	ND	ND	UG/L		0/10	9.62 - 10.5	1.1E+01	N/A	1.1E+03 N	2.0E+03	15A NCAC 2L	NO	DLBSL
	1912-24-9	Atrazine	ND	ND	UG/L		0/10	9.62 - 10.5	1.1E+01	N/A	2.9E-01 C	3.0E+00	MCL, 15A NCAC 2L	YES	DLASL
	100-52-7	Benzaldehyde	ND	ND	UG/L		0/10	9.62 - 10.5	1.1E+01	N/A	3.7E+02 N	N/A	N/A	NO	DLBSL
	56-55-3	Benzo(a)anthracene	ND	ND	UG/L		0/10	9.62 - 10.5	1.1E+01	N/A	2.9E-02 C	5.0E-02	15A NCAC 2L	YES	DLASL
	50-32-8	Benzo(a)pyrene	ND	ND	UG/L		0/10	9.62 - 10.5	1.1E+01	N/A	2.9E-03 C	2.0E-01	MCL	YES	DLASL
												5.0E-03	15A NCAC 2L		
	205-99-2	Benzo(b)fluoranthene	ND	ND	UG/L		0/10	9.62 - 10.5	1.1E+01	N/A	2.9E-02 C	5.0E-02	15A NCAC 2L	YES	DLASL
	191-24-2	Benzo(g,h,i)perylene	ND	ND	UG/L		0/10	9.62 - 10.5	1.1E+01	N/A	1.1E+02 N	2.0E+02	15A NCAC 2L	NO	DLBSL
	207-08-9	Benzo(k)fluoranthene	ND	ND	UG/L		0/10	9.62 - 10.5	1.1E+01	N/A	2.9E-01 C	5.0E-01	15A NCAC 2L	YES	DLASL
	111-91-1	bis(2-Chloroethoxy)methane	ND	ND	UG/L		0/10	9.62 - 10.5	1.1E+01	N/A	1.1E+01 N	N/A	N/A	NO	DLBSL
	111-44-4	bis(2-Chloroethyl)ether	ND	ND	UG/L		0/10	9.62 - 10.5	1.1E+01	N/A	1.2E-02 C	3.0E-02	15A NCAC 2L	YES	DLASL
	39638-32-9	bis(2-Chloroisopropyl)ether	ND	ND	UG/L		0/10	9.62 - 10.5	1.1E+01		N/A	N/A	N/A	NO	NTX
	117-81-7	bis(2-Ethylhexyl)phthalate	ND	ND	UG/L		0/10	9.62 - 10.5	1.1E+01	N/A	4.8E+00 C	6.0E+00	MCL	YES	DLASL
												3.0E+00	15A NCAC 2L		
	85-68-7	Butylbenzylphthalate	ND	ND	UG/L		0/10	9.62 - 10.5	1.1E+01	N/A	3.5E+01 C	1.0E+03	15A NCAC 2L	NO	DLBSL
	105-60-2	Caprolactam	ND	ND	UG/L		0/10	9.62 - 10.5	1.1E+01	N/A	1.8E+03 N	4.0E+03	15A NCAC 2L	NO	DLBSL

TABLE 8
Occurrence, Distribution, and Selection of COPCs - Groundwater (Phase II)
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)
Phase II Investigation Area
PA/SI Report
MCB CamLej, North Carolina

Scenario Timeframe: 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
	86-74-8	Carbazole	ND	ND	UG/L		0/10	9.62 - 10.5	1.1E+01	N/A	N/A	N/A	N/A	NO	NTX
	218-01-9	Chrysene	ND	ND	UG/L		0/10	9.62 - 10.5	1.1E+01	N/A	2.9E+00 C	5.0E+00	15A NCAC 2L	YES	DLASL
	53-70-3	Dibenz(a,h)anthracene	ND	ND	UG/L		0/10	9.62 - 10.5	1.1E+01	N/A	2.9E-03 C	5.0E-03	15A NCAC 2L	YES	DLASL
	132-64-9	Dibenzofuran	ND	ND	UG/L		0/10	9.62 - 10.5	1.1E+01	N/A	3.7E+00 N	N/A	N/A	YES	DLASL
	84-66-2	Diethylphthalate	ND	ND	UG/L		0/10	9.62 - 10.5	1.1E+01	N/A	2.9E+03 N	6.0E+03	15A NCAC 2L	NO	DLBSL
	131-11-3	Dimethyl phthalate	ND	ND	UG/L		0/10	9.62 - 10.5	1.1E+01	N/A	N/A	N/A	N/A	NO	NTX
	84-74-2	Di-n-butylphthalate	ND	ND	UG/L		0/10	9.62 - 10.5	1.1E+01	N/A	3.7E+02 N	7.0E+02	15A NCAC 2L	NO	DLBSL
	117-84-0	Di-n-octylphthalate	ND	ND	UG/L		0/10	9.62 - 10.5	1.1E+01	N/A	4.8E+00 C	1.0E+02	15A NCAC 2L	YES	DLASL
	206-44-0	Fluoranthene	ND	ND	UG/L		0/10	9.62 - 10.5	1.1E+01	N/A	1.5E+02 N	3.0E+02	15A NCAC 2L	NO	DLBSL
	86-73-7	Fluorene	ND	ND	UG/L		0/10	9.62 - 10.5	1.1E+01	N/A	1.5E+02 N	3.0E+02	15A NCAC 2L	NO	DLBSL
	118-74-1	Hexachlorobenzene	ND	ND	UG/L		0/10	9.62 - 10.5	1.1E+01	N/A	4.2E-02 C	1.0E+00	MCL	YES	DLASL
												2.0E-02	15A NCAC 2L		
	87-68-3	Hexachlorobutadiene	ND	ND	UG/L		0/10	9.62 - 10.5	1.1E+01	N/A	8.6E-01 C*	4.0E-01	15A NCAC 2L	YES	DLASL
	77-47-4	Hexachlorocyclopentadiene	ND	ND	UG/L		0/10	9.62 - 10.5	1.1E+01	N/A	2.2E+01 N	5.0E+01	MCL	NO	DLBSL
	67-72-1	Hexachloroethane	ND	ND	UG/L		0/10	9.62 - 10.5	1.1E+01	N/A	3.7E+00 C**	N/A	N/A	YES	DLASL
	193-39-5	Indeno(1,2,3-cd)pyrene	ND	ND	UG/L		0/10	9.62 - 10.5	1.1E+01	N/A	2.9E-02 C	5.0E-02	15A NCAC 2L	YES	DLASL
	78-59-1	Isophorone	ND	ND	UG/L		0/10	9.62 - 10.5	1.1E+01	N/A	7.1E+01 C	4.0E+01	15A NCAC 2L	NO	DLBSL
	91-20-3	Naphthalene	ND	ND	UG/L		0/10	9.62 - 10.5	1.1E+01	N/A	1.4E-01 C*	6.0E+00	15A NCAC 2L	YES	DLASL
	621-64-7	n-Nitroso-di-n-propylamine	ND	ND	UG/L		0/10	9.62 - 10.5	1.1E+01	N/A	9.6E-03 C	N/A	N/A	YES	DLASL
	86-30-6	n-Nitrosodiphenylamine	ND	ND	UG/L		0/10	9.62 - 10.5	1.1E+01	N/A	1.4E+01 C	N/A	N/A	NO	DLBSL
	98-95-3	Nitrobenzene	ND	ND	UG/L		0/10	0.224 - 0.24	2.4E-01	N/A	1.2E-01 C	N/A	N/A	YES	DLASL
	87-86-5	Pentachlorophenol	ND	ND	UG/L		0/9	24 - 26.3	2.6E+01	N/A	5.6E-01 C	1.0E+00	MCL	YES	DLASL
												3.0E-01	15A NCAC 2L		
	85-01-8	Phenanthrene	ND	ND	UG/L		0/10	9.62 - 10.5	1.1E+01	N/A	1.1E+03 N	2.0E+02	15A NCAC 2L	NO	DLBSL
	108-95-2	Phenol	ND	ND	UG/L		0/9	9.62 - 10.5	1.1E+01	N/A	1.1E+03 N	3.0E+01	15A NCAC 2L	NO	DLBSL
	129-00-0	Pyrene	ND	ND	UG/L		0/10	9.62 - 10.5	1.1E+01	N/A	1.1E+02 N	2.0E+02	15A NCAC 2L	NO	DLBSL
	99-35-4	1,3,5-Trinitrobenzene	ND	ND	UG/L		0/10	0.224 - 0.24	2.4E-01	N/A	1.1E+02 N	N/A	N/A	NO	DLBSL
	99-65-0	1,3-Dinitrobenzene	ND	ND	UG/L		0/10	0.224 - 0.24	2.4E-01	N/A	3.7E-01 N	N/A	N/A	NO	DLBSL
	118-96-7	2,4,6-Trinitrotoluene	ND	ND	UG/L		0/10	0.224 - 0.24	2.4E-01	N/A	1.8E+00 C**	N/A	N/A	NO	DLBSL
	35572-78-2	2-Amino-4,6-dinitrotoluene	ND	ND	UG/L		0/10	0.224 - 0.24	2.4E-01	N/A	7.3E+00 N	N/A	N/A	NO	DLBSL
	88-72-2	2-Nitrotoluene	ND	ND	UG/L		0/10	0.224 - 0.24	2.4E-01	N/A	3.1E-01 C	N/A	N/A	NO	DLBSL
	99-08-1	3-Nitrotoluene	ND	ND	UG/L		0/10	0.224 - 0.24	2.4E-01	N/A	3.7E-01 N	N/A	N/A	NO	DLBSL
	19406-51-0	4-Amino-2,6-dinitrotoluene	ND	ND	UG/L		0/10	0.224 - 0.24	2.4E-01	N/A	7.3E+00 N	N/A	N/A	NO	DLBSL
	99-99-0	4-Nitrotoluene	ND	ND	UG/L		0/10	0.224 - 0.24	2.4E-01	N/A	4.2E+00 C*	N/A	N/A	NO	DLBSL
	2691-41-0	HMX	ND	ND	UG/L		0/10	0.224 - 0.24	2.4E-01	N/A	1.8E+02 N	N/A	N/A	NO	DLBSL
	14797-73-0	Perchlorate	8.2E-02 J	6.3E-01	UG/L	MR21-GW09-10B	6/10	0.2 - 0.2	6.3E-01	N/A	2.6E+00 N	N/A	N/A	NO	BSL
	78-11-5	PETN	ND	ND	UG/L		0/10	1.12 - 1.2	1.2E+00	N/A	N/A	N/A	N/A	NO	NTX
	121-82-4	RDX	ND	ND	UG/L		0/10	0.224 - 0.24	2.4E-01	N/A	6.1E-01 C	N/A	N/A	NO	BSL

TABLE 8
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Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)
Phase II Investigation Area
PA/SI Report
MCB CamLej, North Carolina

Scenario Timeframe: 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
	479-45-8	Tetryl	ND	ND	UG/L		0/10	0.224 - 0.24	2.4E-01	N/A	1.5E+01 N	N/A	N/A	NO	BSL
	7429-90-5	Aluminum	1.1E+02 J	2.0E+03 J	UG/L	MR21-GW02-10B	10/10	50 - 50	2.0E+03	1.9E+03	3.7E+03 N	50 - 200	SMCL	NO	BSL
	7440-36-0	Antimony	ND	ND	UG/L		0/10	2.5 - 2.5	2.5E+00	3.3E+00	1.5E+00 N	6.0E+00	MCL	YES	DLASL
	7440-38-2	Arsenic	8.9E-01 J	2.1E+00	UG/L	MR21-GW02-10B	2/10	1.5 - 1.5	2.1E+00	5.8E+00	4.5E-02 C	1.0E+01	MCL	NO	BBK
												1.0E+01	15A NCAC 2L		
	7440-39-3	Barium	1.3E+01	1.5E+02	UG/L	MR21-GW01D-10B	10/10	3.75 - 3.75	1.5E+02	8.6E+01	7.3E+02 N	2.0E+03	MCL	NO	BSL
												7.0E+02	15A NCAC 2L		
	7440-41-7	Beryllium	ND	ND	UG/L		0/10	1.25 - 1.25	1.3E+00	3.1E-01	7.3E+00 N	4.0E+00	MCL	NO	DLBSL
	7440-43-9	Cadmium	ND	ND	UG/L		0/10	1 - 1	1.0E+00	3.6E-01	1.8E+00 N	5.0E+00	MCL	NO	DLBSL
												2.0E+00	15A NCAC 2L		
	7440-70-2	Calcium	5.1E+02 J	7.6E+04	UG/L	MR21-GW05-10B	10/10	1250 - 1250	7.6E+04	6.9E+04	N/A	N/A	N/A	NO	NUT
	7440-47-3	Chromium	1.2E+00	2.7E+00	UG/L	MR21-GW02-10B	2/10	1 - 1	2.7E+00	3.1E+00	4.3E-02 C	1.0E+02	MCL	NO	BBK
												1.0E+01	15A NCAC 2L		
	7440-48-4	Cobalt	2.0E+00 J	2.0E+00 J	UG/L	MR21-GW01-10B	1/10	3.12 - 3.12	2.0E+00	3.4E+00	1.1E+00 N	N/A	N/A	NO	BBK
	7440-50-8	Copper	ND	ND	UG/L		0/10	2.5 - 2.5	2.5E+00	2.8E+00	1.5E+02 N	1.3E+03	MCL	NO	BSL
												1.0E+03	15A NCAC 2L		
	7439-89-6	Iron	4.4E+01	2.8E+03	UG/L	MR21-GW01-10B	9/10	25 - 25	2.8E+03	6.0E+03	2.6E+03 N	3.0E+02	15A NCAC 2L	NO	BBK
	7439-92-1	Lead	6.5E-01 J	6.5E-01 J	UG/L	MR21-GW02-10B	1/10	0.75 - 0.75	6.5E-01	2.8E+00	1.5E+01	1.5E+01	MCL, 15A NCAC 2L	NO	BSL
	7439-95-4	Magnesium	6.2E+02 J	3.8E+03	UG/L	MR21-GW01D-10B	10/10	1250 - 1250	3.8E+03	6.4E+03	N/A	N/A	N/A	NO	NUT
	7439-96-5	Manganese	2.3E+00 J	2.0E+01	UG/L	MR21-GW05-10B	10/10	3.75 - 3.75	2.0E+01	2.1E+02	8.8E+01 N	5.0E+01	15A NCAC 2L	NO	BSL
	7439-97-6	Mercury	ND	ND	UG/L		0/10	0.2 - 0.2	2.0E-01	1.0E-01	1.1E+00 N	2.0E+00	MCL	NO	BSL
												1.0E+00	15A NCAC 2L		
	7440-02-0	Nickel	9.3E-01 J	3.5E+00	UG/L	MR21-GW01D-10B	3/10	2.5 - 2.5	3.5E+00	8.0E+00	7.3E+01 N	1.0E+02	15A NCAC 2L	NO	BSL
	7440-09-7	Potassium	5.9E+02 J	1.1E+03 J	UG/L	MR21-GW08-10B	9/10	1250 - 1250	1.1E+03	3.3E+03	N/A	N/A	N/A	NO	NUT
	7782-49-2	Selenium	1.2E+00 J	1.2E+00 J	UG/L	MR21-GW09-10B	1/10	1.5 - 1.5	1.2E+00	3.1E+00	1.8E+01 N	5.0E+01	MCL, 15A	NO	BSL
												2.0E+01	15A NCAC 2L		
	7440-22-4	Silver	ND	ND	UG/L		0/9	1.25 - 1.25	1.3E+00	7.7E-01	1.8E+01 N	2.0E+01	15A NCAC 2L	NO	DLBSL
	7440-23-5	Sodium	2.3E+03	1.5E+04	UG/L	MR21-GW01D-10B	10/10	1250 - 1250	1.5E+04	2.3E+04	N/A	N/A	N/A	NO	NUT
	7440-28-0	Thallium	ND	ND	UG/L		0/10	2 - 2	2.0E+00	3.8E+00	N/A	2.0E+00	MCL	NO	NTX
	7440-62-2	Vanadium	1.8E+00 J	3.2E+00	UG/L	MR21-GW02-10B	3/10	3.12 - 3.12	3.2E+00	4.7E+00	1.8E+01 N	N/A	N/A	NO	BSL
	7440-66-6	Zinc	1.4E+00 J	5.5E+00	UG/L	MR21-GW01D-10B	8/10	5 - 5	5.5E+00	4.2E+01	1.1E+03 N	1.0E+03	15A NCAC 2L	NO	BSL

[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. If ND, maximum detection limit used for screening.
[3] Background values are two times the arithmetic mean basewide background shallow groundwater concentrations.
[4] Oak Ridge National Laboratory (ORNL). May, 2010. Regional Screening Levels for Chemical Contaminants at Superfund Sites.
Available: http://epa-prgs.ornl.gov/chemicals/index.shtml. Adjusted (noncarcinogenic RSLs adjusted by dividing by 10) tap water RSLs.
RSL value for 1,4-dichlorobenzene used as surrogate for 1,3-dichlorobenzene.
RSL value for 1,3-dichloropropene used as a surrogate for cis-1,3-dichloropropene and trans-1,3-dichloropropene.
RSL value for 2-chlorophenol used as surrogate for 2-nitrophenol.
RSL value for methoxychlor used as surrogate for 4-Chlorophenyl-phenylether.

MCL = Maximum Contaminant Level from EPA's National Primary Drinking Water Standards
SMCL = Secondary Maximum Contaminant Level from EPA's National Primary Drinking Water Standards
15A NCAC 2L = North Carolina Classifications and Groundwater Quality Standards, Amended January 2010.
COPC = Chemical of Potential Concern
ARAR/TBC = Applicable or Relevant and Appropriate Requirement/ To Be Considered
J = Estimated Value

TABLE 8
Occurrence, Distribution, and Selection of COPCs - Groundwater (Phase II)
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)
Phase II Investigation Area
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MCB CamLej, North Carolina

Scenario Timeframe: Future
Medium: Groundwater
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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

RSL value for 2-nitroaniline used as surrogate for 3-nitroaniline.
RSL value for Nitrobenzene used as surrogate for 4-Nitrophenol.
RSL value for Acenaphthene used as surrogate for Acenaphthylene.
RSL value for pyrene used as surrogate for benzo(g,h,i)perylene.
RSL value for anthracene used as surrogate for phenanthrene.
RSL value for Chromium(VI) used as surrogate for chromium.
RSL value for Manganese (water) used as surrogate for manganese.
RSL value for Mercury (inorganic salts) used as surrogate for mercury.

C = Carcinogenic
N = Noncarcinogenic
ND = Not detected
ug/L = micrograms per liter
C* = N screening level < 100x C screening level
C** = N screening level < 10x C screening level, therefore
N screening value/10 used as screening level
N/A = Not available

[5] Rationale Codes

Selection Reason:
- Above Screening Levels (ASL)
- Detection Limit Above Screening Level (DLASL), not quantitatively evaluated in HHRA
- Chemical from same class (carcinogenic PAH) identified as a COPC (CPAH)

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

TABLE 8a

Risk Ratio Screening for Groundwater, Maximum Detected Concentration (Phase II)

Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)

Phase II Investigation Area

PA/SI Report

MCB CamLej, North Carolina

Analyte	Detection Frequency	Maximum Detected Concentration (Qualifier)	Sample Location of Maximum Detected Concentration	Tap Water RSL	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Volatile Organic Compounds (ug/L)								
Chloroform	**4 / 10**	**2.8E+01**	**MR21-GW10-10B**	**1.9E-01**	**1E-06**	**NA**	**1E-04**	**NA**
Cumulative Corresponding Hazard Index[c]						**NA**		
Cumulative Corresponding Cancer Risk[d]							**1E-04**	

Notes:

[a] Corresponding Hazard Index equals 95% UCL divided by the RSL divided by the acceptable risk leve

[b] Corresponding Cancer Risk equals 95% UCL divided by the RSL divided by the acceptable risk leve

[c] Cumulative Corresponding Hazard 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

ug/L = micrograms per liter

NA = Not available/not applicable.

TABLE 8b

Step 3 Risk Ratio Screening for Groundwater, 95% UCL (Phase II)

Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)

Phase II Investigation Area

PA/SI Report

MCB CamLej, North Carolina

Analyte	Detection Frequency	UCL		UCL Rationale	Tap Water RSL	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Volatile Organic Compounds (ug/L)									
Chloroform	**4 / 10**	**1.1E+01**	**95% KM-t**	**4**	**1.9E-01**	**1E-06**		**6.E-05**	
Cumulative Corresponding Hazard Index[c]									
Cumulative Corresponding Cancer Risk[d]								**6E-05**	

[a] Corresponding Hazard Index equals UCL divided by the RSL divided by the acceptable risk level.

[b] Corresponding Cancer Risk equals UCL divided by the RSL divided by the acceptable risk level.

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

[de] 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.

For duplicate sample results, the maximum value was used in the calculation.
ProUCL, Version 4.00.05 used to determine distribution of data and calculate 95% UCL, following recommendations
in users guide (USEPA. May 2010. ProUCL, Version 4.0. Prepared by Lockheed Martin Environmental Services).
Options: 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) Test indicates data are gamma distributed.
(4) Distribution tests are inconclusive

RSL = Oak Ridge National Laboratory (ORNL). May 2010. Regional Screening Levels (RSLs) for Chemical Contaminants at Superfund Sites. [Online].
Available: http://epa-prgs.ornl.gov/chemicals/index.shtml
ug/L = micrograms per liter

TABLE J5-5
Occurrence, Distribution, and Selection of COPCs - Indoor Air (Phase II)
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)
Phase II Investigation Area
PA/SI Report
MCB CamLej, North Carolina

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Indoor Air

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																
(Vapor Intrusion	67-66-3	Chloroform	2.1E+00	2.8E+01	UG/L	MR21-GW10-10B	4/10	1 - 1	2.8E+01	N/A	8.0E+01	C	NA	NA	NO	BSL
Into Indoor Air)	108-88-3	Toluene	3.9E+00	3.9E+00	UG/L	MR21-GW01D-10B	1/10	1 - 1	3.9E+00	N/A	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] Generic groundwater vapor intrusion screening levels (USEPA, 2002); see Table 2.Xa.
[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* = N screening level < 100x C screening level, therefore
N screening value/10 used as screening level
C = Carcinogenic
N = Noncarcinogenic
µg/L = microgram per liter
N/A = Not available

TABLE 9a

Calculation of Target Groundwater Concentrations for Vapor Intrusion Screening (Phase II)[1]

Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)

Phase II Investigation Area

PA/SI Report

MCB CamLej, North Carolina

CAS Number	Constituent	Target Indoor Air Concentration[2], carcinogen (C_{Cancer}) ug/m^3	Target Indoor Air Concentration[2], non-carcinogen ($C_{non\text{-}Cancer}$) ug/m^3	Target Indoor Air Concentration ($C_{target,ia}$) ug/m^3	System Temperature Henry's Law Constant (H'TS)[3] Dimensionless	MCL ug/L	Final Target Groundwater Concentration[4] (C_{gw}) ug/L
67-66-3	Chloroform	1.1E-01	1.0E+01	1.1E-01	1.3E-01	8.0E+01	8.2E-01
108-88-3	Toluene	NA	5.2E+02	5.2E+02	2.3E-01	7.0E+01	2.3E+03

Notes:

[1] The vapor intrusion screening levels [i.e., target groundwater concentration from Table 2c, Subsurface Vapor Intrusion Guidance (EPA, 2002)] were updated using the methodology presented in Appendix D of Subsurface Vapor Intrusion Guidance (EPA, 2002).

[2] Values are Regional Screening Levels (RSL) for residential air (based on 10^{6} for carcinogens and HQ of 0.1 for noncarcinogens). [Oak Ridge National Laboratory (ORNL), May 2010].

[3] H'TS = Henry's Law Constant (dimensionless) at system (i.e., groundwater) temperature. [Oak Ridge National Laboratory (ORNL), May 2010].

[4] If the calculated groundwater target concentration is less than the Maximum Contaminant Level (MCL) for the compound, the target concentration is set at the MCL (EPA, 2002).

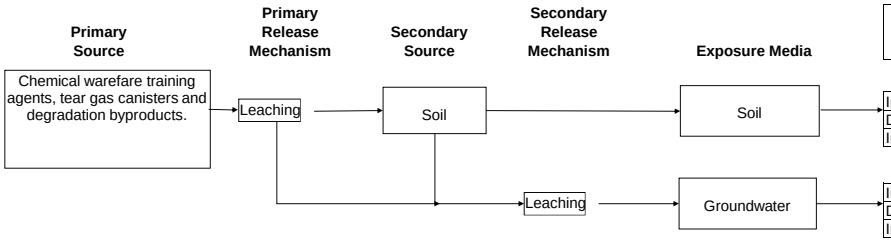
MCL = maximum contaminant level (EPA, 2010).
N/A = Not available
ug/L = microgram per liter
ug/m^3 = microgram per cubic meter

Variables	Units	Value
$C_{target,ia}$ = Target indoor air conc., minimum	ug/m^3	Solved by Eq. 1
C_{gw} = Target groundwater conc.	ug/L	Solved by Eq. 2
TCR = Target Cancer Risk	unitless	1.00E-06
THQ = Target Hazard Quotient	unitless	1
H'TS = Dimensionless Henry's Law Constant	unitless	Chemical-specific
alpha (α) = Attenuation Factor	unitless	0.001

Equation 1: $C_{target,ia}$ = Minimum(C_{cancer}, $C_{non\text{-}cancer}$)

Equation 2: Cgw = $C_{target,ia} \times 10^{-3}$ m^3/L * 1/H'TS * 1/α

Figures



Exposure Route	Trespasser Adult	Trespasser Adolescent	Military Personnel	Maintenance Worker	Resident Adult	Resident Child	Construction Worker
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	NA	NA	NA	NA	X	X	NA
Dermal Contact	NA	NA	NA	NA	X	X	X
Inhalation	NA	NA	NA	NA	X	X	X

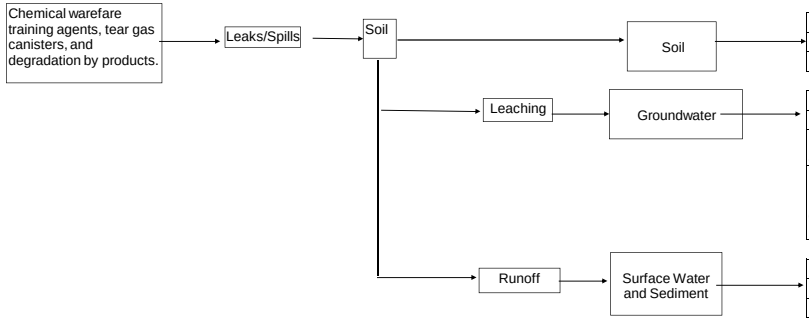
FIGURE 1
Conceptual Site Model for HHRS - Phase I Investigation Area
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)
PA/SI Report
MCB CamLej, North Carolina

NA - Not Applicable or pathway is incomplete

X - Potentially complete exposure pathways

Checked by: Roni Warren

Generated by: Debbie Standard



	Potential Human Receptors						
	Current/Future				Future		
Exposure Route	Base/Industrial Worker	Maintenance Worker	Trespasser/ Visitor Adult	Trespasser/ Visitor Youth	Residential Adult	Residential Child	Construction Worker
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	NA	NA	NA	NA	X	X	NA
Dermal Contact	NA	NA	NA	NA	X	X	X
Inhalation - ambient air	NA	NA	NA	NA	X	X	X
Inhalation - vapor intrusion from groundwater to indoor air	X	X	NA	NA	X	X	NA
Ingestion	X	X	X	X	NA	NA	X
Dermal Contact	X	X	X	X	NA	NA	X
Inhalation	NA	NA	NA	NA	NA	NA	NA

NA - Not Applicable or pathway is incomplete
X - Potentially complete exposure pathways

FIGURE 2
Conceptual Site Model for HHRS - Phase II Investigation Area
Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)
PA/SI Report
MCB CamLej, North Carolina

Appendix K
Ecological Risk Screening Results

Final

Ecological Risk Screening Report
MMRP Site UXO-21 Former D-Area Gas Chamber
(2D MARDIV) (ASR#2.204)

Marine Corps Base Camp Lejeune
Jacksonville, North Carolina

Contract Task Order 040

November 2011

Prepared for

Department of the Navy
Naval Facilities Engineering Command
Mid-Atlantic

Under the

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Prepared by

CH2MHILL

Raleigh, North Carolina

Acronyms and Abbreviations

bgs	below ground surface
CN	chloroacetophenone
CS	2-chlorobenzalmalononitrile
EcoSSL	Ecological Soil Screening Level
ERS	Ecological Risk Screening
ESV	Ecological Screening Value
HQ	hazard quotient
NRWQC	National Recommended Water Quality Criteria
SVOC	semivolatile organic compound
USEPA	United States Environmental Protection Agency
VOC	volatile organic compound

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2 Subsurface Soil Screening (Phase I)
3 Groundwater Screening (Phase I)
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7 Groundwater (Phase II)

1 Overview

An Ecological Risk Screening (ERS) was conducted for Site UXO-21 for Phase I and Phase II of the investigation to evaluate potential risks associated with exposure to site media by potential current and future receptor populations. Soil and groundwater sampling was conducted in 2007 for the Phase I investigation area and soil, groundwater, surface water, and sediment sampling was conducted in March and April 2010 for the Phase II investigation area. Results for constituents in surface soil, sediment, surface water, and groundwater were screened against benchmarks intended to be protective of ecological receptors.

2 Site Ecological Setting and Available Data

The investigation area of Site UXO-21 is predominantly undisturbed forested land west of Sneads Forest Road. Areas of wetlands are located in the southern, western, and northern portions of the site. Surface soil, sediment, surface water, and groundwater samples were collected from various locations throughout the site. This site is more than 1 mile east of the New River and 0.3 mile north of Cogdels Creek. Groundwater flow in the area is to the southwest. The ecological checklist for each phase identifies the terrestrial and aquatic habitats onsite or nearby.

A total of 10 surface soil samples from 0 to 2 inches below ground surface (bgs), three subsurface samples down to 5 feet bgs, and three shallow groundwater samples were collected across the Phase I investigation area, and samples were analyzed for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), metals, and tear gas constituents (chloroacetophenone [CN] and 2-chlorobenzalmalononitrile [CS]). Groundwater samples were also analyzed for dissolved metals.

A total of 28 surface soil samples from 0 to 2 inches bgs, six sediment samples, six surface water samples, and 10 groundwater samples were collected across the Phase II investigation area. All samples were analyzed for metals, SVOCs, explosives, and VOCs. Groundwater and surface water samples were also analyzed for dissolved metals.

3 Ecological Risk Screening Methodology

For each medium (surface soil, sediment, surface water, and groundwater), the maximum and arithmetic mean concentrations are presented along with representative Ecological Screening Values (ESVs) intended to be protective of ecological receptors. Hazard quotients (HQs) were calculated by dividing these statistics by the ESVs. It should be noted that ESVs for inorganics in water are generally based on dissolved concentrations, and comparing them to total metals concentrations is conservative and may over-represent risk.

For soil, the United States Environmental Protection Agency (USEPA) Ecological Soil Screening Levels (EcoSSLs) (2009a) were preferentially selected over Region 4 values (USEPA, 2001). When no EcoSSL was available for a constituent, the Region 4 value was selected.

A selection hierarchy was also applied to surface water. The National Recommended Water Quality Criteria (NRWQC) were preferentially selected over the USEPA Region 4 values (USEPA, 2009b). However, when no NRWQC was available for a constituent, the USEPA Region 4 value was selected as the ESV for that constituent. Because groundwater may potentially discharge to Cogdels Creek (0.3 miles south of the site), groundwater data were screened against fresh water ESVs.

For sediment, USEPA Region 4 values were used.

When an ESV value was not available for a detected analyte, a supplemental screening value from published literature was used, as available.

A Base Background Study was conducted at MCB CamLej in June and July 2000 (Baker, 2001). As part of the ERS, surface soil and groundwater background concentrations were compared to site-specific media concentrations. Additional lines of evidence in the evaluation include the frequency of detection, frequency of exceedance, magnitude of exceedance, and identification of potential laboratory contaminants.

4 ERS Results – Phase I Investigation Area

This section addresses constituents that were detected and had available ESVs based on the selection hierarchy discussed above. Non-detected constituents are not expected to pose a risk to ecological receptors. **Table 1** presents the surface soil screening, **Table 2** presents the subsurface soil screening, and **Table 3** presents the groundwater screening.

4.1 Surface Soil

Bis(2-ethylhexyl)phthalate, aluminum, iron, lead, and selenium were the only detected constituents/analytes with HQs greater than one (**Table 1**). While bis(2-ethylhexyl)-phthalate had HQs greater than 1, this analyte is a common laboratory contaminant (DTSC, 2006) and is not considered to pose significant risk. Additionally the magnitudes of exceedance were low (maximum-based HQ = 3.9; mean-based HQ = 1.8). Of the inorganics, all were consistent with background or within the background range for surface soils at MCB CamLej. Therefore, no significant risk to receptors from exposure to surface soils within the Phase I investigation area are anticipated.

4.2 Subsurface Soil

Aluminum, iron, and selenium were the only detected analytes in subsurface soil with an HQ greater than one; however, all concentrations were either consistent with background or within the background range (**Table 2**). Consequently, no significant risk to receptors from exposure to subsurface soils within the Phase I investigation area are anticipated.

4.3 Groundwater

Bis(2-ethylhexyl)phthalate, aluminum, iron, lead, and thallium were the only detected constituents/analytes with HQs greater than one (**Table 3**). While bis(2-ethylhexyl)-phthalate had HQs greater than one, this analyte is a common laboratory contaminant (DTSC, 2006) and is not considered to pose significant risk. Of the inorganics, aluminum,

iron, and lead were consistent with background in filtered samples and therefore considered unlikely to pose risk. While total thallium had an HQ above 1, the magnitude of exceedance was low (maximum-based HQ = 1.4). Additionally, thallium was not detected in filtered samples. Therefore, no significant risk to receptors from exposure to groundwater within the Phase I investigation area are anticipated.

5 ERS Results – Phase II Investigation Area

This section addresses constituents that were detected and had available ESVs based on the selection hierarchy discussed above. Non-detected constituents are not expected to pose a risk to ecological receptors. **Table 4** presents the surface soil screening, **Table 5** presents the sediment screening, **Table 6** presents the surface water screening, and **Table 7** presents the groundwater screening.

5.1 Surface Soil

Chloroform, aluminum, iron, lead, selenium, and vanadium all had maximum-based HQs greater than 1. Chloroform is considered a common laboratory contaminant (DTSC, 2006) and is not considered to pose significant risk. Of the inorganics, all were found to be consistent with background or within the background range for surface soils at MCB CamLej. Consequently, analytes in soils within the Phase II investigation area are not expected to pose significant risk to ecological receptors.

5.2 Sediment

Of the detected analytes in sediment with available ESVs or supplemental screening values, 4-methylphenol and bis(2-ethylhexyl)phthalate were the only analytes with maximum-based HQs greater than one. Only one of six samples contained 4-methylphenol at a concentration greater than the supplemental screening level and no other SVOCs were found to pose risk. While bis(2-ethylhexyl) phthalate had an HQ slightly greater than 1, the magnitude of exceedance was low, and it is known to be a common laboratory contaminant (DTSC, 2006). It should be noted that most of the maximum detected concentrations were detected in MR21-SD02 suggesting that contamination is limited in extent. Consequently, analytes in sediment within the Phase II investigation area are not expected to pose significant risk to ecological receptors.

5.3 Surface Water

Bis(2-ethylhexyl)phthalate, aluminum, iron, and manganese all had maximum-based HQs greater than 1. Bis(2-ethylhexyl)phthalate was detected in only one of six samples and is known as a common laboratory contaminant (DTSC, 2006). Of the inorganics, aluminum and iron were consistent with background or within the background range for surface soils and are therefore unlikely to be elevated in surface waters as a result of site-related contamination. While manganese had an HQ greater than 1, the magnitude (HQ = 1.5) and frequency of exceedance (1/6) were low. Consequently, analytes in surface water within the Phase II investigation area are not expected to pose significant risk to ecological receptors.

5.4 Groundwater

Aluminum and iron were the only detected analytes with HQs greater than 1. Both analytes were consistent with background or within the background range for groundwater at MCB CamLej. Additionally, data were based on total metals as opposed to dissolved metals, which may overestimate risk. Therefore, significant risk to receptors from exposure to groundwater within the Phase II investigation area is not expected.

6 Ecological Risk Screening Conclusions

In the UXO-21 Phase I and Phase II investigation areas, constituents detected in surface soil, groundwater, surface water, and sediment present no significant results to populations of ecological receptors.

7 References

Baker Environmental, Inc. (Baker). 2001. *Final Base Background Soil Study Report, Marine Corps Base Camp Lejeune, North Carolina.* April 25.

California Department of Toxic Substance Control (DTSC). 2006. Environmental Chemistry Laboratory User's Manual. Appendix C. http://www.dtsc.ca.gov/AssessingRisk/ECL/hml_users_manual.cfm

United States Environmental Protection Agency (USEPA). 2001. *Region 4 Recommended Ecological Screening Values.* http://www.epa.gov/region04/waste/ots/ecolbul.htm.

USEPA. 2009a. *Ecological Soil Screening Levels.* http://www.epa.gov/ecotox/ecossl/

USEPA. 2009b. *National Recommended Water Quality Criteria.* Originally published May 2005. Website version updated in 2009. http://epa.gov/waterscience/criteria/wqctable/

CHECKLIST FOR ECOLOGICAL ASSESSMENTS/SAMPLING

I. SITE LOCATION

1. Site Name_United States Marine Corps Base (MCB), Camp Lejeune _____
   US EPA ID Number _____
   Location_____Interior 5-acre investigation area of Site UXO-21
   County Onslow_____ City Jacksonville_____ State NC_____

2. Latitude___34°39'53.03" N_____ Longitude__77°19'14.86" W_____

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

II. SITE CHARACTERIZATION

1. Indicate the approximate area of the site (i.e., acres or sq. ft.) The site is approximately 5 acres.

2. Is this the first site visit? ☐ Yes X No
   If no, attach trip report of previous site visit(s), if available.
   No trip report is available.

   Dates(s) of previous site visit(s) CH2M HILL conducted investigations on several dates in 2007.

3. Are aerial or other site photographs available? X Yes ☐ No
   If yes, please attach any available photo(s) to the site map to the report.
   Figure 2-1 of this report.

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

_____% 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, 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.

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	__25_% Light Industrial	_____% Urban
_____% Residential	_____% Rural	_____% Agricultural[b]
_____% Recreational[a]	_75__% 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.*
Wetlands are located within the site boundaries.

Please provide the source(s) of information used to identify these sensitive areas, and indicate their general location on the site map.
United States Marine Corps (USMC). 2006. Integrated Natural Resource Management Plan (INRMP) 2007-2011, Marine Corps Base Camp Lejeune, Onslow County, North Carolina. November.

MCB Camp Lejeune GIS Layer for Wetlands

8. What type of facility is located at the site?

☐ Chemical ☐ Manufacturing ☐ Mixing

☐ Waste Disposal X Other (specify)
The site is predominantly undisturbed, forested land.

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).
Metals were detected in soil and groundwater onsite. Please see the ERS for concentration information.

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

X Swales X Depressions ☐ Drainage Ditches

X Runoff ☐ Windblown Particulates ☐ Vehicular Traffic

☐ Other (specify):

11. Indicate the approximate depth to groundwater (in feet mean sea level [(msl)].
Unknown for this site, but likely less than 10 feet bgs.

12. Indicate the direction of groundwater flow (e.g., north, southeast, etc.)
Groundwater flow is to the southwest.

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

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

X Yes ☐ No

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

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

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

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

DATE June 2007

Temperature (°C/°F) 80°F

Wind (direction/speed):

Cloud Cover: Mostly Sunny

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

Precipitation (rain, snow): None

20. Describe reasonable and likely future land and/or water use(s) at the site.
There are currently no development plans.

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.).
UXO 21 was used as a former gas chamber. Materials potentially present in the surface soils at the site include tear gas canisters and degradation byproducts of chloroacetophenone (CN) and 2-chlorobenzalmalononitrile (CS) tear gas constituents.

22. Identify the media (e.g., soil [surface or subsurface], surface water, air, groundwater) which are known or suspected to contain COCs.
Surface soil, subsurface soil, and groundwater are suspected to contain COPCs. Wetlands are present but sediment and surface water samples were not collected within this 5-acre parcel. Evaluation of surface soils should indicate if risk is likely in wetlands. Additionally, sediment and surface water samples were collected within the exterior 12-acre parcel and will be evaluated further as part of that ERS.

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.

Soil, surface water, and sediment exposure pathways may be complete. While samples were not collected from sediments or surface water, evaluation of soil should suffice to evaluate the potential for contamination in the wetlands.

Checklist Completed by__Kelly Taylor_____

Affiliation__CH2M HILL_____

Author Assisted by_____

Date__8/04/2010_____

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:__Unknown_____

1. Estimate the approximate size of the wooded area 5 acres
   Please identify what information was used to determine the wooded area of the site (e.g., direct observation, photos, etc). Aerial photos available through Google earth.

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

- ☐ Evergreen
- ☐ Deciduous
- X Mixed

Dominant plant species, if known:___Unknown_____

3. Estimate the vegetation density of the wooded area.

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

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

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

5. Specify type of understory present, if known. Provide a photograph, if available. The understory is densely vegetated.

III.A.2 Shrub/Scrub

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

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

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

III.A.3 Open Field

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

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

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

III.A.4 Miscellaneous

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

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

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

III.B Aquatic Habitats

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

III.B.1 Non-Flowing Systems

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

☐ Yes X No

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

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

III.B.2 Flowing Systems

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

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

X Yes ☐ No

If yes, indicate the system on the attached site map and answer the following questions regarding the flowing system. If more than one flowing system is present on or adjacent

to the site, make additional copies of the following questions and complete one set for each individual aquatic feature. Distinguish between flowing systems by using names or other designation. Clearly identify each area on the site map

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

Flowing Aquatic Systems Questions

X On-site ☐ Off-site

Name or Designation:__ _Small intermittent drainage w/in the site_____

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. Unknown

☐ Bedrock	☐ 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)

   ☐ Other (please specify):_____

4. Describe the condition of the bank (e.g., height, slope, extent of vegetative cover).
   Unknown

5. Is the system influenced by tides? ☐ Yes X No
   What information was used to make this determination?
   Tide charts and NWI maps
   (http://www.tides.info/?command=view&location=New+River+Inlet%2C+North+Carolina)

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

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. Surface water runoff from the site discharge to the wetlands onsite.

8. Indicate the discharge point of the water body. Specify name of the discharge, if known. The water settles in the wetlands at the site and may migrate to the wetlands located to the southwest and eventually discharge to Cogdels Creek.

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

_____ Width (ft.)

_____ Depth (average)

_____ Velocity (specify units):_____

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

_____ pH

_____ Dissolved oxygen

_____ Salinity

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

_____ Other (specify)

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

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

☐ Emergent ☐ Submergent ☐ Floating

12. Mark the flowing water system on the attached site map. See Figure 3-2.

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

III.C Wetland Habitats

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

X Yes ☐ No

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

Identify the sources of the observations and information (e.g., National Wetland Inventory, Federal or State Agency, USGS topographic maps) used to make the determination whether or not wetland areas are present.

MCB Camp Lejeune GIS Layer for Wetlands

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

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

Wetland Area Questions

X On-site ☐ Off-site

Name or Designation:_Unknown____

1. Indicate the approximate area of the wetland (acres or ft.^{2}) Unknown. Large forested wetland system within the site boundaries (NWI map)

2. 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
   - X 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. Forested, palustrine wetlands with some emergent vegetation.

4. Estimate the vegetation density of the wetland area.

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

5. Is standing water present? X Yes ☐ No
   If yes, is the water primarily: X Fresh ☐ Brackish (NWI map)
   Indicate the approximate area of the standing water (ft.^{2}) _Unknown__
   Indicate the approximate depth of the standing water, if known (ft. or in.)_Unknown

6. 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)

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

8. If known, indicate the source of the water in the wetland.

X Stream/River/Creek/Lake/Pond
X Flooding
❑ Groundwater
X Surface runoff

9. Is there a discharge from the site to the wetland? X Yes ☐ No
If yes, please describe: Runoff from the site discharges to the wetland.

10. Is there a discharge from the wetland? X Yes ☐ No
If yes, to what water body is discharge released?

X Stream/River (Name: __Cogdels Creek_____)
❑ Marine (Name:_____)
❑ Lake/Pond (Name:_____)
❑ Groundwater
❑ Not sure

11. Does the area show evidence of flooding? X Yes ☐ No
If yes, indicate which of the following are present (mark all that apply).

X Standing water
X Water-saturated soils

- ❑ Water marks
- ❑ Buttressing
- ❑ Debris lines
- ❑ Mud cracks
- ❑ Other (Please describe):

12. 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)_____

13. 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.*
   Wetlands are located within the site boundary. This information is based on GIS information (NWI maps) on wetlands and rare species provided by MCB Camp Lejeune and Onslow County and the MCB Camp Lejeune INRMP (INRMP, 2006).

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.*
   No

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

5. Is the site used by any ecologically[3], recreationally or commercially important species? If yes, explain.
   No

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

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

IV. EXPOSURE PATHWAY EVALUATION

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

   X Yes
   ❑ No
   ❑ Uncertain

   Please provide an explanation for your answer.
   Data were collected from soil and groundwater across the site, providing representative samples for the area of concern. While samples were not collected from the wetlands, data collected from soils at the site indicate that the site is not impacted.

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

   X Yes
   ❑ No
   ❑ Uncertain
   ❑ No offsite contamination

   Please provide an explanation for your answer.

   See #1 of this section.

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

   X Yes
   ❑ No
   ❑ Uncertain

   Please provide an explanation for your answer.

   Data were collected based on potential migration pathways (i.e., overland flow). While data were not collected from the wetlands, soil data at the site indicate that the site is not impacted.

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

   ❑ Yes
   ❑ No
   ❑ Uncertain
   X No offsite contamination

Please provide an explanation for your answer. Concentrations of COPCs in surface soil and groundwater are not expected to be high enough to cause any discernable impact to the downgradient habitats.

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

   No

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

   Inorganics were detected in areas where receptors may be exposed; however, most concentrations were consistent with background.

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

   Unknown. No receptors were observed during the site visit.

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, however, groundwater data did not contain high levels of contaminants.

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

   Overland runoff could contribute COPCs to onsite wetlands.

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

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

   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%
❑ 25-75%
X > 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

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

No, soils do not appear to be contaminated.

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

CHECKLIST FOR ECOLOGICAL ASSESSMENTS/SAMPLING

I. SITE LOCATION

1. Site Name_United States Marine Corps Base (MCB), Camp Lejeune _____
   US EPA ID Number _____
   Location_____Exterior 12-acre investigation area
   County Onslow_____ City Jacksonville_____ State NC_____

2. Latitude___34°39'53.03" N_____ Longitude__77°19'14.86" W_____

3. Attach site maps, including a topographical map, a diagram which illustrates the layout of the facility (e.g., site boundaries, structures, etc.), and maps showing all habitat areas identified in Section III of the checklist. Also, include maps which illustrate known and suspected release areas, sampling locations and any other important features, if available. Figures 3-3 through 3-5 are aerials showing site boundaries and sampling locations.

II. SITE CHARACTERIZATION

1. Indicate the approximate area of the site (i.e., acres or sq. ft.) The site is approximately 12 acres.

2. Is this the first site visit? ☐ Yes X No
   If no, attach trip report of previous site visit(s), if available.
   No trip report is available.

   Dates(s) of previous site visit(s) CH2M HILL conducted investigations and/or site visits on several dates in 2007 and 2010.

3. Are aerial or other site photographs available? X Yes ☐ No
   If yes, please attach any available photo(s) to the site map to the report.
   Figure 2-1 of this report.

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

_____% Heavy Industrial	_____% Light Industrial	_____% Urban
_____% Residential	_____% Rural	_____% Agricultural[b]
_____% Recreational[a]	_95__% Undisturbed	__5_% 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.
Roadways cross the site along the northeast and southwest edges and a new road way was recently constructed in the southern portion

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	__25_% Light Industrial	_____% Urban
_____% Residential	_____% Rural	_____% Agricultural[b]
_____% Recreational[a]	_75__% Undisturbed	_____% Other [c]

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

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

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

6. Has any movement of soil taken place at the site? X Yes ☐ No
If yes, indicate the likely source of the disturbance, (e.g., erosion, agricultural, mining, industrial activities, removals, etc.) degree of disturbance, and estimate when these events occurred.
A new road way was recently constructed in the southern portion of the site.

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

Please provide the source(s) of information used to identify these sensitive areas, and indicate their general location on the site map.
United States Marine Corps (USMC). 2006. Integrated Natural Resource Management Plan (INRMP) 2007-2011, Marine Corps Base Camp Lejeune, Onslow County, North Carolina. November.

MCB Camp Lejeune GIS Layer for Wetlands

8. What type of facility is located at the site?

☐ Chemical ☐ Manufacturing ☐ Mixing

☐ Waste Disposal X Other (specify)
The site is predominantly undisturbed, forested land.

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).
Metals were detected in surface soil, surface water, sediment, and groundwater onsite. Please see the ERS for concentration information.

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

X Swales X Depressions ☐ Drainage Ditches

X Runoff ☐ Windblown Particulates ☐ Vehicular Traffic

☐ Other (specify):

11. Indicate the approximate depth to groundwater (in feet mean sea level [(msl)].
Unknown for this site, but likely less than 10 feet bgs.

12. Indicate the direction of groundwater flow (e.g., north, southeast, etc.)
Groundwater flow is to the southwest.

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

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

X Yes ☐ No

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

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

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

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

DATE June 2007

Temperature (°C/°F) 80°F

Wind (direction/speed):

Cloud Cover: Mostly Sunny

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

Precipitation (rain, snow): None

20. Describe reasonable and likely future land and/or water use(s) at the site.
There are currently no development plans.

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.).
UXO 21 was used as a former gas chamber. Materials potentially present in the surface soils at the site include tear gas canisters and degradation byproducts of chloroacetophenone (CN) and 2-chlorobenzalmalononitrile (CS) tear gas constituents.

22. Identify the media (e.g., soil [surface or subsurface], surface water, air, groundwater) which are known or suspected to contain COCs.
Surface soil, sediment, surface water, and groundwater are suspected to contain COPCs.

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.
Soil, surface water, and sediment exposure pathways may be complete.

Checklist Completed by__Kelly Taylor_____

Affiliation__CH2M HILL_____

Author Assisted by_____

Date__8/05/2010_____

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: Unknown

1. Estimate the approximate size of the wooded area 12 acres
   Please identify what information was used to determine the wooded area of the site (e.g., direct observation, photos, etc). Aerial photos available through Google earth.

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

- ☐ Evergreen
- ☐ Deciduous
- X Mixed

Dominant plant species, if known: Unknown

3. Estimate the vegetation density of the wooded area.

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

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

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

5. Specify type of understory present, if known. Provide a photograph, if available. The understory is densely vegetated.

III.A.2 Shrub/Scrub

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

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

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

III.A.3 Open Field

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

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

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

III.A.4 Miscellaneous

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

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

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

III.B Aquatic Habitats

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

III.B.1 Non-Flowing Systems

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

☐ Yes X No

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

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

III.B.2 Flowing Systems

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

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

X Yes ☐ No

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

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

Flowing Aquatic Systems Questions

X On-site ☐ Off-site

Name or Designation:___Small intermittent drainage w/in the site_____

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. Unknown

☐ Bedrock	☐ 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)

   ☐ Other (please specify):_____

4. Describe the condition of the bank (e.g., height, slope, extent of vegetative cover).
   Unknown

5. Is the system influenced by tides? ☐ Yes X No
   What information was used to make this determination?
   Tide charts and NWI maps
   (http://www.tides.info/?command=view&location=New+River+Inlet%2C+North+Carolina)

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

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. Surface water runoff from the site discharge to the wetlands onsite.

8. Indicate the discharge point of the water body. Specify name of the discharge, if known. The water settles in the wetlands at the site and may migrate to the wetlands located to the southwest and eventually discharge to Cogdels Creek.

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

   _____ Width (ft.)

   _____ Depth (average)

   _____ Velocity (specify units):_____

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

   _____ pH

   _____ Dissolved oxygen

   _____ Salinity

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

   _____ Other (specify)

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

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

    ☐ Emergent ☐ Submergent ☐ Floating

12. Mark the flowing water system on the attached site map. See Figure 2-3.

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

III.C Wetland Habitats

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

X Yes ☐ No

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

Identify the sources of the observations and information (e.g., National Wetland Inventory, Federal or State Agency, USGS topographic maps) used to make the determination whether or not wetland areas are present.

MCB Camp Lejeune GIS Layer for Wetlands

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

Wetland Area Questions

X On-site ☐ Off-site

Name or Designation:_Unknown____

1. Indicate the approximate area of the wetland (acres or ft.^{2}) Unknown. Large forested wetland system within the site boundaries (NWI map)

2. 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
- X Wooded
- ☐ Other (Please describe):_____

[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.

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.
Forested, palustrine wetlands with some emergent vegetation.

4. Estimate the vegetation density of the wetland area.

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

5. Is standing water present? X Yes ☐ No
If yes, is the water primarily: X Fresh ☐ Brackish (NWI map)
Indicate the approximate area of the standing water (ft.^{2}) _Unknown__
Indicate the approximate depth of the standing water, if known (ft. or in.)_Unknown

6. 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)

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

8. If known, indicate the source of the water in the wetland.

X Stream/River/Creek/Lake/Pond
X Flooding
❑ Groundwater
X Surface runoff

9. Is there a discharge from the site to the wetland? X Yes ☐ No
If yes, please describe: Runoff from the site discharges to the wetland.

10. Is there a discharge from the wetland? X Yes ☐ No
If yes, to what water body is discharge released?

X Stream/River (Name: __Cogdels Creek_____)
❑ Marine (Name:_____)
❑ Lake/Pond (Name:_____)
❑ Groundwater
❑ Not sure

11. Does the area show evidence of flooding? X Yes ☐ No
If yes, indicate which of the following are present (mark all that apply).

X Standing water
X Water-saturated soils
❑ Water marks
❑ Buttressing
❑ Debris lines
❑ Mud cracks
❑ Other (Please describe):

12. 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)_____

13. 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.*
   Wetlands are located within the site boundary. This information is based on GIS information (NWI maps) on wetlands and rare species provided by MCB Camp Lejeune and Onslow County and the MCB Camp Lejeune INRMP (INRMP, 2006).

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.*
   No

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

5. Is the site used by any ecologically[3], recreationally or commercially important species? If yes, explain.
   No

---

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

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

IV. EXPOSURE PATHWAY EVALUATION

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

   X Yes
   ❑ No
   ❑ Uncertain

   Please provide an explanation for your answer.
   Data were collected from soil, sediment, surface water, and groundwater across the site providing representative samples for the area of concern.

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

   X Yes
   ❑ No
   ❑ Uncertain
   ❑ No offsite contamination

   Please provide an explanation for your answer.

   See #1 of this section.

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

   X Yes
   ❑ No
   ❑ Uncertain

   Please provide an explanation for your answer.

   Data were collected based on potential migration pathways (i.e., overland flow).

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

   ❑ Yes
   ❑ No
   ❑ Uncertain
   X No offsite contamination

   Please provide an explanation for your answer. Concentrations of COPCs in surface soil, sediment, surface water or groundwater are not expected to be high enough to cause any discernable impact to the downgradient habitats.

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

   No

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

   Inorganics were detected in areas where receptors may be exposed; however, most concentrations were consistent with background.

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

   Unknown. No receptors were observed during the site visit.

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, however, groundwater data did not contain high levels of contaminants.

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

   Overland runoff could contribute COPCs to onsite wetlands.

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

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

   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%
- ❑ 25-75%
- X > 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

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

No, soils do not appear to be contaminated.

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

Tables

Table 1

Surface Soil Screening (Phase I)

Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)

Phase I Investigation Area

PA/SI Report

MCB CamLej, North Carolina

Chemical	Range of Non-Detect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Screening Value	Frequency of Exceedance [1]	Maximum Hazard Quotient	Arithmetic Mean	Arithmetic Mean Hazard Quotient	2 x Mean Background	Maximum Exceeds 2 x Mean Background?	Supplemental Screening Value	Supplemental Screening Value Source	Supplemental Screening Value Maximum HQ	Retain?	Rationale
Volatile Organic Compounds (UG/KG)																
1,1,1-Trichloroethane	9.10 - 14.0	0 / 10	--	--	100	-- / --	0.14	5.86	0.059	--	--	--	--	--	NO	Not detected. HQ less than one.
1,1,2,2-Tetrachloroethane	9.10 - 14.0	0 / 10	--	--	100	-- / --	0.14	5.86	0.059	--	--	--	--	--	NO	Not detected. HQ less than one.
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	9.10 - 14.0	0 / 10	--	--	NSV	-- / --	NSV	5.86	NSV	--	--	--	--	--	NO	Not detected
1,1,2-Trichloroethane	9.10 - 14.0	0 / 10	--	--	100	-- / --	0.14	5.86	0.059	--	--	--	--	--	NO	Not detected. HQ less than one.
1,1-Dichloroethane	9.10 - 14.0	0 / 10	--	--	100	-- / --	0.14	5.86	0.059	--	--	--	--	--	NO	Not detected. HQ less than one.
1,1-Dichloroethene	9.10 - 14.0	0 / 10	--	--	100	-- / --	0.14	5.86	0.059	--	--	--	--	--	NO	Not detected. HQ less than one.
1,2,4-Trichlorobenzene	9.10 - 14.0	0 / 10	--	--	10.0	-- / --	1.40	5.86	0.59	--	--	--	--	--	NO	Not detected.
1,2-Dibromo-3-chloropropane	9.10 - 14.0	0 / 10	--	--	NSV	-- / --	NSV	5.86	NSV	--	--	--	--	--	NO	Not detected
1,2-Dibromoethane	9.10 - 14.0	0 / 10	--	--	NSV	-- / --	NSV	5.86	NSV	--	--	--	--	--	NO	Not detected
1,2-Dichlorobenzene	9.10 - 14.0	0 / 10	--	--	10.0	-- / --	1.40	5.86	0.59	--	--	--	--	--	NO	Not detected.
1,2-Dichloroethane	9.10 - 14.0	0 / 10	--	--	400	-- / --	0.035	5.86	0.015	--	--	--	--	--	NO	Not detected. HQ less than one.
1,2-Dichloropropane	9.10 - 14.0	0 / 10	--	--	700,000	-- / --	2.00E-05	5.86	8.36E-06	--	--	--	--	--	NO	Not detected. HQ less than one.
1,3-Dichlorobenzene	9.10 - 14.0	0 / 10	--	--	10.0	-- / --	1.40	5.86	0.59	--	--	--	--	--	NO	Not detected.
1,4-Dichlorobenzene	9.10 - 14.0	0 / 10	--	--	10.0	-- / --	1.40	5.86	0.59	--	--	--	--	--	NO	Not detected.
2-Butanone	11.0 - 14.0	2 / 10	10.0	GC-IS05-0-1-07C	NSV	-- / --	NSV	6.47	NSV	--	--	89600	Buchman, 2009	0.0001	NO	Supplemental HQ less than one; laboratory contaminant
2-Hexanone	9.10 - 14.0	0 / 10	--	--	NSV	-- / --	NSV	5.86	NSV	--	--	--	--	--	NO	Not detected
4-Methyl-2-pentanone	9.10 - 14.0	0 / 10	--	--	NSV	-- / --	NSV	5.86	NSV	--	--	--	--	--	NO	Not detected
Acetone	12.0 - 12.0	9 / 10	280	GC-IS05-0-1-07C	NSV	-- / --	NSV	51.8	NSV	--	--	2500	Buchman, 2009	0.11	NO	Supplemental HQ less than one; laboratory contaminant
Benzene	9.10 - 14.0	0 / 10	--	--	50.0	-- / --	0.28	5.86	0.12	--	--	--	--	--	NO	Not detected. HQ less than one.
Bromodichloromethane	9.10 - 14.0	0 / 10	--	--	NSV	-- / --	NSV	5.86	NSV	--	--	--	--	--	NO	Not detected
Bromoform	9.10 - 14.0	0 / 10	--	--	NSV	-- / --	NSV	5.86	NSV	--	--	--	--	--	NO	Not detected
Bromomethane	9.10 - 14.0	0 / 10	--	--	NSV	-- / --	NSV	5.86	NSV	--	--	--	--	--	NO	Not detected
Carbon disulfide	9.10 - 14.0	0 / 10	--	--	NSV	-- / --	NSV	5.86	NSV	--	--	--	--	--	NO	Not detected
Carbon tetrachloride	9.10 - 14.0	0 / 10	--	--	1,000,000	-- / --	1.40E-05	5.86	5.86E-06	--	--	--	--	--	NO	Not detected. HQ less than one.
Chlorobenzene	9.10 - 14.0	0 / 10	--	--	50.0	-- / --	0.28	5.86	0.12	--	--	--	--	--	NO	Not detected. HQ less than one.
Chloroethane	9.10 - 14.0	0 / 10	--	--	100	-- / --	0.14	5.86	0.059	--	--	--	--	--	NO	Not detected. HQ less than one.
Chloroform	9.10 - 14.0	0 / 10	--	--	1.00	-- / --	14.0	5.86	5.86	--	--	--	--	--	NO	Not detected.
Chloromethane	9.10 - 14.0	0 / 10	--	--	NSV	-- / --	NSV	5.86	NSV	--	--	--	--	--	NO	Not detected
cis-1,2-Dichloroethene	9.10 - 14.0	0 / 10	--	--	NSV	-- / --	NSV	5.86	NSV	--	--	--	--	--	NO	Not detected
cis-1,3-Dichloropropene	9.10 - 14.0	0 / 10	--	--	NSV	-- / --	NSV	5.86	NSV	--	--	--	--	--	NO	Not detected
Cyclohexane	9.10 - 14.0	0 / 10	--	--	100	-- / --	0.14	5.86	0.059	--	--	--	--	--	NO	Not detected. HQ less than one.
Dibromochloromethane	9.10 - 14.0	0 / 10	--	--	NSV	-- / --	NSV	5.86	NSV	--	--	--	--	--	NO	Not detected
Dichlorodifluoromethane (Freon-12)	9.10 - 14.0	0 / 10	--	--	NSV	-- / --	NSV	5.86	NSV	--	--	--	--	--	NO	Not detected
Ethylbenzene	9.10 - 14.0	0 / 10	--	--	50.0	-- / --	0.28	5.86	0.12	--	--	--	--	--	NO	Not detected. HQ less than one.
Isopropylbenzene	9.10 - 14.0	0 / 10	--	--	NSV	-- / --	NSV	5.86	NSV	--	--	--	--	--	NO	Not detected
Methyl acetate	9.10 - 14.0	0 / 10	--	--	NSV	-- / --	NSV	5.86	NSV	--	--	--	--	--	NO	Not detected
Methylcyclohexane	9.10 - 14.0	0 / 10	--	--	NSV	-- / --	NSV	5.86	NSV	--	--	--	--	--	NO	Not detected
Methylene chloride	10.0 - 12.0	5 / 10	15.0	GC-IS01-0-1-07C	2,000	0 / 10	0.0075	7.34	0.0037	--	--	--	--	--	NO	HQ less than one.
Methyl-tert-butyl ether (MTBE)	9.10 - 14.0	0 / 10	--	--	NSV	-- / --	NSV	5.86	NSV	--	--	--	--	--	NO	Not detected
Styrene	9.10 - 14.0	0 / 10	--	--	100	-- / --	0.14	5.86	0.059	--	--	--	--	--	NO	Not detected. HQ less than one.
Tetrachloroethene	9.10 - 14.0	0 / 10	--	--	10.0	-- / --	1.40	5.86	0.59	--	--	--	--	--	NO	Not detected.
Toluene	9.10 - 14.0	1 / 10	4.60	GC-IS06-0-1-07C	50.0	0 / 10	0.092	5.77	0.12	--	--	--	--	--	NO	HQ less than one.
trans-1,2-Dichloroethene	9.10 - 14.0	0 / 10	--	--	100	-- / --	0.14	5.86	0.059	--	--	--	--	--	NO	Not detected. HQ less than one.
trans-1,3-Dichloropropene	9.10 - 14.0	0 / 10	--	--	NSV	-- / --	NSV	5.86	NSV	--	--	--	--	--	NO	Not detected
Trichloroethene	9.10 - 14.0	0 / 10	--	--	1.00	-- / --	14.0	5.86	5.86	--	--	--	--	--	NO	Not detected.
Trichlorofluoromethane(Freon-11)	9.10 - 14.0	0 / 10	--	--	NSV	-- / --	NSV	5.86	NSV	--	--	--	--	--	NO	Not detected
Vinyl chloride	9.10 - 14.0	0 / 10	--	--	10.0	-- / --	1.40	5.86	0.59	--	--	--	--	--	NO	Not detected.

Table 1

Surface Soil Screening (Phase I)

Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)

Phase I Investigation Area

PA/SI Report

MCB CamLej, North Carolina

Chemical	Range of Non-Detect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Screening Value	Frequency of Exceedance [1]	Maximum Hazard Quotient	Arithmetic Mean	Arithmetic Mean Hazard Quotient	2 x Mean Background	Maximum Exceeds 2 x Mean Background?	Supplemental Screening Value	Supplemental Screening Value Source	Supplemental Screening Value Maximum HQ	Retain?	Rationale
Xylene, total	9.10 - 14.0	0 / 10	--	--	50.0	-- / --	0.28	5.86	0.12	--	--	--	--	--	NO	Not detected. HQ less than one.
Semivolatile Organic Compounds (UG/KG)																
1,1-Biphenyl	350 - 420	0 / 10	--	--	60,000	-- / --	0.0070	194	0.0032	--	--	--	--	--	NO	Not detected. HQ less than one.
2,2'-Oxybis(1-chloropropane)	350 - 420	0 / 10	--	--	NSV	-- / --	NSV	194	NSV	--	--	--	--	--	NO	Not detected
2,4,5-Trichlorophenol	890 - 1,100	0 / 10	--	--	4,000	-- / --	0.28	484	0.12	--	--	--	--	--	NO	Not detected. HQ less than one.
2,4,6-Trichlorophenol	350 - 420	0 / 10	--	--	10,000	-- / --	0.042	194	0.019	--	--	--	--	--	NO	Not detected. HQ less than one.
2,4-Dichlorophenol	350 - 420	0 / 10	--	--	3.00	-- / --	140	194	64.5	--	--	--	--	--	NO	Not detected.
2,4-Dimethylphenol	350 - 420	0 / 10	--	--	NSV	-- / --	NSV	194	NSV	--	--	--	--	--	NO	Not detected
2,4-Dinitrophenol	890 - 1,100	0 / 10	--	--	20,000	-- / --	0.055	484	0.024	--	--	--	--	--	NO	Not detected. HQ less than one.
2,4-Dinitrotoluene	350 - 420	0 / 10	--	--	NSV	-- / --	NSV	194	NSV	--	--	--	--	--	NO	Not detected
2,6-Dinitrotoluene	350 - 420	0 / 10	--	--	NSV	-- / --	NSV	194	NSV	--	--	--	--	--	NO	Not detected
2-Chloroacetophenone	350 - 420	0 / 10	--	--	NSV	-- / --	NSV	194	NSV	--	--	--	--	--	NO	Not detected
2-Chlorobenzalmalononitrile	350 - 420	0 / 10	--	--	NSV	-- / --	NSV	194	NSV	--	--	--	--	--	NO	Not detected
2-Chloronaphthalene	350 - 420	0 / 10	--	--	1,000	-- / --	0.42	194	0.19	--	--	--	--	--	NO	Not detected. HQ less than one.
2-Chlorophenol	350 - 420	0 / 10	--	--	10.0	-- / --	42.0	194	19.4	--	--	--	--	--	NO	Not detected.
2-Methylnaphthalene	350 - 420	0 / 10	--	--	29,000	-- / --	0.014	194	0.0067	--	--	--	--	--	NO	Not detected. HQ less than one.
2-Methylphenol	350 - 420	0 / 10	--	--	500	-- / --	0.84	194	0.39	--	--	--	--	--	NO	Not detected. HQ less than one.
2-Nitroaniline	890 - 1,100	0 / 10	--	--	NSV	-- / --	NSV	484	NSV	--	--	--	--	--	NO	Not detected
2-Nitrophenol	350 - 420	0 / 10	--	--	NSV	-- / --	NSV	194	NSV	--	--	--	--	--	NO	Not detected
3,3'-Dichlorobenzidine	350 - 420	0 / 10	--	--	NSV	-- / --	NSV	194	NSV	--	--	--	--	--	NO	Not detected
3-Nitroaniline	890 - 1,100	0 / 10	--	--	NSV	-- / --	NSV	484	NSV	--	--	--	--	--	NO	Not detected
4,6-Dinitro-2-methylphenol	890 - 1,100	0 / 10	--	--	NSV	-- / --	NSV	484	NSV	--	--	--	--	--	NO	Not detected
4-Bromophenyl-phenylether	350 - 420	0 / 10	--	--	NSV	-- / --	NSV	194	NSV	--	--	--	--	--	NO	Not detected
4-Chloro-3-methylphenol	350 - 420	0 / 10	--	--	NSV	-- / --	NSV	194	NSV	--	--	--	--	--	NO	Not detected
4-Chloroaniline	350 - 420	0 / 10	--	--	20,000	-- / --	0.021	194	0.0097	--	--	--	--	--	NO	Not detected. HQ less than one.
4-Chlorophenyl-phenylether	350 - 420	0 / 10	--	--	NSV	-- / --	NSV	194	NSV	--	--	--	--	--	NO	Not detected
4-Methylphenol	350 - 420	0 / 10	--	--	500	-- / --	0.84	194	0.39	--	--	--	--	--	NO	Not detected. HQ less than one.
4-Nitroaniline	890 - 1,100	0 / 10	--	--	NSV	-- / --	NSV	484	NSV	--	--	--	--	--	NO	Not detected
4-Nitrophenol	890 - 1,100	0 / 10	--	--	7,000	-- / --	0.16	484	0.069	--	--	--	--	--	NO	Not detected. HQ less than one.
Acenaphthene	350 - 420	0 / 10	--	--	29,000	-- / --	0.014	194	0.0067	--	--	--	--	--	NO	Not detected. HQ less than one.
Acenaphthylene	350 - 420	0 / 10	--	--	29,000	-- / --	0.014	194	0.0067	--	--	--	--	--	NO	Not detected. HQ less than one.
Acetophenone	350 - 420	0 / 10	--	--	NSV	-- / --	NSV	194	NSV	--	--	--	--	--	NO	Not detected
Anthracene	350 - 420	0 / 10	--	--	29,000	-- / --	0.014	194	0.0067	--	--	--	--	--	NO	Not detected. HQ less than one.
Atrazine	350 - 420	0 / 10	--	--	0.050	-- / --	8,400	194	3,870	--	--	--	--	--	NO	Not detected.
Benzaldehyde	350 - 420	0 / 10	--	--	NSV	-- / --	NSV	194	NSV	--	--	--	--	--	NO	Not detected
Benzo(a)anthracene	350 - 420	0 / 10	--	--	1,100	-- / --	0.38	194	0.18	--	--	--	--	--	NO	Not detected. HQ less than one.
Benzo(a)pyrene	350 - 420	0 / 10	--	--	1,100	-- / --	0.38	194	0.18	--	--	--	--	--	NO	Not detected. HQ less than one.
Benzo(b)fluoranthene	350 - 420	0 / 10	--	--	1,100	-- / --	0.38	194	0.18	--	--	--	--	--	NO	Not detected. HQ less than one.
Benzo(g,h,i)perylene	350 - 420	0 / 10	--	--	1,100	-- / --	0.38	194	0.18	--	--	--	--	--	NO	Not detected. HQ less than one.
Benzo(k)fluoranthene	350 - 420	0 / 10	--	--	1,100	-- / --	0.38	194	0.18	--	--	--	--	--	NO	Not detected. HQ less than one.
bis(2-Chloroethoxy)methane	350 - 420	0 / 10	--	--	NSV	-- / --	NSV	194	NSV	--	--	--	--	--	NO	Not detected
bis(2-Chloroethyl)ether	350 - 420	0 / 10	--	--	NSV	-- / --	NSV	194	NSV	--	--	--	--	--	NO	Not detected
bis(2-Ethylhexyl)phthalate	360 - 420	4 / 10	390	GC-IS09-0-1-07C	100	2 / 10	3.90	182	1.82	--	--	--	--	--	NO	Laboratory contaminant
Butylbenzylphthalate	350 - 420	0 / 10	--	--	100	-- / --	4.20	194	1.94	--	--	--	--	--	NO	Not detected.
Caprolactam	350 - 420	0 / 10	--	--	NSV	-- / --	NSV	194	NSV	--	--	--	--	--	NO	Not detected
Carbazole	350 - 420	0 / 10	--	--	NSV	-- / --	NSV	194	NSV	--	--	--	--	--	NO	Not detected
Chrysene	350 - 420	0 / 10	--	--	1,100	-- / --	0.38	194	0.18	--	--	--	--	--	NO	Not detected. HQ less than one.
Dibenz(a,h)anthracene	350 - 420	0 / 10	--	--	1,100	-- / --	0.38	194	0.18	--	--	--	--	--	NO	Not detected. HQ less than one.
Dibenzofuran	350 - 420	0 / 10	--	--	NSV	-- / --	NSV	194	NSV	--	--	--	--	--	NO	Not detected
Diethylphthalate	350 - 420	0 / 10	--	--	100,000	-- / --	0.0042	194	0.0019	--	--	--	--	--	NO	Not detected. HQ less than one.

Table 1

Surface Soil Screening (Phase I)

Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)

Phase I Investigation Area

PA/SI Report

MCB CamLej, North Carolina

Chemical	Range of Non-Detect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Screening Value	Frequency of Exceedance [1]	Maximum Hazard Quotient	Arithmetic Mean	Arithmetic Mean Hazard Quotient	2 x Mean Background	Maximum Exceeds 2 x Mean Background?	Supplemental Screening Value	Supplemental Screening Value Source	Supplemental Screening Value Maximum HQ	Retain?	Rationale
Dimethyl phthalate	350 - 420	0 / 10	--	--	200,000	-- / --	0.0021	194	9.68E-04	--	--	--	--	--	NO	Not detected. HQ less than one.
Di-n-butylphthalate	350 - 410	3 / 10	77.0	GC-IS09-0-1-07C	200,000	0 / 10	3.85E-04	150	7.49E-04	--	--	--	--	--	NO	HQ less than one.
Di-n-octylphthalate	350 - 420	0 / 10	--	--	100	-- / --	4.20	194	1.94	--	--	--	--	--	NO	Not detected.
Fluoranthene	350 - 420	0 / 10	--	--	1,100	-- / --	0.38	194	0.18	--	--	--	--	--	NO	Not detected. HQ less than one.
Fluorene	350 - 420	0 / 10	--	--	29,000	-- / --	0.014	194	0.0067	--	--	--	--	--	NO	Not detected. HQ less than one.
Hexachlorobenzene	350 - 420	0 / 10	--	--	2.50	-- / --	168	194	77.4	--	--	--	--	--	NO	Not detected.
Hexachlorobutadiene	350 - 420	0 / 10	--	--	NSV	-- / --	NSV	194	NSV	--	--	--	--	--	NO	Not detected
Hexachlorocyclopentadiene	350 - 420	0 / 10	--	--	10,000	-- / --	0.042	194	0.019	--	--	--	--	--	NO	Not detected. HQ less than one.
Hexachloroethane	350 - 420	0 / 10	--	--	100	-- / --	4.20	194	1.94	--	--	--	--	--	NO	Not detected.
Indeno(1,2,3-cd)pyrene	350 - 420	0 / 10	--	--	1,100	-- / --	0.38	194	0.18	--	--	--	--	--	NO	Not detected. HQ less than one.
Isophorone	350 - 420	0 / 10	--	--	NSV	-- / --	NSV	194	NSV	--	--	--	--	--	NO	Not detected
Naphthalene	350 - 420	0 / 10	--	--	29,000	-- / --	0.014	194	0.0067	--	--	--	--	--	NO	Not detected. HQ less than one.
n-Nitroso-di-n-propylamine	350 - 420	0 / 10	--	--	NSV	-- / --	NSV	194	NSV	--	--	--	--	--	NO	Not detected
n-Nitrosodiphenylamine	350 - 420	0 / 10	--	--	20,000	-- / --	0.021	194	0.0097	--	--	--	--	--	NO	Not detected. HQ less than one.
Nitrobenzene	350 - 420	0 / 10	--	--	40,000	-- / --	0.011	194	0.0048	--	--	--	--	--	NO	Not detected. HQ less than one.
Pentachlorophenol	890 - 1,100	0 / 10	--	--	2,100	-- / --	0.52	484	0.23	--	--	--	--	--	NO	Not detected. HQ less than one.
Phenanthrene	350 - 420	0 / 10	--	--	29,000	-- / --	0.014	194	0.0067	--	--	--	--	--	NO	Not detected. HQ less than one.
Phenol	350 - 420	0 / 10	--	--	50.0	-- / --	8.40	194	3.87	--	--	--	--	--	NO	Not detected.
Pyrene	350 - 420	0 / 10	--	--	1,100	-- / --	0.38	194	0.18	--	--	--	--	--	NO	Not detected. HQ less than one.
Inorganics (MG/KG)																
Aluminum	-- - --	10 / 10	4,760	GC-IS04-0-1-07C	50.0	10 / 10	95.2	1,532	30.6	5,487	NO	--	--	--	NO	Consistent with background
Antimony	4.70 - 5.80	0 / 10	--	--	0.27	-- / --	21.5	2.59	9.57	0.45	--	--	--	--	NO	Not detected.
Arsenic	0.81 - 0.91	6 / 10	0.62	GC-IS07-0-1-07C	18.0	0 / 10	0.034	0.39	0.022	0.63	NO	--	--	--	NO	Consistent with background
Barium	-- - --	10 / 10	13.5	GC-IS05-0-1-07C	330	0 / 10	0.041	5.96	0.018	15	NO	--	--	--	NO	Consistent with background
Beryllium	0.40 - 0.48	4 / 10	0.13	GC-IS05-0-1-07C	21.0	0 / 10	0.0062	0.15	0.0072	0.10	YES	--	--	--	NO	HQ less than one.
Cadmium	0.39 - 0.46	6 / 10	0.089	GC-IS05-0-1-07C	0.36	0 / 10	0.25	0.11	0.30	0.03	YES	--	--	--	NO	HQ less than one.
Calcium [2]	-- - --	10 / 10	476	GC-IS05-0-1-07C	NSV	-- / --	NSV	178	NSV	6,360	NO	--	--	--	NO	Macronutrient
Chromium	-- - --	10 / 10	3.70	GC-IS05-0-1-07C	26.0	0 / 10	0.14	1.65	0.063	6	NO	--	--	--	NO	Consistent with background
Cobalt	3.90 - 4.80	1 / 10	0.34	GC-IS05-0-1-07C	13.0	0 / 10	0.026	1.95	0.15	0.29	YES	--	--	--	NO	HQ less than one.
Copper	-- - --	10 / 10	2.30	GC-IS05-0-1-07C	28.0	0 / 10	0.082	0.60	0.021	4.83	NO	--	--	--	NO	Consistent with background
Iron	-- - --	10 / 10	1,630	GC-IS07-0-1-07C	200	7 / 10	8.15	601	3.01	3,245	NO	--	--	--	NO	Consistent with background
Lead	-- - --	10 / 10	13.3	GC-IS01-0-1-07C	11.0	1 / 10	1.21	4.19	0.38	12	YES	--	--	--	NO	Within background range
Magnesium [2]	-- - --	10 / 10	80.0	GC-IS05-0-1-07C	NSV	-- / --	NSV	46.6	NSV	238	NO	--	--	--	NO	Macronutrient
Manganese	-- - --	10 / 10	6.80	GC-IS07-0-1-07C	220	0 / 10	0.031	3.95	0.018	14	NO	--	--	--	NO	Consistent with background
Mercury	-- - --	10 / 10	0.098	GC-IS08-0-1-07C	0.10	0 / 10	0.98	0.032	0.32	0.08	YES	--	--	--	NO	HQ less than one.
Nickel	3.20 - 3.70	6 / 10	1.20	GC-IS05-0-1-07C	38.0	0 / 10	0.032	1.01	0.027	1.21	NO	--	--	--	NO	Consistent with background
Potassium [2]	-- - --	10 / 10	66.8	GC-IS05-0-1-07C	NSV	-- / --	NSV	38.7	NSV	116	NO	--	--	--	NO	Macronutrient
Selenium	2.80 - 3.20	7 / 10	1.00	GC-IS05-0-1-07C	0.52	2 / 10	1.92	0.82	1.57	0.56	NO	--	--	--	NO	Consistent with background
Silver	0.78 - 0.96	0 / 10	--	--	4.20	-- / --	0.23	0.43	0.10	0.14	--	--	--	--	NO	Not detected. HQ less than one.
Sodium [2]	-- - --	10 / 10	68.5	GC-IS01-0-1-07C	NSV	-- / --	NSV	62.5	NSV	81	NO	--	--	--	NO	Macronutrient
Thallium	1.90 - 2.40	0 / 10	--	--	1.00	-- / --	2.40	1.07	1.07	0.36	--	--	--	--	NO	Not detected.
Vanadium	-- - --	10 / 10	5.10	GC-IS07-0-1-07C	7.80	0 / 10	0.65	2.36	0.30	8.9	NO	--	--	--	NO	Consistent with background
Zinc	-- - --	10 / 10	6.80	GC-IS05-0-1-07C	46.0	0 / 10	0.15	3.24	0.070	11	NO	--	--	--	NO	Consistent with background

NOTES

1 - Count of detected samples exceeding or equaling Screening Value

2 - Macronutrient - Not considered to be a COPC

HQ - Hazard Quotient

MG/KG - Milligrams per kilogram

Table 1

Surface Soil Screening (Phase I)

Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)

Phase I Investigation Area

PA/SI Report

MCB CamLej, North Carolina

Chemical	Range of Non-Detect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Screening Value	Frequency of Exceedance [1]	Maximum Hazard Quotient	Arithmetic Mean	Arithmetic Mean Hazard Quotient	2 x Mean Background	Maximum Exceeds 2 x Mean Background?	Supplemental Screening Value	Supplemental Screening Value Source	Supplemental Screening Value Maximum HQ	Retain?	Rationale

NSV - No Screening Value

UG/KG - Micrograms per kilogram

Generated by: Kelly Taylor

Checked by: Sara Kent

TABLE 2

Subsurface Soil Screening (Phase I)

Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)

Phase I Investigation Area

PA/SI Report

MCB CamLej, North Carolina

Chemical	Range of Non-Detect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Screening Value	Frequency of Exceedance[1]	Maximum Hazard Quotient	Arithmetic Mean	Mean Hazard Quotient	2 x Mean Background	Maximum Exceeds 2 x Mean Background?	Supplemental Screening Value	Supplemental Screening Value Source	Supplemental Screening Value Maximum HQ	Retain?	Rationale
Volatile Organic Compounds (UG/KG)																
1,1,1-Trichloroethane	7.50 - 11.0	0 / 3	--	--	100	-- / --	0.11	4.92	0.049	--	--	--	--	--	NO	Not detected. HQ less than one.
1,1,2,2-Tetrachloroethane	7.50 - 11.0	0 / 3	--	--	100	-- / --	0.11	4.92	0.049	--	--	--	--	--	NO	Not detected. HQ less than one.
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	7.50 - 11.0	0 / 3	--	--	NSV	-- / --	NSV	4.92	NSV	--	--	--	--	--	NO	Not detected
1,1,2-Trichloroethane	7.50 - 11.0	0 / 3	--	--	100	-- / --	0.11	4.92	0.049	--	--	--	--	--	NO	Not detected. HQ less than one.
1,1-Dichloroethane	7.50 - 11.0	0 / 3	--	--	100	-- / --	0.11	4.92	0.049	--	--	--	--	--	NO	Not detected. HQ less than one.
1,1-Dichloroethene	7.50 - 11.0	0 / 3	--	--	100	-- / --	0.11	4.92	0.049	--	--	--	--	--	NO	Not detected. HQ less than one.
1,2,4-Trichlorobenzene	7.50 - 11.0	0 / 3	--	--	10.0	-- / --	1.10	4.92	0.49	--	--	--	--	--	NO	Not detected
1,2-Dibromo-3-chloropropane	7.50 - 11.0	0 / 3	--	--	NSV	-- / --	NSV	4.92	NSV	--	--	--	--	--	NO	Not detected
1,2-Dibromoethane	7.50 - 11.0	0 / 3	--	--	NSV	-- / --	NSV	4.92	NSV	--	--	--	--	--	NO	Not detected
1,2-Dichlorobenzene	7.50 - 11.0	0 / 3	--	--	10.0	-- / --	1.10	4.92	0.49	--	--	--	--	--	NO	Not detected
1,2-Dichloroethane	7.50 - 11.0	0 / 3	--	--	400	-- / --	0.028	4.92	0.012	--	--	--	--	--	NO	Not detected. HQ less than one.
1,2-Dichloropropane	7.50 - 11.0	0 / 3	--	--	700,000	-- / --	1.57E-05	4.92	7.02E-06	--	--	--	--	--	NO	Not detected. HQ less than one.
1,3-Dichlorobenzene	7.50 - 11.0	0 / 3	--	--	10.0	-- / --	1.10	4.92	0.49	--	--	--	--	--	NO	Not detected
1,4-Dichlorobenzene	7.50 - 11.0	0 / 3	--	--	10.0	-- / --	1.10	4.92	0.49	--	--	--	--	--	NO	Not detected
2-Butanone	7.50 - 11.0	1 / 3	59.0	GC-IS05-2-4-07C	NSV	-- / --	NSV	22.8	NSV	--	--	89600	Buchman, 2009	0.0007	NO	Supplemental HQ less than one; laboratory contaminant
2-Hexanone	7.50 - 11.0	0 / 3	--	--	NSV	-- / --	NSV	4.92	NSV	--	--	--	--	--	NO	Not detected
4-Methyl-2-pentanone	7.50 - 11.0	0 / 3	--	--	NSV	-- / --	NSV	4.92	NSV	--	--	--	--	--	NO	Not detected
Acetone	11.0 - 11.0	2 / 3	190	GC-IS05-2-4-07C	NSV	-- / --	NSV	67.7	NSV	--	--	2500	Buchman, 2009	0.08	NO	Supplemental HQ less than one; laboratory contaminant
Benzene	7.50 - 11.0	0 / 3	--	--	50.0	-- / --	0.22	4.92	0.098	--	--	--	--	--	NO	Not detected. HQ less than one.
Bromodichloromethane	7.50 - 11.0	0 / 3	--	--	NSV	-- / --	NSV	4.92	NSV	--	--	--	--	--	NO	Not detected
Bromoform	7.50 - 11.0	0 / 3	--	--	NSV	-- / --	NSV	4.92	NSV	--	--	--	--	--	NO	Not detected
Bromomethane	7.50 - 11.0	0 / 3	--	--	NSV	-- / --	NSV	4.92	NSV	--	--	--	--	--	NO	Not detected
Carbon disulfide	7.50 - 11.0	0 / 3	--	--	NSV	-- / --	NSV	4.92	NSV	--	--	--	--	--	NO	Not detected
Carbon tetrachloride	7.50 - 11.0	0 / 3	--	--	1,000,000	-- / --	1.10E-05	4.92	4.92E-06	--	--	--	--	--	NO	Not detected. HQ less than one.
Chlorobenzene	7.50 - 11.0	0 / 3	--	--	50.0	-- / --	0.22	4.92	0.098	--	--	--	--	--	NO	Not detected. HQ less than one.
Chloroethane	7.50 - 11.0	0 / 3	--	--	100	-- / --	0.11	4.92	0.049	--	--	--	--	--	NO	Not detected. HQ less than one.
Chloroform	7.50 - 11.0	0 / 3	--	--	1.00	-- / --	11.0	4.92	4.92	--	--	--	--	--	NO	Not detected
Chloromethane	7.50 - 11.0	0 / 3	--	--	NSV	-- / --	NSV	4.92	NSV	--	--	--	--	--	NO	Not detected
cis-1,2-Dichloroethene	7.50 - 11.0	0 / 3	--	--	NSV	-- / --	NSV	4.92	NSV	--	--	--	--	--	NO	Not detected
cis-1,3-Dichloropropene	7.50 - 11.0	0 / 3	--	--	NSV	-- / --	NSV	4.92	NSV	--	--	--	--	--	NO	Not detected
Cyclohexane	7.50 - 11.0	0 / 3	--	--	100	-- / --	0.11	4.92	0.049	--	--	--	--	--	NO	Not detected. HQ less than one.
Dibromochloromethane	7.50 - 11.0	0 / 3	--	--	NSV	-- / --	NSV	4.92	NSV	--	--	--	--	--	NO	Not detected
Dichlorodifluoromethane (Freon-12)	7.50 - 11.0	0 / 3	--	--	NSV	-- / --	NSV	4.92	NSV	--	--	--	--	--	NO	Not detected
Ethylbenzene	7.50 - 11.0	0 / 3	--	--	50.0	-- / --	0.22	4.92	0.098	--	--	--	--	--	NO	Not detected. HQ less than one.
Isopropylbenzene	7.50 - 11.0	0 / 3	--	--	NSV	-- / --	NSV	4.92	NSV	--	--	--	--	--	NO	Not detected
Methyl acetate	7.50 - 11.0	0 / 3	--	--	NSV	-- / --	NSV	4.92	NSV	--	--	--	--	--	NO	Not detected
Methylcyclohexane	7.50 - 11.0	0 / 3	--	--	NSV	-- / --	NSV	4.92	NSV	--	--	--	--	--	NO	Not detected
Methylene chloride	11.0 - 11.0	1 / 3	6.80	GC-IS010-3-5-07C	2,000	0 / 3	0.0034	5.93	0.0030			--	--	--	NO	HQ less than one
Methyl-tert-butyl ether (MTBE)	7.50 - 11.0	0 / 3	--	--	NSV	-- / --	NSV	4.92	NSV	--	--	--	--	--	NO	Not detected
Styrene	7.50 - 11.0	0 / 3	--	--	100	-- / --	0.11	4.92	0.049	--	--	--	--	--	NO	Not detected. HQ less than one.
Tetrachloroethene	7.50 - 11.0	0 / 3	--	--	10.0	-- / --	1.10	4.92	0.49	--	--	--	--	--	NO	Not detected
Toluene	7.50 - 11.0	0 / 3	--	--	50.0	-- / --	0.22	4.92	0.098	--	--	--	--	--	NO	Not detected. HQ less than one.
trans-1,2-Dichloroethene	7.50 - 11.0	0 / 3	--	--	100	-- / --	0.11	4.92	0.049	--	--	--	--	--	NO	Not detected. HQ less than one.
trans-1,3-Dichloropropene	7.50 - 11.0	0 / 3	--	--	NSV	-- / --	NSV	4.92	NSV	--	--	--	--	--	NO	Not detected
Trichloroethene	7.50 - 11.0	0 / 3	--	--	1.00	-- / --	11.0	4.92	4.92	--	--	--	--	--	NO	Not detected
Trichlorofluoromethane(Freon-11)	7.50 - 11.0	0 / 3	--	--	NSV	-- / --	NSV	4.92	NSV	--	--	--	--	--	NO	Not detected
Vinyl chloride	7.50 - 11.0	0 / 3	--	--	10.0	-- / --	1.10	4.92	0.49	--	--	--	--	--	NO	Not detected
Xylene, total	7.50 - 11.0	0 / 3	--	--	50.0	-- / --	0.22	4.92	0.098	--	--	--	--	--	NO	Not detected. HQ less than one.
Semivolatile Organic Compounds (UG/KG)																
1,1-Biphenyl	350 - 500	0 / 3	--	--	60,000	-- / --	0.0083	207	0.0034	--	--	--	--	--	NO	Not detected. HQ less than one.

TABLE 2

Subsurface Soil Screening (Phase I)

Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)

Phase I Investigation Area

PA/SI Report

MCB CamLej, North Carolina

Chemical	Range of Non-Detect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Screening Value	Frequency of Exceedance[1]	Maximum Hazard Quotient	Arithmetic Mean	Mean Hazard Quotient	2 x Mean Background	Maximum Exceeds 2 x Mean Background?	Supplemental Screening Value	Supplemental Screening Value Source	Supplemental Screening Value Maximum HQ	Retain?	Rationale
2,2'-Oxybis(1-chloropropane)	350 - 500	0 / 3	--	--	NSV	-- / --	NSV	207	NSV	--	--	--	--	--	NO	Not detected
2,4,5-Trichlorophenol	880 - 1,300	0 / 3	--	--	4,000	-- / --	0.33	527	0.13	--	--	--	--	--	NO	Not detected. HQ less than one.
2,4,6-Trichlorophenol	350 - 500	0 / 3	--	--	10,000	-- / --	0.050	207	0.021	--	--	--	--	--	NO	Not detected. HQ less than one.
2,4-Dichlorophenol	350 - 500	0 / 3	--	--	3.00	-- / --	167	207	68.9	--	--	--	--	--	NO	Not detected
2,4-Dimethylphenol	350 - 500	0 / 3	--	--	NSV	-- / --	NSV	207	NSV	--	--	--	--	--	NO	Not detected
2,4-Dinitrophenol	880 - 1,300	0 / 3	--	--	20,000	-- / --	0.065	527	0.026	--	--	--	--	--	NO	Not detected. HQ less than one.
2,4-Dinitrotoluene	350 - 500	0 / 3	--	--	NSV	-- / --	NSV	207	NSV	--	--	--	--	--	NO	Not detected
2,6-Dinitrotoluene	350 - 500	0 / 3	--	--	NSV	-- / --	NSV	207	NSV	--	--	--	--	--	NO	Not detected
2-Chloroacetophenone	350 - 500	0 / 3	--	--	NSV	-- / --	NSV	207	NSV	--	--	--	--	--	NO	Not detected
2-Chlorobenzalmalononitrile	350 - 500	0 / 3	--	--	NSV	-- / --	NSV	207	NSV	--	--	--	--	--	NO	Not detected
2-Chloronaphthalene	350 - 500	0 / 3	--	--	1,000	-- / --	0.50	207	0.21	--	--	--	--	--	NO	Not detected. HQ less than one.
2-Chlorophenol	350 - 500	0 / 3	--	--	10.0	-- / --	50.0	207	20.7	--	--	--	--	--	NO	Not detected
2-Methylnaphthalene	350 - 500	0 / 3	--	--	29,000	-- / --	0.017	207	0.0071	--	--	--	--	--	NO	Not detected. HQ less than one.
2-Methylphenol	350 - 500	0 / 3	--	--	500	-- / --	1.00	207	0.41	--	--	--	--	--	NO	Not detected. HQ less than one.
2-Nitroaniline	880 - 1,300	0 / 3	--	--	NSV	-- / --	NSV	527	NSV	--	--	--	--	--	NO	Not detected
2-Nitrophenol	350 - 500	0 / 3	--	--	NSV	-- / --	NSV	207	NSV	--	--	--	--	--	NO	Not detected
3,3'-Dichlorobenzidine	350 - 500	0 / 3	--	--	NSV	-- / --	NSV	207	NSV	--	--	--	--	--	NO	Not detected
3-Nitroaniline	880 - 1,300	0 / 3	--	--	NSV	-- / --	NSV	527	NSV	--	--	--	--	--	NO	Not detected
4,6-Dinitro-2-methylphenol	880 - 1,300	0 / 3	--	--	NSV	-- / --	NSV	527	NSV	--	--	--	--	--	NO	Not detected
4-Bromophenyl-phenylether	350 - 500	0 / 3	--	--	NSV	-- / --	NSV	207	NSV	--	--	--	--	--	NO	Not detected
4-Chloro-3-methylphenol	350 - 500	0 / 3	--	--	NSV	-- / --	NSV	207	NSV	--	--	--	--	--	NO	Not detected
4-Chloroaniline	350 - 500	0 / 3	--	--	20,000	-- / --	0.025	207	0.010	--	--	--	--	--	NO	Not detected. HQ less than one.
4-Chlorophenyl-phenylether	350 - 500	0 / 3	--	--	NSV	-- / --	NSV	207	NSV	--	--	--	--	--	NO	Not detected
4-Methylphenol	350 - 500	0 / 3	--	--	500	-- / --	1.00	207	0.41	--	--	--	--	--	NO	Not detected. HQ less than one.
4-Nitroaniline	880 - 1,300	0 / 3	--	--	NSV	-- / --	NSV	527	NSV	--	--	--	--	--	NO	Not detected
4-Nitrophenol	880 - 1,300	0 / 3	--	--	7,000	-- / --	0.19	527	0.075	--	--	--	--	--	NO	Not detected. HQ less than one.
Acenaphthene	350 - 500	0 / 3	--	--	29,000	-- / --	0.017	207	0.0071	--	--	--	--	--	NO	Not detected. HQ less than one.
Acenaphthylene	350 - 500	0 / 3	--	--	29,000	-- / --	0.017	207	0.0071	--	--	--	--	--	NO	Not detected. HQ less than one.
Acetophenone	350 - 500	0 / 3	--	--	NSV	-- / --	NSV	207	NSV	--	--	--	--	--	NO	Not detected
Anthracene	350 - 500	0 / 3	--	--	29,000	-- / --	0.017	207	0.0071	--	--	--	--	--	NO	Not detected. HQ less than one.
Atrazine	350 - 500	0 / 3	--	--	0.050	-- / --	10,000	207	4,133	--	--	--	--	--	NO	Not detected
Benzaldehyde	350 - 500	0 / 3	--	--	NSV	-- / --	NSV	207	NSV	--	--	--	--	--	NO	Not detected
Benzo(a)anthracene	350 - 500	0 / 3	--	--	1,100	-- / --	0.45	207	0.19	--	--	--	--	--	NO	Not detected. HQ less than one.
Benzo(a)pyrene	350 - 500	0 / 3	--	--	1,100	-- / --	0.45	207	0.19	--	--	--	--	--	NO	Not detected. HQ less than one.
Benzo(b)fluoranthene	350 - 500	0 / 3	--	--	1,100	-- / --	0.45	207	0.19	--	--	--	--	--	NO	Not detected. HQ less than one.
Benzo(g,h,i)perylene	350 - 500	0 / 3	--	--	1,100	-- / --	0.45	207	0.19	--	--	--	--	--	NO	Not detected. HQ less than one.
Benzo(k)fluoranthene	350 - 500	0 / 3	--	--	1,100	-- / --	0.45	207	0.19	--	--	--	--	--	NO	Not detected. HQ less than one.
bis(2-Chloroethoxy)methane	350 - 500	0 / 3	--	--	NSV	-- / --	NSV	207	NSV	--	--	--	--	--	NO	Not detected
bis(2-Chloroethyl)ether	350 - 500	0 / 3	--	--	NSV	-- / --	NSV	207	NSV	--	--	--	--	--	NO	Not detected
bis(2-Ethylhexyl)phthalate	350 - 500	1 / 3	67.0	GC-IS010-3-5-07C	100	0 / 3	0.67	164	1.64	--	--	--	--	--	NO	HQ less than one
Butylbenzylphthalate	350 - 500	0 / 3	--	--	100	-- / --	5.00	207	2.07	--	--	--	--	--	NO	Not detected
Caprolactam	350 - 500	0 / 3	--	--	NSV	-- / --	NSV	207	NSV	--	--	--	--	--	NO	Not detected
Carbazole	350 - 500	0 / 3	--	--	NSV	-- / --	NSV	207	NSV	--	--	--	--	--	NO	Not detected
Chrysene	350 - 500	0 / 3	--	--	1,100	-- / --	0.45	207	0.19	--	--	--	--	--	NO	Not detected. HQ less than one.
Dibenz(a,h)anthracene	350 - 500	0 / 3	--	--	1,100	-- / --	0.45	207	0.19	--	--	--	--	--	NO	Not detected. HQ less than one.
Dibenzofuran	350 - 500	0 / 3	--	--	NSV	-- / --	NSV	207	NSV	--	--	--	--	--	NO	Not detected
Diethylphthalate	350 - 500	0 / 3	--	--	100,000	-- / --	0.0050	207	0.0021	--	--	--	--	--	NO	Not detected. HQ less than one.
Dimethyl phthalate	350 - 500	0 / 3	--	--	200,000	-- / --	0.0025	207	0.0010	--	--	--	--	--	NO	Not detected. HQ less than one.
Di-n-butylphthalate	350 - 500	0 / 3	--	--	200,000	-- / --	0.0025	207	0.0010	--	--	--	--	--	NO	Not detected. HQ less than one.
Di-n-octylphthalate	350 - 500	0 / 3	--	--	100	-- / --	5.00	207	2.07	--	--	--	--	--	NO	Not detected
Fluoranthene	350 - 500	0 / 3	--	--	1,100	-- / --	0.45	207	0.19	--	--	--	--	--	NO	Not detected. HQ less than one.
Fluorene	350 - 500	0 / 3	--	--	29,000	-- / --	0.017	207	0.0071	--	--	--	--	--	NO	Not detected. HQ less than one.
Hexachlorobenzene	350 - 500	0 / 3	--	--	2.50	-- / --	200	207	82.7	--	--	--	--	--	NO	Not detected

TABLE 2

Subsurface Soil Screening (Phase I)

Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)

Phase I Investigation Area

PA/SI Report

MCB CamLej, North Carolina

Chemical	Range of Non-Detect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Screening Value	Frequency of Exceedance[1]	Maximum Hazard Quotient	Arithmetic Mean	Mean Hazard Quotient	2 x Mean Background	Maximum Exceeds 2 x Mean Background?	Supplemental Screening Value	Supplemental Screening Value Source	Supplemental Screening Value Maximum HQ	Retain?	Rationale
Hexachlorobutadiene	350 - 500	0 / 3	--	--	NSV	-- / --	NSV	207	NSV	--	--	--	--	--	NO	Not detected
Hexachlorocyclopentadiene	350 - 500	0 / 3	--	--	10,000	-- / --	0.050	207	0.021	--	--	--	--	--	NO	Not detected. HQ less than one.
Hexachloroethane	350 - 500	0 / 3	--	--	100	-- / --	5.00	207	2.07	--	--	--	--	--	NO	Not detected
Indeno(1,2,3-cd)pyrene	350 - 500	0 / 3	--	--	1,100	-- / --	0.45	207	0.19	--	--	--	--	--	NO	Not detected. HQ less than one.
Isophorone	350 - 500	0 / 3	--	--	NSV	-- / --	NSV	207	NSV	--	--	--	--	--	NO	Not detected
Naphthalene	350 - 500	0 / 3	--	--	29,000	-- / --	0.017	207	0.0071	--	--	--	--	--	NO	Not detected. HQ less than one.
n-Nitroso-di-n-propylamine	350 - 500	0 / 3	--	--	NSV	-- / --	NSV	207	NSV	--	--	--	--	--	NO	Not detected
n-Nitrosodiphenylamine	350 - 500	0 / 3	--	--	20,000	-- / --	0.025	207	0.010	--	--	--	--	--	NO	Not detected. HQ less than one.
Nitrobenzene	350 - 500	0 / 3	--	--	40,000	-- / --	0.013	207	0.0052	--	--	--	--	--	NO	Not detected. HQ less than one.
Pentachlorophenol	880 - 1,300	0 / 3	--	--	2,100	-- / --	0.62	527	0.25	--	--	--	--	--	NO	Not detected. HQ less than one.
Phenanthrene	350 - 500	0 / 3	--	--	29,000	-- / --	0.017	207	0.0071	--	--	--	--	--	NO	Not detected. HQ less than one.
Phenol	350 - 500	0 / 3	--	--	50.0	-- / --	10.0	207	4.13	--	--	--	--	--	NO	Not detected
Pyrene	350 - 500	0 / 3	--	--	1,100	-- / --	0.45	207	0.19	--	--	--	--	--	NO	Not detected. HQ less than one.
Inorganics (MG/KG)																
Aluminum	-- - --	3 / 3	9,710	GC-IS05-2-4-07C	50.0	3 / 3	194	4,357	87.1	10369	NO	--	--	--	NO	Consistent with background
Antimony	4.70 - 6.40	0 / 3	--	--	0.27	-- / --	23.7	2.72	10.1	0.36	--	--	--	--	NO	Not detected
Arsenic	0.78 - 0.87	1 / 3	0.69	GC-IS05-2-4-07C	18.0	0 / 3	0.038	0.51	0.028	2.12	NO	--	--	--	NO	Consistent with background
Barium	-- - --	3 / 3	43.7	GC-IS05-2-4-07C	330	0 / 3	0.13	16.8	0.051	16.56	YES	--	--	--	NO	HQ less than one
Beryllium	0.44 - 0.44	2 / 3	0.49	GC-IS05-2-4-07C	21.0	0 / 3	0.023	0.25	0.012	0.165	YES	--	--	--	NO	HQ less than one
Cadmium	0.39 - 0.44	1 / 3	0.083	GC-IS05-2-4-07C	0.36	0 / 3	0.23	0.17	0.46	0.023	YES	--	--	--	NO	HQ less than one
Calcium [2]	-- - --	3 / 3	4,110	GC-IS05-2-4-07C	NSV	-- / --	NSV	1,394	NSV	441	YES	--	--	--	NO	Macronutrient
Chromium	-- - --	3 / 3	7.70	GC-IS05-2-4-07C	26.0	0 / 3	0.30	4.03	0.16	14.49	NO	--	--	--	NO	Consistent with background
Cobalt	3.90 - 4.40	1 / 3	0.41	GC-IS05-2-4-07C	13.0	0 / 3	0.032	1.52	0.12	0.822	NO	--	--	--	NO	Consistent with background
Copper	-- - --	3 / 3	1.10	GC-IS05-2-4-07C	28.0	0 / 3	0.039	0.59	0.021	2.56	NO	--	--	--	NO	Consistent with background
Iron	-- - --	3 / 3	4,440	GC-IS05-2-4-07C	200	2 / 3	22.2	1,665	8.33	5439	NO	--	--	--	NO	Consistent with background
Lead	-- - --	3 / 3	7.20	GC-IS05-2-4-07C	11.0	0 / 3	0.65	3.93	0.36	8.49	NO	--	--	--	NO	Consistent with background
Magnesium [2]	-- - --	3 / 3	152	GC-IS05-2-4-07C	NSV	-- / --	NSV	90.3	NSV	363	NO	--	--	--	NO	Macronutrient
Manganese	-- - --	3 / 3	12.5	GC-IS05-2-4-07C	220	0 / 3	0.057	5.40	0.025	9.25	YES	--	--	--	NO	HQ less than one
Mercury	0.033 - 0.033	2 / 3	0.084	GC-IS05-2-4-07C	0.10	0 / 3	0.84	0.042	0.42	0.071	YES	--	--	--	NO	HQ less than one
Nickel	3.50 - 3.50	2 / 3	3.40	GC-IS05-2-4-07C	38.0	0 / 3	0.089	1.81	0.048	2.27	YES	--	--	--	NO	HQ less than one
Potassium [2]	-- - --	3 / 3	121	GC-IS06-3-5-07C	NSV	-- / --	NSV	82.9	NSV	361	NO	--	--	--	NO	Consistent with background
Selenium	3.10 - 3.10	2 / 3	1.20	GC-IS05-2-4-07C	0.52	1 / 3	2.31	1.01	1.94	0.505	YES	--	--	--	NO	Within background range
Silver	0.78 - 1.10	0 / 3	--	--	4.20	-- / --	0.26	0.46	0.11	0.129	--	--	--	--	NO	Not detected
Sodium [2]	-- - --	3 / 3	86.5	GC-IS05-2-4-07C	NSV	-- / --	NSV	72.3	NSV	68.33	YES	--	--	--	NO	Macronutrient
Thallium	2.00 - 2.70	0 / 3	--	--	1.00	-- / --	2.70	1.15	1.15	0.38	--	--	--	--	NO	Not detected
Vanadium	-- - --	3 / 3	5.00	GC-IS05-2-4-07C	7.80	0 / 3	0.64	3.10	0.40	17.21	NO	--	--	--	NO	Consistent with background
Zinc	-- - --	3 / 3	4.80	GC-IS05-2-4-07C	46.0	0 / 3	0.10	3.03	0.066	6.59	NO	--	--	--	NO	Consistent with background

NOTES

1 - Count of detected samples exceeding or equaling Screening Value

2 - Macronutrient - Not considered to be a COPC

HQ - Hazard Quotient

MG/KG - Milligrams per kilogram

NSV - No Screening Value

UG/KG - Micrograms per kilogram

Generated by: Kelly Taylor

Checked by: Sara Kent

TABLE 3

Groundwater Screening (Phase I)

Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)

Phase I Investigation Area

PA/SI Report

MCB CamLej, North Carolina

Chemical	Range of Non-Detect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Screening Value[1]	Frequency of Exceedance[2]	Maximum Hazard Quotient	Arithmetic Mean	Mean Hazard Quotient	2 x Mean Background	Maximum Exceeds 2 x Mean Background?	Supplemental Screening Value	Supplemental Screening Value Source	Supplemental Screening Value Maximum HQ	Retain?	Rationale
Volatile Organic Compounds (UG/L)																
1,1,1-Trichloroethane	10.0 - 10.0	0 / 3	--	--	528	-- / --	0.019	5.00	0.0095	--	--	--	--	--	NO	Not detected, HQ less than one
1,1,2,2-Tetrachloroethane	10.0 - 10.0	0 / 3	--	--	240	-- / --	0.042	5.00	0.021	--	--	--	--	--	NO	Not detected, HQ less than one
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	10.0 - 10.0	0 / 3	--	--	NSV	-- / --	NSV	5.00	NSV	--	--	--	--	--	NO	Not detected
1,1,2-Trichloroethane	10.0 - 10.0	0 / 3	--	--	940	-- / --	0.011	5.00	0.0053	--	--	--	--	--	NO	Not detected, HQ less than one
1,1-Dichloroethane	10.0 - 10.0	0 / 3	--	--	NSV	-- / --	NSV	5.00	NSV	--	--	--	--	--	NO	Not detected
1,1-Dichloroethene	10.0 - 10.0	0 / 3	--	--	303	-- / --	0.033	5.00	0.017	--	--	--	--	--	NO	Not detected, HQ less than one
1,2,4-Trichlorobenzene	10.0 - 10.0	0 / 3	--	--	44.9	-- / --	0.22	5.00	0.11	--	--	--	--	--	NO	Not detected, HQ less than one
1,2-Dibromo-3-chloropropane	10.0 - 10.0	0 / 3	--	--	NSV	-- / --	NSV	5.00	NSV	--	--	--	--	--	NO	Not detected
1,2-Dibromoethane	10.0 - 10.0	0 / 3	--	--	NSV	-- / --	NSV	5.00	NSV	--	--	--	--	--	NO	Not detected
1,2-Dichlorobenzene	10.0 - 10.0	0 / 3	--	--	15.8	-- / --	0.63	5.00	0.32	--	--	--	--	--	NO	Not detected, HQ less than one
1,2-Dichloroethane	10.0 - 10.0	0 / 3	--	--	2,000	-- / --	0.0050	5.00	0.0025	--	--	--	--	--	NO	Not detected, HQ less than one
1,2-Dichloropropane	10.0 - 10.0	0 / 3	--	--	525	-- / --	0.019	5.00	0.0095	--	--	--	--	--	NO	Not detected, HQ less than one
1,3-Dichlorobenzene	10.0 - 10.0	0 / 3	--	--	50.2	-- / --	0.20	5.00	0.100	--	--	--	--	--	NO	Not detected, HQ less than one
1,4-Dichlorobenzene	10.0 - 10.0	0 / 3	--	--	11.2	-- / --	0.89	5.00	0.45	--	--	--	--	--	NO	Not detected, HQ less than one
2-Butanone	10.0 - 10.0	0 / 3	--	--	NSV	-- / --	NSV	5.00	NSV	--	--	--	--	--	NO	Not detected
2-Hexanone	10.0 - 10.0	0 / 3	--	--	NSV	-- / --	NSV	5.00	NSV	--	--	--	--	--	NO	Not detected
4-Methyl-2-pentanone	10.0 - 10.0	0 / 3	--	--	NSV	-- / --	NSV	5.00	NSV	--	--	--	--	--	NO	Not detected
Acetone	10.0 - 10.0	0 / 3	--	--	NSV	-- / --	NSV	5.00	NSV	--	--	--	--	--	NO	Not detected
Benzene	10.0 - 10.0	0 / 3	--	--	53.0	-- / --	0.19	5.00	0.094	--	--	--	--	--	NO	Not detected, HQ less than one
Bromodichloromethane	10.0 - 10.0	0 / 3	--	--	NSV	-- / --	NSV	5.00	NSV	--	--	--	--	--	NO	Not detected
Bromoform	10.0 - 10.0	0 / 3	--	--	293	-- / --	0.034	5.00	0.017	--	--	--	--	--	NO	Not detected, HQ less than one
Bromomethane	10.0 - 10.0	0 / 3	--	--	110	-- / --	0.091	5.00	0.045	--	--	--	--	--	NO	Not detected, HQ less than one
Carbon disulfide	10.0 - 10.0	0 / 3	--	--	NSV	-- / --	NSV	5.00	NSV	--	--	--	--	--	NO	Not detected
Carbon tetrachloride	10.0 - 10.0	0 / 3	--	--	352	-- / --	0.028	5.00	0.014	--	--	--	--	--	NO	Not detected, HQ less than one
Chlorobenzene	10.0 - 10.0	0 / 3	--	--	195	-- / --	0.051	5.00	0.026	--	--	--	--	--	NO	Not detected, HQ less than one
Chloroethane	10.0 - 10.0	0 / 3	--	--	NSV	-- / --	NSV	5.00	NSV	--	--	--	--	--	NO	Not detected
Chloroform	10.0 - 10.0	0 / 3	--	--	289	-- / --	0.035	5.00	0.017	--	--	--	--	--	NO	Not detected, HQ less than one
Chloromethane	10.0 - 10.0	0 / 3	--	--	5,500	-- / --	0.0018	5.00	9.09E-04	--	--	--	--	--	NO	Not detected, HQ less than one
cis-1,2-Dichloroethene	10.0 - 10.0	0 / 3	--	--	NSV	-- / --	NSV	5.00	NSV	--	--	--	--	--	NO	Not detected
cis-1,3-Dichloropropene	10.0 - 10.0	0 / 3	--	--	24.4	-- / --	0.41	5.00	0.20	--	--	--	--	--	NO	Not detected, HQ less than one
Cyclohexane	10.0 - 10.0	0 / 3	--	--	NSV	-- / --	NSV	5.00	NSV	--	--	--	--	--	NO	Not detected
Dibromochloromethane	10.0 - 10.0	0 / 3	--	--	NSV	-- / --	NSV	5.00	NSV	--	--	--	--	--	NO	Not detected
Dichlorodifluoromethane (Freon-12)	10.0 - 10.0	0 / 3	--	--	NSV	-- / --	NSV	5.00	NSV	--	--	--	--	--	NO	Not detected
Ethylbenzene	10.0 - 10.0	0 / 3	--	--	453	-- / --	0.022	5.00	0.011	--	--	--	--	--	NO	Not detected, HQ less than one
Isopropylbenzene	10.0 - 10.0	0 / 3	--	--	NSV	-- / --	NSV	5.00	NSV	--	--	--	--	--	NO	Not detected
Methyl acetate	10.0 - 10.0	0 / 3	--	--	NSV	-- / --	NSV	5.00	NSV	--	--	--	--	--	NO	Not detected
Methylcyclohexane	10.0 - 10.0	0 / 3	--	--	NSV	-- / --	NSV	5.00	NSV	--	--	--	--	--	NO	Not detected
Methylene chloride	10.0 - 10.0	0 / 3	--	--	1,930	-- / --	0.0052	5.00	0.0026	--	--	--	--	--	NO	Not detected, HQ less than one
Methyl-tert-butyl ether (MTBE)	10.0 - 10.0	0 / 3	--	--	NSV	-- / --	NSV	5.00	NSV	--	--	--	--	--	NO	Not detected
Styrene	10.0 - 10.0	0 / 3	--	--	NSV	-- / --	NSV	5.00	NSV	--	--	--	--	--	NO	Not detected
Tetrachloroethene	10.0 - 10.0	0 / 3	--	--	84.0	-- / --	0.12	5.00	0.060	--	--	--	--	--	NO	Not detected, HQ less than one
Toluene	10.0 - 10.0	1 / 3	6.10	GC-TW02-07C	175	0 / 3	0.035	5.37	0.031	--	--	--	--	--	NO	HQ less than one
trans-1,2-Dichloroethene	10.0 - 10.0	0 / 3	--	--	1,350	-- / --	0.0074	5.00	0.0037	--	--	--	--	--	NO	Not detected, HQ less than one
trans-1,3-Dichloropropene	10.0 - 10.0	0 / 3	--	--	24.4	-- / --	0.41	5.00	0.20	--	--	--	--	--	NO	Not detected, HQ less than one
Trichloroethene	10.0 - 10.0	0 / 3	--	--	NSV	-- / --	NSV	5.00	NSV	--	--	--	--	--	NO	Not detected
Trichlorofluoromethane(Freon-11)	10.0 - 10.0	0 / 3	--	--	NSV	-- / --	NSV	5.00	NSV	--	--	--	--	--	NO	Not detected
Vinyl chloride	10.0 - 10.0	0 / 3	--	--	NSV	-- / --	NSV	5.00	NSV	--	--	--	--	--	NO	Not detected
Xylene, total	10.0 - 10.0	1 / 3	10.0	GC-TW02-07C	NSV	-- / --	NSV	6.67	NSV	--	--	1340	TCEQ, 2006	0.01	NO	Supplemental HQ less than one
Semivolatile Organic Compounds (UG/L)																
1,1-Biphenyl	11.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	5.83	NSV	--	--	--	--	--	NO	Not detected
2,2'-Oxybis(1-chloropropane)	11.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	5.83	NSV	--	--	--	--	--	NO	Not detected
2,4,5-Trichlorophenol	28.0 - 29.0	0 / 3	--	--	NSV	-- / --	NSV	14.3	NSV	--	--	--	--	--	NO	Not detected
2,4,6-Trichlorophenol	11.0 - 12.0	0 / 3	--	--	3.20	-- / --	3.75	5.83	1.82	--	--	--	--	--	NO	Not detected
2,4-Dichlorophenol	11.0 - 12.0	0 / 3	--	--	36.5	-- / --	0.33	5.83	0.16	--	--	--	--	--	NO	Not detected, HQ less than one
2,4-Dimethylphenol	11.0 - 12.0	0 / 3	--	--	21.2	-- / --	0.57	5.83	0.28	--	--	--	--	--	NO	Not detected, HQ less than one
2,4-Dinitrophenol	28.0 - 29.0	0 / 3	--	--	6.20	-- / --	4.68	14.3	2.31	--	--	--	--	--	NO	Not detected

TABLE 3

Groundwater Screening (Phase I)

Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)

Phase I Investigation Area

PA/SI Report

MCB CamLej, North Carolina

Chemical	Range of Non-Detect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Screening Value[1]	Frequency of Exceedance[2]	Maximum Hazard Quotient	Arithmetic Mean	Mean Hazard Quotient	2 x Mean Background	Maximum Exceeds 2 x Mean Background?	Supplemental Screening Value	Supplemental Screening Value Source	Supplemental Screening Value Maximum HQ	Retain?	Rationale
2,4-Dinitrotoluene	11.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	5.83	NSV	--	--	--	--	--	NO	Not detected
2,6-Dinitrotoluene	11.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	5.83	NSV	--	--	--	--	--	NO	Not detected
2-Chloroacetophenone	11.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	5.83	NSV	--	--	--	--	--	NO	Not detected
2-Chlorobenzalmalononitrile	11.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	5.83	NSV	--	--	--	--	--	NO	Not detected
2-Chloronaphthalene	11.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	5.83	NSV	--	--	--	--	--	NO	Not detected
2-Chlorophenol	11.0 - 12.0	0 / 3	--	--	43.8	-- / --	0.27	5.83	0.13	--	--	--	--	--	NO	Not detected, HQ less than one
2-Methylnaphthalene	11.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	5.83	NSV	--	--	--	--	--	NO	Not detected
2-Methylphenol	11.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	5.83	NSV	--	--	--	--	--	NO	Not detected
2-Nitroaniline	28.0 - 29.0	0 / 3	--	--	NSV	-- / --	NSV	14.3	NSV	--	--	--	--	--	NO	Not detected
2-Nitrophenol	11.0 - 12.0	0 / 3	--	--	3,500	-- / --	0.0034	5.83	0.0017	--	--	--	--	--	NO	Not detected, HQ less than one
3,3'-Dichlorobenzidine	11.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	5.83	NSV	--	--	--	--	--	NO	Not detected
3-Nitroaniline	28.0 - 29.0	0 / 3	--	--	NSV	-- / --	NSV	14.3	NSV	--	--	--	--	--	NO	Not detected
4,6-Dinitro-2-methylphenol	28.0 - 29.0	0 / 3	--	--	2.30	-- / --	12.6	14.3	6.23	--	--	--	--	--	NO	Not detected
4-Bromophenyl-phenylether	11.0 - 12.0	0 / 3	--	--	12.2	-- / --	0.98	5.83	0.48	--	--	--	--	--	NO	Not detected, HQ less than one
4-Chloro-3-methylphenol	11.0 - 12.0	0 / 3	--	--	0.30	-- / --	40.0	5.83	19.4	--	--	--	--	--	NO	Not detected
4-Chloroaniline	11.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	5.83	NSV	--	--	--	--	--	NO	Not detected
4-Chlorophenyl-phenylether	11.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	5.83	NSV	--	--	--	--	--	NO	Not detected
4-Methylphenol	11.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	5.83	NSV	--	--	--	--	--	NO	Not detected
4-Nitroaniline	28.0 - 29.0	0 / 3	--	--	NSV	-- / --	NSV	14.3	NSV	--	--	--	--	--	NO	Not detected
4-Nitrophenol	28.0 - 29.0	0 / 3	--	--	82.8	-- / --	0.35	14.3	0.17	--	--	--	--	--	NO	Not detected, HQ less than one
Acenaphthene	11.0 - 12.0	0 / 3	--	--	17.0	-- / --	0.71	5.83	0.34	--	--	--	--	--	NO	Not detected, HQ less than one
Acenaphthylene	11.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	5.83	NSV	--	--	--	--	--	NO	Not detected
Acetophenone	11.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	5.83	NSV	--	--	--	--	--	NO	Not detected
Anthracene	11.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	5.83	NSV	--	--	--	--	--	NO	Not detected
Atrazine	11.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	5.83	NSV	--	--	--	--	--	NO	Not detected
Benzaldehyde	11.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	5.83	NSV	--	--	--	--	--	NO	Not detected
Benzo(a)anthracene	11.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	5.83	NSV	--	--	--	--	--	NO	Not detected
Benzo(a)pyrene	11.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	5.83	NSV	--	--	--	--	--	NO	Not detected
Benzo(b)fluoranthene	11.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	5.83	NSV	--	--	--	--	--	NO	Not detected
Benzo(g,h,i)perylene	11.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	5.83	NSV	--	--	--	--	--	NO	Not detected
Benzo(k)fluoranthene	11.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	5.83	NSV	--	--	--	--	--	NO	Not detected
bis(2-Chloroethoxy)methane	11.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	5.83	NSV	--	--	--	--	--	NO	Not detected
bis(2-Chloroethyl)ether	11.0 - 12.0	0 / 3	--	--	2,380	-- / --	0.0050	5.83	0.0025	--	--	--	--	--	NO	Not detected, HQ less than one
bis(2-Ethylhexyl)phthalate	-- - --	3 / 3	3.30	GC-TW02-07C	0.30	3 / 3	11.0	2.73	9.11	--	--	--	--	--	NO	Laboratory contaminant
Butylbenzylphthalate	11.0 - 12.0	0 / 3	--	--	22.0	-- / --	0.55	5.83	0.27	--	--	--	--	--	NO	Not detected, HQ less than one
Caprolactam	11.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	5.83	NSV	--	--	--	--	--	NO	Not detected
Carbazole	11.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	5.83	NSV	--	--	--	--	--	NO	Not detected
Chrysene	11.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	5.83	NSV	--	--	--	--	--	NO	Not detected
Dibenz(a,h)anthracene	11.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	5.83	NSV	--	--	--	--	--	NO	Not detected
Dibenzofuran	11.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	5.83	NSV	--	--	--	--	--	NO	Not detected
Diethylphthalate	11.0 - 12.0	0 / 3	--	--	521	-- / --	0.023	5.83	0.011	--	--	--	--	--	NO	Not detected, HQ less than one
Dimethyl phthalate	11.0 - 12.0	0 / 3	--	--	330	-- / --	0.036	5.83	0.018	--	--	--	--	--	NO	Not detected, HQ less than one
Di-n-butylphthalate	11.0 - 12.0	0 / 3	--	--	9.40	-- / --	1.28	5.83	0.62	--	--	--	--	--	NO	Not detected
Di-n-octylphthalate	11.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	5.83	NSV	--	--	--	--	--	NO	Not detected
Fluoranthene	11.0 - 12.0	0 / 3	--	--	39.8	-- / --	0.30	5.83	0.15	--	--	--	--	--	NO	Not detected, HQ less than one
Fluorene	11.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	5.83	NSV	--	--	--	--	--	NO	Not detected
Hexachlorobenzene	11.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	5.83	NSV	--	--	--	--	--	NO	Not detected
Hexachlorobutadiene	11.0 - 12.0	0 / 3	--	--	0.93	-- / --	12.9	5.83	6.27	--	--	--	--	--	NO	Not detected
Hexachlorocyclopentadiene	11.0 - 12.0	0 / 3	--	--	0.070	-- / --	171	5.83	83.3	--	--	--	--	--	NO	Not detected
Hexachloroethane	11.0 - 12.0	0 / 3	--	--	9.80	-- / --	1.22	5.83	0.60	--	--	--	--	--	NO	Not detected
Indeno(1,2,3-cd)pyrene	11.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	5.83	NSV	--	--	--	--	--	NO	Not detected
Isophorone	11.0 - 12.0	0 / 3	--	--	1,170	-- / --	0.010	5.83	0.0050	--	--	--	--	--	NO	Not detected, HQ less than one
Naphthalene	11.0 - 12.0	0 / 3	--	--	62.0	-- / --	0.19	5.83	0.094	--	--	--	--	--	NO	Not detected, HQ less than one
n-Nitroso-di-n-propylamine	11.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	5.83	NSV	--	--	--	--	--	NO	Not detected
n-Nitrosodiphenylamine	11.0 - 12.0	0 / 3	--	--	58.5	-- / --	0.21	5.83	0.100	--	--	--	--	--	NO	Not detected, HQ less than one
Nitrobenzene	11.0 - 12.0	0 / 3	--	--	270	-- / --	0.044	5.83	0.022	--	--	--	--	--	NO	Not detected, HQ less than one
Pentachlorophenol	28.0 - 29.0	0 / 3	--	--	15.0	-- / --	1.93	14.3	0.96	--	--	--	--	--	NO	Not detected

TABLE 3

Groundwater Screening (Phase I)

Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)

Phase I Investigation Area

PA/SI Report

MCB CamLej, North Carolina

Chemical	Range of Non-Detect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Screening Value[1]	Frequency of Exceedance[2]	Maximum Hazard Quotient	Arithmetic Mean	Mean Hazard Quotient	2 x Mean Background	Maximum Exceeds 2 x Mean Background?	Supplemental Screening Value	Supplemental Screening Value Source	Supplemental Screening Value Maximum HQ	Retain?	Rationale
Phenanthrene	11.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	5.83	NSV	--	--	--	--	--	NO	Not detected
Phenol	11.0 - 12.0	0 / 3	--	--	256	-- / --	0.047	5.83	0.023	--	--	--	--	--	NO	Not detected, HQ less than one
Pyrene	11.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	5.83	NSV	--	--	--	--	--	NO	Not detected
Inorganics (UG/L)																
Aluminum	-- - --	3 / 3	5,710	GC-TW02-07C	87.0	3 / 3	65.6	2,159	24.8	1886	YES	--	--	--	NO	Consistent with background in filtered samples
Antimony	60.0 - 60.0	0 / 3	--	--	160	-- / --	0.38	30.0	0.19	3.28	--	--	--	--	NO	Not detected, HQ less than one
Arsenic	10.0 - 10.0	1 / 3	2.90	GC-TW05-07C	150	0 / 3	0.019	4.30	0.029	5.77	NO	--	--	--	NO	Consistent with background
Barium	-- - --	3 / 3	33.1	GC-TW08-07C	NSV	-- / --	NSV	27.5	NSV	86.2	NO	--	--	--	NO	Consistent with background
Beryllium	5.00 - 5.00	0 / 3	--	--	0.53	-- / --	9.43	2.50	4.72	0.31	--	--	--	--	NO	Not detected
Cadmium	5.00 - 5.00	0 / 3	--	--	0.25	-- / --	20.0	2.50	10.0	0.36	--	--	--	--	NO	Not detected
Calcium [3]	-- - --	3 / 3	67,200	GC-TW05-07C	NSV	-- / --	NSV	23,025	NSV	69078	NO	--	--	--	NO	Macronutrient
Chromium	10.0 - 10.0	2 / 3	10.3	GC-TW02-07C	117	0 / 3	0.088	5.50	0.047	3.13	YES	--	--	--	NO	HQ less than one
Cobalt	50.0 - 50.0	2 / 3	1.20	GC-TW08-07C	NSV	-- / --	NSV	8.94	NSV	3.40	NO	--	--	--	NO	Consistent with background
Copper	-- - --	3 / 3	2.20	GC-TW02-07C	9.00	0 / 3	0.24	1.90	0.21	2.76	NO	--	--	--	NO	Consistent with background
Iron	-- - --	3 / 3	5,750	GC-TW02-07C	1,000	3 / 3	5.75	3,580	3.58	5999	NO	--	--	--	NO	Consistent with background
Lead	10.0 - 10.0	1 / 3	5.10	GC-TW02-07C	2.50	1 / 3	2.04	5.03	2.01	2.80	YES	--	--	--	NO	Not detected in filtered sample
Magnesium [3]	-- - --	3 / 3	1,860	GC-TW05-07C	NSV	-- / --	NSV	1,382	NSV	6363	NO	--	--	--	NO	Macronutrient
Manganese	-- - --	3 / 3	9.80	GC-TW05-07C	NSV	-- / --	NSV	7.30	NSV	213.5	NO	--	--	--	NO	Consistent with background
Mercury	0.20 - 0.20	2 / 3	0.042	GC-TW02-07C	0.77	0 / 3	0.055	0.059	0.077	0.10	NO	--	--	--	NO	Consistent with background
Nickel	40.0 - 40.0	1 / 3	1.20	GC-TW08-07C	52.0	0 / 3	0.023	13.7	0.26	7.97	NO	--	--	--	NO	Consistent with background
Potassium [3]	-- - --	3 / 3	1,210	GC-TW02-07C	NSV	-- / --	NSV	1,103	NSV	3277	NO	--	--	--	NO	Macronutrient
Selenium	35.0 - 35.0	0 / 3	--	--	5.00	-- / --	7.00	17.5	3.50	3.14	--	--	--	--	NO	Not detected
Silver	10.0 - 10.0	0 / 3	--	--	0.012	-- / --	833	5.00	417	0.77	--	--	--	--	NO	Not detected
Sodium [3]	-- - --	3 / 3	6,800	GC-TW05-07C	NSV	-- / --	NSV	6,193	NSV	22508	NO	--	--	--	NO	Macronutrient
Thallium	25.0 - 25.0	1 / 3	5.60	GC-TW02-07C	4.00	1 / 3	1.40	10.2	2.55	3.78	YES	--	--	--	NO	Not detected in filtered sample
Vanadium	50.0 - 50.0	2 / 3	9.40	GC-TW02-07C	NSV	-- / --	NSV	11.9	NSV	4.72	YES	--	--	--	NO	Consistent with background in filtered samples
Zinc	-- - --	3 / 3	12.6	GC-TW02-07C	120	0 / 3	0.11	11.2	0.093	42.1	NO	--	--	--	NO	HQ less than one
Dissolved Metals (UG/L)																
Aluminum, Dissolved	200 - 200	1 / 3	71.3	GC-TW02-07C	87.0	0 / 3	0.82	90.4	1.04	1886	NO	--	--	--	NO	Consistent with background
Antimony, Dissolved	60.0 - 60.0	0 / 3	--	--	160	-- / --	0.38	30.0	0.19	3.28	--	--	--	--	NO	Not detected, HQ less than one
Arsenic, Dissolved	10.0 - 10.0	1 / 3	3.20	GC-TW02-07C	150	0 / 3	0.021	4.40	0.029	5.77	NO	--	--	--	NO	Consistent with background
Barium, Dissolved	-- - --	3 / 3	32.2	GC-TW08-07C	NSV	-- / --	NSV	23.0	NSV	86.2	NO	--	--	--	NO	Consistent with background
Beryllium, Dissolved	5.00 - 5.00	0 / 3	--	--	0.53	-- / --	9.43	2.50	4.72	0.31	--	--	--	--	NO	Not detected
Cadmium, Dissolved	5.00 - 5.00	0 / 3	--	--	0.25	-- / --	20.0	2.50	10.0	0.36	--	--	--	--	NO	Not detected
Calcium, Dissolved [3]	-- - --	3 / 3	69,100	GC-TW05-07C	NSV	-- / --	NSV	23,654	NSV	69078	YES	--	--	--	NO	Macronutrient
Chromium, Dissolved	10.0 - 10.0	0 / 3	--	--	117	-- / --	0.085	5.00	0.043	3.13	--	--	--	--	NO	Not detected, HQ less than one
Cobalt, Dissolved	50.0 - 50.0	1 / 3	0.98	GC-TW02-07C	NSV	-- / --	NSV	17.0	NSV	3.40	NO	--	--	--	NO	Consistent with background
Copper, Dissolved	-- - --	3 / 3	2.00	GC-TW05-07C	9.00	0 / 3	0.22	1.32	0.15	2.76	NO	--	--	--	NO	Consistent with background
Iron, Dissolved	-- - --	3 / 3	4,670	GC-TW02-07C	1,000	3 / 3	4.67	2,857	2.86	5999	NO	--	--	--	NO	Consistent with background
Lead, Dissolved	10.0 - 10.0	0 / 3	--	--	2.50	-- / --	4.00	5.00	2.00	2.80	--	--	--	--	NO	Not detected
Magnesium, Dissolved [3]	-- - --	3 / 3	1,940	GC-TW05-07C	NSV	-- / --	NSV	1,342	NSV	6363	NO	--	--	--	NO	Macronutrient
Manganese, Dissolved	-- - --	3 / 3	9.10	GC-TW05-07C	NSV	-- / --	NSV	5.90	NSV	213.5	NO	--	--	--	NO	Consistent with background
Mercury, Dissolved	-- - --	3 / 3	0.057	GC-TW02-07C	0.77	0 / 3	0.074	0.038	0.049	0.10	NO	--	--	--	NO	Consistent with background
Nickel, Dissolved	40.0 - 40.0	0 / 3	--	--	52.0	-- / --	0.77	20.0	0.38	7.97	--	--	--	--	NO	Not detected, HQ less than one
Potassium, Dissolved [3]	-- - --	3 / 3	1,190	GC-TW05-07C	NSV	-- / --	NSV	988	NSV	3277	NO	--	--	--	NO	Macronutrient
Selenium, Dissolved	35.0 - 35.0	0 / 3	--	--	5.00	-- / --	7.00	17.5	3.50	3.14	--	--	--	--	NO	Not detected
Silver, Dissolved	10.0 - 10.0	0 / 3	--	--	0.012	-- / --	833	5.00	417	0.77	--	--	--	--	NO	Not detected
Sodium, Dissolved [3]	-- - --	3 / 3	7,330	GC-TW05-07C	NSV	-- / --	NSV	6,583	NSV	22508	NO	--	--	--	NO	Macronutrient
Thallium, Dissolved	25.0 - 25.0	0 / 3	--	--	4.00	-- / --	6.25	12.5	3.13	3.78	--	--	--	--	NO	Not detected
Vanadium, Dissolved	50.0 - 50.0	1 / 3	2.20	GC-TW02-07C	NSV	-- / --	NSV	17.4	NSV	4.72	NO	--	--	--	NO	Consistent with background
Zinc, Dissolved	-- - --	3 / 3	16.0	GC-TW05-07C	120	0 / 3	0.13	11.8	0.098	42.1	NO	--	--	--	NO	Consistent with background

NOTES

1 - Freshwater Screening Values

2 - Count of detected samples exceeding or equaling Screening Value

3 - Macronutrient - Not considered to be a COPC

TABLE 3

Groundwater Screening (Phase I)

Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)

Phase I Investigation Area

PA/SI Report

MCB CamLej, North Carolina

Chemical	Range of Non-Detect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Screening Value[1]	Frequency of Exceedance[2]	Maximum Hazard Quotient	Arithmetic Mean	Mean Hazard Quotient	2 x Mean Background	Maximum Exceeds 2 x Mean Background?	Supplemental Screening Value	Supplemental Screening Value Source	Supplemental Screening Value Maximum HQ	Retain?	Rationale

HQ - Hazard Quotient

NSV - No Screening Value

UG/L - Micrograms per liter

Generated by: Kelly Taylor

Checked by: Sara Kent

TABLE 4

Surface Soil Screening (Phase II)

Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)

Phase II Investigation Area

PA/SI Report

MCB CamLej, North Carolina

Chemical	Range of Non-Detect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Screening Value	Frequency of Exceedance[1]	Maximum Hazard Quotient	Arithmetic Mean	Mean Hazard Quotient	2 x Mean Background	Maximum Exceeds 2 x Mean Background?	Supplemental Screening Value	Supplemental Screening Value Source	Supplemental Hazard Quotient	Retain?	Rationale
Volatile Organic Compounds (UG/KG)																
1,1,1-Trichloroethane	11.5 - 21.4	0 / 28	--	--	100	-- / --	0.21	8.01	0.080	--	--	--	--	--	No	HQ less than one, not detected
1,1,2,2-Tetrachloroethane	11.5 - 21.4	0 / 28	--	--	100	-- / --	0.21	8.01	0.080	--	--	--	--	--	No	HQ less than one, not detected
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	11.5 - 21.4	0 / 28	--	--	NSV	-- / --	NSV	8.01	NSV	--	--	--	--	--	No	Not detected
1,1,2-Trichloroethane	11.5 - 21.4	0 / 28	--	--	100	-- / --	0.21	8.01	0.080	--	--	--	--	--	No	HQ less than one, not detected
1,1-Dichloroethane	11.5 - 21.4	0 / 28	--	--	100	-- / --	0.21	8.01	0.080	--	--	--	--	--	No	HQ less than one, not detected
1,1-Dichloroethene	11.5 - 21.4	0 / 28	--	--	100	-- / --	0.21	8.01	0.080	--	--	--	--	--	No	HQ less than one, not detected
1,2,4-Trichlorobenzene	11.5 - 21.4	0 / 28	--	--	10.0	-- / --	2.14	8.01	0.80	--	--	--	--	--	No	Not detected
1,2-Dibromo-3-chloropropane	5.74 - 10.7	0 / 28	--	--	NSV	-- / --	NSV	4.00	NSV	--	--	--	--	--	No	Not detected
1,2-Dibromoethane	11.5 - 21.4	0 / 28	--	--	NSV	-- / --	NSV	8.01	NSV	--	--	--	--	--	No	Not detected
1,2-Dichlorobenzene	11.5 - 21.4	1 / 28	1.02	MR21-SS18-10A	10.0	0 / 28	0.10	7.75	0.78	--	--	--	--	--	No	HQ less than one
1,2-Dichloroethane	11.5 - 21.4	0 / 28	--	--	400	-- / --	0.054	8.01	0.020	--	--	--	--	--	No	HQ less than one, not detected
1,2-Dichloropropane	11.5 - 21.4	0 / 28	--	--	700,000	-- / --	3.06E-05	8.01	1.14E-05	--	--	--	--	--	No	HQ less than one, not detected
1,3-Dichlorobenzene	11.5 - 21.4	0 / 28	--	--	10.0	-- / --	2.14	8.01	0.80	--	--	--	--	--	No	Not detected
1,4-Dichlorobenzene	11.5 - 21.4	1 / 28	1.65	MR21-SS18-10A	10.0	0 / 28	0.17	7.78	0.78	--	--	--	--	--	No	HQ less than one
2-Butanone	11.5 - 21.4	1 / 28	43.2	MR21-SS24-10A	NSV	-- / --	NSV	9.26	NSV	--	--	89600	Buchman, 2008	0.0005	No	Supplemental HQ less than one
2-Hexanone	11.5 - 21.4	2 / 28	12.8	MR21-SS38-10A	NSV	-- / --	NSV	8.26	NSV	--	--	12,600	EPA Region 5 ESL (RAIS, 2009)	0.001	No	Supplemental HQ less than one
4-Methyl-2-pentanone	11.5 - 21.4	0 / 28	--	--	NSV	-- / --	NSV	8.01	NSV	--	--	--	--	--	No	Not detected
Acetone	-- - --	28 / 28	600	MR21-SS15-10A	NSV	-- / --	NSV	277	NSV	--	--	2500	Buchman, 2008	0.24	No	Supplemental HQ less than one
Benzene	11.5 - 21.4	1 / 28	0.77	MR21-SS20-10A	50.0	0 / 28	0.015	7.79	0.16	--	--	--	--	--	No	HQ less than one
Bromodichloromethane	11.5 - 21.4	0 / 28	--	--	NSV	-- / --	NSV	8.01	NSV	--	--	--	--	--	No	Not detected
Bromoform	11.5 - 21.4	0 / 28	--	--	NSV	-- / --	NSV	8.01	NSV	--	--	--	--	--	No	Not detected
Bromomethane	11.5 - 21.4	0 / 28	--	--	NSV	-- / --	NSV	8.01	NSV	--	--	--	--	--	No	Not detected
Carbon disulfide	11.5 - 21.4	1 / 28	2.13	MR21-SS20-10A	NSV	-- / --	NSV	7.84	NSV	--	--	94.1	EPA Region 5 ESL (RAIS, 2009)	0.02	No	Supplemental HQ less than one
Carbon tetrachloride	11.5 - 21.4	0 / 28	--	--	1,000,000	-- / --	2.14E-05	8.01	8.01E-06	--	--	--	--	--	No	HQ less than one, not detected
Chlorobenzene	11.5 - 21.4	0 / 28	--	--	50.0	-- / --	0.43	8.01	0.16	--	--	--	--	--	No	HQ less than one, not detected
Chloroethane	11.5 - 21.4	0 / 28	--	--	100	-- / --	0.21	8.01	0.080	--	--	--	--	--	No	HQ less than one, not detected
Chloroform	11.8 - 21.4	5 / 28	102	MR21-SS36-10A	1.00	4 / 28	102	10.5	10.5	--	--	--	--	--	No	Lab contaminant
Chloromethane	11.5 - 21.4	0 / 28	--	--	NSV	-- / --	NSV	8.01	NSV	--	--	--	--	--	No	Not detected
cis-1,2-Dichloroethene	11.5 - 21.4	0 / 28	--	--	NSV	-- / --	NSV	8.01	NSV	--	--	--	--	--	No	Not detected
cis-1,3-Dichloropropene	11.5 - 21.4	0 / 28	--	--	NSV	-- / --	NSV	8.01	NSV	--	--	--	--	--	No	Not detected
Cyclohexane	11.5 - 21.4	0 / 28	--	--	100	-- / --	0.21	8.01	0.080	--	--	--	--	--	No	HQ less than one, not detected
Dibromochloromethane	11.5 - 21.4	0 / 28	--	--	NSV	-- / --	NSV	8.01	NSV	--	--	--	--	--	No	Not detected
Dichlorodifluoromethane (Freon-12)	11.5 - 21.4	0 / 28	--	--	NSV	-- / --	NSV	8.01	NSV	--	--	--	--	--	No	Not detected
Ethylbenzene	11.5 - 21.4	4 / 28	2.26	MR21-SS34-10A	50.0	0 / 28	0.045	7.09	0.14	--	--	--	--	--	No	HQ less than one
Isopropylbenzene	11.5 - 21.4	0 / 28	--	--	NSV	-- / --	NSV	8.01	NSV	--	--	--	--	--	No	Not detected
Methyl acetate	11.5 - 20.9	15 / 28	384	MR21-SS12-10A	NSV	-- / --	NSV	39.9	NSV	--	--	--	--	--	No	No screening value, uncertainty
Methylcyclohexane	11.5 - 21.4	0 / 28	--	--	NSV	-- / --	NSV	8.01	NSV	--	--	--	--	--	No	Not detected
Methylene chloride	11.5 - 21.4	0 / 28	--	--	2,000	-- / --	0.011	8.01	0.0040	--	--	--	--	--	No	HQ less than one, not detected
Methyl-tert-butyl ether (MTBE)	11.5 - 21.4	0 / 28	--	--	NSV	-- / --	NSV	8.01	NSV	--	--	--	--	--	No	Not detected
Styrene	11.5 - 21.4	0 / 28	--	--	100	-- / --	0.21	8.01	0.080	--	--	--	--	--	No	HQ less than one, not detected
Tetrachloroethene	11.5 - 21.4	0 / 28	--	--	10.0	-- / --	2.14	8.01	0.80	--	--	--	--	--	No	Not detected
Toluene	11.5 - 20.9	16 / 28	8.85	MR21-SS24-10A	50.0	0 / 28	0.18	5.39	0.11	--	--	--	--	--	No	HQ less than one
trans-1,2-Dichloroethene	11.5 - 21.4	0 / 28	--	--	100	-- / --	0.21	8.01	0.080	--	--	--	--	--	No	HQ less than one, not detected
trans-1,3-Dichloropropene	11.5 - 21.4	0 / 28	--	--	NSV	-- / --	NSV	8.01	NSV	--	--	--	--	--	No	Not detected
Trichloroethene	11.5 - 21.4	0 / 28	--	--	1.00	-- / --	21.4	8.01	8.01	--	--	--	--	--	No	Not detected
Trichlorofluoromethane(Freon-11)	11.5 - 21.4	0 / 28	--	--	NSV	-- / --	NSV	8.01	NSV	--	--	--	--	--	No	Not detected
Vinyl chloride	11.5 - 21.4	0 / 28	--	--	10.0	-- / --	2.14	8.01	0.80	--	--	--	--	--	No	Not detected
Xylene, total	11.8 - 21.4	14 / 28	6.00	MR21-SS18-10A	50.0	0 / 28	0.12	5.65	0.11	--	--	--	--	--	No	HQ less than one
Semivolatile Organic Compounds (UG/KG)																
1,1-Biphenyl	287 - 484	0 / 28	--	--	60,000	-- / --	0.0081	168	0.0028	--	--	--	--	--	No	HQ less than one, not detected
2,4,5-Trichlorophenol	575 - 968	0 / 28	--	--	4,000	-- / --	0.24	337	0.084	--	--	--	--	--	No	HQ less than one, not detected
2,4,6-Trichlorophenol	287 - 484	0 / 28	--	--	10,000	-- / --	0.048	168	0.017	--	--	--	--	--	No	HQ less than one, not detected
2,4-Dichlorophenol	287 - 484	0 / 28	--	--	3.00	-- / --	161	168	56.1	--	--	--	--	--	No	Not detected
2,4-Dimethylphenol	287 - 484	0 / 28	--	--	NSV	-- / --	NSV	168	NSV	--	--	--	--	--	No	Not detected
2,4-Dinitrophenol	575 - 968	0 / 28	--	--	20,000	-- / --	0.048	337	0.017	--	--	--	--	--	No	HQ less than one, not detected
2,4-Dinitrotoluene	300 - 300	2 / 28	302	MR21-SS13-10A	NSV	-- / --	NSV	155	NSV	--	--	11000	Bernard et al., 2008	0.03	No	Supplemental HQ less than one
2,6-Dinitrotoluene	300 - 300	1 / 28	322	MR21-SS33-10A	NSV	-- / --	NSV	156	NSV	--	--	10600	Bernard et al., 2008	0.03	No	Supplemental HQ less than one
2-Chloroacetophenone	287 - 484	0 / 28	--	--	NSV	-- / --	NSV	168	NSV	--	--	--	--	--	No	Not detected
2-Chlorobenzalmalononitrile	287 - 484	0 / 28	--	--	NSV	-- / --	NSV	168	NSV	--	--	--	--	--	No	Not detected

TABLE 4

Surface Soil Screening (Phase II)

Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)

Phase II Investigation Area

PA/SI Report

MCB CamLej, North Carolina

Chemical	Range of Non-Detect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Screening Value	Frequency of Exceedance[1]	Maximum Hazard Quotient	Arithmetic Mean	Mean Hazard Quotient	2 x Mean Background	Maximum Exceeds 2 x Mean Background?	Supplemental Screening Value	Supplemental Screening Value Source	Supplemental Hazard Quotient	Retain?	Rationale
2-Chloronaphthalene	287 - 484	0 / 28	--	--	1,000	-- / --	0.48	168	0.17	--	--	--	--	--	No	HQ less than one, not detected
2-Chlorophenol	287 - 484	0 / 28	--	--	10.0	-- / --	48.4	168	16.8	--	--	--	--	--	No	Not detected
2-Methylnaphthalene	287 - 484	0 / 28	--	--	29,000	-- / --	0.017	168	0.0058	--	--	--	--	--	No	HQ less than one, not detected
2-Methylphenol	287 - 484	0 / 28	--	--	500	-- / --	0.97	168	0.34	--	--	--	--	--	No	HQ less than one, not detected
2-Nitroaniline	575 - 968	0 / 28	--	--	NSV	-- / --	NSV	337	NSV	--	--	--	--	--	No	Not detected
2-Nitrophenol	287 - 484	0 / 28	--	--	NSV	-- / --	NSV	168	NSV	--	--	--	--	--	No	Not detected
3,3'-Dichlorobenzidine	287 - 385	0 / 27	--	--	NSV	-- / --	NSV	166	NSV	--	--	--	--	--	No	Not detected
3-Nitroaniline	575 - 770	0 / 27	--	--	NSV	-- / --	NSV	331	NSV	--	--	--	--	--	No	Not detected
4,6-Dinitro-2-methylphenol	575 - 968	0 / 28	--	--	NSV	-- / --	NSV	337	NSV	--	--	--	--	--	No	Not detected
4-Bromophenyl-phenylether	287 - 484	0 / 28	--	--	NSV	-- / --	NSV	168	NSV	--	--	--	--	--	No	Not detected
4-Chloro-3-methylphenol	287 - 484	0 / 28	--	--	NSV	-- / --	NSV	168	NSV	--	--	--	--	--	No	Not detected
4-Chloroaniline	287 - 385	0 / 27	--	--	20,000	-- / --	0.019	166	0.0083	--	--	--	--	--	No	HQ less than one, not detected
4-Chlorophenyl-phenylether	287 - 484	0 / 28	--	--	NSV	-- / --	NSV	168	NSV	--	--	--	--	--	No	Not detected
4-Methylphenol	287 - 484	0 / 28	--	--	500	-- / --	0.97	168	0.34	--	--	--	--	--	No	HQ less than one, not detected
4-Nitroaniline	575 - 770	0 / 27	--	--	NSV	-- / --	NSV	331	NSV	--	--	--	--	--	No	Not detected
4-Nitrophenol	575 - 968	0 / 28	--	--	7,000	-- / --	0.14	337	0.048	--	--	--	--	--	No	HQ less than one, not detected
Acenaphthene	287 - 484	0 / 28	--	--	29,000	-- / --	0.017	168	0.0058	--	--	--	--	--	No	HQ less than one, not detected
Acenaphthylene	287 - 484	0 / 28	--	--	29,000	-- / --	0.017	168	0.0058	--	--	--	--	--	No	HQ less than one, not detected
Acetophenone	287 - 484	0 / 28	--	--	NSV	-- / --	NSV	168	NSV	--	--	--	--	--	No	Not detected
Anthracene	287 - 484	0 / 28	--	--	29,000	-- / --	0.017	168	0.0058	--	--	--	--	--	No	HQ less than one, not detected
Atrazine	287 - 484	0 / 28	--	--	0.050	-- / --	9,680	168	3,366	--	--	--	--	--	No	Not detected
Benzaldehyde	-- - --	15 / 15	1,210	MR21-SS25-10A	NSV	-- / --	NSV	237	NSV	--	--	--	--	--	No	No screening value, uncertainty
Benzo(a)anthracene	57.0 - 97.0	0 / 28	--	--	1,100	-- / --	0.088	33.6	0.031	--	--	--	--	--	No	HQ less than one, not detected
Benzo(a)pyrene	5.70 - 9.70	6 / 28	30.0	MR21-SS24-10A	1,100	0 / 28	0.027	6.27	0.0057	--	--	--	--	--	No	HQ less than one
Benzo(b)fluoranthene	57.0 - 77.0	12 / 28	53.0	MR21-SS24-10A	1,100	0 / 28	0.048	28.3	0.026	--	--	--	--	--	No	HQ less than one
Benzo(g,h,i)perylene	287 - 484	0 / 28	--	--	1,100	-- / --	0.44	168	0.15	--	--	--	--	--	No	HQ less than one, not detected
Benzo(k)fluoranthene	287 - 484	0 / 28	--	--	1,100	-- / --	0.44	168	0.15	--	--	--	--	--	No	HQ less than one, not detected
bis(2-Chloroethoxy)methane	287 - 484	0 / 28	--	--	NSV	-- / --	NSV	168	NSV	--	--	--	--	--	No	Not detected
bis(2-Chloroethyl)ether	287 - 484	0 / 28	--	--	NSV	-- / --	NSV	168	NSV	--	--	--	--	--	No	Not detected
bis(2-Chloroisopropyl)ether	287 - 484	0 / 28	--	--	NSV	-- / --	NSV	168	NSV	--	--	--	--	--	No	Not detected
bis(2-Ethylhexyl)phthalate	287 - 484	0 / 28	--	--	100	-- / --	4.84	168	1.68	--	--	--	--	--	No	Not detected
Butylbenzylphthalate	287 - 484	0 / 28	--	--	100	-- / --	4.84	168	1.68	--	--	--	--	--	No	Not detected
Caprolactam	287 - 484	0 / 28	--	--	NSV	-- / --	NSV	168	NSV	--	--	--	--	--	No	Not detected
Carbazole	287 - 484	0 / 28	--	--	NSV	-- / --	NSV	168	NSV	--	--	--	--	--	No	Not detected
Chrysene	287 - 484	0 / 28	--	--	1,100	-- / --	0.44	168	0.15	--	--	--	--	--	No	HQ less than one, not detected
Dibenz(a,h)anthracene	5.70 - 9.70	0 / 28	--	--	1,100	-- / --	0.0088	3.36	0.0031	--	--	--	--	--	No	HQ less than one, not detected
Dibenzofuran	287 - 484	0 / 28	--	--	NSV	-- / --	NSV	168	NSV	--	--	--	--	--	No	Not detected
Diethylphthalate	287 - 484	0 / 28	--	--	100,000	-- / --	0.0048	168	0.0017	--	--	--	--	--	No	HQ less than one, not detected
Dimethyl phthalate	287 - 484	0 / 28	--	--	200,000	-- / --	0.0024	168	8.41E-04	--	--	--	--	--	No	HQ less than one, not detected
Di-n-butylphthalate	287 - 484	0 / 28	--	--	200,000	-- / --	0.0024	168	8.41E-04	--	--	--	--	--	No	HQ less than one, not detected
Di-n-octylphthalate	287 - 484	0 / 28	--	--	100	-- / --	4.84	168	1.68	--	--	--	--	--	No	Not detected
Fluoranthene	287 - 484	0 / 28	--	--	1,100	-- / --	0.44	168	0.15	--	--	--	--	--	No	HQ less than one, not detected
Fluorene	287 - 484	0 / 28	--	--	29,000	-- / --	0.017	168	0.0058	--	--	--	--	--	No	HQ less than one, not detected
Hexachlorobenzene	287 - 484	0 / 28	--	--	2.50	-- / --	194	168	67.3	--	--	--	--	--	No	Not detected
Hexachlorobutadiene	287 - 484	0 / 28	--	--	NSV	-- / --	NSV	168	NSV	--	--	--	--	--	No	Not detected
Hexachlorocyclopentadiene	287 - 484	0 / 28	--	--	10,000	-- / --	0.048	168	0.017	--	--	--	--	--	No	HQ less than one, not detected
Hexachloroethane	287 - 484	0 / 28	--	--	100	-- / --	4.84	168	1.68	--	--	--	--	--	No	Not detected
Indeno(1,2,3-cd)pyrene	57.0 - 97.0	0 / 28	--	--	1,100	-- / --	0.088	33.6	0.031	--	--	--	--	--	No	HQ less than one, not detected
Isophorone	57.0 - 97.0	0 / 28	--	--	NSV	-- / --	NSV	33.6	NSV	--	--	--	--	--	No	Not detected
Naphthalene	287 - 484	0 / 28	--	--	29,000	-- / --	0.017	168	0.0058	--	--	--	--	--	No	HQ less than one, not detected
n-Nitroso-di-n-propylamine	86.0 - 140	0 / 28	--	--	NSV	-- / --	NSV	50.1	NSV	--	--	--	--	--	No	Not detected
n-Nitrosodiphenylamine	287 - 484	0 / 28	--	--	20,000	-- / --	0.024	168	0.0084	--	--	--	--	--	No	HQ less than one, not detected
Nitrobenzene	300 - 300	5 / 28	11,700	MR21-SS24-10A	40,000	0 / 28	0.29	655	0.016	--	--	--	--	--	No	HQ less than one
Pentachlorophenol	19.0 - 32.0	0 / 28	--	--	2,100	-- / --	0.015	11.2	0.0053	--	--	--	--	--	No	HQ less than one, not detected
Phenanthrene	287 - 484	0 / 28	--	--	29,000	-- / --	0.017	168	0.0058	--	--	--	--	--	No	HQ less than one, not detected
Phenol	287 - 484	0 / 28	--	--	50.0	-- / --	9.68	168	3.37	--	--	--	--	--	No	Not detected
Pyrene	287 - 484	1 / 28	59.1	MR21-SS24-10A	1,100	0 / 28	0.054	164	0.15	--	--	--	--	--	No	HQ less than one
Explosives (UG/KG)																
1,3,5-Trinitrobenzene	300 - 300	11 / 28	390	MR21-SS13-10A	NSV	-- / --	NSV	178	NSV	--	--	376	EPA Region 5 ESL (RAIS, 2009)	1.04	No	Low magnitude of exceedance
1,3-Dinitrobenzene	300 - 300	3 / 28	223	MR21-SS19-10A	NSV	-- / --	NSV	156	NSV	--	--	655	EPA Region 5 ESL (RAIS, 2009)	0.340	No	Supplemental HQ less than one

TABLE 4

Surface Soil Screening (Phase II)

Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)

Phase II Investigation Area

PA/SI Report

MCB CamLej, North Carolina

Chemical	Range of Non-Detect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Screening Value	Frequency of Exceedance[1]	Maximum Hazard Quotient	Arithmetic Mean	Mean Hazard Quotient	2 x Mean Background	Maximum Exceeds 2 x Mean Background?	Supplemental Screening Value	Supplemental Screening Value Source	Supplemental Hazard Quotient	Retain?	Rationale
2,4,6-Trinitrotoluene	300 - 300	4 / 28	750	MR21-SS13-10A	NSV	-- / --	NSV	187	NSV	--	--	9600	Bernard et al., 2008	0.078	No	Supplemental HQ less than one
2-Amino-4,6-dinitrotoluene	300 - 300	5 / 28	351	MR21-SS13-10A	NSV	-- / --	NSV	157	NSV	--	--	--	--	--	No	No screening value, uncertainty
2-Nitrotoluene	300 - 300	6 / 28	355	MR21-SS40-10A	NSV	-- / --	NSV	162	NSV	--	--	--	--	--	No	No screening value, uncertainty
3-Nitrotoluene	300 - 300	5 / 28	2,690	MR21-SS31-10A	NSV	-- / --	NSV	241	NSV	--	--	--	--	--	No	No screening value, uncertainty
4-Amino-2,6-dinitrotoluene	300 - 300	1 / 28	163	MR21-SS12-10A	NSV	-- / --	NSV	150	NSV	--	--	--	--	--	No	No screening value, uncertainty
4-Nitrotoluene	300 - 300	2 / 28	3,770	MR21-SS29-10A	NSV	-- / --	NSV	279	NSV	--	--	--	--	--	No	No screening value, uncertainty
HMX	300 - 300	5 / 28	1,130	MR21-SS34-10A	NSV	-- / --	NSV	218	NSV	--	--	89000	Bernard et al., 2008	0.013	No	Supplemental HQ less than one
Nitroglycerin	750 - 750	7 / 28	1,870	MR21-SS18-10A	NSV	-- / --	NSV	495	NSV	--	--	36000	Bernard et al., 2008	0.05	No	Supplemental HQ less than one
Perchlorate	2.30 - 3.87	0 / 28	--	--	NSV	-- / --	NSV	1.35	NSV	--	--	--	--	--	No	No screening value, uncertainty
PETN	500 - 500	3 / 28	1,480	MR21-SS36-10A	NSV	-- / --	NSV	318	NSV	--	--	--	--	--	No	No screening value, uncertainty
RDX	300 - 300	17 / 28	2,730	MR21-SS29-10A	NSV	-- / --	NSV	428	NSV	--	--	10800	Bernard et al., 2008	0.253	No	Supplemental HQ less than one
Tetryl	300 - 300	4 / 28	696	MR21-SS26-10A	NSV	-- / --	NSV	178	NSV	--	--	--	--	--	No	No screening value, uncertainty
Inorganics (MG/KG)																
Aluminum	-- - --	28 / 28	9,090	MR21-SS40-10A	50.0	28 / 28	182	2,328	46.6	5,487	YES	--	--	--	No	Within background range
Antimony	0.83 - 1.44	0 / 28	--	--	0.27	-- / --	5.33	0.50	1.85	0.45	--	--	--	--	No	Not detected
Arsenic	0.28 - 0.28	27 / 28	1.60	MR21-SS40-10A	18.0	0 / 28	0.089	0.56	0.031	0.63	YES	--	--	--	No	HQ less than one
Barium	-- - --	28 / 28	64.2	MR21-SS29-10A	330	0 / 28	0.19	21.3	0.065	15	YES	--	--	--	No	HQ less than one
Beryllium	0.28 - 0.48	7 / 28	0.13	MR21-SS30-10A	21.0	0 / 28	0.0060	0.15	0.0070	0.10	YES	--	--	--	No	HQ less than one
Cadmium	0.28 - 0.34	12 / 28	0.26	MR21-SS24-10A	0.36	0 / 28	0.73	0.15	0.42	0.03	YES	--	--	--	No	HQ less than one
Calcium [2]	-- - --	28 / 28	6,690	MR21-SS20-10A	NSV	-- / --	NSV	1,751	NSV	6,360	YES	--	--	--	No	Within background range, macronutrient
Chromium	-- - --	28 / 28	8.84	MR21-SS40-10A	26.0	0 / 28	0.34	2.51	0.097	6	YES	--	--	--	No	HQ less than one
Cobalt	0.69 - 1.20	3 / 28	0.67	MR21-SS24-10A	13.0	0 / 28	0.051	0.43	0.033	0.29	YES	--	--	--	No	HQ less than one
Copper	-- - --	28 / 28	6.54	MR21-SS40-10A	28.0	0 / 28	0.23	2.18	0.078	4.83	YES	--	--	--	No	HQ less than one
Iron	-- - --	28 / 28	3,040	MR21-SS40-10A	200	27 / 28	15.2	898	4.49	3,245	NO	--	--	--	No	Consistent with background
Lead	-- - --	28 / 28	28.9	MR21-SS40-10A	11.0	10 / 28	2.63	10.7	0.97	12	YES	--	--	--	No	Within background range
Magnesium [2]	276 - 325	23 / 28	388	MR21-SS24-10A	NSV	-- / --	NSV	174	NSV	238	YES	--	--	--	No	Within background range, macronutrient
Manganese	-- - --	28 / 28	135	MR21-SS34-10A	220	0 / 28	0.61	33.9	0.15	14	YES	--	--	--	No	HQ less than one
Mercury	0.035 - 0.037	26 / 28	0.085	MR21-SS24-10A	0.10	0 / 28	0.85	0.041	0.41	0.08	YES	--	--	--	No	HQ less than one
Nickel	0.55 - 0.55	27 / 28	3.88	MR21-SS40-10A	38.0	0 / 28	0.10	1.14	0.030	1.21	YES	--	--	--	No	HQ less than one
Potassium [2]	276 - 338	22 / 28	351	MR21-SS24-10A	NSV	-- / --	NSV	153	NSV	116	YES	--	--	--	No	Macronutrient
Selenium	0.33 - 0.36	24 / 28	0.66	MR21-SS13-10A	0.52	1 / 28	1.27	0.28	0.54	0.56	YES	--	--	--	No	Within background range
Silver	0.28 - 0.48	3 / 28	0.44	MR21-SS24-10A	4.20	0 / 28	0.10	0.18	0.044	0.14	YES	--	--	--	No	HQ less than one
Sodium [2]	276 - 481	0 / 28	--	--	NSV	-- / --	NSV	166	NSV	81	--	--	--	--	No	Not detected, macronutrient
Thallium	0.44 - 0.77	0 / 28	--	--	1.00	-- / --	0.77	0.27	0.27	0.36	--	--	--	--	No	HQ less than one, not detected
Vanadium	-- - --	28 / 28	11.8	MR21-SS40-10A	7.80	2 / 28	1.51	3.57	0.46	8.9	YES	--	--	--	No	Within background range
Zinc	-- - --	28 / 28	41.9	MR21-SS24-10A	46.0	0 / 28	0.91	9.03	0.20	11	YES	--	--	--	No	HQ less than one

NOTES

1 - Count of detected samples exceeding or equaling Screening Value

2 - Macronutrient - Not considered to be a COPC

EPA - environmental protection agency

ESL - ecological screening level

HQ - Hazard Quotient

MG/KG - Milligrams per kilogram

NSV - No Screening Value

UG/KG - Micrograms per kilogram

Generated by: Sara Kent

Checked by: Kelly Taylor/Sara Kent

TABLE 5

Sediment Screening (Phase II)

Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)

Phase II Investigation Area

PA/SI Report

MCB CamLej, North Carolina

Chemical	Range of Non-Detect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Screening Value	Frequency of Exceedance[1]	Maximum Hazard Quotient	Arithmetic Mean	Mean Hazard Quotient	Supplemental Screening Value	Supplemental Screening Value Source	Supplemental Hazard Quotient	Retain?	Rationale
Volatile Organic Compounds (UG/KG)														
1,1,1-Trichloroethane	10.3 - 13.2	0 / 6	--	--	NSV	-- / --	NSV	5.79	NSV	--	--	--	No	Not detected
1,1,2,2-Tetrachloroethane	10.3 - 13.2	0 / 6	--	--	NSV	-- / --	NSV	5.79	NSV	--	--	--	No	Not detected
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	10.3 - 13.2	0 / 6	--	--	NSV	-- / --	NSV	5.79	NSV	--	--	--	No	Not detected
1,1,2-Trichloroethane	10.3 - 13.2	0 / 6	--	--	NSV	-- / --	NSV	5.79	NSV	--	--	--	No	Not detected
1,1-Dichloroethane	10.3 - 13.2	0 / 6	--	--	NSV	-- / --	NSV	5.79	NSV	--	--	--	No	Not detected
1,1-Dichloroethene	10.3 - 13.2	0 / 6	--	--	NSV	-- / --	NSV	5.79	NSV	--	--	--	No	Not detected
1,2,4-Trichlorobenzene	10.3 - 13.2	0 / 6	--	--	NSV	-- / --	NSV	5.79	NSV	--	--	--	No	Not detected
1,2-Dibromo-3-chloropropane	5.13 - 6.59	0 / 6	--	--	NSV	-- / --	NSV	2.89	NSV	--	--	--	No	Not detected
1,2-Dibromoethane	10.3 - 13.2	0 / 6	--	--	NSV	-- / --	NSV	5.79	NSV	--	--	--	No	Not detected
1,2-Dichlorobenzene	10.3 - 13.2	0 / 6	--	--	NSV	-- / --	NSV	5.79	NSV	--	--	--	No	Not detected
1,2-Dichloroethane	10.3 - 13.2	0 / 6	--	--	NSV	-- / --	NSV	5.79	NSV	--	--	--	No	Not detected
1,2-Dichloropropane	10.3 - 13.2	0 / 6	--	--	NSV	-- / --	NSV	5.79	NSV	--	--	--	No	Not detected
1,3-Dichlorobenzene	10.3 - 13.2	0 / 6	--	--	NSV	-- / --	NSV	5.79	NSV	--	--	--	No	Not detected
1,4-Dichlorobenzene	10.3 - 13.2	0 / 6	--	--	NSV	-- / --	NSV	5.79	NSV	--	--	--	No	Not detected
2-Butanone	10.3 - 12.0	2 / 6	27.8	MR21-SD02-10B	NSV	-- / --	NSV	9.89	NSV	25710	TCEQ, 2006	0.001	No	Supplemental HQ less than one
2-Hexanone	10.3 - 12.0	1 / 6	3.25	MR21-SD02-10B	NSV	-- / --	NSV	5.23	NSV	4700	TCEQ, 2006	0.0007	No	Supplemental HQ less than one
4-Methyl-2-pentanone	10.3 - 13.2	1 / 6	1.97	MR21-SD01-10B	NSV	-- / --	NSV	5.18	NSV	19430	TCEQ, 2006	0.0001	No	Supplemental HQ less than one
Acetone	22.9 - 40.6	3 / 6	368	MR21-SD02-10B	NSV	-- / --	NSV	109	NSV	60030	TCEQ, 2006	0.006	No	Supplemental HQ less than one
Benzene	10.3 - 13.2	0 / 6	--	--	NSV	-- / --	NSV	5.79	NSV	--	--	--	No	Not detected
Bromodichloromethane	10.3 - 13.2	0 / 6	--	--	NSV	-- / --	NSV	5.79	NSV	--	--	--	No	Not detected
Bromoform	10.3 - 13.2	0 / 6	--	--	NSV	-- / --	NSV	5.79	NSV	--	--	--	No	Not detected
Bromomethane	10.3 - 13.2	0 / 6	--	--	NSV	-- / --	NSV	5.79	NSV	--	--	--	No	Not detected
Carbon disulfide	10.3 - 13.2	1 / 6	4.45	MR21-SD03-10B	NSV	-- / --	NSV	5.53	NSV	120	TCEQ, 2006	0.04	No	Supplemental HQ less than one
Carbon tetrachloride	10.3 - 13.2	0 / 6	--	--	NSV	-- / --	NSV	5.79	NSV	--	--	--	No	Not detected
Chlorobenzene	10.3 - 13.2	0 / 6	--	--	NSV	-- / --	NSV	5.79	NSV	--	--	--	No	Not detected
Chloroethane	10.3 - 13.2	0 / 6	--	--	NSV	-- / --	NSV	5.79	NSV	--	--	--	No	Not detected
Chloroform	10.3 - 13.2	0 / 6	--	--	NSV	-- / --	NSV	5.79	NSV	--	--	--	No	Not detected
Chloromethane	10.3 - 13.2	0 / 6	--	--	NSV	-- / --	NSV	5.79	NSV	--	--	--	No	Not detected
cis-1,2-Dichloroethene	10.3 - 13.2	0 / 6	--	--	NSV	-- / --	NSV	5.79	NSV	--	--	--	No	Not detected
cis-1,3-Dichloropropene	10.3 - 13.2	0 / 6	--	--	NSV	-- / --	NSV	5.79	NSV	--	--	--	No	Not detected
Cyclohexane	10.3 - 13.2	0 / 6	--	--	NSV	-- / --	NSV	5.79	NSV	--	--	--	No	Not detected
Dibromochloromethane	10.3 - 13.2	0 / 6	--	--	NSV	-- / --	NSV	5.79	NSV	--	--	--	No	Not detected
Dichlorodifluoromethane (Freon-12)	10.3 - 13.2	0 / 6	--	--	NSV	-- / --	NSV	5.79	NSV	--	--	--	No	Not detected
Ethylbenzene	10.3 - 13.2	0 / 6	--	--	NSV	-- / --	NSV	5.79	NSV	--	--	--	No	Not detected
Isopropylbenzene	10.3 - 13.2	0 / 6	--	--	NSV	-- / --	NSV	5.79	NSV	--	--	--	No	Not detected
Methyl acetate	10.3 - 13.2	0 / 6	--	--	NSV	-- / --	NSV	5.79	NSV	--	--	--	No	Not detected
Methylcyclohexane	10.3 - 13.2	0 / 6	--	--	NSV	-- / --	NSV	5.79	NSV	--	--	--	No	Not detected
Methylene chloride	10.3 - 13.2	0 / 6	--	--	NSV	-- / --	NSV	5.79	NSV	--	--	--	No	Not detected
Methyl-tert-butyl ether (MTBE)	10.3 - 13.2	0 / 6	--	--	NSV	-- / --	NSV	5.79	NSV	--	--	--	No	Not detected
Styrene	10.3 - 13.2	0 / 6	--	--	NSV	-- / --	NSV	5.79	NSV	--	--	--	No	Not detected
Tetrachloroethene	10.3 - 13.2	0 / 6	--	--	NSV	-- / --	NSV	5.79	NSV	--	--	--	No	Not detected
Toluene	10.3 - 11.6	3 / 6	694	MR21-SD02-10B	NSV	-- / --	NSV	123	NSV	2880	TCEQ, 2006	0.24	No	Supplemental HQ less than one
trans-1,2-Dichloroethene	10.3 - 13.2	0 / 6	--	--	NSV	-- / --	NSV	5.79	NSV	--	--	--	No	Not detected
trans-1,3-Dichloropropene	10.3 - 13.2	0 / 6	--	--	NSV	-- / --	NSV	5.79	NSV	--	--	--	No	Not detected
Trichloroethene	10.3 - 13.2	0 / 6	--	--	NSV	-- / --	NSV	5.79	NSV	--	--	--	No	Not detected
Trichlorofluoromethane(Freon-11)	10.3 - 13.2	0 / 6	--	--	NSV	-- / --	NSV	5.79	NSV	--	--	--	No	Not detected
Vinyl chloride	10.3 - 13.2	0 / 6	--	--	NSV	-- / --	NSV	5.79	NSV	--	--	--	No	Not detected
Xylene, total	10.3 - 13.2	0 / 6	--	--	NSV	-- / --	NSV	5.79	NSV	--	--	--	No	Not detected
Semivolatile Organic Compounds (UG/KG)														
1,1-Biphenyl	316 - 373	0 / 6	--	--	NSV	-- / --	NSV	173	NSV	--	--	--	No	Not detected
2,4,5-Trichlorophenol	633 - 746	0 / 6	--	--	NSV	-- / --	NSV	347	NSV	--	--	--	No	Not detected
2,4,6-Trichlorophenol	316 - 373	0 / 6	--	--	NSV	-- / --	NSV	173	NSV	--	--	--	No	Not detected
2,4-Dichlorophenol	316 - 373	0 / 6	--	--	NSV	-- / --	NSV	173	NSV	--	--	--	No	Not detected

TABLE 5

Sediment Screening (Phase II)

Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)

Phase II Investigation Area

PA/SI Report

MCB CamLej, North Carolina

Chemical	Range of Non-Detect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Screening Value	Frequency of Exceedance[1]	Maximum Hazard Quotient	Arithmetic Mean	Mean Hazard Quotient	Supplemental Screening Value	Supplemental Screening Value Source	Supplemental Hazard Quotient	Retain?	Rationale
2,4-Dimethylphenol	316 - 373	0 / 6	--	--	NSV	-- / --	NSV	173	NSV	--	--	--	No	Not detected
2,4-Dinitrophenol	633 - 746	0 / 6	--	--	NSV	-- / --	NSV	347	NSV	--	--	--	No	Not detected
2,4-Dinitrotoluene	100 - 100	2 / 6	72.0	MR21-SD02-10B	NSV	-- / --	NSV	51.8	NSV	230	Talmage and Opresko, 1995	0.3	No	Supplemental HQ less than one
2,6-Dinitrotoluene	100 - 100	0 / 6	--	--	NSV	-- / --	NSV	50.0	NSV	--	--	--	No	Not detected
2-Chloroacetophenone	316 - 373	0 / 6	--	--	NSV	-- / --	NSV	173	NSV	--	--	--	No	Not detected
2-Chlorobenzalmalononitrile	316 - 373	0 / 6	--	--	NSV	-- / --	NSV	173	NSV	--	--	--	No	Not detected
2-Chloronaphthalene	316 - 373	0 / 6	--	--	NSV	-- / --	NSV	173	NSV	--	--	--	No	Not detected
2-Chlorophenol	316 - 373	0 / 6	--	--	NSV	-- / --	NSV	173	NSV	--	--	--	No	Not detected
2-Methylnaphthalene	316 - 373	0 / 6	--	--	20.2	-- / --	18.4	173	8.56	--	--	--	No	Not detected
2-Methylphenol	316 - 373	0 / 6	--	--	NSV	-- / --	NSV	173	NSV	--	--	--	No	Not detected
2-Nitroaniline	633 - 746	0 / 6	--	--	NSV	-- / --	NSV	347	NSV	--	--	--	No	Not detected
2-Nitrophenol	316 - 373	0 / 6	--	--	NSV	-- / --	NSV	173	NSV	--	--	--	No	Not detected
3,3'-Dichlorobenzidine	316 - 373	0 / 6	--	--	NSV	-- / --	NSV	173	NSV	--	--	--	No	Not detected
3-Nitroaniline	633 - 746	0 / 6	--	--	NSV	-- / --	NSV	347	NSV	--	--	--	No	Not detected
4,6-Dinitro-2-methylphenol	633 - 746	0 / 6	--	--	NSV	-- / --	NSV	347	NSV	--	--	--	No	Not detected
4-Bromophenyl-phenylether	316 - 373	0 / 6	--	--	NSV	-- / --	NSV	173	NSV	--	--	--	No	Not detected
4-Chloro-3-methylphenol	316 - 373	0 / 6	--	--	NSV	-- / --	NSV	173	NSV	--	--	--	No	Not detected
4-Chloroaniline	316 - 373	0 / 6	--	--	NSV	-- / --	NSV	173	NSV	--	--	--	No	Not detected
4-Chlorophenyl-phenylether	316 - 373	0 / 6	--	--	NSV	-- / --	NSV	173	NSV	--	--	--	No	Not detected
4-Methylphenol	316 - 369	1 / 6	295	MR21-SD02-10B	NSV	-- / --	NSV	191	NSV	20.2	Region 5 ESL (RAIS, 2009)	14.6	No	See text discussion
4-Nitroaniline	633 - 746	0 / 6	--	--	NSV	-- / --	NSV	347	NSV	--	--	--	No	Not detected
4-Nitrophenol	633 - 746	0 / 6	--	--	NSV	-- / --	NSV	347	NSV	--	--	--	No	Not detected
Acenaphthene	316 - 373	0 / 6	--	--	6.71	-- / --	55.6	173	25.8	--	--	--	No	Not detected
Acenaphthylene	316 - 373	0 / 6	--	--	5.87	-- / --	63.5	173	29.5	--	--	--	No	Not detected
Acetophenone	316 - 373	0 / 6	--	--	NSV	-- / --	NSV	173	NSV	--	--	--	No	Not detected
Anthracene	316 - 373	0 / 6	--	--	46.9	-- / --	7.95	173	3.69	--	--	--	No	Not detected
Atrazine	316 - 373	0 / 6	--	--	NSV	-- / --	NSV	173	NSV	--	--	--	No	Not detected
Benzaldehyde	-- - --	1 / 1	108	MR21-SD02-10B	NSV	-- / --	NSV	108	NSV	--	--	--	No	No screening level, uncertainty
Benzo(a)anthracene	63.3 - 69.3	2 / 6	7.06	MR21-SD03-10B	74.8	0 / 6	0.094	24.1	0.32	--	--	--	No	HQ less than one
Benzo(a)pyrene	8.44 - 9.95	0 / 6	--	--	88.8	-- / --	0.11	4.62	0.052	--	--	--	No	HQ less than one, not detected.
Benzo(b)fluoranthene	63.3 - 67.6	4 / 6	11.5	MR21-SD03-10B	655	0 / 6	0.018	16.5	0.025	--	--	--	No	HQ less than one
Benzo(g,h,i)perylene	316 - 373	0 / 6	--	--	655	-- / --	0.57	173	0.26	--	--	--	No	HQ less than one, not detected.
Benzo(k)fluoranthene	316 - 373	0 / 6	--	--	655	-- / --	0.57	173	0.26	--	--	--	No	HQ less than one, not detected.
bis(2-Chloroethoxy)methane	316 - 373	0 / 6	--	--	NSV	-- / --	NSV	173	NSV	--	--	--	No	Not detected
bis(2-Chloroethyl)ether	316 - 373	0 / 6	--	--	NSV	-- / --	NSV	173	NSV	--	--	--	No	Not detected
bis(2-Chloroisopropyl)ether	316 - 373	0 / 6	--	--	NSV	-- / --	NSV	173	NSV	--	--	--	No	Not detected
bis(2-Ethylhexyl)phthalate	316 - 369	2 / 6	248	MR21-SD02-10B	NSV	-- / --	NSV	192	NSV	182	TCEQ, 2006	1.4	No	Low magnitude of exceedance, lab contaminant
Butylbenzylphthalate	316 - 373	0 / 6	--	--	NSV	-- / --	NSV	173	NSV	--	--	--	No	Not detected
Caprolactam	316 - 373	0 / 6	--	--	NSV	-- / --	NSV	173	NSV	--	--	--	No	Not detected
Carbazole	316 - 373	0 / 6	--	--	NSV	-- / --	NSV	173	NSV	--	--	--	No	Not detected
Chrysene	316 - 373	0 / 6	--	--	108	-- / --	3.45	173	1.60	--	--	--	No	Not detected
Dibenz(a,h)anthracene	8.44 - 9.95	0 / 6	--	--	6.22	-- / --	1.60	4.62	0.74	--	--	--	No	Not detected
Dibenzofuran	316 - 373	0 / 6	--	--	NSV	-- / --	NSV	173	NSV	--	--	--	No	Not detected
Diethylphthalate	316 - 373	0 / 6	--	--	NSV	-- / --	NSV	173	NSV	--	--	--	No	Not detected
Dimethyl phthalate	316 - 373	0 / 6	--	--	NSV	-- / --	NSV	173	NSV	--	--	--	No	Not detected
Di-n-butylphthalate	316 - 373	0 / 6	--	--	NSV	-- / --	NSV	173	NSV	--	--	--	No	Not detected
Di-n-octylphthalate	316 - 373	0 / 6	--	--	NSV	-- / --	NSV	173	NSV	--	--	--	No	Not detected
Fluoranthene	316 - 373	0 / 6	--	--	113	-- / --	3.30	173	1.53	--	--	--	No	Not detected
Fluorene	316 - 373	0 / 6	--	--	21.2	-- / --	17.6	173	8.17	--	--	--	No	Not detected
Hexachlorobenzene	316 - 373	0 / 6	--	--	NSV	-- / --	NSV	173	NSV	--	--	--	No	Not detected
Hexachlorobutadiene	316 - 373	0 / 6	--	--	NSV	-- / --	NSV	173	NSV	--	--	--	No	Not detected
Hexachlorocyclopentadiene	316 - 373	0 / 5	--	--	NSV	-- / --	NSV	173	NSV	--	--	--	No	Not detected
Hexachloroethane	316 - 373	0 / 6	--	--	NSV	-- / --	NSV	173	NSV	--	--	--	No	Not detected
Indeno(1,2,3-cd)pyrene	63.3 - 74.6	0 / 6	--	--	655	-- / --	0.11	34.7	0.053	--	--	--	No	HQ less than one, not detected.

TABLE 5

Sediment Screening (Phase II)

Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)

Phase II Investigation Area

PA/SI Report

MCB CamLej, North Carolina

Chemical	Range of Non-Detect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Screening Value	Frequency of Exceedance[1]	Maximum Hazard Quotient	Arithmetic Mean	Mean Hazard Quotient	Supplemental Screening Value	Supplemental Screening Value Source	Supplemental Hazard Quotient	Retain?	Rationale
Isophorone	63.3 - 74.6	0 / 6	--	--	NSV	-- / --	NSV	34.7	NSV	--	--	--	No	Not detected
Naphthalene	316 - 373	0 / 6	--	--	34.6	-- / --	10.8	173	5.01	--	--	--	No	Not detected
n-Nitroso-di-n-propylamine	94.9 - 112	0 / 6	--	--	NSV	-- / --	NSV	52.0	NSV	--	--	--	No	Not detected
n-Nitrosodiphenylamine	316 - 373	0 / 6	--	--	NSV	-- / --	NSV	173	NSV	--	--	--	No	Not detected
Nitrobenzene	100 - 100	3 / 6	82.5	MR21-SD02-10B	NSV	-- / --	NSV	56.8	NSV	510	TCEQ, 2006	0.16	No	Supplemental HQ less than one
Pentachlorophenol	21.5 - 25.4	0 / 6	--	--	NSV	-- / --	NSV	11.8	NSV	--	--	--	No	Not detected
Phenanthrene	316 - 373	0 / 6	--	--	86.7	-- / --	4.30	173	2.00	--	--	--	No	Not detected
Phenol	316 - 373	0 / 6	--	--	NSV	-- / --	NSV	173	NSV	--	--	--	No	Not detected
Pyrene	316 - 373	0 / 6	--	--	153	-- / --	2.44	173	1.13	--	--	--	No	Not detected
Explosives (UG/KG)														
1,3,5-Trinitrobenzene	100 - 100	2 / 6	200	MR21-SD02-10B	NSV	-- / --	NSV	74.3	NSV	--	--	--	No	No screening level, uncertainty
1,3-Dinitrobenzene	100 - 100	0 / 6	--	--	NSV	-- / --	NSV	50.0	NSV	--	--	--	No	Not detected
2,4,6-Trinitrotoluene	100 - 100	2 / 6	61.3	MR21-SD03-10B	NSV	-- / --	NSV	51.2	NSV	92	EPA Region 3 BTAG FW (RAIS, 2009)	0.67	No	Supplemental HQ less than one
2-Amino-4,6-dinitrotoluene	100 - 100	0 / 6	--	--	NSV	-- / --	NSV	50.0	NSV	--	--	--	No	Not detected
2-Nitrotoluene	100 - 100	2 / 6	67.2	MR21-SD02-10B	NSV	-- / --	NSV	53.1	NSV	--	--	--	No	No screening level, uncertainty
3-Nitrotoluene	100 - 100	0 / 6	--	--	NSV	-- / --	NSV	50.0	NSV	--	--	--	No	Not detected
4-Amino-2,6-dinitrotoluene	100 - 100	1 / 6	687	MR21-SD02-10B	NSV	-- / --	NSV	156	NSV	--	--	--	No	No screening level, uncertainty
4-Nitrotoluene	100 - 100	1 / 6	60.3	MR21-SD02-10B	NSV	-- / --	NSV	51.7	NSV	4060	EPA Region 3 BTAG FW (RAIS, 2009)	0.01	No	Supplemental HQ less than one
HMX	100 - 100	1 / 6	68.3	MR21-SD02-10B	NSV	-- / --	NSV	53.1	NSV	--	--	--	No	No screening level, uncertainty
Perchlorate	2.53 - 2.98	0 / 6	--	--	NSV	-- / --	NSV	1.39	NSV	--	--	--	No	Not detected
PETN	167 - 167	0 / 6	--	--	NSV	-- / --	NSV	83.5	NSV	--	--	--	No	Not detected
RDX	100 - 100	4 / 6	310	MR21-SD02-10B	NSV	-- / --	NSV	113	NSV	1300	Talmage et al., 1999	0.2	No	Supplemental HQ less than one
Tetryl	100 - 100	4 / 6	222	MR21-SD03-10B	NSV	-- / --	NSV	109	NSV	--	--	--	No	No screening level, uncertainty
Inorganics (MG/KG)														
Aluminum	-- - --	6 / 6	2,030	MR21-SD02-10B	NSV	-- / --	NSV	1,086	NSV	58000	ARCS PEC (RAIS, 2009)	0.04	No	Supplemental HQ less than one
Antimony	0.94 - 1.09	0 / 6	--	--	2.00	-- / --	0.55	0.50	0.25	--	--	--	No	HQ less than one, not detected.
Arsenic	0.31 - 0.36	2 / 6	0.31	MR21-SD02-10B	7.24	0 / 6	0.043	0.20	0.028	--	--	--	No	HQ less than one
Barium	-- - --	6 / 6	11.6	MR21-SD02-10B	NSV	-- / --	NSV	6.14	NSV	--	--	--	No	Less than surface soil background levels
Beryllium	0.31 - 0.36	1 / 6	0.080	MR21-SD03-10B	NSV	-- / --	NSV	0.15	NSV	--	--	--	No	Within background range in surface soils
Cadmium	0.31 - 0.36	0 / 6	--	--	0.68	-- / --	0.54	0.17	0.25	--	--	--	No	HQ less than one, not detected.
Calcium [2]	-- - --	6 / 6	1,850	MR21-SD02-10B	NSV	-- / --	NSV	760	NSV	--	--	--	No	Macronutrient
Chromium	-- - --	6 / 6	2.57	MR21-SD02-10B	52.3	0 / 6	0.049	1.63	0.031	--	--	--	No	HQ less than one
Cobalt	0.78 - 0.91	0 / 6	--	--	NSV	-- / --	NSV	0.42	NSV	--	--	--	No	Not detected
Copper	0.62 - 0.62	5 / 6	3.67	MR21-SD04-10B	18.7	0 / 6	0.20	1.22	0.065	--	--	--	No	HQ less than one
Iron	-- - --	6 / 6	1,050	MR21-SD03-10B	NSV	-- / --	NSV	528	NSV	20000	TCEQ, 2006	0.05	No	Supplemental HQ less than one
Lead	-- - --	6 / 6	6.73	MR21-SD02-10B	30.2	0 / 6	0.22	3.76	0.12	--	--	--	No	HQ less than one
Magnesium [2]	312 - 355	2 / 6	100	MR21-SD02-10B	NSV	-- / --	NSV	140	NSV	--	--	--	No	Macronutrient
Manganese	-- - --	6 / 6	8.83	MR21-SD02-10B	NSV	-- / --	NSV	3.07	NSV	460	TCEQ, 2006	0.02	No	Supplemental HQ less than one
Mercury	0.035 - 0.049	1 / 6	0.024	MR21-SD02-10B	0.13	0 / 6	0.19	0.021	0.16	--	--	--	No	HQ less than one
Nickel	0.62 - 0.62	5 / 6	0.99	MR21-SD01-10B	15.9	0 / 6	0.062	0.61	0.038	--	--	--	No	HQ less than one
Potassium [2]	312 - 355	2 / 6	99.9	MR21-SD02-10B	NSV	-- / --	NSV	139	NSV	--	--	--	No	Macronutrient
Selenium	0.37 - 0.43	1 / 6	0.24	MR21-SD02-10B	NSV	-- / --	NSV	0.21	NSV	2	EPA Region 3 BTAG FW (RAIS, 2009)	0.12	No	Supplemental HQ less than one
Silver	0.31 - 0.36	0 / 6	--	--	0.73	-- / --	0.49	0.17	0.23	--	--	--	No	HQ less than one, not detected.
Sodium [2]	312 - 362	0 / 6	--	--	NSV	-- / --	NSV	168	NSV	--	--	--	No	Macronutrient, not detected
Thallium	0.50 - 0.58	0 / 6	--	--	NSV	-- / --	NSV	0.27	NSV	--	--	--	No	Not detected
Vanadium	-- - --	6 / 6	2.78	MR21-SD02-10B	NSV	-- / --	NSV	1.84	NSV	--	--	--	No	Within background range in surface soils
Zinc	-- - --	6 / 6	11.0	MR21-SD03-10B	124	0 / 6	0.089	6.00	0.048	--	--	--	No	HQ less than one

NOTES

1 - Count of detected samples exceeding or equaling Screening Value

2 - Macronutrient - Not considered to be a COPC

TABLE 5

Sediment Screening (Phase II)

Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)

Phase II Investigation Area

PA/SI Report

MCB CamLej, North Carolina

Chemical	Range of Non-Detect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Screening Value	Frequency of Exceedance[1]	Maximum Hazard Quotient	Arithmetic Mean	Mean Hazard Quotient	Supplemental Screening Value	Supplemental Screening Value Source	Supplemental Hazard Quotient	Retain?	Rationale

ARCS - U.S. EPA Assessment and Remediation of Contaminated Sediments Program
BTAG - biological technical assistance group
EPA - environmental protection agency
ESL - ecological screening level
FW - freshwater
HQ - Hazard Quotient
MG/KG - Milligrams per kilogram
NSV - No Screening Value
PEC - Probable Effect Concentration
UG/KG - Micrograms per kilogram
Generated by: Sara Kent
Checked by: Kelly Taylor/Sara Kent

TABLE 6

Surface Water Screening (Phase II)

Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)

Phase II Investigation Area

PA/SI Report

MCB CamLej, North Carolina

Chemical	Range of Non-Detect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Screening Value[1]	Frequency of Exceedance[2]	Maximum Hazard Quotient	Arithmetic Mean	Mean Hazard Quotient	Supplemental Screening Value	Supplemental Screening Value Source	Supplemental Hazard Quotient	Retain?	Rationale
Volatile Organic Compounds (UG/L)														
1,1,1-Trichloroethane	1.00 - 1.00	0 / 6	--	--	528	-- / --	0.0019	0.50	9.47E-04	--	--	--	No	HQ less than one, not detected
1,1,2,2-Tetrachloroethane	1.00 - 1.00	0 / 6	--	--	240	-- / --	0.0042	0.50	0.0021	--	--	--	No	HQ less than one, not detected
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113)	1.00 - 1.00	0 / 6	--	--	NSV	-- / --	NSV	0.50	NSV	--	--	--	No	Not detected
1,1,2-Trichloroethane	1.00 - 1.00	0 / 6	--	--	940	-- / --	0.0011	0.50	5.32E-04	--	--	--	No	HQ less than one, not detected
1,1-Dichloroethane	1.00 - 1.00	0 / 6	--	--	NSV	-- / --	NSV	0.50	NSV	--	--	--	No	Not detected
1,1-Dichloroethene	1.00 - 1.00	0 / 6	--	--	303	-- / --	0.0033	0.50	0.0017	--	--	--	No	HQ less than one, not detected
1,2,4-Trichlorobenzene	1.00 - 1.00	0 / 6	--	--	44.9	-- / --	0.022	0.50	0.011	--	--	--	No	HQ less than one, not detected
1,2-Dibromo-3-chloropropane	1.50 - 1.50	0 / 6	--	--	NSV	-- / --	NSV	0.75	NSV	--	--	--	No	Not detected
1,2-Dibromoethane	1.00 - 1.00	0 / 6	--	--	NSV	-- / --	NSV	0.50	NSV	--	--	--	No	Not detected
1,2-Dichlorobenzene	1.00 - 1.00	0 / 6	--	--	15.8	-- / --	0.063	0.50	0.032	--	--	--	No	HQ less than one, not detected
1,2-Dichloroethane	1.00 - 1.00	0 / 6	--	--	2,000	-- / --	5.00E-04	0.50	2.50E-04	--	--	--	No	HQ less than one, not detected
1,2-Dichloropropane	1.00 - 1.00	0 / 6	--	--	525	-- / --	0.0019	0.50	9.52E-04	--	--	--	No	HQ less than one, not detected
1,3-Dichlorobenzene	1.00 - 1.00	0 / 6	--	--	50.2	-- / --	0.020	0.50	0.0100	--	--	--	No	HQ less than one, not detected
1,4-Dichlorobenzene	1.00 - 1.00	0 / 6	--	--	11.2	-- / --	0.089	0.50	0.045	--	--	--	No	HQ less than one, not detected
2-Butanone	5.00 - 5.00	0 / 6	--	--	NSV	-- / --	NSV	2.50	NSV	--	--	--	No	Not detected
2-Hexanone	5.00 - 5.00	0 / 6	--	--	NSV	-- / --	NSV	2.50	NSV	--	--	--	No	Not detected
4-Methyl-2-pentanone	5.00 - 5.00	0 / 6	--	--	NSV	-- / --	NSV	2.50	NSV	--	--	--	No	Not detected
Benzene	1.00 - 1.00	0 / 6	--	--	53.0	-- / --	0.019	0.50	0.0094	--	--	--	No	HQ less than one, not detected
Bromodichloromethane	1.00 - 1.00	0 / 6	--	--	NSV	-- / --	NSV	0.50	NSV	--	--	--	No	Not detected
Bromoform	1.00 - 1.00	0 / 6	--	--	293	-- / --	0.0034	0.50	0.0017	--	--	--	No	HQ less than one, not detected
Bromomethane	1.00 - 1.00	0 / 6	--	--	110	-- / --	0.0091	0.50	0.0045	--	--	--	No	HQ less than one, not detected
Carbon disulfide	1.00 - 1.00	0 / 6	--	--	NSV	-- / --	NSV	0.50	NSV	--	--	--	No	Not detected
Carbon tetrachloride	1.00 - 1.00	0 / 6	--	--	352	-- / --	0.0028	0.50	0.0014	--	--	--	No	HQ less than one, not detected
Chlorobenzene	1.00 - 1.00	0 / 6	--	--	195	-- / --	0.0051	0.50	0.0026	--	--	--	No	HQ less than one, not detected
Chloroethane	1.00 - 1.00	0 / 6	--	--	NSV	-- / --	NSV	0.50	NSV	--	--	--	No	Not detected
Chloroform	1.00 - 1.00	0 / 6	--	--	289	-- / --	0.0035	0.50	0.0017	--	--	--	No	HQ less than one, not detected
Chloromethane	1.43 - 12.2	0 / 6	--	--	5,500	-- / --	0.0022	2.08	3.78E-04	--	--	--	No	HQ less than one, not detected
cis-1,2-Dichloroethene	1.00 - 1.00	0 / 6	--	--	NSV	-- / --	NSV	0.50	NSV	--	--	--	No	Not detected
cis-1,3-Dichloropropene	1.00 - 1.00	0 / 6	--	--	24.4	-- / --	0.041	0.50	0.020	--	--	--	No	HQ less than one, not detected
Cyclohexane	1.00 - 1.00	0 / 6	--	--	NSV	-- / --	NSV	0.50	NSV	--	--	--	No	Not detected
Dibromochloromethane	1.00 - 1.00	0 / 6	--	--	NSV	-- / --	NSV	0.50	NSV	--	--	--	No	Not detected
Dichlorodifluoromethane (Freon-12)	1.00 - 1.00	0 / 6	--	--	NSV	-- / --	NSV	0.50	NSV	--	--	--	No	Not detected
Ethylbenzene	1.00 - 1.00	0 / 6	--	--	453	-- / --	0.0022	0.50	0.0011	--	--	--	No	HQ less than one, not detected
Isopropylbenzene	1.00 - 1.00	0 / 6	--	--	NSV	-- / --	NSV	0.50	NSV	--	--	--	No	Not detected
Methyl acetate	1.50 - 1.50	0 / 6	--	--	NSV	-- / --	NSV	0.75	NSV	--	--	--	No	Not detected
Methylcyclohexane	1.00 - 1.00	0 / 6	--	--	NSV	-- / --	NSV	0.50	NSV	--	--	--	No	Not detected
Methylene chloride	2.00 - 2.00	0 / 6	--	--	1,930	-- / --	0.0010	1.00	5.18E-04	--	--	--	No	HQ less than one, not detected
Methyl-tert-butyl ether (MTBE)	1.00 - 1.00	0 / 6	--	--	NSV	-- / --	NSV	0.50	NSV	--	--	--	No	Not detected
Styrene	1.00 - 1.00	0 / 6	--	--	NSV	-- / --	NSV	0.50	NSV	--	--	--	No	Not detected
Tetrachloroethene	1.00 - 1.00	0 / 6	--	--	84.0	-- / --	0.012	0.50	0.0060	--	--	--	No	HQ less than one, not detected
Toluene	1.00 - 1.00	2 / 6	3.58	MR21-SW02-10B	175	0 / 6	0.020	1.34	0.0076	--	--	--	No	HQ less than one
trans-1,2-Dichloroethene	1.50 - 1.50	0 / 6	--	--	1,350	-- / --	0.0011	0.75	5.56E-04	--	--	--	No	HQ less than one, not detected
trans-1,3-Dichloropropene	1.00 - 1.00	0 / 6	--	--	24.4	-- / --	0.041	0.50	0.020	--	--	--	No	HQ less than one, not detected
Trichloroethene	1.00 - 1.00	0 / 6	--	--	NSV	-- / --	NSV	0.50	NSV	--	--	--	No	Not detected
Trichlorofluoromethane(Freon-11)	1.00 - 1.00	0 / 6	--	--	NSV	-- / --	NSV	0.50	NSV	--	--	--	No	Not detected
Vinyl chloride	1.00 - 1.00	0 / 6	--	--	NSV	-- / --	NSV	0.50	NSV	--	--	--	No	Not detected
Xylene, total	1.00 - 1.00	0 / 6	--	--	NSV	-- / --	NSV	0.50	NSV	--	--	--	No	Not detected
Semivolatile Organic Compounds (UG/L)														
1,1-Biphenyl	9.43 - 10.0	0 / 6	--	--	NSV	-- / --	NSV	4.89	NSV	--	--	--	No	Not detected

TABLE 6

Surface Water Screening (Phase II)

Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)

Phase II Investigation Area

PA/SI Report

MCB CamLej, North Carolina

Chemical	Range of Non-Detect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Screening Value[1]	Frequency of Exceedance[2]	Maximum Hazard Quotient	Arithmetic Mean	Mean Hazard Quotient	Supplemental Screening Value	Supplemental Screening Value Source	Supplemental Hazard Quotient	Retain?	Rationale
2,4,5-Trichlorophenol	23.6 - 25.0	0 / 6	--	--	NSV	-- / --	NSV	12.2	NSV	--	--	--	No	Not detected
2,4,6-Trichlorophenol	9.43 - 10.0	0 / 6	--	--	3.20	-- / --	3.13	4.89	1.53	--	--	--	No	Not detected
2,4-Dichlorophenol	9.43 - 10.0	0 / 6	--	--	36.5	-- / --	0.27	4.89	0.13	--	--	--	No	HQ less than one, not detected
2,4-Dimethylphenol	9.43 - 10.0	0 / 6	--	--	21.2	-- / --	0.47	4.89	0.23	--	--	--	No	HQ less than one, not detected
2,4-Dinitrophenol	23.6 - 25.0	0 / 6	--	--	6.20	-- / --	4.03	12.2	1.97	--	--	--	No	Not detected
2,4-Dinitrotoluene	0.23 - 0.24	0 / 6	--	--	NSV	-- / --	NSV	0.12	NSV	--	--	--	No	Not detected
2,6-Dinitrotoluene	0.23 - 0.24	0 / 6	--	--	NSV	-- / --	NSV	0.12	NSV	--	--	--	No	Not detected
2-Chloroacetophenone	4.72 - 5.00	0 / 6	--	--	NSV	-- / --	NSV	2.45	NSV	--	--	--	No	Not detected
2-Chlorobenzalmalononitrile	4.72 - 5.00	0 / 6	--	--	NSV	-- / --	NSV	2.45	NSV	--	--	--	No	Not detected
2-Chloronaphthalene	9.43 - 10.0	0 / 6	--	--	NSV	-- / --	NSV	4.89	NSV	--	--	--	No	Not detected
2-Chlorophenol	9.43 - 10.0	0 / 6	--	--	43.8	-- / --	0.23	4.89	0.11	--	--	--	No	HQ less than one, not detected
2-Methylnaphthalene	9.43 - 10.0	0 / 6	--	--	NSV	-- / --	NSV	4.89	NSV	--	--	--	No	Not detected
2-Methylphenol	9.43 - 10.0	0 / 6	--	--	NSV	-- / --	NSV	4.89	NSV	--	--	--	No	Not detected
2-Nitroaniline	23.6 - 25.0	0 / 6	--	--	NSV	-- / --	NSV	12.2	NSV	--	--	--	No	Not detected
2-Nitrophenol	9.43 - 10.0	0 / 6	--	--	3,500	-- / --	0.0029	4.89	0.0014	--	--	--	No	HQ less than one, not detected
3,3'-Dichlorobenzidine	9.43 - 10.0	0 / 6	--	--	NSV	-- / --	NSV	4.89	NSV	--	--	--	No	Not detected
3-Nitroaniline	23.6 - 25.0	0 / 6	--	--	NSV	-- / --	NSV	12.2	NSV	--	--	--	No	Not detected
4,6-Dinitro-2-methylphenol	9.43 - 10.0	0 / 6	--	--	2.30	-- / --	4.35	4.89	2.13	--	--	--	No	Not detected
4-Bromophenyl-phenylether	9.43 - 10.0	0 / 6	--	--	12.2	-- / --	0.82	4.89	0.40	--	--	--	No	HQ less than one, not detected
4-Chloro-3-methylphenol	9.43 - 10.0	0 / 6	--	--	0.30	-- / --	33.3	4.89	16.3	--	--	--	No	Not detected
4-Chloroaniline	9.43 - 10.0	0 / 6	--	--	NSV	-- / --	NSV	4.89	NSV	--	--	--	No	Not detected
4-Chlorophenyl-phenylether	9.43 - 10.0	0 / 6	--	--	NSV	-- / --	NSV	4.89	NSV	--	--	--	No	Not detected
4-Methylphenol	9.43 - 10.0	0 / 6	--	--	NSV	-- / --	NSV	4.89	NSV	--	--	--	No	Not detected
4-Nitroaniline	23.6 - 25.0	0 / 6	--	--	NSV	-- / --	NSV	12.2	NSV	--	--	--	No	Not detected
4-Nitrophenol	23.6 - 25.0	0 / 6	--	--	82.8	-- / --	0.30	12.2	0.15	--	--	--	No	HQ less than one, not detected
Acenaphthene	9.43 - 10.0	0 / 6	--	--	17.0	-- / --	0.59	4.89	0.29	--	--	--	No	HQ less than one, not detected
Acenaphthylene	9.43 - 10.0	0 / 6	--	--	NSV	-- / --	NSV	4.89	NSV	--	--	--	No	Not detected
Acetophenone	9.43 - 10.0	0 / 6	--	--	NSV	-- / --	NSV	4.89	NSV	--	--	--	No	Not detected
Anthracene	9.43 - 10.0	0 / 6	--	--	NSV	-- / --	NSV	4.89	NSV	--	--	--	No	Not detected
Atrazine	9.43 - 10.0	0 / 6	--	--	NSV	-- / --	NSV	4.89	NSV	--	--	--	No	Not detected
Benzaldehyde	9.43 - 10.0	0 / 6	--	--	NSV	-- / --	NSV	4.89	NSV	--	--	--	No	Not detected
Benzo(a)anthracene	9.43 - 10.0	0 / 6	--	--	NSV	-- / --	NSV	4.89	NSV	--	--	--	No	Not detected
Benzo(a)pyrene	9.43 - 10.0	0 / 6	--	--	NSV	-- / --	NSV	4.89	NSV	--	--	--	No	Not detected
Benzo(b)fluoranthene	9.43 - 10.0	0 / 6	--	--	NSV	-- / --	NSV	4.89	NSV	--	--	--	No	Not detected
Benzo(g,h,i)perylene	9.43 - 10.0	0 / 6	--	--	NSV	-- / --	NSV	4.89	NSV	--	--	--	No	Not detected
Benzo(k)fluoranthene	9.43 - 10.0	0 / 6	--	--	NSV	-- / --	NSV	4.89	NSV	--	--	--	No	Not detected
bis(2-Chloroethoxy)methane	9.43 - 10.0	0 / 6	--	--	NSV	-- / --	NSV	4.89	NSV	--	--	--	No	Not detected
bis(2-Chloroethyl)ether	9.43 - 10.0	0 / 6	--	--	2,380	-- / --	0.0042	4.89	0.0021	--	--	--	No	HQ less than one, not detected
bis(2-Chloroisopropyl)ether	9.43 - 10.0	0 / 6	--	--	NSV	-- / --	NSV	4.89	NSV	--	--	--	No	Not detected
bis(2-Ethylhexyl)phthalate	9.43 - 10.0	1 / 6	2.53	MR21-SW01-10B	0.30	1 / 6	8.43	4.49	15.0	--	--	--	No	Lab contaminant and only 1 exceedance
Butylbenzylphthalate	9.43 - 10.0	0 / 6	--	--	22.0	-- / --	0.45	4.89	0.22	--	--	--	No	HQ less than one, not detected
Caprolactam	9.43 - 10.0	0 / 6	--	--	NSV	-- / --	NSV	4.89	NSV	--	--	--	No	Not detected
Carbazole	9.43 - 10.0	0 / 6	--	--	NSV	-- / --	NSV	4.89	NSV	--	--	--	No	Not detected
Chrysene	9.43 - 10.0	0 / 6	--	--	NSV	-- / --	NSV	4.89	NSV	--	--	--	No	Not detected
Dibenz(a,h)anthracene	9.43 - 10.0	0 / 6	--	--	NSV	-- / --	NSV	4.89	NSV	--	--	--	No	Not detected
Dibenzofuran	9.43 - 10.0	0 / 6	--	--	NSV	-- / --	NSV	4.89	NSV	--	--	--	No	Not detected
Diethylphthalate	9.43 - 10.0	0 / 6	--	--	521	-- / --	0.019	4.89	0.0094	--	--	--	No	HQ less than one, not detected
Dimethyl phthalate	9.43 - 10.0	0 / 6	--	--	330	-- / --	0.030	4.89	0.015	--	--	--	No	HQ less than one, not detected
Di-n-butylphthalate	9.43 - 10.0	0 / 6	--	--	9.40	-- / --	1.06	4.89	0.52	--	--	--	No	Not detected
Di-n-octylphthalate	9.43 - 10.0	0 / 6	--	--	NSV	-- / --	NSV	4.89	NSV	--	--	--	No	Not detected

TABLE 6

Surface Water Screening (Phase II)

Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)

Phase II Investigation Area

PA/SI Report

MCB CamLej, North Carolina

Chemical	Range of Non-Detect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Screening Value[1]	Frequency of Exceedance[2]	Maximum Hazard Quotient	Arithmetic Mean	Mean Hazard Quotient	Supplemental Screening Value	Supplemental Screening Value Source	Supplemental Hazard Quotient	Retain?	Rationale
Fluoranthene	9.43 - 10.0	0 / 6	--	--	39.8	-- / --	0.25	4.89	0.12	--	--	--	No	HQ less than one, not detected
Fluorene	9.43 - 10.0	0 / 6	--	--	NSV	-- / --	NSV	4.89	NSV	--	--	--	No	Not detected
Hexachlorobenzene	9.43 - 10.0	0 / 6	--	--	NSV	-- / --	NSV	4.89	NSV	--	--	--	No	Not detected
Hexachlorobutadiene	9.43 - 10.0	0 / 6	--	--	0.93	-- / --	10.8	4.89	5.26	--	--	--	No	Not detected
Hexachlorocyclopentadiene	9.43 - 10.0	0 / 6	--	--	0.070	-- / --	143	4.89	69.8	--	--	--	No	Not detected
Hexachloroethane	9.43 - 10.0	0 / 6	--	--	9.80	-- / --	1.02	4.89	0.50	--	--	--	No	Not detected
Indeno(1,2,3-cd)pyrene	9.43 - 10.0	0 / 6	--	--	NSV	-- / --	NSV	4.89	NSV	--	--	--	No	Not detected
Isophorone	9.43 - 10.0	0 / 6	--	--	1,170	-- / --	0.0085	4.89	0.0042	--	--	--	No	HQ less than one, not detected
Naphthalene	9.43 - 10.0	0 / 6	--	--	62.0	-- / --	0.16	4.89	0.079	--	--	--	No	HQ less than one, not detected
n-Nitroso-di-n-propylamine	9.43 - 10.0	0 / 6	--	--	NSV	-- / --	NSV	4.89	NSV	--	--	--	No	Not detected
n-Nitrosodiphenylamine	9.43 - 10.0	0 / 6	--	--	58.5	-- / --	0.17	4.89	0.084	--	--	--	No	HQ less than one, not detected
Nitrobenzene	0.23 - 0.24	0 / 6	--	--	270	-- / --	8.89E-04	0.12	4.34E-04	--	--	--	No	HQ less than one, not detected
Pentachlorophenol	23.6 - 25.0	0 / 6	--	--	15.0	-- / --	1.67	12.2	0.82	--	--	--	No	Not detected
Phenanthrene	9.43 - 10.0	0 / 6	--	--	NSV	-- / --	NSV	4.89	NSV	--	--	--	No	Not detected
Phenol	9.43 - 10.0	0 / 6	--	--	256	-- / --	0.039	4.89	0.019	--	--	--	No	HQ less than one, not detected
Pyrene	9.43 - 10.0	0 / 6	--	--	NSV	-- / --	NSV	4.89	NSV	--	--	--	No	Not detected
Explosives (UG/L)														
1,3,5-Trinitrobenzene	0.23 - 0.24	0 / 6	--	--	NSV	-- / --	NSV	0.12	NSV	--	--	--	No	Not detected
1,3-Dinitrobenzene	0.23 - 0.24	0 / 6	--	--	NSV	-- / --	NSV	0.12	NSV	--	--	--	No	Not detected
2,4,6-Trinitrotoluene	0.23 - 0.25	0 / 6	--	--	NSV	-- / --	NSV	0.12	NSV	--	--	--	No	Not detected
2-Amino-4,6-dinitrotoluene	0.23 - 0.24	0 / 6	--	--	NSV	-- / --	NSV	0.12	NSV	--	--	--	No	Not detected
2-Nitrotoluene	0.23 - 0.24	0 / 6	--	--	NSV	-- / --	NSV	0.12	NSV	--	--	--	No	Not detected
3-Nitrotoluene	0.23 - 0.24	0 / 6	--	--	NSV	-- / --	NSV	0.12	NSV	--	--	--	No	Not detected
4-Amino-2,6-dinitrotoluene	0.23 - 0.24	0 / 6	--	--	NSV	-- / --	NSV	0.12	NSV	--	--	--	No	Not detected
4-Nitrotoluene	0.23 - 0.24	0 / 6	--	--	NSV	-- / --	NSV	0.12	NSV	--	--	--	No	Not detected
HMX	0.23 - 0.24	0 / 6	--	--	NSV	-- / --	NSV	0.12	NSV	--	--	--	No	Not detected
Perchlorate	0.20 - 0.20	2 / 6	0.17	MR21-SW06-10B	NSV	-- / --	NSV	0.11	NSV	9300	Dean et al., 2004	0.00002	No	Supplemental HQ less than one
PETN	1.13 - 1.20	0 / 6	--	--	NSV	-- / --	NSV	0.59	NSV	--	--	--	No	Not detected
RDX	0.23 - 0.62	0 / 6	--	--	NSV	-- / --	NSV	0.17	NSV	--	--	--	No	Not detected
Tetryl	0.23 - 0.24	0 / 6	--	--	NSV	-- / --	NSV	0.12	NSV	--	--	--	No	Not detected
Inorganics (UG/L)														
Aluminum	-- - --	6 / 6	634	MR21-SW06-10B	87.0	6 / 6	7.29	492	5.66	--	--	--	No	Within background range in surface soils
Antimony	2.50 - 2.50	0 / 6	--	--	160	-- / --	0.016	1.25	0.0078	--	--	--	No	HQ less than one, not detected
Arsenic	1.50 - 1.50	2 / 6	2.75	MR21-SW01-10B	150	0 / 6	0.018	1.15	0.0076	--	--	--	No	HQ less than one
Barium	-- - --	6 / 6	36.5	MR21-SW05-10B	NSV	-- / --	NSV	31.3	NSV	16000	TCEQ, 2006	0.002	No	Supplemental HQ less than one
Beryllium	1.25 - 1.25	0 / 6	--	--	0.53	-- / --	2.36	0.63	1.18	--	--	--	No	Not detected
Cadmium	1.00 - 1.00	0 / 6	--	--	0.25	-- / --	4.00	0.50	2.00	--	--	--	No	Not detected
Calcium [3]	-- - --	6 / 6	34,200	MR21-SW03-10B	NSV	-- / --	NSV	25,650	NSV	--	--	--	NO	Macronutrient
Chromium	-- - --	6 / 6	1.09	MR21-SW01-10B	117	0 / 6	0.0093	0.73	0.0062	--	--	--	No	HQ less than one
Cobalt	3.12 - 3.12	0 / 6	--	--	NSV	-- / --	NSV	1.56	NSV	--	--	--	No	Not detected
Copper	2.50 - 2.50	2 / 6	2.06	MR21-SW02-10B	9.00	0 / 6	0.23	1.39	0.15	--	--	--	No	HQ less than one
Iron	-- - --	6 / 6	3,270	MR21-SW01-10B	1,000	1 / 6	3.27	1,122	1.12	--	--	--	No	Consistent with background in surface soils
Lead	0.75 - 0.75	0 / 6	--	--	2.50	-- / --	0.30	0.38	0.15	--	--	--	No	HQ less than one, not detected
Magnesium [3]	-- - --	6 / 6	1,450	MR21-SW03-10B	NSV	-- / --	NSV	1,350	NSV	--	--	--	NO	Macronutrient
Manganese	-- - --	6 / 6	178	MR21-SW02-10B	NSV	-- / --	NSV	54.8	NSV	120	TCEQ, 2006	1.5	NO	Low magnitude and frequency of exceedance.
Mercury	0.20 - 0.20	0 / 6	--	--	0.77	-- / --	0.26	0.100	0.13	--	--	--	No	HQ less than one, not detected
Nickel	-- - --	6 / 6	1.53	MR21-SW01-10B	52.0	0 / 6	0.029	1.36	0.026	--	--	--	No	HQ less than one
Potassium [3]	-- - --	6 / 6	1,450	MR21-SW02-10B	NSV	-- / --	NSV	909	NSV	--	--	--	NO	Macronutrient
Selenium	1.50 - 1.50	0 / 6	--	--	5.00	-- / --	0.30	0.75	0.15	--	--	--	No	HQ less than one, not detected
Silver	1.25 - 1.25	0 / 6	--	--	0.012	-- / --	104	0.63	52.1	--	--	--	No	Not detected

TABLE 6

Surface Water Screening (Phase II)

Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)

Phase II Investigation Area

PA/SI Report

MCB CamLej, North Carolina

Chemical	Range of Non-Detect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Screening Value[1]	Frequency of Exceedance[2]	Maximum Hazard Quotient	Arithmetic Mean	Mean Hazard Quotient	Supplemental Screening Value	Supplemental Screening Value Source	Supplemental Hazard Quotient	Retain?	Rationale
Sodium [3]	-- - --	6 / 6	8,330	MR21-SW02-10B	NSV	-- / --	NSV	7,753	NSV	--	--	--	NO	Macronutrient
Thallium	2.00 - 2.00	0 / 6	--	--	4.00	-- / --	0.50	1.00	0.25	--	--	--	No	HQ less than one, not detected
Vanadium	3.12 - 3.12	1 / 6	1.61	MR21-SW01-10B	NSV	-- / --	NSV	1.57	NSV	--	--	--	No	Within background range in surface soils
Zinc	-- - --	6 / 6	9.62	MR21-SW01-10B	120	0 / 6	0.080	7.25	0.060	--	--	--	No	HQ less than one

NOTES

1- Freshwater Screening Values

2 - Count of detected samples exceeding or equaling Screening Value

3 - Macronutrient - Not considered to be a COPC

HQ - Hazard Quotient

NSV - No Screening Value

UG/L - Micrograms per liter

Generated by: Sara Kent

Checked by: Kelly Taylor/Sara Kent

TABLE 7

Groundwater Screening (Phase II)

Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)

Phase II Investigation Area

PA/SI Report

MCB CamLej, North Carolina

Chemical	Range of Non-Detect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Screening Value[1]	Frequency of Exceedance[2]	Maximum Hazard Quotient	Arithmetic Mean	Mean Hazard Quotient	2 x Mean Background	Maximum Exceeds 2 x Mean Background?	Supplemental Screening Value	Supplemental Screening Value Source	Supplemental Hazard Quotient	Retain?	Rationale
Volatile Organic Compounds (UG/L)																
1,1,1-Trichloroethane	1.00 - 1.00	0 / 10	--	--	528	-- / --	0.0019	0.50	9.47E-04	--	--	--	--	--	No	HQ less than one, not detected
1,1,2,2-Tetrachloroethane	1.00 - 1.00	0 / 10	--	--	240	-- / --	0.0042	0.50	0.0021	--	--	--	--	--	No	HQ less than one, not detected
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113	1.00 - 1.00	0 / 10	--	--	NSV	-- / --	NSV	0.50	NSV	--	--	--	--	--	No	Not detected
1,1,2-Trichloroethane	1.00 - 1.00	0 / 10	--	--	940	-- / --	0.0011	0.50	5.32E-04	--	--	--	--	--	No	HQ less than one, not detected
1,1-Dichloroethane	1.00 - 1.00	0 / 10	--	--	NSV	-- / --	NSV	0.50	NSV	--	--	--	--	--	No	Not detected
1,1-Dichloroethene	1.00 - 1.00	0 / 10	--	--	303	-- / --	0.0033	0.50	0.0017	--	--	--	--	--	No	HQ less than one, not detected
1,2,4-Trichlorobenzene	1.00 - 1.00	0 / 10	--	--	44.9	-- / --	0.022	0.50	0.011	--	--	--	--	--	No	HQ less than one, not detected
1,2-Dibromo-3-chloropropane	1.50 - 1.50	0 / 10	--	--	NSV	-- / --	NSV	0.75	NSV	--	--	--	--	--	No	Not detected
1,2-Dibromoethane	1.00 - 1.00	0 / 10	--	--	NSV	-- / --	NSV	0.50	NSV	--	--	--	--	--	No	Not detected
1,2-Dichlorobenzene	1.00 - 1.00	0 / 10	--	--	15.8	-- / --	0.063	0.50	0.032	--	--	--	--	--	No	HQ less than one, not detected
1,2-Dichloroethane	1.00 - 1.00	0 / 10	--	--	2,000	-- / --	5.00E-04	0.50	2.50E-04	--	--	--	--	--	No	HQ less than one, not detected
1,2-Dichloropropane	1.00 - 1.00	0 / 10	--	--	525	-- / --	0.0019	0.50	9.52E-04	--	--	--	--	--	No	HQ less than one, not detected
1,3-Dichlorobenzene	1.00 - 1.00	0 / 10	--	--	50.2	-- / --	0.020	0.50	0.0100	--	--	--	--	--	No	HQ less than one, not detected
1,4-Dichlorobenzene	1.00 - 1.00	0 / 10	--	--	11.2	-- / --	0.089	0.50	0.045	--	--	--	--	--	No	HQ less than one, not detected
2-Butanone	5.00 - 5.00	0 / 10	--	--	NSV	-- / --	NSV	2.50	NSV	--	--	--	--	--	No	Not detected
2-Hexanone	5.00 - 5.00	0 / 10	--	--	NSV	-- / --	NSV	2.50	NSV	--	--	--	--	--	No	Not detected
4-Methyl-2-pentanone	5.00 - 5.00	0 / 10	--	--	NSV	-- / --	NSV	2.50	NSV	--	--	--	--	--	No	Not detected
Acetone	5.00 - 5.00	0 / 3	--	--	NSV	-- / --	NSV	2.50	NSV	--	--	--	--	--	No	Not detected
Benzene	1.00 - 1.00	0 / 10	--	--	53.0	-- / --	0.019	0.50	0.0094	--	--	--	--	--	No	HQ less than one, not detected
Bromodichloromethane	1.00 - 1.00	0 / 10	--	--	NSV	-- / --	NSV	0.50	NSV	--	--	--	--	--	No	Not detected
Bromoform	1.00 - 1.00	0 / 10	--	--	293	-- / --	0.0034	0.50	0.0017	--	--	--	--	--	No	HQ less than one, not detected
Bromomethane	1.00 - 1.00	0 / 10	--	--	110	-- / --	0.0091	0.50	0.0045	--	--	--	--	--	No	HQ less than one, not detected
Carbon disulfide	1.00 - 1.00	0 / 10	--	--	NSV	-- / --	NSV	0.50	NSV	--	--	--	--	--	No	Not detected
Carbon tetrachloride	1.00 - 1.00	0 / 10	--	--	352	-- / --	0.0028	0.50	0.0014	--	--	--	--	--	No	HQ less than one, not detected
Chlorobenzene	1.00 - 1.00	0 / 10	--	--	195	-- / --	0.0051	0.50	0.0026	--	--	--	--	--	No	HQ less than one, not detected
Chloroethane	1.00 - 1.00	0 / 10	--	--	NSV	-- / --	NSV	0.50	NSV	--	--	--	--	--	No	Not detected
Chloroform	1.00 - 1.05	4 / 10	28.0	MR21-GW10-10B	289	0 / 10	0.097	4.52	0.016	--	--	--	--	--	No	HQ less than one, lab contaminant
Chloromethane	1.67 - 11.7	0 / 10	--	--	5,500	-- / --	0.0021	2.23	4.05E-04	--	--	--	--	--	No	HQ less than one, not detected
cis-1,2-Dichloroethene	1.00 - 1.00	0 / 10	--	--	NSV	-- / --	NSV	0.50	NSV	--	--	--	--	--	No	Not detected
cis-1,3-Dichloropropene	1.00 - 1.00	0 / 10	--	--	24.4	-- / --	0.041	0.50	0.020	--	--	--	--	--	No	HQ less than one, not detected
Cyclohexane	1.00 - 1.00	0 / 10	--	--	NSV	-- / --	NSV	0.50	NSV	--	--	--	--	--	No	Not detected
Dibromochloromethane	1.00 - 1.00	0 / 10	--	--	NSV	-- / --	NSV	0.50	NSV	--	--	--	--	--	No	Not detected
Dichlorodifluoromethane (Freon-12)	1.00 - 1.00	0 / 10	--	--	NSV	-- / --	NSV	0.50	NSV	--	--	--	--	--	No	Not detected
Ethylbenzene	1.00 - 1.00	0 / 10	--	--	453	-- / --	0.0022	0.50	0.0011	--	--	--	--	--	No	HQ less than one, not detected
Isopropylbenzene	1.00 - 1.00	0 / 10	--	--	NSV	-- / --	NSV	0.50	NSV	--	--	--	--	--	No	Not detected
Methyl acetate	1.50 - 1.50	0 / 10	--	--	NSV	-- / --	NSV	0.75	NSV	--	--	--	--	--	No	Not detected
Methylcyclohexane	1.00 - 1.00	0 / 10	--	--	NSV	-- / --	NSV	0.50	NSV	--	--	--	--	--	No	Not detected
Methylene chloride	2.00 - 2.00	0 / 10	--	--	1,930	-- / --	0.0010	1.00	5.18E-04	--	--	--	--	--	No	HQ less than one, not detected
Methyl-tert-butyl ether (MTBE)	1.00 - 1.00	0 / 10	--	--	NSV	-- / --	NSV	0.50	NSV	--	--	--	--	--	No	Not detected
Styrene	1.00 - 1.00	0 / 10	--	--	NSV	-- / --	NSV	0.50	NSV	--	--	--	--	--	No	Not detected
Tetrachloroethene	1.00 - 1.00	0 / 10	--	--	84.0	-- / --	0.012	0.50	0.0060	--	--	--	--	--	No	HQ less than one, not detected
Toluene	1.00 - 1.00	1 / 10	3.91	MR21-GW01-10B	175	0 / 10	0.022	0.84	0.0048	--	--	--	--	--	No	HQ less than one
trans-1,2-Dichloroethene	1.50 - 1.50	0 / 10	--	--	1,350	-- / --	0.0011	0.75	5.56E-04	--	--	--	--	--	No	HQ less than one, not detected
trans-1,3-Dichloropropene	1.00 - 1.00	0 / 10	--	--	24.4	-- / --	0.041	0.50	0.020	--	--	--	--	--	No	HQ less than one, not detected
Trichloroethene	1.00 - 1.00	0 / 10	--	--	NSV	-- / --	NSV	0.50	NSV	--	--	--	--	--	No	Not detected
Trichlorofluoromethane(Freon-11)	1.00 - 1.00	0 / 10	--	--	NSV	-- / --	NSV	0.50	NSV	--	--	--	--	--	No	Not detected
Vinyl chloride	1.00 - 1.00	0 / 10	--	--	NSV	-- / --	NSV	0.50	NSV	--	--	--	--	--	No	Not detected
Xylene, total	1.00 - 1.00	0 / 10	--	--	NSV	-- / --	NSV	0.50	NSV	--	--	--	--	--	No	Not detected
Semivolatile Organic Compounds (UG/L)																
1,1-Biphenyl	9.62 - 10.5	0 / 10	--	--	NSV	-- / --	NSV	5.01	NSV	--	--	--	--	--	No	Not detected

TABLE 7

Groundwater Screening (Phase II)

Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)

Phase II Investigation Area

PA/SI Report

MCB CamLej, North Carolina

Chemical	Range of Non-Detect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Screening Value[1]	Frequency of Exceedance[2]	Maximum Hazard Quotient	Arithmetic Mean	Mean Hazard Quotient	2 x Mean Background	Maximum Exceeds 2 x Mean Background?	Supplemental Screening Value	Supplemental Screening Value Source	Supplemental Hazard Quotient	Retain?	Rationale
2,4,5-Trichlorophenol	24.0 - 26.3	0 / 9	--	--	NSV	-- / --	NSV	12.6	NSV	--	--	--	--	--	No	Not detected
2,4,6-Trichlorophenol	9.62 - 10.5	0 / 9	--	--	3.20	-- / --	3.28	5.03	1.57	--	--	--	--	--	No	Not detected
2,4-Dichlorophenol	9.62 - 10.5	0 / 9	--	--	36.5	-- / --	0.29	5.03	0.14	--	--	--	--	--	No	HQ less than one, not detected
2,4-Dimethylphenol	9.62 - 10.5	0 / 9	--	--	21.2	-- / --	0.50	5.03	0.24	--	--	--	--	--	No	HQ less than one, not detected
2,4-Dinitrophenol	24.0 - 26.3	0 / 9	--	--	6.20	-- / --	4.24	12.6	2.03	--	--	--	--	--	No	Not detected
2,4-Dinitrotoluene	0.24 - 0.24	0 / 10	--	--	NSV	-- / --	NSV	0.12	NSV	--	--	--	--	--	No	Not detected
2,6-Dinitrotoluene	0.24 - 0.24	0 / 10	--	--	NSV	-- / --	NSV	0.12	NSV	--	--	--	--	--	No	Not detected
2-Chloroacetophenone	4.81 - 5.26	0 / 10	--	--	NSV	-- / --	NSV	2.51	NSV	--	--	--	--	--	No	Not detected
2-Chlorobenzalmalononitrile	4.81 - 5.26	0 / 10	--	--	NSV	-- / --	NSV	2.51	NSV	--	--	--	--	--	No	Not detected
2-Chloronaphthalene	9.62 - 10.5	0 / 10	--	--	NSV	-- / --	NSV	5.01	NSV	--	--	--	--	--	No	Not detected
2-Chlorophenol	9.62 - 10.5	0 / 9	--	--	43.8	-- / --	0.24	5.03	0.11	--	--	--	--	--	No	HQ less than one, not detected
2-Methylnaphthalene	9.62 - 10.5	0 / 10	--	--	NSV	-- / --	NSV	5.01	NSV	--	--	--	--	--	No	Not detected
2-Methylphenol	9.62 - 10.5	0 / 9	--	--	NSV	-- / --	NSV	5.03	NSV	--	--	--	--	--	No	Not detected
2-Nitroaniline	24.0 - 26.3	0 / 10	--	--	NSV	-- / --	NSV	12.5	NSV	--	--	--	--	--	No	Not detected
2-Nitrophenol	9.62 - 10.5	0 / 9	--	--	3,500	-- / --	0.0030	5.03	0.0014	--	--	--	--	--	No	HQ less than one, not detected
3,3'-Dichlorobenzidine	9.62 - 10.5	0 / 10	--	--	NSV	-- / --	NSV	5.01	NSV	--	--	--	--	--	No	Not detected
3-Nitroaniline	24.0 - 26.3	0 / 10	--	--	NSV	-- / --	NSV	12.5	NSV	--	--	--	--	--	No	Not detected
4,6-Dinitro-2-methylphenol	9.62 - 10.5	0 / 9	--	--	2.30	-- / --	4.57	5.03	2.19	--	--	--	--	--	No	Not detected
4-Bromophenyl-phenylether	9.62 - 10.5	0 / 10	--	--	12.2	-- / --	0.86	5.01	0.41	--	--	--	--	--	No	HQ less than one, not detected
4-Chloro-3-methylphenol	9.62 - 10.5	0 / 9	--	--	0.30	-- / --	35.0	5.03	16.8	--	--	--	--	--	No	Not detected
4-Chloroaniline	9.62 - 10.5	0 / 10	--	--	NSV	-- / --	NSV	5.01	NSV	--	--	--	--	--	No	Not detected
4-Chlorophenyl-phenylether	9.62 - 10.5	0 / 10	--	--	NSV	-- / --	NSV	5.01	NSV	--	--	--	--	--	No	Not detected
4-Methylphenol	9.62 - 10.5	0 / 9	--	--	NSV	-- / --	NSV	5.03	NSV	--	--	--	--	--	No	Not detected
4-Nitroaniline	24.0 - 26.3	0 / 10	--	--	NSV	-- / --	NSV	12.5	NSV	--	--	--	--	--	No	Not detected
4-Nitrophenol	24.0 - 26.3	0 / 9	--	--	82.8	-- / --	0.32	12.6	0.15	--	--	--	--	--	No	HQ less than one, not detected
Acenaphthene	9.62 - 10.5	0 / 10	--	--	17.0	-- / --	0.62	5.01	0.29	--	--	--	--	--	No	HQ less than one, not detected
Acenaphthylene	9.62 - 10.5	0 / 10	--	--	NSV	-- / --	NSV	5.01	NSV	--	--	--	--	--	No	Not detected
Acetophenone	9.62 - 10.5	0 / 10	--	--	NSV	-- / --	NSV	5.01	NSV	--	--	--	--	--	No	Not detected
Anthracene	9.62 - 10.5	0 / 10	--	--	NSV	-- / --	NSV	5.01	NSV	--	--	--	--	--	No	Not detected
Atrazine	9.62 - 10.5	0 / 10	--	--	NSV	-- / --	NSV	5.01	NSV	--	--	--	--	--	No	Not detected
Benzaldehyde	9.62 - 10.5	0 / 10	--	--	NSV	-- / --	NSV	5.01	NSV	--	--	--	--	--	No	Not detected
Benzo(a)anthracene	9.62 - 10.5	0 / 10	--	--	NSV	-- / --	NSV	5.01	NSV	--	--	--	--	--	No	Not detected
Benzo(a)pyrene	9.62 - 10.5	0 / 10	--	--	NSV	-- / --	NSV	5.01	NSV	--	--	--	--	--	No	Not detected
Benzo(b)fluoranthene	9.62 - 10.5	0 / 10	--	--	NSV	-- / --	NSV	5.01	NSV	--	--	--	--	--	No	Not detected
Benzo(g,h,i)perylene	9.62 - 10.5	0 / 10	--	--	NSV	-- / --	NSV	5.01	NSV	--	--	--	--	--	No	Not detected
Benzo(k)fluoranthene	9.62 - 10.5	0 / 10	--	--	NSV	-- / --	NSV	5.01	NSV	--	--	--	--	--	No	Not detected
bis(2-Chloroethoxy)methane	9.62 - 10.5	0 / 10	--	--	NSV	-- / --	NSV	5.01	NSV	--	--	--	--	--	No	Not detected
bis(2-Chloroethyl)ether	9.62 - 10.5	0 / 10	--	--	2,380	-- / --	0.0044	5.01	0.0021	--	--	--	--	--	No	HQ less than one, not detected
bis(2-Chloroisopropyl)ether	9.62 - 10.5	0 / 10	--	--	NSV	-- / --	NSV	5.01	NSV	--	--	--	--	--	No	Not detected
bis(2-Ethylhexyl)phthalate	9.62 - 10.5	0 / 10	--	--	0.30	-- / --	35.0	5.01	16.7	--	--	--	--	--	No	Not detected
Butylbenzylphthalate	9.62 - 10.5	0 / 10	--	--	22.0	-- / --	0.48	5.01	0.23	--	--	--	--	--	No	HQ less than one, not detected
Caprolactam	9.62 - 10.5	0 / 10	--	--	NSV	-- / --	NSV	5.01	NSV	--	--	--	--	--	No	Not detected
Carbazole	9.62 - 10.5	0 / 10	--	--	NSV	-- / --	NSV	5.01	NSV	--	--	--	--	--	No	Not detected
Chrysene	9.62 - 10.5	0 / 10	--	--	NSV	-- / --	NSV	5.01	NSV	--	--	--	--	--	No	Not detected
Dibenz(a,h)anthracene	9.62 - 10.5	0 / 10	--	--	NSV	-- / --	NSV	5.01	NSV	--	--	--	--	--	No	Not detected
Dibenzofuran	9.62 - 10.5	0 / 10	--	--	NSV	-- / --	NSV	5.01	NSV	--	--	--	--	--	No	Not detected
Diethylphthalate	9.62 - 10.5	0 / 10	--	--	521	-- / --	0.020	5.01	0.0096	--	--	--	--	--	No	HQ less than one, not detected
Dimethyl phthalate	9.62 - 10.5	0 / 10	--	--	330	-- / --	0.032	5.01	0.015	--	--	--	--	--	No	HQ less than one, not detected
Di-n-butylphthalate	9.62 - 10.5	0 / 10	--	--	9.40	-- / --	1.12	5.01	0.53	--	--	--	--	--	No	Not detected
Di-n-octylphthalate	9.62 - 10.5	0 / 10	--	--	NSV	-- / --	NSV	5.01	NSV	--	--	--	--	--	No	Not detected
Fluoranthene	9.62 - 10.5	0 / 10	--	--	39.8	-- / --	0.26	5.01	0.13	--	--	--	--	--	No	HQ less than one, not detected

TABLE 7

Groundwater Screening (Phase II)

Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)

Phase II Investigation Area

PA/SI Report

MCB CamLej, North Carolina

Chemical	Range of Non-Detect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Screening Value[1]	Frequency of Exceedance[2]	Maximum Hazard Quotient	Arithmetic Mean	Mean Hazard Quotient	2 x Mean Background	Maximum Exceeds 2 x Mean Background?	Supplemental Screening Value	Supplemental Screening Value Source	Supplemental Hazard Quotient	Retain?	Rationale
Fluorene	9.62 - 10.5	0 / 10	--	--	NSV	-- / --	NSV	5.01	NSV	--	--	--	--	--	No	Not detected
Hexachlorobenzene	9.62 - 10.5	0 / 10	--	--	NSV	-- / --	NSV	5.01	NSV	--	--	--	--	--	No	Not detected
Hexachlorobutadiene	9.62 - 10.5	0 / 10	--	--	0.93	-- / --	11.3	5.01	5.38	--	--	--	--	--	No	Not detected
Hexachlorocyclopentadiene	9.62 - 10.5	0 / 10	--	--	0.070	-- / --	150	5.01	71.5	--	--	--	--	--	No	Not detected
Hexachloroethane	9.62 - 10.5	0 / 10	--	--	9.80	-- / --	1.07	5.01	0.51	--	--	--	--	--	No	Not detected
Indeno(1,2,3-cd)pyrene	9.62 - 10.5	0 / 10	--	--	NSV	-- / --	NSV	5.01	NSV	--	--	--	--	--	No	Not detected
Isophorone	9.62 - 10.5	0 / 10	--	--	1,170	-- / --	0.0090	5.01	0.0043	--	--	--	--	--	No	HQ less than one, not detected
Naphthalene	9.62 - 10.5	0 / 10	--	--	62.0	-- / --	0.17	5.01	0.081	--	--	--	--	--	No	HQ less than one, not detected
n-Nitroso-di-n-propylamine	9.62 - 10.5	0 / 10	--	--	NSV	-- / --	NSV	5.01	NSV	--	--	--	--	--	No	Not detected
n-Nitrosodiphenylamine	9.62 - 10.5	0 / 10	--	--	58.5	-- / --	0.18	5.01	0.086	--	--	--	--	--	No	HQ less than one, not detected
Nitrobenzene	0.24 - 0.24	0 / 10	--	--	270	-- / --	8.89E-04	0.12	4.43E-04	--	--	--	--	--	No	HQ less than one, not detected
Pentachlorophenol	24.0 - 26.3	0 / 9	--	--	15.0	-- / --	1.75	12.6	0.84	--	--	--	--	--	No	Not detected
Phenanthrene	9.62 - 10.5	0 / 10	--	--	NSV	-- / --	NSV	5.01	NSV	--	--	--	--	--	No	Not detected
Phenol	9.62 - 10.5	0 / 9	--	--	256	-- / --	0.041	5.03	0.020	--	--	--	--	--	No	HQ less than one, not detected
Pyrene	9.62 - 10.5	0 / 10	--	--	NSV	-- / --	NSV	5.01	NSV	--	--	--	--	--	No	Not detected
Explosives (UG/L)																
1,3,5-Trinitrobenzene	0.24 - 0.24	0 / 10	--	--	NSV	-- / --	NSV	0.12	NSV	--	--	--	--	--	No	Not detected
1,3-Dinitrobenzene	0.24 - 0.25	0 / 10	--	--	NSV	-- / --	NSV	0.12	NSV	--	--	--	--	--	No	Not detected
2,4,6-Trinitrotoluene	0.24 - 0.24	0 / 10	--	--	NSV	-- / --	NSV	0.12	NSV	--	--	--	--	--	No	Not detected
2-Amino-4,6-dinitrotoluene	0.24 - 0.24	0 / 10	--	--	NSV	-- / --	NSV	0.12	NSV	--	--	--	--	--	No	Not detected
2-Nitrotoluene	0.24 - 0.28	0 / 10	--	--	NSV	-- / --	NSV	0.12	NSV	--	--	--	--	--	No	Not detected
3-Nitrotoluene	0.24 - 0.59	0 / 10	--	--	NSV	-- / --	NSV	0.14	NSV	--	--	--	--	--	No	Not detected
4-Amino-2,6-dinitrotoluene	0.24 - 0.24	0 / 10	--	--	NSV	-- / --	NSV	0.12	NSV	--	--	--	--	--	No	Not detected
4-Nitrotoluene	0.24 - 0.24	0 / 10	--	--	NSV	-- / --	NSV	0.12	NSV	--	--	--	--	--	No	Not detected
HMX	0.24 - 0.24	0 / 10	--	--	NSV	-- / --	NSV	0.12	NSV	--	--	--	--	--	No	Not detected
Perchlorate	0.20 - 0.20	6 / 10	0.63	MR21-GW09-10B	NSV	-- / --	NSV	0.19	NSV	--	--	9300	Dean et al., 2004	0.00007	No	Supplemental HQ less than one
PETN	1.18 - 1.20	0 / 10	--	--	NSV	-- / --	NSV	0.60	NSV	--	--	--	--	--	No	Not detected
RDX	0.24 - 0.38	0 / 10	--	--	NSV	-- / --	NSV	0.13	NSV	--	--	--	--	--	No	Not detected
Tetryl	0.24 - 0.24	0 / 10	--	--	NSV	-- / --	NSV	0.12	NSV	--	--	--	--	--	No	Not detected
Inorganics (UG/L)																
Aluminum	-- - --	10 / 10	1,980	MR21-GW02-10B	87.0	10 / 10	22.8	447	5.13	1886	YES	--	--	--	No	Within background range
Antimony	2.50 - 2.50	0 / 10	--	--	160	-- / --	0.016	1.25	0.0078	3.28	YES	--	--	--	No	HQ less than one, not detected
Arsenic	1.50 - 1.50	2 / 10	2.07	MR21-GW02-10B	150	0 / 10	0.014	0.90	0.0060	5.77	NO	--	--	--	No	Consistent with background
Barium	-- - --	10 / 10	146	MR21-GW01-10B	NSV	-- / --	NSV	46.5	NSV	86.24	YES	1.60E+04	TCEQ, 2006	0.00913	No	Supplemental HQ less than one
Beryllium	1.25 - 1.25	0 / 10	--	--	0.53	-- / --	2.36	0.63	1.18	0.31	YES	--	--	--	No	Not detected
Cadmium	1.00 - 1.00	0 / 10	--	--	0.25	-- / --	4.00	0.50	2.00	0.36	YES	--	--	--	No	Not detected
Calcium [3]	-- - --	10 / 10	76,300	MR21-GW05-10B	NSV	-- / --	NSV	15,203	NSV	69078	YES	--	--	--	No	Within background range, macronutrient
Chromium	1.00 - 1.00	2 / 10	2.74	MR21-GW02-10B	117	0 / 10	0.023	0.79	0.0068	3.13	NO	--	--	--	No	Consistent with background
Cobalt	3.12 - 3.12	1 / 10	1.99	MR21-GW01-10B	NSV	-- / --	NSV	1.60	NSV	3.40	NO	--	--	--	No	Consistent with background
Copper	2.50 - 2.50	0 / 10	--	--	9.00	-- / --	0.28	1.25	0.14	2.76	YES	--	--	--	No	HQ less than one, not detected
Iron	42.4 - 42.4	9 / 10	2,830	MR21-GW01-10B	1,000	3 / 10	2.83	715	0.72	5999	NO	--	--	--	No	Consistent with background
Lead	0.75 - 0.75	1 / 10	0.65	MR21-GW02-10B	2.50	0 / 10	0.26	0.40	0.16	2.80	NO	--	--	--	No	Consistent with background
Magnesium [3]	-- - --	10 / 10	3,840	MR21-GW01-10B	NSV	-- / --	NSV	1,955	NSV	6363	NO	--	--	--	No	Consistent with background, macronutrient
Manganese	-- - --	10 / 10	20.1	MR21-GW05-10B	NSV	-- / --	NSV	6.99	NSV	213.54	NO	--	--	--	No	Consistent with background
Mercury	0.20 - 0.20	0 / 10	--	--	0.77	-- / --	0.26	0.100	0.13	0.10	YES	--	--	--	No	HQ less than one, not detected
Nickel	2.50 - 2.50	3 / 10	3.48	MR21-GW01-10B	52.0	0 / 10	0.067	1.43	0.027	7.97	NO	--	--	--	No	Consistent with background
Potassium [3]	1,250 - 1,250	9 / 10	1,110	MR21-GW08-10B	NSV	-- / --	NSV	806	NSV	3277	NO	--	--	--	No	Consistent with background
Selenium	1.50 - 1.50	1 / 10	1.20	MR21-GW09-10B	5.00	0 / 10	0.24	0.80	0.16	3.14	NO	--	--	--	No	Consistent with background
Silver	1.25 - 1.25	0 / 9	--	--	0.012	-- / --	104	0.63	52.1	0.77	YES	--	--	--	No	Not detected
Sodium [3]	-- - --	10 / 10	14,500	MR21-GW01-10B	NSV	-- / --	NSV	6,869	NSV	22508	NO	--	--	--	No	Consistent with background, macronutrient

TABLE 7

Groundwater Screening (Phase II)

Site UXO-21 Former D-Area Tear Gas Chamber (2nd Division) (ASR #2.204)

Phase II Investigation Area

PA/SI Report

MCB CamLej, North Carolina

Chemical	Range of Non-Detect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Screening Value[1]	Frequency of Exceedance[2]	Maximum Hazard Quotient	Arithmetic Mean	Mean Hazard Quotient	2 x Mean Background	Maximum Exceeds 2 x Mean Background?	Supplemental Screening Value	Supplemental Screening Value Source	Supplemental Hazard Quotient	Retain?	Rationale
Thallium	2.00 - 2.00	0 / 10	--	--	4.00	-- / --	0.50	1.00	0.25	3.78	YES	--	--	--	No	HQ less than one, not detected
Vanadium	3.12 - 3.12	3 / 10	3.22	MR21-GW02-10B	NSV	-- / --	NSV	1.78	NSV	4.72	NO	--	--	--	No	Consistent with background
Zinc	5.00 - 5.00	8 / 10	5.53	MR21-GW01-10B	120	0 / 10	0.046	2.85	0.024	42.05	NO	--	--	--	No	Consistent with background

NOTES

1 - Freshwater Screening Values

2 - Count of detected samples exceeding or equaling Screening Value

3 - Macronutrient - Not considered to be a COPC

HQ - Hazard Quotient

NSV - No Screening Value

UG/L - Micrograms per liter

Generated by: Sara Kent

Checked by: Kelly Taylor/Sara Kent