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FINAL PRELIMINARY ASSESSMENT/SITE INSPECTION REPORT MILITARY MUNITIONS REPONSE PROGRAM (MMRP) SITE UXO-03 PRACTICE HAND GRENADE COURSE MCB CAMP LEJEUNE NC

12/1/2011

CH2M HILL

Final

Preliminary Assessment/Site Inspection Report
MMRP Site UXO-03, Former D-3 Practice Hand Grenade Course

Marine Corps Base Camp Lejeune
Jacksonville, North Carolina

Contract Task Order 0168

December 2011

Prepared for

Department of the Navy
Naval Facilities Engineering Command
Atlantic

Under the

NAVFAC CLEAN III Program
Contract N62470-02-D-3052

Prepared by

CH2MHILL

Raleigh, North Carolina

QC Review Page

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Acronyms and Abbreviations

µg/L	micrograms per liter
ARM	ARM Geophysics
ARSR	Archival Records Search Report
ASR	Archive Search Report
Baker	Baker Environmental
BBG	Base background
bgs	below ground surface
BIP	blow in place
CamLej	Camp Lejeune
CD	cultural debris
CLEAN	Comprehensive Long-Term Environmental Action—Navy
COPC	chemical of potential concern
CTO	Contract Task Order
DGM	digital geophysical mapping
DO	dissolved oxygen
DOD	Department of Defense
DPT	direct-push technology
DQO	data quality objective
DU	decision unit
EM61	EM61-MK2 electromagnetic system
ESS	explosives safety submission
ESV	ecological screening value
GPO	geophysical prove-out
HI	hazard index
HMX	cyclotetramethylenetetranitramine
HQ	hazard quotient
IDW	investigation-derived waste
IS	incremental sampling
MC	munitions constituents
MCB	Marine Corps Base
MCL	maximum contaminant level
MD	munitions debris
MDAS	material documented as safe
MEC	munitions and explosives of concern
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MILCON	military construction
MMRP	Military Munitions Response Program
MPPEH	material potentially presenting an explosive hazard
MR	munitions response
MRP	Munitions Response Program
MRSPP	Munitions Response Site Prioritization Protocol

mV	millivolt
NAEVA	NAEVA Geophysics
NC 2B	North Carolina Administrative Code 02B Surface Water Standards
NCGWQS	North Carolina Groundwater Quality Standards
NCDENR	North Carolina Department of Environment and Natural Resources
NC SSL	North Carolina soil screening level
NRWQC	National Recommended Water Quality Criteria
OP	Ordnance Pamphlet
ORP	oxidation reduction potential
PA/SI	Preliminary Assessment/Site Inspection
PVC	polyvinyl chloride
QA	quality assurance
QC	quality control
RDA	recommended daily allowance
RSL	Regional Screening Level
Shaw	Shaw Environmental and Infrastructure
UCL	upper confidence limit
UL	upper limit
USACE	U.S. Army Corps of Engineers
USAE	USA Environmental, Inc.
USEPA	U.S. Environmental Protection Agency
UXO	unexploded ordnance

SECTION 1

Introduction

This report documents the findings of the following investigations conducted at United States Marine Corps Military Munitions Response Program (MMRP) Site Unexploded Ordnance (UXO) -03 – Former D-3 Practice Hand Grenade Course (Archive Search Reports [ASR] Areas 2.78a and 2.78b) and the area north of Birch Street, hereinafter referred to as the Northern Boundary of Site UXO-03, at Marine Corps Base Camp Lejeune (MCB CamLej) in Jacksonville, North Carolina.

Investigation Area	Investigation Name	Investigation Dates
Northern Boundary	Focused Site Inspection (SI)	May and July 2007
	Expanded SI	January 2009
	Intrusive Investigation	October 2009
Site UXO-03	Preliminary Assessment/Site Inspection (PA/SI)	February – September 2008
		November 2010

The Site UXO-03 PA/SI was conducted by CH2M HILL under the Naval Facilities Engineering Command Comprehensive Long-Term Environmental Action—Navy (CLEAN) Contract N62470-02-D-3052, Contract Task Order (CTO) 0168.

The Northern Boundary Focused SI was conducted under the Navy CLEAN Contract N62470-02-D-3052, CTO 0169, and the Expanded SI activities of the Northern Boundary were conducted under the Joint Venture II Program, Contract N62470-03-D-4401, Task Order 0029. The intrusive investigation of the Northern Boundary was conducted under the Navy CLEAN 1000 program, Contract N62470-08-D-1000, CTO 040.

Table 1-1 summarizes the activities conducted during each investigation. The investigation areas are shown on **Figure 1-2**.

1.1 Objectives and Approach

MCB CamLej is in the process of investigating closed ranges at the Base in compliance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) investigation process. Reported historical range activities at Site UXO-03 have prompted this PA/SI, the first phase of the cleanup process.

The primary objective of the PA/SI was to evaluate the potential presence and nature of impacts to environmental media resulting from historical munitions usage at the subject site and to evaluate whether additional investigation and/or remediation activities are necessary. Accordingly, the investigation focused on impacts to soil and groundwater by munitions constituents (MC). A secondary objective was to evaluate the potential nature and extent of subsurface munitions and explosives of concern (MEC) that may be present by conducting digital geophysical mapping (DGM) and intrusive anomaly investigation activities at the site.

The investigations were conducted in accordance with the following work plans:

Work Plan	Abbreviation	Reference
Site Specific Work Plan Addendum for Preliminary Assessment/Site Inspection, Site UXO-03, Former Practice Hand Grenade Course, Marine Corps Base Camp Lejeune, Jacksonville, North Carolina	PA/SI Work Plan	CH2M HILL, 2008a
Expanded Site Inspection Work Plan Addendum, Site UXO-03, Former D-3 Practice Hand Grenade Course, Marine Corps Base Camp Lejeune, Jacksonville, North Carolina	PA/SI Work Plan Addendum	CH2M HILL, 2010
Focused Site Inspection Work Plan, MILCON Environmental Support, Northern Boundary	Focused SI Work Plan	CH2M HILL, 2007

Work Plan	Abbreviation	Reference
Investigation Area of Site UXO-03, Former Practice Hand Grenade Range (ASR Site 2.78); Former Tear Gas Chamber 2nd Marine Division (ASR Site 2.204); Base Skeet Range; IR Sites 19, (Naval Research Lab Dump), 20 (Naval Research Lab Incinerator) and 25 (Former Base Incinerator), Marine Corp Base Camp Lejeune, Jacksonville, North Carolina		
Expanded Site Inspection Work Plan Addendum, MILCON Support Northern Boundary of Site UXO-03, Former Practice Hand Grenade Range, Marine Corps Base Camp Lejeune, Jacksonville, North Carolina	Expanded SI Work Plan	CH2M HILL, 2009a
Explosives Safety Submission for Munitions Response Activities Site UXO-03 Former Practice Grenade Range, Marine Corps Base Camp Lejeune, Jacksonville, North Carolina	ESS-108	CH2M HILL, 2009b
Munitions Response Program Master Project Plans, Marine Corps Base Camp Lejeune, Jacksonville, North Carolina	Munitions Response Program (MRP) Master Project Plans	CH2M HILL, 2008b

The following tasks were performed to accomplish the objectives of the PA/SI:

- Research of historical activities that may have resulted in environmental or MEC contamination at the site, including reviewing archival records and interviewing current and former installation personnel.
- Evaluation of the potential presence and nature of MC contamination by conducting an investigation of soil, groundwater, sediment, and surface water.
- A geophysical survey to evaluate the number and density of geophysical anomalies that may represent subsurface MEC.
- Ecological and human health risk screenings using site-specific analytical data.
- Intrusive investigation of geophysical anomalies detected during the geophysical survey.

1.2 Report Organization

This PA/SI report is organized as follows:

- Section 1, Introduction
- Section 2, Site Background
- Section 3, Field Investigation Activities
- Section 4, Investigation Results
- Section 5, Human Health Risk Screening
- Section 6, Ecological Risk Screening
- Section 7, Conclusions and Recommendations
- Section 8, References
- Appendix A, MRSPP Site Summary Submittal to QA Panel
- Appendix B, Archival Records Search Reports
- Appendix C, Soil Boring Logs and Well Completion Diagrams
- Appendix D, Geophysical Investigation Reports
- Appendix E, Geophysical Prove-out Report
- Appendix F, Data Validation Summary Reports
- Appendix G, Groundwater Sampling Data
- Appendix H, Munitions Debris Disposal Documents
- Appendix I, Raw Analytical Data
- Appendix J, MEC Instrusive Investigation Documents
- Appendix K, Human Health Risk Screening Tables
- Appendix L, Ecological Risk Screening Tables

Figures and tables are provided at the end of their respective sections.

TABLE 1-1

Previous Investigations

Site UXO-03, Former D-3 Practice Hand Grenade Course

MCB CamLej, North Carolina

Investigation Area	Investigation Name	Contract and Contract Task Order (CTO)	Dates	Investigation Activities
Site UXO-03 Northern Boundary	Focused Site Inspection	N62470-02-D-3052, CTO 0169	May and July 2007	Archive Search Report Surface Soil Sampling Subsurface Soil Sampling Groundwater Sampling Digital Geophysical Mapping (DGM)
	Expanded Site Inspection	N62470-03-D-4401, TO-0029	January 2009	Land Surveying Vegetation Clearing DGM
	Intrusive Investigation	N62470-08-D-1000, CTO-040	October 2009	MEC Intrusive Investigation
Site UXO-03	Preliminary Assessment/Site Inspection	N62470-02-D-3052, CTO-0168	February - September 2008	Land Surveying Vegetation Clearing Surface Soil Sampling Subsurface Soil Sampling Groundwater Sampling Surface Water Sampling Sediment Sampling DGM
			November 2010	MEC Intrusive Activities

Notes:

DGM- Digital Geophysical Mapping

SECTION 2

Site Background

This section summarizes regional and site-specific information, including location, site setting, physical characteristics, and history.

2.1 MCB CamLej Location and Description

MCB CamLej covers approximately 236 square miles in Onslow County, North Carolina and is bisected by the New River, which flows in a southeasterly direction toward the Atlantic Ocean (**Figure 2-1**). Construction of MCB CamLej began in 1941 with the objective of developing the world's most complete amphibious training Base. The mission of MCB CamLej is to maintain combat-ready units for expeditionary deployment. MCB CamLej provides housing, training facilities, logistical support, and administrative supplies for Fleet Marine Force units and other assigned units. The Base and surrounding community is home to an active-duty, dependent, retiree, and civilian population of approximately 180,000 people. Land use surrounding MCB CamLej is varied, with mainly commercial properties along the Northern Boundary. The eastern and western boundaries of the Base are a mix of agricultural and residential land. The southern boundary of MCB CamLej extends to the New River and Atlantic Ocean.

2.2 Site Setting

Site UXO-03, including the Northern Boundary area, covers approximately 12 acres of wooded and developed land **(Figure 2-2).** Site UXO-03 and the Northern Boundary have flat topography, with a 3- to 5-foot-deep stream channel that is located in the southeast corner of the Northern Boundary and continues southeast, bisecting the site. The unnamed stream channel collects surface water runoff. A wetland area in the southeast corner of the Northern Boundary is associated with the unnamed stream.

The site contains two former range areas (ASR Area 2.78a and ASR Area 2.78b), located near Building 1249 along Birch Street, north of the Hadnot Point area of MCB CamLej. ASR Area 2.78a is adjacent to McHugh Boulevard, covers approximately 2 acres, and is primarily wooded, with the exception of a portion of Building 17 (Catholic Chapel) and an associated landscaped area. ASR Area 2.78b covers approximately 5 acres and is partially bisected by Birch Street. The area is partially wooded, and includes a parking lot, hobby shop, and trailers south of Birch Street. The Site UXO-03 Northern Boundary covers approximately 6 acres and is wooded with the exception of Birch Street and a running path in the southwest corner.

MCB CamLej is planning a military construction (MILCON) project, referred to hereinafter as the MILCON area, at Site UXO-03. The MILCON area will be an approximately 100-acre development consisting of an operation and housing complex, mess hall, and parking area on the northeast corner of McHugh Boulevard and Birch Street, as shown on **Figure 2-3**. Because of the lack of historical information detailing the full extent of the former hand grenade range, the Northern Boundary was investigated in an attempt to determine the range's northern boundary.

The Northern Boundary was primarily wooded until it was clear-cut as part of investigation activities. A new roadway was constructed through the Northern Boundary in 2008 after the investigation activities were complete.

2.3 Site History

In May and August 2007, CH2M HILL conducted a detailed review of existing information regarding Site UXO-03 activities that could have resulted in the release of hazardous substances within the area of investigation. The information obtained from this effort is documented in the Archival Records Search Report ARSR (**Appendix B**), and is summarized below.

As reported in the *Final Range Identification and Preliminary Range Assessment* (U.S. Army Corps of Engineers [USACE], 2001), the range was used from 1953 to 1959. Because of the name of the course (the Former D-3 Practice Hand Grenade Course), it was assumed that practice hand grenades were used at ASR 2.78 within the vicinity of throwing pits and targets (USACE, 2001). Although the specific types of munitions used at the site are unknown, the proximity to adjacent buildings and activities would substantiate the likely use of practice munitions. It was, therefore, determined to be unlikely that pyrotechnics or high-explosive munitions were used at the site. Based on review of historical maps, the northeast corner of Building 17 (Catholic Chapel) lies within the site and Building 41 (Red Cross Building) has been located south of the site since the 1940s. No other structures were built on the site until the recent construction of the hobby shop complex.

Since the course closed in 1959, the area comprising Site UXO-03 remained mostly wooded (with the exception of the small area occupied by Building 17) until the construction of Birch Street, which began in 1994. The hobby shop and the associated parking lot were constructed in the late 1990s, after Birch Street was constructed (**Appendix B**). The archival review indicated that the area comprising Site UXO-03 was used for troop training; the area is not associated with an active impact area, range, range fan, safety danger zone, use of chemical warfare materiel, or the disposal of military munitions.

2.4 Previous Investigations

Several phases of environmental investigation activities have been conducted at the site since 2007. **Table 1-1** contains a summary of each investigation; their activities and findings are presented as part of this PA/SI report.

2.4.1 Focused SI—Northern Boundary of Site UXO-03

In 2007, CH2M HILL conducted a Focused SI in support of a planned MILCON project that encompassed approximately 100 acres and included several environmental sites and former military ranges, including Site UXO-03. The Focused SI was conducted to assess the potential presence of MEC and hazardous and toxic waste within the MILCON footprint. As part of the Focused SI, DGM was conducted over approximately 10 percent of site. **Figure 2-3** shows the MILCON plan schematics and the environmental investigation areas, including the Northern Boundary associated with the Focused SI.

A portion of the MILCON area included in the Focused SI was a 5-acre area referred to as the Northern Boundary, north of Birch Street and adjacent to ASR Area 2.78b. The area investigated for the Focused SI is shown on **Figure 2-2**. The Focused SI activities and results are presented as part of this PA/SI report.

2.4.2 Expanded SI—Northern Boundary of Site UXO-03

During the Focused SI, one munitions debris (MD) item, a spent pyrotechnic signaling device, was discovered during the geophysical survey activities. Further investigation of the anomalies was recommended.

As part of an Expanded SI, DGM was conducted across the entire 5.8-acre investigation site (except the wetland areas) of the Northern Boundary in January 2009. The results of this effort were used to conduct an intrusive investigation for the identification and safe removal of all potential MEC in the investigation area. Expanded SI activities and results are presented as part of this PA/SI report.

2.4.3 Preliminary Assessment/Site Inspection – Site UXO-03

As part of this PA/SI, surveying, vegetation clearing, environmental sampling (surface soil, subsurface soil, groundwater, surface water, and sediment) and DGM were conducted across the two sections of Site UXO-03 from February through September 2008. Environmental activities and results are presented as part of this PA/SI report.

2.4.4 MEC Intrusive Investigation – Northern Boundary Of Site UXO-03

An explosives safety submission (ESS) was completed for Site UXO-03 to facilitate the evaluation of potential subsurface MEC at the site by intrusively investigating and removing the sources of geophysical anomalies that had been identified during the DGM for the Expanded SI. The MEC intrusive investigation was conducted under

CTO 040 in October 2009 to address the results of the Expanded SI DGM. The intrusive investigation activities and results are presented as part of this PA/SI report.

2.4.5 MEC Intrusive Investigation – Site UXO-03

The MEC intrusive investigation was conducted under CTO 168 in November 2010 to evaluate the potential for subsurface MEC at the site by intrusively investigating and removing the sources of geophysical anomalies that had been identified during the DGM of the PA/SI. The intrusive investigation activities and results are presented as part of this PA/SI report.

2.5 Regional Climate

The climate in the Onslow County area is characterized by short, mild winters and long, hot, and humid summers. Average annual net precipitation is approximately 50 inches. Ambient air temperatures generally range from 33 to 53 °F in the winter months, and from 71°F to 98°F during the summer months. Winds are generally south-southwesterly in the summer and north-northwesterly in the winter (Water and Air Research, 1983). The hurricane season begins on June 1 and continues through November 30. Storms of nontropical origin, such as frontal passages, local thunderstorms, and tornadoes, are more frequent and can occur at any time during the year.

2.6 Regional Geology and Hydrogeology

Regional geology at MCB CamLej is discussed in the *Munitions Response Program Master Project Plans, Marine Corps Base Camp Lejeune, North Carolina* (CH2M HILL, 2008b), referred to hereinafter as the MRP Master Project Plans.

2.7 Site Geology and Hydrogeology

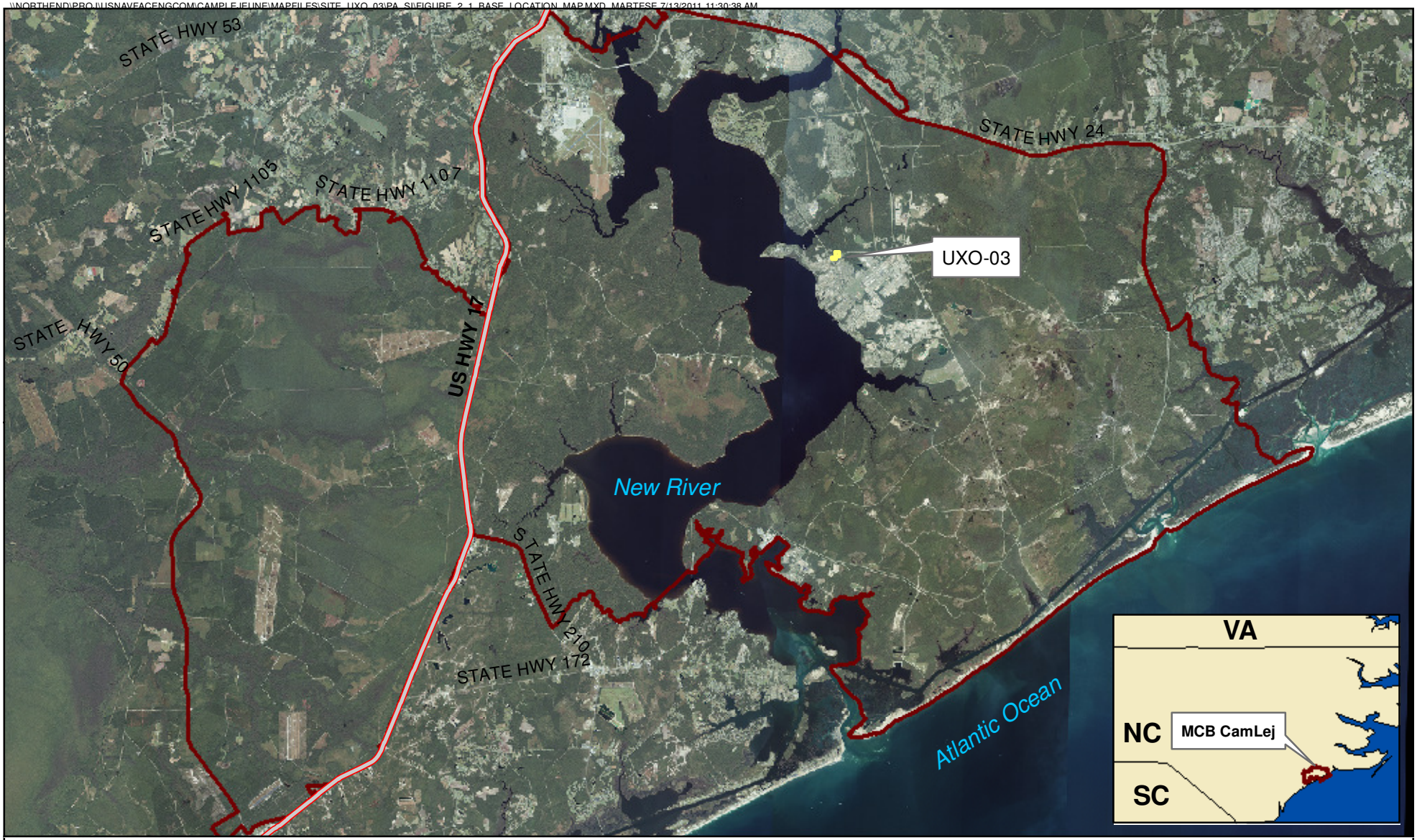
Inspection of the soil cores recovered from Site UXO-03 and the Northern Boundary indicates that the underlying sediments are consistent with those of the undifferentiated formation of soils that overlie the Belgrade Formation (Cardinell et al., 1993). The depth of soil borings for Site UXO-03 and the Northern Boundary ranged from 8 to 30 feet below ground surface (bgs). Particle sizes noted from soil boring logs indicate sediments ranging from clay and silt to medium-coarse sand. An organic peat layer was observed between approximately 18 and 19 feet bgs in boring GR-IS02 from the Northern Boundary. The predominant lithology directly underlying Site UXO-03 and the Northern Boundary consists of clayey/silty sands interbedded with poorly graded, fine-grained sand interbedded with a lesser amount of sandy clays.

Site-specific hydrogeologic information was derived from the installation of four shallow temporary monitoring wells in July and August 2008, as detailed in **Section 3.3**. Table 2-1 shows groundwater elevation and well construction information. The temporary monitoring wells were screened above the Castle Hayne confining unit in the surficial aquifer. **Figure 2-2** depicts the groundwater elevations on August 7, 2008, spatially across the site. Groundwater elevations at the temporary well locations ranged from 5.63 to 14.93 feet above mean sea level at the site. The horizontal hydraulic gradients calculated from **Table 2-1** range from approximately 0.001 foot per foot between wells TW03 and TW04 to 0.015 foot per foot between wells TW01 and TW02. Soil boring logs and temporary well construction diagrams can be found in **Appendix C**.

TABLE 2-1
Groundwater Elevation and Well Construction Information
Site UXO-03, Former D-3 Practice Hand Grenade Course
MCB CamLej, North Carolina

Well ID	Date Installed (mm/dd/yy)	Screened Interval (ft bgs)	Top of Casing Elevation (ft amsl)	Ground Surface Elevation (ft amsl)	Depth to Water July 27-28, 2007 (ft bTOC)	Depth to Water August 7, 2008 (ft bTOC)	Groundwater Elevation August 7, 2008 (ft amsl)
MR03-TW01	07/11/08	4-14	20.11	19.82	NA	7.90	12.21
MR03-TW02	07/10/08	6-16	15.13	14.93	NA	9.50	5.63
MR03-TW03	07/10/08	5-15	22.38	22.14	NA	7.45	14.93
MR03-TW04	07/11/08	4-14	23.33	23.26	NA	8.58	14.75
GR-TW02	07/28/07	27-32	NM	14.96	14.70	NA	NA
GR-TW03	07/27/07	11-16	NM	26.15	11.52	NA	NA

Notes:
ft bgs = feet below ground surface
ft bTOC = feet below top-of-casing
ft amsl = feet above mean sea level
NA = not applicable



Legend

- Highways
- Site UXO-03 Boundary
- Installation Boundary

N

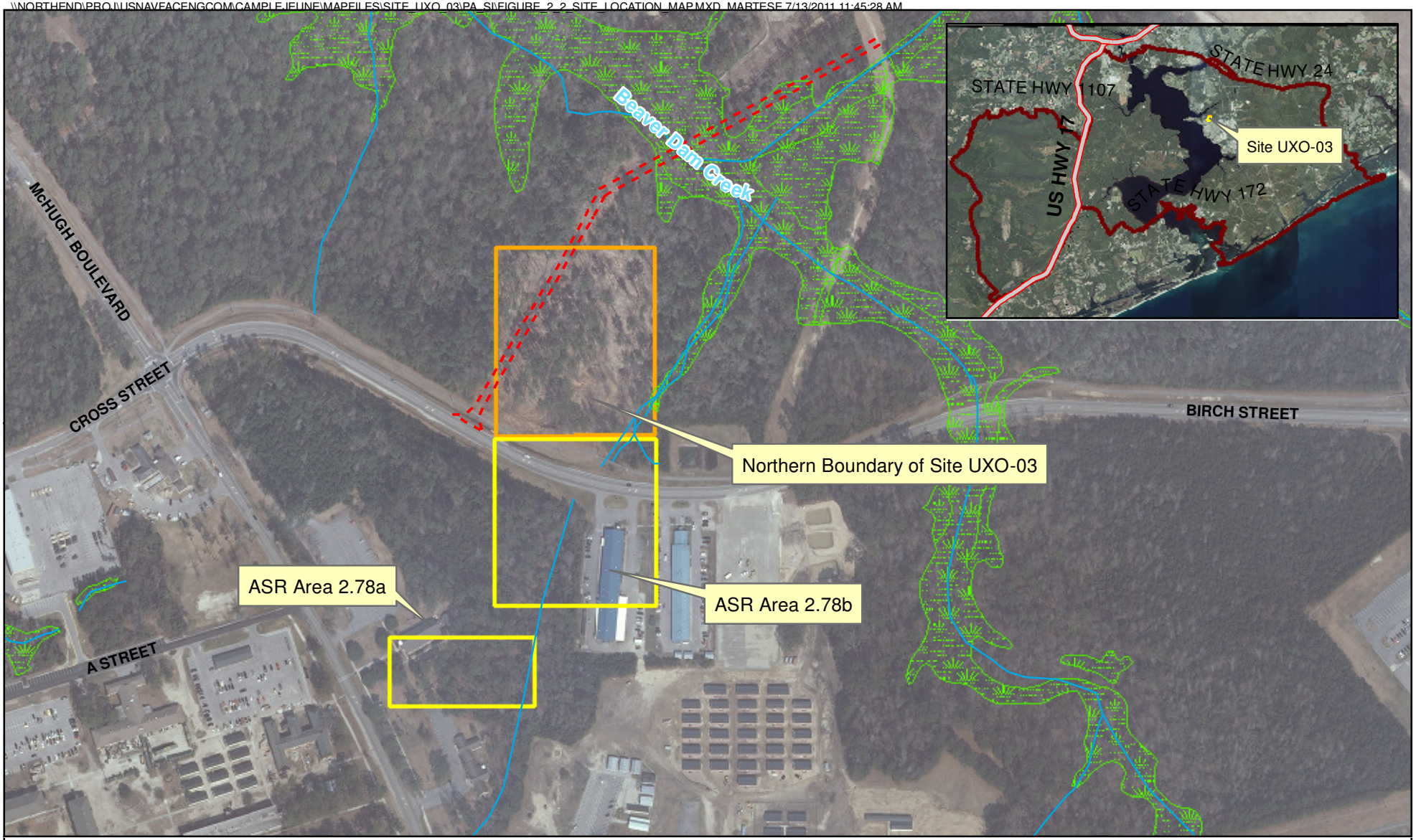
0 7,500 15,000 30,000 Feet

1 inch = 15,000 feet

Figure 2-1
Base Location Map
Site UXO-03
PA/SI Report
MCB CamLej
North Carolina

CH2MHILL

\\NORTHEND\PRO\USNAVFACENGCOM\CAMPLEJEUNE\MAPFILES\SITE_UXO_03\PA_SI\FIGURE_2_2_SITE_LOCATION_MAP.MXD MARTESE 7/13/2011 11:45:28 AM



Legend

- Surface Water
- Jurisdictional Wetlands
- Site UXO-03 Boundary
- Northern Boundary of Site UXO-03
- New Roadway
- Installation Boundary

N

0 200 400 800 Feet

1 inch = 400 feet

Figure 2-2
Site Location Map
Site UXO-03
PA/SI Report
MCB CamLej
North Carolina

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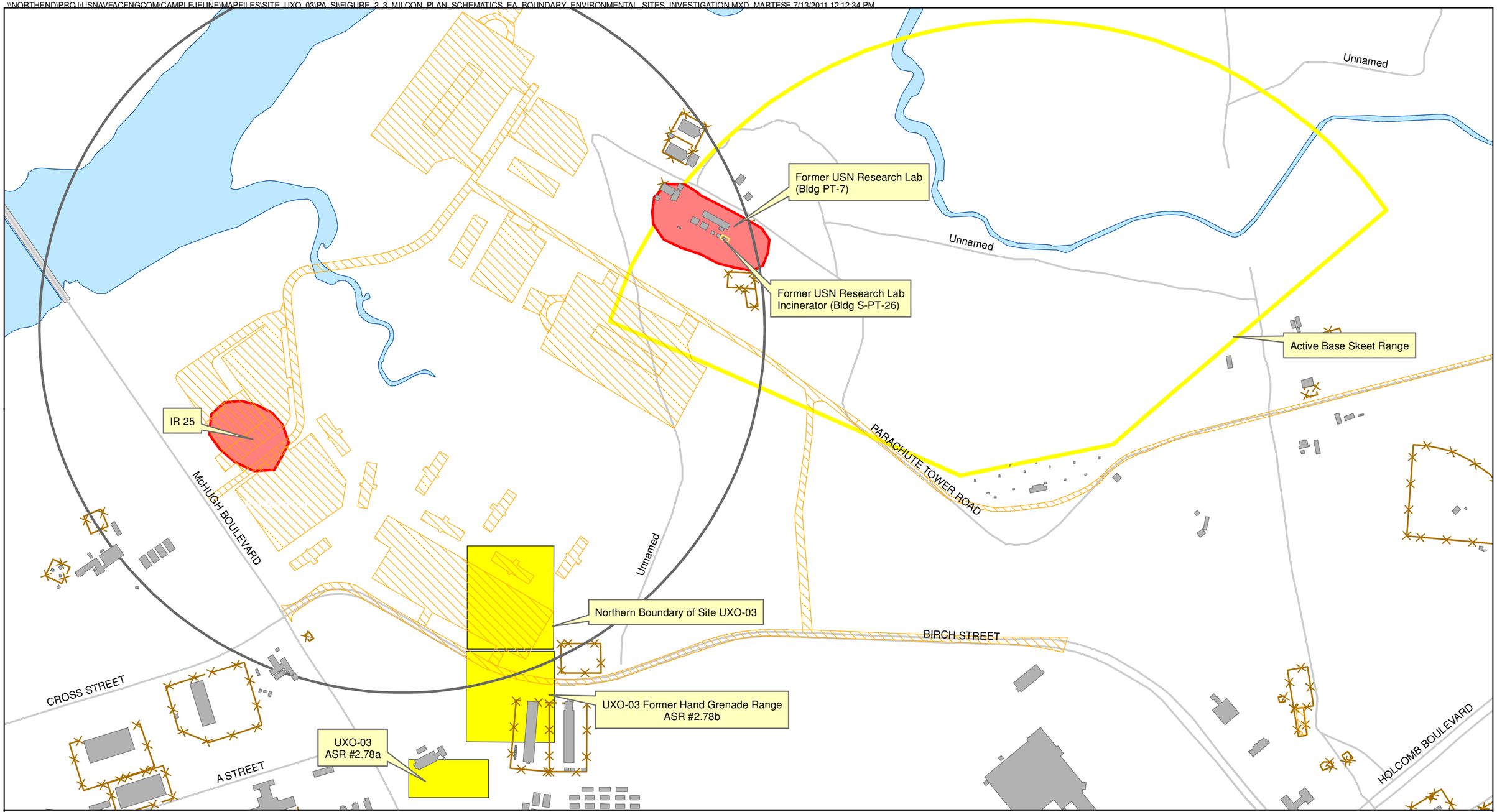

Legend

- Road
- Fence
- Buildings
- Proposed MILCON Area
- Proposed Project Sites
- Investigation Area
- Site UXO-03 Boundary
- Active Base Skeet Range Fan

N

0 250 500 1,000 Feet

1 inch = 500 feet

Figure 2-3
MILCON Plan Schematics and
Environmental Investigations Site Map
Site UXO-03
PA/SI Report
MCB CamLej
North Carolina

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\\NORTHEND\PROJ\USNAVFACENGCOM\CAMPLEJEUNE\MAPFILES\SITE_UXO_03\PA_SI\FIGURE_2_4_GW_ELEVATION_MAP.MXD MARTESE 7/13/2011 12:44:14 PM

Legend

- Temporary Well Locations
- Site UXO-03 Boundary
- Northern Boundary of Site UXO-03
- Surface Water

Note:
14.74 - groundwater elevation in feet above mean sea level

N

0 75 150 300
Feet

1 inch = 150 feet

Figure 2-4
Groundwater Elevation Map
Site UXO-03
PA/SI Report
MCB CamLej
North Carolina

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SECTION 3

Field Investigation Activities

The PA/SI field investigation activities at Site UXO-03 and the Northern Boundary were conducted between May 2007 and November 2010.

Field activities were conducted in accordance with the Focused SI Work Plan, Expanded SI Work Plan, PA/SI Work Plan, PA/SI Work Plan Addendum, and ESS-108. The technical approach was developed by the MCB CamLej Tier I Partnering Team, which consists of representatives from the Navy, MCB CamLej, U.S. Environmental Protection Agency (USEPA) Region 4, and North Carolina Department of Environment and Natural Resources (NCDENR).

3.1 Site Preparation and Support

3.1.1 MEC Avoidance

Because of the potential presence of MEC, avoidance measures were implemented in accordance with ESS-108. UXO technicians qualified in accordance with Department of Defense Explosives Safety Board Technical Paper 18 (2004) provided MEC escort and avoidance services to the surveying, utility location, geophysical, and drilling subcontractors.

3.1.2 Vegetation Clearing

During the site preparation, Retention Pond Services, Inc. (formerly Wetlands and Woodlands Management, LLC) was subcontracted to clear areas where brush and vegetative cover would have interfered with the use of DGM equipment and to facilitate access to environmental sampling locations. Eight-foot-wide transect lines were cleared of undergrowth using a mechanized mulching-cutting machine. Vegetation smaller than 3 inches in diameter was cut to within 6 inches of the ground surface, mulched, and left in place. Trees with a diameter of more than 3 inches were left undisturbed.

As part of the Expanded SI conducted at the Northern Boundary in January 2009, Retention Pond Services, Inc. cleared vegetation smaller than 6 inches in diameter over the entire investigation area, excluding the wetland area in the southeastern corner.

3.1.3 Surveying

Land surveying was conducted in accordance with the MRP Master Project Plans. The surveying activities were completed in phases during each successive phase of investigation. Lanier Surveying, a North Carolina–licensed surveyor from Cedar Point, North Carolina, conducted each phase. The surveying tasks completed during this investigation are summarized below:

- Delineating and establishing the site boundary and layout of DGM areas, transects and decision units (DUs) for incremental sampling activities
- Physically marking the site boundaries, DGM areas and the DUs
- Digitally recording the horizontal coordinates of each transect turning point to be used in making site maps
- Surveying horizontal coordinates, top of casing, and ground surface elevations for the temporary wells
  - Temporary well top of casings were not surveyed at the Northern Boundary, so groundwater elevations are estimated based on the ground elevations that were surveyed.
- Reacquiring the surveying stakes associated with the 61 geophysical anomaly locations identified during the DGM survey of Site UXO-03 in February 2008.

3.2 Digital Geophysical Mapping

DGM was performed to identify geophysical anomalies potentially representing subsurface MEC. DGM was performed by ARM Geophysics of Hershey, Pennsylvania (ARM) and NAEVA Geophysics of Charlottesville, Virginia (NAEVA). Quality control (QC) was performed by a CH2M HILL's and either a NAEVA or ARM munitions response (MR) QC geophysicist.

DGM for this PA/SI was performed in three stages:

- 2007 Focused SI- limited DGM of Northern Boundary of Site UXO-03 tasked to NAEVA
- 2008 PA/SI-limited DGM at Site UXO-03 tasked to ARM
- 2009 Expanded SI-Entire DGM of the Northern Boundary of Site UXO-03 tasked to NAEVA.

The DGM efforts were conducted in accordance with the PA/SI Work Plan or the Focused SI Work Plan. A summary of the DGM work performed is provided below; the DGM reports are provided in **Appendix D.**

3.2.1 Geophysical Prove-out

Before the DGM began, a geophysical prove-out (GPO) was conducted to evaluate the ability of the selected geophysical equipment to meet the project data quality objectives (DQOs). This GPO was conducted at the existing GPO plot set up and seeded by CH2M HILL at Site UXO-04, Knox Trailer Park. The initial EM61-MK2 electromagnetic system (EM61) provided by ARM (for the Site UXO-03 DGM) could not successfully discriminate seed items at ±2.5-millivolt (mV) thresholds and was replaced and retested before field activities began. A **threshold of 3 mV in Channel 2 was chosen for the selection of geophysical anomalies because** this value represents the **threshold at which a metallic item can be positively distinguished from signal noise.**

For the Northern Boundary DGM efforts in 2007 and 2009, the EM61-MK2 provided by NAEVA was successful at discriminating seed items at ±2.5 mV thresholds.

The GPO reports can be found in **Appendix E.**

3.2.2 DGM Survey

Northern Boundary of Site UXO-03-Focused SI

Prior to the 2007 Focused SI DGM survey, Lanier surveyed in transects for vegetation removal and once cleared, would place survey stakes along the centerlines of each transect at irregular intervals and at the beginning and terminus of each transect. DGM data were referenced to the survey stakes.

Geophysical data was collected with a Geonics EM61-MK2 with a Trimble 5700 GPS receiver. The DGM spanned 28 transects covering 0.88 of the total 6 acres (~15%) of the Northern Boundary of Site UXO-03. The DGM covered approximately 7,500 linear feet along 8-foot-wide transects.

Northern Boundary of Site UXO-03-Expanded SI

All vegetation was cleared with the exception of trees greater than 3-inches in diameter for the 2009 Expanded SI and Lanier placed centerline stakes at 25-meter intervals for better site control using the Base 50-meter MR grid blocks on the NAD83 (NSRS2007) datum.

Geophysical data was collected with a Geonics wheel-based EM61-MK2 operated by NAEVA. DGM covered 20 MR grids encompassing 5.75 of the 6 acres (96%) comprising of the Northern Boundary of Site UXO-03 (excluding the wetland area in the southeastern corner). **Figure 3-1** shows the area investigated during the DGM survey of the Northern Boundary.

3.2.3 Site UXO-03

Before conducting the DGM survey at Site UXO-03, Lanier Surveying installed survey stakes along the DGM transects at intervals of approximately 65 feet; the DGM data were referenced to the survey stakes.

All geophysical data were collected using a Geonics two-coil EM61 carried in a two-man litter because of the rough terrain encountered in the wooded areas. The locations and actual spacing of the DGM transects were based on specific site conditions (i.e., accessibility). A total of 2536 linear feet of DGM data were collected, covering 11 percent of Site UXO-03. The areas of the site covered by the DGM survey are shown in **Figure 3-2.**

3.2.4 Quality Control

An extensive QC program was applied to the DGM operations at the site. **Figure 3-3** shows an overall chart of the QC steps.

The geophysical system was field-tested as specified in the PA/SI Work Plan, the Focused SI Work Plan, and the Expanded SI Work Plan. A summary of the tests performed is presented in **Table 3-1**. Both ARM or NAEVA and CH2M HILL performed QC checks of the geophysical data and data deliverables at each step of the processing path.

All tests outlined in the appropriate work plan were performed on the DGM instruments at the appropriate intervals (e.g., daily, weekly, at start of project) to ensure that all instruments functioned as required. Results were checked by ARM's or NAEVA's QC geophysicist before they were delivered to CH2M HILL, where they were subsequently checked by the CH2M HILL QC geophysicist.

3.3 Environmental Investigation Activities

During the development of the Focused SI Work Plan and the PA/SI Work Plan, CH2M HILL reviewed historical records to identify potential areas of concern. However, the historical records did not depict the layout of the Former D-3 Hand Grenade Range. Therefore, in the absence of evidence to bias sampling locations, sample locations were distributed evenly across the site.

3.3.1 Surface Soil Sampling

Figures 3-4 and 3-5 display the environmental sampling locations used during the PA/SI. Environmental samples were collected in accordance with the PA/SI Work Plan.

Two composite sampling approaches, Incremental Sampling (IS), and TR-02-1, were selected to collect representative surface soil samples from Site UXO-03. The IS approach was used to collect representative composite samples over relatively large areas that were not obstructed by vegetation known as Decision Units (DU). The TR-02-1 approach was used for the Northern Boundary, and in vegetated areas of Site UXO-03 that were relatively inaccessible and could not be cleared because of the unnamed stream, drainage ditches, and fencing within various parts of Site UXO-03.

Surface soil sampling locations are shown on **Figures 3-4 and 3-5.** Surface soil sampling was conducted on June 18 and 19, 2008 for Site UXO-03 and on July 26, 2007 for the Northern Boundary.

Three composite surface soil samples were collected from each of two DUs, for a total of six samples (designated MR03-DU01-SS01, -SS02, and -SS03 and MR03-DU02-SS01, -SS02, and -SS03). The dimensions of each DU was approximately 98 feet by 98 feet, **(Figure 3-4**). The soil samples were collected using the *Systematic Random Incremental Sampling* Standard Operating Procedure (SOP) in Appendix C of the MRP Master Project Plans where each sample consists of a number of surface aliquots collected from depths of 0 to 2 inches bgs across the aerial extent of the DU and then composited.

The TR-02-1 method was used to collect twenty-four surface soil samples (designated MR03-SS01 through MR03-SS24) at Site UXO-03, and four surface soil samples (GR-IS01-0-1 through GR-IS04-0-1) at the Northern Boundary of Site UXO-03. This approach is described in the *Guide for Characterization of Sites Contaminated with Energetic Materials* (Thiboutot, Ampleman, and Hewitt, 2002). Soil samples were collected by compositing a minimum of 30 sample aliquots from random locations within each approximate 3.25-foot x 3.25-foot sampling location. Each aliquot was collected from an interval of 0 to 2 inches bgs.

Surface soil samples were shipped under chain of custody control to GPL Laboratories, Inc., of Frederick, Maryland, and analyzed for the following constituents:

- Explosives residues (SW-846 USEPA Method 8330)
- Perchlorate (USEPA Method 6850)
- Total metals (ILM05)

3.3.2 Subsurface Soil Sampling

Fourteen soil borings were advanced to depths of up to 32 feet bgs at the locations shown on **Figures 3-4 and 3-5**, using a direct-push technology (DPT) rig. The DPT effort was conducted by Parratt-Wolff, Inc. at Site UXO-03 and by American Environmental at the Northern Boundary.

The DPT sampling method used an open core barrel sampling device along with disposable acetate liners. Downhole sampling equipment was decontaminated between borings, and new liners were used to retrieve each successive soil core. In accordance with the PA/SI Work Plan or the Focused SI Work Plan, the CH2M HILL geologist examined each soil core and recorded soil descriptions that included grain size, color, moisture content, consistency, soil structure, mineralogy, and other relevant information. The CH2M HILL geologist also screened each soil core for the presence of volatile organic compounds using a photoionization detector. Soil boring logs are provided in **Appendix C**.

Following the completion of each soil boring, a discrete soil sample was collected from an unsaturated portion of the soil core located immediately above the estimated water table, as specified in the PA/SI Work Plan. A total of 14 subsurface soil samples, MR03-IS01 through MR03-IS10 and GR-IS01 through GR-IS04, were collected from the locations shown in **Figures 3-4 and 3-5.** Subsurface soil samples were shipped under chain of custody control to GPL Laboratories, and analyzed for the following analytes:

- Explosives residues (SW-846 USEPA Method 8330)
- Perchlorate (USEPA Method 6850)
- Total metals (ILM05)

The laboratory analytical data were validated by the Environmental Data Services, Inc., under subcontract to CH2M HILL. Data validation reports are provided in **Appendix F**.

3.3.3 Temporary Well Installation

Four of the soil borings at Site UXO-03 (MR03-TW01 through MR03-TW04) and two of the soil borings at the Northern Boundary (GR-TW02 and GR-TW03) were completed as temporary groundwater-monitoring wells to depths ranging from 10 to 32 feet bgs. **Figures 3-4** and **3-5** show the temporary well locations and **Table 3-2** summarizes the well construction details. The temporary monitoring wells at Site UXO-03 were installed by Parratt-Wolff, Inc., observed by a CH2M HILL hydrogeologist; and the temporary wells at the Northern Boundary were installed by American Environmental Drilling, observed by a CH2M HILL hydrogeologist.

Each temporary well was constructed with 1-inch inside-diameter (ID) Schedule 40 polyvinyl chloride (PVC) screen and riser. The well screens consisted of a 10-foot length of 0.010-inch machine-slotted Schedule 40 PVC placed to bracket the water table. Temporary well GR-TW02 was originally constructed at 15 feet bgs to bracket the water table, but the well did not produce and was eventually drilled and constructed at 32 feet bgs.

The temporary wells at Site UXO-03 were equipped with an attached silica filter pack, and silica filter sand was placed around the annular space of the screen from the bottom of the boring to 1 foot above the top of the screen for the temporary wells at the Northern Boundary. A layer of bentonite granules was placed above the top of the sand pack, extending to the ground surface. A locking watertight cap was placed on the PVC pipe.

The temporary wells were developed using a peristaltic pump and a disposable bailer. Development continued until the water had visually cleared. At least three well volumes of water were removed. Monitored water quality parameters included turbidity, pH, specific conductivity, dissolved oxygen (DO), oxidation-reduction potential

(ORP), and temperature. Following well development, the wells were allowed to equilibrate for at least 24 hours before being purged and sampled.

Well completion diagrams can be found in **Appendix C**.

3.3.4 Groundwater Sampling

CH2M HILL recorded water level measurements from each temporary well before purging and sampling **(Table 3-2)**. Water level measurements were converted to water level elevations using the top-of-casing elevation survey data and were used to evaluate the flow regime within shallow ground.

All groundwater samples were collected using a peristaltic pump with disposable polyethylene tubing and low-flow purging and sampling techniques, in accordance with the PA/SI Work Plan or the Focused SI Work Plan. Water quality parameters (specific conductance, pH, turbidity, temperature, DO, and ORP) were measured during the purging phase using a water quality meter and the measurements were recorded. Field parameters are summarized in **Table 3-3**. Groundwater sampling data sheets are provided in **Appendix G**.

Groundwater samples were collected only after all field parameters had become stable over three successive readings and at least one well volume had been purged, or after at least three well volumes had been purged from the well, or if the well had run dry. Parameters were considered stabilized over three successive readings when measurements agreed as follows:

- pH within 0.1 pH unit
- Conductivity within 3 percent
- ORP within 10 mV
- DO within 10 percent
- Turbidity within 10 percent or as low as practicable given sampling conditions

Before sample collection began, the water quality meter flow through cell was disconnected from the peristaltic pump so that the pump discharge flowed directly into the laboratory-supplied sample bottles. New tubing was used for purging and sampling each well.

Depth to water, sampling depth, and total well depth measurements were recorded in the logbook and/or on groundwater sampling data sheets.

Once sample collection was complete, the sample bottles were prepared for shipment in accordance with the PA/SI Work Plan or the Focused SI Work Plan under chain-of-custody control to GPL Laboratories for analysis using the following methods:

- Explosives residues (SW-846 USEPA Method 8330)
- Perchlorate (USEPA Method 6850)
- Total and dissolved metals (ILM05)

Following sampling and surveying, all temporary wells were abandoned by the drilling subcontractor, in accordance with North Carolina well construction standards.

3.3.5 Surface Water and Sediment Sampling

Two discrete, co-located surface water and sediment samples (MR03-SD01/MR03-SW01 and MR03-SD02/MR03-SW02) were collected from the unnamed drainage feature in Site UXO-03, as shown on **Figure 3-4**.

The unnamed drainage feature flows northeast through Site UXO-03. During surface water and sediment sample collection, a maximum water depth of approximately 2 feet was observed.

All surface water and sediment samples were collected as grab samples. Sediment samples were collected by advancing a trowel approximately 6 to 12 inches into the sediment. Sediment and surface water samples were collected from downstream to upstream to avoid cross-contamination by sediment suspension. Surface water samples were collected using laboratory-supplied bottles before the co-located sediment sample was collected.

Surface water and sediment samples were collected and submitted to GPL Laboratories for the following analyses:

- Explosives residues (SW-846 USEPA Method 8330)
- Perchlorate (USEPA Method 6850)
- Total and dissolved metals (surface water only)(ILM05)

3.3.6 QA/QC Sampling

Appropriate QA/QC sampling was performed in accordance with Navy CLEAN and CH2M HILL protocols, including field blanks, equipment blanks, duplicates, and matrix spike/matrix spike duplicates. Required QA/QC samples and the frequency of collection are shown in **Table 3-4.**

3.3.7 Data Validation

The analytical data collected from Site UXO-03 were validated by Environmental Data Services, Inc., of Williamsburg, Virginia, under subcontract to CH2M HILL. The results of the analytical data from the Northern Boundary were validated by a CH2M HILL chemist. Data validation reports are provided in **Appendix F**.

3.4 Investigation-Derived Waste Management

Until the Base Waste Management Plan was written in March 2008, the Base remedial action contract contractor, Shaw Environmental and Infrastructure (Shaw) handled all investigation-derived waste (IDW) generated during field events. Therefore, soil and water IDW generated during DPT soil and groundwater sampling activities at the Northern Boundary were accumulated in 55-gallon drums, provided by Shaw, and staged near the sampling and drilling activities. Shaw then managed the IDW and had it properly disposed of by subcontractors within 90 days of generation. Disposable equipment, including personal protective equipment, DPT soil sleeves, sample tubing, polyvinyl sheeting, paper towels, and aluminum foil, was disposed of in a separate 55-gallon drum as solid waste.

At Site UXO-03, IDW consisted of soil cuttings from the DPT installation of soil borings and temporary monitoring wells, well development and purge water, decontamination fluids, disposable equipment, and personal protective equipment. In accordance with the Base Waste Management Plan (March, 2008), soil cores from the borings were thinly spread around the boreholes. Liquid IDW was disposed of at the groundwater treatment facility at Lot 203. Disposable equipment was placed in Base trash receptacles.

3.5 MEC Intrusive Investigation Activities

Intrusive activities were conducted at the Northern Boundary in October 2009 and at Site UXO-03 in November 2010. The MEC intrusive investigation areas for Site UXO-03 and the Northern Boundary are shown in **Figure 3-6**.

The following field activities were conducted during the MEC intrusive investigations in accordance with ESS-108, the Expanded SI Work Plan, and the PA/SI Work Plan Addendum:

- Reacquisition of the geophysical anomalies representing potential subsurface MEC that were identified during the DGM surveys (the area of UXO-03 north of Birch Street was not investigated due to the geophysical results indicating potential buried underground utilities)
- Manual digging and identification of the sources of anomalies representing potential subsurface MEC
- Removal verification and excavation backfilling
- Disposal of MEC and material potentially presenting an explosive hazard (MPPEH)
- Processing and certifying Material Documented as Safe (MDAS) and disposal of Cultural Debris (CD)

USA Environmental, Inc. (USAE) provided support for the MEC intrusive investigations that included the Senior UXO Supervisor and six UXO technicians. Site management was provided by CH2M HILL; QC was provided by a CH2M HILL UXO Quality Control Specialist; and safety was provided by a CH2M HILL UXO Safety Officer.

3.5.1 Anomaly Reacquisition

At Site UXO-03, Lanier Surveying used a Trimble S6 Robotic Total Station to identify locations of the geophysical anomalies. MEC avoidance was practiced during reacquisition, as labeled pin flags were placed within approximately 1 foot of each anomaly. The intrusive investigation team then used an EM61 to identify the exact locations of the 61 geophysical anomalies.

At the Northern Boundary, the intrusive investigation team identified all 368 subsurface geophysical anomalies for excavation using an EM61, a Schonstedt magnetic locator, and a Trimble S6 Robotic Total Station.

3.5.2 Excavation and Removal Verification

Excavation of all anomalies selected as representing potential subsurface MEC was performed by USAE. The UXO teams that performed this work were composed of at least one UXO Technician III, one UXO Technician II, and up to four additional UXO technicians. Small hand tools, such as shovels, spades, trowels, and pry bars, were used to access potential MEC/ MPPEH. If the item was not suspected to be MEC or MPPEH, the source of the anomaly was moved to the scrap metal collection point. If the item was categorized as MEC or MPPEH not safe to move, the item was left in place and flagged until it was properly disposed. If the item was suspected to be MPPEH that was safe to move, the item was moved to the MPPEH collection point. Following demilitarization, if necessary, and after the 100 percent inspection and 100 percent reinspection were completed, MPPEH was documented as MDAS and disposed of off-site. Once the item was removed, the excavation area was rechecked with the EM61 to ensure all anomaly source material had been removed.

QC inspections were performed by the UXOQCS during fieldwork and consisted of checking 10 percent of the intrusively investigated anomaly locations using a Schonstedt magnetic locator to determine if all detectable metallic items had been removed. Additional QA/QC removal verification requirements and analysis were followed as described the Expanded SI Work Plan and the PA/SI Work Plan Addendum. All DQOs outlined in the work plans were met during the MEC intrusive investigation. All QC seeds buried onsite before the 2007 and 2009 DGM activities were recovered.

TABLE 3-1
DGM Instruments Standardization Tests and Acceptance Criteria
Site UXO-03, Former D-3 Practice Hand Grenade Course
MCB CamLej, North Carolina

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

TABLE 3-2
Water Quality Parameters
Site UXO-03, Former D-3 Practice Hand Grenade Course
MCB CamLej, North Carolina

Station ID	GR-TW02	GR-TW03	MR03-TW01	MR03-TW02	MR03-TW03	MR03-TW04
Sample Date	7/28/2007	7/27/2007	7/16/2008	7/14/2008	7/14/2008	7/14/2008
Field Parameters						
Dissolved Oxygen (mg/L)	0.00	0.88	1.98	0.12	0.01	1.51
Oxidation Reduction Potential (mV)	-158	38	74	-31	-60	-28
pH	7.17	5.15	5.52	4.51	4.40	4.74
Specific Conductance (mS/cm)	0.320	0.219	0.327	0.347	0.254	0.228
Temperature (°C)	18.07	18.32	25.72	18.78	19.43	20.56
Turbidity (NTU)	135.7	33.56	9.8	24.3	15.1	9

Notes:
mg/L - milligrams per Liter
mV - millivolts
mS/cm - millisiemens per centimeter
°C - degrees Celsius
NTU - Nephelometric Turbidity Unit

TABLE 3-3
QA/QC Sampling Program
Site UXO-03, Former D-3 Practice Hand Grenade Course
MCB CamLej, North Carolina

Sample Type	Description	Frequency	Analytes
Field Blank	Designed to detect contamination in the decontamination water. A field blank is decontamination water collected directly in the sample bottle. It shall be handled like a sample and transported to the laboratory for analysis.	One field blank from each source of decontamination water for each sampling event, where a sampling event is defined as one week	All laboratory analyses requested for the environmental samples collected at the site for that week
Equipment Blank	Designed to detect contamination of environmental samples caused by contamination of sampling equipment. An equipment blank is analyte-free water that is poured into or pumped through the sampling device, transferred to a sample bottle, and transported to the laboratory for analysis.	One per each day of sampling	All laboratory analyses requested for environmental samples collected at the site on that day
Field Duplicate	Designed to check precision of data in the laboratory. A field duplicate is a sample collected in addition to the native sample at the same sampling location during the same sampling event.	10%	Same parameters as parent sample
MS/MSD	Designed to evaluate potential matrix interferences, accuracy, and precision. Three aliquots of a single sample – one native and two spiked with the same concentration of matrix spike compounds – are analyzed.	5%	Same parameters as parent sample

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Legend
- DGM Transects
- Surface Water
- Site UXO-03 Boundary
- Northern Boundary of Site UXO-03

Notes:
- DGM Survey conducted in February, 2007 using EM61 - MK2

N

0 50 100 200 Feet

1 inch = 100 feet

Figure 3-1
Digital Geophysical Mapping Results - Site UXO-03
Site UXO-03
PA/SI Report
MCB CamLej
North Carolina

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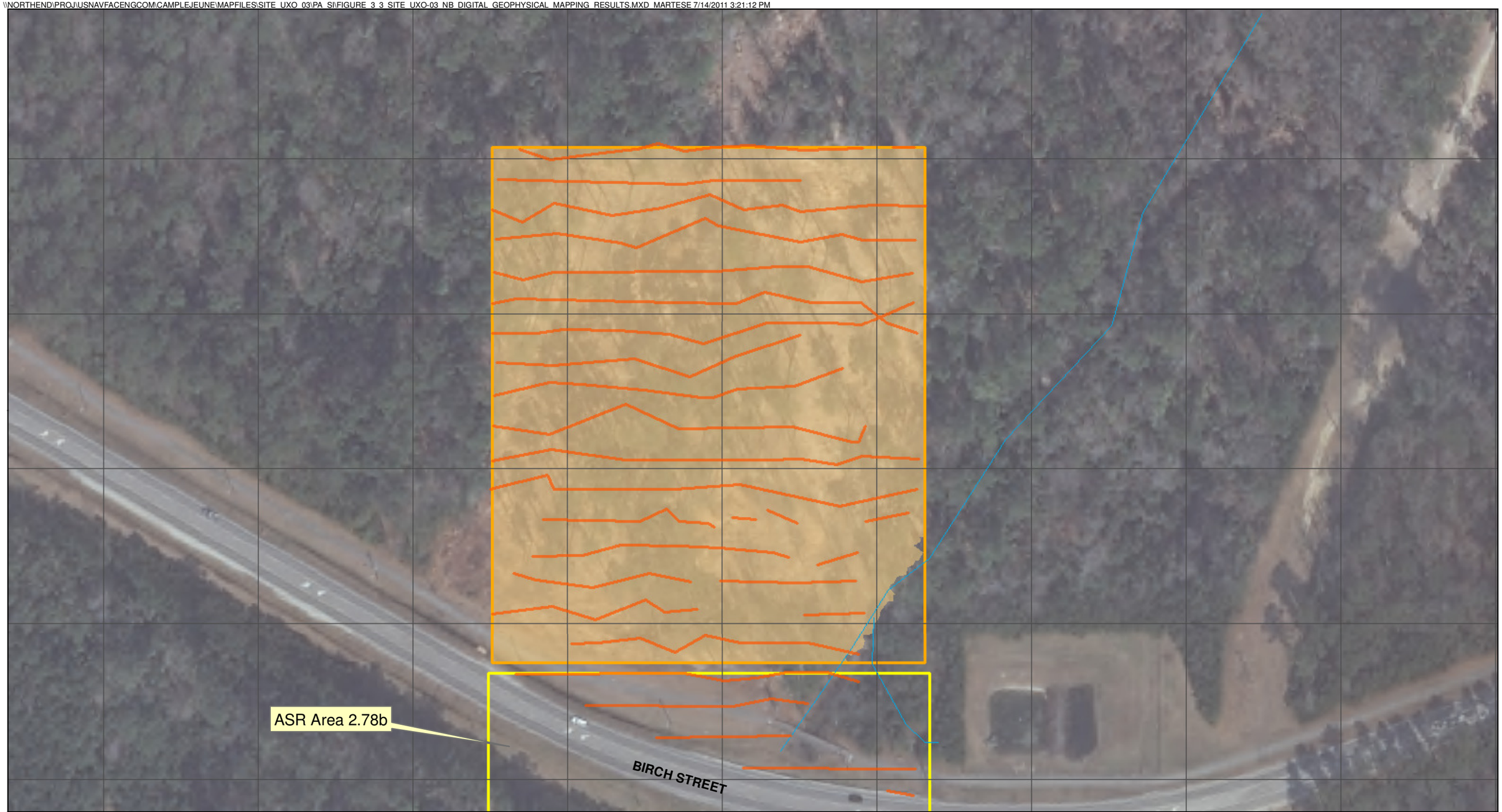

Legend
- DGM Transects (2007 Focused SI)
- Surface Water
- 50 meter Grids
- Site UXO-03 Boundary
- Northern Boundary of Site UXO-03
- DGM Coverage (2009 Expanded SI)

Notes:
- DGM Survey conducted in February, 2007 using EM61 - MK2

N

0 50 100 200 Feet

1 inch = 100 feet

Figure 3-2
Digital Geophysical Mapping Results - Northern Boundary Area
Site UXO-03
PA/SI Report
MCB CamLej
North Carolina

CH2MHILL

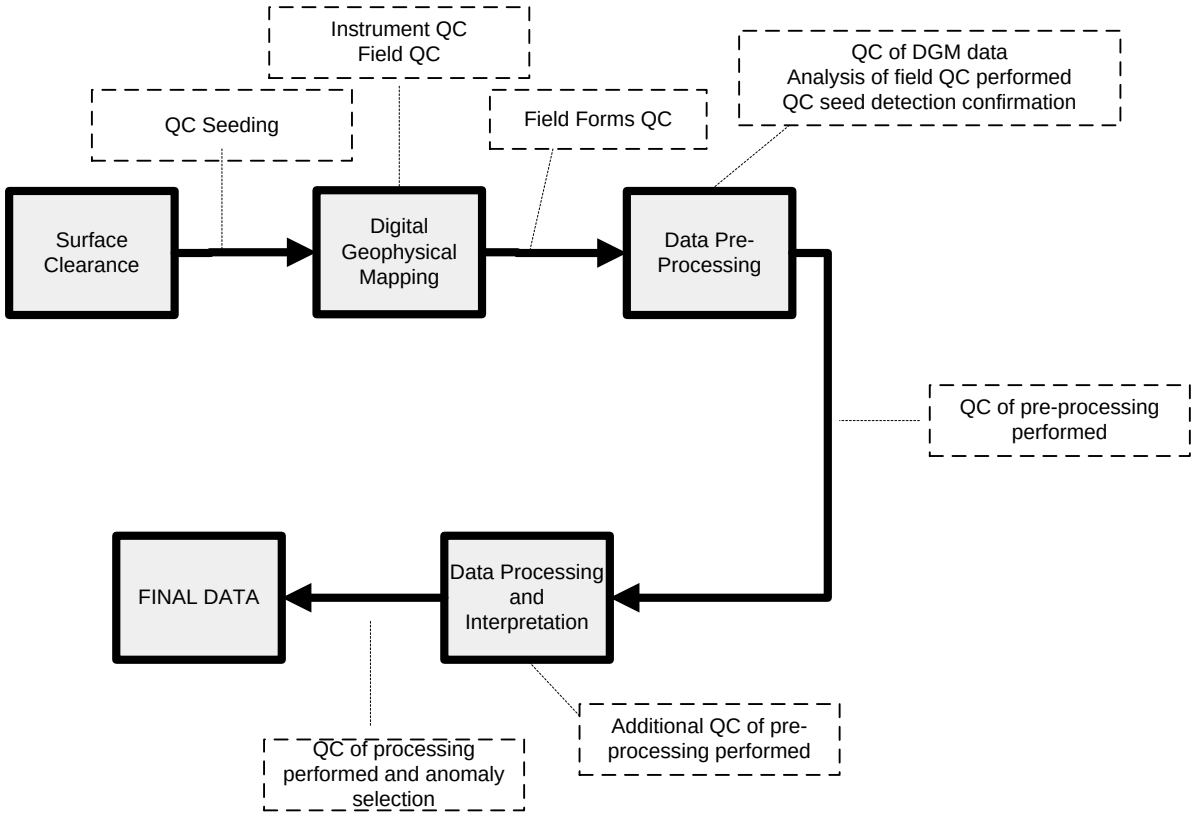

FIGURE 3-3
Overview of DGM Process QC
Site UXO-03
PA/SI Report
MCB CamLej, North Carolina

Generated by: David Seed Checked by: Erin Twamley

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Legend

- Site UXO-03 Boundary
- Decision Units
- Surface Water
- Sediment/Surface Water Sample Locations
- Surface Soil Sample Locations
- Subsurface Soil Sample Locations
- Subsurface Soil Sample/Temporary Well Location

N

0 50 100 200 Feet

1 inch = 100 feet

Figure 3-4
Site UXO-03 Environmental Sampling Locations
Site UXO-03
PA/SI Report
MCB CamLej
North Carolina

CH2MHILL

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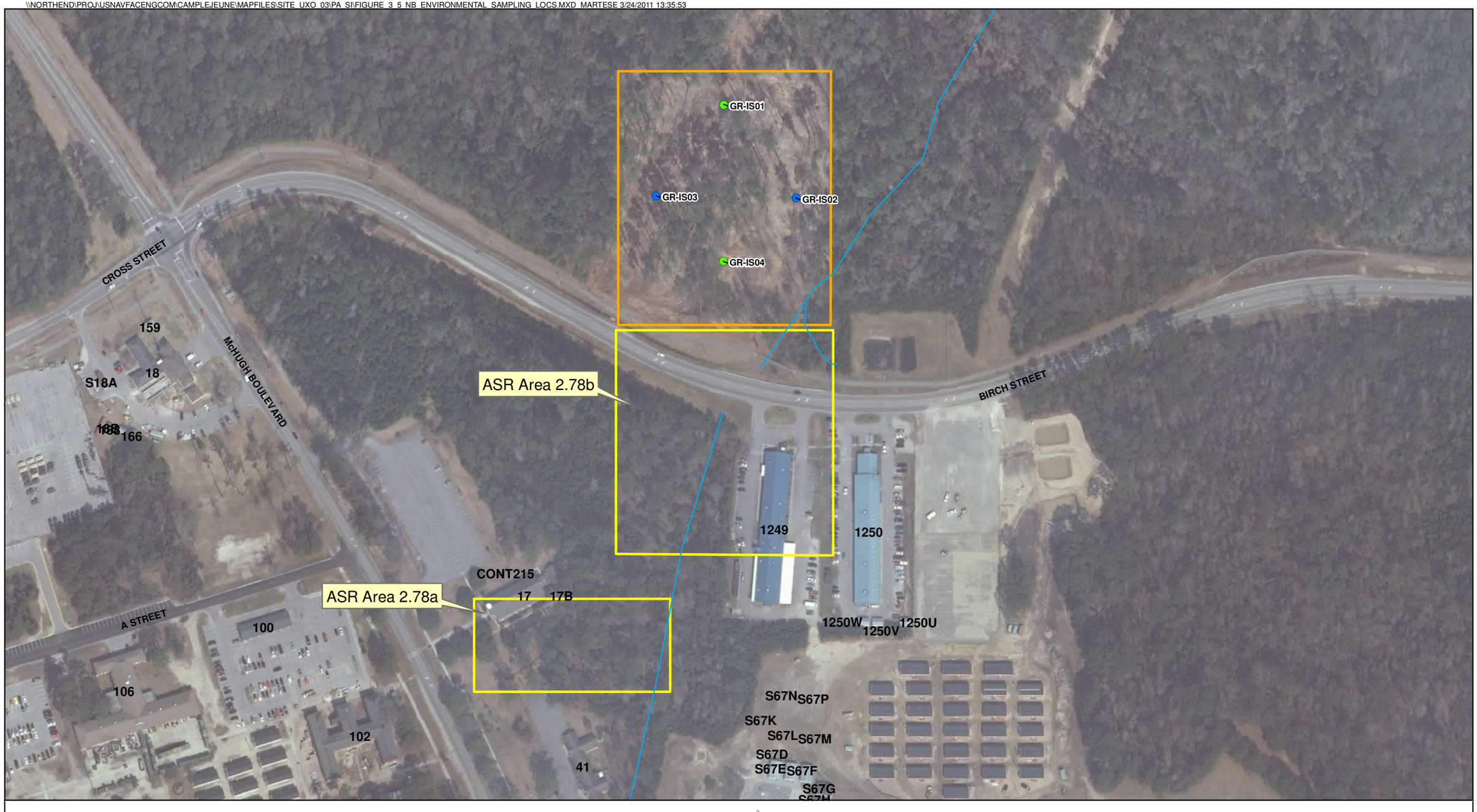


Legend

- Soil Boring (Focused SI)
- Soil Boring/Temporary Well (Focused SI)
- Surface Water
- Site UXO-03 Boundary
- Northern Boundary of Site UXO-03

N

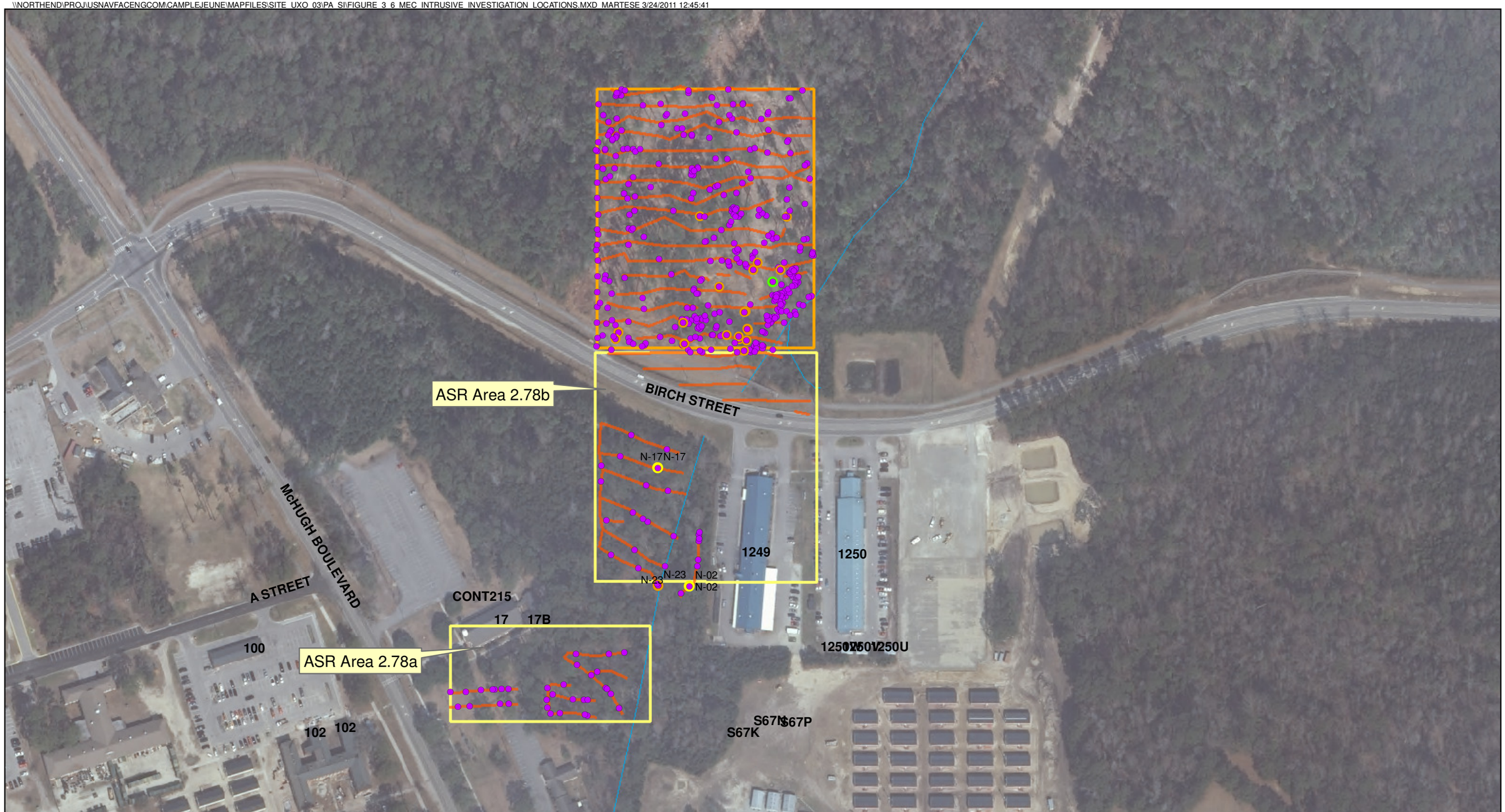
0 100 200 400 Feet

1 inch = 200 feet

Figure 3-5
Northern Boundary Investigation Environmental Sampling Locations
Site UXO-03
PA/SI Report
MCB CamLej
North Carolina

CH2MHILL

\\NORTHEND\PROJ\USNAVFACENGCOM\CAMPLEJEUNE\MAPFILES\SITE_UXO_03\PA_SI\FIGURE_3_6_MEC_INTRUSIVE_INVESTIGATION_LOCATIONS.MXD MARTESE 3/24/2011 12:45:41



Legend

- Investigated Anomaly
- Investigated Anomaly - MEC
- Investigated Anomaly - Munitions Debris
- Investigated Anomaly - Small Arms Ammunition
- DGM Transects
- Site UXO-03 Boundary
- Northern Boundary of Site UXO-03
- Surface Water

Note:
- DGM Survey conducted in February, 2007 using EM61 - MK2

N

0 100 200 400 Feet

1 inch = 200 feet

Figure 3-6
MEC Intrusive Investigation Locations - Site UXO-03 and Northern Boundary
Site UXO-03
PA/SI Report
MCB CamLej
North Carolina

CH2MHILL

SECTION 4

Investigation Results

This section presents the findings of the investigative activities conducted at Site UXO-03 between May 2007 and August 2008.

4.1 DGM Results

The following subsections summarize the results of the DGM surveys. The geophysical investigation reports prepared by ARM and NAEVA detailing the results are provided in **Appendix D**.

4.1.1 Site UXO-03

The DGM activities covered a total of 2,536 linear feet (0.77 acres), or approximately 11 percent of the 7 acres of Site UXO-03. The DGM survey yielded a total of 61 geophysical anomalies with a signal greater than 3 mV, which represents potential subsurface MEC of which 2 coincided with the locations of QC seed items. There is no apparent pattern to the distribution of the anomalies across the surveyed portion of the site. The areas of the site covered by the survey and the locations of anomalies representing potential subsurface MEC are shown on **Figure 4-1.** DGM was not conducted in several areas of Site UXO-03 because of the presence of buildings, parking lots, and Birch Street (**Figure 4-1**).

4.1.2 Northern Boundary of Site UXO-03

During the Focused SI activities, a total of 7,500 linear feet along 22 east-west oriented transects were geophysically surveyed across the Northern Boundary. Approximately 11 percent of the Northern Boundary was geophysically surveyed. A total of 189 anomalies with a signal greater than 2.5 mV, which represent potential subsurface MEC, were detected, of which 4 coincided with the locations of QC seed items that CH2M HILL placed along the transects.

The DGM conducted during the Expanded SI resulted in the selection of 368 anomalies as representing potential subsurface MEC over 5.72 acres. The addition of the Expanded SI DGM resulted in the geophysical survey of approximately 96% of the Northern Boundary area. Six of these anomalies were QC seeds placed by CH2M HILL before the geophysical services subcontractor began survey activities.

A higher percentage of anomalies occurred in the southeast portion of the Northern Boundary towards ASR Area 2.78b. The areas of the Northern Boundary covered by both surveys and the anomalies observed are shown in **Figure 4-2.**

4.2 Environmental Investigation Results

The following subsections present and summarize the laboratory data from analysis of soil, groundwater, surface water, and sediment samples collected at Site UXO-03 and the Northern Boundary. **Sections 5** and **6** evaluate these analytical data from human health and ecological viewpoints. Laboratory analytical data can be found in **Appendix I**.

4.2.1 Soil

Following data validation of the laboratory analytical data, surface and subsurface soil samples were screened against the following criteria:

- North Carolina soil screening levels (NC SSLs)
- Adjusted USEPA Regional Screening Levels (RSLs) for Chemical Contaminant Tables (USEPA, 2010a)
- MCB CamLej background surface and subsurface soil concentrations (two times the mean base background concentration), which were available for inorganic analytes only (Baker Environmental [Baker], 2001)

The comparison criteria proposed in the PA/SI Work Plan and the Focused SI Work Plan included the USEPA Region IX preliminary remediation goals. However, the USEPA RSLs published in November 2010 effectively replaced these goals. The RSLs for noncarcinogenic compounds were adjusted by dividing by 10 to conservatively account for exposure to multiple analytes. The methodology for calculating NC SSLs for contaminant migration from soil to groundwater was developed to identify chemical concentrations in soil that have the potential to affect groundwater. The NC SSLs are back-calculated from acceptable groundwater concentrations and take into consideration fate and transport parameters (NCDENR, 2000).

Figure 4-3 illustrates the locations of the surface soil samples that exceeded the Base background (BBG) levels *and* at least one of the screening levels (the NC SSLs or the USEPA Adjusted RSLs for soil). **Figure 4-4** depicts the locations of subsurface soil samples that exceeded two times the BBG levels *and* at least one of the screening levels (the NC SSLs or the USEPA Adjusted Soil RSLs). The detected concentrations of specific target analytes are summarized in **Tables 4-1 through 4-5**. A summary of the analytical results is also provided below. Exceedances for metals are only discussed if the detection exceeded two times the mean BBG concentration *and* one of the screening levels**.**

Results

- **Explosives Residues**
  - Three explosives residue constituents (2,4,6-trinitrotoluene, 2,6-dinitrotoluene, and cyclotetramethylenetetranitramine [HMX]) were detected in surface soil samples at concentrations below screening levels.
  - Explosive residues were not detected in subsurface soil samples.
- **Perchlorate**
  - Perchlorate was detected in one surface soil sample at a concentration below all relevant screening criteria.
  - Perchlorate was not detected in any of the subsurface soil samples.
- **Metals**

  The following table summarizes the regulatory exceedances for metals analysis in surface soil samples.

Chemical Name	Frequency of Detection (# detected / # analyzed)	Minimum Concentration (mg/kg)	Maximum Concentration (mg/kg)	Location of Maximum Concentration	Screening Criteria	(mg/kg)	Frequency of Exceedances
Arsenic	36/37	0.25	1.8	MR03-SS23	2X Mean BBG	0.626	25
					Residential RSL	0.39	32
					Industrial RSL	1.6	1
Chromium	37 / 37	1.1	6.7 J	MR03-SS19	NCSSL	3.8	19
					2X Mean BBG	6.05	2
					Residential RSL	0.29	37
					Industrial RSL	5.6	5
Iron	37/37	464	3,100	MR03-SS09	NCSSL	150	37
Manganese	37/37	1.9	116	GR-IS04-0-1	NCSSL	65	1
					2X Mean BBG	13.7	1

mg/kg = milligrams per kilogram

The following table summarizes the regulatory exceedances for metals in subsurface soil samples.

Chemical Name	Frequency of Detection (# detected / # analyzed)	Minimum Concentration (mg/kg)	Maximum Concentration (mg/kg)	Location of Maximum Concentration	Screening Criteria (mg/kg)		Frequency of Exceedances
Arsenic	15/15	0.64	4.6	MR03-IS05	2X Mean BBG	2.12	5
					Residential RSL	0.39	14
					Industrial RSL	1.6	6
Chromium	13/15	5.8	11.6	MR03-IS04	NCSSL	3.8	13
					2X Mean BBG	14.5	4
					Residential RSL	0.29	13
					Industrial RSL	5.6	13
Iron	15/15	1,090	10,600	MR03-IS04	NCSSL	150	15
					2X Mean BBG	5,439	6
					Residential RSL	5,500	6

- Thirteen additional metals were detected at concentrations greater than two times the mean BBG concentration in at least one surface or subsurface soil sample; however, no concentrations exceeded both two times the mean BBG and one of the regulatory screening criteria (Adjusted Soil RSLs or NC SSLs).

4.2.2 Groundwater

This section presents the results for laboratory analysis of groundwater samples collected from the six shallow temporary monitoring wells. Groundwater results were compared to the following standards:

- North Carolina Groundwater Quality Standards (NCGWQS) (NCDENR, 2010)
- USEPA Tap Water RSLs (USEPA, 2009a)
- MCB CamLej background groundwater concentrations (twice the mean background groundwater concentration), which were available for inorganic constituents only (Baker, 2002)

The NCGWQS are the maximum allowable concentrations resulting from any discharge of contaminants to the land or waters of the state, which may be tolerated without creating a threat to human health or otherwise render the groundwater unsuitable for its intended purpose. The detections and exceedances of NCGWQS and USEPA RSLs and/or background are shown in **Tables 4-6 and 4-7** and **Figure 4-5.** A summary of analytical results is discussed below. Exceedances for metals are discussed only if the detection exceeded two times the mean BBG concentration *and* the NCGWQS and/or the USEPA Tap Water RSLs**.**

- **Explosives Residues**
  - One **explosives residues** constituent (1,3 dinitrobenzene) was detected in one groundwater sample at a concentration of 0.19 microgram per liter (µg/L). The detected concentration was below all screening criteria.
- **Perchlorate**
  - **Perchlorate** was not detected in gr**o**undwater samples collected from Site UXO-03.
- **Metals**
  - The following table summarizes regulatory exceedances for total metals analyses.

Chemical Name	Frequency of Detection (# detections / # analyzed)	Minimum Concentration (µg/L)	Maximum Concentration (µg/L)	Location of Maximum Concentration	Screening Criteria (µg/L)		Frequency of Exceedances
Total Metals							
Aluminum	5/7	630	4,880	MR03-TW02	2X Mean BBG	1,886	2
					Tap Water RSL	3,700	2
Chromium	4/7	0.98	18.8	MR03-TW02	2X Mean BBG	3.13	2
					Tap Water RSL	0.043	4
					NCGWQS	10	2
Iron	7/7	5,540	34,500	MR03-TW02	2X Mean BBG	5,999	4
					Tap Water RSL	2,600	6
					NCGWQS	300	7
Manganese	7/7	108	356	MR03-TW01	2X Mean BBG	214	2
					Tap Water RSL	88	6
					NCGWQS	50	6
Mercury	5/7	0.023	1.1	MR03-TW04	2X Mean BBG	0.1	4
					NCGWQS	1	1
Nickel	5/7	6.4	90	MR03-TW01	2X Mean BBG	7.97	4
					Tap Water RSL	73	1
Thallium	1/7	7.7 J	7.7 J	GR-TW03	2X Mean BBG	3.78	1
					NCGWQS	2	1
Dissolved Metals							
Iron	7/7	349	13,500	MR03-TW02	2X Mean BBG	5,999	3
					Tap Water RSL	2,600	6
					NCGWQS	300	7
Manganese	7/7	22.4	351	MR03-TW01	2X Mean BBG	214	1
					Tap Water RSL	88	5
					NCGWQS	50	6
Nickel	5/7	1.7	80	MR03-TW01	2X Mean BBG	7.97	4
					Tap Water RSL	73	1
Thallium	1/7	5.6 J	5.6 J	GR-TW03	2X Mean BBG	3.78	1
					NCGWQS	2	1

Four additional total metals (beryllium, magnesium, silver, and zinc) were detected in at least one sample greater than two times the mean BBG concentration. However, none of these metals were detected in exceedance of the NCGWQS or the USEPA Adjusted Tap Water RSLs.

One dissolved metal (copper) was detected in at least one sample greater than two times the mean BBG concentration, but was not detected in exceedance of the NCGWQS or the USEPA Adjusted Tap Water RSLs.

4.2.3 Surface Water and Sediment

Surface water and sediment samples were obtained from two locations identified in the approved PA/SI Work Plan, as shown on **Figure 3-4**.

Surface water sampling results were compared to the North Carolina Administrative Code 02B Surface Water Standards (NC 2B), the USEPA Adjusted Tap Water RSLs, and the National Recommended Water Quality Criteria (NRWQC). The NC 2B water quality standards apply to surface waters within water supply watersheds and are applicable to all water supply classifications (NCDENR, 2007).

The sediment sampling results were compared to the November 2010 USEPA RSL Table (USEPA, 2010a). The RSLs for noncarcinogenic compounds were adjusted by dividing by 10 to conservatively account for exposure to multiple analytes.

The detections and exceedances of screening criteria for surface water and sediment are shown in **Tables 4-8 and 4-9,** respectively, and in **Figure 4-6**.

Surface Water

- **Explosives Residues**
  - **Explosives residue** constituents were not detected in the surface water samples collected at Site UXO-03.
- **Perchlorate**
  - **Perchlorate** was detected in the sample collected from MR03-SW02 at a concentration of 0.234 µg/L. The detected concentration was below all screening criteria.
- **Metals**

The table below presents a summary of screening criteria exceedances in the surface water samples.

Chemical Name	Frequency of Detection (# detected / # analyzed)	Minimum Concentration (µg/L)	Maximum Concentration (µg/L)	Location of Maximum Concentration	Screening Criteria (µg/L)		Frequency of Exceedance
Total Metals							
Antimony	1/3	--	3.8 J	MR03-SW02	Tap Water RSL	1.5	1
Arsenic	2/3	3.3 J	3.9 J	MR03-SW01	NRWQC	0.018	2
					Tap Water RSL	0.045	2
Chromium	2/3	1.2 J	1.4 J	MR03-SW02	Tap Water RSL	0.043	2
Iron	3/3	526	6,920	MR03-SW02	NRWQC	300	2
					Tap Water RSL	2,600	2
Manganese	3/3	14.1 J	86.3	MR03-SW02	NRWQC	50	2
Dissolved Metals							
Antimony	1/3	1/3	6.2 J	MR03-SW01	Tap Water RSL	1.5	1
					NRWQC	5.6	1
Arsenic	2/3	2.9 J	3 J	MR03-SW02	Tap Water RSL	0.045	2
					NRWQC	0.018	2
Chromium	2/3	--	1.5 J	MR03-SW01	Tap Water RSL	0.043	1
Iron	3/3	214	511	MR03-SW02	NRWQC	300	2
Manganese	3/3	5.3 J	81.8	MR03-SW02	NRWQC	50	2

Sediment Samples

Neither **explosives residues** nor **perchlorate** were detected at either of the sample locations.

Arsenic was detected above the USEPA Adjusted Residential Soil RSL (0.39 mg/kg) in the sample collected from MR03-SD01. **Chromium** was detected in all samples above the USEPA Adjusted Residential Soil RSL (0.29 mg/kg). No metals were detected at concentrations above USEPA Adjusted Industrial Soil RSLs.

Data validation reports are provided in **Appendix F.**

4.3 MEC Intrusive Investigation

This section summarizes the results of the MEC intrusive investigations conducted at Site UXO-03 and the Northern Boundary of Site UXO-03.

4.3.1 Site UXO-03

The MEC intrusive investigations were conducted in November 2010 and involved manual excavation and identification of the sources of 100 percent of all anomalies representing potential subsurface MEC **(Figure 3-6)**. One MD item, an expended U.S. Signal, Illum, Ground, Clusters, M125A2, was found on the ground surface in the southern portion of ASR Area 2.78b during surveying activities on November 9, 2010. In addition, small arms ammunition (SAA) (two M16 clips) was found at Site UXO-03 on November 12, 2010. Forty pounds of non-MPPEH debris (scrap) were collected during the November 2010 activities at Site UXO-03. Data collected during the investigation of each anomaly are provided on dig sheets (**Appendix J**).

Following the required certifications and verifications, all demilitarized MDAS inspected during the intrusive investigation was placed in a 55-gallon drum. A DD Form 1348-1A was completed for the MDAS. The item was then transferred to a drum containing MDAS from Site UXO-22, and another DD Form 1348-1A was completed. A copy of both DD forms are provided in **Appendix H**. Disposal of the item by smelting will be arranged as part of the Site UXO-22 activities.

The 40 pounds of non-MPPEH debris were disposed of at the Jacksonville Scrap Iron and Metal Company. A copy of the DD Form 1328-1A for this material can be found in **Appendix H**.

4.3.2 Northern Boundary of Site UXO-03

The MEC intrusive investigation at the Northern Boundary was conducted in October 2009.

Nineteen MD items and one MEC item were recovered from the Northern Boundary during the MEC intrusive investigation (**Figure 3-6**):

- Four Flares Surface, M49, expended,
- Six Signals, Illumination, Ground, White Star Parachute, M127A1, expended
- Four Grenades, Hand, Illuminating, MK 1 expended
- One rifle, M16A1, fragments
- Three grenade spoons
- One grenade fuze, expended
- One M20A1, Ground Illumination Signal (MEC)

Approximately 5 percent of the 368 anomalies investigated were identified as MD. One of the items (M20A1, Ground Illumination Signal) was identified as MEC and was found in the southeast portion of the Northern Boundary, at approximately 3 inches bgs. (**Appendix J**). Based on an evaluation of the MEC item, it was decided that controlled detonation would be the safest means of disposal. Controlled detonation of the item was conducted on October 22, 2009. USAE conducted the controlled detonation using a 0.5-pound net explosive weight booster for the demolition. Photos of the controlled detonation of the item are provided in **Appendix J**.

Following controlled detonation, a composite sample of the surface soil was collected using the TR-02-1 method within the controlled detonation crater and analyzed for explosives residues (SW-846 USEPA Method 8330), perchlorate (USEPA Method 6850), and total metals (ILM05). Surface soil concentrations were screened against BBG concentrations (metals only), the NC SSLs, and the USEPA Residential and Industrial Soil RSLs (adjusted). Explosives residues and perchlorate were not detected in the surface soil sample. Arsenic was detected within the surface soil sample above both the BBG concentration and the Residential RSL. The results compared to the screening values for the surface soil sample are summarized in **Table 5-1**.

Following the required certifications and verifications, all MDAS recovered during the intrusive investigation (3.2 pounds) was disposed of by smelting at the Bedford Recycling facility in Bedford, Indiana, on January 22, 2009. CD recovered during the investigation is currently being held at an onsite CD scrap collection point and will be disposed of at a local scrap iron and metal recycling facility.

TABLE 4-1
Multi-Increment Surface Soil Analytical Results - Site UXO-03
Site UXO-03, Former D-3 Practice Hand Grenade Course
MCB CamLej, North Carolina

Station ID	Adjusted Industrial Soil RSL (November, 2010)	Adjusted Residential Soil RSL (November, 2010)	NCSSL (January, 2010)	CamLej Background	MR03-DU01			MR03-DU02		
Sample ID					MR03-DU01-SS01-08B	MR03-DU01-SS02-08B	MR03-DU01-SS03-08B	MR03-DU02-SS01-08B	MR03-DU02-SS02-08B	MR03-DU02-SS03-08B
Sample Date					06/18/08	06/18/08	06/18/08	06/18/08	06/18/08	06/18/08
Chemical Name										
Explosives (µg/kg)										
No Detections										
Total Metals (mg/kg)										
Aluminum	99,000	7,700	NS	5,487	2,970	2,940	2,800	3,560	3,890 J	3,840 J
Antimony	41	3.1	NS	0.447	4.5 UJ	4.7 UJ	4.4 UJ	5.5 UJ	6.1 UJ	0.12 J
Arsenic	1.6	0.39	5.8	0.626	0.61 J	**0.73 J**	**0.98**	**0.69 J**	**0.89 J**	**0.91**
Beryllium	200	16	NS	0.103	0.037 J	0.032 J	0.033 J	0.035 J	0.089 J	0.084 J
Cadmium	80	7	3	0.033	0.38 U	0.39 U	0.37 U	0.46 U	**0.084 J**	**0.047 J**
Calcium	NS	NS	NS	6,360	1,630	2,380	3,650	1,290	2,230 J	1,230 J
Chromium	5.6	0.29	3.8	6.05	4.2	4.1	4.3	4.6	4.9 J	4.5 J
Cobalt	30	2.3	NS	0.294	3.8 U	3.9 U	3.7 U	4.6 U	0.23 J	**0.3 J**
Copper	4,100	310	700	4.83	**5.7**	3.6	3.2	4	4.6	3.8
Iron	72,000	5,500	150	3,245	1,230	1,070	1,100	1,110	1,270 J	1,090 J
Lead	800	400	270	12.3	**15.9**	**13.5**	**15**	**19.8**	**15.6**	**16.4**
Magnesium	NS	NS	NS	238	378 U	391 U	366 U	456 U	220 J	180 J
Manganese	2,300	180	65	13.7	12.6	11.4	13.6	10.1	13.2 J	9.2 J
Mercury	31	2.3	1	0.081	0.041	0.036	0.021 J	0.044	0.047	0.063
Nickel	2,000	150	130	1.21	1 J	0.93 J	**1.5 J**	1.1 J	1.1 J	1 J
Selenium	510	39	2.1	0.563	0.41 J	2.7 U	2.6 U	0.47 J	3.6 U	2.6 U
Sodium	NS	NS	NS	80.9	378 U	391 U	366 U	456 U	29.2 J	42 J
Vanadium	520	39	NS	8.9	4.4	4.3	4.2	5.1	5.6 J	5.1 J
Zinc	31,000	2,300	1,200	10.8	**42.1**	**16.7**	**17.9**	**14.2**	**17.1**	**28.3**
Wet Chemistry										
% Solids	NA	NA	NA	NA	94	95	94	79	68	91

Notes:
mg/kg - Milligrams per kilogram
µg/kg - Micrograms per kilogram
NS- Non specified
NA- Not applicable
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
Shading indicates exceedance of Adjusted Industrial Soil RSL
Underline indicates exceedance of Adjusted Residential Soil RSL
Bold box indicates exceedance of NCSSL criteria
Bold text indicates exceedance of two times the mean background concentration

TABLE 4-2
TR-02-1 Surface Soil Analytical Results - Site UXO-03
Site UXO-03, Former D-3 Practice Hand Grenade Course
MCB CamLej, North Carolina

Station ID	Adjusted Industrial Soil RSL (November, 2010)	Adjusted Residential Soil RSL (November, 2010)	NCSSL (January, 2010)	CamLej Background	MR03-SS01		MR03-SS02	MR03-SS03	MR03-SS04	MR03-SS05		MR03-SS06	MR03-SS07
Sample ID					MR03-SS01-08B	MR03-SS01D-08B	MR03-SS02-08B	MR03-SS03-08B	MR03-SS04-08B	MR03-SS05-08B	MR03-SS05D-08B	MR03-SS06-08B	MR03-SS07-08B
Sample Date					06/19/08	06/19/08	06/19/08	06/19/08	06/19/08	06/19/08	06/19/08	06/19/08	06/18/08
Chemical Name													
Explosives (µg/kg)													
2,4,6-Trinitrotoluene	42,000	3,600	NS	NS	100 U	99 U	100 U	100 U	100 U	100 U	160 J	100 U	100 UJ
2,6-Dinitrotoluene	62,000	6,100	NS	NS	100 U	99 U	100 U	100 U	100 U	100 U	99 U	100 U	190 J
HMX	4,900,000	380,000	NS	NS	1,100 J	200 U	200 U	200 U	200 U	200 U	1,100 J	200 U	200 UJ
Perchlorate	72,000	5,500	NS	NS	2.47 U	3.41 U	3.68 U	2.34 U	2.84 U	7.59	3.61 U	2.92 U	2.56 U
Total Metals (mg/kg)													
Aluminum	99,000	7,700	NS	5,487	1,400	1,480	1,510	4,190	2,020	4,140	4,340	1,110	2,380 J
Antimony	41	3.1	NS	0.447	5.2 UJ	7.3 UJ	7.8 UJ	5 UJ	6.3 UJ	7.6 UJ	7.8 UJ	6.2 UJ	0.17 J
Arsenic	1.6	0.39	5.8	0.626	**0.79 J**	**0.72 J**	**0.99 J**	**1.3**	0.54 J	**1.1 J**	**0.88 J**	0.37 J	0.6 J
Barium	19,000	1,500	580	14.5	**20.5**	24.2 U	**40.9**	16.6 U	21 U	25.2 U	26.1 U	20.5 U	18.4 U
Beryllium	200	16	NS	0.103	0.032 J	0.028 J	0.05 J	0.052 J	0.028 J	0.041 J	0.038 J	0.019 J	0.081 J
Cadmium	80	7	3	0.033	0.44 U	0.61 U	0.65 U	0.42 U	0.53 U	0.63 U	0.65 U	0.51 U	0.02 J
Calcium	NS	NS	NS	6,360	2,190 J	2,320 J	2,610 J	757 J	902 J	351 J	540 J	637 J	274 J
Chromium	5.6	0.29	3.8	6.05	2.7	2.5	2	5.2	3.5	2.3	2.4	1.6	1.8 J
Cobalt	30	2.3	NS	0.294	4.4 U	6.1 U	6.5 U	4.2 U	5.3 U	6.3 U	6.5 U	5.1 U	0.15 J
Copper	4,100	310	700	4.83	4.3	4.7	3.1 J	2.1	1.4 J	**59.3**	**72.7**	0.99 J	1.9 J
Iron	72,000	5,500	150	3,245	781	791	753	2,500	1,010	1,160	1,220	888	1,020 J
Lead	800	400	270	12.3	**19.1**	**21.5**	**46.4**	**28.8**	**22.6**	**16.9**	**16.9**	**16.2**	**30.5**
Magnesium	NS	NS	NS	238	435 U	605 U	648 U	415 U	526 U	629 U	654 U	513 U	57.8 J
Manganese	2,300	180	65	13.7	**13.9**	**15**	13	8.9	13.5	8.1	12.7	8.6	5.1 J
Mercury	31	2.3	1	0.081	0.046	0.049 J	**0.097**	0.078	0.025 J	**0.099**	**0.12**	0.029 J	0.069
Nickel	2,000	150	130	1.21	1.1 J	1.1 J	**1.9 J**	**1.3 J**	0.57 J	0.78 J	0.72 J	0.66 J	0.75 J
Selenium	510	39	2.1	0.563	0.44 J	**0.98 J**	**0.92 J**	**0.59 J**	0.52 J	**1.2 J**	**0.94 J**	3.6 U	3.2 U
Sodium	NS	NS	NS	80.9	435 U	605 U	648 U	415 U	526 U	629 U	654 U	513 U	38.5 J
Vanadium	520	39	NS	8.9	4.4 U	6.1 U	6.5 U	**10.4**	5.3 U	6.3 U	6.5 U	5.1 U	3.7 J
Zinc	31,000	2,300	1,200	10.8	**20.8**	**18.5**	**21.1**	**11.3**	**10.9**	7.6 U	7.8 U	6.2 U	3 J
Wet chemistry													
% Solids	NA	NA	NA	NA	81	58	54	85	70	58	55	69	78

Notes:
mg/kg - Milligrams per kilogram
µg/kg - Micrograms per kilogram
NS- Non specified
NA- Not applicable
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
Shading indicates exceedance of Adjusted Industrial Soil RSL
Underline indicates exceedance of Adjusted Residential Soil RSL
Bold box indicates exceedance of NCSSL criteria
Bold text indicates exceedance of two times the mean background concentration

TABLE 4-2
TR-02-1 Surface Soil Analytical Results - Site UXO-03
Site UXO-03, Former D-3 Practice Hand Grenade Course
MCB CamLej, North Carolina

Station ID	Adjusted Industrial Soil RSL (November, 2010)	Adjusted Residential Soil RSL (November, 2010)	NCSSL (January, 2010)	CamLej Background	MR03-SS08	MR03-SS09	MR03-SS10	MR03-SS11	MR03-SS12	MR03-SS13	MR03-SS14	MR03-SS15	
Sample ID					MR03-SS08-08B	MR03-SS09-08B	MR03-SS10-08B	MR03-SS11-08B	MR03-SS12-08B	MR03-SS13-08B	MR03-SS14-08B	MR03-SS15-08B	MR03-SS15D-08B
Sample Date					06/18/08	06/18/08	06/18/08	06/18/08	06/18/08	06/18/08	06/18/08	06/18/08	06/18/08
Chemical Name													
Explosives (µg/kg)													
2,4,6-Trinitrotoluene	42,000	3,600	NS	NS	100 UJ	100 U	100 U	100 UJ	100 UJ	100 UJ	100 U	100 UJ	100 UJ
2,6-Dinitrotoluene	62,000	6,100	NS	NS	100 UJ	100 U	100 U	100 UJ	100 UJ	100 UJ	100 U	100 UJ	100 UJ
HMX	4,900,000	380,000	NS	NS	200 UJ	200 U	200 U	560 J	200 UJ	200 UJ	200 U	200 UJ	200 UJ
Perchlorate	72,000	5,500	NS	NS	2.91 U	2.17 U	2.69 U	3.44 U	3.06 U	2.97 U	2.57 U	2.73 U	2.38 U
Total Metals (mg/kg)													
Aluminum	99,000	7,700	NS	5,487	**6,190 J**	3,130	4,030	4,560 J	1,690 J	1,580 J	3,320	2,990 J	3,330 J
Antimony	41	3.1	NS	0.447	0.31 J	4.6 UJ	5.9 UJ	0.27 J	6.3 UJ	6.5 UJ	5.4 UJ	5.5 UJ	5 UJ
Arsenic	1.6	0.39	5.8	0.626	**0.86 J**	**0.78**	**1.4**	**1.4**	0.59 J	0.59 J	**1.3**	**1.4**	**1.5**
Barium	19,000	1,500	580	14.5	21.1 U	22 U	19.5 U	25 U	21.1 U	21.7 U	17.9 U	18.5 U	**20.2 J**
Beryllium	200	16	NS	0.103	0.098 J	0.057 J	0.038 J	**0.17 J**	0.066 J	0.062 J	0.031 J	**0.17 J**	**0.19 J**
Cadmium	80	7	3	0.033	**0.035 J**	0.39 U	0.49 U	**0.034 J**	0.017 J	**0.12 J**	0.45 U	**0.075 J**	**0.1 J**
Calcium	NS	NS	NS	6,360	220 J	1,400	714	276 J	671 J	2,000 J	2,320	1,150 J	1,620 J
Chromium	5.6	0.29	3.8	6.05	5.5 J	4.5	5.2	3.6 J	1.7 J	1.8 J	5.6	5.4 J	**6.3 J**
Cobalt	30	2.3	NS	0.294	0.23 J	3.9 U	4.9 U	**0.42 J**	0.21 J	0.079 J	4.5 U	0.12 J	0.15 J
Copper	4,100	310	700	4.83	2 J	1.8 J	1.4 J	2.9 J	1.8 J	1.7 J	0.7 J	2 J	2.3
Iron	72,000	5,500	150	3,245	2,120 J	1,710	3,100	2,310 J	641 J	818 J	2,590	1,570 J	1,720 J
Lead	800	400	270	12.3	**13.5**	6.6	6.8	**16.1**	8.2	7.6	3.2	6	6.4
Magnesium	NS	NS	NS	238	168 J	386 U	488 U	116 J	127 J	106 J	**658**	131 J	152 J
Manganese	2,300	180	65	13.7	11.9 J	13.5	**34**	5.1 J	**16.3 J**	**25.4 J**	7.5	11.3 J	13 J
Mercury	31	2.3	1	0.081	0.057	0.037	0.039 J	**0.094**	0.057	0.047 U	0.012 J	0.041 U	0.037 U
Nickel	2,000	150	130	1.21	1.1 J	0.69 J	1 J	0.98 J	0.72 J	0.55 J	0.93 J	0.71 J	0.7 J
Selenium	510	39	2.1	0.563	3.7 U	2.7 U	**0.69 J**	**1.1 J**	3.7 U	3.8 U	3.1 U	3.2 U	2.9 U
Sodium	NS	NS	NS	80.9	19.7 J	386 U	488 U	45 J	30 J	22.5 J	449 U	15.8 J	21.5 J
Vanadium	520	39	NS	8.9	8.4 J	5.9	8.9	4.9 J	3.7 J	3.6 J	7.7	5.1 J	5.8 J
Zinc	31,000	2,300	1,200	10.8	4.6 J	6.5	10.1	3.6 J	4.6 J	4.8 J	7.1	**25**	**38.8**
Wet chemistry													
% Solids	NA	NA	NA	NA	69	92	74	58	65	67	78	73	84

Notes:
mg/kg - Milligrams per kilogram

µg/kg - Micrograms per kilogram

NS- Non specified

NA- Not applicable
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

Shading indicates exceedance of Adjusted Industrial Soil RSL

Underline indicates exceedance of Adjusted Residential Soil RSL

Bold box indicates exceedance of NCSSL criteria

Bold text indicates exceedance of two times the mean background concentration

TABLE 4-2
TR-02-1 Surface Soil Analytical Results - Site UXO-03
Site UXO-03, Former D-3 Practice Hand Grenade Course
MCB CamLej, North Carolina

Station ID	Adjusted Industrial Soil RSL (November, 2010)	Adjusted Residential Soil RSL (November, 2010)	NCSSL (January, 2010)	CamLej Background	MR03-SS16	MR03-SS17	MR03-SS18	MR03-SS19	MR03-SS20	MR03-SS21	MR03-SS22	MR03-SS23	MR03-SS24
Sample ID					MR03-SS16-08B	MR03-SS17-08B	MR03-SS18-08B	MR03-SS19-08B	MR03-SS20-08B	MR03-SS21-08B	MR03-SS22-08B	MR03-SS23-08B	MR03-SS24-08B
Sample Date					06/18/08	06/18/08	06/18/08	06/18/08	06/18/08	06/18/08	06/18/08	06/18/08	06/18/08
Chemical Name													
Explosives (µg/kg)													
2,4,6-Trinitrotoluene	42,000	3,600	NS	NS	100 UJ	100 U	100 U	100 UJ	100 U	100 U	100 UJ	100 UJ	100 U
2,6-Dinitrotoluene	62,000	6,100	NS	NS	100 UJ	100 U	100 U	100 UJ	100 U	100 U	100 UJ	100 UJ	100 U
HMX	4,900,000	380,000	NS	NS	200 UJ	200 U	200 U	200 UJ	200 U	200 U	200 UJ	200 UJ	200 U
Perchlorate	72,000	5,500	NS	NS	2.71 U	2.04 U	2.8 U	2.03 U	2.2 U	2.1 U	2.03 U	2.15 U	2.2 U
Total Metals (mg/kg)													
Aluminum	99,000	7,700	NS	5,487	2,630 J	1,150	3,820	3,200 J	2,440	1,110	3,210 J	3,000 J	4,210
Antimony	41	3.1	NS	0.447	5.9 UJ	4.3 UJ	5.8 UJ	4.4 UJ	4.7 UJ	4.6 UJ	4.3 UJ	4.7 UJ	4.6 UJ
Arsenic	1.6	0.39	5.8	0.626	**1.4**	0.31 J	0.59 J	**1.3**	**0.87**	**0.86**	**1**	**1.8**	**0.8**
Barium	19,000	1,500	580	14.5	19.7 U	14.5 U	19.3 U	14.5 U	15.5 U	15.4 U	14.5 U	**22.2 J**	17.4 U
Beryllium	200	16	NS	0.103	**0.16 J**	0.012 J	0.045 J	0.1 J	0.029 J	0.013 J	0.082 J	**0.17 J**	0.053 J
Cadmium	80	7	3	0.033	**0.13 J**	0.36 U	0.48 U	**0.057 J**	0.39 U	0.39 U	**0.062 J**	**0.14 J**	0.39 U
Calcium	NS	NS	NS	6,360	3,140 J	1,470	2,280	832 J	1,040	1,890	1,520 J	1,720 J	889
Chromium	5.6	0.29	3.8	6.05	5.7 J	1.6	4.9	**6.7 J**	3.4	2	4.6 J	5.9 J	5.9
Cobalt	30	2.3	NS	0.294	0.17 J	3.6 U	4.8 U	0.13 J	3.9 U	3.9 U	0.17 J	0.26 J	3.9 U
Copper	4,100	310	700	4.83	3.1	**8.9**	1.3 J	2.1	1.4 J	0.64 J	1.9	**7.7**	0.68 J
Iron	72,000	5,500	150	3,245	1,650 J	708	1,450	1,570 J	1,690	793	1,760 J	1,740 J	2,230
Lead	800	400	270	12.3	7	7	5.2	6.1	6.8	1.9	6.8	8	6
Magnesium	NS	NS	NS	238	170 J	361 U	483 U	140 J	388 U	386 U	138 J	110 J	387 U
Manganese	2,300	180	65	13.7	**16.2 J**	**28.3**	8.5	10.6 J	**28.7**	6.7	**28.4 J**	11.8 J	10.3
Mercury	31	2.3	1	0.081	0.041 U	0.043	0.03 J	0.03 U	0.036	0.025 J	0.031 U	0.033 U	0.017 J
Nickel	2,000	150	130	1.21	1.1 J	0.57 J	0.97 J	0.73 J	0.86 J	0.93 J	0.75 J	1 J	0.64 J
Selenium	510	39	2.1	0.563	3.4 U	2.5 U	3.4 U	2.5 U	2.7 U	2.7 U	2.5 U	2.7 U	0.56 J
Sodium	NS	NS	NS	80.9	25.7 J	361 U	483 U	9.3 J	388 U	386 U	26.9 J	26.5 J	387 U
Vanadium	520	39	NS	8.9	5.5 J	3.6 U	5.4	5.1 J	5.8	3.9 U	5.9 J	5.8 J	7.5
Zinc	31,000	2,300	1,200	10.8	**29.1**	**16.2**	8	**12.7**	7.1	4.6 U	**17.7**	**20.3**	5.4
Wet chemistry													
% Solids	NA	NA	NA	NA	74	98	71	98	91	95	99	93	94

Notes:
mg/kg - Milligrams per kilogram
µg/kg - Micrograms per kilogram
NS- Non specified
NA- Not applicable
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
Shading indicates exceedance of Adjusted Industrial Soil RSL
Underline indicates exceedance of Adjusted Residential Soil RSL
Bold box indicates exceedance of NCSSL criteria
Bold text indicates exceedance of two times the mean background concentration

TABLE 4-3
Subsurface Soil Analytical Results - Site UXO-03
Site UXO-03, Former D-3 Practice Hand Grenade Course
MCB CamLej, North Carolina

Station ID	Adjusted Industrial Soil RSL (November, 2010)	Adjusted Residential Soil RSL (November, 2010)	NCSSL (January, 2010)	CamLej Background	MR03-IS01	MR03-IS02	MR03-IS03	MR03-IS04	MR03-IS05	MR03-IS06	MR03-IS07	MR03-IS08	MR03-IS09		MR03-IS10
Sample ID					MR03-IS01-3-4-08C	MR03-IS02-4.5-5.5-08C	MR03-IS03-4-5-08C	MR03-IS04-7-8-08C	MR03-IS05-3-4-08C	MR03-IS06-4-5-08C	MR03-IS07-3-4-08C	MR03-IS08-4-5-08C	MR03-IS09-4.5-5.5-08C	MR03-IS09D-4.5-5.5-08C	MR03-IS10-5-6-08C
Sample Date					07/11/08	07/11/08	07/11/08	07/10/08	07/10/08	07/10/08	07/11/08	07/10/08	07/11/08	07/11/08	07/10/08
Chemical Name															
Explosives (µg/kg)															
No Detections															
Total Metals (mg/kg)															
Aluminum	99,000	7,700	NS	10,369	6,830	5,550	2,280	6,090	3,110	4,670	5,470	8,530	4,660	5,060	6,680
Antimony	41	3.1	NS	0.36	0.24 J	**0.5 J**	4.7 UJ	4.9 UJ	4.8 UJ	5 UJ	0.2 J	4.7 UJ	4.7 UJ	**0.43 J**	5.3 UJ
Arsenic	1.6	0.39	5.8	2.12	1.2	2	0.9	1.6	**4.6**	**2.6**	0.33 J	0.91	1.2	0.64 J	0.75 J
Calcium	NS	NS	NS	441	410 U	414 U	**18,000**	407 U	402 U	415 U	411 U	392 U	395 U	401 U	441 U
Chromium	5.6	0.29	3.8	14.5	8.2	8.8	7 U	11.6	5.8	7.8	5.2 U	9.9	7.2	7.5	7.7
Cobalt	30	2.3	NS	0.822	0.27 J	0.35 J	0.22 J	0.25 J	4 U	0.1 J	0.22 J	0.44 J	0.12 J	0.27 J	0.16 J
Copper	4,100	310	700	2.56	2 U	2.1 U	**2.9**	2 U	2 U	2.1 U	2.1 U	2 U	2 U	2 U	2.2 U
Iron	72,000	5,500	150	5,439	**7,050**	3,410	2,310	**10,600**	4,590	**6,080**	1,090	2,740	2,230	1,450	2,160
Lead	800	400	270	8.49	3.8	4	2.9	5.9	2.5	2.9	4.4	4.9	4	3.7	3.9
Manganese	2,300	180	65	9.25	3.6	4.3	**13.2**	5.8	1.9	2.5	3.3	5.6	3.8	3.8	5.1
Mercury	31	2.3	1	0.071	0.036 U	0.035 U	0.035 U	0.035 U	0.036 U	0.036 U	0.034 U	0.034 U	0.032 U	0.038	0.039 U
Nickel	2,000	150	130	2.27	0.92 J	0.89 J	1.4 J	0.93 J	0.54 J	0.58 J	0.64 J	1.4 J	0.76 J	0.68 J	1.1 J
Potassium	NS	NS	NS	361	410 U	414 U	395 U	**450**	402 U	415 U	411 U	392 U	395 U	401 U	441 U
Selenium	510	39	2.1	0.505	**0.59 J**	2.9 U	0.43 J	2.8 U	2.8 U	2.9 U	2.9 U	2.7 U	2.8 U	**0.52 J**	3.1 U
Silver	510	39	3.4	0.129	0.82 U	0.056 J	0.79 U	0.81 U	0.8 U	0.83 U	0.05 J	0.78 U	0.79 U	0.8 U	0.88 U
Vanadium	520	39	NS	17.2	11.9	14.6	3.9 U	13.8	11.5	12.8	5.8	11.7	6.9	6.2	9.2
Zinc	31,000	2,300	1,200	6.59	4.9 U	5 U	**38.9**	4.9 U	4.8 U	5 U	4.9 U	4.7 U	4.7 U	4.8 U	5.3 U
Wet Chemistry															
% Solids	NA	NA	NA	NA	85	84	87	89	86	84	87	90	90	90	80

Notes:
mg/kg - Milligrams per kilogram
µg/kg - Micrograms per kilogram
NS- Non specified
NA- Not applicable
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U - The material was analyzed for, but not detected
UJ - Analyte not detected, quantitation limit may be inaccurate
Shading indicates exceedance of Adjusted Industrial Soil RSL
Underline indicates exceedance of Adjusted Residential Soil RSL
Bold box indicates exceedance of NCSSL criteria
Bold text indicates exceedance of two times the mean background concentration

TABLE 4-4
Surface Soil Analytical Results - Northern Boundary
Site UXO-03, Former D-3 Practice Hand Grenade Course
MCB CamLej, North Carolina

Sample ID **Sample Date**	**Adjusted Industrial Soil RSL (November 2010)**	**Adjusted Residential Soil RSL (November 2010)**	**NC SSL (January 2010)**	**CamLej Background**	GR-IS01-0-1-07C 7/26/2007	GR-IS02-0-1-07C 7/26/2007	GR-IS03-0-1-07C 7/26/2007	GR-IS04-0-1-07C 7/26/2007
Chemical Name								
Total Metals (mg/kg)								
Aluminum	99,000	7,700	NS	5,487	3,470	2,580	2,940	916
Antimony	41	3.1	NS	0.447	0.35 NJ	5.30 U	5.20 U	**0.48 J**
Arsenic	1.6	0.39	5.8	0.626	0.30 J	0.88 U	0.51 J	0.25 J
Barium	19,000	1,500	580	14.5	11.7 J	10.2 J	**23.5**	14.2 J
Beryllium	200	16	NS	0.103	0.07 J	0.07 J	0.04 J	0.04 J
Cadmium	80	7	3	0.033	0.45 U	0.02 J	0.43 U	0.03 J
Calcium	NS	NS	NS	6,360	130 J	180 J	86.8 J	289 J
Chromium	5.6	0.29	3.8	6.05	2.80	1.70	2.90	1.10
Cobalt	30	2.3	NS	0.294	4.50 U	4.40 U	4.30 U	4.50 U
Copper	4,100	310	700	4.83	0.54 J	0.39 J	0.32 J	0.97 J
Iron	72,000	5,500	150	3,245	1,880	930	1,390	464
Lead	800	400	270	12.3	9.30 J	4.10 J	5.90 J	6.10
Magnesium	NS	NS	NS	238	118 J	91.9 J	61.3 J	85.5 J
Manganese	2,300	180	65	13.7	9.40	12.4	3.80	**116**
Mercury	31	2.3	1	0.081	0.05	0.05	0.04 U	0.06
Nickel	2,000	150	130	1.21	0.51 J	0.54 J	0.13 J	0.20 J
Potassium	NS	NS	NS	116	102 J	57.1 J	61.5 J	84.9 J
Sodium	NS	NS	NS	80.9	**87.6 J**	76.1 J	80.4 J	**85.8 J**
Vanadium	520	39	NS	8.9	5.30	2.70 J	4.40	2.60 J
Zinc	31,000	2,300	1,200	10.8	3.20 J	4.30 J	1.80 J	4.80 J
Wet Chemistry								
% Solids	NA	NA	NA	NA	84	84	83	81

Notes:
mg/kg - Milligrams per kilogram
NS- Non specified
NA- Not applicable
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
Shading indicates exceedance of Adjusted Industrial Soil RSL
Underline indicates exceedance of Adjusted Residential Soil RSL criteria
Bold text indicates exceedance of two times the mean background concentration

TABLE 4-5
Subsurface Soil Analytical Results - Northern Boundary
Site UXO-03, Former D-3 Practice Hand Grenade Course
MCB CamLej, North Carolina

Sample ID	Adjusted Industrial Soil RSL (November 2010)	Adjusted Residential Soil RSL (November 2010)	NCSSL (January 2010)	CamLej Background	GR-IS01-4-6-07C	GR-IS02-6-8-07C	GR-IS03-4-6-07C	GR-IS04-4-6-07C
Sample Date					7/26/07	7/26/07	7/26/07	7/26/07
Chemical Name								
Total Metals (mg/kg)								
Aluminum	99,000	7,700	NS	10,369	7,200	5,770	6,650	5,240
Antimony	41	3.1	NS	0.36	5.2 U	0.34 J	5.1 U	**0.52 J**
Arsenic	1.6	0.39	5.8	2.12	1.50	**2.30**	**2.20**	**2.90**
Barium	19,000	1,500	580	16.6	10.7 J	8.70 J	8.70 J	6.70 J
Beryllium	200	16	NS	0.165	0.08 J	0.09 J	0.07 J	0.07 J
Calcium	NS	NS	NS	441	94.3 J	94.5 J	37.3 J	46.2 J
Chromium	5.6	0.29	3.8	14.5	9.80	9.60	8.50	8.10
Cobalt	30	2.3	--	0.822	0.14 J	0.10 J	0.08 J	0.05 J
Copper	4,100	310	700	2.56	1.00 J	1.10 J	0.31 J	0.74 J
Iron	72,000	5,500	150	5,439	5,400	**6,020**	**5,820**	**5,870**
Lead	800	400	270	8.49	4.00 J	4.20	4.50	2.90
Magnesium	NS	NS	NS	363	273 J	309 J	209 J	208 J
Manganese	2,300	180	65	9.25	5.10	5.40	4.30	4.30
Mercury	31	2.3	1	0.071	0.03 J	0.02 J	0.02 J	0.02 J
Nickel	2,000	150	130	2.27	0.81 J	0.62 J	0.58 J	0.59 J
Potassium	NS	NS	NS	361	284 J	**380 J**	217 J	229 J
Sodium	NS	NS	NS	68.3	**88.0 J**	**84.4 J**	**82.4 J**	**85.3 J**
Vanadium	520	39	NS	17.2	13.5	14.7	13.8	12.0
Zinc	31,000	2,300	1,200	6.59	3.70 J	3.70 J	2.90 J	3.80 J
Wet Chemistry								
% Solids	NA	NA	NA	NA	87	86	84	89

Notes:

mg/kg - Milligrams per kilogram

NS- Non specified
NA- Not applicable

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

Shading indicates exceedance of Adjusted Industrial Soil RSL

Underline indicates exceedance of Adjusted Residential Soil RSL

Bold box indicates exceedance of NCSSL criteria

Bold text indicates exceedance of two times the mean background concentration

TABLE 4-6
Groundwater Analytical Results -Site UXO-03
Site UXO-03, Former D-3 Practice Hand Grenade Course
MCB CamLej, North Carolina

Station ID	Adjusted Tap Water RSLs (November 2010)	NCGWQS (January 2010)	CamLej Background	MR03-TW01		MR03-TW02	MR03-TW03		MR03-TW04
Sample ID				MR03-TW01-08C-1	MR03-TW01-08C-2	MR03-TW02-08C	MR03-TW03-08C	MR03-TW03D-08C	MR03-TW04-08C
Sample Date				07/15/08	07/16/08	07/14/08	07/14/08	07/14/08	07/14/08
Chemical Name									
Explosives (µg/L)									
1,3-Dinitrobenzene	0.37	NS	NS	0.19 J	NA	0.2 U	0.2 U	0.2 U	0.2 U
Total Metals (µg/L)									
Aluminum	3,700	NS	1,886	200 U	NA	**4,880 J**	630 J	640 J	1,120 J
Calcium	NS	NS	69,078	16,900	NA	5,000 U	5,000 U	5,000 U	5,000 U
Chromium	0.043	10	3.13	0.98 J	NA	**18.8**	10 U	10 U	10 U
Cobalt	1.1	NS	3.4	1.9 J	NA	50 U	50 U	50 U	1.7 J
Iron	2,600	300	5,999	5,540	NA	**34,500**	**11,300**	**11,400**	5,740
Lead	15	15	2.8	10 U	NA	2 J	10 U	10 U	10 U
Magnesium	NS	NS	6,363	**8,740**	NA	5,000 U	5,000 U	5,000 U	5,000 U
Manganese	88	50	214	**356**	NA	**272 J**	108 J	109 J	166 J
Mercury	1.1	1	0.1	**0.13 J**	NA	**0.24**	**0.22**	0.2 U	**1.1**
Nickel	73	100	7.97	**90**	NA	6.4 J	**11 J**	**9.1 J**	**28.8 J**
Silver	18	20	0.77	10 U	NA	10 U	10 U	**1.3 J**	10 U
Sodium	NS	NS	22,508	12,100	NA	NA	NA	NA	NA
Vanadium	18	NS	4.72	50 U	NA	**6.2 J**	50 U	50 U	50 U
Zinc	1,100	1,000	42.1	**78**	NA	60 U	60 U	60 U	60 U
Dissolved Metals (µg/L)									
Aluminum	3,700	NS	1,886	NA	200 U	200 U	281 J	210 J	200 U
Calcium	NS	NS	69,078	NA	21,600	5,000 U	5,000 U	5,000 U	5,000 U
Cobalt	1.1	NS	3.4	NA	2.6 J	50 U	50 U	50 U	50 U
Iron	2,600	300	5,999	NA	3,780	**13,500**	**11,600**	**11,200**	5,690
Magnesium	NS	NS	6,363	NA	**10,600**	5,000 U	5,000 U	5,000 U	5,000 U
Manganese	88	50	214	NA	**351**	125 J	123 J	107 J	88.2 J
Nickel	73	100	7.97	NA	**80**	40 U	**10.3 J**	**10.8 J**	**12.4 J**
Sodium	NS	NS	22,508	NA	13,600	NA	NA	NA	NA

Notes:

µg/ - Micrograms per liter

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

NA - Not analyzed

NS- Non specified

U - The material was analyzed for, but not detected

NCGWQS- North Carolina Groundwater Quality Standard

Shading indicates exceedance of Adjusted Tap Water RSL

Bold box indicates exceedance of NCGWQS

Bold text indicates exceedance of two times the mean background concentration

TABLE 4-7
Groundwater Analytical Results -Northern Boundary
Site UXO-03, Former D-3 Practice Hand Grenade Course
MCB CamLej, North Carolina

Sample ID / **Sample Date**	**Adjusted Tap Water RSL (November 2010)**	**NCGWQS (January 2010)**	**CamLej Background**	GR-TW02-07C 7/28/07	GR-TW03-07C 7/27/07
Chemical Name					
Explosives (µg/L)					
No Detections					
Total Metals (µg/L)					
Aluminum	3,700	NS	1,886	**4,790**	1,580 J
Barium	730	700	86.2	20.4 J	58.1 J
Beryllium	7.3	4	0.308	**0.31 J**	5 U
Calcium	NS	NS	69,078	52,000	8,980
Chromium	0.043	10	3.13	**13**	2.7 J
Cobalt	1.1	NS	3.4	**1.5 J**	0.66 J
Copper	150	1,000	2.76	2.5 J	2.6 J
Iron	2,600	300	5,999	3,670 J	**7,180**
Magnesium	NS	NS	6,363	2,050 J	5,530
Manganese	88	50	214	35.3	89.3
Mercury	1.1	1	0.1	0.023 J	0.2 U
Nickel	73	100	7.97	5.6 J	40 U
Potassium	NS	NS	3,277	1,510 J	2,390 J
Sodium	NS	NS	22,508	7,590	12,900
Thallium	NS	2	3.78	**7.7 J**	25 U
Vanadium	18	NS	4.72	**7 J**	3.8 J
Zinc	1,100	1,000	42.1	27 J	19.2 J
Dissolved Metals (µg/L)					
Aluminum	3,700	NS	1,886	200 U	200
Arsenic	0.045	10	5.77	10 U	2.9 J
Barium	730	700	86.2	9.1 J	43.6 J
Cadmium	1.8	2	0.358	5 U	0.34 J
Calcium	NS	NS	69,078	50,400	7,850
Copper	150	1,000	2.76	25 U	**3.2 J**
Iron	2,600	300	5,999	349 J	4,840
Magnesium	NS	NS	6,363	1,780 J	4,570 J
Manganese	88	50	214	22	65.8
Mercury	1.1	1	0.1	0.043 J	0.029 J
Nickel	73	100	7.97	40 U	1.7 J
Potassium	NS	NS	3,277	1,210 J	1,930 J
Sodium	NS	NS	22,508	8,170	11,500
Thallium	NS	2	3.78	25 U	**5.6 J**
Zinc	1,100	1,000	42.1	8.5 J	27.6 J

Notes:

µg/ - Micrograms per liter

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

NA - Not analyzed

NS- Non specified

U - The material was analyzed for, but not detected

NCGWQS- North Carolina Groundwater Quality Standard

Shading indicates exceedance of Adjusted Tap Water RSL

Bold box indicates exceedance of NCGWQS

Bold text indicates exceedance of two times the mean background concentration

TABLE 4-8
Surface Water Analytical Results
Site UXO-03, Former D-3 Practice Hand Grenade Course
MCB CamLej, North Carolina

Station ID	Adjusted Tap Water RSL (November 2010)	NC2B-SW-Human Health & Water Supply [1]	NRWQC [2]	MR03-SW01	MR03-SW02	
Sample ID				MR03-SW01-08B	MR03-SW02-08B	MR03-SW02D-08B
Sample Date				06/25/08	06/25/08	06/25/08
Chemical Name						
Explosives (µg/L)						
Perchlorate	2.6	NS	NS	0.2 U	0.234	0.2 U
Total Metals (µg/L)						
Aluminum	3,700	NS	NS	556	364	225
Antimony	1.5	NS	5.6	60 U	3.8 J	60 U
Arsenic	0.045	10	0.018	**3.9 J**	10 U	**3.3 J**
Calcium	NS	NS	NS	19,300	81,500	75,300
Chromium	0.043	NS	NS	1.2 J	1.4 J	10 U
Copper	150	NS	1,300	6.5 J	3.1 J	4.2 J
Iron	2,600	NS	300	**526**	**6,920**	**5,660**
Lead	15	NS	50	2.6 J	10 U	1.9 J
Manganese	88	200	50	14.1 J	**86.3**	**79.5**
Potassium	NS	NS	NS	1,840 J	2,050 J	1,950 J
Vanadium	18	NS	NS	4.1 J	50 U	50 U
Dissolved Metals (µg/L)						
Antimony	1.5	NS	5.6	**6.2 J**	60 U	60 U
Arsenic	0.045	10	0.018	10 U	**3 J**	**2.9 J**
Calcium	NS	NS	NS	19,300	82,300	74,500
Chromium	0.043	NS	NS	**1.5 J**	10 U	10 U
Copper	150	NS	1,300	5.8 J	4.9 J	3.8 J
Iron	2,600	NS	300	214	**412**	**511**
Lead	15	NS	50	10 U	10 U	1.6 J
Manganese	88	200	50	5.3 J	**81.8**	**74.1**
Potassium	NS	NS	NS	1,880 J	1,970 J	1,930 J
Vanadium	18	NS	NS	2.8 J	50 U	50 U

Notes:

NS- non specified

NRWQC- National Recommended Water Quality Criteria

NCAC 2B SW Human Health and Water Supply values are from North Carolina 15A NCAC 02B .0202 regulations

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

U - The material was analyed for, but not detected

Shading indicates exceedance of Adjusted Tap Water RSL

Bold box indicates exceedance of NC2B-SW

Bold text indicates exceedance of NRWQC

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

TABLE 4-9
Sediment Analytical Results
Site UXO-03, Former D-3 Practice Hand Grenade Course
MCB CamLej, North Carolina

Station ID	**Adjusted Industrial Soil RSL (November 2010)**	**Adjusted Residential Soil RSL (November 2010)**	MR03-SD01	MR03-SD02	
Sample ID			MR03-SD01-08B	MR03-SD02-08B	MR03-SD02D-08B
Sample Date			06/25/08	06/25/08	06/25/08
Chemical Name					
Explosives (µg/kg)					
No Detections					
Total Metals (mg/kg)					
Aluminum	99,000	7,700	1,340 J	1,010 J	794 J
Antimony	41	3.1	5.4 U	0.66 J	5.4 U
Arsenic	1.6	0.39	0.46 J	0.98 U	0.91 U
Beryllium	200	16	0.034 J	0.024 J	0.011 J
Calcium	NS	NS	413 J	905 J	635 J
Chromium	5.6	0.29	2	1.7	1.5
Cobalt	30	2.3	0.087 J	0.077 J	0.048 J
Copper	4,100	310	1.2 J	2.5	1.2 J
Iron	72,000	5,500	412 J	593 J	530 J
Lead	800	400	7.9 J	4.9 J	6.5 J
Manganese	2,300	180	1.9	2.1	1.6 U
Mercury	31	2.3	0.039 U	0.014 J	0.04 U
Nickel	2,000	150	0.56 J	0.48 J	0.36 J
Zinc	31,000	2,300	7	12.4	8.2
Wet Chemistry					
% Solids	NA	NA	79	72	77

Notes:
mg/kg - Milligrams per kilogram
µg/kg - Micrograms per kilogram
NS- Non specified
NA- Not applicable

\\NORTHEND\PROJ\USNAVFACENGCOM\CAMPLEJEUNE\MAPFILES\SITE_UXO_03\PA_SI\FIGURE_4_1_SITE_UXO-03_DIGITAL_GEOPHYSICAL_MAPPING_RESULTS.MXD MARTESE 7/13/2011 1:50:28 PM

Legend
- Geophysical Anomaly (greater than 3 mV)
- DGM Transects
- Surface Water
- Site UXO-03 Boundary
- Northern Boundary of Site UXO-03

Notes:
- DGM Survey conducted in February, 2007 using EM61 - MK2

N

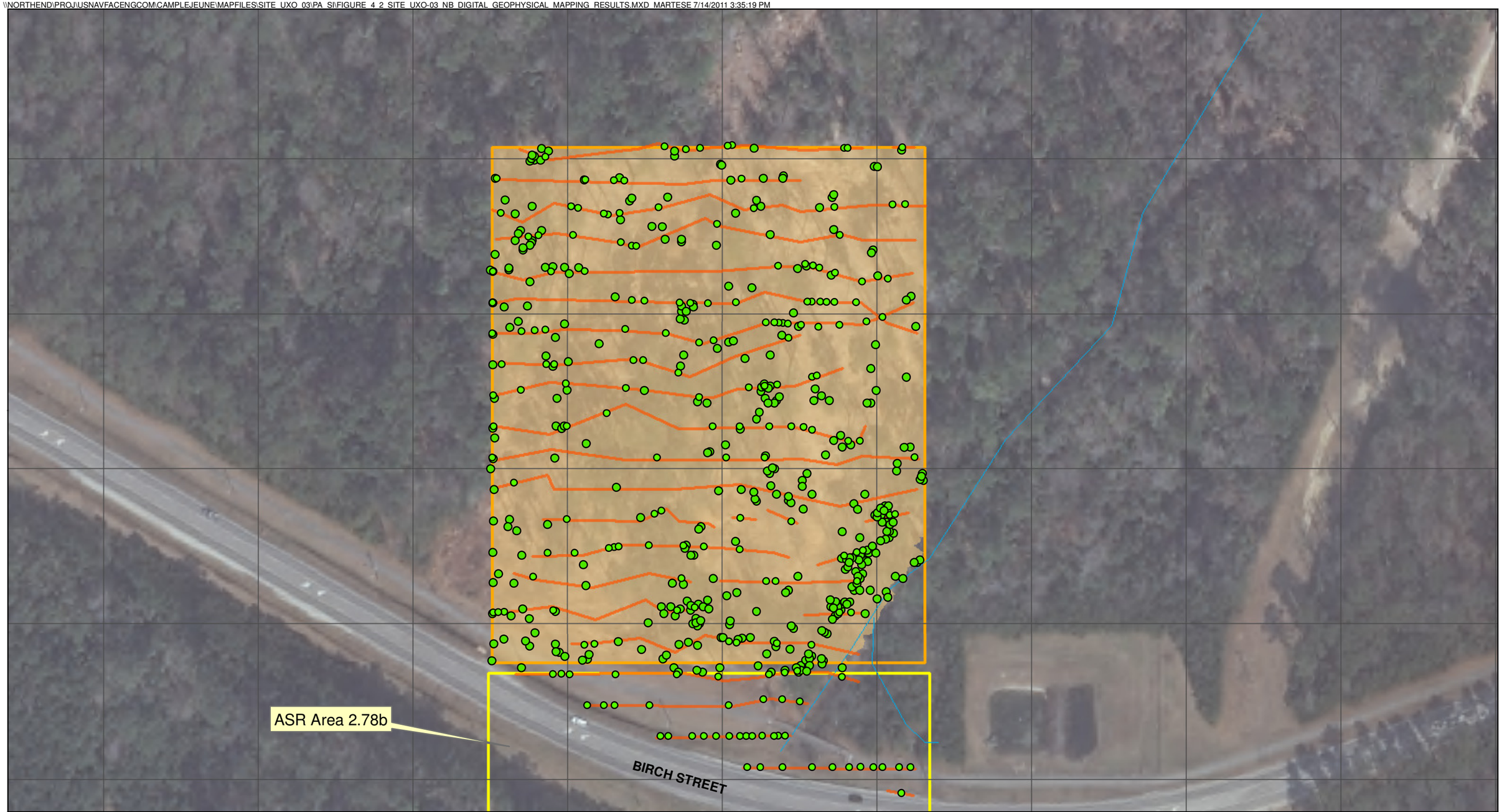
0 50 100 200 Feet

1 inch = 100 feet

Figure 4-1
Digital Geophysical Mapping Results - Site UXO-03
Site UXO-03
PA/SI Report
MCB CamLej
North Carolina

CH2MHILL

\\NORTHEND\PROJ\USNAVFACENGCOM\CAMPLEJEUNE\MAPFILES\SITE_UXO_03\PA_SI\FIGURE_4_2_SITE_UXO-03_NB_DIGITAL_GEOPHYSICAL_MAPPING_RESULTS.MXD MARTESE 7/14/2011 3:35:19 PM



Legend
- Geophysical Anomaly (greater than 3 mV)
- DGM Transects (2007 Focused SI)
- Surface Water
- 50 meter Grids
- Site UXO-03 Boundary
- Northern Boundary of Site UXO-03
- DGM Coverage (2009 Expanded SI)

Notes:
- DGM Survey conducted in February, 2007 using EM61 - MK2

N

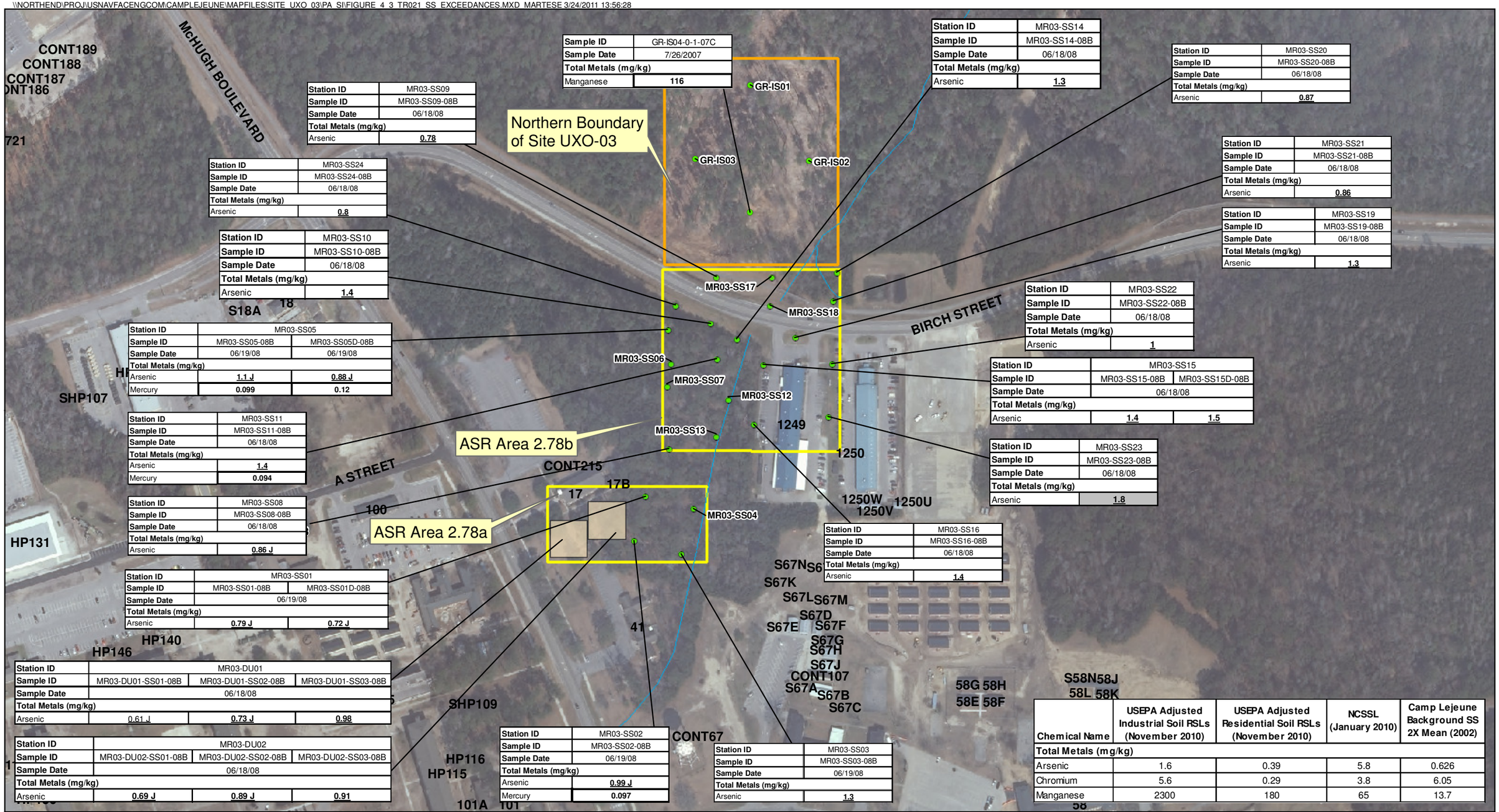
0 50 100 200 Feet

1 inch = 100 feet

Figure 4-2
Digital Geophysical Mapping Results - Northern Boundary Area
Site UXO-03
PA/SI Report
MCB CamLej
North Carolina

CH2MHILL

\\NORTHEND\PROJ\USNAVFACENGCOM\CAMPLEJEUNE\MAPFILES\SITE_UXO_03\PA_SI\FIGURE_4_3_TR021_SS_EXCEEDANCES.MXD MARTESE 3/24/2011 13:56:28



Sample ID	GR-IS04-0-1-07C
Sample Date	7/26/2007
Total Metals (mg/kg)	
Manganese	116

Station ID	MR03-SS14
Sample ID	MR03-SS14-08B
Sample Date	06/18/08
Total Metals (mg/kg)	
Arsenic	1.3

Station ID	MR03-SS20
Sample ID	MR03-SS20-08B
Sample Date	06/18/08
Total Metals (mg/kg)	
Arsenic	0.87

Station ID	MR03-SS09
Sample ID	MR03-SS09-08B
Sample Date	06/18/08
Total Metals (mg/kg)	
Arsenic	0.78

Station ID	MR03-SS21
Sample ID	MR03-SS21-08B
Sample Date	06/18/08
Total Metals (mg/kg)	
Arsenic	0.86

Station ID	MR03-SS24
Sample ID	MR03-SS24-08B
Sample Date	06/18/08
Total Metals (mg/kg)	
Arsenic	0.8

Station ID	MR03-SS19
Sample ID	MR03-SS19-08B
Sample Date	06/18/08
Total Metals (mg/kg)	
Arsenic	1.3

Station ID	MR03-SS10
Sample ID	MR03-SS10-08B
Sample Date	06/18/08
Total Metals (mg/kg)	
Arsenic	1.4

Station ID	MR03-SS22
Sample ID	MR03-SS22-08B
Sample Date	06/18/08
Total Metals (mg/kg)	
Arsenic	1

Station ID	MR03-SS05	
Sample ID	MR03-SS05-08B	MR03-SS05D-08B
Sample Date	06/19/08	06/19/08
Total Metals (mg/kg)		
Arsenic	1.1 J	0.88 J
Mercury	0.099	0.12

Station ID	MR03-SS15	
Sample ID	MR03-SS15-08B	MR03-SS15D-08B
Sample Date	06/18/08	
Total Metals (mg/kg)		
Arsenic	1.4	1.5

Station ID	MR03-SS11
Sample ID	MR03-SS11-08B
Sample Date	06/18/08
Total Metals (mg/kg)	
Arsenic	1.4
Mercury	0.094

Station ID	MR03-SS23
Sample ID	MR03-SS23-08B
Sample Date	06/18/08
Total Metals (mg/kg)	
Arsenic	1.8

Station ID	MR03-SS08
Sample ID	MR03-SS08-08B
Sample Date	06/18/08
Total Metals (mg/kg)	
Arsenic	0.86 J

Station ID	MR03-SS16
Sample ID	MR03-SS16-08B
Sample Date	06/18/08
Total Metals (mg/kg)	
Arsenic	1.4

Station ID	MR03-SS01	
Sample ID	MR03-SS01-08B	MR03-SS01D-08B
Sample Date	06/19/08	
Total Metals (mg/kg)		
Arsenic	0.79 J	0.72 J

Station ID	MR03-DU01		
Sample ID	MR03-DU01-SS01-08B	MR03-DU01-SS02-08B	MR03-DU01-SS03-08B
Sample Date	06/18/08		
Total Metals (mg/kg)			
Arsenic	0.61 J	0.73 J	0.98

Station ID	MR03-DU02		
Sample ID	MR03-DU02-SS01-08B	MR03-DU02-SS02-08B	MR03-DU02-SS03-08B
Sample Date	06/18/08		
Total Metals (mg/kg)			
Arsenic	0.69 J	0.89 J	0.91

Station ID	MR03-SS02
Sample ID	MR03-SS02-08B
Sample Date	06/19/08
Total Metals (mg/kg)	
Arsenic	0.99 J
Mercury	0.097

Station ID	MR03-SS03
Sample ID	MR03-SS03-08B
Sample Date	06/19/08
Total Metals (mg/kg)	
Arsenic	1.3

Chemical Name	USEPA Adjusted Industrial Soil RSLs (November 2010)	USEPA Adjusted Residential Soil RSLs (November 2010)	NCSSL (January 2010)	Camp Lejeune Background SS 2X Mean (2002)
Total Metals (mg/kg)				
Arsenic	1.6	0.39	5.8	0.626
Chromium	5.6	0.29	3.8	6.05
Manganese	2300	180	65	13.7

Legend
- Surface Soil Sample Locations
- Surface Water
- Decision Units
- Northern Boundary of Site UXO-03
- Site UXO-03 Boundary

Notes:
Concentrations exceed two times the mean base background concentration and an additional screening criteria
J - Analyte present, value may or may not be accurate or precise
D - duplicate sample
Underline indicates exceedance of Adjusted Residential RSL
Shading indicates exceedance of Adjusted Industrial RSL
Bold box indicates exceedance of NCSSL
Bold text indicates exceedance of two times the mean base background concentration

N

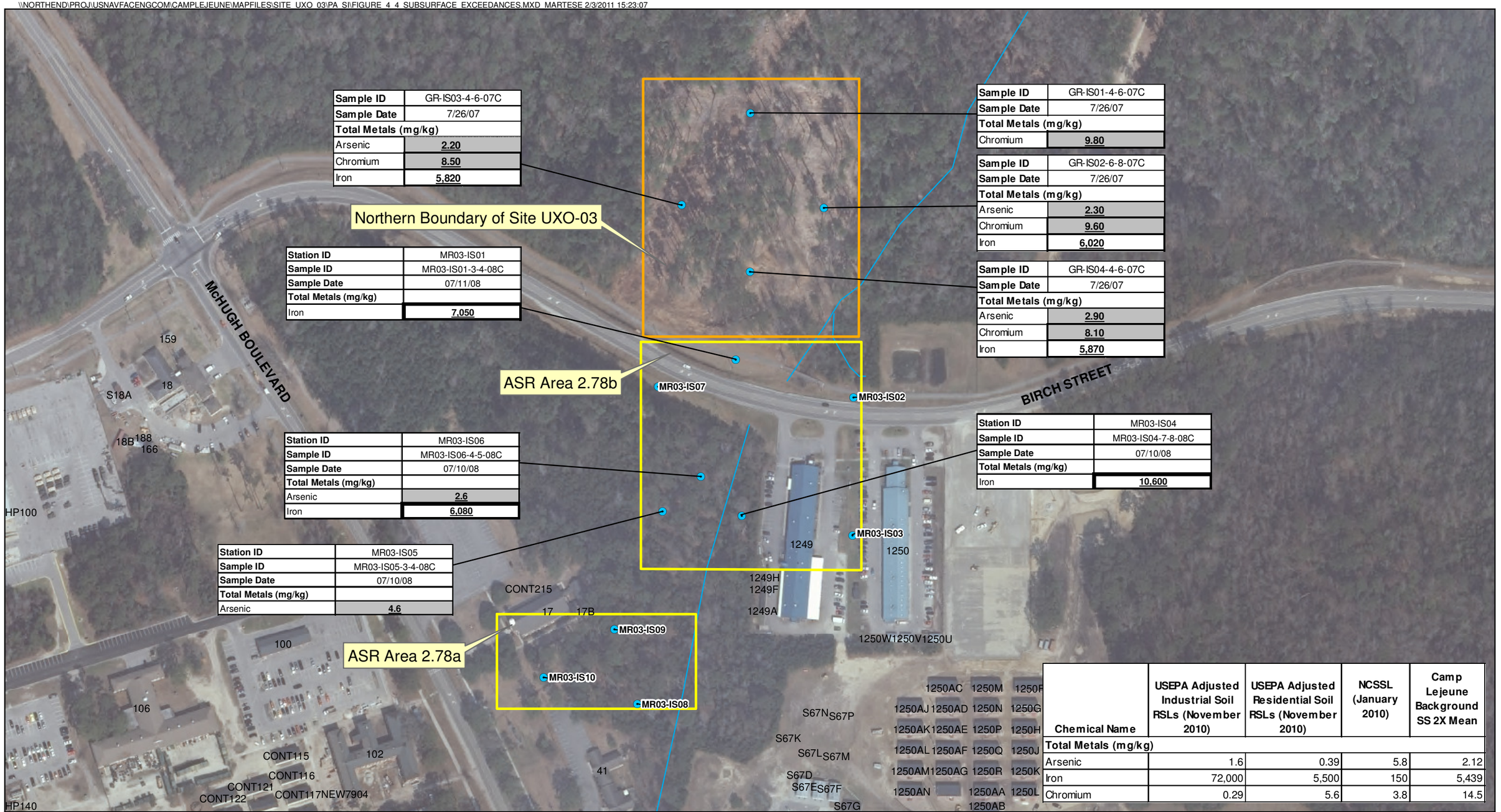
0 125 250 500 Feet

1 inch = 250 feet

Figure 4-3
Surface Soil Exceedances
Site UXO-03
PA/SI Report
MCB CamLej
North Carolina

CH2MHILL

\\NORTHEND\PROJ\USNAVFACENGCOM\CAMPLEJEUNE\MAPFILES\SITE_UXO_03\PA_SI\FIGURE_4_4_SUBSURFACE_EXCEEDANCES.MXD MARTESE 2/3/2011 15:23:07



Sample ID	GR-IS03-4-6-07C
Sample Date	7/26/07
Total Metals (mg/kg)	
Arsenic	**2.20**
Chromium	**8.50**
Iron	**5,820**

Station ID	MR03-IS01
Sample ID	MR03-IS01-3-4-08C
Sample Date	07/11/08
Total Metals (mg/kg)	
Iron	**7,050**

Station ID	MR03-IS06
Sample ID	MR03-IS06-4-5-08C
Sample Date	07/10/08
Total Metals (mg/kg)	
Arsenic	**2.6**
Iron	**6,080**

Station ID	MR03-IS05
Sample ID	MR03-IS05-3-4-08C
Sample Date	07/10/08
Total Metals (mg/kg)	
Arsenic	**4.6**

Sample ID	GR-IS01-4-6-07C
Sample Date	7/26/07
Total Metals (mg/kg)	
Chromium	**9.80**

Sample ID	GR-IS02-6-8-07C
Sample Date	7/26/07
Total Metals (mg/kg)	
Arsenic	**2.30**
Chromium	**9.60**
Iron	**6,020**

Sample ID	GR-IS04-4-6-07C
Sample Date	7/26/07
Total Metals (mg/kg)	
Arsenic	**2.90**
Chromium	**8.10**
Iron	**5,870**

Station ID	MR03-IS04
Sample ID	MR03-IS04-7-8-08C
Sample Date	07/10/08
Total Metals (mg/kg)	
Iron	**10,600**

Chemical Name	USEPA Adjusted Industrial Soil RSLs (November 2010)	USEPA Adjusted Residential Soil RSLs (November 2010)	NCSSL (January 2010)	Camp Lejeune Background SS 2X Mean
Total Metals (mg/kg)				
Arsenic	1.6	0.39	5.8	2.12
Iron	72,000	5,500	150	5,439
Chromium	0.29	5.6	3.8	14.5

Legend
- Subsurface Soil Sample Locations
- Surface Water
- Northern Boundary Investigation Area of Site UXO-03
- Site UXO-03 Boundary

Notes:
Data displayed for metals exceeds two times the mean base background concentration and an additional screening criteria
Underline indicates exceedance of Adjusted Residential RSL criteria
Shading indicates exceedance of Adjusted Industrial RSL criteria
Bold box indicates exceedance of NCSSL criteria
Bold text indicates exceedance of two times the mean base background concentration

N

0 100 200 400 Feet

1 inch = 200 feet

Figure 4-4
Subsurface Soil Exceedances
Site UXO-03
PA/SI Report
MCB CamLej
North Carolina

CH2MHILL

Generated By: *Erin Trawmely/RDU* Checked by: *David Seed/RDU*

\\NORTHEND\PROJ\USNAVFACENGCOM\CAMPLEJEUNE\MAPFILES\SITE_UXO_03\PA_SI\FIGURE_4_5_GROUNDWATER_EXCEEDANCES.MXD MARTESE 3/24/2011 14:07:51

Sample ID	GR-TW03-07C
Sample Date	7/27/07
Total Metals (g/L)	
Iron	**7,180**
Dissolved Metals (g/L)	
Thallium	**5.6 J**

Sample ID	GR-TW02-07C
Sample Date	7/28/07
Total Metals (g/L)	
Aluminum	**4,790**
Chromium	**13**
Thallium	**7.7 J**

Northern Boundary of Site UXO-03

Sample ID	MR03-TW02-08C
Date	07/14/08
Total Metals (µg/L)	
Aluminum	**4880 J**
Chromium	**18.8**
Iron	**34,500**
Manganese	**272 J**

Sample ID	MR03-TW01-08C-1
Date	07/15/08
Total Metals (µg/L)	
Manganese	**356**
Nickel	**90**

ASR Area 2.78b

Sample ID	MR03-TW04-08C
Sample Date	07/14/08
Total Metals (µg/L)	
Mercury	**1.1**

Station ID	MR03-TW03	
Sample ID	MR03-TW03-08C	MR03-TW03D-08C
Sample Date	07/14/08	07/14/08
Total Metals (µg/L)		
Iron	**11,300**	**11,400**

ASR Area 2.78a

Chemical Name	USEPA Adjusted Tapwater RSLs (November 2010)	NCGWQS (January 2010)	Camp Lejeune Background (2001) 2X Mean
Total and Dissolved Metals (µg/L)			
Aluminum	3,700	--	1,886
Chromium	0.043	10	3.13
Iron	2,600	300	5,999
Manganese	88	50	214
Mercury	1.10	1.00	0.10
Nickel	73	100	7.97
Thallium	--	2	3.78

Legend
- Groundwater Sample Location
- Surface Water
- Northern Boundary of Site UXO-03
- Site UXO-03 Boundary

Notes:
Concentrations exceed two times the mean base background concentration and an additional screening criteria
J - Analyte present, value may or may not be accurate or precise
Dissolved metal exceedances are not shown
D - duplicate sample
Shading indicates exceedance of USEPA Adjusted Tap Water RSLs
Bold box indicates exceedance of NCGWQS
Bold text indicates exceedance of two times the mean base background

N

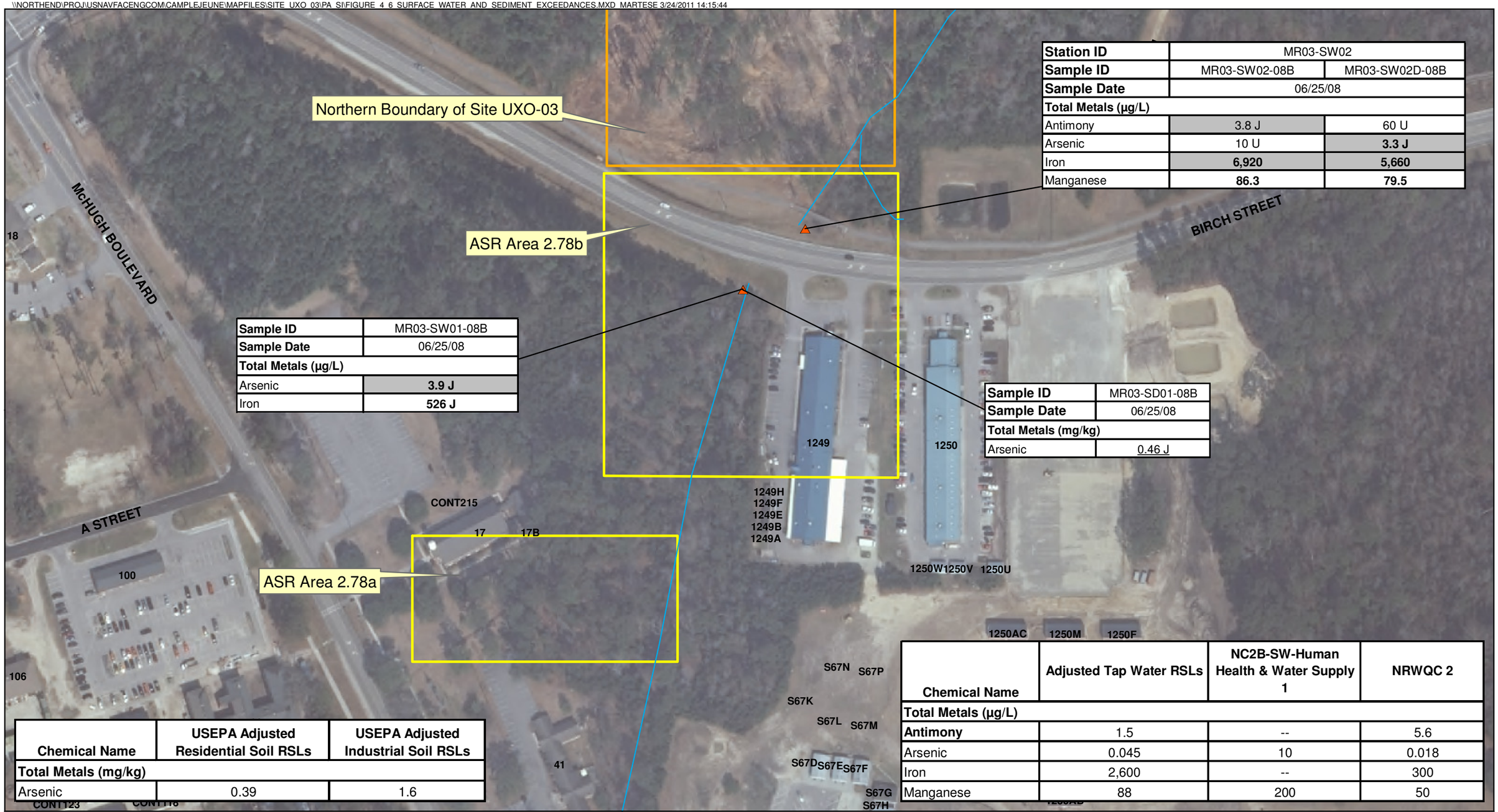
0 100 200 400 Feet

1 inch = 200 feet

Figure 4-5
Groundwater Exceedances
Site UXO-03
PA/SI Report
MCB CamLej
North Carolina

CH2MHILL

\\NORTHEND\PROJ\USNAVFACENGCOM\CAMPLEJEUNE\MAPFILES\SITE_UXO_03\PA_SI\FIGURE_4_6_SURFACE_WATER_AND_SEDIMENT_EXCEEDANCES.MXD MARTESE 3/24/2011 14:15:44



Station ID	MR03-SW02	
Sample ID	MR03-SW02-08B	MR03-SW02D-08B
Sample Date	06/25/08	
Total Metals (µg/L)		
Antimony	3.8 J	60 U
Arsenic	10 U	**3.3 J**
Iron	**6,920**	**5,660**
Manganese	**86.3**	**79.5**

Sample ID	MR03-SW01-08B
Sample Date	06/25/08
Total Metals (µg/L)	
Arsenic	**3.9 J**
Iron	**526 J**

Sample ID	MR03-SD01-08B
Sample Date	06/25/08
Total Metals (mg/kg)	
Arsenic	0.46 J

Chemical Name	USEPA Adjusted Residential Soil RSLs	USEPA Adjusted Industrial Soil RSLs
Total Metals (mg/kg)		
Arsenic	0.39	1.6

Chemical Name	Adjusted Tap Water RSLs	NC2B-SW-Human Health & Water Supply 1	NRWQC 2
Total Metals (µg/L)			
Antimony	1.5	--	5.6
Arsenic	0.045	10	0.018
Iron	2,600	--	300
Manganese	88	200	50

Legend
- Sediment/Surface Water Sample
- Surface Water
- Northern Boundary of Site UXO-03
- Site UXO-03 Boundary

Notes:
Dissolved metal exceedances are not shown
J - Analyte present, value may or may not be accurate or precise
U - The material was analyzed for, but not detected
D - duplicate sample
1 - NRWQC-Human Health - Water+ Organisms and NRWQC-Human Health Organisms were combined to show the most conservative criteria
2 - NC2B-SW-Human Health and NC2B-SW-Water Supply were combined to show the most conservative criteria
Shading indicates exceedance of Adjusted Tapwater RSL
Bold box indicates exceedance of NC2B
Bold text indicates exceedance of NRWQC
Underline indicated exceedance of Adjusted Residential Soil RSL

N

0 75 150 300 Feet

1 inch = 150 feet

Figure 4-6
Surface Water/Sediment Exceedances
Site UXO-03
PA/SI Report
MCB CamLej
North Carolina

CH2MHILL

SECTION 5

Human Health Risk Screening

5.1 Human Health Risk Screening Overview

A conservative preliminary human health risk screening was performed to assess the potential for human health risks associated with exposure to site media (sediment, soil, surface water, and groundwater). The results of the human health risk screening provided a preliminary indication of potential risks from chemicals of potential concern (COPCs), and can be 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 or additional data collection).

The human health risk screening was conducted in three steps, using a risk ratio technique (Navy, 2000) described below.

5.1.1 Step 1

The maximum detected analyte concentrations for each medium were compared to human health RSLs (USEPA, 2010a) and two times the mean BBG concentration (for inorganics in soil and groundwater). Additionally, the maximum detection limit for analytes not detected in a medium was compared to the screening levels. RSLs based on non-carcinogenic effects were divided by 10 to account for exposure to multiple analytes (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 data were compared to USEPA Residential Soil RSLs, which are more conservative (lower) than USEPA Industrial Soil RSLs and are therefore protective of all potential receptors (residents, industrial workers, construction workers, etc.) The groundwater data were compared to Tap Water RSLs. Groundwater data were also compared to maximum contaminant levels (MCLs) and the North Carolina maximum allowable concentrations or interim maximum allowable concentrations (NCDENR, 2010); however, these comparisons were not used to identify the groundwater COPCs to carry forward to Step 2.

If the maximum detected concentration exceeded the appropriate RSL and background concentration (for inorganics only), the screening level risk evaluation proceeded to Step 2. Additionally, the maximum detection limit for analytes not detected in a medium was compared to the screening levels. However, if the detection limit exceeded the screening levels, the constituent was not retained for evaluation in Step 2, but is discussed qualitatively in Section 5.2.

5.1.2 Step 2

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

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

The concentration is the maximum detected concentration (the same concentration that was used in Step 1) and 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. The corresponding risk level was calculated using the equation above. All of the corresponding risk levels for each analyte within a media 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 analytes contributing to these values were retained as COPCs and carried forward to Step 3.

5.1.3 Step 3

A corresponding risk level was calculated as discussed above for Step 2. If more than five samples were available for a given media, however, the 95 percent upper confidence limit (UCL) was used in place of the maximum detected concentration in order 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 analytes contributing to these values were considered COPCs.

The most current version of the ProUCL software program (USEPA, 2010b), was used to test the data distribution and calculate 95 percent UCL exposure point concentrations used for the Step 3 risk ratio calculations. In cases where there were fewer than five samples in the data set, or the recommended UCL exceeded the maximum detected concentration, the maximum concentration was used as the exposure point concentration.

5.2 Human Health Risk Screening Results

Results of the human health risk screening are summarized in Tables K-1 through K-11 in **Appendix K**.

5.2.1 Sediment Risk Screening

Sediment Risk Screening – Step 1

Table K-1 in **Appendix K** shows the results of the Step 1 screening. Arsenic and chromium were retained as COPCs for sediment and were carried forward to Step 2.

Sediment Risk Screening – Step 2

The Step 2 risk ratio screening for sediment, shown on Table K-2 in **Appendix K**, eliminated arsenic and chromium as COPCs. The cumulative corresponding cancer risk of 8×10^{-6} was below the target level of 5×10^{-5}. Therefore, exposure to sediment would not be expected to result in any unacceptable human health risks and no further evaluation of sediment is necessary based on potential human exposure and risk.

5.2.2 Soil Risk Screening

Soil Risk Screening – Step 1

Tables K-3 and K-4 in **Appendix K** show the results of the Step 1 screening. Arsenic and chromium were retained as COPCs for surface soil. Aluminum, arsenic, chromium, and iron were retained as COPCs for total soil. Therefore, arsenic and chromium were carried forward to Step 2 for surface soil, and aluminum, arsenic, chromium, and iron were carried forward to Step 2 for total soil.

Soil Risk Screening – Step 2

The Step 2 risk ratio screening for surface soil, shown on Table K-5 in **Appendix K**, eliminated arsenic and chromium as COPCs from surface soil. Therefore, exposure to surface soil would not be expected to result in any unacceptable human health risks based on potential human exposure and risk.

The Step 2 risk ratio screening for total soil, shown on Table K-6 in **Appendix K,** eliminated aluminum, arsenic, chromium, and iron as COPCs from total soil. Therefore, exposure to total soil would not be expected to result in any unacceptable human health risks, and no further evaluation of soil is necessary based on potential human exposure and risk.

5.2.3 Groundwater Risk Screening

Groundwater Risk Screening – Step 1

Table K-7 in **Appendix K** shows the results of the Step 1 screening. Aluminum, chromium, iron, manganese, and nickel were retained as COPCs in groundwater. These analytes were carried forward to Step 2.

Groundwater Risk Screening – Step 2

Step 2 risk ratio screening for groundwater, shown on Table K-8 in **Appendix K**, retained chromium and iron as COPCs; therefore they were carried forward to Step 3.

Groundwater Risk Screening – Step 3

Step 3, shown on Table K-9 in **Appendix K**, did not eliminate chromium or iron as COPCs, so they were retained as COPCs for groundwater to evaluate whether future exposure to groundwater could result in risks above acceptable levels associated with exposure to chromium and iron in groundwater.

Chromium is the only contributor to the carcinogenic risk associated with the groundwater. The analytical data for chromium are for total chromium; however, the RSL used for the screening is for hexavalent chromium, the more-toxic (and carcinogenic) valence state of chromium. It was assumed that all of the chromium detected in the groundwater is in the hexavalent form, which is highly unlikely. Additionally, the maximum detected concentration of chromium was below the MCL for chromium. Therefore, it is likely there would be no unacceptable carcinogenic risk associated with exposure to the groundwater.

Iron is an essential nutrient. The recommended daily allowance (RDA) for iron for children aged 1 to 3 years is 7 mg/day and the upper limit (UL, the maximum level of daily nutrient intake that is likely to pose no risk of adverse effects) for the same age range is 40 mg/day (National Academy of Sciences, Institute of Medicine, 2001). The maximum detected concentration of iron in the groundwater (34,500 µg/L) would result in an intake of 34.5 mg/day, based on the standard ingestion rate of groundwater for a child of 1 L/day. Although this intake is above the RDA, it is below the UL. The RDA for iron for adults is 8 mg/day, and the UL is 40 mg/day. The maximum detected concentration of iron in the groundwater would result in an intake of 69 mg/day, based on the standard ingestion rate for an adult of 2 L/day, which exceeds both the RDA and the UL for adults.

The maximum detected concentration of iron in the groundwater only slightly exceeds the Tap Water RSL, resulting in a calculated risk ratio of 1.3, only slightly above 1.0. In addition, the 95 percent UCL resulted in a lower risk ratio of 1.0. The risk screening evaluation is very conservative and it is unlikely that the detected concentrations of iron in the groundwater would result in any adverse effects to human receptors.

5.2.4 Surface Water Risk Screening

Surface Water Risk Screening – Step 1

Table K-10 in **Appendix K** shows the results of the Step 1 screening. Iron and manganese were retained as COPCs in surface water. The surface water screening values used to screen iron and manganese for this assessment (the NC 2B for human health and water supply or NRWQC for consumption of water and organisms) are extremely conservative because they are based on both use of the surface water as a drinking water supply and ingestion of fish from the surface water body. Both scenarios are unlikely for the surface water at Site UXO-03. Therefore, the maximum detected concentrations of constituents that exceeded the screening values (iron and manganese) were compared to the USEPA Adjusted Tap Water RSLs, as shown on Table K-11. The maximum detected concentrations of manganese were below the USEPA Adjusted Tap Water RSLs. The maximum detected concentration of iron exceeded the USEPA Adjusted Tap Water RSLs. However, the maximum detected concentration was below the non-adjusted RSL (the value that would be used for Step 2 screening), and the Step 2 risk ratio HI would be less than 0.5. Therefore, exposure to surface water would not be expected to result in any unacceptable human health risks.

5.2.5 Comparison of Detection Limits for Non-detected Analytes to Screening Levels

All of the detection limits for the non-detected constituents in sediment and soil were below the screening levels.

For groundwater and surface water, there were a few non-detected constituents with detection limits above the screening level, but most of the detection limits were all within an order of the screening level. The non-detected

constituents are not expected to be present in groundwater or surface water at concentrations of potential concern to human health.

5.3 Human Health Risk Screening Conclusion

Based on the evaluation of available data, the results of the human health risk-based screening and additional considerations indicate that there are no potentially unacceptable risks to human health.

TABLE 5-1
Surface Soil Analytical Results from BIP Crater
Site UXO-03 Former Practice Hand Grenade Range
MCB CamLej, North Carolina

Sample ID / **Sample Date**	**Adjusted Industrial Soil RSL (November 2010)**	**Adjusted Residential Soil RSL (November 2010)**	**NCSSL (January 2010)**	**CamLej Background**	UXO03-SS01-09 10/23/09
Chemical Name					
Explosives (µg/kg)					
No Detections					
Total Metals (mg/kg)					
Aluminum	99,000	7,700	NS	5,487	6,370
Arsenic	1.6	0.39	5.8	0.626	0.71
Barium	19,000	1,500	580	14.5	98.40
Chromium	5.6	0.29	3.8	6.05	**5.62**
Copper	41,00	310	700	4.83	8.49
Iron	72,000	5,500	150	3,245	2,400
Lead	800	400	270	12.3	3.94
Magnesium	NS	NS	NS	238	176 J
Manganese	2,300	180	65	13.7	2.90
Mercury	31	2.4	1	0.081	0.05
Nickel	2,000	160	130	1.21	2.61 J
Potassium	NS	NS	NS	116	141 J
Selenium	510	39	2.1	0.563	0.23 J
Vanadium	520	39	NS	8.9	8.01
Zinc	31,000	2,400	1200	10.8	2.22

Notes:

J - Analyte present. Value may or may not be accurate or precise

mg/kg - Milligrams per kilogram

NS - Non specified

µg/kg - Micrograms per kilogram

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

Bold box indicates exceedance of NC SSLs

Bold text indicates exceedance of Adjusted Industrial Soil RSLs

Underline indicates exceedance of Adjusted Residential Soil RSLs

SECTION 6

Ecological Risk Screening

6.1 Ecological Risk Screening Overview

6.1.1 Environmental Receptors

As noted earlier, Site UXO-03 and the Northern Boundary cover approximately 12 acres and are composed of three areas (**Figure 2-1**). ASR Area 2.78a covers approximately 2 acres and is adjacent to McHugh Boulevard. This area is primarily wooded with a loblolly and short-leafed pine tree community. The western portion of this area includes landscaped church grounds and a parking lot for the church located east of McHugh Boulevard. ASR Area 2.78b covers approximately 5 acres and is bisected by Birch Street. The area is partially wooded with a loblolly and short-leafed pine tree community. A parking lot and hobby shop building are located in the southeastern portion of the area. An intermittent stream flows through Site UXO-03 from south to north. The Northern Boundary covers 5 acres and has been cleared of vegetation. Potential receptors at the site may consist of plants, soil invertebrates, benthic invertebrates, amphibians, fish, mammals (omnivorous, herbivorous, and carnivorous), reptiles, and birds (herbivorous, insectivorous, nectivorous, carnivorous, omnivorous, granivorous, and piscivorous).

6.1.2 Screening Methodology

The laboratory analytical data for soil, sediment, surface water, and groundwater were screened against ecological screening values (ESVs) intended to be protective of ecological receptors. The number of samples per medium used in the ecological risk screening is summarized below.

Sample Media	TR-02-1 Surface Soil	Multi-incremental Surface Soil	Subsurface Soil	Sediment	Surface Water	Groundwater
Number of Samples (Duplicate Samples)	24 (3)	6	10 (1)	2 (1)	2 (1)	8 (1)

For each medium, the maximum concentration or maximum detection limit for nondetected analytes was compared to the screening value to derive an HQ. An HQ of more than 1 suggests the potential for risk.

For soil, the USEPA ecological soil screening levels (USEPA, 2009b) were preferentially selected over USEPA Region 4 values (USEPA, 2001). When no ecological soil screening level was available for a constituent, the Region 4 value was selected. A selection hierarchy was also applied to surface water. The NRWQC (USEPA, 2009a) were preferentially selected over the USEPA Region 4 values (USEPA, 2001). However, when no national criterion was available for a constituent, the USEPA Region 4 value was selected as the ESV for that constituent. Freshwater screening values were selected for the groundwater and surface water comparisons because of the potential to discharge or run off into the intermittent stream that flows through the site. The assessment of sediment involved comparing analyte concentrations to the USEPA Region 4 ESVs (USEPA, 2001).

The ecological screening results for each medium are discussed below. Once the results were screened, exceedances were reviewed in terms of frequency of detection and background concentrations. Uncertainty is also discussed, as well as a basic literature search to identify contaminant-specific risk potential. Ecological risk screening tables are provided in **Appendix L**.

6.2 Ecological Risk Screening Results

6.2.1 Surface Soil Screening

TR-02-1 Sampling

Seven detected analytes had maximum concentrations in excess of available ESVs: aluminum, antimony, copper, iron, lead, selenium, and vanadium (Table L-1 in **Appendix L**). Antimony and iron concentrations were less than two times the mean BBG concentration (Baker, 2001). When the sitewide average concentrations of these analytes were compared to screening values, aluminum, lead, and selenium exceeded screening values. The average lead concentration of 12.6 mg/kg was higher than the soil ESV but lower than the USEPA Region 4 screening value of 50 mg/kg. Selenium was detected in 8 of 24 samples. The maximum concentration was within the range of the BBG concentrations (Baker, 2001). The concentrations of aluminum were consistent across the site, indicating they are naturally occurring. The maximum concentration also was less than the maximum concentration in the BBG data set (Baker, 2001).

Multi-Incremental Sampling

Three detected analytes had maximum concentrations in excess of available ESVs: aluminum, iron, and lead (Table L-2 in **Appendix L**). The concentrations of aluminum and iron were less than two times the mean BBG (Baker, 2001). The maximum concentration of lead was greater than the ESV but was less than the maximum BBG concentration for lead in soil (38.5 mg/kg).

Overall, there are no significant risks for ecological receptor populations exposed to site surface soils.

6.2.2 Subsurface Soil Screening

Seven detected analytes had maximum concentrations in excess of available ESVs: aluminum, antimony, cadmium, iron, selenium, thallium, and vanadium (Table L-3 in **Appendix L**). The maximum concentrations of antimony, selenium, and thallium were less than two times the mean BBG concentrations (Baker, 2001). The concentrations of aluminum, iron, and vanadium were consistent across the site, suggesting natural occurrence. In addition, the maximum concentrations were less than the maximum concentrations in the BBG data set (Baker, 2001). Cadmium was detected in only one of eight samples and had a low magnitude of exceedance (HQ = 1.14), suggesting that risk from cadmium is low.

6.2.3 Groundwater Screening

Five detected analytes had maximum concentrations in excess of available ESVs: aluminum, chromium, iron, mercury, and nickel (Table L-4 in **Appendix L**). In the filtered samples, chromium and mercury were not detected. Additionally, chromium, mercury, and nickel all had low magnitudes of exceedance (HQs lower than 2). The maximum aluminum, chromium, and iron concentrations were less than the maximum concentrations in the BBG data set (Baker, 2001). Consequently, none of the inorganic analytes detected in groundwater is expected to pose a risk to ecological receptor populations.

6.2.4 Surface Water Screening

Aluminum, iron, and lead had maximum detected concentrations in excess of available ESVs (Table L-5 in **Appendix L**). However, aluminum and lead maximum concentrations were less than two times the mean BBG concentrations (Baker, 2002). Concentrations of iron were consistent with background concentrations in groundwater and are likely consistent with background concentrations in surface waters.

Overall, there are no significant risks for ecological receptor populations exposed to site surface water.

6.2.5 Sediment Screening

There were no exceedances of ESVs in site sediments (Table L-6 in **Appendix L**).

6.3 Uncertainty

A number of analytes lacked medium-specific ESVs. Specifically, ESVs were not available for comparison to detected concentrations of 2,6-dinitrotoluene, HMX, perchlorate, calcium, magnesium, sodium, and potassium in surface soil; calcium, magnesium, potassium, and sodium in subsurface soil; perchlorate, calcium, manganese, potassium, and vanadium in surface water; and 1,3-dinitrobenzene, calcium, cobalt, magnesium, manganese, sodium, and vanadium in groundwater.

The maximum concentrations of 2,6-dinitrotoluene (0.19 mg/kg) and HMX (1.1 mg/kg) in surface soil were lower than the soil benchmarks (89 mg/kg and 10.6 mg/kg, respectively) presented by Bernard et al. (2008). Additionally, HMX is rapidly excreted in mammals, so bioaccumulation is not expected (Talmage et al., 1999).

Calcium, magnesium, manganese, potassium, and sodium are mineral nutrients. Cobalt and vanadium were not identified as posing a risk in soil or sediment and are therefore unlikely to pose risk in surface water or groundwater.

Perchlorate was detected in soil and groundwater. In a study of perchlorate, Callahan and Sprenger (1998) found that the concentration at which 50 percent of earthworms died was 4,450 mg/kg. In the same study, the lowest no-effect concentration for lettuce (a common species used for toxicity testing of plants) was 20 mg/kg. Based on these sources, it is unlikely that a maximum concentration of 0.0076 mg/kg would result in population-level impacts to the soil invertebrate community and upper-trophic-level receptors. The review of perchlorate in surface water was similar. The maximum concentration of perchlorate in surface water was less than a water quality criterion of 9.3 milligrams per liter (mg/L) developed by Dean et al. (2004).

1,3-dinitrobenzene was also detected in groundwater, at 0.00019 mg/L. This is less than the most conservative benchmark (0.02 mg/L) presented in Talmage et al. (1999).

6.4 Conclusion

No unacceptable risks to populations of ecological receptors exposed to surface soil, subsurface soil, groundwater, surface water, or sediment are expected at the site.

SECTION 7

Conclusions and Recommendations

This section provides a summary of the PA/SI findings, presents conclusions, and provides recommendations.

7.1 Conclusions

7.1.1 DGM Survey

Ninety-six percent of the Northern Boundary (excluding the wetland area in the southeast corner of the site) and 11 percent of Site UXO-03 were geophysically mapped. The stream channel that bisects Site UXO-03 was unable to be geophysically mapped and dictated the direction and location of the transects.

A total of 429 geophysical anomalies representing potential subsurface MEC were identified during the DGM activities, although there was no apparent pattern to the distribution of the anomalies. The greatest density of anomalies was encountered in the southeastern portions of the Northern Boundary investigation area and towards the hobby shop at Site UXO-03.

7.1.2 Environmental Investigation

The historical records did not depict the layout of the Former D-3 Hand Grenade Range. Therefore, in the absence of evidence to bias sampling locations, sample locations were distributed evenly across the site. Surface soil samples collected from DUs compared to the TR-02-1 method showed similar results (**Figure 4-1**). Surface soil sample locations near the hobby shop showed relatively higher concentrations of metals, which could be contributed to the metallic debris such as nails, fencing, etc. that was found within this area during the intrusive investigation. **Appendix J** shows the types of debris that were recovered during the intrusive investigations.

Environmental sampling results for Site UXO-03 and the Northern Boundary indicated that the following compounds exceeded BBG levels (if established) and also exceeded applicable regulatory criteria in the indicated media:

	Regulatory Criteria Exceeded					
Sample Media	**Adjusted Industrial Soil RSL**	**Adjusted Residential Soil RSL**	**NC SSL**	**Adjusted Tap Water RSL**	**NCGWQS**	**NRWQC**
Surface Soil	Arsenic Chromium	Arsenic Chromium	Chromium Iron Manganese			
Subsurface Soil	Arsenic Chromium	Arsenic Chromium	Chromium Iron			
Groundwater				Aluminum Chromium Iron Manganese Nickel	Chromium Iron Manganese Mercury Thallium	
Sediment		Arsenic Chromium				
Surface Water				Antimony Arsenic Chromium Iron		Arsenic Iron Manganese

7.1.3 Human Health and Ecological Risk Screening

The human health risk screening indicated only a minimal risk for exposure to iron in groundwater; however, iron is an essential nutrient and is not likely associated with former munitions activities. The human health risk screening also indicated that chromium is the only contributor to the carcinogenic risk associated with the groundwater; however, the maximum detected concentration of chromium was below the MCL. Therefore, it is likely there would be no unacceptable carcinogenic risk associated with exposure to the groundwater.

The ecological risk screening indicated that there are no unacceptable risks to ecological receptors from soil, sediment, surface water, or groundwater.

7.1.4 MEC Intrusive Investigation

A 10% intrusive anomaly investigation was conducted at Site UXO-03 south of Birch Street and 100% intrusive anomaly investigation was completed in the Northern Boundary of Site UXO-03. One MEC item, an M20A1 Ground Illumination Signal, was identified during investigation activities, excavated from approximately 3-inches bgs, and demolition of the item was conducted through controlled detonation. No explosive residues or perchlorate was detected in the post controlled detonation sampling activities. An additional 19 MD items were found during the intrusive investigation.

Based on the results of the MEC intrusive investigation, Site UXO-03 areas south of Birch Street are adequately defined. The one MD item discovered south of Birch Street (ASR Area 2.78b) was located at ground surface. In addition, no MD indicative of range activities was discovered south of Birch Street in Site UXO-03 ASR Areas 2.78a and 2.78b.

A summary of items recovered from Site UXO-03 and the Northern Boundary is provided in **Appendix J**.

7.2 Recommendations

No additional environmental or MEC investigation is recommended at Site UXO-03, Former D-3 Practice Hand Grenade Course, or the Northern Boundary of Site UXO-03 based on the following:

- No unacceptable human health or ecological risks were identified from exposure to site media
- Intrusive anomaly investigations were completed on over 100% of the Northern Boundary and the risk of contact with MEC was significantly reduced
- Intrusive anomaly investigations were completed on over 10% of the UXO-03 area south of Birch Street and no munitions or munitions debris related to high explosive (HE) munitions or hand grenades were found. The only munitions or munitions debris in this area was a flare found on the ground surface. Flares have been found in other areas of Camp Lejeune and are not necessarily related to the use of the site as a hand grenade range. Small arms ammunition was found, but does not pose an excessive risk to those who may come into contact with it.

Because it is not possible to provide 100% assurance that all MEC items have been removed, it would be prudent to provide "3R" training to all MILCON personnel who will be conducting subsurface intrusive activities within the MRS and to provide on-call support from MCB CamLej EOD or a qualified UXO contractor for inspection and disposal of suspected MEC/MPPEH that may be unearthed.

SECTION 8

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USEPA. 2009a. National Recommended Water Quality Criteria. http://www.epa.gov/ waterscience/criteria/wqctable/.

USEPA. 2009b. Ecological Soil Screening Levels. http://www.epa.gov/ecotox/ecossl/.

USEPA. 2010a. Adjusted Regional Screening Levels for Chemical Contaminant Tables. http://www.epa.gov/region9/superfund/prg/.

USEPA. 2010b. ProUCL Version 4.00.05 User Guide (Draft). http://www.epa.gov/esd/tsc/ProUCL_v4.00.05/ ProUCL_v4.00.05_ user_guide(draft).pdf.

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

Appendix A
MRSPP Site Summary Submittal to QA Panel

MRSPP Site Summary Submittal to QA Panel

1. General: Provide the following general information:

   a. Site name: **Site UXO-03, Former Practice Hand Grenade Course**
   b. Site location: **Marine Corps Base Camp Lejeune (MCB CamLej), North Carolina**
   c. Cognizant FEC: **NAVFAC Mid-Atlantic**
   d. Site POC:

Robert A. Lowder
Environmental Engineer
EQB/EMD/I&E
MCB CamLej, NC 28542
Ph: (910) 451-9607

2. Munitions Type Known of Suspected: This section should address all munitions known or suspected to be present at the site including any practice or dummy munitions. This section should specifically address:

   a. Munitions type(s)—Identify Mk, Mod, or other identification specifics. Address any bulk explosives or chemical warfare materials (CWM), including chemical agent containers or chemical agent identification sets (CAIS).

      Site UXO-03, the Former Practice Hand Grenade Range, was used between 1953 and 1959. The site was identified in the *Range Identification and Preliminary Range Assessment* (USACE, 2001) and it is assumed that practice hand grenades were used within the vicinity of throwing pits and targets. However, specific information regarding the types of munitions used is unknown. There is no evidence that chemical warfare material munitions would have been used at the site.

   b. Associated explosive fill or load—Identify for each of the munitions types

      Unknown.

   c. Associated fuzing—Indicate if the fuzing is considered sensitive or not for each of the identified munitions types

      Integral (USACE, 2001).

   d. Munitions determination—State if the munitions known or suspected to be present are UXO, damaged or undamaged DMM, or MC.

      Munitions suspected to be present include MC.

3. Source of Hazard: This section addresses the source of munitions, including CWM, known or suspected to be present at the site. This section should specifically describe any:

    a. Former bombing, grenade, maneuver areas, small arms, research, development, testing and evaluation (RDT&E) or other types of ranges or firing points. Identify any ranges used only for a particular type of munitions (e.g., small arms range).

        Site UXO-03 was a practice hand grenade course used for troop training; the area is not associated with an active impact area, range, range fan, safety danger zone, or the disposal of military munitions. Site UXO-03 does have a history of military troop training and reports of practice grenades being used in the area. Disposal of munitions and or burial of munitions is not reported or suspected (CH2M HILL, 2008).

    b. Former OB/OD or other munitions treatment sites.
    c. Former munitions burial sites.
    d. Former munitions-related industrial areas used for the maintenance, manufacturing or demil of munitions.
    e. Former missile defense or air defense artillery emplacement not associated with a range.
    f. Former storage or transfer points.

4. Location of Munitions: this section addresses the location of the known or suspected munitions and their potential to be exposed to receptors.

    a. State if the presence of munitions is confirmed or suspected.

        Presence of munitions is suspected (CH2M HILL, 2008).

    b. Address if the evidence of the munitions presence is physical, historical, anecdotal or a combination of these sources.

        Evidence is historical (CH2M HILL, 2008),

    c. Indicate if confirmed munitions are located on the surface, subsurface or both.

        Geophysical anomalies were identified during the DGM investigation; however, additional intrusive investigation work will be required to confirm if the anomalies are munitions related.

    d. For confirmed, subsurface munitions, state if the geological conditions are active or stable.
    e. Describe any barriers at the site that prevent direct access to any subsurface munitions (e.g., water depth in excess of 120 ft).

5. Ease of Access: This section addresses potential access to the MRS by considering barriers such as fencing or steep terrain that limit a receptor's ability to enter the site.

a. State if there is a complete or partial barrier to the MRS.

Site UXO-03 is split into two areas. Area 2.78a is approximately one acre in size and is adjacent to McHugh Boulevard. The site is primarily wooded, and a small portion the parking lot of a church east of McHugh Boulevard is located within this area. Area 2.78b is approximately three acres in size and is bisected by Birch Street. The area is partially wooded, and a parking lot and Hobby Shop Building are located within the area of investigation. Based on a review of publicly available aerial photographs and site reconnaissance, it is assumed that approximately 50 percent of Site UXO-03 is wooded (CH2M HILL, 2008).

There are no complete or partial barriers to the MRS.

b. Describe any surveillance activities at the MRS and if they provide continual monitoring of access.

Surveillance activities do not occur at the MRS, beyond surveillance that occurs at the entire base. It is located within the base property. The area is undeveloped with access restricted to military personnel. The general public is precluded from entry to the area (CH2M HILL, 2008).

2. Status of Property: This section addresses Navy control of the MRS.
   a. Indicate if the property was or is currently owned by, leased to, or otherwise possessed or used by the Navy. If the property has been transferred, indicate transferee and date of transfer.

The property is owned by the Marine Corps.

   b. Identify any property that is currently under Navy control, but is scheduled to be transferred from Navy control within 3 year.

None identified.

3. Population/Activities: This section addresses the presence of potential receptors near the MRS.
   a. Based on U.S. Census Bureau data indicate the density of the surrounding population in persons per square mile within a 2-mile radius of the MRS boundary.

196 persons per square mile within a 2-mile radius of the MRS boundary.

   b. Identify the total number of inhabited structures that are located within the MRS or within a 2-mile radius of the MRS boundary.

50+

   c. Describe the activities occurring in or near these structures.

Commercial, residential located on MCB CamLej.

4. Ecological/Cultural Resources: This section addresses the presence of ecological or cultural resources near the MRS.
   a. Identify if ecological or cultural resources or both are present on the MRS.

No cultural resources on or near the MRS have been identified.

Ecological resources are as follows. A bald eagle's nest is documented on MCB CamLej. The nest is located at the junction of Sneads Creek and the New River, 5.7 miles from Site UXO-03. No suitable habitat for any of the endangered or threatened species exists in the boundaries of UXO-03 No adverse impacts to listed species are expected to result from the proposed work at Site UXO-03. Project design features have been developed to prevent impacts to listed species. The following documents the threatened or endangered species of Onslow County, NC and those sighted on or near MCB CamLej, North Carolina (CH2M HILL, 2008).

TABLE 1
Threatened or Endangered Species of Onslow County, NC
(CH2M HILL, 2008)

Species	Federal Status	
American Alligator	T(S/A)	See Notes
Bald Eagle	BGPA	See Notes
Green Sea Turtle	T	Threatened
Leatherback Sea Turtle	E	Endangered
Loggerhead Sea Turtle	T	Threatened
Piping Plover	T	Threatened
Red-cockaded Woodpecker	E	Endangered
Shortnose Sturgeon	E	Endangered
West Indian Manatee	E	Endangered
Cooley's Meadowrue	E	Endangered
Golden Sedge	E	Endangered
Pondberry	E	Endangered
Rough-leaved Loosestrife	E	Endangered
Seabeach Amaranth	T	Threatened

Notes:

T(S/A) = threatened due to similarity of appearance

BGPA =Bald and Golden Eagle Protection Act

Protected species sited near and on MCB CamLej include the American alligator, the green sea turtle, the loggerhead sea turtle, the piping plover, the redcockaded

woodpecker, bald eagle, seabeach amaranth, and the rough-leaf loosestrife (USMC, 2006).

5. Health Hazard Evaluation (This information should be captured within the NORM database): This section addresses the potential hazards to receptors from MC and any incidental non-munitions related contaminants in four specific media. Appendix B of the MRSPP Primer contains the list of comparison values for the contaminants to be evaluated.
   a. Identify and provide values for any contaminants present in background samples for the MRS.

      No background samples were collected for this MRS; however, background samples are available for MCB CamLej. The background samples for MCB CamLej provide background concentrations of inorganics in surface soil, subsurface soil, and groundwater (Baker 2001; Baker 2002).

   b. Indicate the presence of any sole source drinking aquifer or use of groundwater as drinking source on or near the MRS. Discuss any water supply wells down gradient from the MRS. If possible, provide the EPA groundwater classification.

      No water supply wells are found at or near the MRS.

   c. List the uses for any surface water present on the MRS.

      Site UXO-03 does not encompass nor is bounded or bordered by surface water sources other than some small surface water drainage features. Surface water found at the site is not used for any purposes.

   d. Discuss any evidence of contaminate migration from the MRS by any of the four media.

      No MC contaminants were found above screening criteria. There were no contaminant source areas identified at the site.

6. Supporting documentation: Cite the sources for the information provided.

CH2M HILL. 2008. ***Site Specific Work Plan Addendum for Preliminary Assessment/Site Inspection Site UXO-03 Former Practice Hand Grenade Course.*** **May.**

United States Army Corps of Engineers (USACE), St. Louis District. 2001. ***Range Identification and Preliminary Range Assessment, Marine Corps Base Camp Lejeune, Onslow, North Carolina.*** **December.**

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

Appendix B
Archival Records Search Reports

Draft

Archival Records Search Report for the Expanded Site Investigation

Marine Corps Base Camp Lejeune, NC

Contract Task Order 169
August 2011

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

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, MCB CamLej, NC, 1997

A-19 IR Site 25, Division Training Area, MCB CamLej, NC – June 30, 1946
A-20 IR Site 25, Division Training Area, MCB CamLej, NC – June 30, 1951
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, MCB CamLej, NC – June 30, 1964
A-23 IR Site 25, Hadnot Point Area, MCB CamLej, NC – June 30, 1979
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A-26 IR Sites 19 and 20, Master Shore Station Development Plan, Hadnot Point Area "A", MCB CamLej, NC – May 5, 1961
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A-28 IR Sites 19 and 20, Hadnot Point Area, MCB CamLej, NC – June 30, 1979
A-29 Active Skeet Range, Division Training Area, MCB CamLej, NC – June 30, 1946
A-30 Active Skeet Range, Division Training Area, MCB CamLej, NC – June 30, 1951
A-31 Active Skeet Range, Master Shore Station Development Plan, Hadnot Point Area "A", MCB CamLej, NC – May 5, 1961
A-32 Active Skeet Range, Hadnot Point Area, MCB CamLej, NC – June 30, 1979

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 (CamLej), North Carolina is planning military construction (MILCON) projects at various locations at MCB CamLej. 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 MCB CamLej base files. Attachment 2 contains photographs obtained during the research activities.

SECTION 2

Site Information

2.1 Facility Information

MCB CamLej 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 CamLej occupies 153,000 acres including more than 450 miles of roads, approximately 6,800 buildings and facilities, and 14 miles of beach on the Atlantic Ocean for amphibious training (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 CamLej 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 CamLej 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 CamLej 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 CamLej 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 CamLej consists of both broad, level flatlands and gently rolling hills.

Nearly 30 percent of the soils at MCB CamLej 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 CamLej, 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 CamLej, 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 CamLej. 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 CamLej. 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 CamLej. The Former Base Incinerator (Site 25) was located on approximately 0.5 acres and operated during the period of 1940 to the mid 1960s 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 1940s and early 1950s. 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 CamLej. 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 CamLej, 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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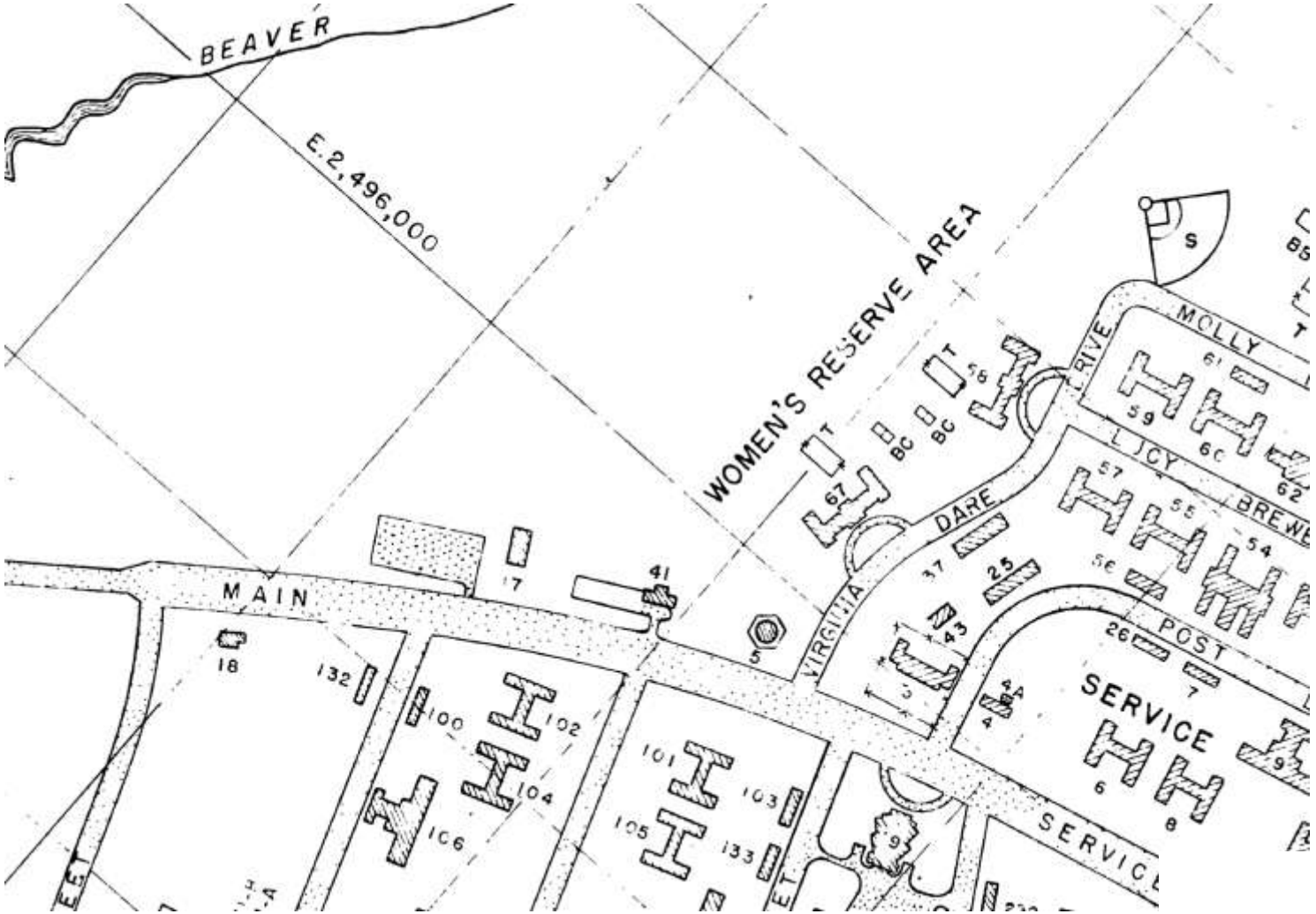

Figure A-13
Site 2.78
Division Training Area
MCB CamLej, NC
June 30, 1946

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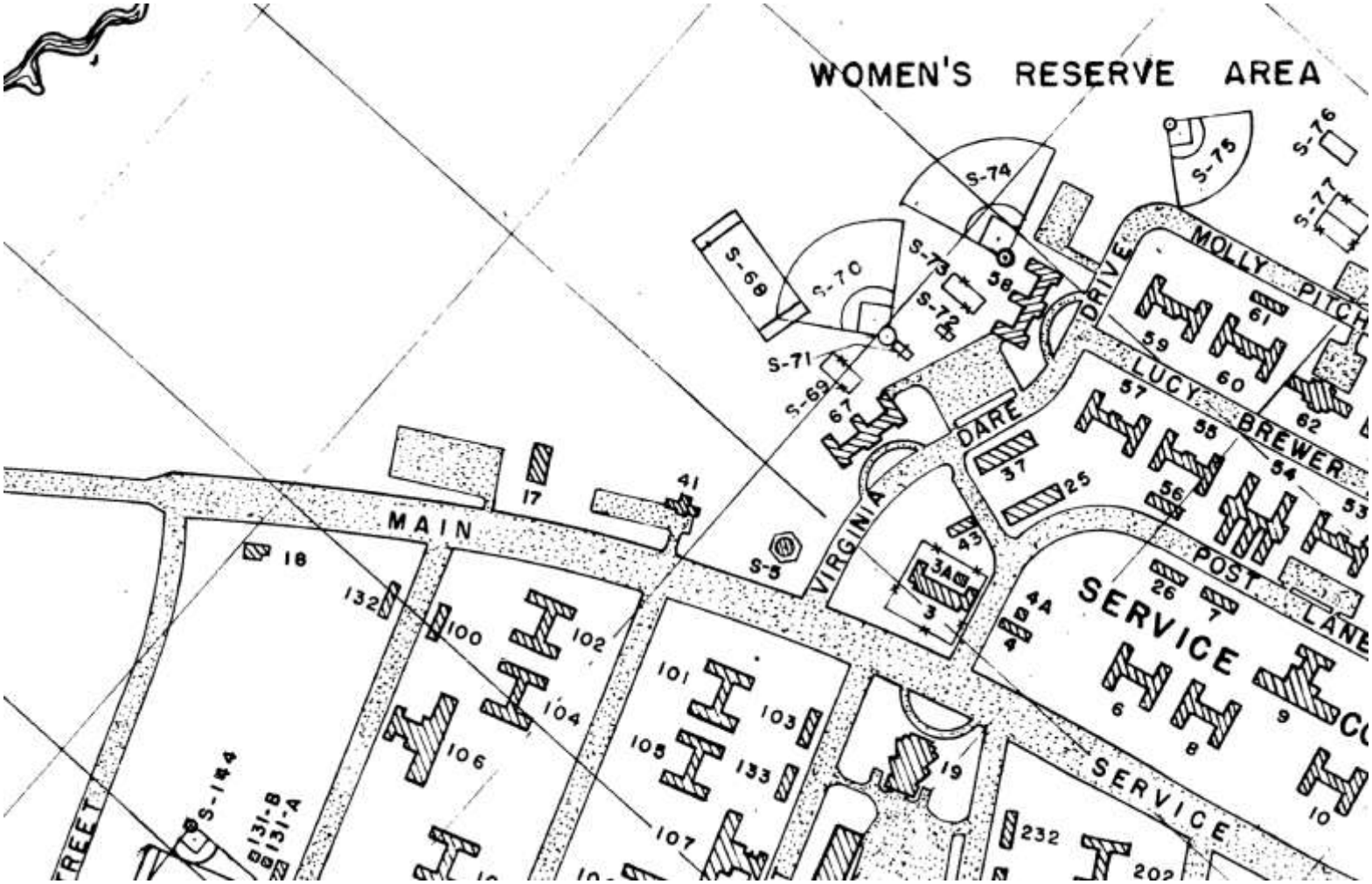

Figure A-14
Site 2.78
Division Training Area
MCB CamLej, NC
June 30, 1951

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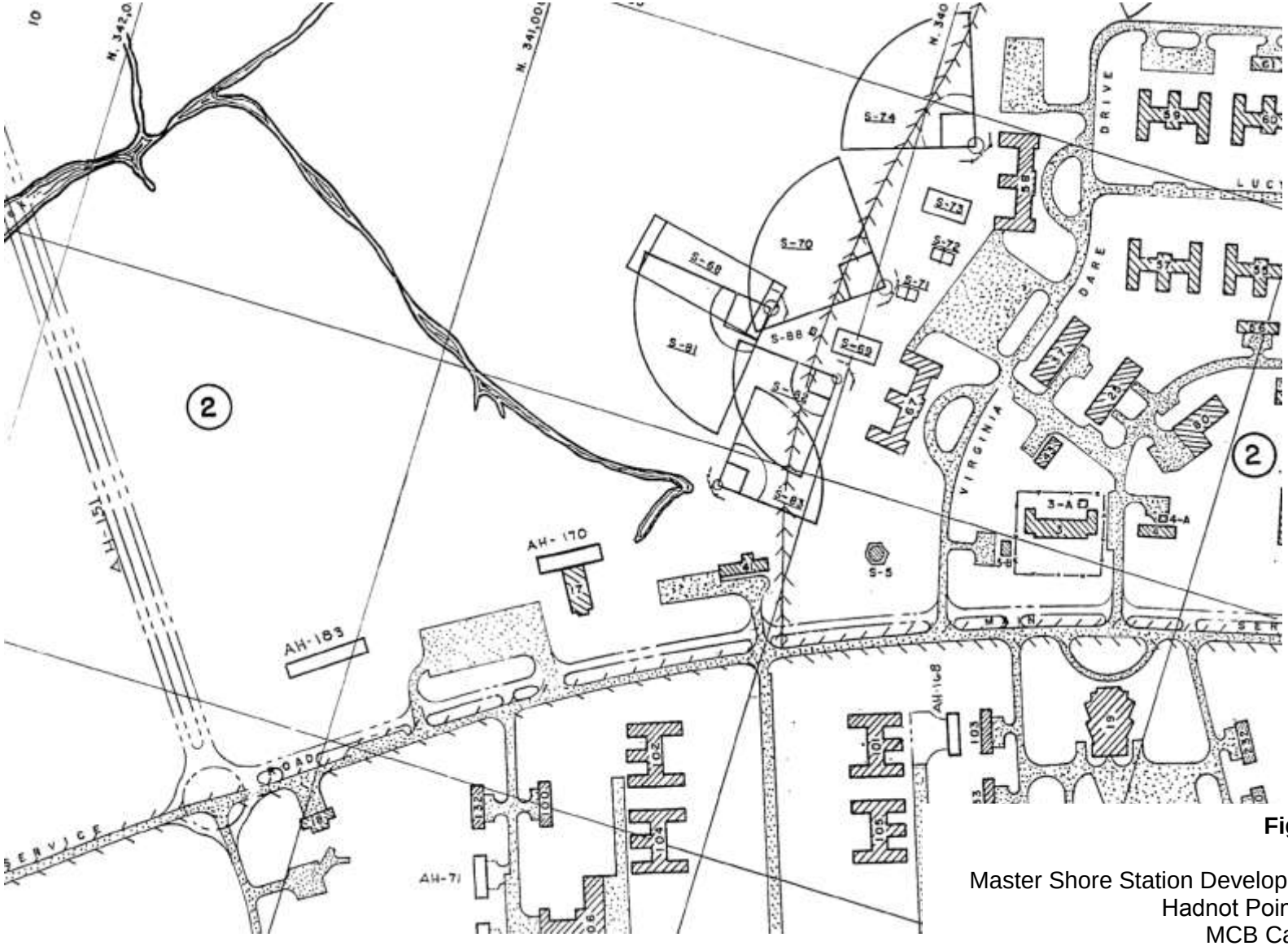

Figure A-15
Site 2.78
Master Shore Station Development Plan
Hadnot Point Area "A"
MCB CamLej, NC
May 5, 1961

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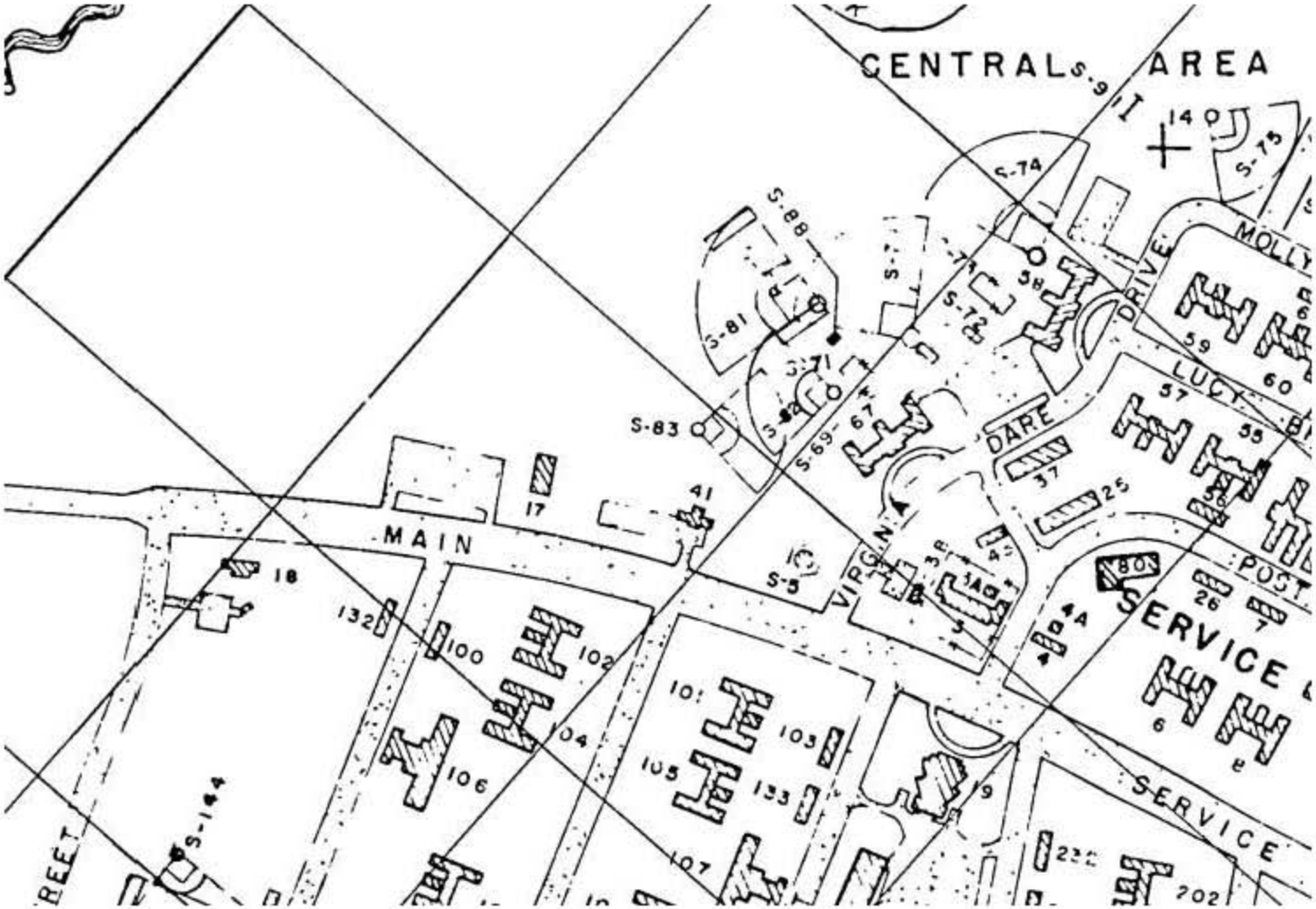

Figure A-16
Site 2.78
Hadnot Point Area
MCB CamLej, NC
June 30, 1964

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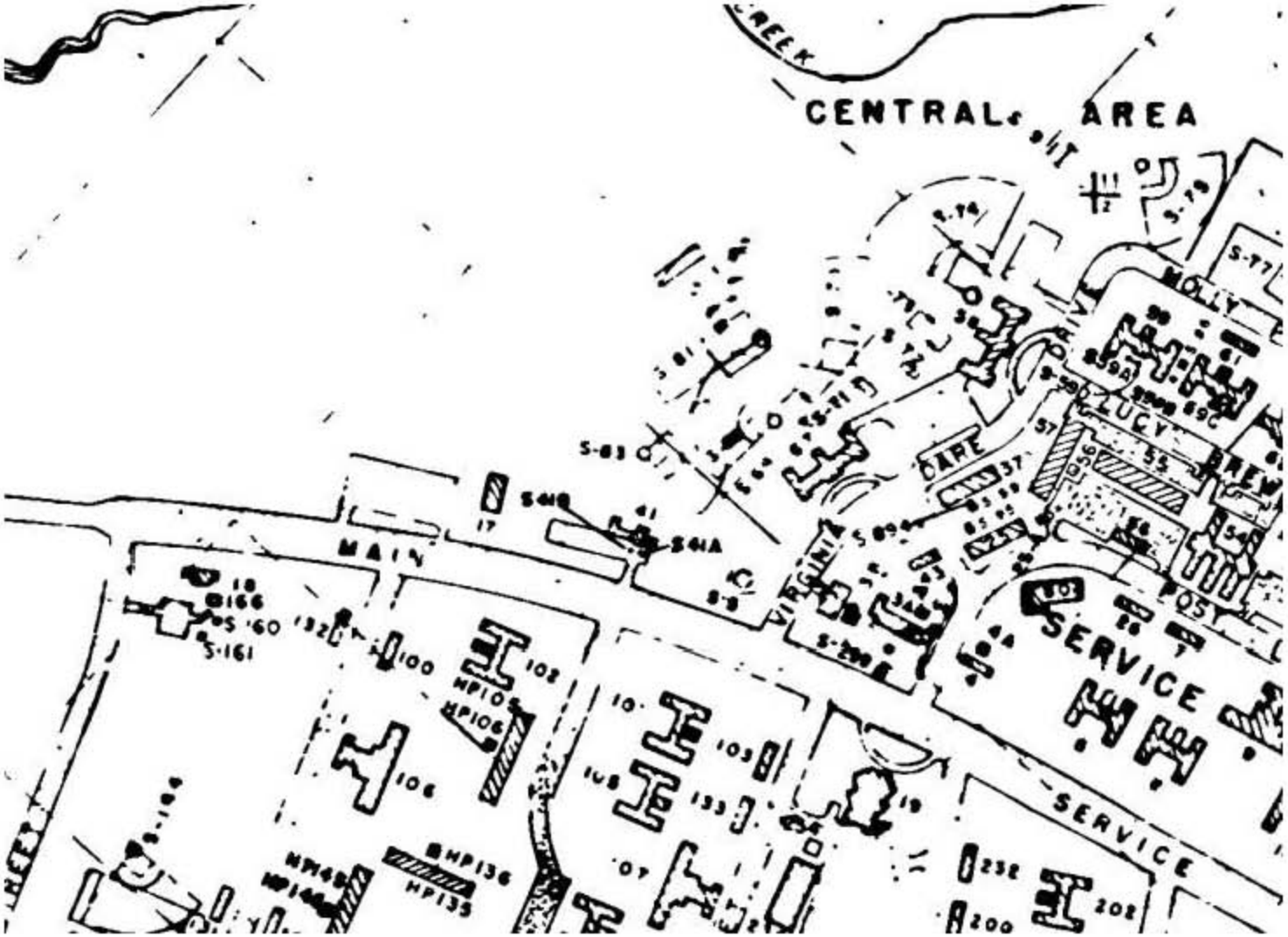

Figure A-17
Site 2.78
Hadnot Point Area
MCB CamLej, NC
June 30, 1979

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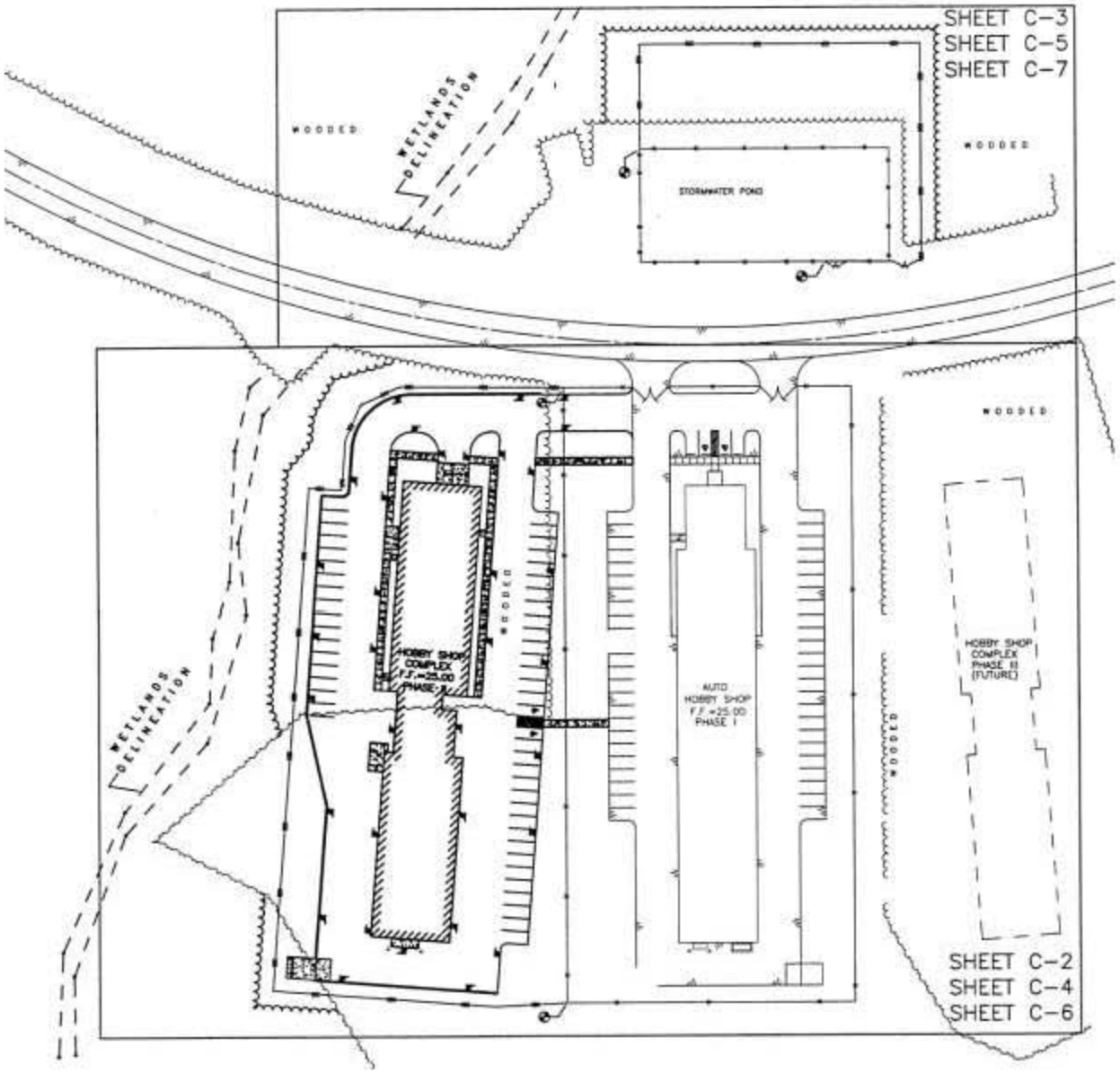

Figure A-18
Site 2.78
Hobby Shop Complex
Construction Drawing
MCB CamLej, NC
1997

CH2MHILL

Exhibits

Archival Records Search Report
Site UXO-03, Former Practice Hand Grenade Course

Marine Corps Base Camp Lejeune
Jacksonville, North Carolina

Contract Task Order 0168

August 2011

Prepared for

Department of the Navy
Naval Facilities Engineering Command
Atlantic

Under the

NAVFAC CLEAN III Program
Contract N62470-02-D-3052

Prepared by

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Chantilly, Virginia

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B-2 Site UXO-03, Division Training Area, MCB CamLej, NC, June 30, 1951

B-3 Site UXO-03, Master Shore Station Development Plan, Hadnot Point Area "A," MCB CamLej, NC, May 5, 1961

B-4 Site UXO-03, Hadnot Point Area, MCB CamLej, NC, June 30, 1964

B-5 Site UXO-03, Hadnot Point Area, MCB CamLej, NC, June 30, 1979

B-6 Site UXO-03, Hobby Shop Complex, Construction Drawing, MCB CamLej, NC, 1997

Attachments

1 Resource Review Summary

Acronyms and Abbreviations

ASR	Archive Search Report
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CTO	Contract Task Order
DGM	Digital Geophysical Mapping
MC	Munitions Constituents
MCB	Marine Corps Base
MEC	Munitions and Explosives of Concern
MRP	Munitions Response Program
NARA	National Archives and Records Administration
PA/SI	Preliminary Assessment/Site Inspection
UXO	unexploded ordnance

SECTION 1

Introduction, Purpose, and Scope

Marine Corps Base Camp Lejeune (MCB CamLej) is in the process of investigating closed ranges at the Base following the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) investigation process. A munitions response program (MRP) Preliminary Assessment/Site Inspection (PA/SI) included under Contract Task Order (CTO)-0168 will be conducted at Site Unexploded Ordnance (UXO)-03 Former Practice Hand Grenade Course, Archive Search Report (ASR) Areas 2.78a and 2.78b, in order to accomplish the following objectives:

1. Identify historical activities at Site UXO-03 that may have resulted in environmental contamination with munitions and explosives of concern (MEC) or munitions constituents (MC) by researching archival records and interviewing current and previous installation personnel;
2. Evaluate the presence and nature of any MC contamination that may exist at Site UXO-03 by conducting an investigation of soil, groundwater, surface water, and sediment;
3. Conduct ecological and human health risk screenings on analytical data collected at Site UXO-03; and
4. Estimate the number and density of geophysical anomalies that may represent subsurface MEC by conducting digital geophysical mapping (DGM) within representative portions of the site.

The results of the environmental investigation will determine if any impacts to environmental media have occurred at Site UXO-03 due to past range activities. To support the site investigation effort, this Archival Records Search Report has been prepared to provide a narrative of the historical activities at Site UXO-03 that may have resulted in environmental contamination with MEC.

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 the following:

- A review of existing information about the site (including MCB CamLej maps, drawings, and reports, and interviews with MCB CamLej personnel)
- A 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 Corps Library at Quantico, National Archives and Records Administration (NARA) map and text files, and MCB CamLej base files.

SECTION 2

Site Information: Ownership and Operational History

2.1 MCB CamLej Ownership History

The history of the land now occupied by MCB CamLej is documented primarily through land records and maps. Following the start of World War II, the War Department began purchasing in 1941 tracts of land 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, 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 Site UXO-03 Former Practice Hand Grenade Course ASR Areas 2.78a and 2.78b

Site UXO-03 was identified in the *Range Identification and Preliminary Range Assessment* (USACE, 2001) as ASR Areas 2.78a and 2.78b. The site is located near Building 1249 along Birch Street, north of the Hadnot Point area of MCB CamLej. Because the range was identified as the Practice Hand Grenade Course, it is assumed that practice hand grenades were used at ASR Area 2.78 within the vicinity of throwing pits and targets. This same document has record of troop training until 1992. It is assumed that Site UXO-03 was part of this ongoing training at the site. Based on the timeframe of use, the range was used during the Korean War time period (1953 to approximately 1959).

Based on review of historic maps (**Figures B-1** through **B-6**), no structure was built on the site until the recent construction of the hobby shop complex. According to some maps, the northeast corner of Building 17 (Catholic Chapel) is within the site, and has existed there since the 1940s. Building 41 (Red Cross Building) has been located south of the site since the 1940s.

The area of Site UXO-03 on the 1946 MCB CamLej Existing Conditions map (**Figure B-1**) is shown as an undeveloped area east of and adjacent to the Women's Reserve Area 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 (MCB CamLej, 1946).

On the 1951 MCB CamLej Existing Conditions map (**Figure B-2**), 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 (MCB CamLej, 1951).

On the 1961 Master Shore Station Development Plan map of Hadnot Point Area "A" (**Figure B-3**), the area of Site UXO-03 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. According to 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 Building 17 and AH-193, located west of the chapel parking lot). However, based on subsequent maps, these proposed buildings were not constructed (MCB CamLej, 1961).

There are no noticeable changes to the area of Site UXO-03 on the 1964 and 1979 Camp Lejeune Existing Conditions Maps (**Figures B-4 and B-5**) as compared to the 1961 Master Shore Station map, excluding the proposed buildings and roads. The current layout of the hobby shop buildings is depicted in **Figure B-6**. The uses of the buildings south of Site UXO-03 remained the same (MCB CamLej, 1964, 1979, 1997).

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Figures

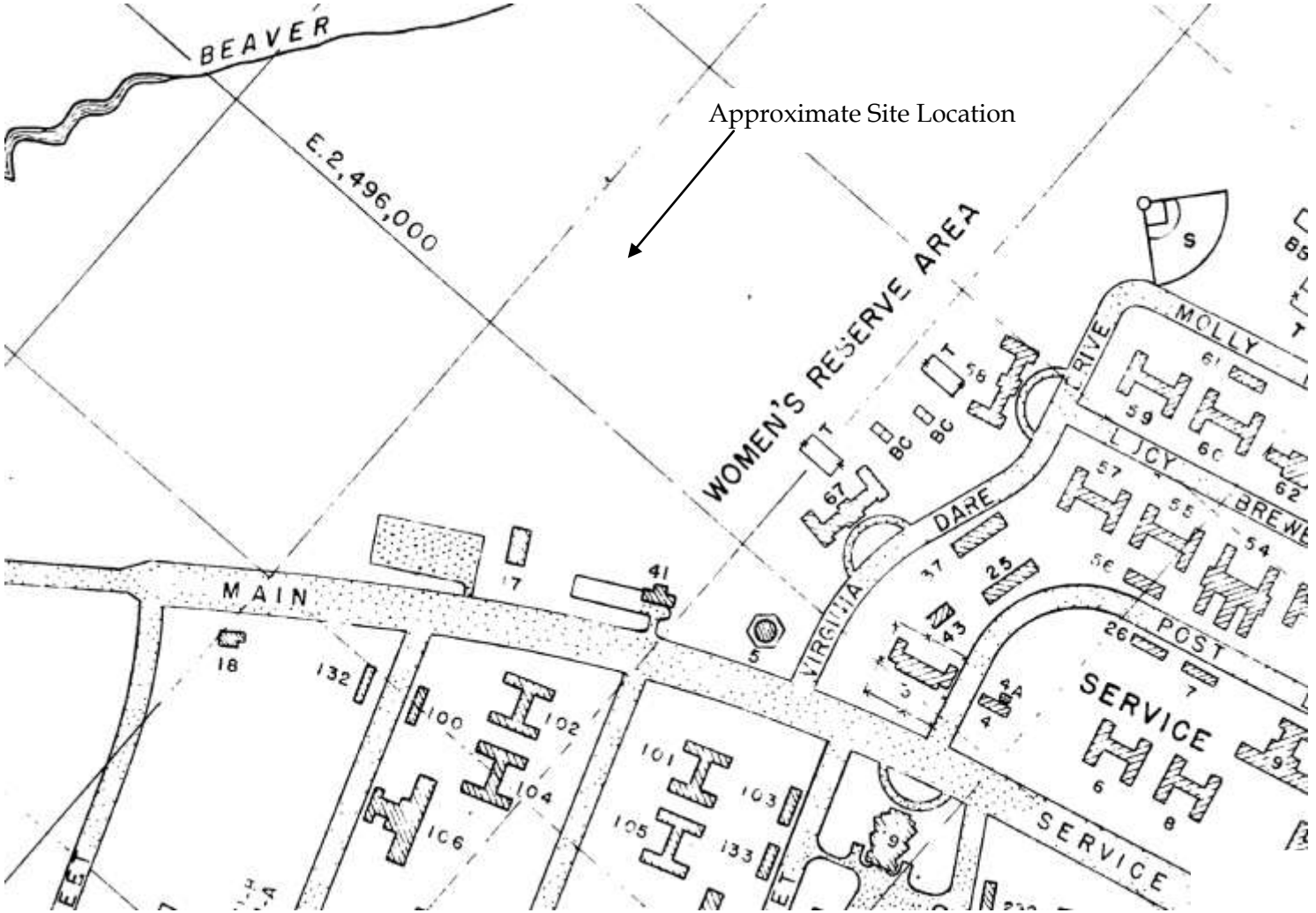

Figure B-1
Site UXO-03
Division Training Area
MCB CamLej, NC
June 30, 1946

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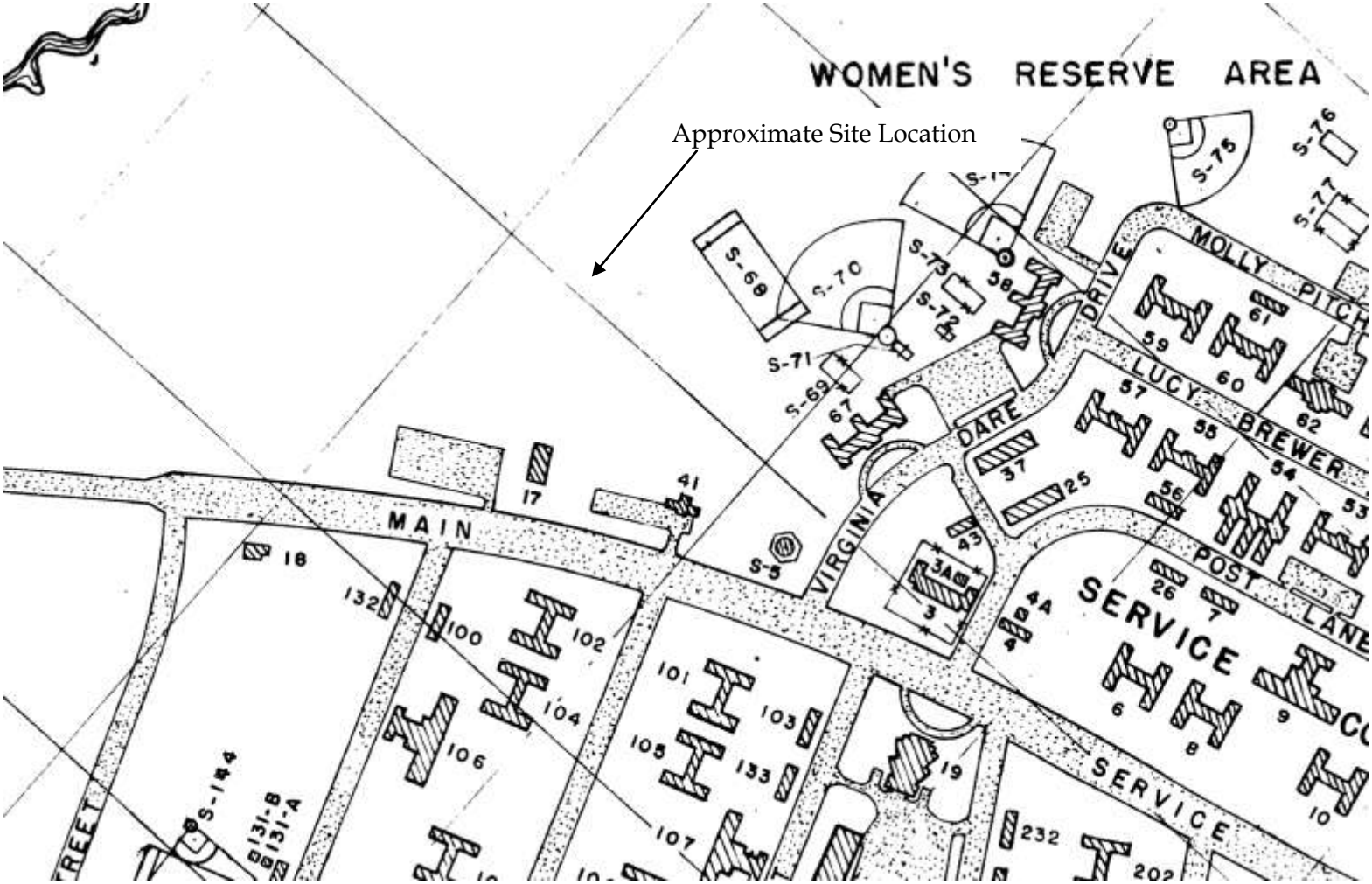

Figure B-2
Site UXO-03
Division Training Area
MCB CamLej, NC
June 30, 1951

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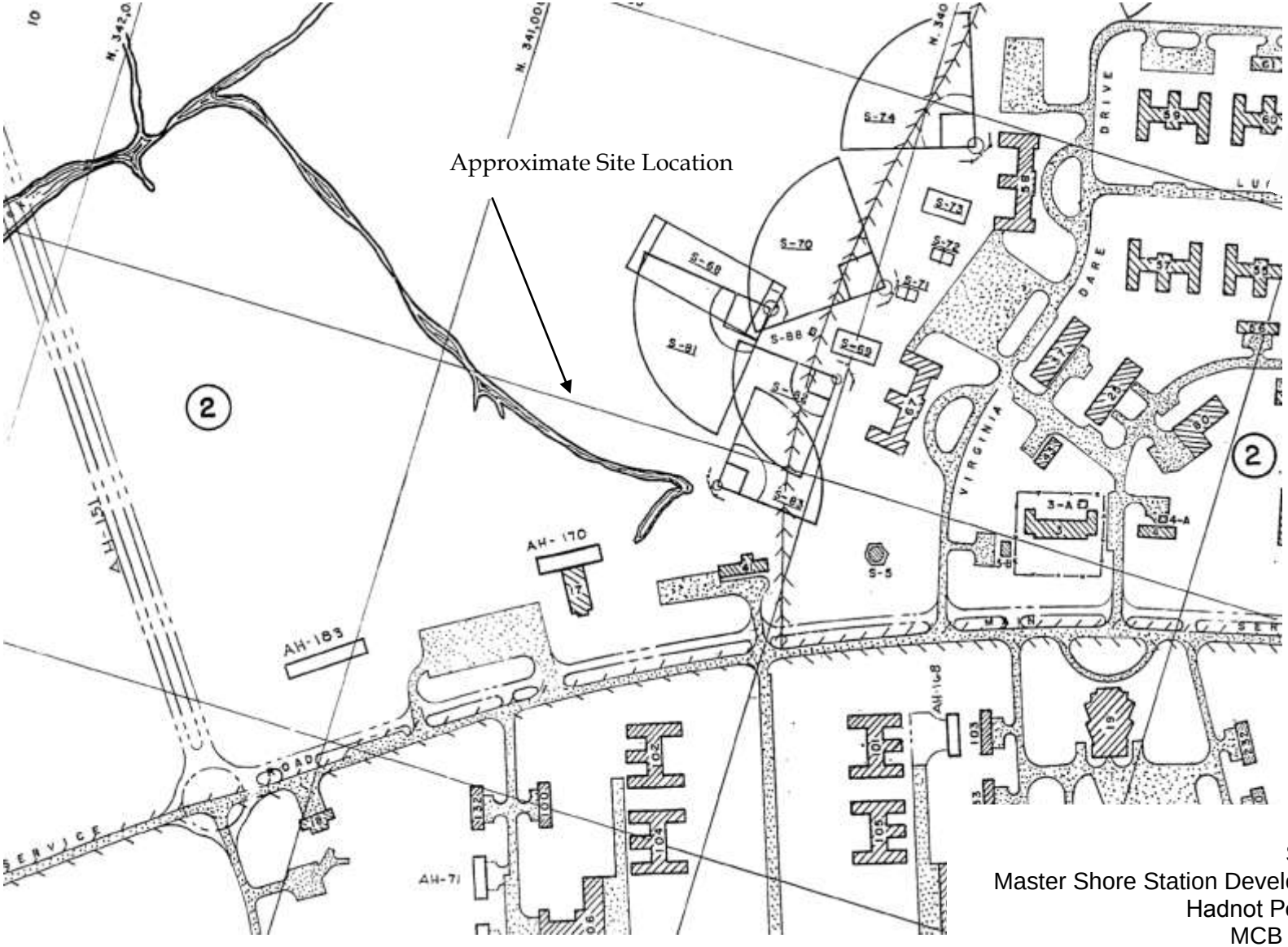

Figure B-3
Site UXO-03
Master Shore Station Development Plan
Hadnot Point Area "A"
MCB CamLej, NC
May 5, 1961

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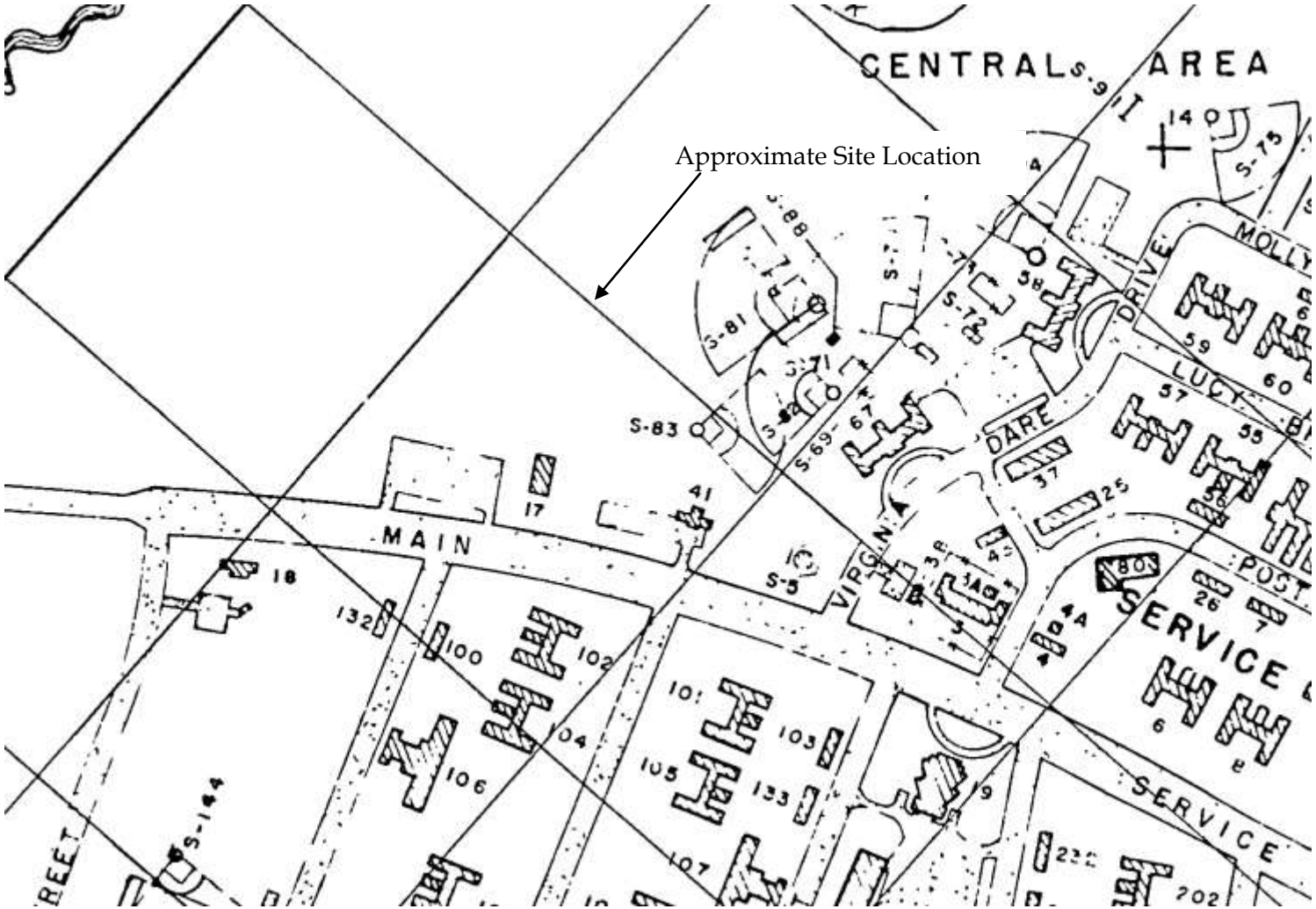

Figure B-4
Site UXO-03
Hadnot Point Area
MCB CamLej, NC
June 30, 1964

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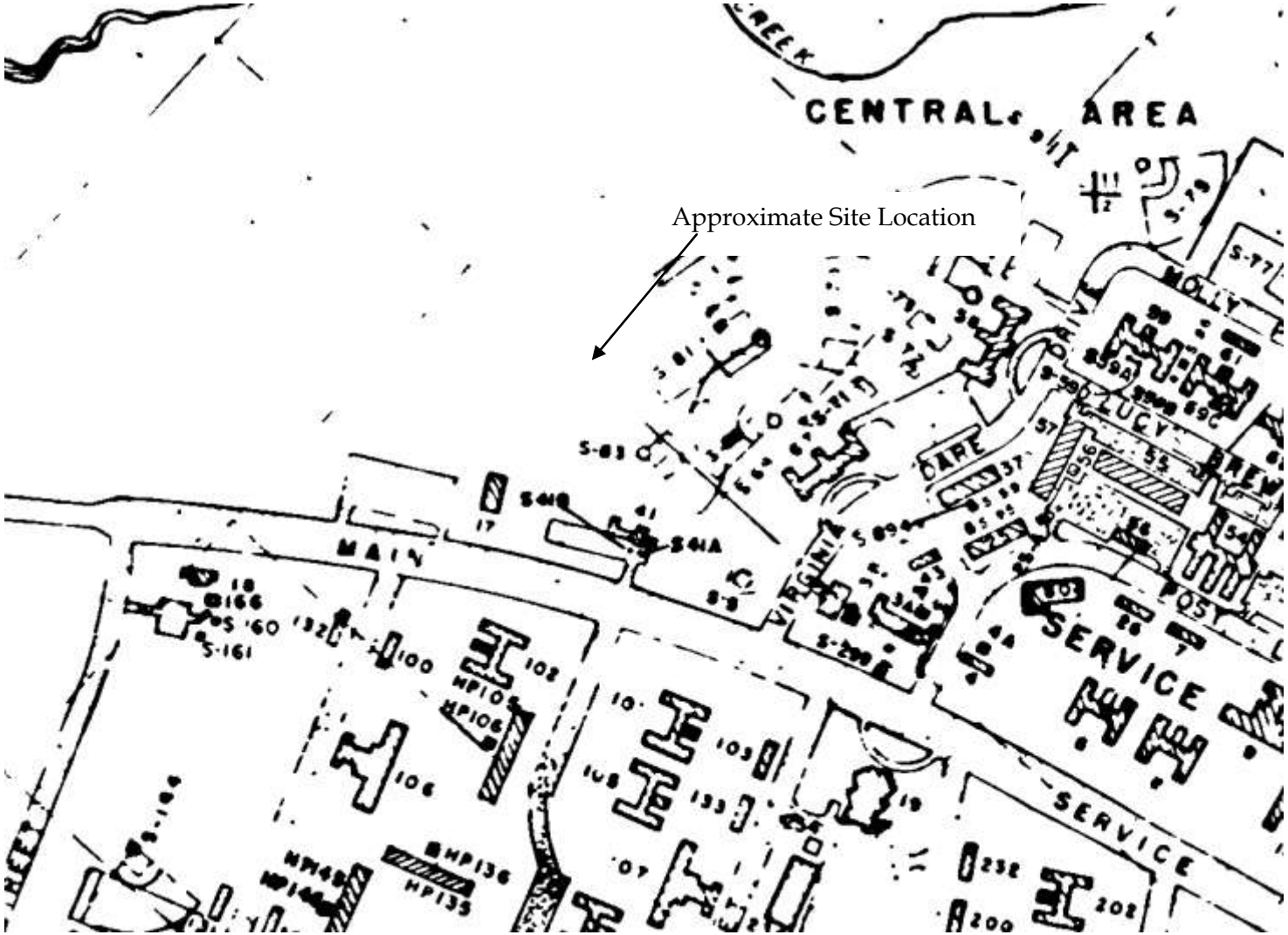

Figure B-5
Site UXO-03
Hadnot Point Area
MCB CamLej, NC
June 30, 1979

CH2MHILL

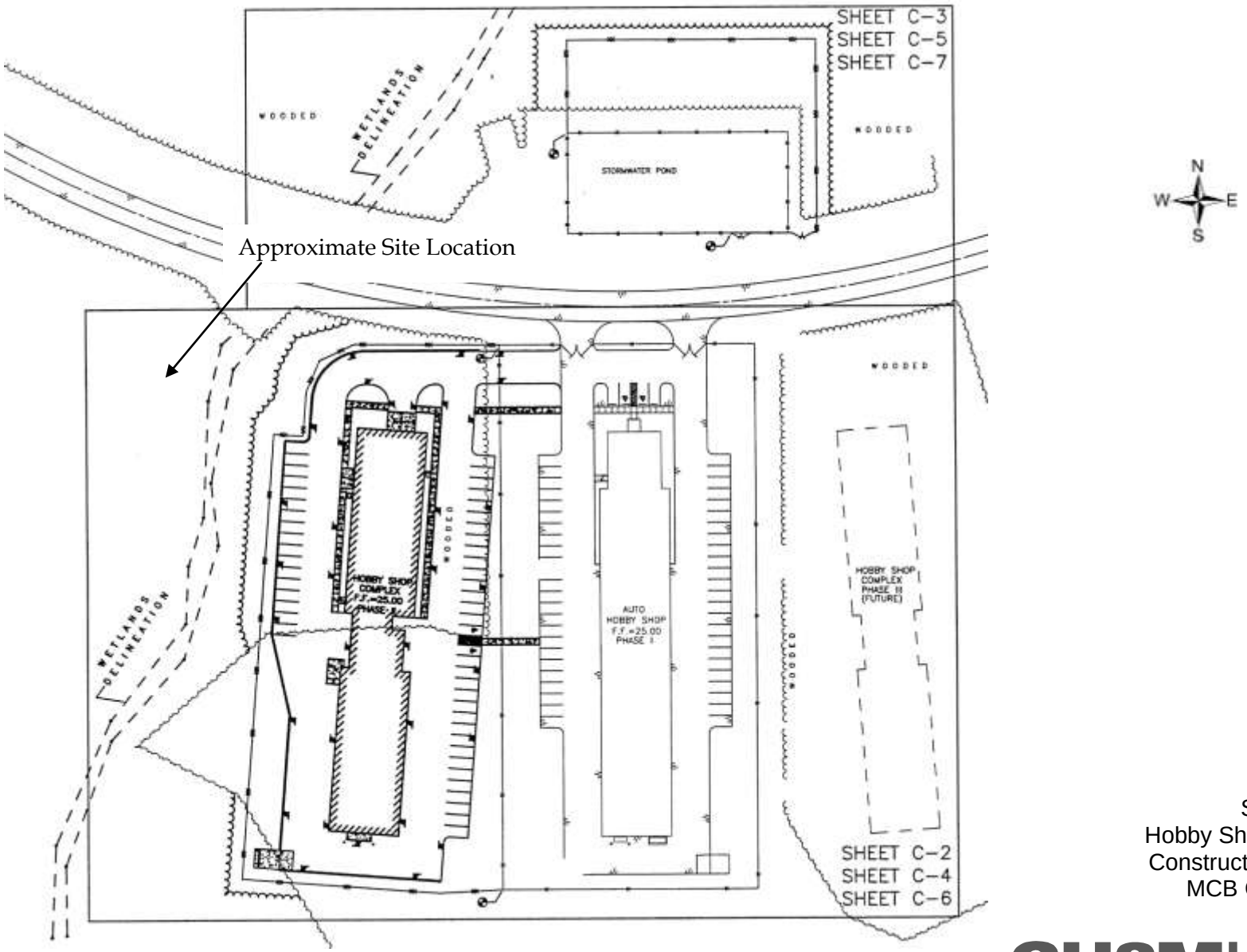

Figure B-6
Site UXO-03
Hobby Shop Complex
Construction Drawing
MCB CamLej, NC
1997

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Attachment 1
Resource Review Summary

Resource Review Summary

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

Resource	Actions Completed
Quantico, Virginia, Marine Corps Library	Reviewed all available file folders related to Camp Lejeune and copied relevant reports and figures/maps.
Gray Research Center (Alisa Johnson)	
Quantico, Virginia, Marine Corp Base, Dunlap Hall, Audio Visual Repository	Reviewed all available file photos related to Camp Lejeune—No relevant photos to copy
US National Archives (NARA II) Historical Files	Reviewed text and drawing files from Text Division and Cartographic Division and Still Photographs Research Division.
Barry Zirby/National Archives Text File	See US National Archives Files Review
Camp Lejeune Library files	Reviewed and copied all relevant documents related to historical land use for each site.
Camp Lejeune Real Estate files	Reviewed and copied all relevant documents related to historical land use for each site.
Camp Lejeune Website	Reviewed and copied all relevant documents related to historical land use for each site.
Camp Lejeune Personnel	
Bob Lowder/Environmental	Contacted and interviewed
Linda Futrell/ Real Estate Expert	Contacted and interviewed
Glenn Pappas/MCB Camp Lejeune Military Historian	Contacted and interviewed
Michael Singhas/MCB Camp Lejeune Skeet Range Manager	Contacted and interviewed
Duane Richardson/ Base Range Safety Officer	Contacted and interviewed

Marine Corps Library Review

Text Division

Contact: Alisa Johnson

Site Visit: May 1, 2007

File review at Marine Corps Base, Quantico, Virginia, Gray Research Center, Marine Corps Archives and Special Collections.

Review files from Box #61, Camp Lejeune 1941-1984 (files copied)

- Live Minefield Site - Correspondence and map
- Regulations Governing Use of Firing Range 5, Field Training and Facilities and Maneuver Areas, BO P11102.1F, Apr 1966 - Relevant site information and maps of ranges
- Department of Navy Candidate Environmental Impact Statement (CEIS), Construction of FY 76-77 Family Housing, United States Marine Corp Base Camp Lejeune (MCB CamLej), NC, Feb 1975 - Figure, Existing Explosives text
- Combat Training Chart (topographic map) 1987
- Approaches to New River (topographic map) 1978

National Archives and Records Administration Review

Text Division

Contact: Mr. Barry Zirby, 301-713-7250 x285
Site visits on May 2 and 3, 2007

Reviewed 18 boxes of files associated with the Marine Corps, 1939-1950

- Record Group 127 (USMC), Office of the Commandant, General Correspondence, January 1939–June 1950, 1275/70-800 (10/45–1/47) to 1275/70-727 (1/44–12/47), Box 218.
- Record Group 127 (USMC), Office of the Commandant, General Correspondence, January 1939–June 1950, 1275/70-800 (10/44–1/45) to 1275/70-800 (7/45–9/45), Box 219.
- Record Group 127 (USMC), Office of the Commandant, General Correspondence, January 1939–June 1950, 2000-10 (1/48–12/48) to 2000-10 (5/24–12/36), Box 1201.
- Record Group 127 (USMC), Office of the Commandant, General Correspondence, January 1939–June 1950, 2000-10 (6/45–4/46) to 2000-10 (5/44), Box 1202.
- Record Group 127 (USMC), Office of the Commandant, General Correspondence, January 1939–June 1950, 2000-20 (1/49–10/49) to 2000-10 (1/45–6/45), Box 1203.
- Record Group 127 (USMC), Office of the Commandant, General Correspondence, January 1939–June 1950, 2000-20 (1/44–6/47) to 2000-20 (5/48–12/48), Box 1204.
- Record Group 127 (USMC), Office of the Commandant, General Correspondence, January 1939–June 1950, 2000-20-5 (6/46–12/47) to 2000-20 (6/43), Box 1205.
- Record Group 127 (USMC), Office of the Commandant, General Correspondence, January 1939–June 1950, 2000-20-10 (7/48–10/47) to 2000-20-5 (4/45–6/46), Box 1206.
- Record Group 127 (USMC), Office of the Commandant, General Correspondence, January 1939–June 1950, 2000-20-10 (7/41–11/42) to 2000-20-10 (1/45–6/45), Box 1207.

- Record Group 127 (USMC), Office of the Commandant, General Correspondence, January 1939–June 1950, 2000-20-10 (7/39–2/40) to 2000-20-10 (2/40–6/41), Box 1208.
- Record Group 127 (USMC), Office of the Commandant, General Correspondence, January 1939–June 1950, 2000-20-20 (1/48–12/48) to 2000-20-15 (1/49–6/50), Box 1209.
- Record Group 127 (USMC), Office of the Commandant, General Correspondence, January 1939–June 1950, 2000-20-20 (1/44–11/46) to 2000-20-20 (11/46–12/47), Box 1210.
- Record Group 127 (USMC), Office of the Commandant, General Correspondence, January 1939–June 1950, 2000-20-20 (2/33–8/36) to 2000-20-20 (6/42), Box 1211.
- Record Group 127 (USMC), Office of the Commandant, General Correspondence, January 1939–June 1950, 2015 (3/43) to 2000-80 (1/44–12/47), Box 1241.
- Record Group 127 (USMC), Office of the Commandant, General Correspondence, January 1939–June 1950, 2295-10 Brooklyn to 2285-10 Camp Lejuene, Box 1570.
- Record Group 127 (USMC), Office of the Commandant, General Correspondence, January 1939–June 1950, 2295-10 Camp Lejuene to 2285-10 Camp Lejuene, Box 1571.
- Record Group 127 (USMC), Office of the Commandant, General Correspondence, January 1939–June 1950, 2295-10 Camp Lejuene to 2285-10 Camp Lejuene, Box 1572.
- Record Group 127 (USMC), Office of the Commandant, General Correspondence, January 1939–June 1950, 2295-10 Camp Lejuene to 2285-10 Camp Lejuene, Box 1573.
- Record Group 127 (USMC), Office of the Commandant, General Correspondence, January 1939–June 1950, 2295-10 Camp Lejuene to 2285-10 Camp Lejuene, Box 1574.

The boxes contained information primarily related to weapons test results, weapons cost distribution, weapons training classes, weapon specifications, and cleaning and maintenance. The material was not specific to Camp Lejeune and included information for several MC bases.

Cartographic Division

The cartographic division did not contain any relevant information pertaining to historical ordnance use at any of the sites. Information for MCB CamLej is located under Record Group (RG) 71—Bureau of Yards and Docks. The index for locating cartographic materials is then grouped by subject codes. The only available drawing for MCB CamLej was for Subject Area 19—Water Systems. Subject Area 44 is rifle ranges, machine gun ranges, sighting ranges, bombing targets; however, no materials were located under this Subject Area.

List of Documents Obtained from National Archives

- "Aerial Photo of Football Field, 300 ft. 24 Sept 49"—aerial photograph of area north of Site UXO-08.
- Commandant Letter, dated October 21, 1947; subject: "Recommendation for annual allowance of blank ammunition."

- Letter of Instruction Number 1567, dated April 19, 1948; subject: "Handling, Storing, and Destruction of Ammunition and Explosives."
- Bureau of Ordnance Letter to Commanding Officer, Naval Ammunition Depot, Hawthorne, Nevada, dated October 23, 1947; subject: "Grenades, Rifle, M8, M9, A1C-S4NAA-6, Disposition of."
- Commandant Letter, dated February 26, 1945; subject: "Miniature Practice Bombs."
- Memorandum for the Director, Marine Corps Reserve, dated August 5, 1940; subject: "List of property for Reserve Battalion."
- Commandant Letter, dated May 10, 1941; subject: "Procurement of Ordnance Material."
- Bureau of Ordnance Letter: "Memorandum to Accompany Report of Deliveries of Marine Corps Ordnance Equipment for the Month of December 1942."
- "Camp General Order: Training Facilities, Regulations Governing Use of," dated December 9, 1946.
- Record Drawing—Public Works Department, Camp Lejeune, North Carolina, Fleet Marine Force, 2nd Marine Division, Shop Area, April 28, 1950.
- Map—US Marine Corps Topographic Map, Camp Lejeune North Carolina, 1947.
- Map—Camp Lejeune General Area Map, March 1947.

MCB Camp Lejeune Base Site Visit and Records Review

Base Contact: Mr. Bob Lowder, Environmental Management Division, 910-451-9607.

File reviews of records in the base Real Estate office, base library, and EOD office were conducted during the site visit. Additionally, interviews were conducted with Bob Lowder/Environmental Manager, Glenn Pappas/Military Historian, Linda Futrell/Real Estate expert, Duane Richardson/EOD Base Range Safety Officer, and Michael Singhas/Camp Lejeune Skeet Range Manager.

List of Documents Obtained from Camp Lejeune

Base Real Estate Office

- "Combined Arms Training Ranges, Areas 'D' & 'G,'" 1950. Public Works Drawing 3456, Tube 20.
- "Combat Training Chart 15.042-50-01, Appendix D-1 to B.O. P11102.1F, April 9, 1969, Campwide." Public Works Drawing 12826.
- "Proposed Grenade Range, F-6 Range," November 5, 1958 (two drawings).
- "Replace F-6 Hand Grenade Range," July 16, 2003 (11 drawings).
- Master Shore Station Development Plan – May 1961.

- Eighth Communication Battalion Operations/Maintenance/Storage Facility — November 2000
- Hobby Shop Complex, Hadnot Point Phase II — June 1997
- Gottschalk Marina, Borings — August 1998
- Combat Vehicle Maintenance Shops — June 1984
  - Site Layout
  - Site Location/Vicinity
- Medical/Dental Clinic - Vicinity/Location Map — 1987
- Barracks Force Troops Complex — Location Plan & Details — 1967/1968
- Force Troops Complex Site Plan (Grading and Storm Drainage) — 1966
- Existing Conditions — 1984
  - Camp Geiger Trailer Park and New River Air Station Gate - 14599
  - New Hospital Area and Midway Park Housing Area - 14605
  - Camp Geiger Trailer Park Area - 14607
  - Paradise Point Housing Area — 14624
  - Hadnot Point Regimental Areas (100-200) — 14628
  - Hadnot Point Industrial Area — 14629
  - Hadnot Point Industrial Area and Lyman Road — 14630
- Parachute and Survival Equipment Shop — Force Troops Complex — December 1973
  - Text Boring Logs — 401374
  - Vicinity Plan - 1973 — 4013789
- Master Shore Station Development Plan — December 1960
  - Index Existing Training Facilities — 567027
  - Hadnot Point Area "A" — 567005
  - Enlargement Hadnot Point — 765508, 765509, 765510
  - Hadnot Point Area "B" — 765511
  - Geiger Area B — 567016
- Existing Conditions — 1964
  - Index Sheet
  - Midway Park Housing Area
  - Open Storage Area
  - Officers' Quarters, Paradise Point Area
  - Hadnot Point Area
  - Legend Sheet for Hadnot Point Area
  - Magazine Area
  - Geiger Area — MCAF, New River and Vicinity
  - Geiger Area Trailer Park

- Existing Conditions—1946
  - Index Sheet
  - Midway Park Defense Housing Project
  - Officers' Quarters, Paradise Park Area
  - Division Training Area
  - Legend Sheet for Division Training Area
  - Magazine Area
- Existing Conditions—1951
  - Index Sheet
  - Midway Park Defense Housing Project
  - Officers' Quarters Paradise Point Area
  - Division Training Area
  - Legend Sheet for Division Training Area
  - Magazine Area
  - Tent Camps No 1 & 2 and Vicinity
  - Open Storage Area
  - Enlargement of Trailer Park
- Exiting Conditions—1979 (All areas)

Base Library

- Louis Berger Group, Inc. Under USCOE, Wilmington District Contract DACWS4-99-C-0004, *Semper Fidelis: A Brief History of Onslow County, North Carolina and MCB, Camp Lejeune, 2002, United States Marine Corps*, Lt. Col Lynn J. Kimball (USMC, Retired) Consulting Historian.
- Lotfield, Thomas, C. Principal Investigator. UNCW, August 1981. *Archeological and Historical Survey of USMC Base, Camp Lejeune; Naval Facilities Engineering Command Norfolk, Coastal Zone Resource Corp., Vol. II, Contract No. N62470-79-C-4273*.
- Camp Lejeune Marines, On Land, On Sea, In the Air. 1943 (Pamphlet)
- United States Marine Corps 1966, *The 191st Year of Faithful Service. US Government Printing Office*. 1967, O-260-782. (Pamphlet)
- "Unofficial Directory and Guide, The Coast of North Carolina Salutes Camp Lejeune." Boone Publications, Inc., 1967.
- Carraway, Gertrude S. *Camp Lejeune Leathernecks, United States Marine Corps Training Center, Camp Lejeune, North Carolina*. October 1946.
- Review/Copied existing conditions maps for 1964 and 1977.

EOD Office

- United States Marine Corps, Marine Corps Base, Camp Lejeune. Standard Operating Procedures for Range Control, Range and Training Regulation, BO P3570.1B. 17 October 2006.

Environmental Office

- EnSafe. RCRA Facility Assessment Report for Marine Corps Base, Camp Lejeune, North Carolina, Final Submittal. July 25, 1996.
- J.A. Jones Environmental Services. Site Characterization Summary, UST PT-5, Camp Lejeune Marine Corps Base, North Carolina.
- CH2M HILL, Inc. and Baker Environmental, Inc. Final SWMU 43 Corrective Measures Study, RCRA Program, Marine Corps Base, Camp Lejeune, North Carolina. November 2006.
- 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.
- 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.

Appendix C
Soil Boring Logs and Well Completion Diagrams

Boring Number: GR-IS01

Client: NAVFAC
Project: CTO-169; MILCON
Location: MCB CamLej
Project Number: 356052

Driller: American Environmental Drilling
Drilling Method: DPT-6610
Sampling Method: Macro-core
Logged by: G.Salomone/VBO
Start/Finish Date: 7/26/07 0750-0825

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	GR-IS01-0-1-07C at 0750
						SM-Silty Sand 10 YR 4/1 Dk gray, f/g, well sorted loose sand, 15% silts and ~25% root material, dry, no odor	-1 1 -2	
	1	MC	42	NA		**SC-Clayey Sand** 2.5 YR 6/4 Lt yellowish brown, f/g, well sorted, med-dense sand, ~30% clay, med-stiff, dry, no odor	2	
						SC-Clayey Sand 2.5 YR 5/4 Lt olive brown, f/g, well sorted, med-dense sand, 10% clay med-stiff, dry, no odor	-5	
5						**SC-Clayey Sand** 10 YR 5/8 Yellowish brown, f/g, well sorted, med-dense sand, ~15% med-stiff clay, dry, no odor	5	GR-IS01-4-6-07C at 0805
	2	MC	83	NA			-8	
						CL-Clay GLEY2, 4/5PB Dk bluish gray, soft clay, moist, no odor, <10% f/g sand, wet~10'	8 -10	
10						End of Log	10	
15								
20								

Boring Number: GR-IS02

Client: NAVFAC
Project: CTO-169; MILCON
Location: MCB CamLej
Project Number: 356052

Driller: American Environmental Drilling
Drilling Method: DPT-6610
Sampling Method: Macro-core
Logged by: G.Salomone/VBO
Start/Finish Date: 7/26/07 0840-0930

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 wood/roots	0	GR-IS02-0-1-07C at 0840
						SP-Sand 2.5 YR 7/3 Pale yellow, f/g, well sorted, loose sand, ~10% fines, dry, no odor	-2	
	1	MC	30	NA		**SC-Clayey Sand** 2.5 Y 6/6 Olive yellow, f/g, well sorted, med-dense sand, ~25% clay, dry, no odor	2	
5							-5	
	2	MC	92	NA		**SC-Clayey Sand** 10 YR 7/3 V pale brown, mottled with 15% 10 YR 6/6 brownish yellow, f/g, well sorted, med-dense sand, ~20% clay, dry, no odor	5	GR-IS02-6-8-07C at 0900
							-9	
						CL-Clay Med-stiff clay, ~20% f/g sands, moist, no odor	9	
10							-10	
	3	MC	100	NA		**CL-Clay** same as above	10	
							-15	
15							15	TMW: 0-19' -1" sch 40 pvc riser; 19-24'-0.010" slot screen-1"; filter sand, with bentonite seal
	4	MC	100	NA		**CL-Clay** same as above	-18	
						PT-Peat 10 YR 2/1 Black organics/peat,	18	
							-19	DTW: 19.99 pulled well, push deeper to set well in sand
							19	
20							-20	
							20	

Boring Number: GR-IS02

Client: NAVFAC
Project: CTO-169; MILCON
Location: MCB CamLej
Project Number: 356052

Driller: American Environmental Drilling
Drilling Method: DPT-6610
Sampling Method: Macro-core
Logged by: G.Salomone/VBO
Start/Finish Date: 7/26/07 0840-0930

Depth (ft)	Sample Information: Sample #	Sample Type	Recovery (%)	SPT (6"-6"-6")	Soil Log	Soil Description	Depth / Elev (ft)	Comments
						SM-Silty Sand 10 YR 3/1, V dk gray, f/g, well sorted, med-dense sand, 30% silts, wet, no odor		
						SM-Silty Sand 10 YR 3/2 V dk grayish brown, f/g, well sorted, med-dense sand, 40% silts	-22 22	
	5	MC	100	NA		**CL-Clay** GLEY 2, 3/10 BG V dk greenish gray, soft clay, <10% f/g sand, moist, no odor		Well purged dry, 7/27/07, push to set the well deeper to get water
25								Cave in 25-26'
	6	MC		NA		**SP-Sand** 2.5 Y 5/1 Gray, fine-med grained, well sorted, med-dense sand, ~10% fines, wet, no odor	-27 27	TMW: 0-27' 1" sch 40 pvc riser; 27-32' 0.010" slot screen -1"; filter sand with bentonite seal
30						End of Log	-30 30	
35								
40								

Boring Number: GR-IS03

Client: NAVFAC
Project: CTO-169; MILCON
Location: MCB CamLej
Project Number: 356052

Driller: American Environmental Drilling
Drilling Method: DPT-6610
Sampling Method: Macro-core
Logged by: G.Salomone/VBO
Start/Finish Date: 7/26/07 0940-1015

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, root debris, decaying	0	GR-IS03-0-1-07C at 0940
						SM-Silty Sand 10 YR 3/1 V Dk gray f/g, well sorted, med-dense sand, 25% silts, dry, no odor	-2	
	1	MC	30	NA		**SC-Clayey Sand** 7.5 YR 7/1 Lt gray, mottled with 15% 7.5YR6/8 reddish yellow, f/g, well sorted, med-dense sand, 20% clay, dry, no odor	2 -5	
5						**SP-Sand** 7.5 YR 7/2 Pinkish gray, f/g, well sorted, loose sand, <10% fines, moist at 8', wet at 10', no odor	5	GR-IS03-4-6-07C at 0950
	2	MC	50	NA			-10	
10						**SP-Sand** Same as above, wet, no odor	10 -11	
	3	MC		NA		**SC-Sandy Clay** GLEY 2, 4/5B, Dk bluish gray, f/g, well sorted sand ~50% loose sand, ~50% soft clay, wet	11 -15	
15						**SC-Sandy Clay** same as above, sandy clay 50/50	15	TMW: 0-11' 1"sch 40 pvc riser, 11-16' 1"pvc 0.010"slot screen, filter sand, bentonite seal
	4	MC		NA			-18	
						CL-Clay GLEY2, 4/5B Dk bluish gray, soft sand, ~10% f/g sand, moist, no odor	18 -20	
20							20	

Boring Number: GR-IS04

Client: NAVFAC
Project: CTO-169; MILCON
Location: MCB CamLej
Project Number: 356052

Driller: American Environmental Drilling
Drilling Method: DPT-6610
Sampling Method: Macro-core
Logged by: G.Salomone/VBO
Start/Finish Date: 7/26/07 1035-1105

Depth (ft)	Sample Information: Sample #	Sample Type	Recovery (%)	SPT (6"-6"-6")	Soil Log	Soil Description	Depth / Elev (ft)	Comments
						Ground Surface	0	
0						dried, decaying leaves, roots	0	GR-IS04-0-1-07C at 1035
						SM-Silty Sand 10 YR 4/1 Dk gray, f/g, well sorted, loose sand, 20% silts, 25% roots, dry, no odor	-1 1 -2	
	1	MC	30	NA		**SP-Sand** 2.5 Y 6/3 Lt yellowish brown, f/g, well sorted, med-dense sand, 20% med-stiff clay, dry, no odor	2	
						SC-Clayey Sand 10 YR 5/6 Yellowish brown, f/g, well sorted, med-dense sand, 20% med-stiff clay, dry, no odor	-5	
5						**SC-Clayey Sand** same as above, moist at 7', no odor	5	GR-IS04-4-6-07C at 1045
							-7	
	2	MC	75	NA		**SC-Clayey Sand** 2.5 Y 6/2 Lt brownish gray, f/g, well sorted, med-dense sand, 30% clay, med-stiff, wet8', no odor	7	
							-10	
10						End of Log	10	
15								
20								

CH2MHILL

Boring Number: MR03-IS01

Client: NAVFAC
Project: CTO-168; MR03
Location: MCB CamLej
Project Number: 358852

Driller: Parratt Wolff
Drilling Method: DPT
Sampling Method: Macro-core
Logged by: B. Sprouse
Start/Finish Date: 7/11/08

Depth (ft)	Sample Information: Sample #	Sample Type	Recovery (%)	SPT (6"-6"-6")	Soil Log	Soil Description	Depth / Elev (ft)	Comments
						Ground Surface	0	
0						**Grass**	0	
							-1	
						Sand (SP) Tan, very fine grained, loose, dry	1	
	DP-1	DP	88	NM			-2	0.0 ppm
						Sandy silty clay (CL) Yellow-orange, fine grained, soft, dry	2	
							-4	
						Silty sand (SM) Yellow-orange/light gray, very fine grained, medium dense, dry	4	
5							-5	0.0 ppm
						Sand (SP) White, fine grained, poorly graded, moist	5	
	DP-2	DP	88	NM		**Sand (SP)** Yellow-orange, fine grained, poorly graded, wet	-7	
						Silty sand (SM) Light gray, fine grained, wet	7	
								Boring terminated @ 8'
10								
15								
20								

CH2MHILL

Boring Number: MR03-IS02

Sheet: 1 of 1

Client: NAVFAC
Project: CTO-168; MR03
Location: MCB CamLej
Project Number: 358852

Driller: Parratt Wolff
Drilling Method: DPT
Sampling Method: Macro-core
Logged by: B. Sprouse
Start/Finish Date: 7/11/08

Depth (ft)	Sample Information: Sample #	Sample Type	Recovery (%)	SPT (6"-6"-6")	Soil Log	Soil Description	Depth / Elev (ft)	Comments
0						Ground Surface	0	
						Grass	0	
						Silty sand (SM) Light brown, fine grained, loose, dry		
	DP-1	DP	88	NM		**Sand (SP)** Tan, very fine grained, poorly graded, loose, dry	-2	0.0 ppm
						Silty sand (SM) Yellow-orange, fine grained, medium dense, dry	2	
						Sand (SP) Tan,very fine grained, poorly graded, loose, dry	-4 4	
5						**No recovery**		0.0 ppm
	DP-2	DP	88	NM		**Silty sand (SM)** Yellow-orange/light gray, fine grained, dense, wet at 7'		
10								Install temporary well MR03-TW01 at 14' Screen: 4'-14' (1" pre-packed screen) Sand: 3'-14' Bentonite: 1'3'
15								
20								

CH2MHILL

Boring Number: MR03-IS03

Client: NAVFAC
Project: CTO-168; MR03
Location: MCB CamLej
Project Number: 358852

Driller: Parratt Wolff
Drilling Method: DPT
Sampling Method: Macro-core
Logged by: B. Sprouse
Start/Finish Date: 7/11/08

Depth (ft)	Sample Information: Sample #	Sample Type	Recovery (%)	SPT (6"-6"-6")	Soil Log	Soil Description	Depth / Elev (ft)	Comments
						Ground Surface	0	
0						**Grass**	0	
						Silty sand (SM) Dark gray, fine grained, dry		
	DP-1	DP	88	NM		**Gravel** FIll/gravel		0.0 ppm
						Sand (SP) Tan, fine grained, poorly graded, medium dense, dry		Heavy downpour came up quickly and saturated soils in macro core. Unable to accurately log the soils in the weather conditions
5	DP-2	DP	88	NM				
								Boring terminated @ 8'
10								
15								
20								

CH2MHILL

Boring Number: MR03-IS04

Client: NAVFAC
Project: CTO-168; MR03
Location: MCB CamLej
Project Number: 358852

Driller: Parratt Wolff
Drilling Method: DPT
Sampling Method: Macro-core
Logged by: B. Sprouse
Start/Finish Date: 7/10/08

Depth (ft)	Sample Information: Sample #	Sample Type	Recovery (%)	SPT (6"-6"-6")	Soil Log	Soil Description	Depth / Elev (ft)	Comments
						Ground Surface	0	
0						Pine needles, soil/leaves	0	
	DP-1	DP	75	NM		**Sand (SP)** Yellow-orange, very fine grained, poorly graded, loose, dry	-3	0.0 ppm
						Silty sand (SM) Yellow-orange/orange/light gray, fine grained, dense, dry	3	
5	DP-2	DP	100	NM			-7	0.0 ppm
						Sandy silty clay (CL) Light gray/red-orange/yellow-orange, very fine grained, dense, low plasticity, dry	7 -8	
						No recovery	8 -9	
	DP-3	DP	75	NM		**Sandy clay (CL)** Gray, fine grained, soft, medium-high plascticity, wet	9	0.0
10								
15								Install temporary well MR03-TW02 at 16' Screen 6-16' (1" pre-packed screen) Sand 4-16 Bentonite 3-4
20								

CH2MHILL

Boring Number: MR03-IS05

Client: NAVFAC
Project: CTO-168; MR03
Location: MCB CamLej
Project Number: 358852

Driller: Parratt Wolff
Drilling Method: DPT
Sampling Method: Macro-core
Logged by: B. Sprouse
Start/Finish Date: 7/10/08

Depth (ft)	Sample Information: Sample #	Sample Type	Recovery (%)	SPT (6"-6"-6")	Soil Log	Soil Description	Depth / Elev (ft)	Comments
						Ground Surface	0	
0	DP-1	DP	100	NM		**Sand (SP)** Light brown, very fine grained, loose, dry, poorly graded	0 / -2	
						Silty sand (SM) Yellow-orange/orange, very fine grained, loose, dry	2 / -4	0.0 ppm
5	DP-2	DP	63	NM		**No recovery**	4 / -6	0.0 ppm
						Silty sand (SM) Yellow-orange/orange, very fine grained, loose, dry	6 / -8	
						Silty sand (SM) White silty, fine grained, medium dense, moist becoming wet	8	Boring terminated @ 8'
						Silty sand (SM) Greenish gray, fine grained, medium dense, wet		
10						End of Log		
15								
20								

Boring Number: MR03-IS06

Client: NAVFAC
Project: CTO-168; MR03
Location: MCB CamLej
Project Number: 358852

Driller: Parratt Wolff
Drilling Method: DPT
Sampling Method: Macro-core
Logged by: B. Sprouse
Start/Finish Date: 7/10/08

Depth (ft)	Sample Information: Sample #	Sample Type	Recovery (%)	SPT (6"-6"-6")	Soil Log	Soil Description	Depth / Elev (ft)	Comments
						Ground Surface	0	
0						**Soil**	0	
							-1	
						Sand (SP) Light gray, very fine grained, loose, dry	1	
							-2	
	DP-1	DP	75	NM		**Sand (SP)** Yellow-orange , very fine grained, poorly graded, loose, dry	2	0.0 ppm
							-3	
							3	
						Silty sand (SM) Yellow-orange, fine grained, medium dense, dry	-4	
							4	
5						**No recovery**		0.0 ppm
	DP-2	DP	88	NM		**Silty sand (SM)** Yellow-orange, fine grained, medium dense, moist'	-6	
							6	
						Sitly sand (SM) Light gray, fine grained, medium dense, moist becoming wet	-7	
							7	Boring terminated @ 8'
						Clayey silty sand (SM) Greenish gray, fine grained, soft, saturated		
10								
15								
20								

CH2MHILL

Boring Number: MR03-IS07

Client: NAVFAC
Project: CTO-168; MR03
Location: MCB CamLej
Project Number: 358852

Driller: Parratt Wolff
Drilling Method: DPT
Sampling Method: Macro-core
Logged by: B. Sprouse
Start/Finish Date: 7/11/08

Depth (ft)	Sample Information: Sample #	Sample Type	Recovery (%)	SPT (6"-6"-6")	Soil Log	Soil Description	Depth / Elev (ft)	Comments
						Ground Surface	0	
0						**Soil**	0	
							-1	
						Silty sand (SM) Tan, fill, trace gravel, loose, dry	1	
	DP-1	DP	75	NM			-2	0.0 ppm
						Silty sand (SM) Dark gray organic, very fine grained, trace root material, dry	2	
							-3	
						Silty sand (SM) Light gray , fine grained, medium dense, dry	3	
							-4	
						No recovery	4	
5							-5	
						Silty sand (SM) Yellow-orange, fine grained, poorly graded, dense, damp	5	0.0 ppm
	DP-2	DP	75	NM			-7	
						Sand (SP) Light gray, fine grained, poorly graded, dense, wet	7	
						Sand (SP) Yellow-orange, fine grained, poorly graded, dense, wet/saturated		Boring terminated @ 8'
10						**Sand (SP)** Light gray, fine grained, poorly graded, dense, saturated		
						Silty sand (SM) Light gray, fine grained, dense, saturated		
15								
20								

CH2MHILL

Boring Number: MR03-IS08

Client: NAVFAC
Project: CTO-168; MR03
Location: MCB CamLej
Project Number: 358852

Driller: Parratt Wolff
Drilling Method: DPT
Sampling Method: Macro-core
Logged by: B. Sprouse
Start/Finish Date: 7/10/08

Depth (ft)	Sample Information: Sample #	Sample Type	Recovery (%)	SPT (6"-6"-6")	Soil Log	Soil Description	Depth / Elev (ft)	Comments
						Ground Surface	0	
0						**Soil**	0	
						Sand (SP) Light gray, very fine grained, poorly graded. loose, dry	-1 1	
	DP-1	DP	100	NM		**Sand (SP)** Tan, very fine grained, poorly graded, loose, dry	-3	0.0 ppm
						Silty sand (SM) Tan, very fine grained, medium dense, dry	3	
5							-5 5	0.0 ppm
	DP-2	DP	100	NM		**Silty sand (SM)** Yellow-orange/orange, fine grained, dense, wet at 7'	-8	
						End of Log	8	
10								Install temporary well MR03-TW03 at 15' Screen 5-15' (1" pre-packed screen) Sand 3-15' Bentonite 2-3'
15								
20								

CH2MHILL

Boring Number: MR03-IS09

Sheet: 1 of 1

Client: NAVFAC
Project: CTO-168; MR03
Location: MCB CamLej
Project Number: 358852

Driller: Parratt Wolff
Drilling Method: DPT
Sampling Method: Macro-core
Logged by: B. Sprouse
Start/Finish Date: 7/11/08

Depth (ft)	Sample Information: Sample #	Sample Type	Recovery (%)	SPT (6"-6"-6")	Soil Log	Soil Description	Depth / Elev (ft)	Comments
						Ground Surface	0	
0						**Soil**	0	
						Silty sand (ML) Dark gray, very fine grained, organic, loose, dry		
	DP-1	DP	100	NM		**Sand (SP)** Light gray, very fine grained, poorly graded loose, dry		0.0 ppm
						Silty sand (SM) Brown, fine grained, loose, dry	-4	
						Silty sand (SM) Tan, very fine grained, loose, dry	4	
5						**No recovery**		0.0 ppm
	DP-2	DP	88	NM		**Silty sand (SM)** Light gray/yellow-orange, fine grained, medium dense, dry	-6 6	
						Silty sand (SM) Yellow-orange, fine grained, moist becoming wet, medium dense	-8 8	
						Sand (SP) Yellow-orange, very fine grained, poorly graded, medium dense, saturated		
10								Install temporary well MR03-TW04 at 14' Screen: 4'-14' (1" pre-packed screen) Sand: 3'-14' Bentonite: 1'-3'
15								
20								

CH2MHILL

Boring Number: MR03-IS10

Sheet: 1 of 1

Client: NAVFAC
Project: CTO-168; MR03
Location: MCB CamLej
Project Number: 358852

Driller: Parratt Wolff
Drilling Method: DPT
Sampling Method: Macro-core
Logged by: B. Sprouse
Start/Finish Date: 7/10/08

Depth (ft)	Sample Information: Sample #	Sample Type	Recovery (%)	SPT (6"-6"-6")	Soil Log	Soil Description	Depth / Elev (ft)	Comments
						Ground Surface	0	
0						**Soil**	0	
						Silty sand (SM) Tan, fine grained, medium dense, dry	-2	
	DP-1	DP	100	NM		**Silty sand (SM)** Dark gray, organic, fine grained, medium dense, dry	2	0.0 ppm
						Silty sand (SM) Light brownish gray, very fine grained, medium dense, dry		
5							-5	
	DP-2	DP	100	NM		**Silty sand (SM)** Light gray/yellow-orange, trace clay, very fine grained, dry	5	0.0 ppm
							-7	
						Silty sand (SM) Light gray, fine grained, medium dense, wet	7	
								Boring terminated @ 8'
10								
15								
20								

PROJECT NUMBER	WELL NUMBER		
358852	MR03-TW01	SHEET 1	OF 6

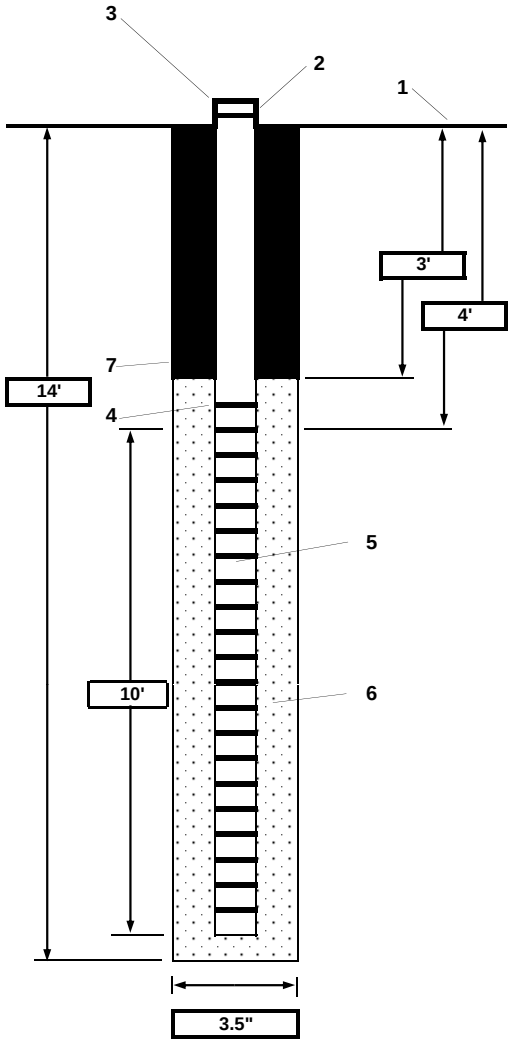
TEMPORARY WELL COMPLETION DIAGRAM

PROJECT : NAVFAC CTO-0168 LOCATION : UXO-03 MCB CamLej

DRILLING CONTRACTOR : Parrott Wolff

DRILLING METHOD AND EQUIPMENT USED : DPT/ Power Probe 9600T

WATER LEVELS : 7.90 ft btoc START : 7/11/08 END : 7/11/08 LOGGER : B. Propst/CLT



1-	Ground elevation	19.816 ft amsl
2-	Top of casing elevation	20.111 ft amsl
3-	Wellhead protection cover type	Locking Cap
4-	Dia./type of well casing	1" Schedule PVC 40
5-	Type/slot size of screen	0.01" Slot PVC Schedule 40
6-	Type filter pack	Prepack Screen and #1 Filter Sand
	a) Quantity used	N/A
7-	Type of seal	3/8" Bentonite Chips
	a) Quantity used	N/A
	Development method	Surge and pump
	Abandonment date	9/29/2008

Comments: BTOC = below top of casing; AMSL = above mean sea level; NA = Not Applicable

PROJECT NUMBER	WELL NUMBER	
358852	MR03-TW02	SHEET 2 OF 6

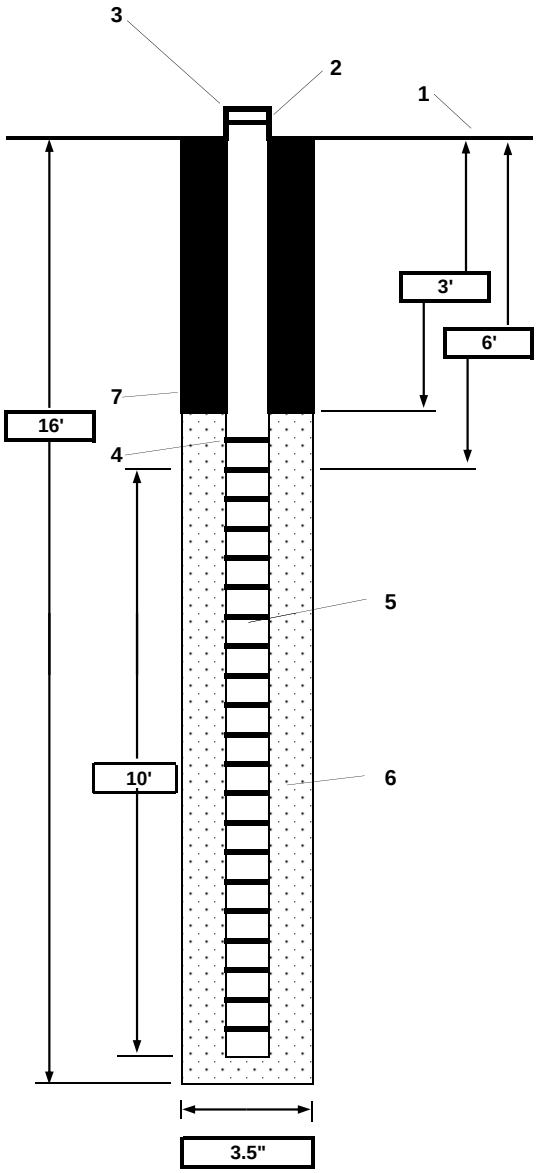
TEMPORARY WELL COMPLETION DIAGRAM

PROJECT : NAVFAC CTO-0168 LOCATION : UXO-03 MCB CamLej

DRILLING CONTRACTOR : Parrott Wolff

DRILLING METHOD AND EQUIPMENT USED : DPT/ Power Probe 9600T

WATER LEVELS : 9.50 ft btoc START : 7/10/2008 END : 7/10/08 LOGGER : B. Propst/CLT



1-	Ground elevation	14.93 ft amsl
2-	Top of casing elevation	15.13 ft amsl
3-	Wellhead protection cover type	Locking Cap
4-	Dia./type of well casing	1" Schedule PVC 40
5-	Type/slot size of screen	0.01" Slot PVC Schedule 40
6-	Type filter pack	Prepack Screen and #1 Filter Sand
	a) Quantity used	N/A
7-	Type of seal	3/8" Bentonite Chips
	a) Quantity used	N/A
	Development method	Surge and pump
	Abandonment date	9/29/2008

Comments: BTOC = below top of casing; AMSL = above mean sea level; NA = Not Applicable

PROJECT NUMBER	WELL NUMBER		
358852	MR03-TW03	SHEET 3	OF 6

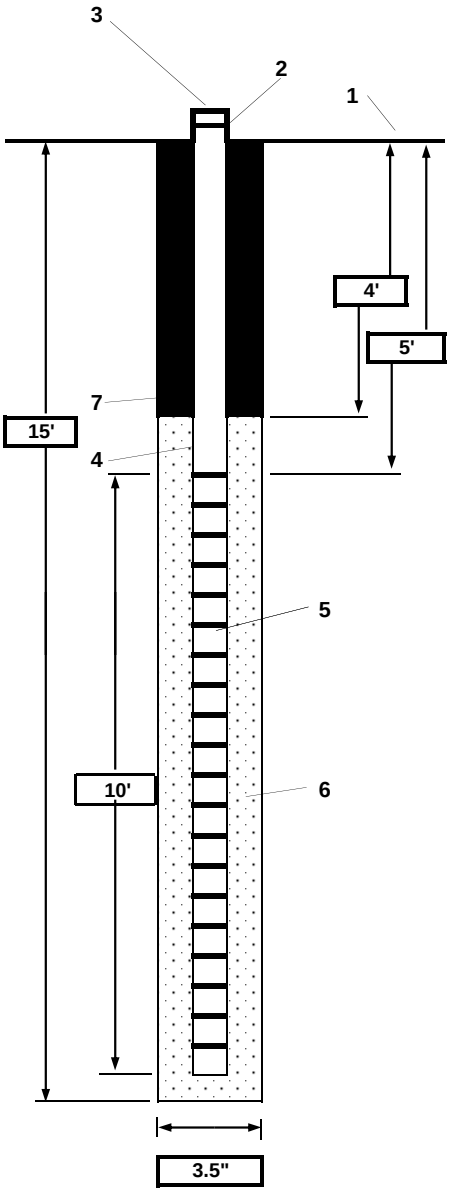
TEMPORARY WELL COMPLETION DIAGRAM

PROJECT : NAVFAC CTO-0168 LOCATION : UXO-03 MCB CamLej

DRILLING CONTRACTOR : Parrott Wolff

DRILLING METHOD AND EQUIPMENT USE DPT/ Power Probe 9600T

WATER LEVELS : 7.45 ft btoc START 7/10/2008 END : 7/10/08 LOGGER : B. Propst/CLT



1-	Ground elevation	22.14 ft amsl
2-	Top of casing elevation	22.38 ft amsl
3-	Wellhead protection cover type	Locking Cap
4-	Dia./type of well casing	1" Schedule PVC 40
5-	Type/slot size of screen	0.01" Slot PVC Schedule 40
6-	Type filter pack	Prepack Screen and #1 Filter Sand
	a) Quantity used	N/A
7-	Type of seal	3/8" Bentonite Holeplug
	a) Quantity used	N/A
	Development method	Surge and pump
	Abandonment date	9/29/2008

Comments: BTOC = below top of casing; AMSL = above mean sea level; NA = Not Applicable

PROJECT NUMBER	WELL NUMBER	
358852	MR03-TW04	SHEET 4 OF 6

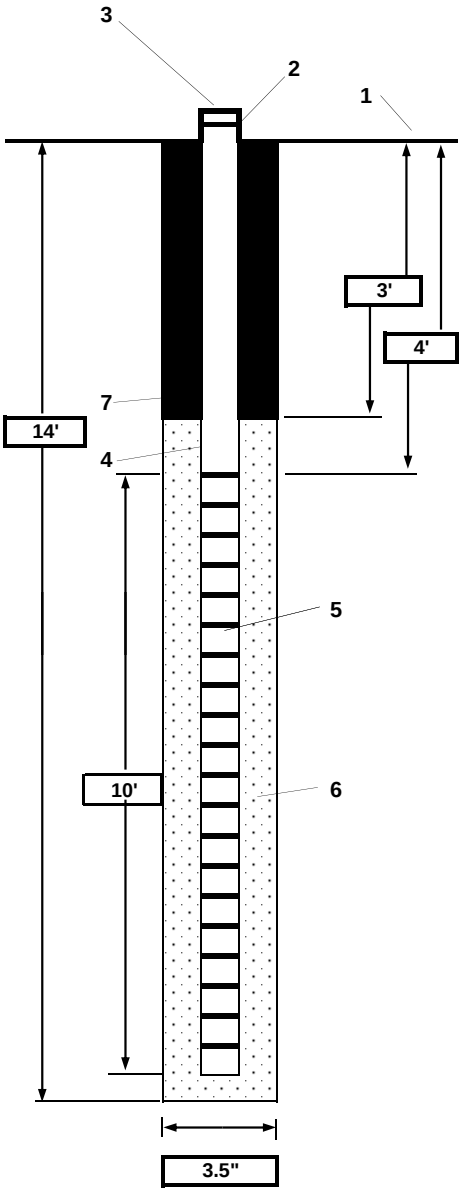
TEMPORARY WELL COMPLETION DIAGRAM

PROJECT : NAVFAC CTO-0168 LOCATION : UXO-03 MCB CamLej

DRILLING CONTRACTOR : Parrott Wolff

DRILLING METHOD AND EQUIPMENT USED DPT/ Power Probe 9600T

WATER LEVELS : 8.58 ft btoc START 7/11/2008 END : 7/11/08 LOGGER : B. Propst/CLT



1- Ground elevation: 23.26 ft amsl

2- Top of casing elevation: 23.33 ft amsl

3- Wellhead protection cover type: Locking Cap

4- Dia./type of well casing: 1" Schedule PVC 40

5- Type/slot size of screen: 0.01" Slot PVC Schedule 40

6- Type filter pack: Prepack Screen and #1 Filter Sand
a) Quantity used: N/A

7- Type of seal: 3/8" Bentonite Holeplug
a) Quantity used: N/A

Development method: Surge and pump

Abandonment date: 9/29/2008

Comments: BTOC = below top of casing; AMSL = above mean sea level; NA = Not Applicable

PROJECT NUMBER	WELL NUMBER	
356052	GR-TW02	SHEET 5 OF 6

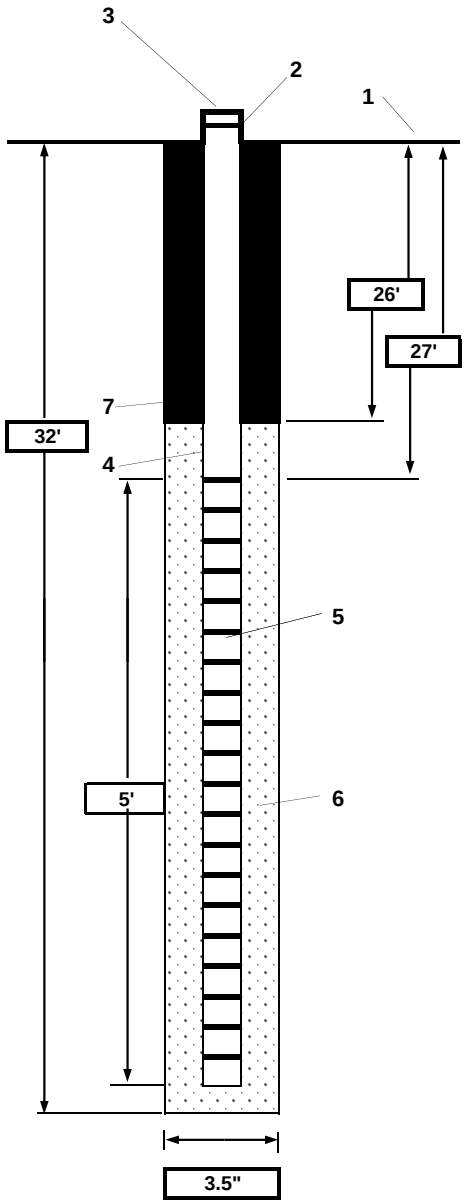
TEMPORARY WELL COMPLETION DIAGRAM

PROJECT : NAVFAC CTO-168 LOCATION : UXO-03 Northern Boundary MCB CamLej

DRILLING CONTRACTOR : American Environmental Drilling

DRILLING METHOD AND EQUIPMENT USED DPT/ Geoprobe 6610

WATER LEVELS : 14.70 ft btoc START 7/26/2007 END : 07/27/07 LOGGER : G.Salomone/VBO



1- Ground elevation: 4.56 ft amsl

2- Top of casing elevation: NM

3- Wellhead protection cover type: Locking Cap

4- Dia./type of well casing: 1" Schedule PVC 40

5- Type/slot size of screen: 0.01" Slot PVC Schedule 40

6- Type filter pack: #1 Filter Sand
a) Quantity used: N/A

7- Type of seal: 3/8" Bentonite Holeplug
a) Quantity used: N/A

Development method: NA

Abandonment date: 7/28/2007

Comments: BTOC = below top of casing; AMSL = above mean sea level; NA = Not Applicable; NM = Not measured

PROJECT NUMBER	WELL NUMBER	
356052	GR-TW03	SHEET 6 OF 6

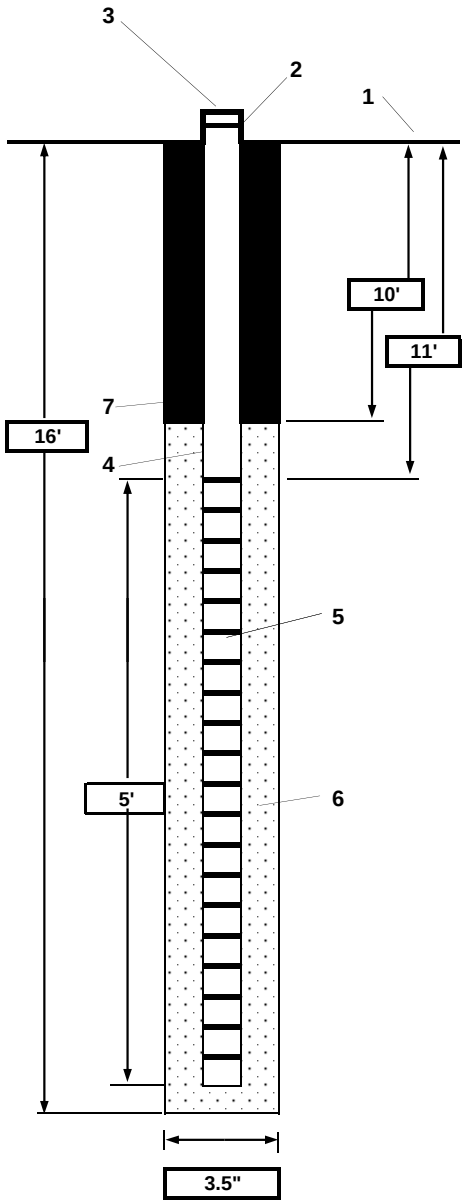
TEMPORARY WELL COMPLETION DIAGRAM

PROJECT : NAVFAC CTO-168 LOCATION : UXO-03 Northern Boundary MCB CamLej

DRILLING CONTRACTOR : American Environmental Drilling

DRILLING METHOD AND EQUIPMENT USED DPT/ Geoprobe 6610

WATER LEVELS : 11.52 ft btoc START 7/26/2007 END : 7/26/07 LOGGER : G.Salomone/VBO



1-	Ground elevation	7.97 ft amsl
2-	Top of casing elevation	NM
3-	Wellhead protection cover type	Locking Cap
4-	Dia./type of well casing	1" Schedule PVC 40
5-	Type/slot size of screen	0.01" Slot PVC Schedule 40
6-	Type filter pack	#1 Filter Sand
	a) Quantity used	N/A
7-	Type of seal	3/8" Bentonite Holeplug
	a) Quantity used	N/A
	Development method	NA
	Abandonment date	7/28/2007

Comments: BTOC = below top of casing; AMSL = above mean sea level; NA = Not Applicable; NM = Not measured

Appendix D
Geophysical Investigation Reports

GEOPHYSICAL INVESTIGATION REPORT
MCB CAMP LEJEUNE
SITES UXO-01, UXO-03, UXO-05 AND UXO-06

Jacksonville, North Carolina

Prepared for:

CH2MHILL

3201 Beechleaf Court, Suite 300
Raleigh, NC 27604

Prepared by:

ARM GEOPHYSICS
Surface & Borehole Services

1129 West Governor Road - P.O. Box 797
Hershey, PA 17033-0797

May 2008

ARM Project 07494

Reviewed by:

_____
Brian S. Brunette
DGM Operations Manager

Respectfully submitted,

_____
Jeffrey L. Leberfinger
Project Geophysicist

May, 2008

Mr. Bill Schmithorst
Project Manager
CH2M HILL
3201 Beechleaf Ct., Suite 300
Raleigh, NC 27604

Re: Geophysical Investigation Report
CH2M HILL
Sites UXO-01, UXO-03, UX0-05, and UXO-06
Camp Lejeune, Jacksonville, NC
ARM Project 07494

Dear Mr. Schmithorst:

Following is a report detailing the investigation performed by ARM Geophysics at MCB Camp Lejeune, North Carolina.

If you have any questions or need additional information, please do not hesitate to contact the undersigned at 717-533-8600.

Respectfully submitted,
ARM Geophysics

Jeffrey L. Leberfinger, PG
Vice President, Geophysics

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Site UXO-06 Location Map and EM61 Response Map .....Appendix F

ATTACHMENT

CD with Report, Raw Data, Preprocessed Data, Field and Processing Documentation, Processed Data, EM61 Response Maps, and Target Lists for each site. A CD Data Deliverable Map is also provided on the CD.

ACRONYMS AND ABBREVIATIONS

ARM .....ARM Geophysics
CD.....Compact Disk
DGM.....Digital Geophysical Mapping
DQO.....Data Quality Objectives
EM .....Electromagnetic
EM61 .....Geonics EM61-MK2
FTP .....File Transfer Protocol
GPO .....Geophysical Prove Out
.jpg .....JPEG file Format
MCB .....Marine Corps Base
MRP.....Munitions Response Program
mV .....MilliVolt
NAD.....North America Datum
TDEM.....Time Domain Electromagnetic System
PM .....Project Manager
QA .....Quality Assurance

QC.....Quality Control

SOW .....Scope of Work

US.....United States

UTM .....Universal Transverse Mercator

UXO.....Unexploded Ordnance

*.XYZ .....Geosoft Format File

µs .....Microseconds

1.0 INTRODUCTION

1.1 Purpose of Investigation and Scope of Work

ARM Geophysics (ARM) has prepared this report for CH2M HILL to present the results of a geophysical investigation performed at MCB Camp Lejeune, North Carolina. The purpose of the investigation was to perform digital geophysical mapping (DGM) along transects using the Geonics EM61-MK2 electromagnetics instrument in support of Munitions Response Program (MRP) Site Inspections at numerous former range sites located at the base. The scope of work included DGM at Sites UXO-01(Area 2.23), UXO-03 (South, Area 2.78a, & North, Area 2.78b), UXO-05 (Areas 2.79a, b, & c), and UXO-06 (Range D-27).

1.2 Report Organization

The following sections of this report have been organized and separated to provide site background information (Chapter 2), survey methods (Chapter 3), geophysical prove out (Chapter 4), DGM survey (Chapter 5), and analysis of geophysical data (Chapter 6). A summary of the results and interpretations of the DGM survey is presented in Chapter 7. A CD is provided with all raw, preprocessed, and processed data and deliverables. A CD data and deliverables map is provided in the root directory on the CD.

2.0 SITE BACKGROUND INFORMATION

2.1 Site Location and Description

MCB Camp Lejeune is located immediately southeast of the City of Jacksonville, North Carolina. The western and northwestern boundaries are U.S. Route 17 and North Carolina State Route 24, respectively. Specific areas on base where DGM was completed include:

Site UXO-01 – Former Live Hand Grenade Course

Site UXO-01 (Area 2.23) is 10.35 acres in size and is located west of Holcomb Blvd, east of Hospital Corps Blvd., and north of Brewster Blvd. The area is primarily wooded and a portion of the area is cleared for an access road. It was reported that the site may have been used as a live hand grenade course from 1943 to 1945 (CH2M HILL, 2007).

Site UXO-03 – Former Practice Hand Grenade Course

Site UXO-03 is 1.79 acres in size and is composed of two separate areas, Area 2.78a (South) and Area 2.78b (North). Area 2.78a is 0.61 acres in size and is located adjacent to Main Service Road. The site is primarily wooded and a small portion the parking lot of a church east of Main Service Road is located within this area (CH2M HILL, 2007).

Area 2.78b is 1.18 acres in size and is bisected by Cross Street. The site is partially wooded, and a parking lot and Hobby Shop Building are located within the area of investigation. It was reported that the site was used as a course for practice hand grenades from 1953 to approximately 1959 (CH2M HILL, 2007).

Site UXO-05 - Former B-3 Gas Chamber

Area 1, 2.79b, the Former B-3 Gas Chamber site, is located to the west of 7th Street, and covers an area of 5.34 acres. The area is primarily wooded, and picnic areas are located within the site. It was reported that small caliber munitions were used at the site from a period of 1942 to 1944. In addition, a chemical warfare training agent (tear gas) gas chamber was also reportedly located at this site from 1953 to 1958. Area 2, 2.79a, is located between 6th Street and 7th Street and covers an area of 2.42 acres. This area is undeveloped and primarily wooded. It was reported

that this area was associated with the B-3 Gas Chamber. Area 3, 2.79c, is located south of 7th Street and west of Church Street and covers an area of 0.51 acres. This area is undeveloped and consists primarily of jurisdictional wetlands. It was reported that this area was also associated with the B-3 Gas Chamber (CH2M HILL, 2007).

Site UXO-06 – Fortified Beach Assault Area

Site UXO-06, Range D-27, is approximately 69.5 acres in size and is crossed by Gonzalez Blvd. The site is located west of Sneads Ferry Road and south of Main Service Road. Approximately 50 percent of the site is wooded. Buildings, parking lots, and paved roads are located in the northwest corner of the site. The site was previously used as a beach assault training area from approximately 1953 to 1977. A number of munitions, including small arms, 3.5" practice rockets, and grenades were used at the site (CH2M HILL, 2007).

3.0 GEOPHYSICAL SURVEY METHODS

3.1 Sensor

Geophysical data were collected using a single Geonics EM61-MK2 Electromagnetic system (referred to hereafter as the EM61) set to collect data in '4 channel' mode. The EM61 is a Time Domain Electromagnetic (TDEM) system. The EM61 generates 150 electromagnetic (EM) pulses per second and measures during the off time between pulses. After each pulse, secondary EM fields are induced briefly in moderately conductive soils and for a longer time in metallic objects. Between each pulse, the EM61 waits until the response from the conductive earth dissipates and then measures the prolonged buried metal response. This response is recorded in millivolts (mV). By sensing only the buried metal response, the EM61 detects metallic targets that might otherwise be missed. The EM61 measures multiple time gates (216, 366, 660, and 1266 microseconds) to provide a more complete measurement of the response decay rate.

3.2 Geodetic Location

Vegetation was cleared at four-foot width on centers for the transects at all of the sites. Reference survey stakes were emplaced by a licensed surveyor at regular intervals approximately 20 meters along the transects to be used for the placement of fiducial marks within the recorded data. Coordinates for all stakes were supplied to ARM by the subcontractor survey. Stake coordinates are provided on the CD.

3.3 Sensor Platform

Data was collected with the EM61 in litter mode due to the terrain being very rough in the wooded areas. The litter mode required two people to carry the EM61 at the operational height (see Figure 1 to the right) in order to adequately detect all targets of interest.

3.4 Quality Control

All Quality Control raw data by date, preprocessed data by block and processed data by block are provided on the attached CD. Standard quality control (QC) tests were performed to ensure correct operation of the equipment. These included static, personnel, cable shake, lag tests and repeat line tests. The table below lists the tests performed and their respective acceptance criteria. Data and QC figures are provided on the attached CD.

Table 1

Geophysical Instrument Standardization Tests and Acceptance Criteria

Test #	Test Description	Acceptance Criteria	Frequency
01	Equipment Warm-up	Equipment Specific (typically 5 minutes)	beginning of day
02	Personnel Test	<2mv	beginning of day
03	Cable Shake Test	<2mv	beginning of day
04	Static Background & Spike	+/- 20% of standard item response after background correction	beginning and end of day
05	6 Line Test	Repeatability +/-20%, positional accuracy +/-20cm	start of project
06	Repeat Lines	Qualitative repeatability of response amplitude	2% of total area surveyed

3.5 Project Data Quality Objectives

The project Data Quality Objectives (DQO) measurement performance criteria, and test methods that were used during the project are summarized in Table 2.

Table 2

Project Data Quality Objectives

DQO	Measurement Performance Criteria	Test Method
Accurate positioning is being obtained from DGM positioning systems.	Positions of known items will not exceed the 1 m in geophysical data.	To be reported by CH2M HILL based on blind seed items to ensure compliance.
Repeatable data are being obtained from DGM system.	Response to standardized item will not vary more than +/-20%.	Results of QC Test #5 (Static Background & Spike) and QC Test #7 (Repeat Data) will be evaluated to ensure compliance.
Ordnance detection: DGM survey system response is comparable to expected response of geophysical instrument.	Sensor response over specific items to be compared to response of geophysical instrument over similar items under previous test or field production conditions.	System response is comparable to response expected through previously documented instrument capabilities.
Downline data density is sufficient to detect MEC items.	Over 98% of possible sensor readings are captured along a transect with a spacing of no greater than 0.7 ft (0.213 m) between points. In addition, any transect containing a downline data gap of 2 ft or greater does not meet the DQO	Results of DGM surveys will be evaluated to ensure compliance.
Coverage over survey area is sufficient to detect MEC items.	10 % of investigation area to be covered by transects	Results of DGM surveys will be evaluated to ensure compliance.
Positioning of detected anomalies is accurate	95% of all anomaly locations lie within a 1 m radius of a point on the ground surface directly above the seed items.	To be reported by CH2M HILL based on blind seed items to ensure compliance.
All data must be delivered in a timely manner and in a useable format.	Data packages are completed and delivered to the CH2M HILL Project Geophysicist with 1 working day of data collection	Evaluated based on actual delivery of data.

GEOPHYSICAL PROVE OUT (GPO)

4.1 Test Strip

CH2M HILL had previously constructed and seeded an onsite GPO. A surveyor contracted by CH2M HILL placed 9 control stakes on the test plot to simulate the control stakes to be used during the DGM survey.

ARM Group geophysicists mobilized to the site on February 4th, 2008. On February 5th, prior to commencement of digital geophysical mapping (DGM), data collection was performed over an instrument validation strip in order to show that the equipment was performing correctly and to ascertain the target picking threshold for identifying anomalies as potentially representing buried MEC. The target threshold was set by CH2M HILL based on previous surveys at the site. Channel 2 (660µs time gate) was selected to pick targets due to its low noise threshold and 2.5mV set as the threshold above which targets would be picked (i.e.; any anomaly in the gridded data of channel 2 with an amplitude of 2.5mV or higher would be picked and classified as an anomaly for potential intrusive investigation).

Static tests performed prior to the GPO indicated the EM61 was not passing acceptable +- 2.5 mV threshold. ARM ordered a replacement EM61 but decided to collect some preliminary data on the test plot and transects to get an idea of anomaly density until the new unit arrived.

DGM data was collected on February 6th – 8th, 2008. On February 8th the DGM team had caught up to the surveying and brush cutting teams. The onsite EM61 electronics also became inoperable and a new EM61 would be required to be shipped in for data collection on the 11th. Due to the facts that data collection was progressing at a more rapid pace then expected, surveying and brush cutting tasks needed to be completed ahead of the DGM team and a new EM61 needed to be sent to the site, ARM decided to demobilize from the site and remobilize when the brush cutting and surveying tasks were completed to a point where the DGM schedule would not be impacted by the required pre-DGM tasks. After reviewing the Static Test data collected during the week, the lead processor determined that the interpretation threshold of 2.5

mV on Channel 2 could not be met due to the signal to noise level on Channel 2 on the EM61 system that had been used previously. The previous data had to be recollected.

On February 25th ARM remobilized to the site and resurveyed the GPO on February 26th. Prior to conducting the GPO, ARM completed all standard pre-project QC tests such as static, lag, six line, personnel and cable shake tests. All QC including static tests with the new EM61 met the required thresholds (less the +-2.5mV on Channel 2) and the response to a standardized item did not vary more than +/-20% . Based on the six line test, a lag of 0.551 seconds was determined to be adequate for the instrument operator combination in fiducial mode.

Several transects were run across the test strip using the EM61 in litter mode (shown in Figure 1) to simulate data collection. Data was collected in 4 channel time mode with data collected at 10 Hertz. Data was processed and targets were selected based on the criteria above. Target picks were placed onto CH2M HILL's FTP site for review by the CH2M HILL Geophysicist. The GPO Target map (Figure 2) is presented in Appendix A.

5.0 DGM SURVEY

5.1 General Field Activities

Data collection on transects was restarted on February 27th, 2008. QC tests per Table 1 were completed and reviewed at the beginning and ending of each day. The DQO's for down line sampling and coverage were also checked daily by the site geophysicist. A two man team using the EM61 in litter mode collected data with each stake segment collected as its own individual line number. Field data sheets were filled out corresponding to each line of data and the sheets are provided in the attached CD. Raw data was uploaded to the CH2M HILL FTP in the evenings.

5.2 Site UXO-01 Former Live Hand Grenade Course

ARM collected 4,221 lineal meters of transect data in site UXO-01 (10.08% of the total area). ARM also collected 308 lineal meters of repeat data (7.3% of total area collected). All site specific QC tests passed. QC data and Figures are provided on the CD.

5.3 Site UXO-03 Former Practice Hand Grenade Course

ARM collected 773 lineal meters of transect data in site UXO-03 (10.67% of the total area). ARM also collected 45 lineal meters of repeat data (5.8% of total area collected). The static test in UXO-03 indicated elevated noise. Based on previous static tests ARM believed that the additional noise may be from some cultural influence. To verify this, ARM took the EM to an area where previous successful static data had been collected. The static test at that location had a normal noise level as seen at the other sites. ARM went back to UXO-03 and collected follow-up QC test to make certain it was not equipment malfunction. Once again the tests revealed 'noisy' data, leading ARM to believe some other environmental factor, which would not include equipment malfunction or operator error, is to fault. After discussion with the CH2M HILL QC Geophysicist, the noise was deemed to be cultural and data collection proceeded.

5.4 Site UXO-05 Former B-3 Gas Chamber

ARM collected 3,872 lineal meters of transect data in site UXO-05 (11.57% of the total area). ARM also collected 147 lineal meters of repeat data (3.8% of total area collected). All site specific QC tests passed. QC data and Figures are provided on the CD.

5.5 Site UXO-06 Fortified Beach Assault Area

ARM collected 28,210 lineal meters of transect data in site UXO-06 (10.03% of the total area). ARM collected an additional 802 lineal meters of repeat data (2.8% of total area collected). All site specific QC tests passed. QC data and Figures are provided on the CD.

6.0 ANALYSIS OF GEOPHYSICAL DATA

6.1 General Approach

Upon completion of pre-processing and data checking, geophysical data from the surveys were imported into Geosoft Oasis Montaj/UX Detect processing package. The following is a generalized flow of the data and analysis:

- Data downloaded to in-field personal computer (PC)
- Data converted to x, y, z format spreadsheet (*.xyz extension)
- The EM61 data was converted to UTM coordinates using the control stake information and scripts provided by Geosoft to convert time walked between stakes to NAD 83, zone 18 north UTM coordinates. Additional information on the scripting process is provided in Appendix B. The scripts are provided in the attached CD.
- Latency corrections were performed based on instrument latency determined from transect lines of the six line test. ARM used the UCELATENCY.GX of Geosoft to perform these latency corrections.
- The Channel 2 data was leveled using the Geosoft non-linear filter (low = 10%; max = 50%).
- Data were reviewed by the geophysicist for completeness, using "graphical profile window" in Geosoft.
- Sensor reading for the leveled Channel 2 data (z) was gridded, using minimum curvature algorithm and a gridded cell size of 0.25 and blanking distance of 0.5.
- A color map was produced of the gridded transect data.
- Line path was posted on the map, and a geophysicist reviewed the map for coverage completeness.
- The transect lengths in the survey area were calculated and posted in Table 1 using Geosoft.
- The downline data density was checked using the QC/QA Sample Separation tool in Geosoft. A maximum separation criteria used was 0.213 meters.
- Any anomaly in the gridded data of channel 2 with an amplitude of 2.5mV or higher would be picked and classified as an anomaly for potential intrusive investigation.
- A "dig sheet" indicating the location of the target (UTM meters) and a special target ID number was assigned to each target.
- DGM Maps were created in a jpg format. All maps are presented in Appendix C through F.
- Processing documentation forms are provided on the CD.
- Repeat lines collected in each area were processed in the same manner as the DGM data. Pick data from the DGM transects were overlain on the repeat lines for comparison. Repeat line figures are presented on the CD.

Processing documentation forms are presented on the attached CD.

6.2 Site UXO-01 Former Live Hand Grenade Course

UXO-05 was broken into 2 subsets: UXO-01 and UXO-01 Additional. A map showing the location of Site UXO-1 (Figure 3) is provided in Appendix C. Data was processed and targets were selected as described above. Based on the selection criteria, 249 targets were selected. Dig sheets are provided on the attached CD. Maps of the transect data and targets selected (Figure 4 and 5) are presented in Appendix C.

Down line data density was determined to be more than >98.3% for separations less then 0.213 meters. The repeat line test data showed repeatable data within the +- 20 criteria.

6.3 Site UXO-03 Former Practice Hand Grenade Course

UXO-03 was broken into 2 subsets: S (South) and N (North). A map showing the location of the sub areas (Figure 6) is provided in Appendix D. Data was processed and targets were selected as described above. A map showing the location of the sub areas is provided in Appendix D. Based on the selection criteria, 61 targets were selected. Dig sheets are provided on the attached CD. Maps of the transect data and targets selected (Figure 7 and 8) are presented in Appendix D.

Down line data density was determined to be more than >99.7% for separations less then 0.213 meters. The repeat line test data showed repeatable data within the +- 20 criteria.

6.4 Site UXO-05 Former B-3 Gas Chamber

UXO-05 was broken into 4 subsets; A, A Additional, B, C, D. A map showing the location of the sub areas (Figure 9)is provided in Appendix E. Data was processed and targets were selected as described above. Based on the selection criteria, 353 targets were selected. Dig sheets are provided on the attached CD. Maps of the transect data and targets selected (Figures 10 - 13) are presented in Appendix E.

Down line data density was determined to be more than >98.4% for separations less then 0.213 meters. The repeat line test data showed repeatable data within the +- 20 criteria.

6.5 Site UXO-06 Fortified Beach Assault Area

Data was processed and targets were selected as described above. Due to the size of Site UXO-06 the site was broken down into sub-areas to make processing and data visualization easier. A map showing the location of the sub areas (Figure 14) is provided in Appendix F. Based on the selection criteria, 1,335 targets were selected. Dig sheets are provided on the attached CD. Maps of the transect data and targets selected (Figures 15 – 25) are presented in Appendix F.

Down line data density was determined to be more than >97.9% for separations less then 0.213 meters. The repeat line test data showed repeatable data within the +- 20 criteria.

6.6 Project DQO Results

Table 3 shows the general results to the Project DQO's. Discussion of each DQO and the results are discussed in the following text.

Table 3

Results of Project Data Quality Objectives

DQO	Measurement Performance Criteria	Test Method	Results
Accurate positioning is being obtained from DGM positioning systems.	Positions of known items will not exceed the 1 m in geophysical data.	To be reported by CH2M HILL based on blind seed items to ensure compliance.	To be reported by CH2M HILL
Repeatable data are being obtained from DGM system.	Response to standardized item will not vary more than +/-20%.	Results of QC Test #5 (Static Background & Spike) and	Met Criteria except area UXO3 which had cultural noise (see Section 6.3 P. 12)
		QC Test #7 (Repeat Data) will be evaluated to ensure compliance.	Met criteria
Ordnance detection: DGM survey system response is comparable to expected response of geophysical instrument.	Sensor response over specific items to be compared to response of geophysical instrument over similar items under previous test or field production conditions.	System response is comparable to response expected through previously documented instrument capabilities.	To be reported by CH2M HILL
Downline data density is sufficient to detect MEC items.	Over 98% of possible sensor readings are captured along a transect with a spacing of no greater than 0.7 ft (0.213 m) between points. In addition, any transect containing a downline data gap of 2 ft or greater does not meet the DQO	Results of DGM surveys will be evaluated to ensure compliance.	Met DQO Criteria
Coverage over survey area is sufficient to detect MEC items.	10 % of investigation area to be covered by transects	Results of DGM surveys will be evaluated to ensure compliance.	Met DQO Criteria
Positioning of detected anomalies is accurate	95% of all anomaly locations lie within a 1 m radius of a point on the ground surface directly above the seed items.	To be reported by CH2M HILL based on blind seed items to ensure compliance.	To be reported by CH2M HILL
All data must be delivered in a timely manner and in a useable format.	Data packages are completed and delivered to the CH2M HILL Project Geophysicist with 1 working day of data collection	Evaluated based on actual delivery of data.	Met Criteria

7.0 SUMMARY OF GEOPHYSICAL SURVEY RESULTS

ARM mobilized two geophysicists to the Camp Lejeune site February 4th and again on February 26th. They collected approximately 37,076 lineal meters of two-coil, man portable EM61 data over Sites UXO-01, UXO-03, UXO-05, and UXO-06. Additionally, ARM collected 1,302 lineal meters of repeat data. Within the areas, *1,998* anomalies potentially representing buried MEC were identified. All anomalies located can be seen on the maps (CD and attached) and in the target sheets (CD).

The EM61 data were processed using Geosoft Oasis Montaj with the UX-Detect module. Standard processing procedures, including drift filtering and lag correction, were applied and the data separated out into individual grids for anomaly picking. Anomalies were picked on channel 2 at a threshold of 2.5 mV and above, based on the results of the GPO. Anomalies plotted outside of the line path were excluded from picking. In total *1,998* anomalies at 2.5mV or higher on channel 2 were identified and marked for intrusive investigation which included: *249* anomalies in area UXO-01, *61* anomalies in area UXO-03, *353* anomalies in area UXO-05, and *1335* anomalies in area UXO-06.

All raw data by date, preprocessed data by block and processed data by block deliverables can be found on the attached CD.

8.0 REFERENCES

CH2M HILL, 2007. *Statement of Work/Technical Specifications: Digital Geophysical Mapping,Site UXO-01 Former Live Hand Grenade Course, Site UXO-03 Former Practice Hand Grenade Course, **F**ormer B-3 Gas Chamber, Site UXO-06 Fortified Beach Assault Area ,MCB Camp Lejeune, North Carolina.* p. 1-2, Table A-1, Table B-1.

Appendix A

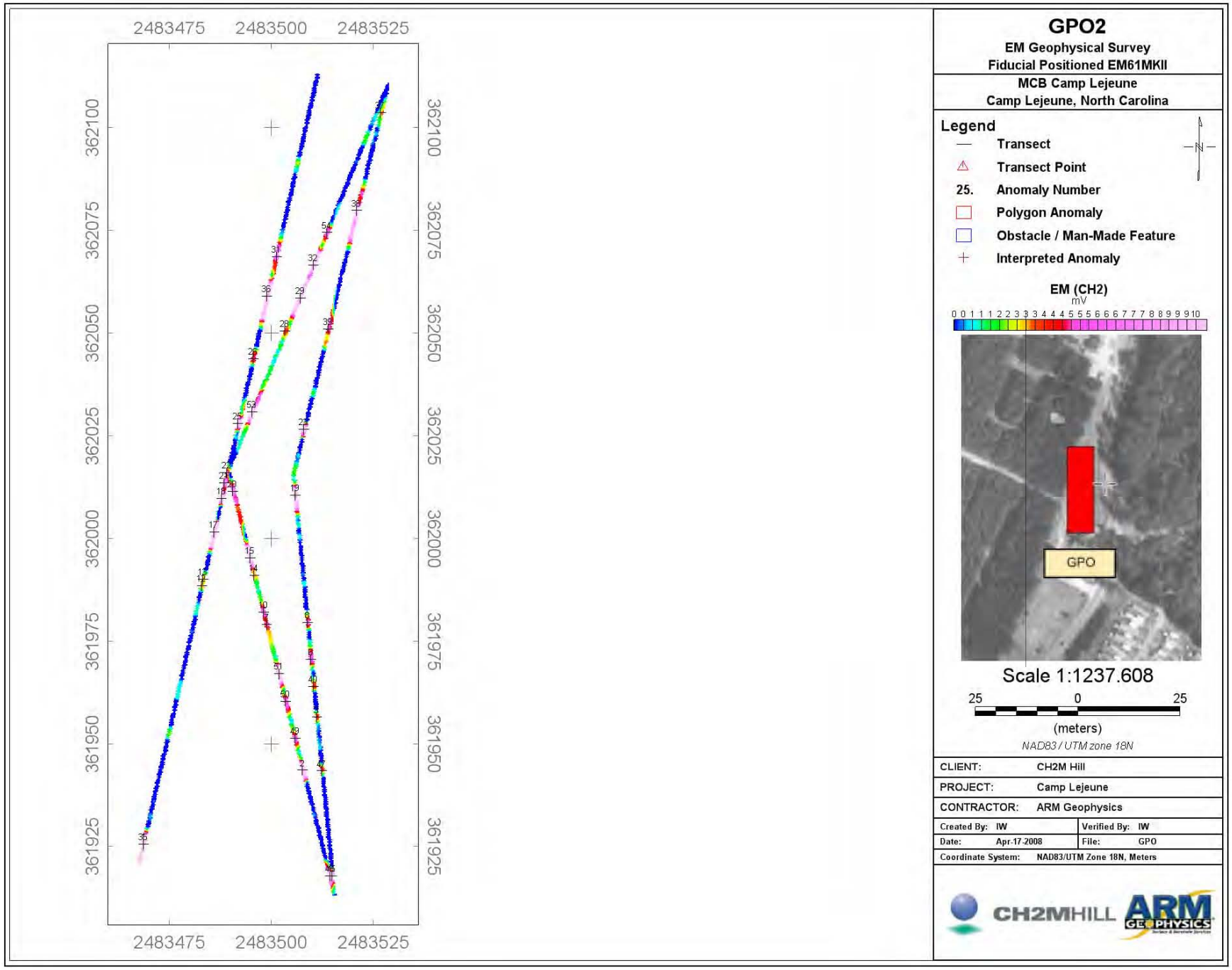


Figure 2 – Geophysical Prove Out (GPO) Results

Appendix B

1. The following is the procedure used to convert UTM stake coordinates and timed EM61 xyz data to a preprocessed data set with time between stakes converted to UTM coordinates. Written by Darren Mortimer of Geosoft Inc (Feb 2008) for ARM

2. Create stake location tbl file

- Export stake file from excel
  - Save as a space-delimited file
- Copy header from example below and using a text editor (notepad etc) insert at the beginning of the text file – edit as required.

```
/ Surveyed Stake Locations - ALLEN UXO-03
/
/=  Stake:Int:I
/=  Easting:real
/=  Northing:real
/=  Elevation:real
/=  Label:String80
/
/        Stake       Easting      Northing     Elevation         Label
             1   3839433.341   283593.6161          6.74         PW-29
             2   3838598.778   285165.4781      8.494234    PW-123_CK
             3    3838598.78   285165.4795      8.504745    PW-123_CK
             4   3839401.426   284594.0583      11.10171           ST
             5   3839402.539   284610.2873      8.896953           ST
```

Example Tbl file

3. Create EM-segment location gdb

- Edit the Excel,
  - add a column to indicate the survey line (a survey line is composed of one or more EM lines), suggestion using a number sequence different to the EM lines, for example if the EM lines are numbered 1,2,3,4 etc; then number the survey lines 101, 102 etc
  - ensure the column names are in row 1. Move any other row to the bottom of the file.
  - remove the "end transect" lines from the file
- Import the excel file into OM [Database/Import/Excel Spreadsheet/Single Sheet]
- Edit the script "prep EM-segments" change the name of the lookup table for the stake locations.
- Run the script "prep EM-segments" to:
  - Create two channels called *Fid_Start* and *Fid_End*
  - Fill *Fid_Start* and *Fid_End* with zeros
  - Perform a 1channel lookup to populate the X1 and Y1 with the segment start point easting and northing values
  - Perform a 1channel lookup to populate the X2 and Y2 with the segment ending point easting and northing values
  - Calculate *DeltaX* and *DeltaY*
  - Split into lines for each individual EM segment

*Once you've run the script you will need to go into

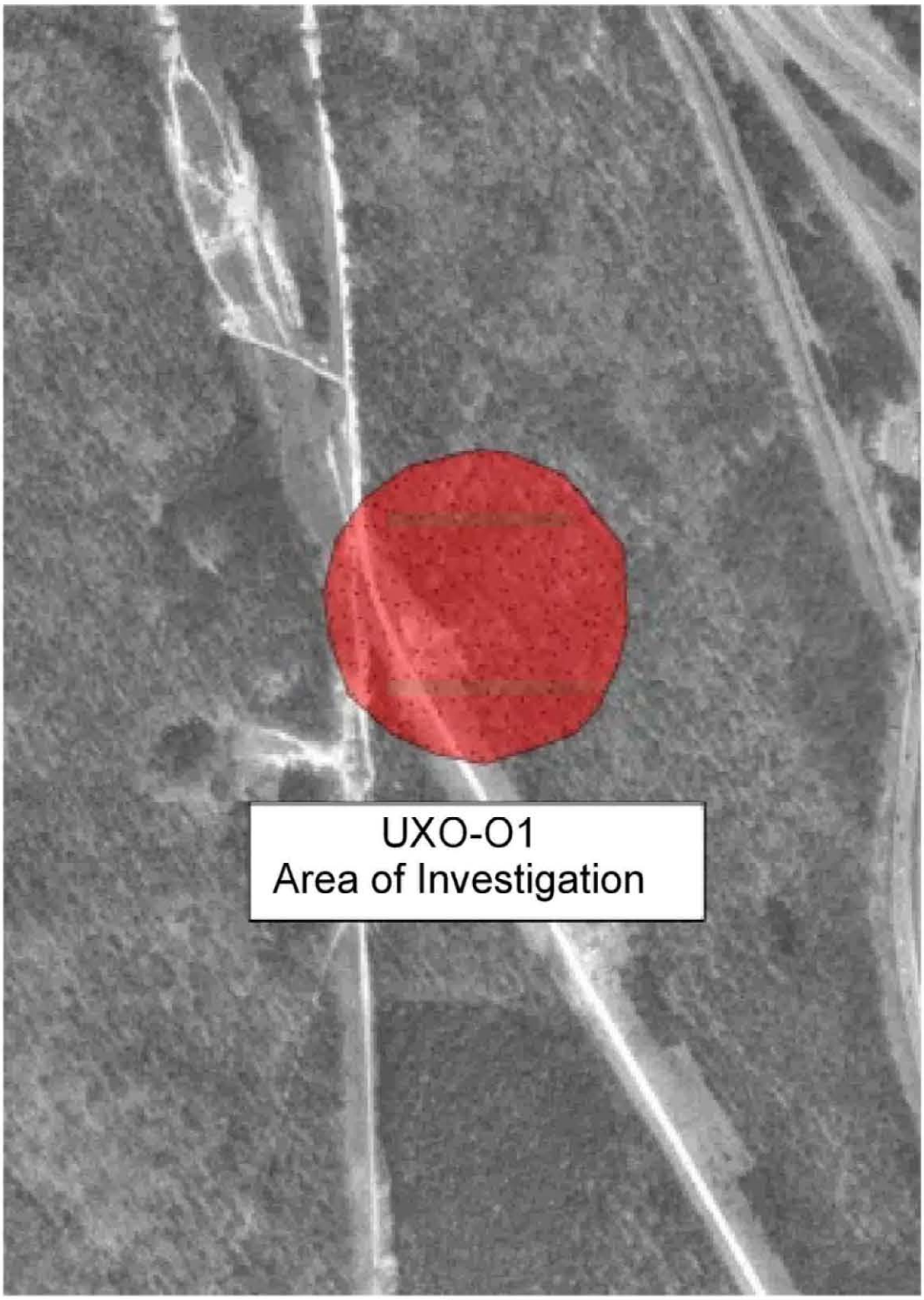
Database Tools_Line Tools_Split Line on Channel –EM Line
Make sure to get rid of any unnecessary lines.

4. Create EM data gdb

- Export the data from Dat61 to an XYZ
- Import the XYZ file into OM [Database/Import/Geosoft XYZ].
- Edit the script "prep EM data" change the name of the lookup database for the segment locations.
- Run the script "prep EM data" to:
    - Create and fill Fid_start and Fid_end, flag to find the start and end points of a segment
    - Calculate Dt - the time difference
    - Calculate the average Dt for the segment; use the rolling mean filter with a window much larger than any line segment
    - Create Time_relative, the time relative to the start of the segment
    - Determine the UTM coordinates
        - Create X1 and X2; using a cross-database lookup
        - Calculate the average Dx for the segment
        - Calculate Ax ~ average velocity for the segment
        - Calculate Axt ~ interval velocities
        - Calculate the UTM_X
        - Create Y1 and Y2; using a cross-database lookup
        - Calculate the average Dy for the segment
        - Calculate Ay ~ average velocity for the segment
        - Calculate Ayt ~ interval velocities
        - Calculate the UTM_Y
    - Clean up, hiding (unload) unnecessary channels
    - Set current X & Y to the UTM_X and UTM_Y channels

Note: some channels (for example Dt) may initially appear as zeros, do not be concerned the display format may not of been set (time vs normal) or not enough decimal places are being shown. Right-click on the channel header and select Edit to change.

Appendix C



DGM Area of Investigation

Site UXO-01 Survey Area Map

CH2MHill
Camp Lejeune, North Carolina

Date: May 7, 2008	Created By: JLL	ARM Job # 07494

ARM GEOPHYSICS CH2MHILL

Figure 3

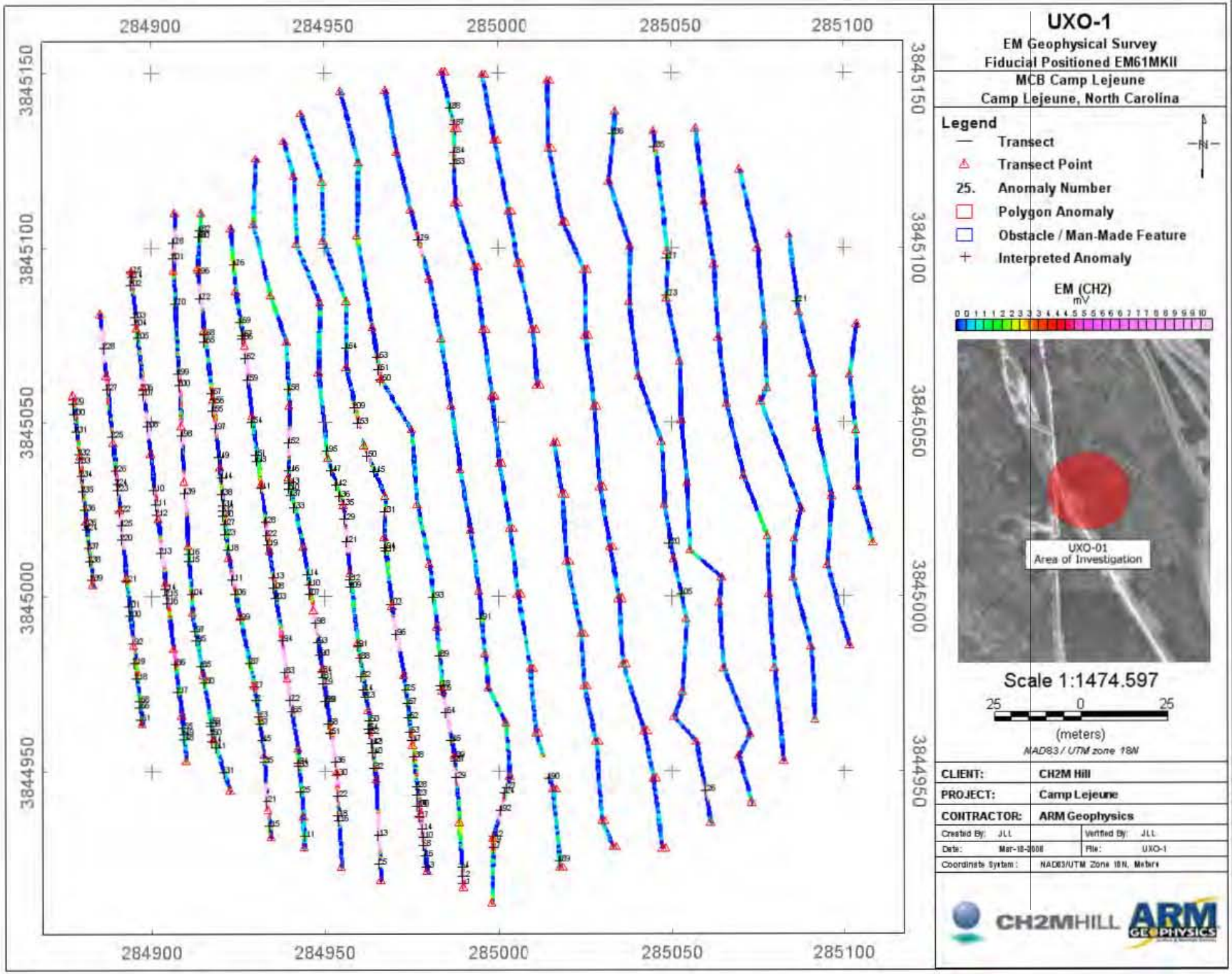


Figure 4 – UXO – 01 Target Map

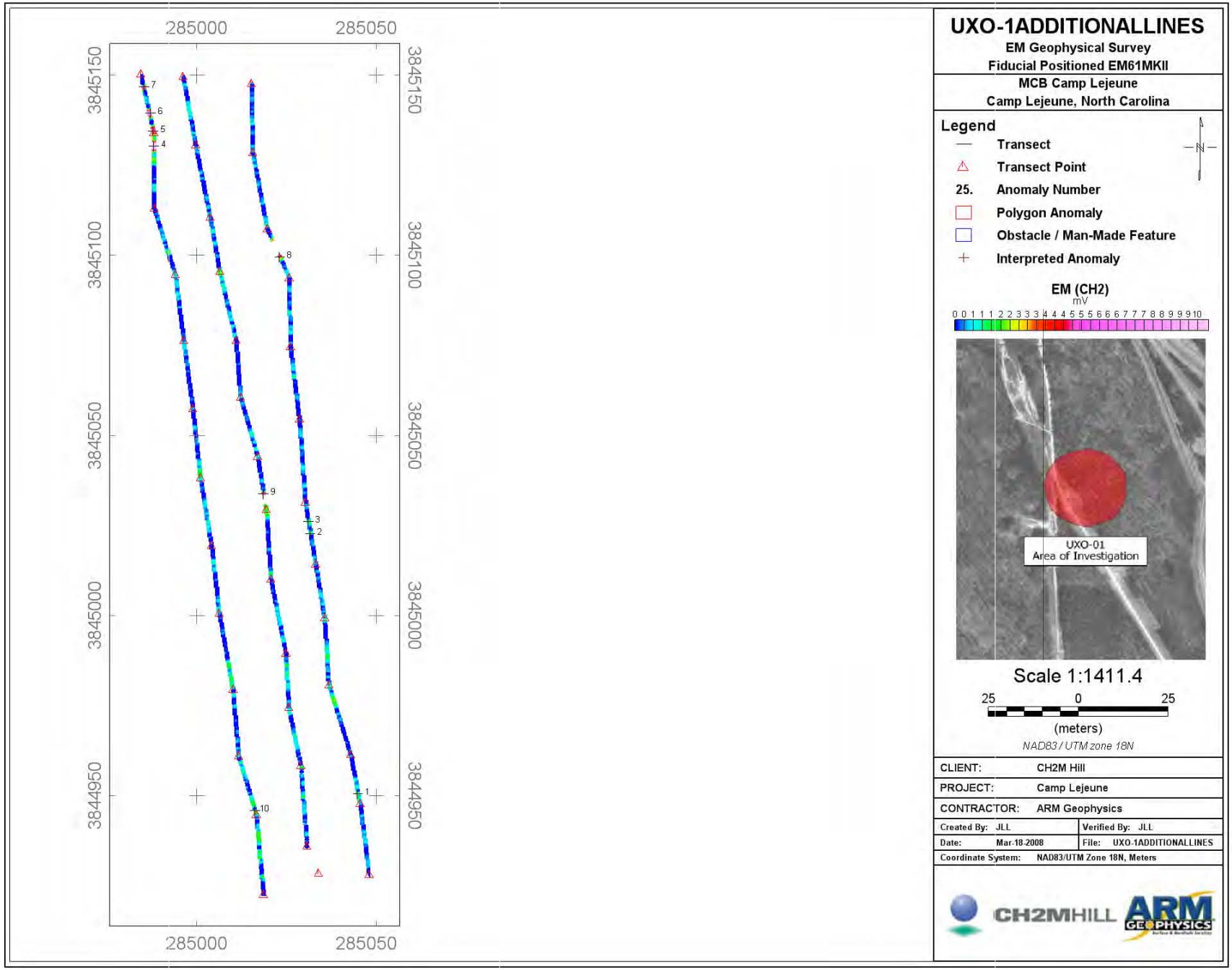
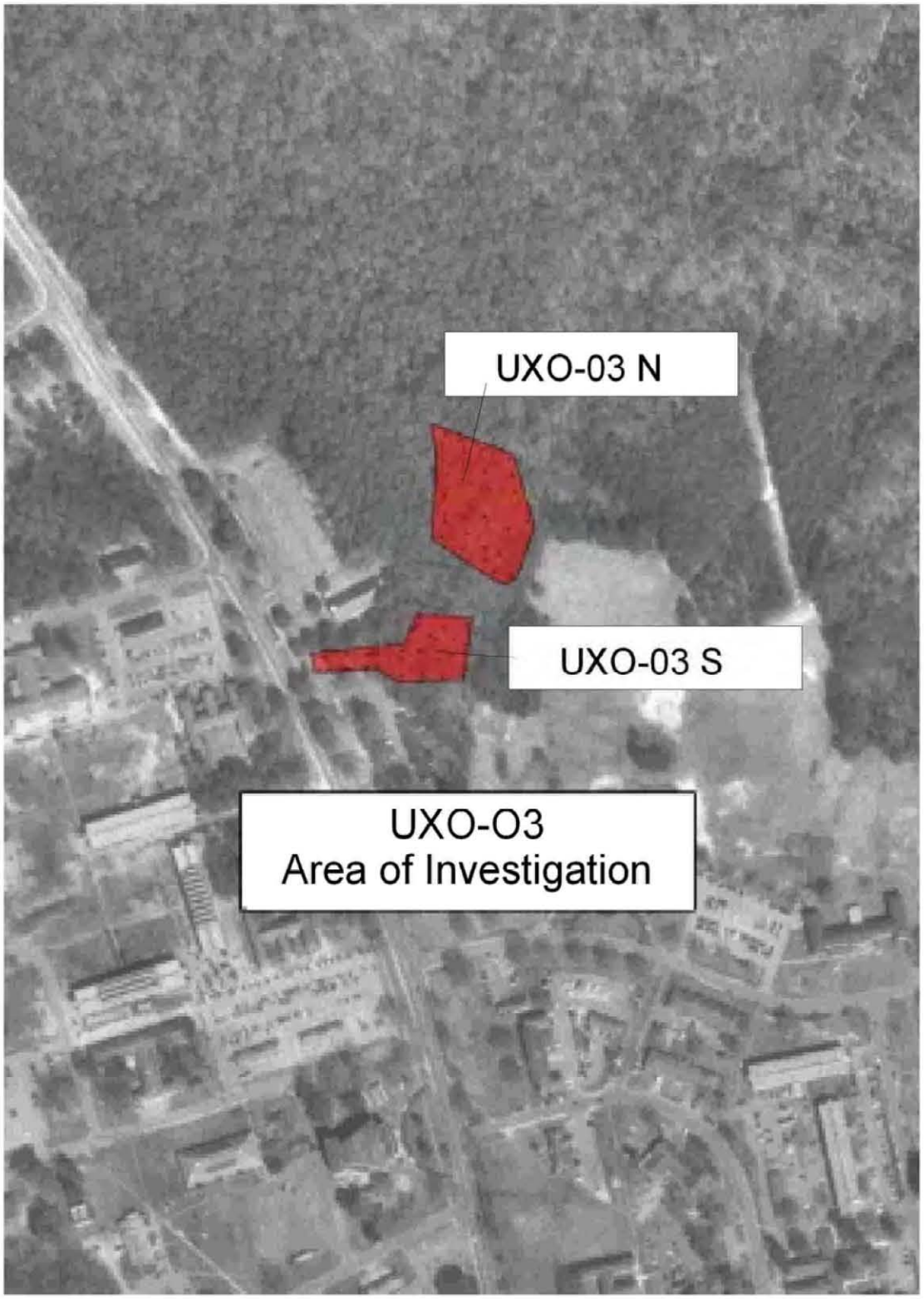


Figure 5 – UXO-1 Additional Line Target Map

Appendix D



DGM Area of Investigation

Site UXO-03 Survey Area Map		
CH2MHill Camp Lejeune, North Carolina		
Date: May 7, 2008	Created By: JLL	ARM Job # 07494
ARM GEOPHYSICS CH2MHILL		Figure 6

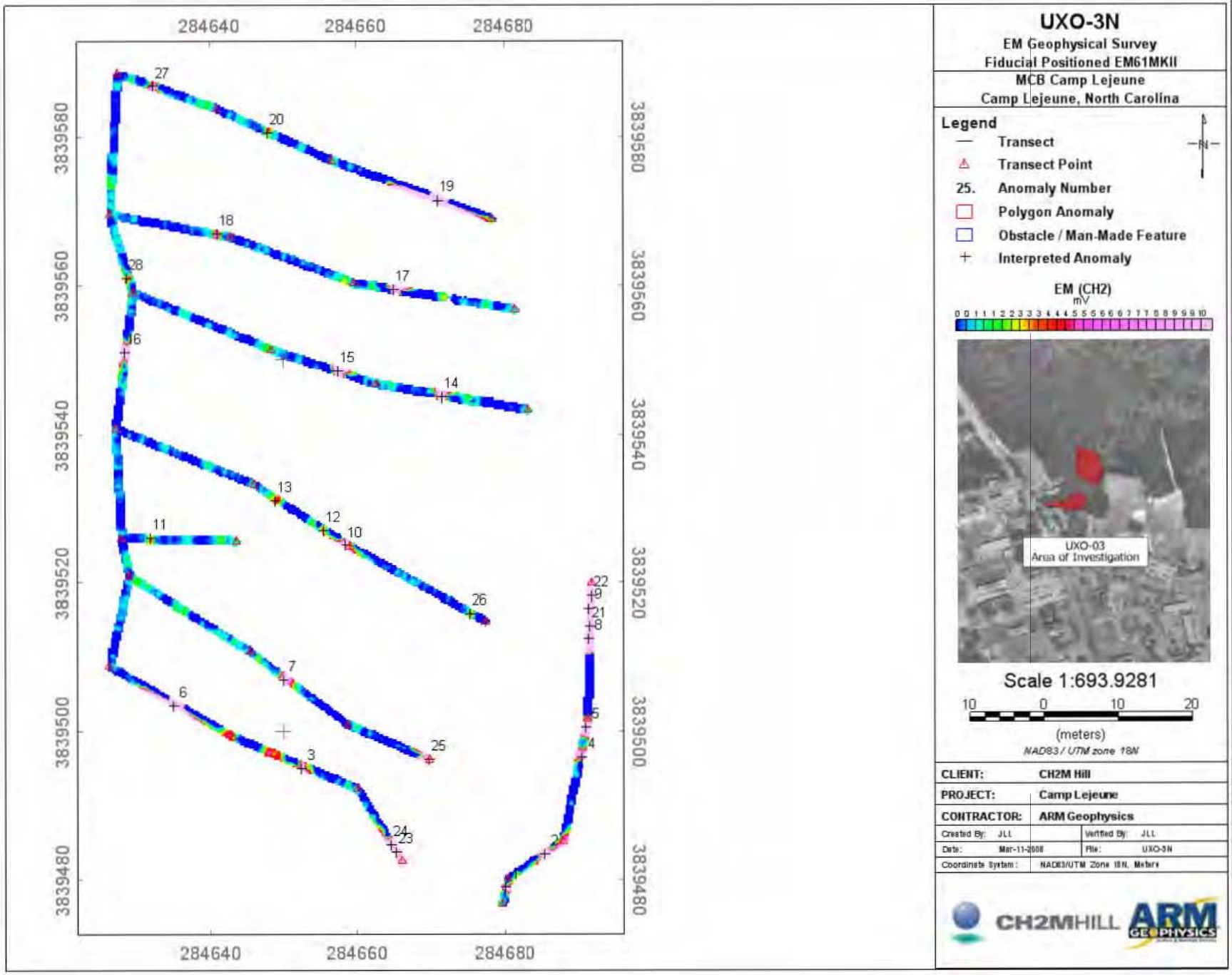


Figure 7 – UXO 3 N Target Map

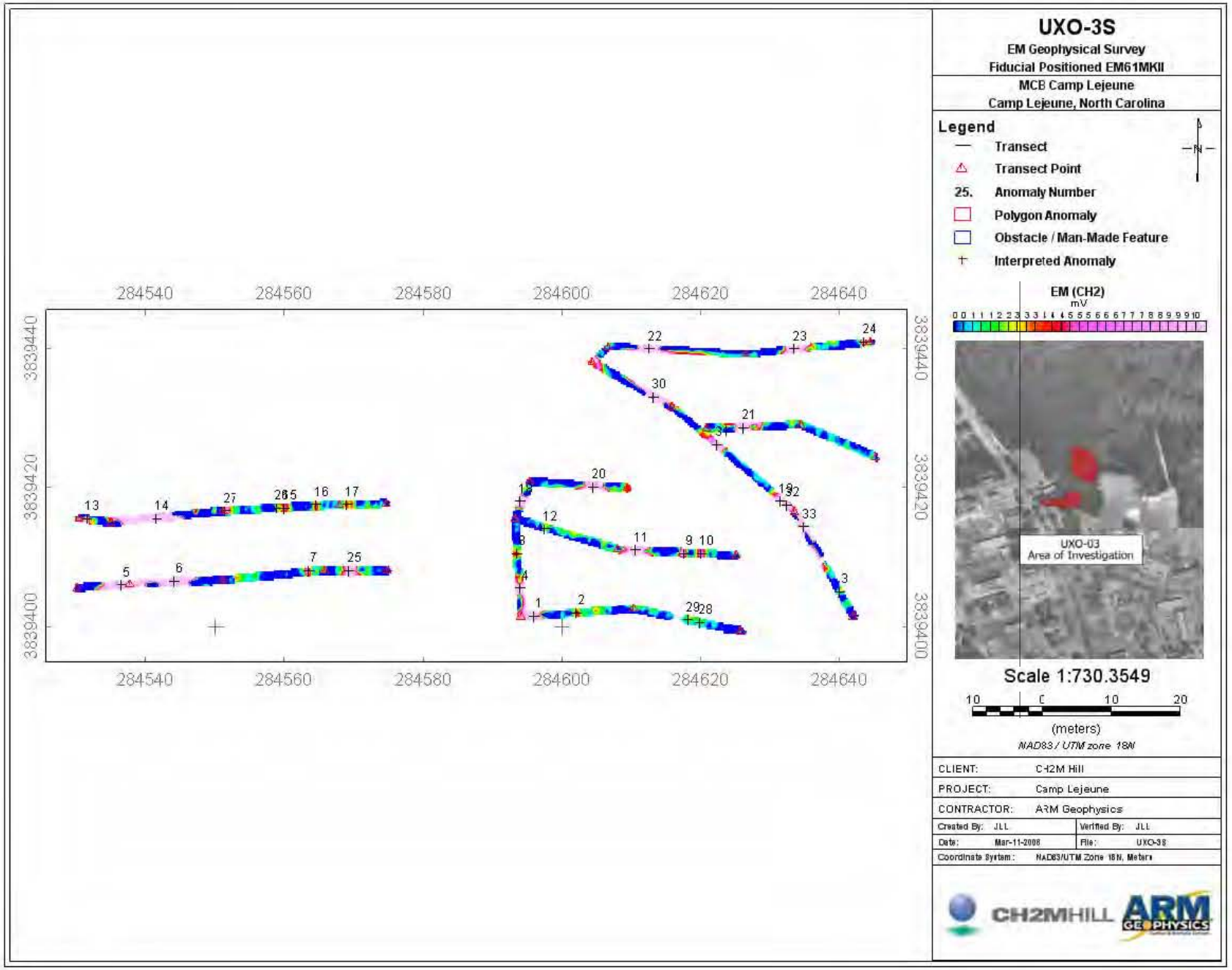
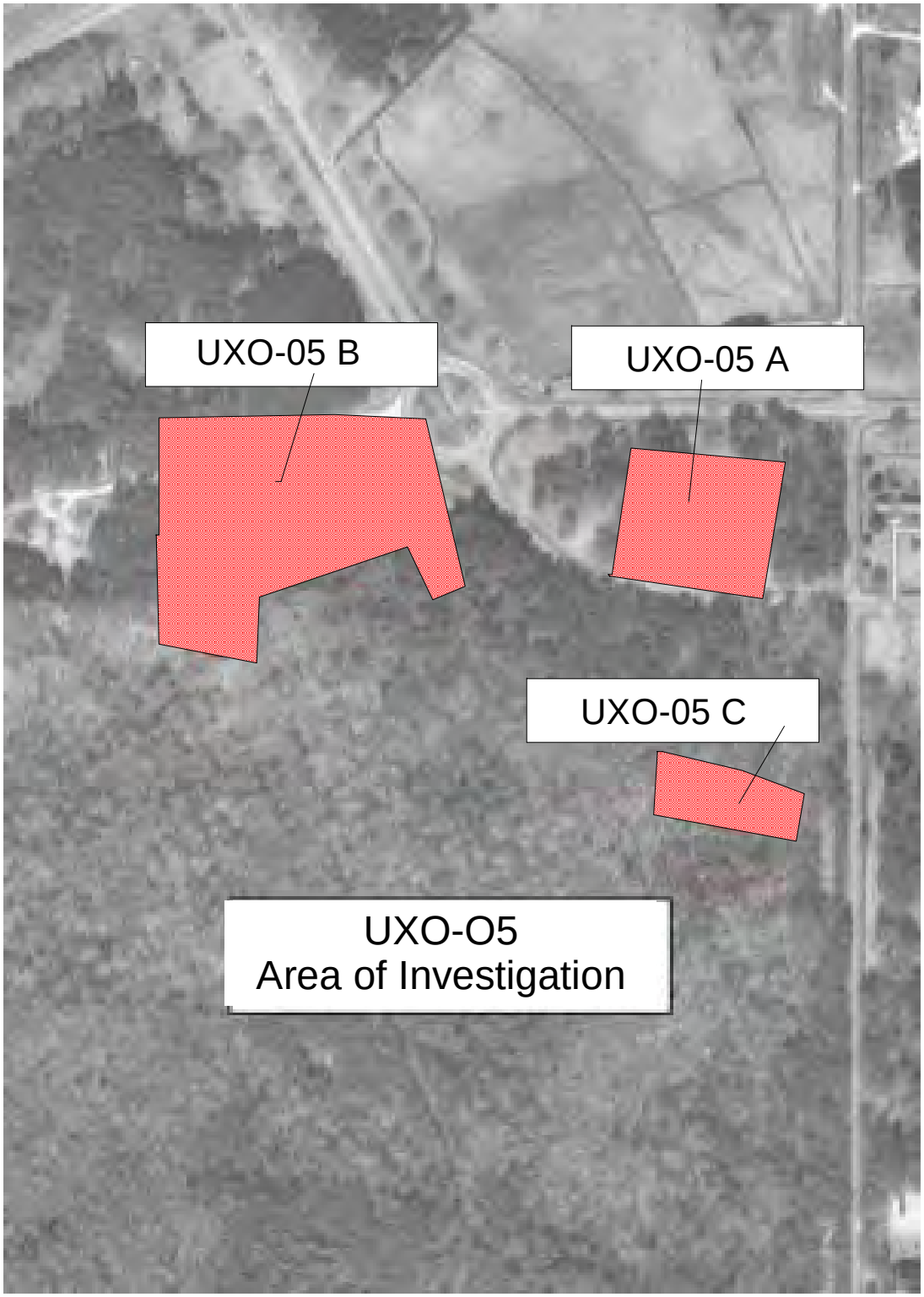


Figure 8 – UXO-3 S Target Map

Appendix E



DGM Area of Investigation

Site UXO-05 Survey Area Map		
CH2MHill Camp Lejeune, North Carolina		
Date: May 7, 2008	Created By: JLL	ARM Job # 07494
ARM GEOPHYSICS Surface & Borehole Services CH2MHILL		Figure 9

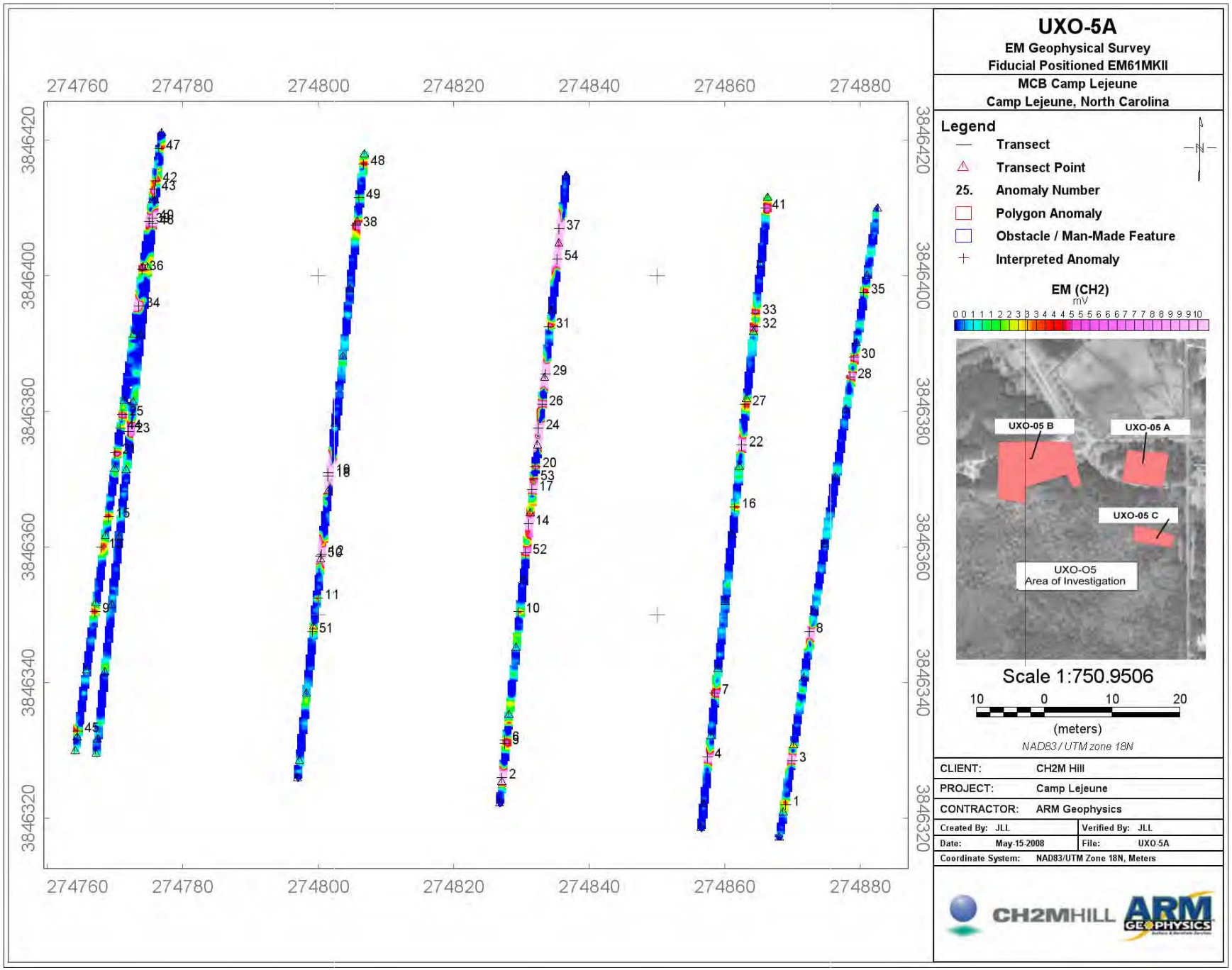


Figure 10 – UXO-05 A Target Map

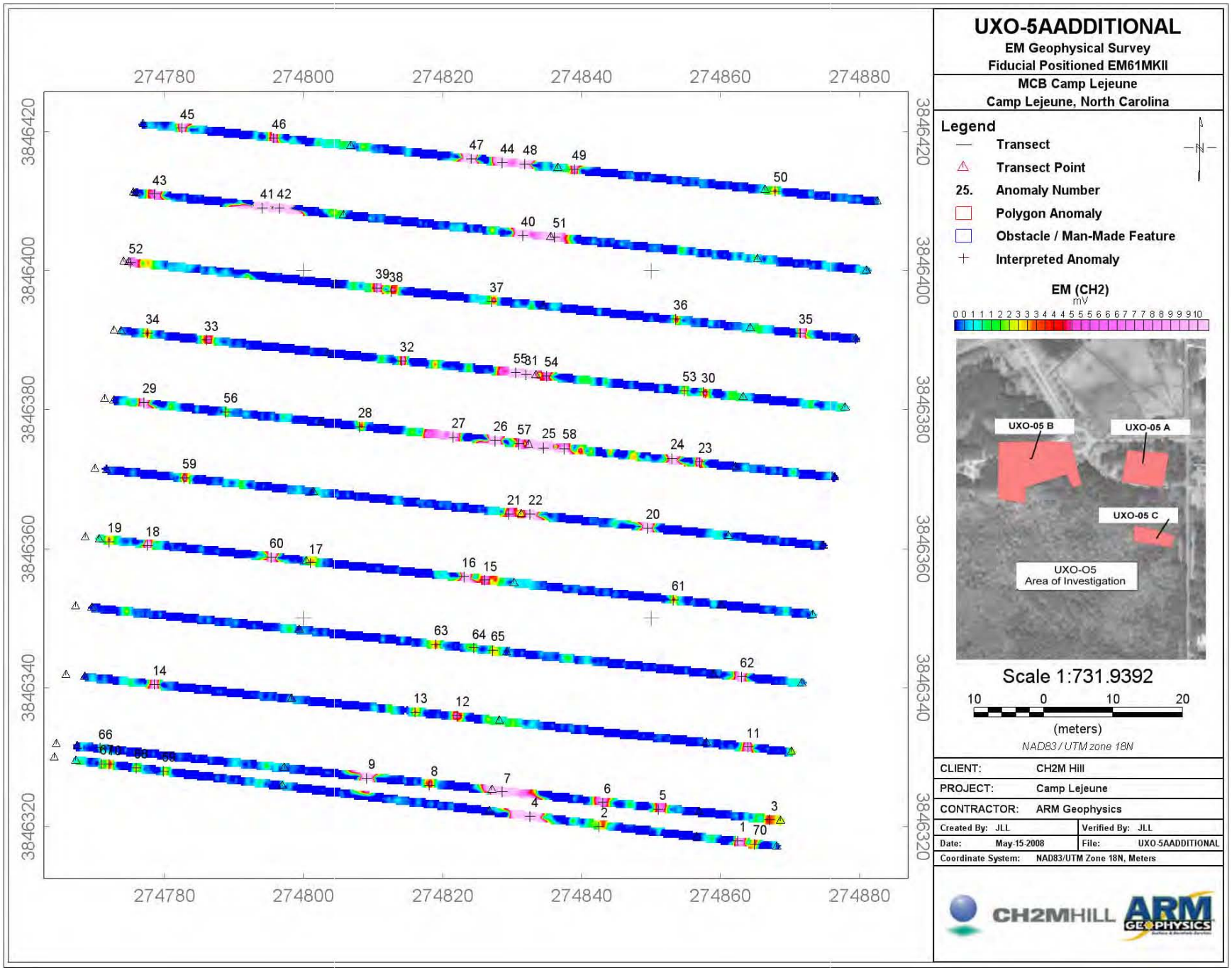


Figure 11 – UXO-5 A Additional Lines

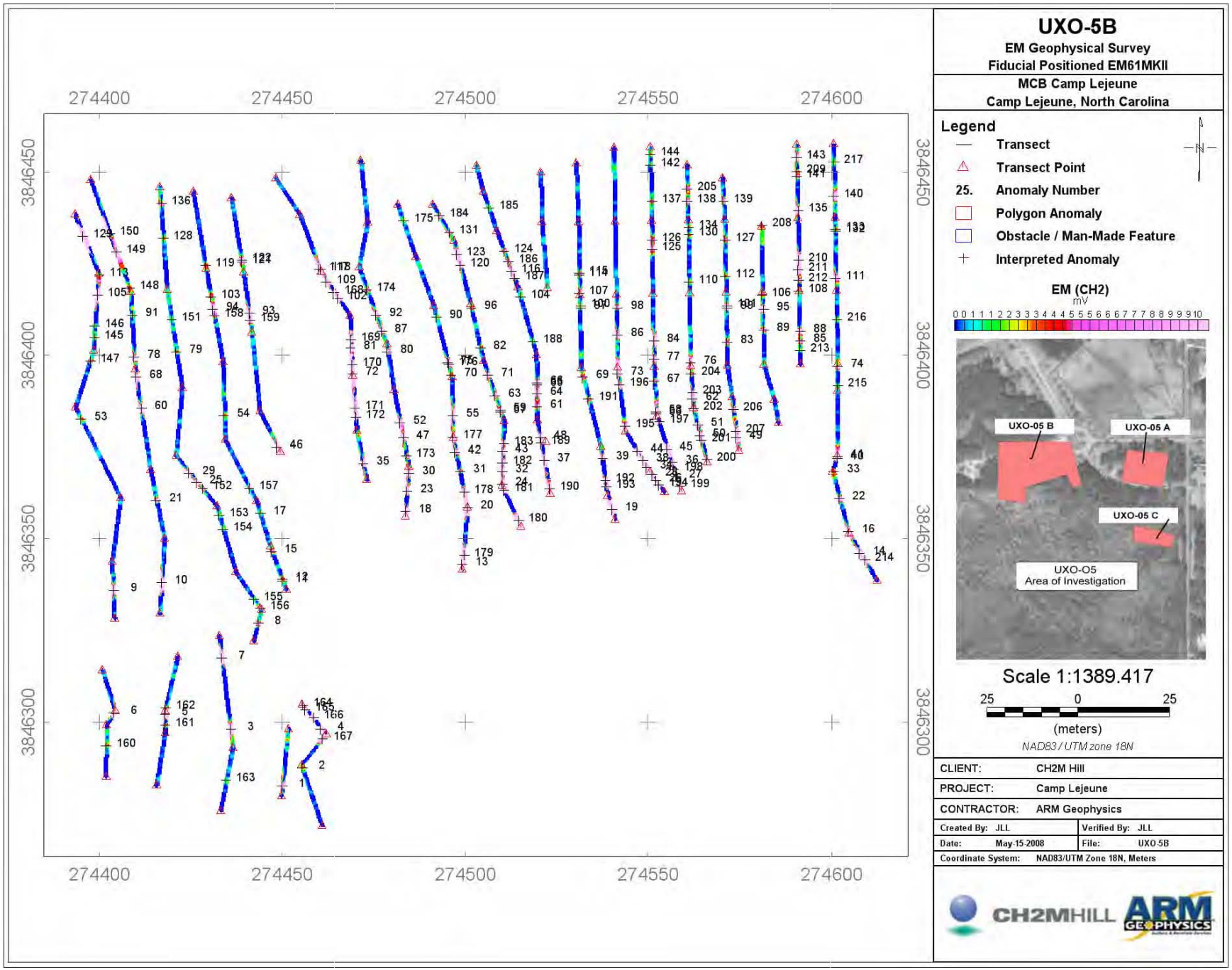


Figure 12 – UXO-05 B Target Map

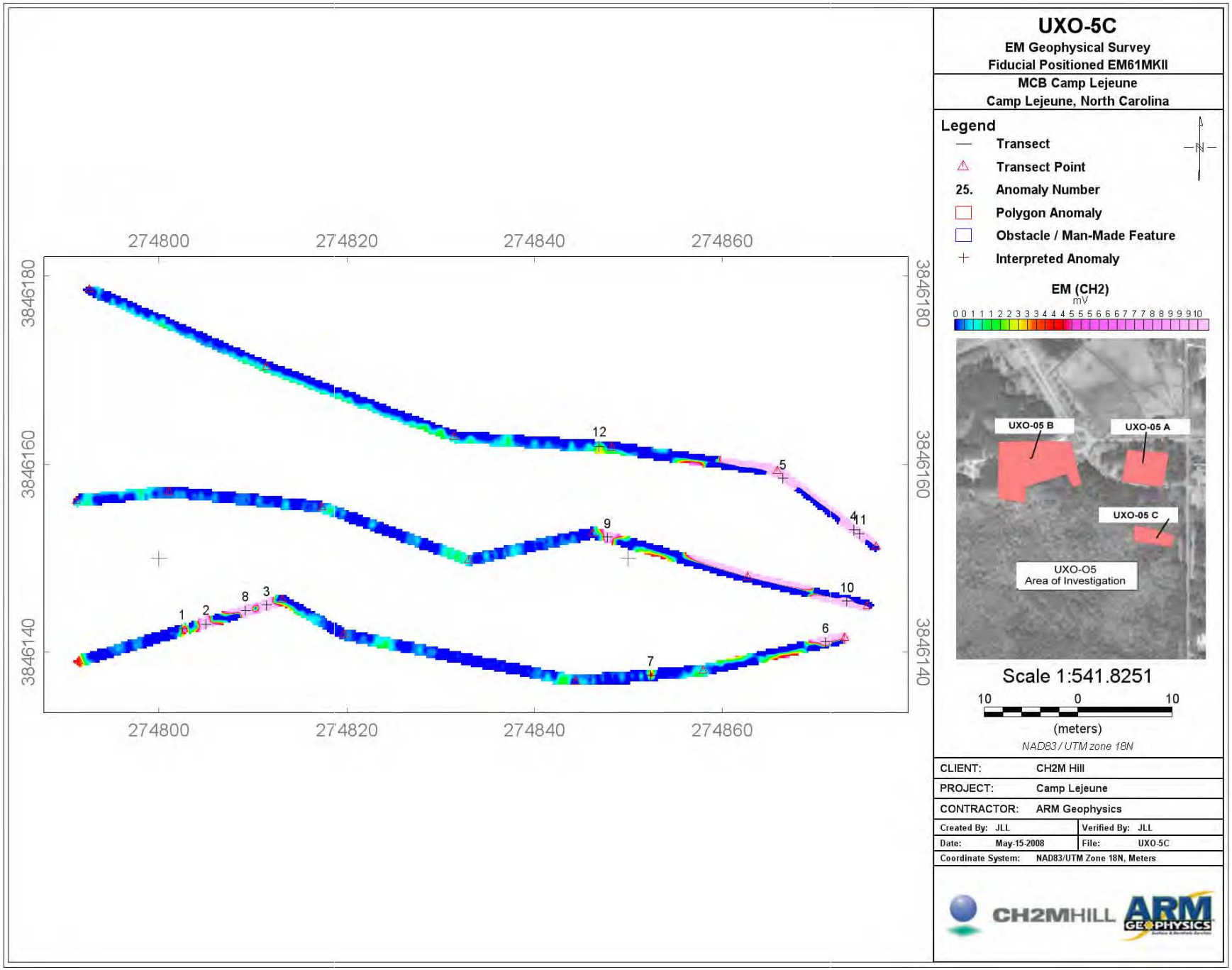
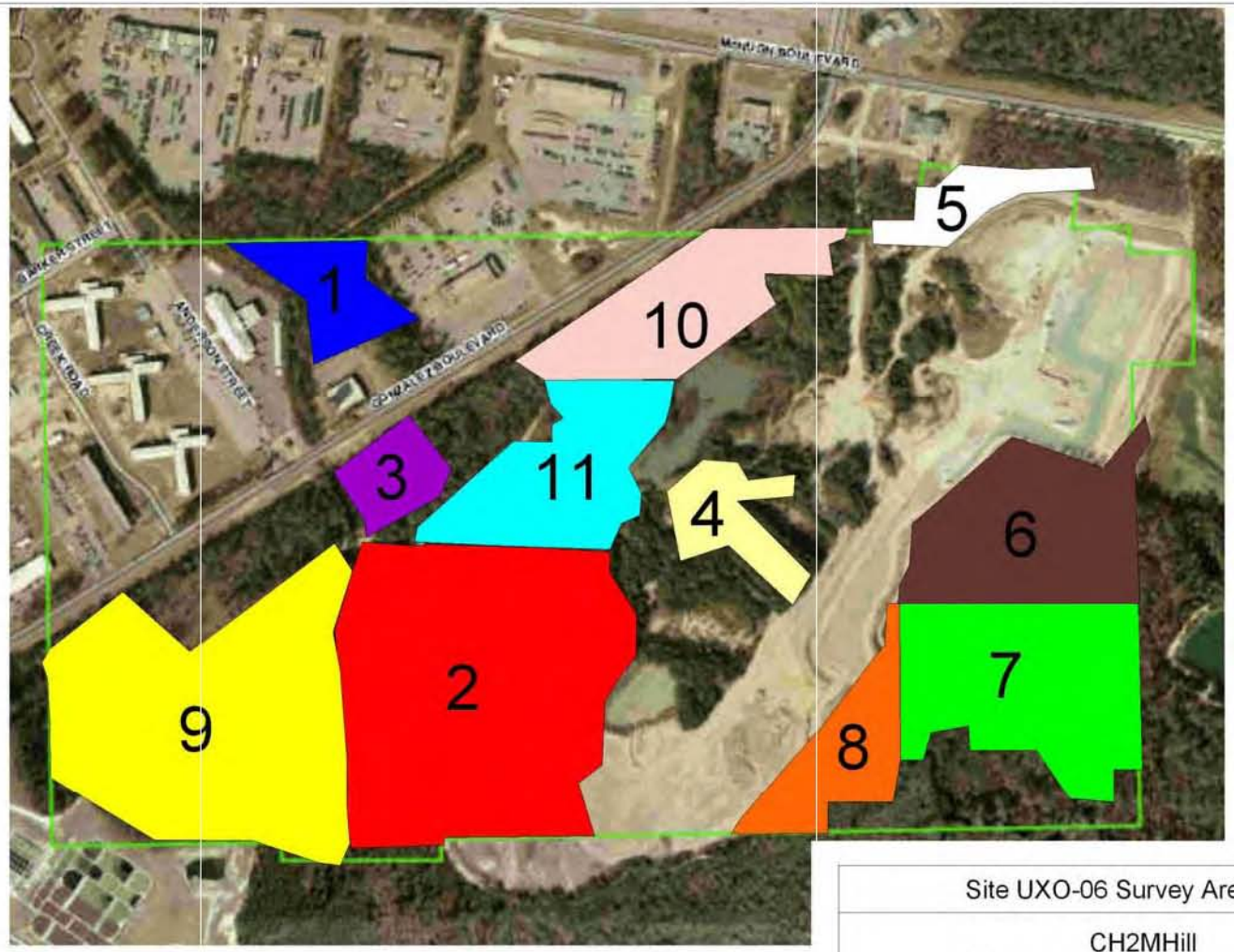


Figure 13 – UXO-5C Target Map

Appendix F



Colored Polygons Represent Subsets of Data

Site UXO-06 Survey Area Map		
CH2MHill Camp Lejeune, North Carolina		
Date: May 7, 2008	Created By: JLL	ARM Job # 07494
ARM GEOPHYSICS CH2MHILL		Figure 14

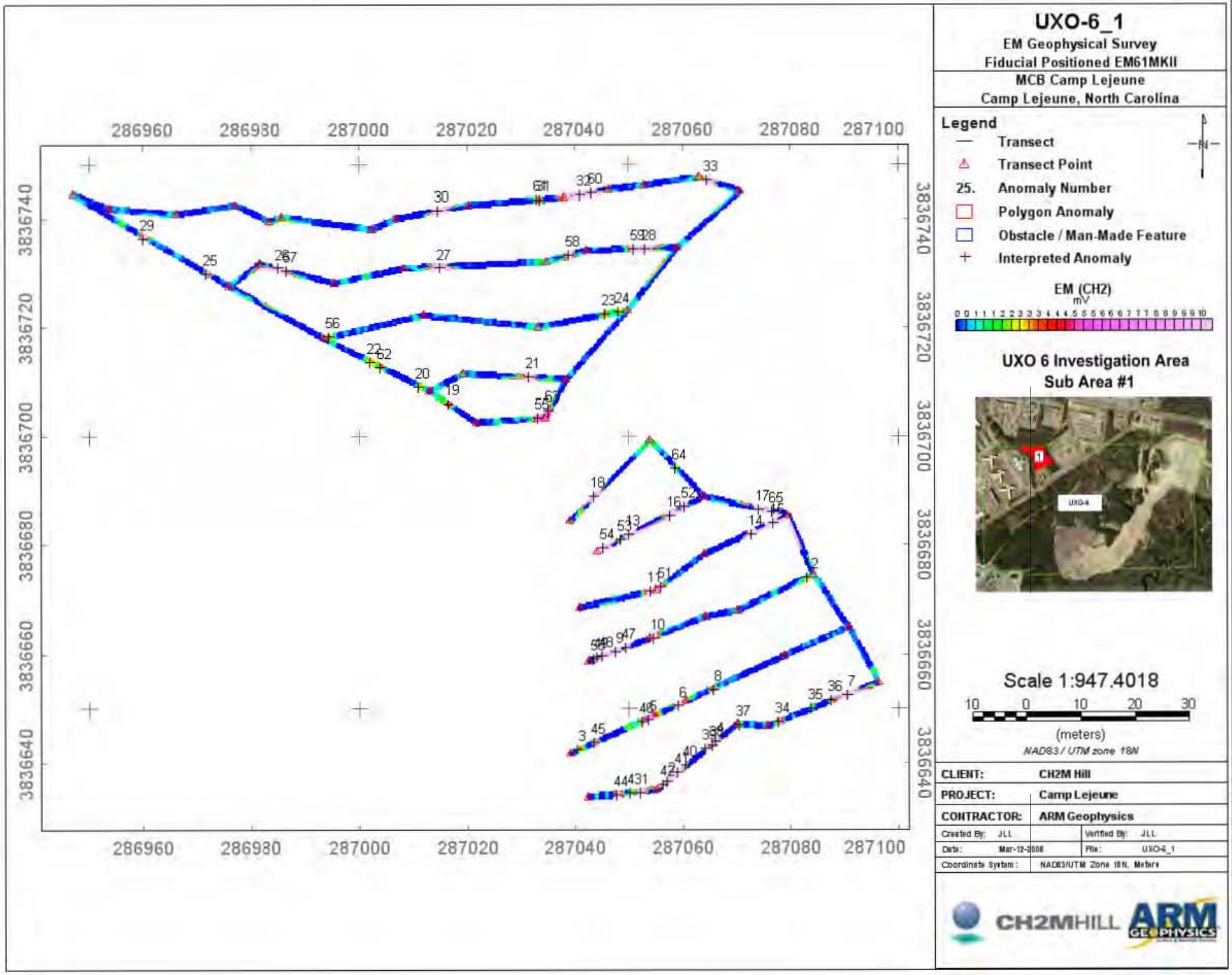


Figure 15 – UXO-6-1 Target Map

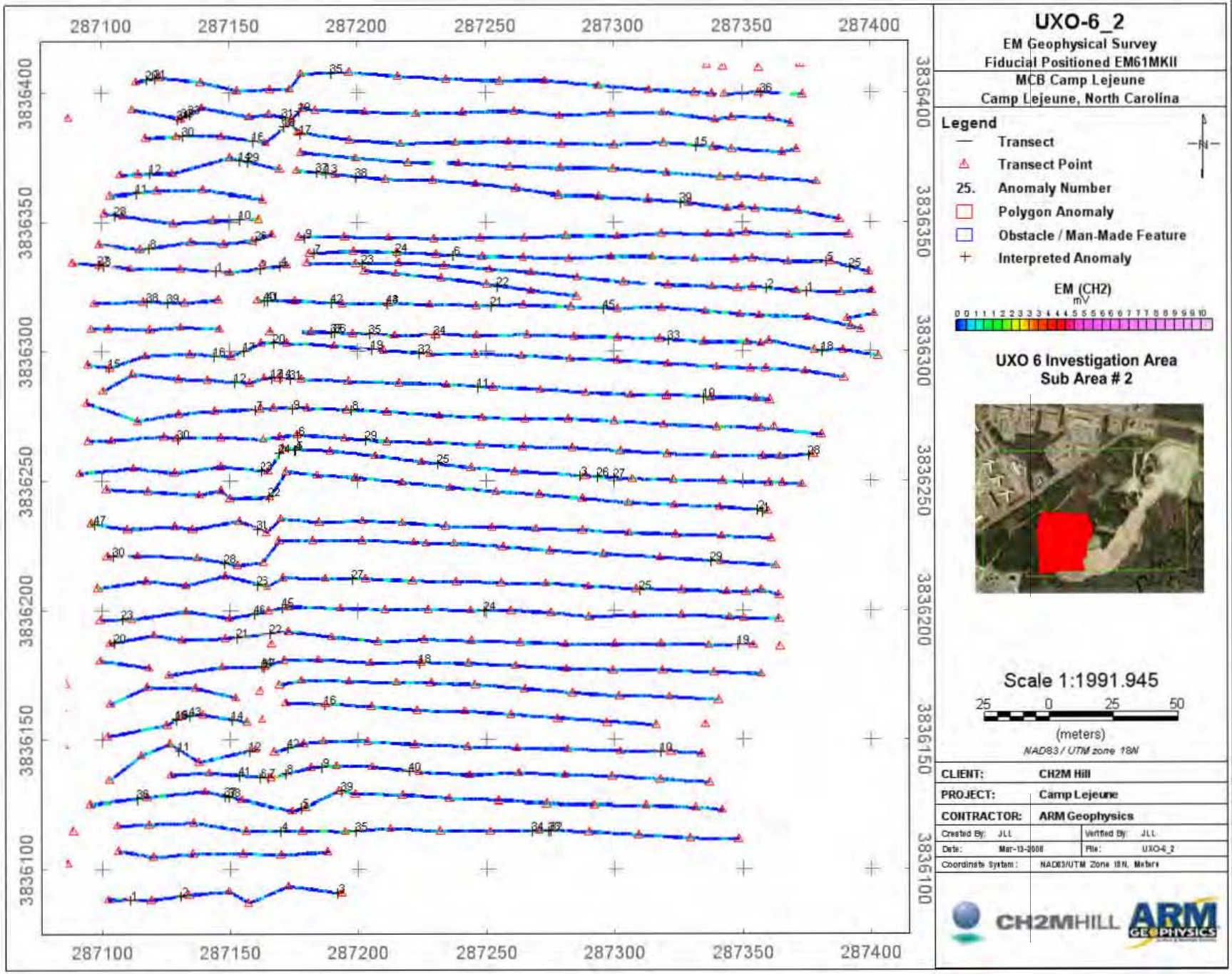


Figure 16 – UXO-6-2 Target Map

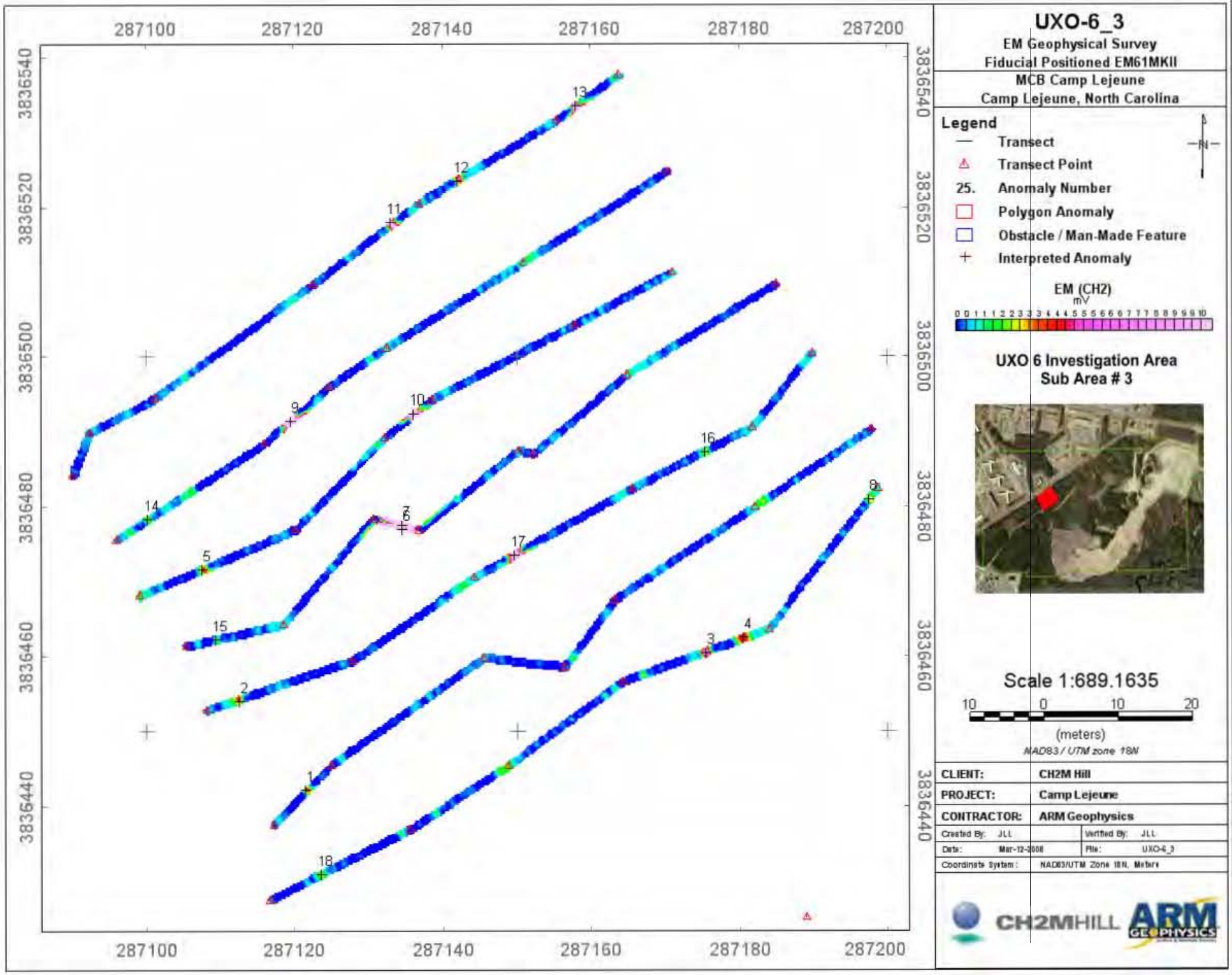


Figure 17 – UXO-6-3 Target Map

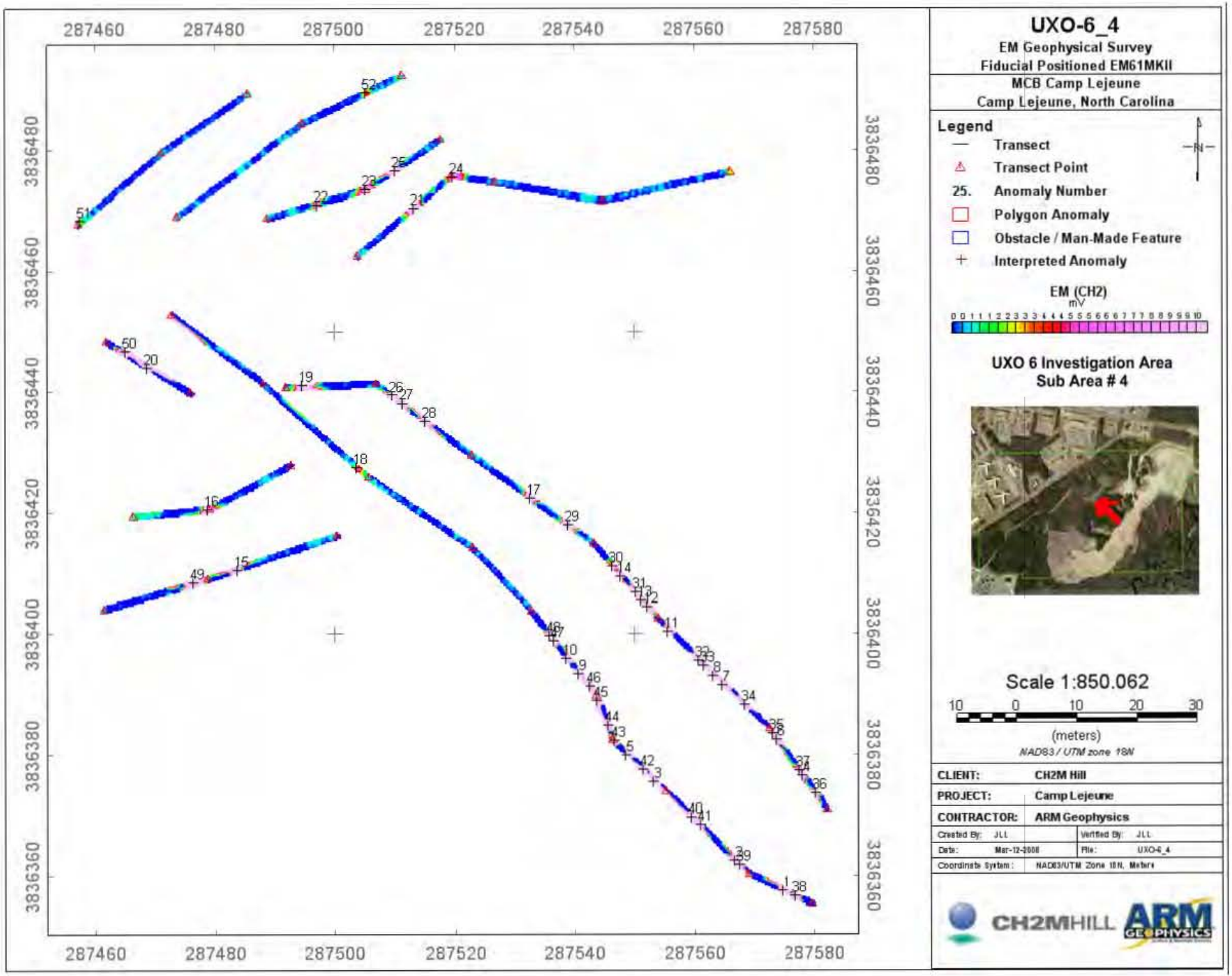


Figure 18 – UXO-6_4 Target Map

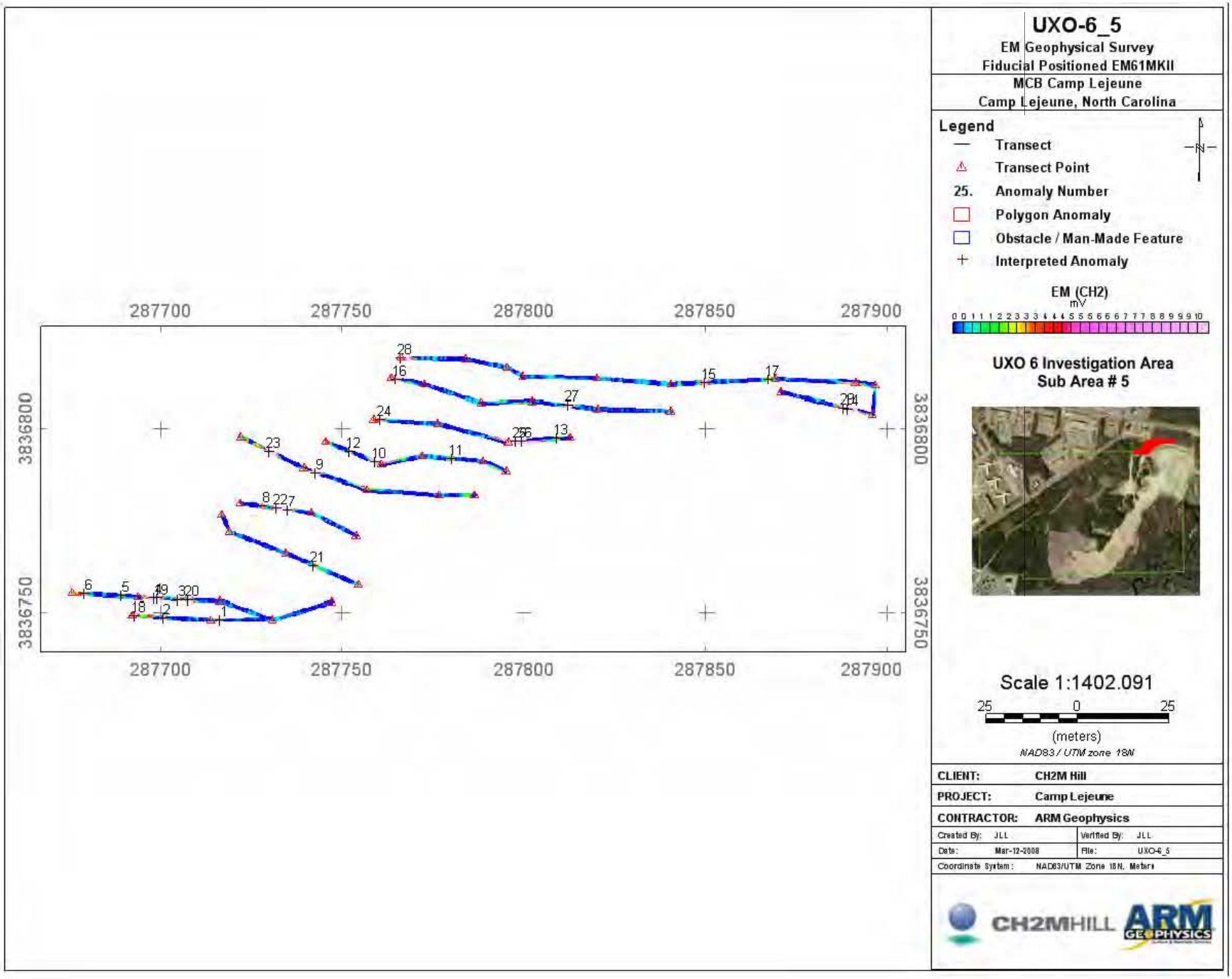


Figure 19 – UXO-06_5 Target Map

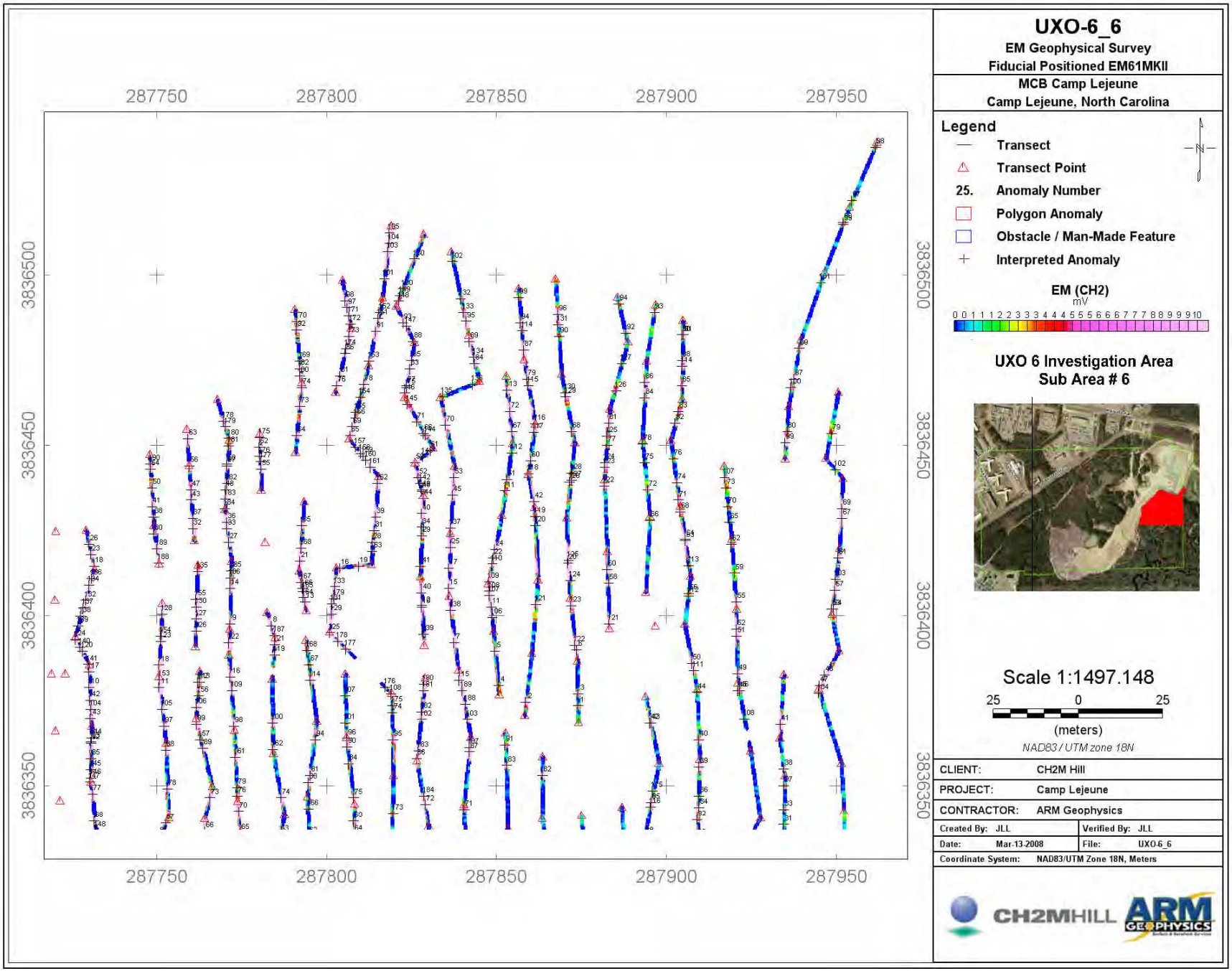


Figure 20 – UXO-06_06 Target Map

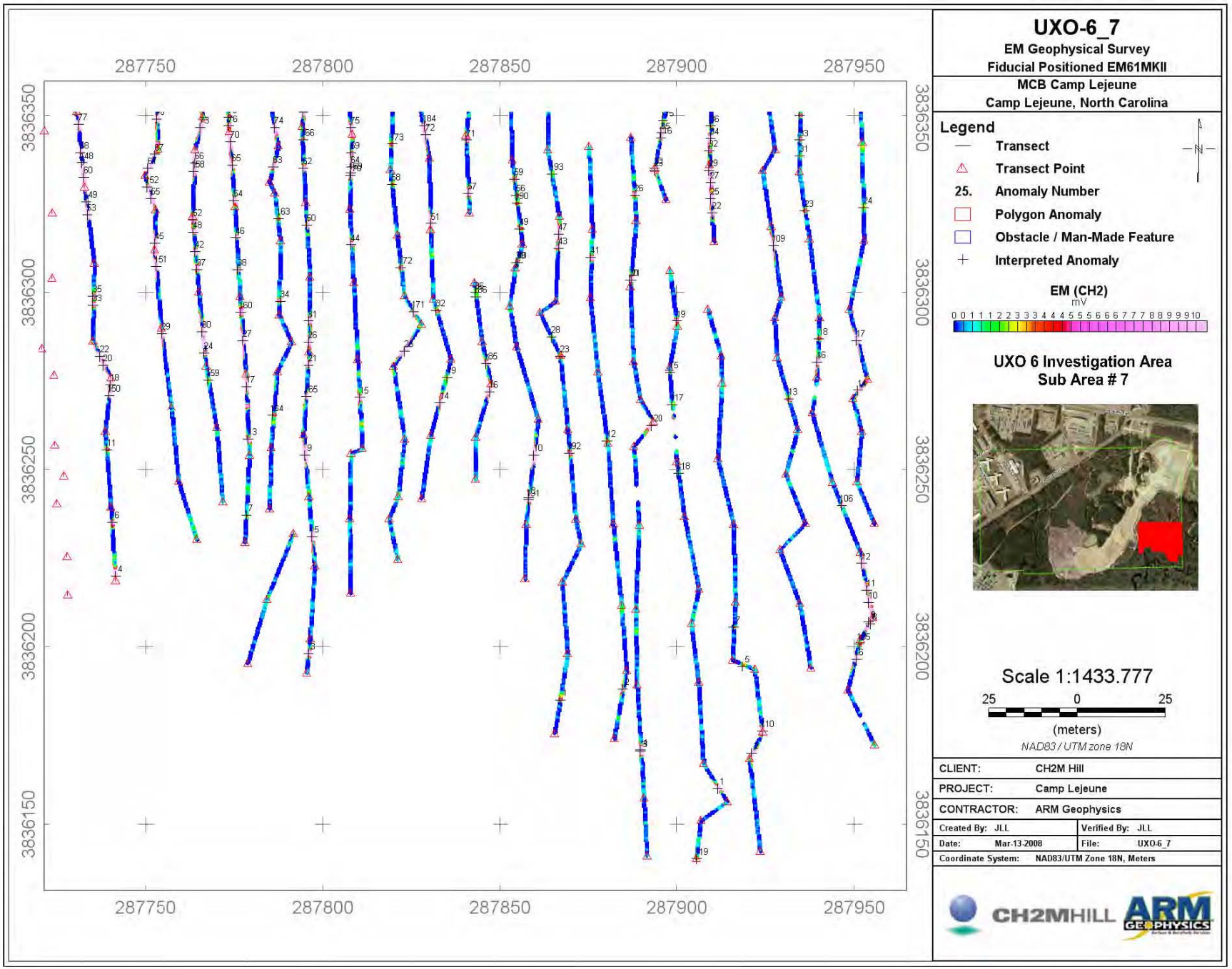


Figure 21 – UXO-06_7

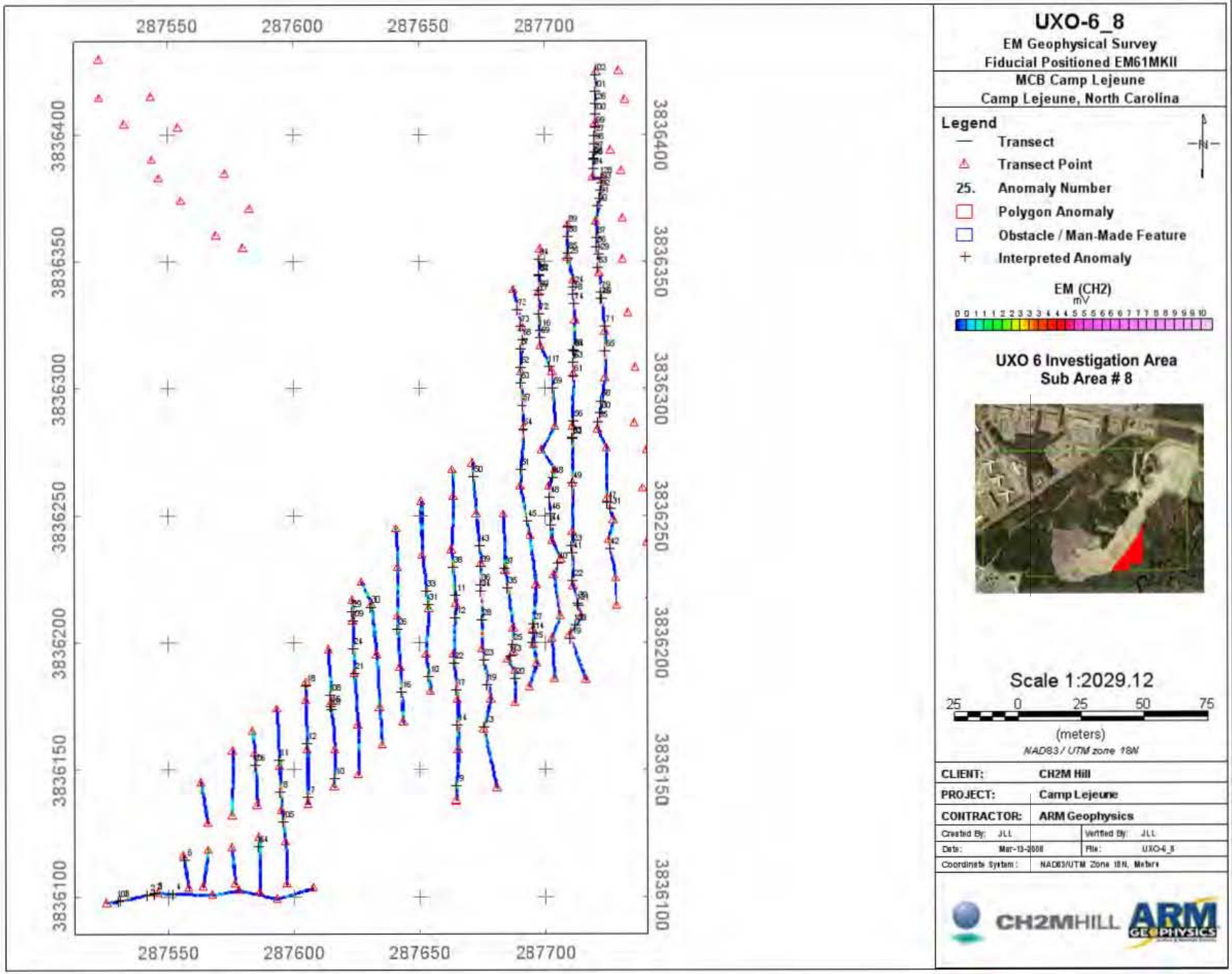


Figure 22 – UXO-06_8 Target Map

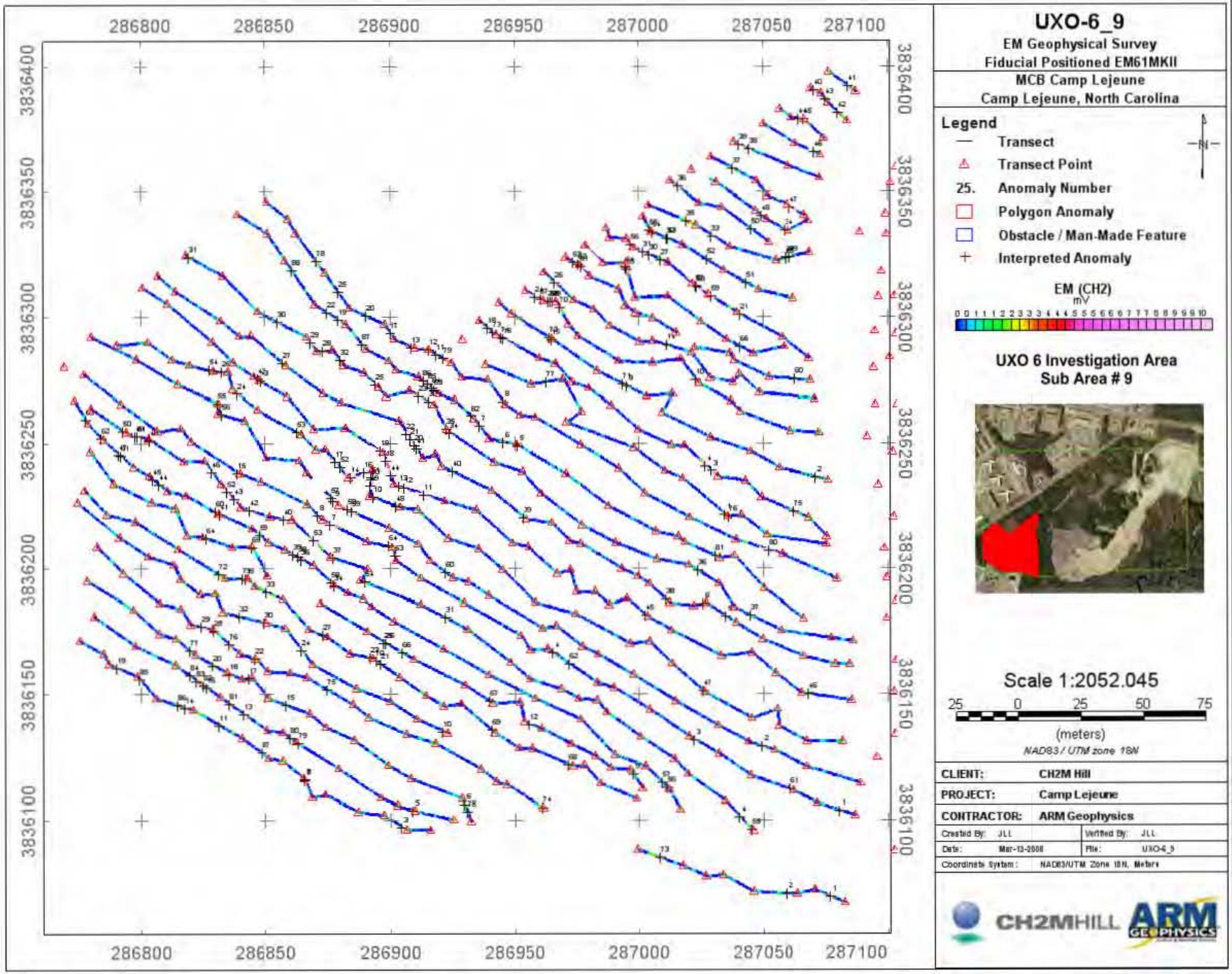


Figure 23 – UXO-06_09 Target Map

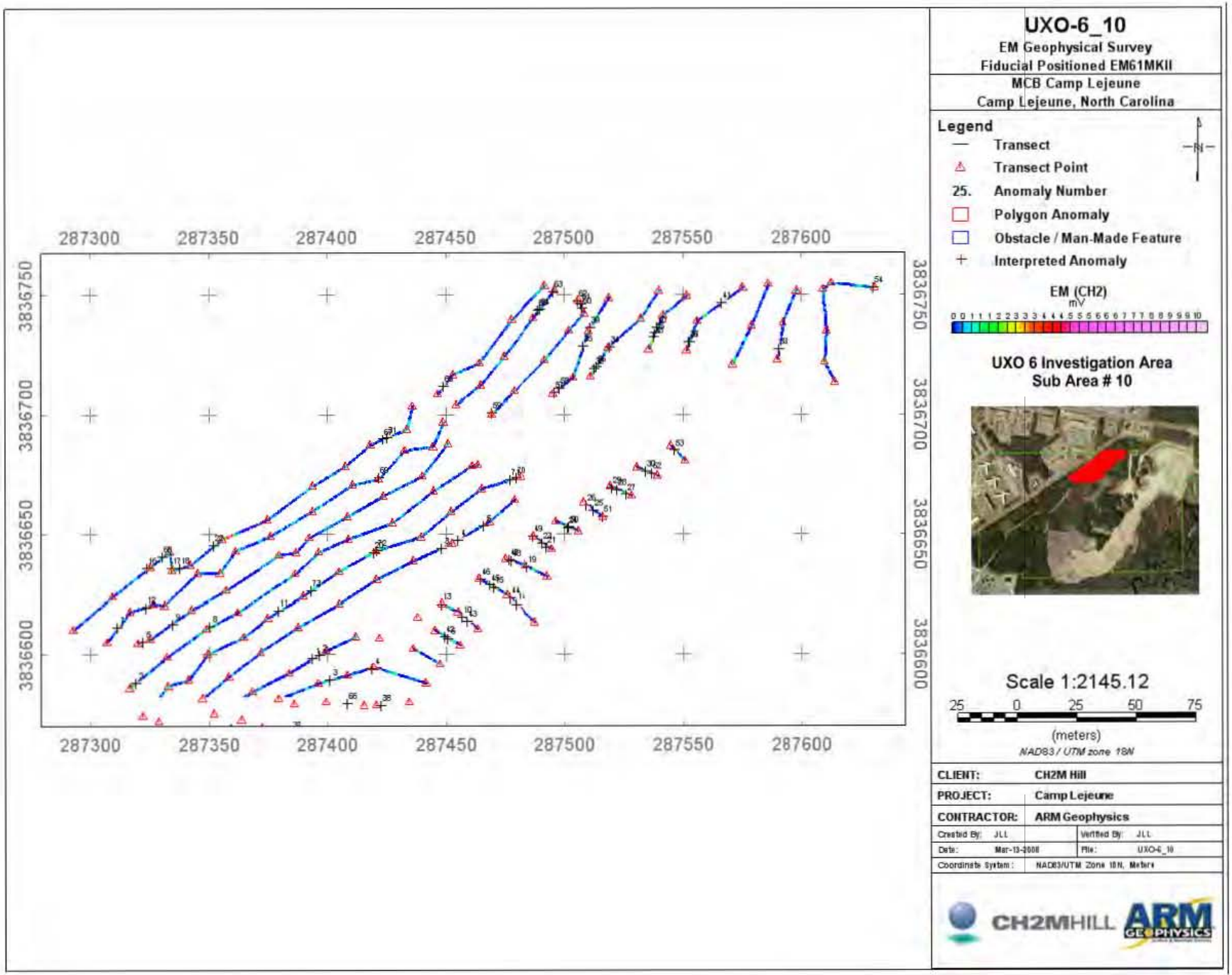


Figure 24 – UXO-06_10 Target Map

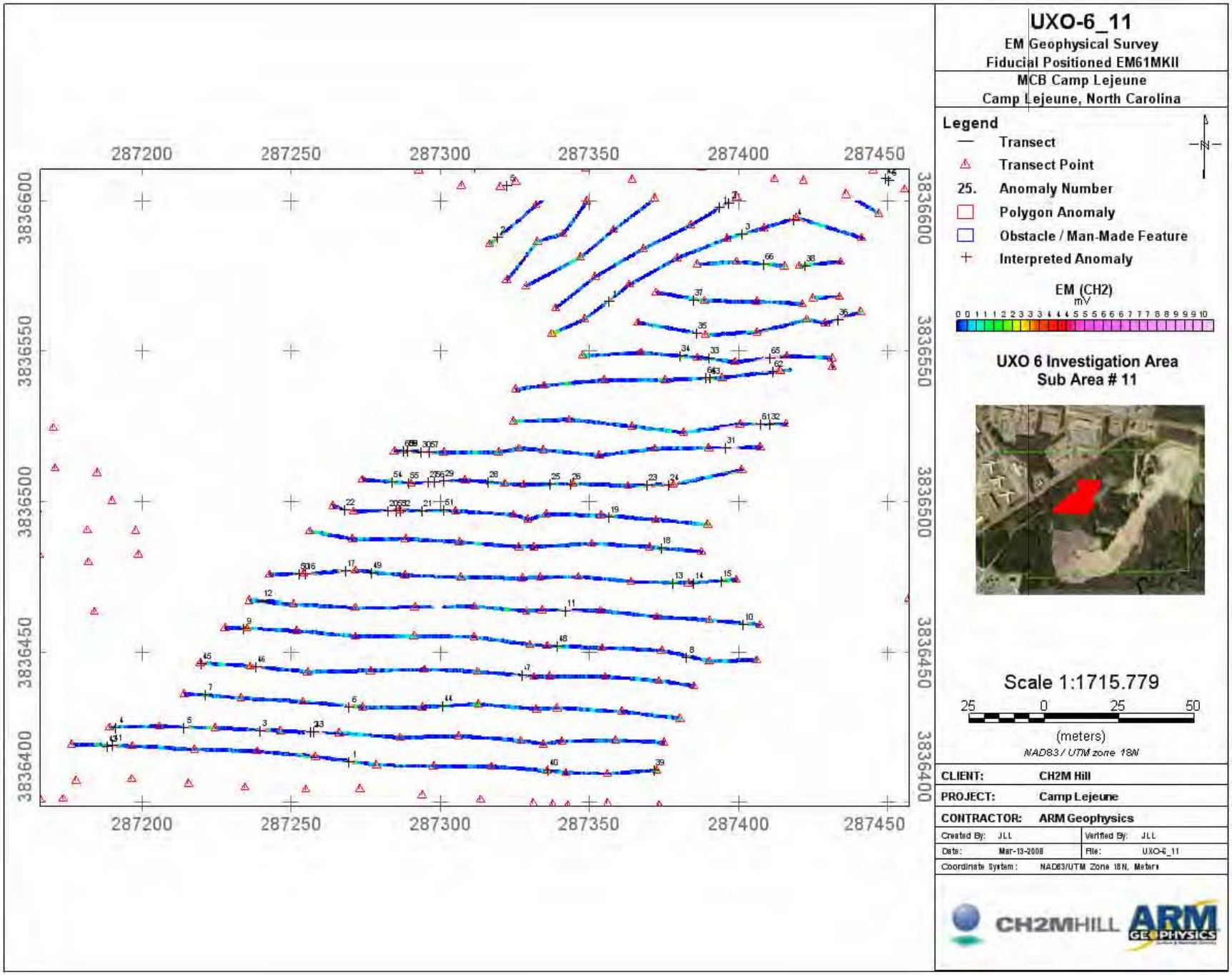


Figure 25 – UXO-06_11 Target Map

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Subsurface Geophysical Surveys

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

GEOPHYSICAL INVESTIGATION REPORT

Northern Boundary Investigation Area of Site UXO-03
Former Practice Hand Grenade Range
&
Former Tear Gas Chamber 2nd Marine Division
Marine Corps Base (MCB) Camp Lejeune, North Carolina

Task Order 29

Dates of Investigation:

January 20th – February 3rd, 2009

FINAL SUBMITTAL
February 26th, 2009

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Appendix A: GPO color contour maps
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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
MILCON	Military Construction
MOA	Master Ordering Agreement
MR	Munitions Response
MRP	Munitions Response Program
mV	Millivolts
NAD83	North American Datum of 1983
NSRS2007	National Spatial Reference System of 2007
QA/QC	Quality Assurance / Quality Control
QC	Quality Control
RTS	Robotic Total Station
SI	Site Inspection
SOPs	Standard Operating Procedures
TO	Task Order
UTM	Universal Transverse Mercator

1.0 INTRODUCTION

NAEVA Geophysics, Inc. (NAEVA) was contracted by AGVIQ/CH2M HILL Joint Venture II to conduct Digital Geophysical Mapping (DGM) of the Northern Boundary Investigation Area of Site UXO-03 Former Practice Hand Grenade Range and the Former Tear Gas Chamber 2nd Marine Division at Marine Corps Base (MCB) Camp Lejeune, North Carolina. Field operations were conducted from January 20th to February 3rd, 2009.

1.1 BACKGROUND AND OBJECTIVES

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). A previous investigation was conducted by NAEVA on both sites in July 2007 in support of a focused SI mapped transects across approximately 5 percent of both sites. In order to clear these areas for future military construction (MILCON) the current investigation expands on previous work to conduct 100% coverage mapping of the two sites to detect and map subsurface metal associated with potential MEC.

1.2 SCOPE OF WORK

Geophysical investigations were completed for both the Former Tear Gas Chamber and UXO-03 according to the scope of work and work plan addendums. DGM efforts were accompanied by a quality control (QC) plan in order to establish confidence in the accuracy of the geophysical data.

All data were to be processed, interpreted and delivered to the CH2M HILL Project Geophysicist on the schedule and in the formats specified in the DGM Master Ordering Agreement (MOA).

1.3 SITE LOCATION AND DESCRIPTION

The two sites selected for mapping under Task Order 29 (TO-29) are the Northern Boundary Investigation Area of Site UXO-03 Former Practice Hand Grenade Range (ASR Site 2.78) and the Former Tear Gas Chamber 2nd Marine Division (ASR Site 2.204).

The northern boundary investigation area of UXO-03 is located north of Birch Street between Holcomb Blvd and McHugh Blvd in the Hadnot Point area and is approximately 6.75 acres in size. A small jurisdictional wetland area is present in the southeast. Prior to vegetation clearance the area was heavily wooded, though was cleared of brush and small trees (less than 6 inches in diameter) by another contracted company prior to geophysical mapping. Remaining trees are large, old-growth pine and deciduous generally at least 60 feet high, preventing the use of global positioning systems (GPS) for data positioning. The topography is generally flat, sloping

downward to the north and east, with a few isolated trenches in the southeast. Data collection was bounded on the west, north, and east by the investigation boundary and on the south by the northern boundary of the former practice hand grenade range, which removes just under 1 acre from the investigation area as previously covered by transects.

The Former Tear Gas Chamber site is located on the west side of Sneads Ferry Road, south of Lyman Road and the Hadnot Point area. It is circular in shape, approximately 160 meters in diameter and 5 acres in size, including 0.8 acres of jurisdictional wetlands in the central to western part of the site. Vegetation is similar to that at UXO-03 with thick brush remaining in the marshy areas around the wetlands and creek. Topography is gently rolling with a more prominent hill to the west, surrounded by wetlands. Data collection was bounded by the site boundary, or the edge of cleared vegetation.

2.0 EQUIPMENT

2.1 GEONICS EM61-MK2

The geophysical instrument used for the investigation at MCB Camp Lejeune is 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 (i.e., 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 two 1 meter by 0.5 meter air-cored coils, a digital data recorder, batteries and processing electronics. The EM61-MK2's transmitter generates a pulsed primary magnetic field, which then induces eddy currents in nearby metallic objects. The receivers either measure the eddy currents at three distinct time intervals in the bottom coil and one time interval in the top coil or four intervals in the bottom coil if no top coil measurements are recorded. For the work at MCB Camp Lejeune the latter method was chosen. Earlier time gates provide enhanced detection of smaller metallic objects. Secondary voltages induced in both coils are measured in millivolts (mV). The arrangement of coils is such that there is a vertical separation of 40 cm from the ground to the bottom coil. Assuming accurate data positioning, target resolution of approximately 0.5 meters can be expected. The data are collected using

Geonics' EM61MK2 program and temporarily stored in a Juniper Allegro CX data logger prior to downloading to a laptop computer.

2.2 TRIMBLE S6 ROBOTIC TOTAL STATION

Trimble's S6 Robotic Total Station (RTS) is used to acquire positional data with the EM61-MK2. It is an alternative to using a Global Positioning System (GPS) and is best suited for use in open areas adjacent to buildings or trees that could block satellite signals. The S6 is a total station with the ability to track in real time the movement of a prism via a laser. The S6 consists of a "gun" (the base) and a 360° prism. The base is either set up over a known point and back-sighted to another known point or set up on an unknown point and back-sighted to two or more known points, called a resection. The latter method is generally preferred as it allows for the best base location for each grid. The servo-equipped gun tracks the prism and the positions are sent via radio link to a handheld computer (Trimble TSC2) that sends a data string of Easting, Northing, and elevation via a serial cable to the Allegro CX. The data is logged real time with the EM61-MK2 data into the NAV61MK2 program.

3.0 METHODOLOGY

3.1 DGM SURVEY ACTIVITIES

Prior to commencing DGM, the two sites were cleared of vegetation and a licensed surveyor contracted by AGVIQ/CH2M HILL placed wooden stakes on 25 meter centers. These stakes divide the base-wide munitions response (MR) 50 meter grid system to better aid in local control when establishing survey grids. Grid coordinates at the two sites are in the new NAD83 (NSRS2007) datum. A note about the datum: there will be a small shift if trying to compare data collected in an older datum versus the new datum, on the order of 1 to 2 feet. As the grid corners placed by the surveyors kept the coordinates' last two significant digits on the 50s (presumably to preserve convenient numbering for the MR grid system), the grid corner coordinates will be the same, but their location on the ground is different. To set up a grid, metric measuring tapes were run from stake to stake and ropes with marks painted every 0.75 meters were stretched perpendicular to the tapes. This setup of straight lines allows the operator to walk with a close enough line spacing to ensure some overlap of the coil on adjacent lines.

The method of surveying at UXO-03 and the Former Tear Gas Chamber was the EM61-MK2 in wheel mode configuration. Wheel mode was tested in a Geophysical Prove-Out (GPO, see Section 5.1) and the general flatness of the terrain without many mounds or ruts allowed for its

use on the two sites. When readings were triggered by the odometer wheel a measurement was taken approximately every 10 centimeters; when operated in automatic mode with the RTS the standard rate of 10 readings per second was used.

3.1.1 Wheel Mode

In wheel mode, the EM61-MK2 bottom coil (which contains both a transmitter and receiver coil) is mounted on two manufacturer supplied 40 cm wheels and has four plastic spacers which are used to separate the top coil from the bottom coil. A tripod for mounting a positioning system (GPS antenna or RTS prism) can be attached to the top coil. When no real-time positioning system is used (i.e. collection using line and fiducial), and since measurements in 4-channel mode are only taken from the bottom coil receiver, the top coil is not needed and was removed during fiducial collection to reduce system weight. A cap is fitted to the inter-coil connector to short out the pins expecting top coil readings.

3.1.2 Positioning Configurations

Due to the remaining tree cover obstructing a clear view of the sky, using GPS was not possible. A Robotic Total Station (RTS) was tested in the GPO per the Geophysical Prove-Out Work Plan and attempted on site, but the size and number of trees resulted in too many gaps in the data where readings could not be interpolated. When the prism passes behind an obstruction the gun will attempt to pick it back up on the other side, and if the data collector remains logging the data should interpolate through the gap in positioning updates. However, due to the diameter of the trees (anywhere from 6 inches to over 2 feet), the gun would lose lock on the prism and commence a search routine whereby the EM61 operator would have to pause collection, back up to the tree, regain target lock, and resume collection. This effectively creates data gap “shadows” behind every large tree stretching away from the RTS. Moving the gun further away from the grid reduces the apparent width of the trees, but the problem is further compounded by placing more trees between the gun and prism, in addition to local topography becoming an issue.

It was determined that the data quality using RTS would be too poor to meet the project data quality objectives (DQOs) as stated in the scope of work and Master GPO Work Plan. Because of this concern fiducial positioning was used on the entire gas chamber site and the majority of UXO-03, with the exception of grids near the road. Figure 4 shows collection at UXO-03 using RTS positioning. The station was set up using a resection as the tripod was not placed on a grid corner stake.

When in fiducial mode, in order to maximize control over positioning, tapes running along the line direction are made as straight as possible and the ropes with painted marks are lined up based

off of one tape. This creates a grid of parallel ropes spaced roughly every 10 meters on which fiducial markers are entered into the data. Using the measuring tapes, start and stop stations for each line are recorded. Whenever an obstruction is hit, such as a tree, the stop station and reason for the line break is noted, the operator moves to the other side of the tree (no line deviations are made) and a new line is created at a new start station. Using known UTM (Universal Transverse Mercator) coordinates for each stake, local coordinates recorded for each grid setup can be warped to geodetic coordinates in the data processing phase.

3.2 DATA PROCESSING AND INTERPRETATION

3.2.1 Data Storage and Initial Editing

EM61-MK2 data are temporarily stored in an Allegro CX data logger using Geonics EM61MK2 software version 1.11 and then downloaded into a laptop computer for further on-site processing using Geonics DAT61MK2 version 2.37 and Geosoft Oasis Montaj software version 7. Data collected with RTS positions used NAV61MK2 software version 1.22.

Daily logs and grid field notes were input digitally into a handheld PDA, while survey report forms were filled out by hand and scanned digitally at the end of the day. Initial data processing was performed by the field team, which included reviewing the data for integrity, repeatability, and data density issues, positioning the data based on the field notes and creating XYZ files for each grid and QC test for use in further processing the geophysical data. If an issue with a file was 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 (NSRS2007) 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 vs. 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 vs. 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, as 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 target selection was performed on final processed data from Channel 2 of the bottom coil of the EM61-MK2.

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

Each target list provides a Target ID, Grid ID, Easting (x) and Northing (y) UTM coordinate location for each target, the recorded peak response in millivolts, and any processor comments. The target IDs were prioritized by designating the highest amplitude response as the number one target in each grid.

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 the former tear gas chamber site took place from January 22nd to January 27th after January 21st was spent surveying the GPO. Work had been scheduled to begin on January 20th, however winter weather prompted the closure of MCB Camp Lejeune to all non-essential personnel. Work at UXO-03 was conducted between January 27th and February 3rd. The former tear gas chamber consists of 17 50 by 50 meter grids and approximately 4.2 surveyed acres; UXO-03 of 20 grids and 5.75 surveyed acres for a total of 37 grids and approximately 9.9 surveyed acres. This acreage is greater than originally scoped due to wetland coverage at the former tear gas chamber being smaller than expected and the size of UXO-03 being larger than reported. Table 1 (at the end of the text) provides a breakdown of acreage and targets by grid and grid block.

Efforts were made to cover 100% of the area where feasible. The most common data gaps occur around trees, with other gaps for stumps and a few trenches over which the ground was too steep to walk. Data collection was stopped at the boundary as flagged by the surveyors, generally to the edge of cleared vegetation. In the southwest corner of UXO-03 data collection stopped at the edge of Birch Street. Other than no work performed on the first day, due to snow and ice, no delays occurred during data collection.

Plates 1 and 2 display the EM61-MK2 bottom coil mosaic maps for the Former Tear Gas Chamber and UXO-03, respectively.

4.2 MOBILIZATION AND SITE SETUP

Prior to mobilization an Activity Hazard Analysis (AHA) and Standard Operating Procedures (SOPs) were provided to CH2M HILL, and all personnel had current 8-hour and/or 40-hour OSHA HAZWOPER training.

NAEVA mobilized one field crew to Jacksonville, North Carolina on January 19th. Vegetation had been cut and survey control stakes installed prior to arrival on site. Following one day standby and one day to complete the GPO, DGM was begun at the former tear gas chamber on January 22nd. Site-specific health and safety briefs were given each morning by the CH2M HILL site manager. No equipment was staged on site.

4.3 DGM SURVEY ACTIVITIES

4.3.1 Former Tear Gas Chamber 2nd Marine Division

The Former Tear Gas Chamber (Figure 5), part of the Munitions Response Program (MRP) site UXO-01, was only used as a tear gas chamber, and as such no actual munitions are expected. However, canisters of tear gas and riot control grenades may have been used. Per the results of the geophysical investigation in July 2007 further investigation was recommended.

On 4.2 acres surveyed, 569 targets were selected above the targeting threshold of 3 mV in Channel 2, a target density of 135 per acre. All targets were point source, meaning no polygon targets around large areas of saturated response. The only cultural objects present on the site were wooden platforms used by trail bikers (Figure 1). No MEC-related surface debris was observed. The ground was quite smooth, with little debris from trees and brush remaining, which greatly aided the data quality.

Approximately 0.8 acres of the 5-acre site are covered by jurisdictional wetlands that were not cleared of vegetation. They form a T-shape on the western portion of the site and bound a hill in grids F4D9B6 through B8. Anomaly distribution across the site would be considered light and scattered, with a few clusters of higher response. Higher concentration of metal is present in the south in grid F4D9C6, on the eastern boundary, and in grid F4D9D7. The latter is in the vicinity of wooden planks with nails that likely formed some kind of bridge and was partially ground up during the vegetation clearance. The concentration of metal in F4D9C7 is in a location that appeared to have contained a wooden bicycle platform also destroyed or removed during vegetation clearance. The eastern edge of the site is approximately 10-20 meters from Sneads Ferry Road and may contain higher levels of cultural debris. A large response at the southern end of F4D9C6 was caused by corrugated metal used in culverts, which had been relocated and may have left remnants elsewhere in the grid.

Noise levels were generally low. Power lines run along the east side of Sneads Ferry Road, approximately 50 meters from the eastern boundary of the Former Tear Gas Chamber area. Noise issues are noted in the data delivery reports and on the QC plots.

4.3.2 Northern Boundary Investigation Area of Site UXO-03

The Northern Boundary Investigation Area of Site UXO-03 (Figure 6) is a former practice hand grenade range used to train troops in how to use hand grenades. Since it was not an actual hand grenade range the level of MEC present is expected to be very low, however further investigation was recommended prior to any MILCON activities. Work at UXO-03 was begun immediately after completing the Former Tear Gas Chamber. 5.75 acres were surveyed within the northern

boundary investigation area of UXO-03, a rectangle approximately 140 meters by 170 meters in size. Approximately 0.13 acres within the boundary were not cleared of vegetation due to wetlands and a creek in the southeastern corner of the site. 368 targets were selected, a density of 64 targets per acre, just under half that at the Former Tear Gas Chamber. A roughly linear concentration of anomalies is apparent trending northeast through grid E5I2A4. This is closer to the creek, which contained cans and other trash, so it is possible such debris was deposited if the water level was higher. Some of these anomalies surround a large gap in the data around a trench, possibly suggesting some sort of disposal pit (see Figure 3).

Ground conditions were similar to those at the Former Tear Gas Chamber, though brush and trees were not mulched to the same extent in the southern and eastern parts of the site. Logs, branches, and small trees were dragged out of the grid prior to collection to lessen bouncing of the coil. There is slightly more cultural development at UXO-03 than at the Former Tear Gas Chamber site. Power lines run across the survey area in the southwest corner; a power pole and electric box are present in grid E5H2I3. Noise levels were actually lower underneath the power lines than had been seen further away, possibly due to variations in power load on the lines or a shutoff of power (electrical company trucks were seen in the area). Some munitions related items were found on the surface, including a machine gun bipod and several belts of small arms blank ammunition.

4.4 DATA PROCESSING AND INTERPRETATION

All data were processed as described in-depth in Section 3.2. Part of the process included analyzing channel decay in order to identify possible noise or other false positive responses. Any anomalies suspected as originating from noise (e.g., channel readings out of phase) and not metallic objects are noted in the processing reports included on the CD. These reports list down-line data density statistics, leveling, lag, and gridding parameters used in processing each grid block. Processors examined all data prior to NAEVA 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 - GEOPHYSICAL PROVE-OUT (GPO)

Prior to mapping the two sites, a GPO survey was completed. The purpose of surveying the GPO is to demonstrate the effectiveness of all instrumentation, methods, and personnel prior to the initiation of fieldwork and document the site-specific capabilities of a DGM system. Serial number identifications were recorded for all instrumentation (i.e. data logger, coils, EM61-MK2 electronics), and the GPO was mapped using the same personnel, equipment, and methodologies employed for the DGM survey.

The existing GPO location in Knox Park used by NAEVA for all prior work at MCB Camp Lejeune was used for this project as well. A background survey was not conducted, as the GPO has been in place for several years and many collected datasets exist for comparison. Inert seed items were emplaced by CH2M HILL at various depths and orientations in order to test the detection capabilities of the instrument and establish a targeting threshold for geophysical anomalies. The GPO was originally established using the North Carolina State Plane coordinate system under the NAD83 (1986) datum. Collection under this task order uses the UTM coordinate system with the NAD83 (NSRS2007) datum, so to account for any shift in positions extra lines of data were collected. Both corner stakes and corner flags were present in the ground, and noted on the contour maps (Appendix A), displaying the shift in coordinates that has occurred with the new datum.

The EM61-MK2 was used to survey the GPO twice in wheel mode (see 3.1.1), using RTS and fiducial positioning. The EM61-MK2 was chosen based on its ability to detect small, near-surface ferrous and non-ferrous munitions and its high data 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).

It was determined that a threshold of 3 mV in Channel 2 (the same threshold used in prior work) would detect the MEC items of interest. See Appendix A for color contour maps of the RTS- and fiducial-collected GPO.

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 a bolt secured through the center, see Figure 2), 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. 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, transmitted back to a processor, analyzed, and checked 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 operation for each workday and cables were not disconnected during the day.

Personnel Test: This test checks the response of instruments to personnel and their clothing/proximity to the system. On a daily basis, the instrument was checked for its response to the personnel operating the system. The response was observed in the field for immediate corrective action and transmitted back to a processor, and analyzed and checked 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 personnel test was conducted at the beginning of the survey operation for each workday.

Latency Test: A 10-meter long single survey line was established near the first grid of the day with a trailer hitch ball placed at the center point. A line of data was collected back and forth along the test line prior to daily collection operations to demonstrate consistency in instrument performance (both response and positioning) throughout the course of the survey, with acceptance criteria of ± 20% response amplitude and ± 20 cm positional accuracy.

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.

Six Line Test: This is a standard response test consisting of a pre-determined route (survey line) on or near the site in an area free of metallic contacts. The beginning, midpoint, and end of the line were marked and data were collected along the line. The line was traversed a total of six times as follows: 1) normal data collection speed without a spike at the center point (going North); 2) normal data collection speed without a spike at the center point (going South); 3) normal data collection speed with a spike at the center point (going North); 4) normal data

collection speed with a spike at the center point (going South); 5) fast data collection speed with a spike at the center point (going North); 6) slow data collection speed with a spike at the center point (going South). The Six Line Test was conducted the first time the system was used at the site (at the GPO) with the same acceptance criteria as for the latency test.

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. Any readings outside this range were flagged on the profiles and an associated failure percentage was reported. The following provides a summary of the QC results:

1. **Static Background / Spike Test:** Almost all static and spike tests were within acceptance criteria; stable, repeatable, and without spikes. However, the first spike test on January 22nd failed when the CH2M HILL site manager walked too close to the coil. The spike was not noticed while collecting.
2. **Cable Shake Test:** No spikes were observed in any of the tests.
3. **Personnel Test:** No deviation from background response was observed.
4. **Latency Test:** Latency tests were plotted showing the line path and gridded response. A comparison of tests shows that response amplitudes are consistent and test 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 noise in the data.
6. **Six Line Test:** Latency corrected profiles were plotted to evaluate the effect of movement speed on response repeatability and positioning accuracy. Both amplitude and positioning were within tolerance.

In addition to these tests, whenever the RTS was used the prism was mounted on a survey pole and placed on a stake of known coordinates. The reported position was compared to the actual position to check for proper station setup. Positional discrepancies less than 10 cm were accepted.

Most QC tests were well within acceptance criteria. As QC tests were conducted in the vicinity of the associated grids, variations in noise levels are apparent. Especially noisy tests are noted on the data plots as containing influence from power lines. Most static spike tests show an initial drop in response at the beginning of the collection period, likely due to software behavior, as readings were completely stable in monitoring mode, yet when data collection was started the

recorded values dropped. This behavior was observed on multiple occasions but the effect was reduced during data leveling and did not result in any QC failures.

6.0 CONCLUSIONS

Work under TO-29 was completed after one working day for the GPO, 4.5 days for the Former Tear Gas Chamber, and 5.5 days at UXO-03. Mapping activities were slightly slower at the gas chamber site due to its circular shape with many partial grids and having to work around the irregularly shaped wetlands. It was determined after the initial focused SIs of both areas in which NAEVA conducted 5% transect surveys in July 2007 to conduct 100% coverage DGM. There is little reason to perform an absolute comparison between the two datasets, given the time elapsed and heavily trafficked nature of the sites (and a datum shift), however a qualitative analysis highlights the effectiveness of the transect survey in identifying areas of higher metallic concentrations. In particular, the higher density of targets on the southwestern and eastern sides of the gas chamber site. The anomaly density at UXO-03 is approximately half that at the Former Tear Gas Chamber. This may be due to that fact that the surveyed area at UXO-03 was merely the northern boundary of an old training ground rather than housing the structure of a gas chamber; the gas chamber site also includes numerous wooden platforms associated with a bike trail that passes through the site.

While there are a fair number of suspected noise targets, noise levels were not severe enough to adversely affect the detection of actual metallic objects, and there are no areas on the map that exhibit noise saturation. Even at the southern boundary of UXO-03, where data collection passed directly under the lines, noise was only moderate. A slight trace of the overhead line can be seen as a darker shade of gray in E5H2I3.

The majority of data collected on both sites were done using the fiducial method with odometer wheel. While this can be a very accurate method when done correctly, which requires meticulous note-taking and creating new lines at all obstacles, it does have the disadvantage of not displaying the true line path walked by the operator. It is recommended for future projects, if RTS positioning is desired, that the site be clear-cut to remove all line-of-sight obstructions.

Since both sites were used as training and education sites rather than live ranges or impact areas, any MEC present is expected to be quite shallow. Practice grenades at UXO-03 would have been thrown and likely recovered, and any tear gas canisters found at the Former Gas Chamber would be similarly shallow unless intentionally buried for disposal, in which case there is apt to be a high enough concentration to be detectable at greater depths. Some trenches and holes are visible

at UXO-03; if any are present at the Former Tear Gas Chamber they have since been filled in. It is probable that any MEC, whether discrete objects in the top foot or so of soil, or items in burial pits, have been accurately located by this geophysical survey.

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.

TABLE 1: GRID STATISTICS

Site	Grid_Block_ID	Grid	Acres Collected	Targets
UXO-03 / FTGC	012109_GPO_RTS	GPO	-	146
UXO-03 / FTGC	012109_GPO_FID	GPO	-	138
FTGC	F4D9D5	F4D9D5	0.00	1
FTGC	F4D9D5	F4D9D6	0.47	31
FTGC	F4D9D5	F4D9D7	0.57	104
FTGC	F4D9D5	F4D9D8	0.51	58
FTGC	F4D9D5	F4D9D9	0.01	0
FTGC	F4D9D5	F4D9E6	0.02	2
FTGC	F4D9D5	F4D9E7	0.14	29
FTGC	F4D9D5	F4D9E8	0.02	14
FTGC	F4D9C5	F4D9C5	0.01	5
FTGC	F4D9C5	F4D9C6	0.60	94
FTGC	F4D9C5	F4D9C7	0.30	45
FTGC	F4D9C5	F4D9C8	0.62	62
FTGC	F4D9C5	F4D9C9	0.07	1
FTGC	F4D9B6	F4D9B6	0.20	37
FTGC	F4D9B6	F4D9B7	0.34	47
FTGC	F4D9B6	F4D9B8	0.30	39
FTGC	F4D9B6	F4D9B9	0.00	0
UXO-03	E5H2I5	E5H2I5	0.31	18
UXO-03	E5H2I5	E5H2I6	0.32	29
UXO-03	E5H2I5	E5H2I7	0.02	4
UXO-03	E5H2I5	E5H2J5	0.62	13
UXO-03	E5H2I5	E5H2J6	0.62	21
UXO-03	E5H2I5	E5H2J7	0.03	2
UXO-03	E5I2A5	E5I2A5	0.62	38
UXO-03	E5I2A5	E5I2A6	0.62	21
UXO-03	E5I2A5	E5I2A7	0.04	1
UXO-03	E5I2A5	E5I2B5	0.18	5
UXO-03	E5I2A5	E5I2B6	0.19	4
UXO-03	E5I2A5	E5I2B7	0.01	1
UXO-03	E5I2A4	E5I2A4	0.62	72
UXO-03	E5I2A4	E5I2B4	0.14	31
UXO-03	E5H2J3	E5H2I3	0.10	11
UXO-03	E5H2J3	E5H2I4	0.31	17
UXO-03	E5H2J3	E5H2J3	0.20	20
UXO-03	E5H2J3	E5H2J4	0.62	29
UXO-03	E5H2J3	E5I2A3	0.18	31
UXO-03	E5H2J3	E5I2B3	0.00	0
TOTALS	**7 Blocks**	**37 Grids**	**9.91**	**937**

* Total acres and targets do not include GPO figures

Figure 1: Grid at Former Tear Gas Chamber showing bike ramp

Figure 2: Board used during QC spike tests

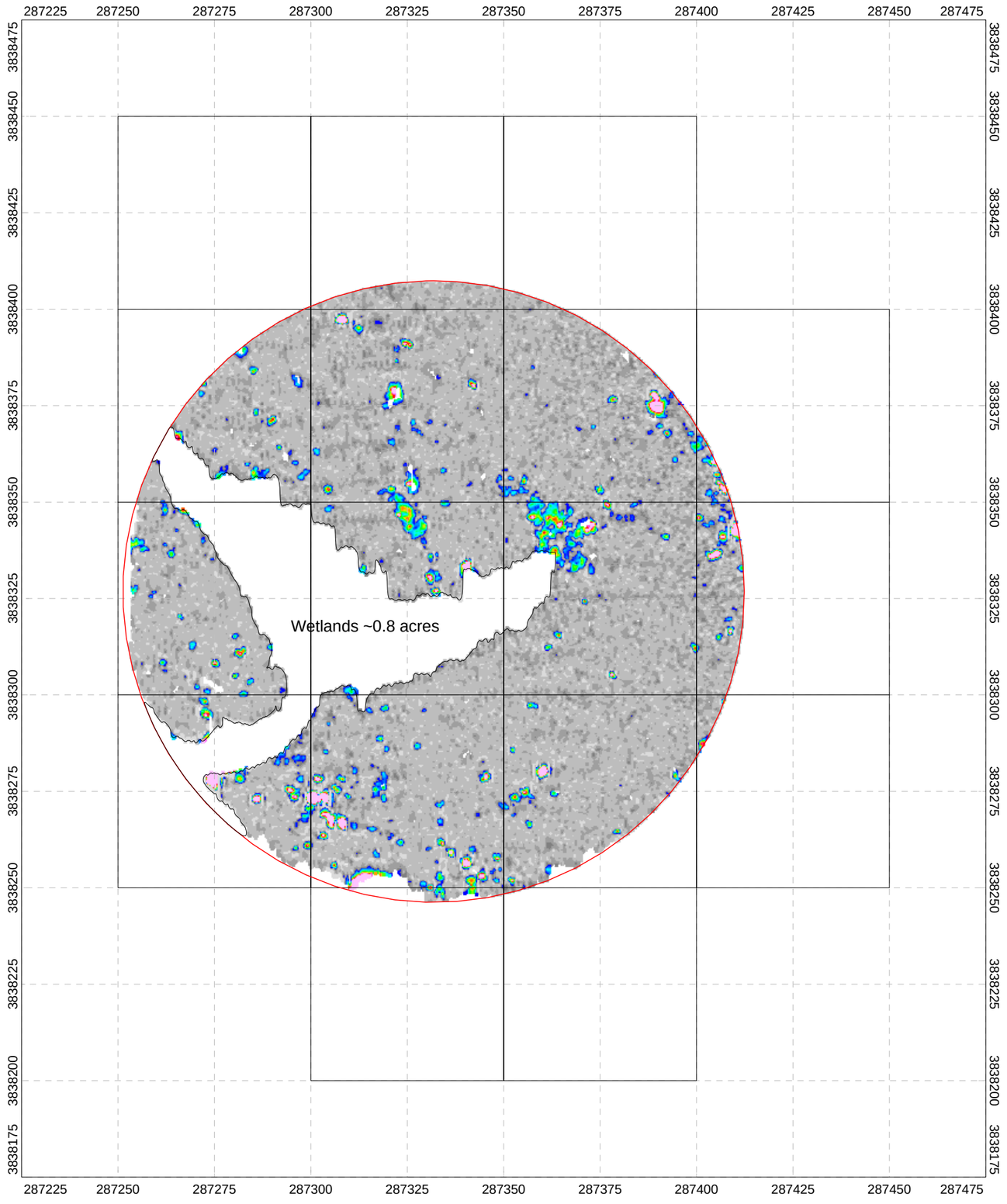
Figure 3: Trench feature at UXO-03 (E5I2A4)

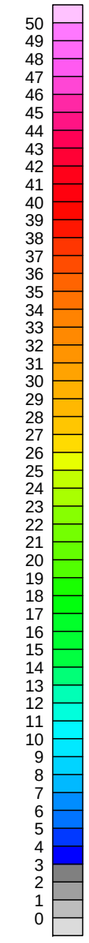
Figure 4: Grid at UXO-03 showing collection using RTS

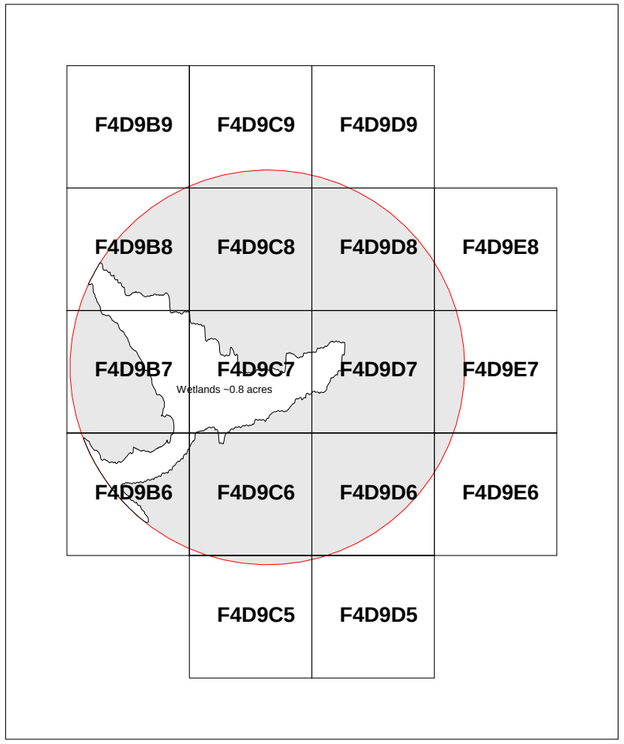
Figure 5: Former Tear Gas Chamber

Figure 6: Northern Boundary of UXO-03

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







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Area of Investigation

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

Scale 1:1200

25 0 25 50

(meters)

NAD83(NSRS2007) / UTM zone 18N

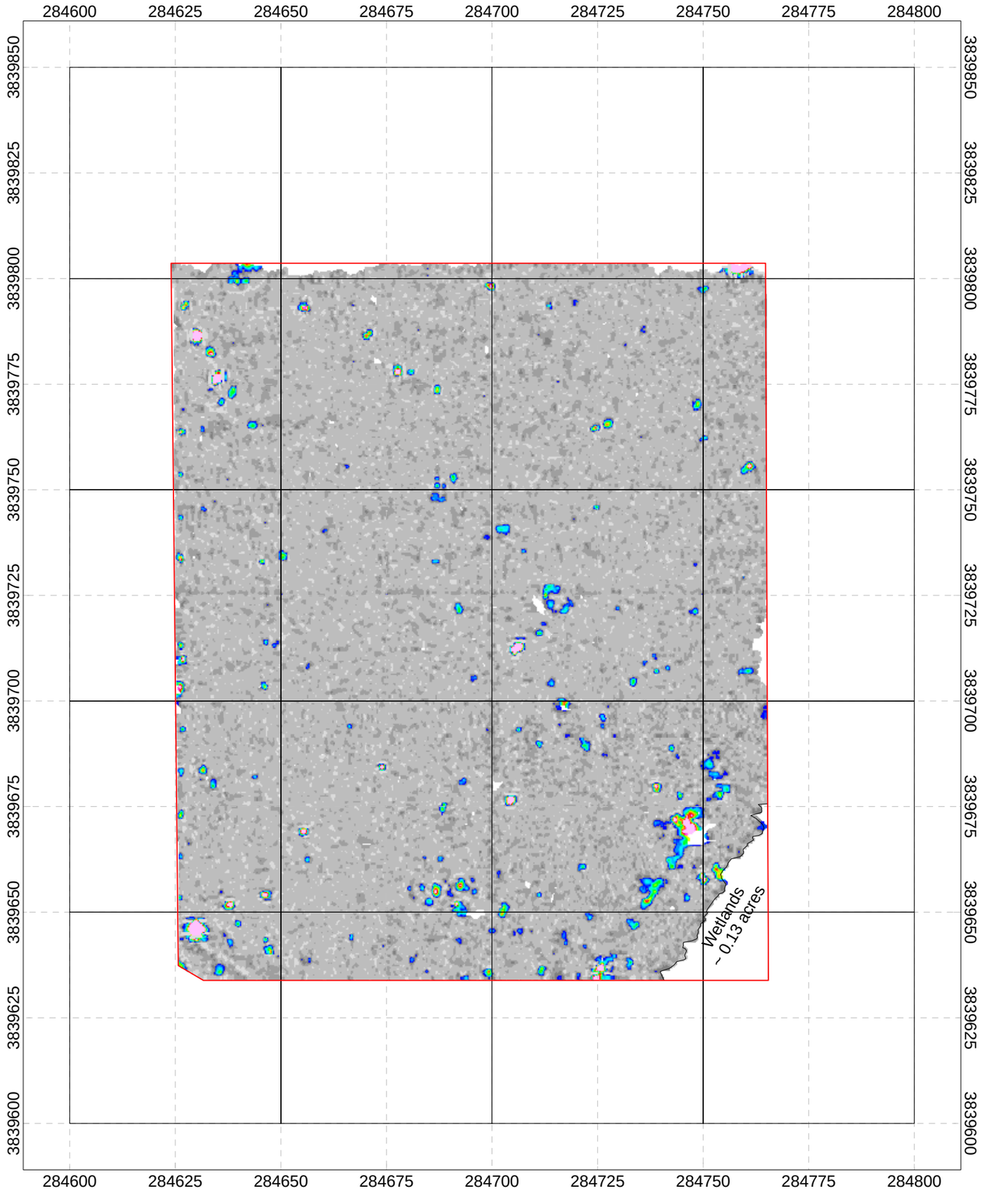
Client: CH2M HILL

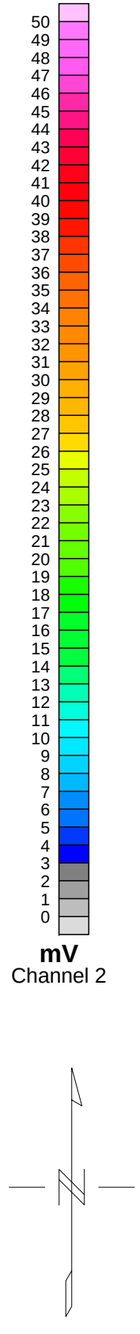
EM61 MK2 Bottom Coil
Mosaic
Task Order (TO) - 29
Former Tear Gas Chamber
Marine Corps Base, Camp Lejeune, North Carolina

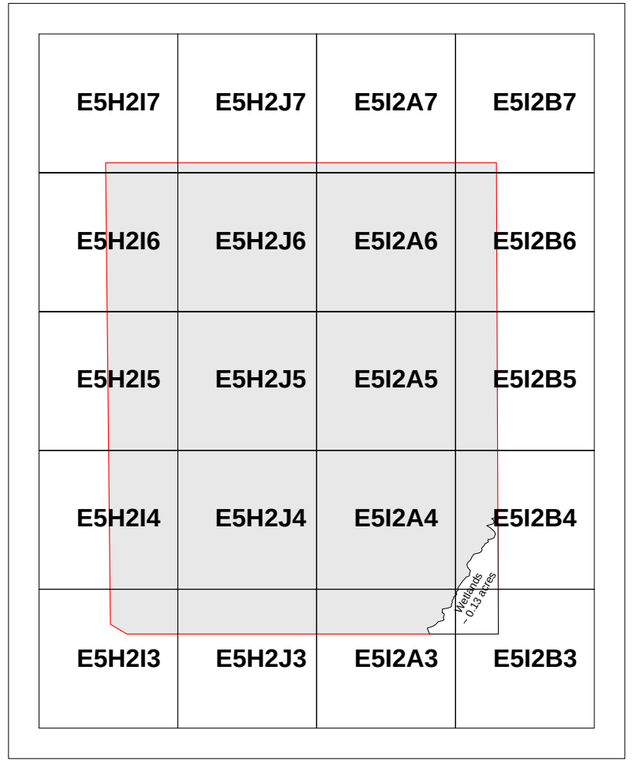
Dates of Survey: 01/22/2009 - 01/27/2009
Date of Map Creation: 01/29/2009

Map Approver: J. Guillard

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







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Area of Investigation

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

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(meters)

NAD83(NSRS2007) / UTM zone 18N

Client: CH2M HILL

EM61 MK2 Bottom Coil
Mosaic
Task Order (TO) - 29
UXO-03 Northern Boundary
Marine Corps Base, Camp Lejeune, North Carolina

Dates of Survey: 01/27/2009 - 02/03/2009
Date of Map Creation: 02/05/2009

Map Approver: J. Guillard

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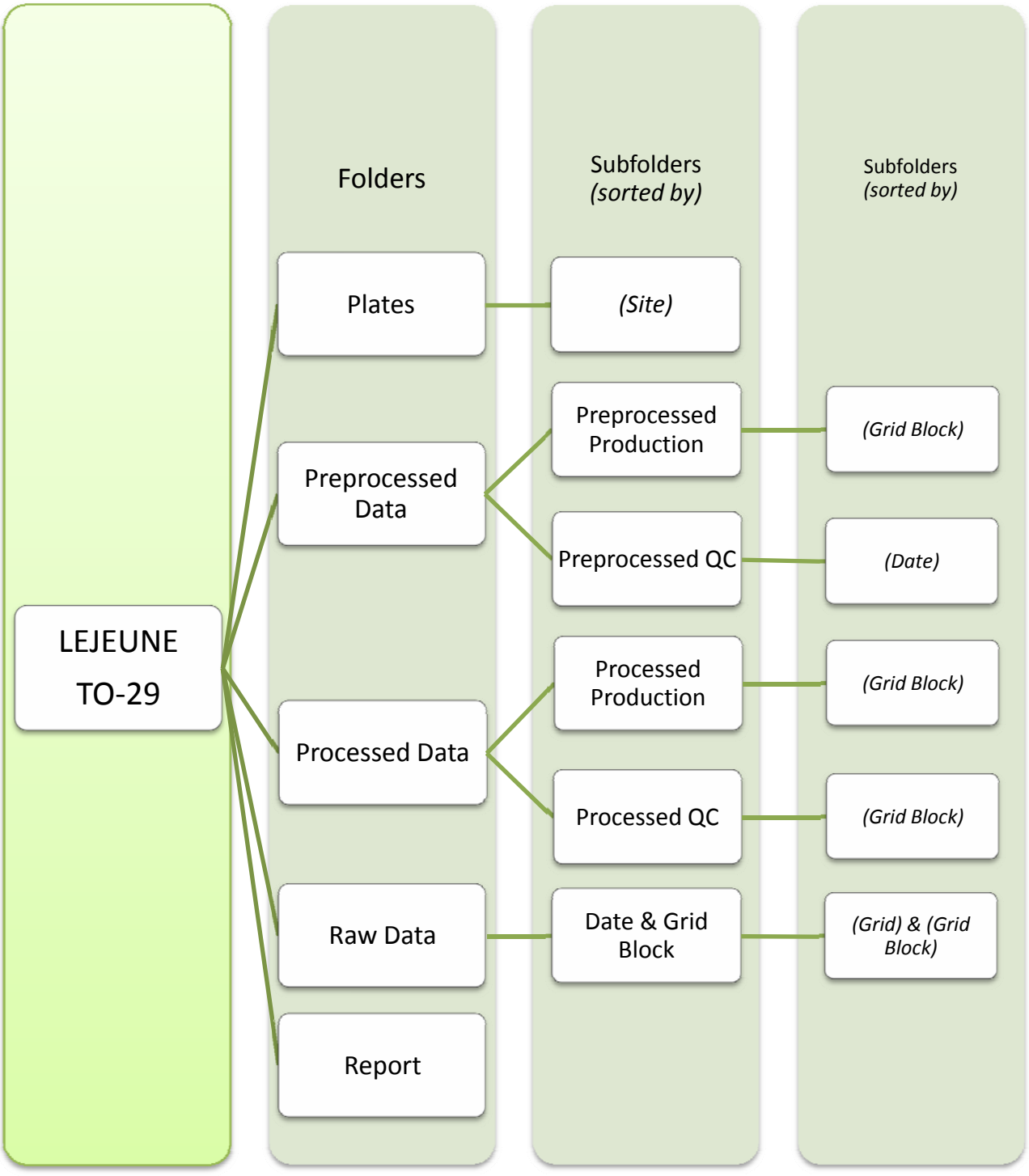

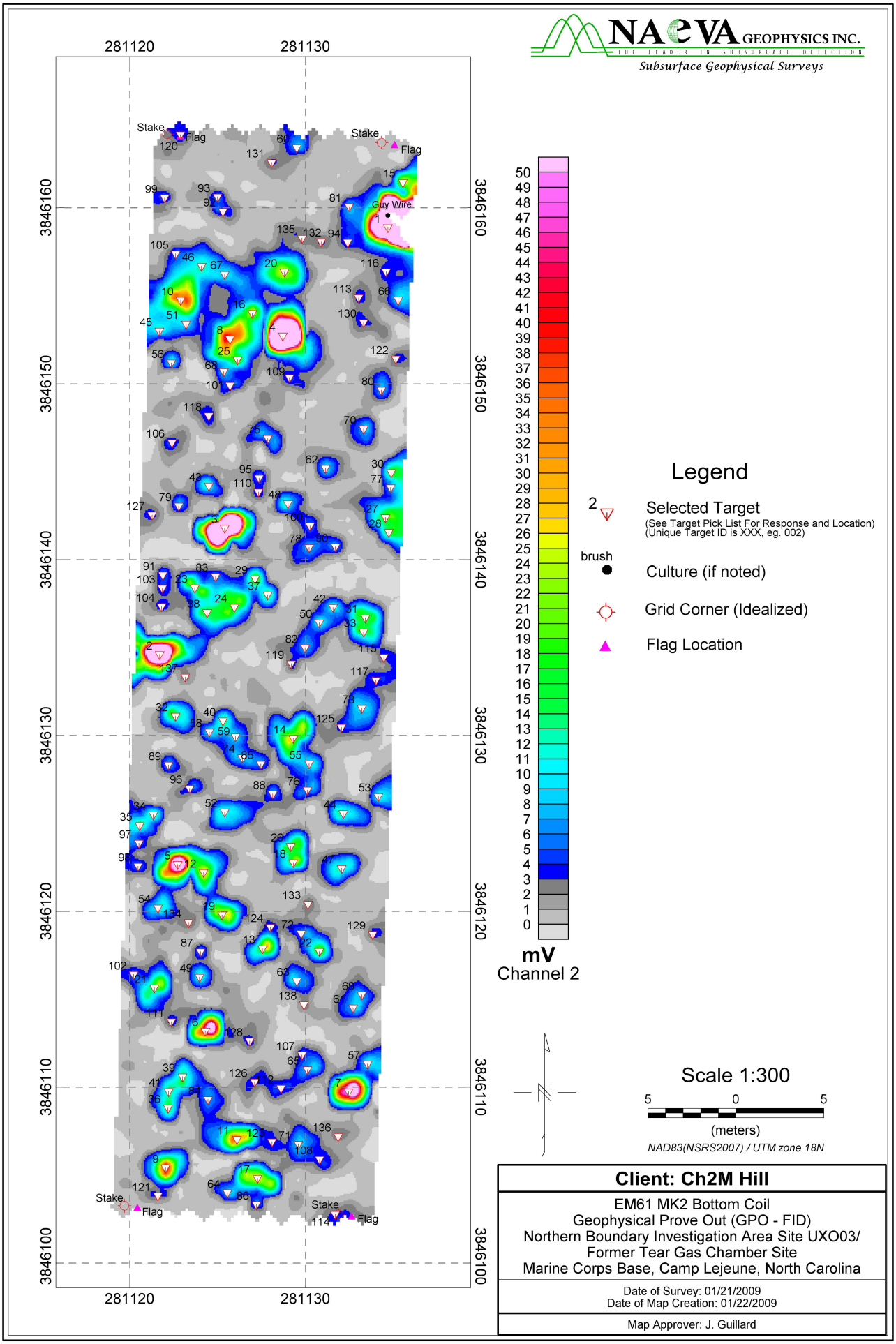
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THE LEADER IN SUBSURFACE DETECTION
Subsurface Geophysical Surveys
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Channel 2
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(Unique Target ID is XXX, eg. 002)
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Culture (if noted)
Grid Corner (Idealized)
Flag Location
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(meters)
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Client: Ch2M Hill
EM61 MK2 Bottom Coil
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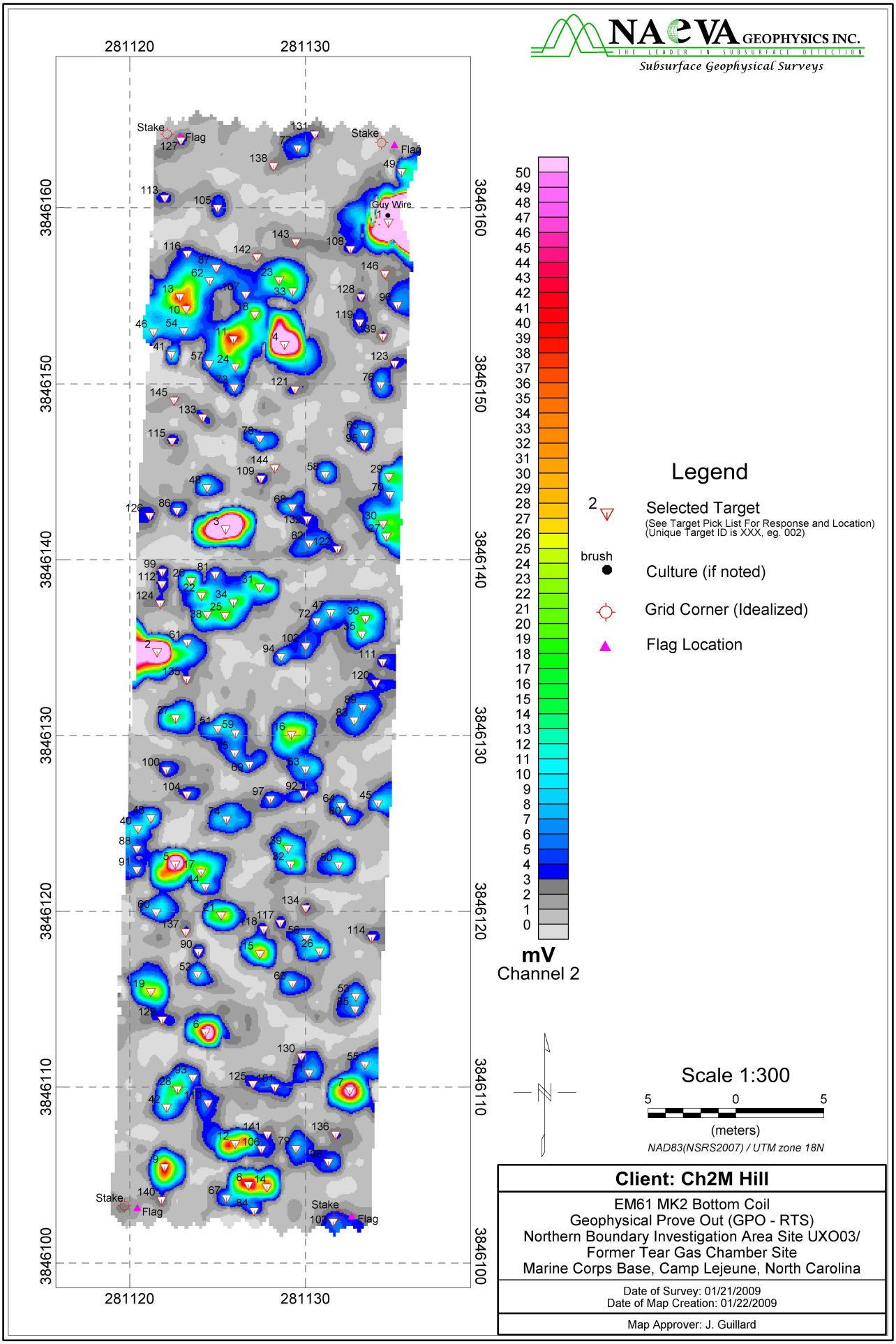
Date of Survey: 01/21/2009
Date of Map Creation: 01/22/2009
Map Approver: J. Guillard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EM61 MK2 Bottom Coil
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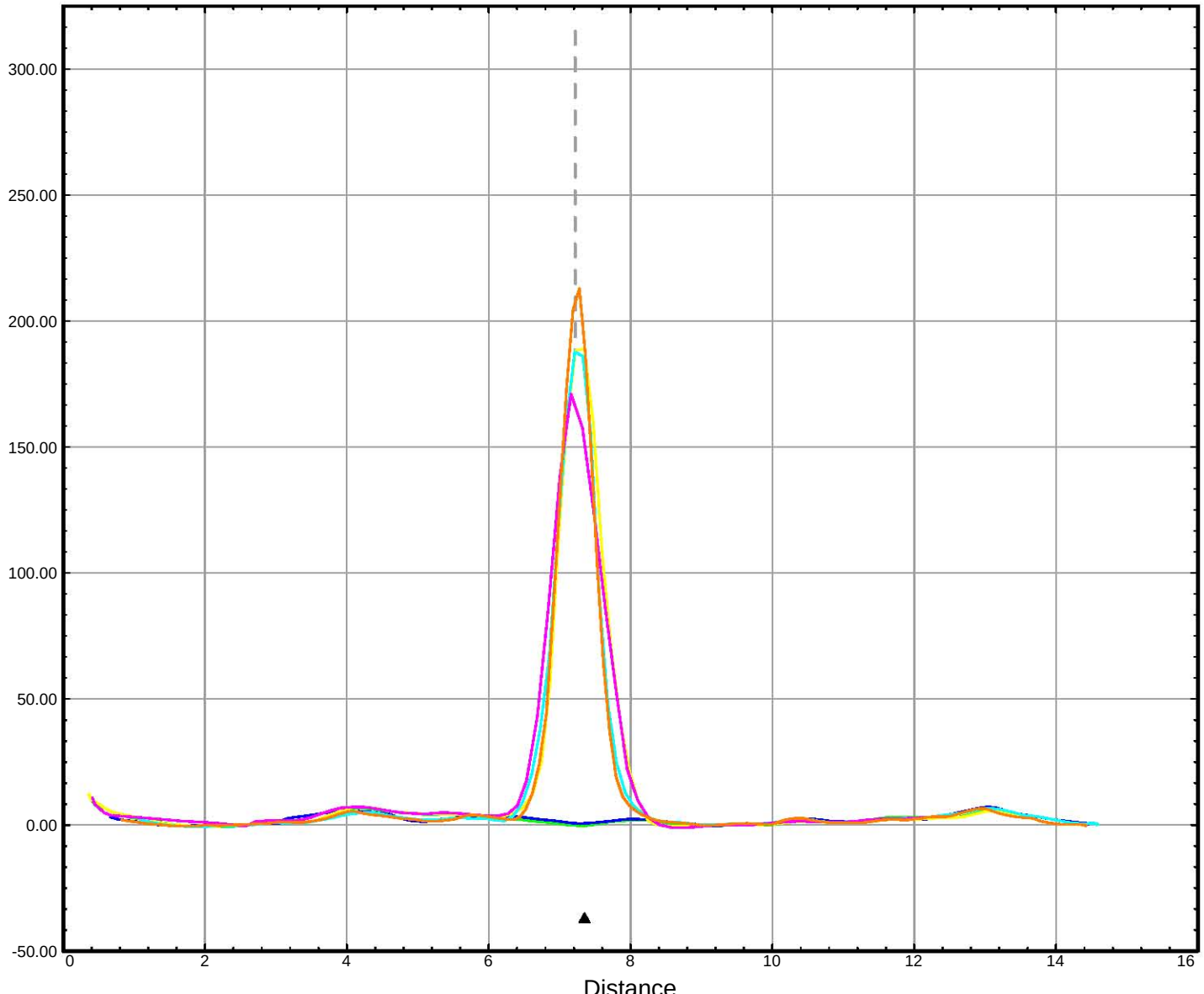
Northern Boundary Investigation Area Site UXO03/
Former Tear Gas Chamber Site
Marine Corps Base, Camp Lejeune, North Carolina
Date of Survey: 01/21/2009
Date of Map Creation: 01/22/2009
Map Approver: J. Guillard

UXO-03 / Former Gas Chamber - Six Line Test



database: Q:\Virginia Office\CH2M HILL\Camp Lejeune\UXO03_Former_Gas_ Channel: Ch2_level_lg

MAP
6 line test

LEGEND

- Normal Pace
- Normal Pace
- Normal Pace with object
- Normal Pace with object
- Fast Pace with object
- Slow Pace with object
- Target position
- Lateral tol. exc.

Proposed distance lag = 0.005
Proposed time lag = 0.005 sec

Map Scale: Scale 1:88.88889 (meters)

N

Grid North: 0°0'0"
Mag North: 0°0'0"

Client: CH2M HILL

Project: Site UXO03 / Former Gas Chamber, Camp Lejeune

Contractor: NAEVA Geophysics, Inc.

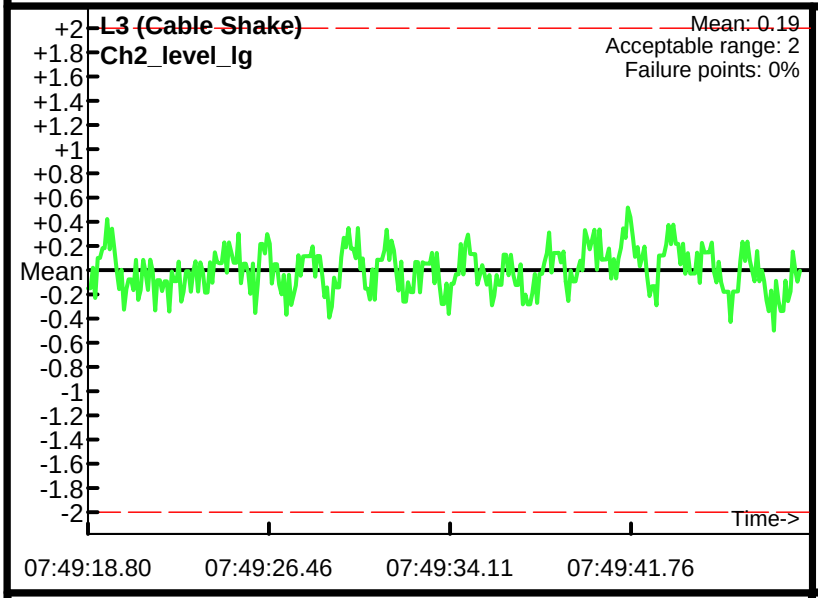
Created by: JG	Verified by:
Date: 01/21/2009	File: 0121QC1_6LineTest
Page number:	Approved:

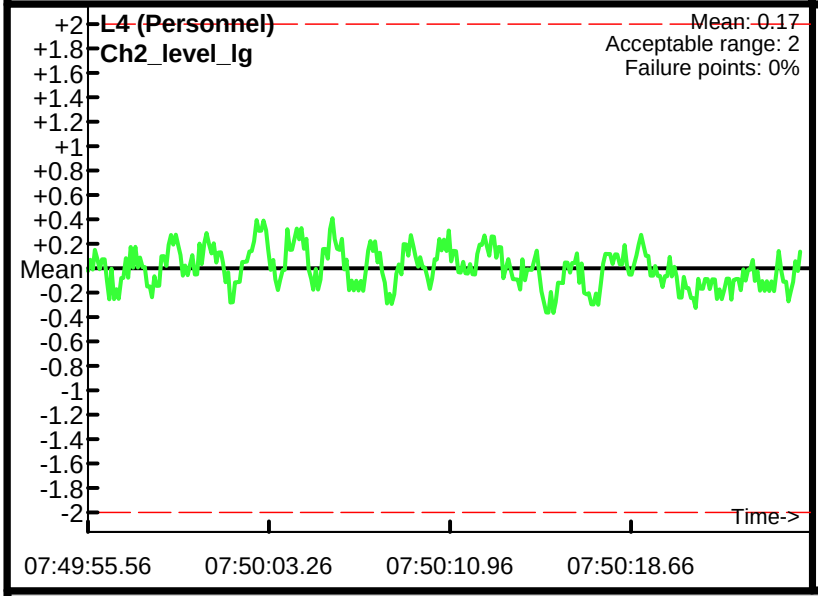
Cable Shake & Personnel Tests

Project: Site TO-29 Camp Lejeune
Equipment: EM-61 Mark II
Grid/Location: Localized QC Area

Instrument Threshold: 20%
Outside range
Acceptable limits

AM test
Operator: GeoA
Date: 2009/01/28





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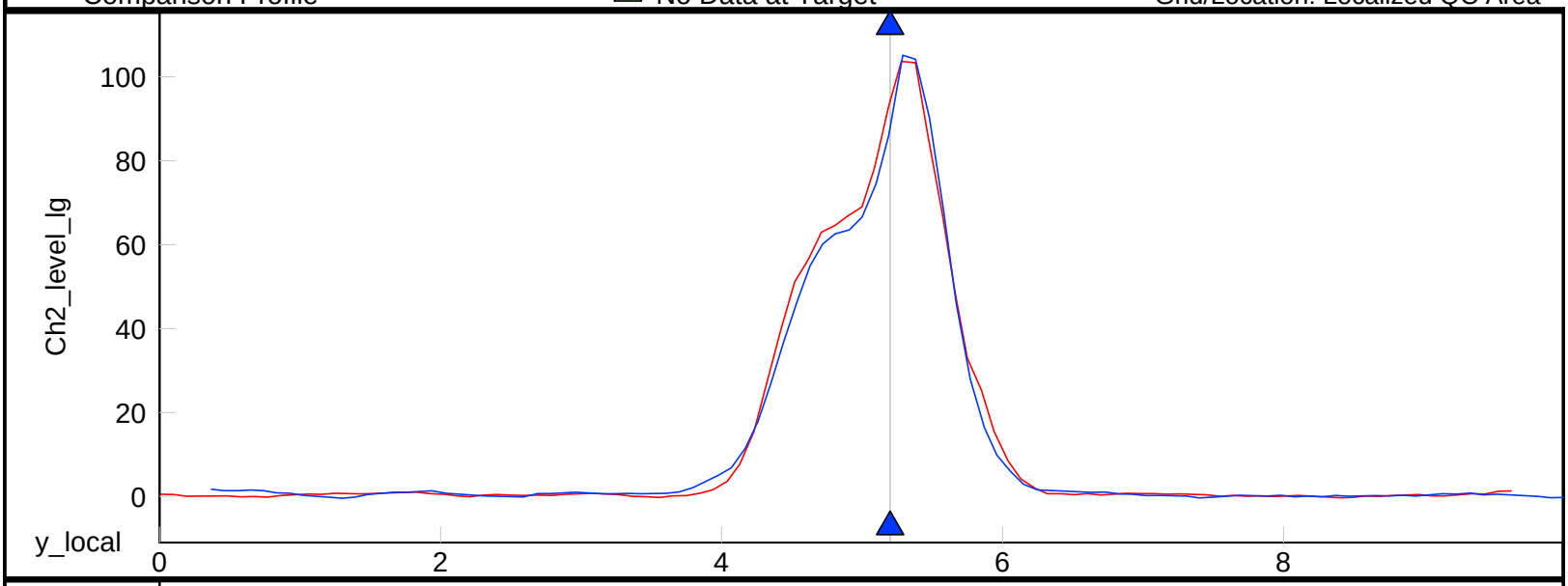
Line Name: L3 L4 L4

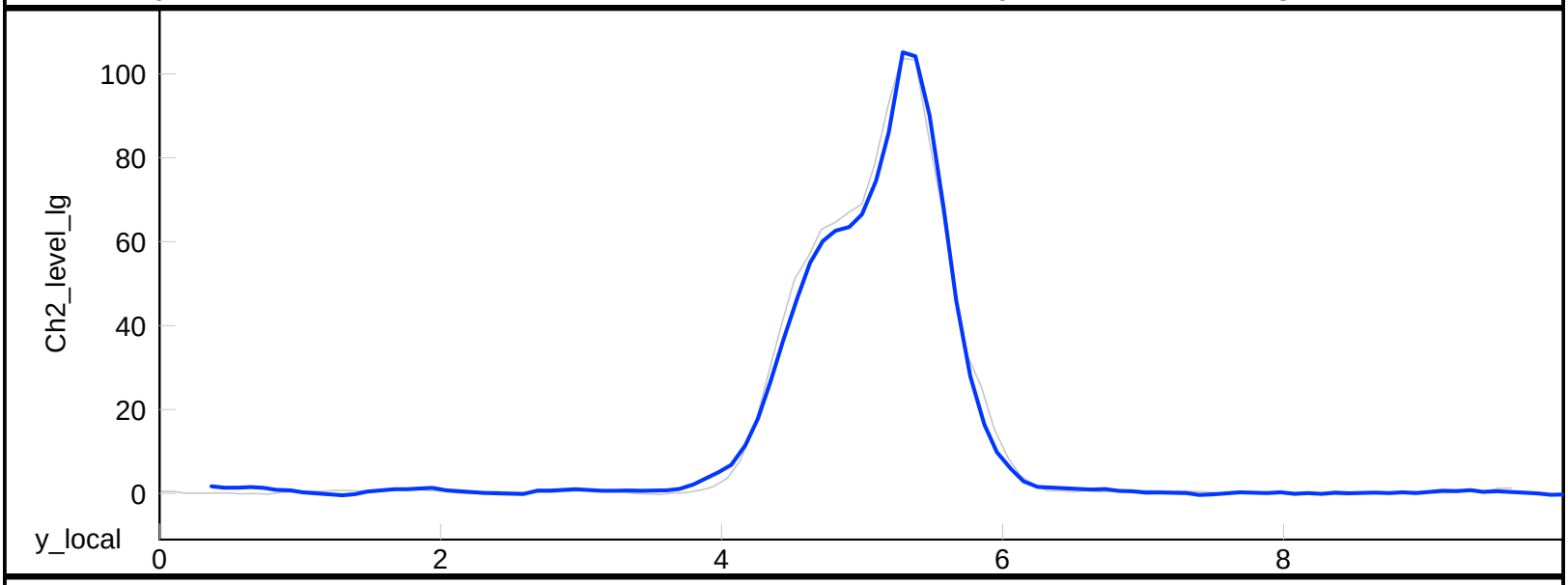
Dynamic Response Test

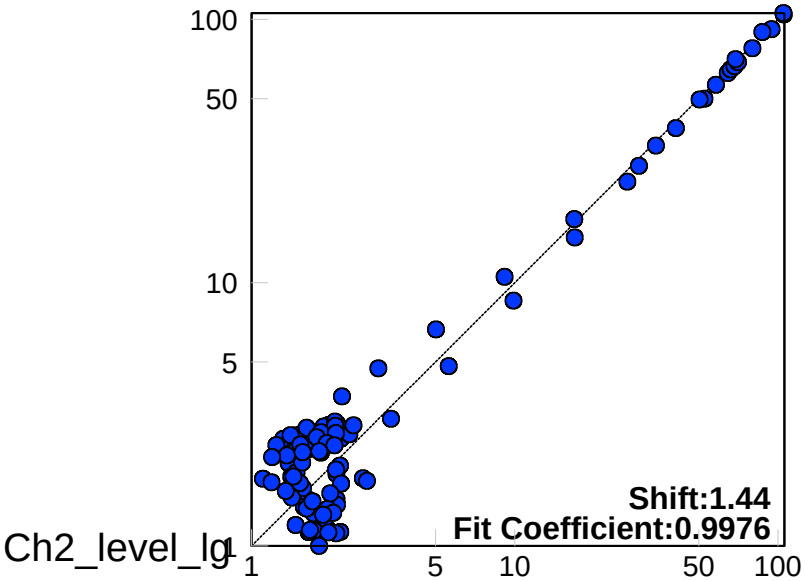
Previous Profiles
Reference Profile
Comparison Profile

Top:First/Bottom:Second Profile
Target Value <= Tolerance
Target Value > Tolerance
No Data at Target

Peak Tolerance(Value): 20(%)
Operator: GeoA
Project: Site TO-29 Camp Lejeune
Equipment: EM-61 Mark II
Grid/Location: Localized QC Area







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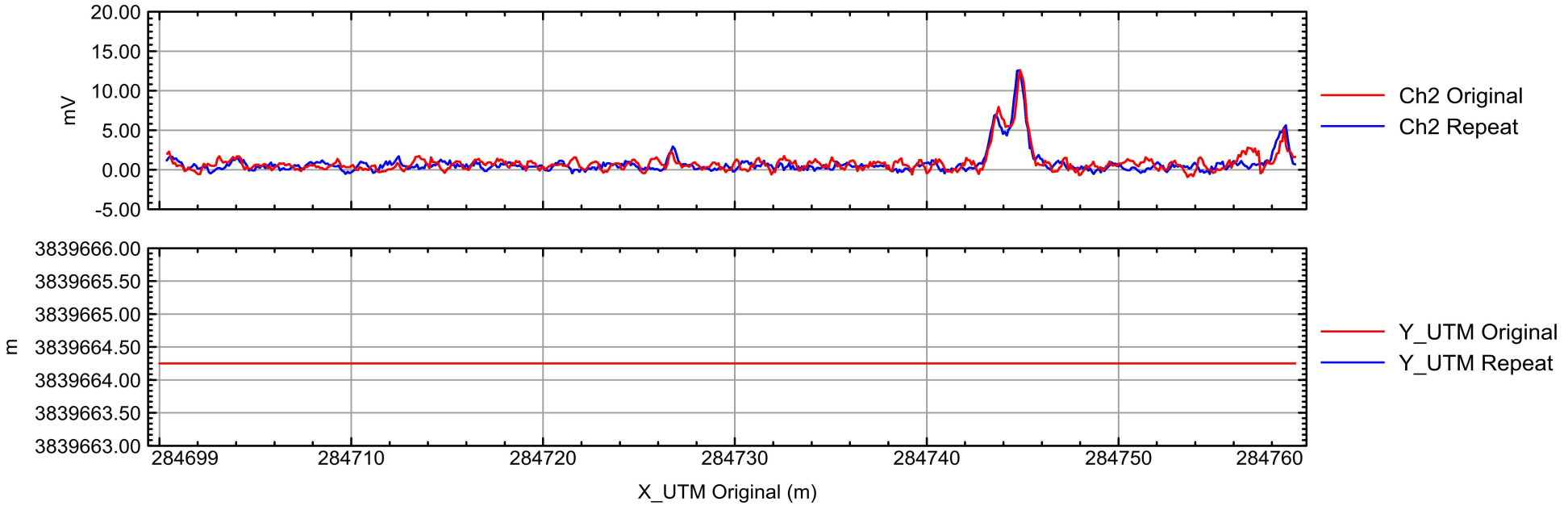
Northern Boundary Area Site UXO03 - Camp Lejeune, North Carolina
EM61MK2 - Block E5I2A4 - Repeat Line L14.25



Database: E5I2A4_Repeat.gdb Line/Group: L14.25

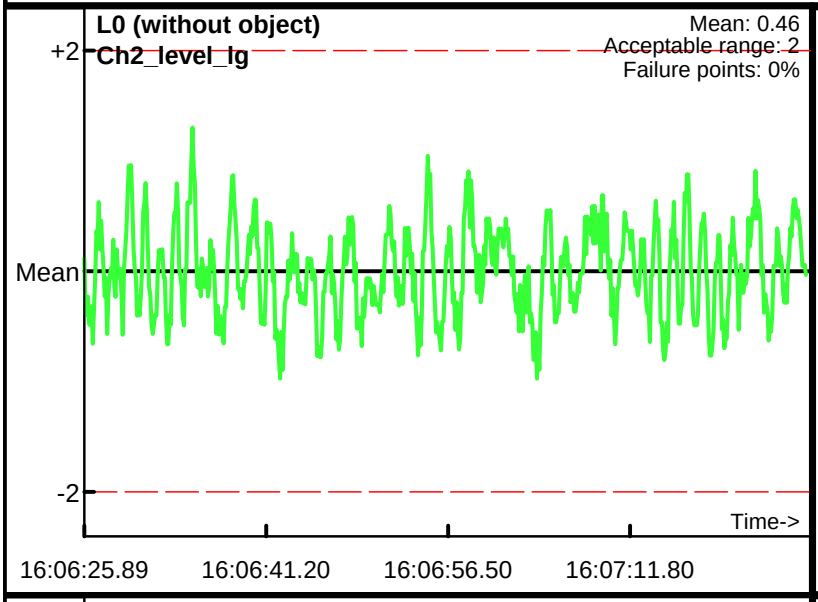
Date: 01/30/2009 & 02/02/2009

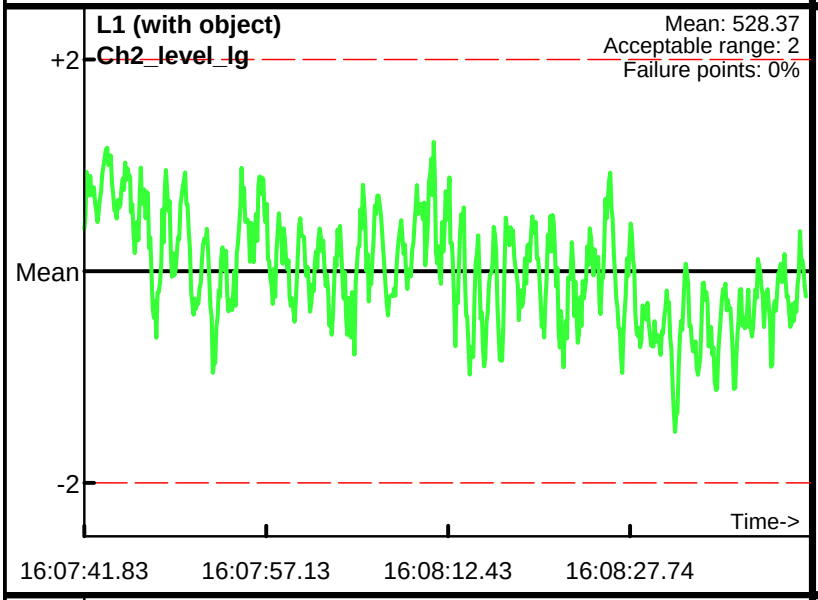
Static Calibration Test

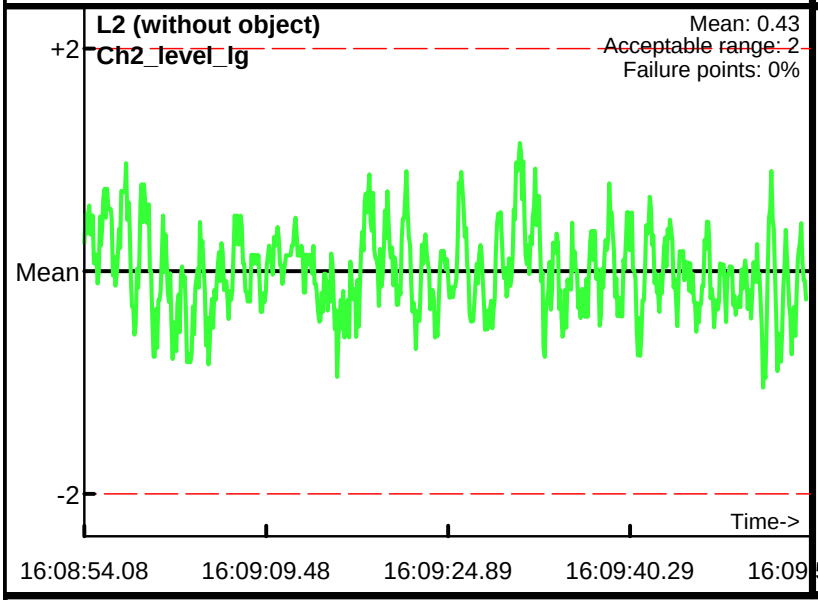
Project: Site TO-29 Camp Lejeune
Equipment: EM-61 Mark II
Grid/Location: Localized QC Area

Instrument Threshold: 20%
Outside range
Acceptable limits

PM test
Operator: GeoA
Date: 2009/02/02







Database: Q:\Virginia Office\CH2M HILL\Camp Lejeune\T0-29\Data\Geosoft\QC\020209\0202QC4.gdb
Line Name: L0 L1 L2

Appendix E
Geophysical Prove-out Report

Appendix E

Geophysical Prove-Out Report
MMRP Site UXO-03, Former Practice Hand Grenade Course

Marine Corps Base Camp Lejeune
Jacksonville, North Carolina

Contract Task Order 0168

August 2011

Prepared for

Department of the Navy
Naval Facilities Engineering Command
Atlantic

Under the

NAVFAC CLEAN III Program
Contract N62470-02-D-3052

Prepared by

Raleigh, North Carolina

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Acronyms and Abbreviations

ARM	ARM Geophysics
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CLEAN	Comprehensive Long-term Environmental—Navy
cm	centimeter
CTO	contract task order
DGM	digital geophysical mapping
DGPS	Differential Global Positioning System
DQO	Data Quality Objective
EM	electromagnetic
ESI	Expanded Site Inspection
ft	foot or feet
GPO	Geophysical Prove-out
GPS	Global Positioning System
µs	microsecond
m	meter
MCB CamLej	Marine Corps Base Camp Lejeune
MEC	munitions and explosives of concern
mm	millimeter
MMRP	Military Munitions Response Program
MR	Munitions Response
mV	millivolt
PA/SI	Preliminary Assessment/Site Inspection
QC	quality control
RTK	real-time kinematic
SSWP	Site-Specific Work Plan
TDEM	time-domain electromagnetic
UTM	Universal Transverse Mercator
UXO	unexploded ordnance

E.1 Introduction

This Geophysical Prove-Out (GPO) Report documents the GPO activities performed by digital geophysical mapping (DGM) subcontractor ARM Geophysics Inc. (ARM) on February 5th and 26th, 2008, as part of the process for validating DGM systems utilized during the DGM survey at Military Munitions Response Program (MMRP) Site Unexploded Ordnance (UXO)-03, Former Practice Hand Grenade Course.

Marine Corps Base Camp Lejeune (MCB CamLej) is in the process of investigating closed ranges at the Base following the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) investigation process. Due to historical activities conducted at MMRP Site UXO-03, a Preliminary Assessment/Site Inspection (PA/SI) was conducted. The PA/SI was conducted by CH2M HILL under the Naval Facilities Engineering Command (NAVFAC), Comprehensive Long-term Environmental Action—Navy (CLEAN) Contract N62470-02-D-3052, Contract Task Order (CTO) 0168.

E.2 GPO Objective

The primary objective of the GPO was to demonstrate and document the site-specific capabilities of the selected DGM system to operate as an integrated system capable of meeting project data quality objectives (DQOs). For the purposes of this work, a system is considered to include the survey platform, sensors, navigation equipment, data analysis and management, and associated equipment and personnel.

E.3 Equipment

Three DGM systems were previously selected for performing a GPO at Site UXO-04, Knox Mobile Home Park, Expanded Site Inspection (ESI) at MCB CamLej: a towed array EM61-MK2 system connected to a real-time kinematic (RTK) global position system (GPS), a single coil EM61-MK2 system tested with RTK GPS, and a single coil EM61-MK2 system tested with fiducial-based positioning (**Figure E-1**). The results of the GPO conducted at Site UXO-04 demonstrated electromagnetic (EM) technology and the EM61-MK2 instrument specifically, to be an effective technology to detect and locate metallic anomalies at MCB CamLej under conditions similar to Site UXO-04. The single coil EM61-MK2 was selected to perform DGM activities at Site UXO-03.

E.3.1.1 EM61-MK2

Time-domain EM (TDEM) metal detectors are designed to detect shallow ferrous and non-ferrous metallic objects with very good spatial resolution with minimal interference from adjacent metallic features. An EM transmitter generates a pulsed primary magnetic field in the earth, which induces eddy currents in nearby metallic objects. The eddy current decay produces a secondary magnetic field measured by the receiver coil of the instrument. By taking measurements at relatively long intervals after the start of the decay, the current induced in the ground fully dissipates and only the current in the metal still produces a secondary field.

The EM61-MK2 is a high-resolution TDEM instrument designed to detect, with high spatial resolution, shallow ferrous and non-ferrous metallic objects. The standard EM61-MK2 system consists of two air-cored, 1-meter (m)-by-0.5-m coils, a digital data recorder, batteries, and processing electronics. The EM61-MK2's transmitter generates a pulsed primary magnetic field, which then induces eddy currents in nearby metallic objects. The EM61-MK2 offers the ability to measure the eddy currents at three distinct time intervals in a bottom transmit/receive coil and one in a top receiver coil, or four intervals if no top coil measurements are recorded (as in this project). Earlier time gates provide enhanced detection of smaller metallic objects. Secondary voltages induced in the coils are measured in millivolts (mV). Assuming accurate data positioning, target resolution of approximately 0.5 m can be expected.

FIGURE E-1
Single Coil EM61-MK2 (Litter Mode) System

E.3.1.2 Global Positioning System

GPS satellites orbit the earth transmitting a signal which can be detected with a GPS receiver. The GPS receiver uses the known locations of the satellites and the time of signal transmittal to calculate its position. Differential GPS (DGPS) increases the accuracy of GPS readings through the use of two receivers: a stationary receiver acts as a base station and collects data at a known location and a second roving receiver that makes the position measurements. The base stations can be configured to either transmit the correction data to the rover system or save the data to be used to correct positional data during post-processing. Real-time kinematic (RTK) DGPS instruments are ideal for field-mapping applications when satellite visibility conditions are adequate as they provide the highest GPS accuracy possible (sub-centimeter accuracy). Typical accuracies of geophysical data positioning after adding errors induced by the DGM system operation are in the range of 20 to 50 centimeter (cm).

E.4 Procedures

This section presents a summary of the procedures followed during the GPO.

E.4.1 Existing GPO Plot

A GPO plot was built at MMRP Site UXO-04, Knox Trailer Park, in similar types of soil and conditions as the Site UXO-03 area; therefore, the GPO was performed at the existing Site UXO-04 GPO plot. The location of the 40 feet (ft) by 200 ft GPO plot is indicated on **Figure E-2**.

E.4.2 GPO Seed Items

Seed items were emplaced in the GPO plot by CH2M HILL field staff during the Site UXO-04 ESI and consisted of surrogate MK2 grenades (2-inch by 4-inch steel pipes) and surrogate 2.36 inch rocket items made from a pipe of similar length and diameter. The seed items placed in the GPO plot were equal to or smaller than the smallest suspected munitions and explosives of concern (MEC) (2.36-inch rockets) at Site UXO-03. The seed information was used by the CH2M HILL Quality Control (QC)Geophysicist to analyze the data collected and processed by ARM. The Site UXO-04 GPO plot will be used on future MR investigations at MCB CamLej; therefore, an as-built of the seed item locations (**Figure E-3**) and a seed item information (ordnance type, depth, orientation, directions, and easting/northing) table will be submitted directly to the Navy under separate cover to withhold the ground "truth" of the GPO plot from future DGM contractors.

E.4.3 DGM Surveys

After seeding was completed, ARM performed a DGM survey over the GPO plot at Site UXO-04 with a single coil EM61-MK2 system using the same procedures as intended for the survey of Site UXO-03. The data sets were processed, interpreted and anomaly selections made by ARM prior to transferring the data to CH2M HILL's Munitions Response (MR) Geophysicist for review and further analysis. Raw and processed geophysical data and a target selection spreadsheet ("dig sheet") were delivered to the CH2M HILL MR Geophysicist within 24 hours of data collection using the file formats specified in the Site-Specific Work Plan (SSWP).

E.5 Data Processing and Interpretation

E.5.1 Data Processing

E.5.1.1 Single Coil Data Processing

ARM transferred the raw field data from the EM61-MK2 unit to field personal computers and uploaded the data to CH2M HILL's file transfer protocol site daily. Data was converted to x,y,z format and Universal Transverse Mercator (UTM) coordinates using the control stake information and Geosoft Oasis Montaj software with the UX-Detect module extension. Latency corrections were performed based on instrument latency determined from transect lines using Geosoft software. The Channel 2 data (z) collected at 660 microseconds (µs) gate was leveled using the Geosoft non-linear filter (low= 10 percent; max = 50 percent) and reviewed by the geophysicist for completeness using the Geosoft graphical profile window.

The sensor reading for Channel 2 data (z) was gridded using a minimum curvature algorithm and gridded cell size of 0.25 and blanking distance of 0.5. The gridded transect data was used to produce a color map that was reviewed by the geophysicist for completeness. Transect lengths in the survey area and downline data density were calculated and checked using Geosoft software. Target anomalies were given specific identification tags and coordinates and compiled into a "dig sheet" and plotted on a map using UTM coordinates.

E.5.2 Interpretation/Anomaly Selection

The processed Channel 2 data was initially analyzed for anomalies that met or exceeded the threshold of 2.5 mV as established during the GPO. Channel 2 was selected due to its low noise threshold and the anomaly size and shape were consistent with isolated MEC-like anomalies as experienced in the GPO. Any selected anomaly exceeding the anomaly size was identified as a potential cultural feature (e.g., part of an extended linear or utility feature). Each line of data was reviewed for anomalies meeting the threshold and size criteria, but were not automatically picked. These manually selected anomalies were added to each target database.

E.6 Results and Analysis

During the GPO data collection activities, the CH2M HILL MR Geophysicist observed ARM personnel using the geophysical detection instruments, configurations, and methodologies. All data collection was consistent with documented procedures and met project DQOs.

E.6.1 DGM Surveys over Seeded Plot

The graphical results of the DGM survey over the seeded GPO plot are included in **Appendix C**. The CH2M HILL QC Geophysicist analyzed the DGM data collected and a summary of the DQOs and results are presented in **Table E-1.** CH2M HILL's analysis indicates all DQOs outlined in the SSWP were met during the GPO. It should also be noted that due to the site-wide level of metallic contamination and the presence of anomalies in a background survey of the GPO plot conducted during the Site UXO-04 ESI, the high number of anomalies selected in the plot with respect to the actual number of seed items planted is a result of existing anomalies and not equipment or process failure.

TABLE E-1
Summary of GPO Results with Respect to Project Data Quality Objectives

Data Quality Objective	Measurement Performance Criteria	Test Method During GPO
General System Functioning		
Accurate coordinates are being obtained from DGM positioning systems.	Positional error at known monuments will not exceed ±1 m.	DQO was met
Repeatable data are being obtained from DGM system.	Response to standardized item will not vary more than ±20 percent.	DQO was met

TABLE E-1
Summary of GPO Results with Respect to Project Data Quality Objectives

Data Quality Objective	Measurement Performance Criteria	Test Method During GPO
DGM Surveys		
DGM survey system can detect MEC to the depths specified by the following equation: Estimated Detection Depth = 11×diameter (Depth is to top of the item.) Notes: This DQO will be modified for the production surveys based on the results of the GPO. Slight variations are considered acceptable for small MEC items (e.g., hand grenades, 20 millimeter [mm] projectiles) as these are typically more difficult to detect with available technologies.	Sensor to identify 100 percent of all MEC items (or their surrogates in the GPO) at depths fitting within the detection depth equation ±20 percent.	DQO was met
Downline data density is sufficient to detect MEC items.	Over 98 percent of possible sensor readings are captured along a transect. In addition, any transect containing a data gap of 2 ft or greater does not meet the DQO.	DQO was met
Coverage over survey area is sufficient to detect MEC items.	Search transect spacing to vary no more than ±20 percent of spacing specified in sampling design. 10 percent of investigation area to be covered by transects.	DQO was met
Positioning of detected anomalies is accurate.	95 percent of all anomaly locations (as shown on the dig sheets) lie within a 1-m radius of a point on the ground surface directly above the source of the anomaly.	DQO was met
Data Handling		
All data must be delivered in a timely manner and in a useable format.	Data packages (see Section 8) are completed and delivered to the CH2M HILL Project Geophysicist within 1 working day of data collection.	DQO was met

E.7 Quality Control

ARM was observed collecting data to comply with all of the GPO Plan QC requirements. All documented QC tests were checked for DQO compliance (as specified in the GPO Work Plan) and each test was within those requirements. Documentation for each test is provided in **Appendix C**.

E.8 Conclusions

An existing GPO plot at MCB CamLej was surveyed for use in the validation of DGM systems for performing a DGM survey at Site UXO-03. ARM personnel performed a survey over the plot and the data was processed and interpreted. Based on the results of the GPO, it was agreed upon by the CH2M HILL QC Geophysicist the system met project DQOs and the system was considered validated and appropriate for use at the site.

\\aphrodite\Proj\USNavFacEngCom\CampLejeune\MapFiles\CTO-168_GPO\Figure D-2 GPO Plot Location_UXO_03.mxd

Legend

- GPO Plot
- Highways
- Site UXO-03
- Installation Boundary

N

0 7,500 15,000 30,000 Feet

1 inch equals 15,000 feet

Figure D-2
GPO Plot Location
Site UXO-03
MCB Camp Lejeune
North Carolina

CH2MHILL

Appendix F
Data Validation Summary Reports

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

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

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-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

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

✓ 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-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

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-IS03-5-8-07C

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

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-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

✓ AD 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

Aep 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

V
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

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-IS07-10-12-07C

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

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-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

AEP 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:		

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:		

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	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 :	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	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:		

AEW 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 :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

AC 9/13/07

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 I
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:		

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:		

ACD 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 I
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
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:		

V
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	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 I
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 9/13/07

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	960	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 :	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	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:		

AEP 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:		

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 9/3/07

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	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 :	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	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

AED 9/13/07

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:		

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 :	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
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 :	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	890	U
85-01-8	Phenanthrene	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 :	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	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 :	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-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:		

✓ AEP 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:		

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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:		

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 :	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	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 :	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	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:		

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

AED 9/3/07

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:		

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:		

✓ Aep 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:		

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

AED ✓ 9/3/07

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
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 :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

Ken 9/13/07

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:		

ACD 9/13/07

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:		

ACP 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:		

ACD 9/13/07

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 :	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-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 :	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	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 I
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:		

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 :	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	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

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
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 :	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
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 :	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	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 :	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	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 :	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	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 :	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	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 :	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	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

281 of 350

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

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)

ACV 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	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 I
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)

ACV 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, ISL
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)

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	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)

✓ AeO 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, ISC
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)

✓ Aev 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)

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	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 I
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)

✓ ASD 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

R1RE

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	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)

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	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)

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)

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	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)

✓ Aep 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)

AED 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)

Aen 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)

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	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 1
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)

✓ Aev 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

R, RE

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

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

ACP 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)	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)

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

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-IS06-0-1-07CRE

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 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)

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)

✓ AEP 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

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 Vclume :	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

R1RE

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)

✓ 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	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 9/13/07

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

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 I
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)

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	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)

✓ 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	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/QL

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 9/3/07

R, RE

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

CAS NO	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	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)

ACV 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)

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 4/13/07

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

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-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)

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	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 9/13/07

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
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)

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

VAED 9/13/07

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
HOLDING 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 :	707147-018-083-1/2
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)

AED 9/3/07

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

RIRE

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)

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 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 I
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 9/3/07

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 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)

AEP 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

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 I
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 I
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

RRE

All CRRE will require a RE

Initial surr recovery better than reanalysis

* 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 *
TRIP BLANK	108	107	123 *

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			
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
Contract. : MILCON Area Investigations - CTO-169
Lab Code : GPL
SDG NO : 707147
Matrix : WATER
Lab Sample ID : BKS99564
Method : CLP_OLM04.3_VOA
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 :	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	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:		

✓ ACD 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

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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 :	µL	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 :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

ACP 9/13/07

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

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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 :	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	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 :	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	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 :	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
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
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

370 U, BL

1F

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 I
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:		

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

✓ ACD 9/13/07

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:		

✓ 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 :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	Y pH:		

AD 9/13/07

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	67	J
84-74-2	di-n-Butyl Phthalate	71	J
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

390, U, BL

1F

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 :	µL	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:		

✓ AEP 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:		

ACD 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 :	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
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 :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

FTOD 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 :	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
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 :	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	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 :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

V
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) BLANK	BKS	BSD	%RECOVERY BKS	BSD	% RPD	RPD Limit	QC Limits
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 :	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
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 :	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
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 Vial: 3
Acq On : 2 Aug 2007 13:30 Operator: PY
Sample : SSTD025 CS&CN Inst : GC/MS- H
Misc : SSTD025 CS&CN HP#H PY Multiplr: 1.00
MS Integration Params: rteint.p

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

ACP 9/13/07

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, MS H

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, MSH ACO 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

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

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

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

AEP 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-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

ACP 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

✓ ACD 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,D	*	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,D	*	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

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)

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	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)

✓ AEP 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 QA/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)

AP 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)

AEC 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	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)

AEP 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)

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)

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

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 9/3/07

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	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 I
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

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FORM I
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 9/13/07

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 I
ANALYSIS DATA SHEET

fw QA/QL

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)

AEP 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 1
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)

V
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

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 9/13/07

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)

V ACP 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)

ACD 9/30/07

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 ✓ 9/13/07

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)

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 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)

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	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 ✓ 9/13/07

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 I
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)

AEN 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 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 I
ANALYSIS DATA SHEET

for 8/9/08

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 :	707158-012-048-2/2RE
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)

✓ 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
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

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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 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
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 I
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 I
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
Lab Code : GPL
Matrix : SOIL
Method : CLP_OLM04.3_VOA

Contract. : MILCON Area Investigations - CTO-169
SDG NO : 707158
Lab Sample ID : BKS99501
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
Lab Code : GPL
Matrix : WATER
Method : CLP_OLM04.3_VOA

Contract. : MILCON Area Investigations - CTO-169
SDG NO : 707158
Lab Sample ID : BKS99502
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

ENVIRONMENTAL
Data Services, Inc.

EXPLOSIVES

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, UXO-03, CTO-168 SDG #: 806149

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: September 18, 2008

Laboratory: GPL Laboratories, Frederick, Maryland Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR03-DU02-SS02-08B	806149-001	Soil
2	MR03-DU02-SS03-08B	806149-002	Soil
3	MR03-SS16-08B	806149-003	Soil
4	MR03-SS13-08B	806149-004	Soil
5	MR03-SS19-08B	806149-005	Soil
6	MR03-SS23-08B	806149-006	Soil
7	MR03-SS12-08B	806149-007	Soil
8	MR03-SS15-08B	806149-008	Soil
9	MR03-SS15D-08B	806149-009	Soil
9MS	MR03-SS15D-08BMS	806149-009MS	Soil
9MSD	MR03-SS15D-08BMSD	806149-009MSD	Soil
10	MR03-SS22-08B	806149-010	Soil
11	MR03-SS11-08B	806149-011	Soil
12	MR03-EB061808-SS	806149-012	Water
13	MR03-FB061808	806149-013	Water
14	MR03-SS08-08B	806149-014	Soil
15	MR03-SS07-08B	806149-015	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Organic Data Review," October 1999, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were extracted within 7 days for water samples, 14 days for soil samples and analyzed within 40 days except the following.

Sample	Date Sampled	Date Extracted	# of Days	Qualifier
All soils	06/18/08	07/11/08	23	J/UJ

Initial Calibration - The initial calibrations exhibited acceptable %RSD and/or correlation coefficient values.

Calibration Verification - The continuing calibrations exhibited acceptable %D values.

Surrogates - All samples exhibited acceptable surrogate recoveries except the following.

Sample ID	Surrogate	%R	Qualifier
MR03-SS12-08B	4-Nitroaniline	130%	None - All ND

MS/MSD - The MS/MSD sample exhibited acceptable %R and RPD values.

Laboratory Control Sample - The LCS samples exhibited acceptable %R values.

Method Blank - The method blanks were free of contamination.

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/L	Qualifier	Affected Samples
MR03-EB061808-SS	None - ND	-	-	-	-
MR03-FB061808	None - ND	-	-	-	-

Field Duplicates - Field duplicate results are summarized below.

Compound	MR03-SS15-08B mg/kg	MR03-SS15D-08B mg/kg	RPD	Qualifier
None	ND	ND	-	-

Compound Identification - Retention times were acceptable and no further action was taken.

Compound Quantitation - No discrepancies were identified.

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

1

SAMPLE NO
MR03-DU02-SS02-08B

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	806149
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	806149-001-001-1/1
Sample Volume :	2	Lab File ID :	LA25251.D
% Moisture:		Date Received	06/20/2008
Extraction:	EXT_SW8330	Date Extracted:	07/11/2008
Extract Volume:	20 mL	Date Analyzed	07/12/2008
Injection Volume :	100 µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.10	U
99-65-0	1,3-Dinitrobenzene	0.10	U
118-96-7	2,4,6-Trinitrotoluene	0.10	U
121-14-2	2,4-Dinitrotoluene	0.10	U
606-20-2	2,6-Dinitrotoluene	0.10	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.10	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.10	U
2691-41-0	HMX	0.20	U
98-95-3	Nitrobenzene	0.10	U
121-82-4	RDX	0.20	U
479-45-8	Tetryl	0.20	U
99-08-1	m-Nitrotoluene	0.20	U
88-72-2	o-Nitrotoluene	0.20	U
99-99-0	p-Nitrotoluene	0.20	U

UJ HT

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
MR03-DU02-SS03-08B

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	806149
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	806149-002-002-1/1
Sample Volume :	2	Lab File ID :	LA25252.D
% Moisture:		Date Received	06/20/2008
Extraction:	EXT_SW8330	Date Extracted:	07/11/2008
Extract Volume:	20 mL	Date Analyzed	07/12/2008
Injection Volume :	100 µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.10	U
99-65-0	1,3-Dinitrobenzene	0.10	U
118-96-7	2,4,6-Trinitrotoluene	0.10	U
121-14-2	2,4-Dinitrotoluene	0.10	U
606-20-2	2,6-Dinitrotoluene	0.10	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.10	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.10	U
2691-41-0	HMX	0.20	U
98-95-3	Nitrobenzene	0.10	U
121-82-4	RDX	0.20	U
479-45-8	Tetryl	0.20	U
99-08-1	m-Nitrotoluene	0.20	U
88-72-2	o-Nitrotoluene	0.20	U
99-99-0	p-Nitrotoluene	0.20	U

UJ HT

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
MR03-SS16-08B

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	806149
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	806149-003-003-1/1
Sample Volume :	2	Lab File ID :	LA25253.D
% Moisture:		Date Received	06/20/2008
Extraction:	EXT_SW8330	Date Extracted:	07/11/2008
Extract Volume:	20 mL	Date Analyzed	07/12/2008
Injection Volume :	100 µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.10	U
99-65-0	1,3-Dinitrobenzene	0.10	U
118-96-7	2,4,6-Trinitrotoluene	0.10	U
121-14-2	2,4-Dinitrotoluene	0.10	U
606-20-2	2,6-Dinitrotoluene	0.10	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.10	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.10	U
2691-41-0	HMX	0.20	U
98-95-3	Nitrobenzene	0.10	U
121-82-4	RDX	0.20	U
479-45-8	Tetryl	0.20	U
99-08-1	m-Nitrotoluene	0.20	U
88-72-2	o-Nitrotoluene	0.20	U
99-99-0	p-Nitrotoluene	0.20	U

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SAMPLE NO
MR03-SS13-08B

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	806149
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	806149-004-004-1/1
Sample Volume :	2	Lab File ID :	LA25254.D
% Moisture:		Date Received	06/20/2008
Extraction:	EXT_SW8330	Date Extracted:	07/11/2008
Extract Volume:	20 mL	Date Analyzed	07/12/2008
Injection Volume :	100 µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.10	U
99-65-0	1,3-Dinitrobenzene	0.10	U
118-96-7	2,4,6-Trinitrotoluene	0.10	U
121-14-2	2,4-Dinitrotoluene	0.10	U
606-20-2	2,6-Dinitrotoluene	0.10	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.10	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.10	U
2691-41-0	HMX	0.20	U
98-95-3	Nitrobenzene	0.10	U
121-82-4	RDX	0.20	U
479-45-8	Tetryl	0.20	U
99-08-1	m-Nitrotoluene	0.20	U
88-72-2	o-Nitrotoluene	0.20	U
99-99-0	p-Nitrotoluene	0.20	U

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SAMPLE NO
MR03-SS19-08B

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	806149
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	806149-005-005-1/1
Sample Volume :	2	Lab File ID :	LA25255.D
% Moisture:		Date Received	06/20/2008
Extraction:	EXT_SW8330	Date Extracted:	07/11/2008
Extract Volume:	20 mL	Date Analyzed	07/12/2008
Injection Volume :	100 µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.10	U
99-65-0	1,3-Dinitrobenzene	0.10	U
118-96-7	2,4,6-Trinitrotoluene	0.10	U
121-14-2	2,4-Dinitrotoluene	0.10	U
606-20-2	2,6-Dinitrotoluene	0.10	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.10	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.10	U
2691-41-0	HMX	0.20	U
98-95-3	Nitrobenzene	0.10	U
121-82-4	RDX	0.20	U
479-45-8	Tetryl	0.20	U
99-08-1	m-Nitrotoluene	0.20	U
88-72-2	o-Nitrotoluene	0.20	U
99-99-0	p-Nitrotoluene	0.20	U

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SAMPLE NO
MR03-SS23-08B

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	806149
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	806149-006-006-1/1
Sample Volume :	2	Lab File ID :	LA25256.D
% Moisture:		Date Received	06/20/2008
Extraction:	EXT_SW8330	Date Extracted:	07/11/2008
Extract Volume:	20 mL	Date Analyzed	07/12/2008
Injection Volume :	100 µ L	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.10	U
99-65-0	1,3-Dinitrobenzene	0.10	U
118-96-7	2,4,6-Trinitrotoluene	0.10	U
121-14-2	2,4-Dinitrotoluene	0.10	U
606-20-2	2,6-Dinitrotoluene	0.10	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.10	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.10	U
2691-41-0	HMX	0.20	U
98-95-3	Nitrobenzene	0.10	U
121-82-4	RDX	0.20	U
479-45-8	Tetryl	0.20	U
99-08-1	m-Nitrotoluene	0.20	U
88-72-2	o-Nitrotoluene	0.20	U
99-99-0	p-Nitrotoluene	0.20	U

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SAMPLE NO
MR03-SS12-08B

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	806149
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	806149-007-007-1/1
Sample Volume :	2	Lab File ID :	LA25257.D
% Moisture:		Date Received	06/20/2008
Extraction:	EXT_SW8330	Date Extracted:	07/11/2008
Extract Volume:	20 mL	Date Analyzed	07/12/2008
Injection Volume :	100 µ L	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.10	U
99-65-0	1,3-Dinitrobenzene	0.10	U
118-96-7	2,4,6-Trinitrotoluene	0.10	U
121-14-2	2,4-Dinitrotoluene	0.10	U
606-20-2	2,6-Dinitrotoluene	0.10	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.10	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.10	U
2691-41-0	HMX	0.20	U
98-95-3	Nitrobenzene	0.10	U
121-82-4	RDX	0.20	U
479-45-8	Tetryl	0.20	U
99-08-1	m-Nitrotoluene	0.20	U
88-72-2	o-Nitrotoluene	0.20	U
99-99-0	p-Nitrotoluene	0.20	U

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SAMPLE NO
MR03-SS15-08B

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	806149
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	806149-008-008-1/1
Sample Volume :	2	Lab File ID :	LA25258.D
% Moisture:		Date Received	06/20/2008
Extraction:	EXT_SW8330	Date Extracted:	07/11/2008
Extract Volume:	20 mL	Date Analyzed	07/12/2008
Injection Volume :	100 µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.10	U
99-65-0	1,3-Dinitrobenzene	0.10	U
118-96-7	2,4,6-Trinitrotoluene	0.10	U
121-14-2	2,4-Dinitrotoluene	0.10	U
606-20-2	2,6-Dinitrotoluene	0.10	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.10	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.10	U
2691-41-0	HMX	0.20	U
98-95-3	Nitrobenzene	0.10	U
121-82-4	RDX	0.20	U
479-45-8	Tetryl	0.20	U
99-08-1	m-Nitrotoluene	0.20	U
88-72-2	o-Nitrotoluene	0.20	U
99-99-0	p-Nitrotoluene	0.20	U

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SAMPLE NO
MR03-SS15D-08B

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	806149
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	806149-009-009-1/1
Sample Volume :	2	Lab File ID :	LA25259.D
% Moisture:		Date Received	06/20/2008
Extraction:	EXT_SW8330	Date Extracted:	07/11/2008
Extract Volume:	20 mL	Date Analyzed	07/12/2008
Injection Volume :	100 µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.10	U
99-65-0	1,3-Dinitrobenzene	0.10	U
118-96-7	2,4,6-Trinitrotoluene	0.10	U
121-14-2	2,4-Dinitrotoluene	0.10	U
606-20-2	2,6-Dinitrotoluene	0.10	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.10	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.10	U
2691-41-0	HMX	0.20	U
98-95-3	Nitrobenzene	0.10	U
121-82-4	RDX	0.20	U
479-45-8	Tetryl	0.20	U
99-08-1	m-Nitrotoluene	0.20	U
88-72-2	o-Nitrotoluene	0.20	U
99-99-0	p-Nitrotoluene	0.20	U

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SAMPLE NO
MR03-SS22-08B

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	806149
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	806149-010-010-1/1
Sample Volume :	2	Lab File ID :	LA25260.D
% Moisture:		Date Received	06/20/2008
Extraction:	EXT_SW8330	Date Extracted:	07/11/2008
Extract Volume:	20 mL	Date Analyzed	07/12/2008
Injection Volume :	100 µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.10	U
99-65-0	1,3-Dinitrobenzene	0.10	U
118-96-7	2,4,6-Trinitrotoluene	0.10	U
121-14-2	2,4-Dinitrotoluene	0.10	U
606-20-2	2,6-Dinitrotoluene	0.10	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.10	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.10	U
2691-41-0	HMX	0.20	U
98-95-3	Nitrobenzene	0.10	U
121-82-4	RDX	0.20	U
479-45-8	Tetryl	0.20	U
99-08-1	m-Nitrotoluene	0.20	U
88-72-2	o-Nitrotoluene	0.20	U
99-99-0	p-Nitrotoluene	0.20	U

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SAMPLE NO
MR03-SS11-08B

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	806149
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	806149-011-011-1/1
Sample Volume :	2	Lab File ID :	LA25262.D
% Moisture:		Date Received	06/20/2008
Extraction:	EXT_SW8330	Date Extracted:	07/11/2008
Extract Volume:	20 mL	Date Analyzed	07/12/2008
Injection Volume :	100 µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.10	U
99-65-0	1,3-Dinitrobenzene	0.10	U
118-96-7	2,4,6-Trinitrotoluene	0.10	U
121-14-2	2,4-Dinitrotoluene	0.10	U
606-20-2	2,6-Dinitrotoluene	0.10	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.10	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.10	U
2691-41-0	HMX	0.56	
98-95-3	Nitrobenzene	0.10	U
121-82-4	RDX	0.20	U
479-45-8	Tetryl	0.20	U
99-08-1	m-Nitrotoluene	0.20	U
88-72-2	o-Nitrotoluene	0.20	U
99-99-0	p-Nitrotoluene	0.20	U

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SAMPLE NO
MR03-EB061808-SS

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	806149
Matrix : (Soil / Water)	WATER	Lab Sample ID :	806149-012-027-1/1
Sample Volume :	1000	Lab File ID :	LCD41923.D
% Moisture:		Date Received	06/20/2008
Extraction:	EXT_SW8330	Date Extracted:	06/24/2008
Extract Volume:	20 mL	Date Analyzed	07/04/2008
Injection Volume :	100 µL	Dilution Factor :	1
GPC Clean up (Y/N):	pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.20	U
99-65-0	1,3-Dinitrobenzene	0.20	U
118-96-7	2,4,6-Trinitrotoluene	0.20	U
121-14-2	2,4-Dinitrotoluene	0.20	U
606-20-2	2,6-Dinitrotoluene	0.20	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.20	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.20	U
2691-41-0	HMX	0.40	U
98-95-3	Nitrobenzene	0.20	U
121-82-4	RDX	0.40	U
479-45-8	Tetryl	0.40	U
99-08-1	m-Nitrotoluene	0.40	U
88-72-2	o-Nitrotoluene	0.40	U
99-99-0	p-Nitrotoluene	0.40	U

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SAMPLE NO
MR03-FB061808

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	806149
Matrix : (Soil / Water)	WATER	Lab Sample ID :	806149-013-028-1/1
Sample Volume :	1000	Lab File ID :	LCD41924.D
% Moisture:		Date Received	06/20/2008
Extraction:	EXT_SW8330	Date Extracted:	06/24/2008
Extract Volume:	20 mL	Date Analyzed	07/04/2008
Injection Volume :	100 µ L	Dilution Factor :	1
GPC Clean up (Y/N):	pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.20	U
99-65-0	1,3-Dinitrobenzene	0.20	U
118-96-7	2,4,6-Trinitrotoluene	0.20	U
121-14-2	2,4-Dinitrotoluene	0.20	U
606-20-2	2,6-Dinitrotoluene	0.20	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.20	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.20	U
2691-41-0	HMX	0.40	U
98-95-3	Nitrobenzene	0.20	U
121-82-4	RDX	0.40	U
479-45-8	Tetryl	0.40	U
99-08-1	m-Nitrotoluene	0.40	U
88-72-2	o-Nitrotoluene	0.40	U
99-99-0	p-Nitrotoluene	0.40	U

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SAMPLE NO
MR03-SS08-08B

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	806149
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	806149-014-012-1/1
Sample Volume :	2	Lab File ID :	LA25263.D
% Moisture:		Date Received	06/20/2008
Extraction:	EXT_SW8330	Date Extracted:	07/11/2008
Extract Volume:	20 mL	Date Analyzed	07/12/2008
Injection Volume :	100 µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.10	U
99-65-0	1,3-Dinitrobenzene	0.10	U
118-96-7	2,4,6-Trinitrotoluene	0.10	U
121-14-2	2,4-Dinitrotoluene	0.10	U
606-20-2	2,6-Dinitrotoluene	0.10	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.10	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.10	U
2691-41-0	HMX	0.20	U
98-95-3	Nitrobenzene	0.10	U
121-82-4	RDX	0.20	U
479-45-8	Tetryl	0.20	U
99-08-1	m-Nitrotoluene	0.20	U
88-72-2	o-Nitrotoluene	0.20	U
99-99-0	p-Nitrotoluene	0.20	U

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SAMPLE NO
MR03-SS07-08B

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	806149
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	806149-015-013-1/1
Sample Volume :	2	Lab File ID :	LA25264.D
% Moisture:		Date Received	06/20/2008
Extraction:	EXT_SW8330	Date Extracted:	07/11/2008
Extract Volume:	20 mL	Date Analyzed	07/12/2008
Injection Volume :	100 µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q	
99-35-4	1,3,5-Trinitrobenzene	0.10	U	UJ HT
99-65-0	1,3-Dinitrobenzene	0.10	U	
118-96-7	2,4,6-Trinitrotoluene	0.10	U	
121-14-2	2,4-Dinitrotoluene	0.10	U	
606-20-2	2,6-Dinitrotoluene	0.19		J
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.10	U	UJ
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.10	U	
2691-41-0	HMX	0.20	U	
98-95-3	Nitrobenzene	0.10	U	
121-82-4	RDX	0.20	U	
479-45-8	Tetryl	0.20	U	
99-08-1	m-Nitrotoluene	0.20	U	
88-72-2	o-Nitrotoluene	0.20	U	
99-99-0	p-Nitrotoluene	0.20	U	

ENVIRONMENTAL
Data Services, Inc.

METALS

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, UXO-03, CTO-168 SDG #: 806149

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: September 18, 2008

Laboratory: GPL Laboratories, Frederick, Maryland Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR03-DU02-SS02-08B	806149-001	Soil
2	MR03-DU02-SS03-08B	806149-002	Soil
3	MR03-SS16-08B	806149-003	Soil
4	MR03-SS13-08B	806149-004	Soil
5	MR03-SS19-08B	806149-005	Soil
6	MR03-SS23-08B	806149-006	Soil
7	MR03-SS12-08B	806149-007	Soil
8	MR03-SS15-08B	806149-008	Soil
9	MR03-SS15D-08B	806149-009	Soil
10	MR03-SS22-08B	806149-010	Soil
11	MR03-SS11-08B	806149-011	Soil
12	MR03-EB061808-SS	806149-012	Water
13	MR03-FB061808	806149-013	Water
14	MR03-SS08-08B	806149-014	Soil
15	MR03-SS07-08B	806149-015	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 contamination for several compounds, however, all sample results are non-detect or greater than 5X the blank concentration with the exception of the following:

Soil

Compound	Conc. mg/kg	Qualifier	Affected Samples
Barium	0.245	U	1-5, 7, 8, 10, 11, 14, 15
Mercury	0.009	U	4-6, 8-10

Water

Compound	Conc. ug/L	Qualifier	Affected Samples
Barium	2.630	U	12, 13
Copper	1.671	U	13
Iron	97.065	U	12, 13
Magnesium	115.426	U	12, 13
Mercury	0.019	U	12, 13
Nickel	2.151	U	13
Potassium	63.652	U	12, 13
Selenium	2.261	U	12
Sodium	599.025	U	12, 13
Zinc	7.578	U	12, 13

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/L	Qualifier	Affected Samples
MR03-EB061808-SS	None - ND	-	-	-	-
MR03-FB061808	None - ND	-	-	-	-

ICP Interference Check Sample - All %R values were acceptable.

Matrix Spike - The matrix spike samples exhibited acceptable %R values except the following.

MS Sample ID	Compound	%R	Qualifier	Affected Samples
Reference	Antimony	41%	J/UJ	All soil samples
	Thallium	53%	J/UJ	All soil samples

Matrix Duplicate - The matrix duplicate samples exhibited acceptable RPD values except the following.

MSD Sample ID	Compound	RPD	Qualifier	Affected Samples
Reference	Manganese	44	None	Already qualified due to serial dilution

LCS - The LCS samples exhibited acceptable %R values.

ICP Serial Dilution - The ICP serial dilution sample exhibited acceptable %D values except the following.

ICP Sample ID	Compound	%D	Qualifier	Affected Samples
Reference	Aluminum	40%	J	All soil samples unless ND
	Barium	38%	J	All soil samples unless ND
	Calcium	40%	J	All soil samples unless ND
	Chromium	39%	J	All soil samples unless ND
	Iron	36%	J	All soil samples unless ND
	Magnesium	45%	J	All soil samples unless ND
	Manganese	58%	J	All soil samples unless ND
	Vanadium	40%	J	All soil samples unless ND

Field Duplicates - Field duplicate results are summarized below.

Compound	MR03-SS15-08B mg/kg	MR03-SS15D-08B mg/kg	RPD	Qualifier
Aluminum	2990	3330	11%	None
Arsenic	1.4	1.5	7%	None
Barium	17.3 U	20.2	NC	None
Beryllium	0.17	0.19	11%	None
Cadmium	0.075	0.10	29%	None
Calcium	1150	1620	34%	None
Chromium	5.4	6.3	15%	None
Cobalt	0.12	0.15	22%	None
Copper	2.0	2.3	14%	None
Iron	1570	1720	9%	None
Lead	6.0	6.4	6%	None
Magnesium	131	152	15%	None
Manganese	11.3	13.0	14%	None
Nickel	0.71	0.70	1%	None
Sodium	15.8	21.5	31%	None
Vanadium	5.1	5.8	13%	None
Zinc	25.0	28.8	14%	None

Compound Quantitation - No discrepancies were identified.

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-DU02-SS02-08B

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806149S

Matrix: (soil/water) SOIL Lab Sample ID: S 806149-001-001-1/1

Level: (low/med) Date Recieved: 06/20/2008

% Solids: 67.9

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	3890		J ~~E~~	P	SD
7440-36-0	Antimony	6.1	~~U~~	UJ ~~N~~	P	MSL
7440-38-2	Arsenic	0.89	J		P	
7440-39-3	Barium	20.3 ~~11.2~~	~~J~~	U ~~E~~	P	BL
7441-41-7	Beryllium	0.089	J		P	
7440-43-9	Cadmium	0.084	J		P	
7440-70-2	Calcium	2230		J ~~E~~	P	SD
7440-47-3	Chromium	4.9		J ~~E~~	P	SD
7440-48-4	Cobalt	0.23	J		P	
7440-47-3	Copper	4.6			P	
7439-89-6	Iron	1270		J ~~E~~	P	SD
7439-92-1	Lead	15.6			P	
7439-95-4	Magnesium	220	~~J~~	J ~~E~~	P	SD
7439-96-5	Manganese	13.2		J ~~E~~	P	SD
7439-97-6	Mercury	0.047			AV	
7440-02-0	Nickel	1.1	J		P	
7440-09-7	Potassium	508	U		P	
7782-49-2	Selenium	3.6	U		P	
7440-22-4	Silver	1.0	U		P	
7440-23-5	Sodium	29.2	J		P	
7440-28-0	Thallium	2.5	~~U~~	UJ ~~N~~	P	MSL
7440-62-2	Vanadium	5.6		J ~~E~~	P	SD
7440-66-6	Zinc	17.1			P	

Color Before: BLACK Clarity Before: MEDIUM Texture: NA

Color After: YELLOW Clarity After: CLEAR Artifacts: NA

Comments:

4/18/08

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-DU02-SS03-08B

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806149S

Matrix: (soil/water) SOIL Lab Sample ID: S 806149-002-002-1/1

Level: (low/med) Date Recieved: 06/20/2008

% Solids: 91.3

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	3840		J ~~E~~	P	SD
7440-36-0	Antimony	0.12	~~J~~	J ~~N~~	P	MSL
7440-38-2	Arsenic	0.91			P	
7440-39-3	Barium	15 ~~12.7~~	~~J~~	U ~~E~~	P	BL
7441-41-7	Beryllium	0.084	J		P	
7440-43-9	Cadmium	0.047	J		P	
7440-70-2	Calcium	1230		J ~~E~~	P	SD
7440-47-3	Chromium	4.5		J ~~E~~	P	SD
7440-48-4	Cobalt	0.30	J		P	
7440-47-3	Copper	3.8			P	
7439-89-6	Iron	1090		J ~~E~~	P	SD
7439-92-1	Lead	16.4			P	
7439-95-4	Magnesium	180	~~J~~	J ~~E~~	P	SD
7439-96-5	Manganese	9.2		J ~~E~~	P	SD
7439-97-6	Mercury	0.063			AV	
7440-02-0	Nickel	1.0	J		P	
7440-09-7	Potassium	375	U		P	
7782-49-2	Selenium	2.6	U		P	
7440-22-4	Silver	0.75	U		P	
7440-23-5	Sodium	42.0	J		P	
7440-28-0	Thallium	1.9	~~U~~	UJ ~~N~~	P	MSL
7440-62-2	Vanadium	5.1		J ~~E~~	P	SD
7440-66-6	Zinc	28.3			P	

Color Before: GREY Clarity Before: MEDIUM Texture: NA

Color After: YELLOW Clarity After: CLEAR Artifacts: NA

Comments:

MW 9/18/08

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-SS16-08B

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806149S

Matrix: (soil/water) SOIL Lab Sample ID: S 806149-003-003-1/1

Level: (low/med) Date Recieved: 06/20/2008

% Solids: 73.7

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	2630		J ~~E~~	P	SD
7440-36-0	Antimony	5.9	~~U~~	UJ ~~N~~	P	MSL
7440-38-2	Arsenic	1.4			P	
7440-39-3	Barium	~~19.7~~ 17.1	~~U~~	U ~~E~~	P	BL
7441-41-7	Beryllium	0.16	J		P	
7440-43-9	Cadmium	0.13	J		P	
7440-70-2	Calcium	3140		J ~~E~~	P	SD
7440-47-3	Chromium	5.7		J ~~E~~	P	SD
7440-48-4	Cobalt	0.17	J		P	
7440-47-3	Copper	3.1			P	
7439-89-6	Iron	1650		J ~~E~~	P	SD
7439-92-1	Lead	7.0			P	
7439-95-4	Magnesium	170	~~U~~	J ~~E~~	P	SD
7439-96-5	Manganese	16.2		J ~~*E~~	P	SD
7439-97-6	Mercury	0.041	U		AV	
7440-02-0	Nickel	1.1	J		P	
7440-09-7	Potassium	492	U		P	
7782-49-2	Selenium	3.4	U		P	
7440-22-4	Silver	0.98	U		P	
7440-23-5	Sodium	25.7	J		P	
7440-28-0	Thallium	2.5	~~U~~	UJ ~~N~~	P	MSL
7440-62-2	Vanadium	5.5		J ~~E~~	P	SD
7440-66-6	Zinc	29.1			P	

Color Before: GREY Clarity Before: MEDIUM Texture: NA

Color After: YELLOW Clarity After: CLEAR Artifacts: NA

Comments:

MW 9/18/08

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-SS13-08B

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806149S

Matrix: (soil/water) SOIL Lab Sample ID: S 806149-004-004-1/1

Level: (low/med) Date Recieved: 06/20/2008

% Solids: 67.3

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	1580		J ~~E~~	P	SD
7440-36-0	Antimony	6.5	~~U~~	UJ ~~N~~	P	MSL
7440-38-2	Arsenic	0.59	J		P	
7440-39-3	Barium	21.7 ~~9.6~~	~~J~~	U ~~E~~	P	BL
7441-41-7	Beryllium	0.062	J		P	
7440-43-9	Cadmium	0.12	J		P	
7440-70-2	Calcium	2000		J ~~E~~	P	SD
7440-47-3	Chromium	1.8		J ~~E~~	P	SD
7440-48-4	Cobalt	0.079	J		P	
7440-47-3	Copper	1.7	J		P	
7439-89-6	Iron	818		J ~~E~~	P	SD
7439-92-1	Lead	7.6			P	
7439-95-4	Magnesium	106	~~J~~	J ~~E~~	P	SD
7439-96-5	Manganese	25.4		J ~~*E~~	P	SD
7439-97-6	Mercury	0.047 ~~0.039~~	~~J~~	U	AV	BL
7440-02-0	Nickel	0.55	J		P	
7440-09-7	Potassium	542	U		P	
7782-49-2	Selenium	3.8	U		P	
7440-22-4	Silver	1.1	U		P	
7440-23-5	Sodium	22.5	J		P	
7440-28-0	Thallium	2.7	~~U~~	UJ ~~N~~	P	MSL
7440-62-2	Vanadium	3.6	~~J~~	J ~~E~~	P	SD
7440-66-6	Zinc	4.8	J		P	

Color Before: BLACK Clarity Before: MEDIUM Texture: NA

Color After: YELLOW Clarity After: CLEAR Artifacts: NA

Comments:

lw 9/18/08

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-SS19-08B

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806149S

Matrix: (soil/water) SOIL Lab Sample ID: S 806149-005-005-1/1

Level: (low/med) Date Recieved: 06/20/2008

% Solids: 98.3

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	3200		J ~~E~~	P	SD
7440-36-0	Antimony	4.4	~~B~~	UJ ~~N~~	P	MSL
7440-38-2	Arsenic	1.3			P	
7440-39-3	Barium	14.5 ~~11.4~~	~~J~~	U ~~E~~	P	BL
7441-41-7	Beryllium	0.10	J		P	
7440-43-9	Cadmium	0.057	J		P	
7440-70-2	Calcium	832		J ~~E~~	P	SD
7440-47-3	Chromium	6.7		J ~~E~~	P	SD
7440-48-4	Cobalt	0.13	J		P	
7440-47-3	Copper	2.1			P	
7439-89-6	Iron	1570		J ~~E~~	P	SD
7439-92-1	Lead	6.1			P	
7439-95-4	Magnesium	140	~~B~~	J ~~E~~	P	SD
7439-96-5	Manganese	10.6		J ~~E~~	P	SD
7439-97-6	Mercury	0.03 ~~0.015~~	~~J~~	U	AV	BL
7440-02-0	Nickel	0.73	J		P	
7440-09-7	Potassium	363	U		P	
7782-49-2	Selenium	2.5	U		P	
7440-22-4	Silver	0.73	U		P	
7440-23-5	Sodium	9.3	J		P	
7440-28-0	Thallium	1.8	~~B~~	UJ ~~N~~	P	MSL
7440-62-2	Vanadium	5.1		J ~~E~~	P	SD
7440-66-6	Zinc	12.7			P	

Color Before: GREY Clarity Before: MEDIUM Texture: NA

Color After: YELLOW Clarity After: CLEAR Artifacts: NA

Comments:

9/18/08

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-SS23-08B

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806149S

Matrix: (soil/water) SOIL Lab Sample ID: S 806149-006-006-1/1

Level: (low/med) Date Recieved: 06/20/2008

% Solids: 93.1

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	3000		J ~~E~~	P	SD
7440-36-0	Antimony	4.7	~~U~~	UJ ~~N~~	P	MSL
7440-38-2	Arsenic	1.8			P	
7440-39-3	Barium	22.2		J ~~E~~	P	SD
7441-41-7	Beryllium	0.17	J		P	
7440-43-9	Cadmium	0.14	J		P	
7440-70-2	Calcium	1720		J ~~E~~	P	SD
7440-47-3	Chromium	5.9		J ~~E~~	P	SD
7440-48-4	Cobalt	0.26	J		P	
7440-47-3	Copper	7.7			P	
7439-89-6	Iron	1740		J ~~E~~	P	SD
7439-92-1	Lead	8.0			P	
7439-95-4	Magnesium	110	~~J~~	J ~~E~~	P	SD
7439-96-5	Manganese	11.8		J ~~*E~~	P	SD
7439-97-6	Mercury	0.033 ~~0.020~~	~~J~~	U	AV	BL
7440-02-0	Nickel	1.0	J		P	
7440-09-7	Potassium	392	U		P	
7782-49-2	Selenium	2.7	U		P	
7440-22-4	Silver	0.78	U		P	
7440-23-5	Sodium	26.5	J		P	
7440-28-0	Thallium	2.0	~~U~~	UJ ~~N~~	P	MSL
7440-62-2	Vanadium	5.8		J ~~E~~	P	SD
7440-66-6	Zinc	20.3			P	

Color Before: GREY Clarity Before: MEDIUM Texture: NA

Color After: YELLOW Clarity After: CLEAR Artifacts: NA

Comments:

MW 9/18/08

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-SS12-08B

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806149S

Matrix: (soil/water) SOIL Lab Sample ID: S 806149-007-007-1/1

Level: (low/med) Date Recieved: 06/20/2008

% Solids: 65.5

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	1690		J E	P	SD
7440-36-0	Antimony	6.3	U	U J N	P	MSL
7440-38-2	Arsenic	0.59	J		P	
7440-39-3	Barium	21.1 ~~19.3~~	~~J~~	U E	P	BL
7441-41-7	Beryllium	0.066	J		P	
7440-43-9	Cadmium	0.017	J		P	
7440-70-2	Calcium	671		J E	P	SD
7440-47-3	Chromium	1.7		J E	P	SD
7440-48-4	Cobalt	0.21	J		P	
7440-47-3	Copper	1.8	J		P	
7439-89-6	Iron	641		J E	P	SD
7439-92-1	Lead	8.2			P	
7439-95-4	Magnesium	127	U	J E	P	SD
7439-96-5	Manganese	16.3		J E	P	SD
7439-97-6	Mercury	0.057			AV	
7440-02-0	Nickel	0.72	J		P	
7440-09-7	Potassium	527	U		P	
7782-49-2	Selenium	3.7	U		P	
7440-22-4	Silver	1.1	U		P	
7440-23-5	Sodium	30.0	J		P	
7440-28-0	Thallium	2.6	U	U J N	P	MSL
7440-62-2	Vanadium	3.7	U	J E	P	SD
7440-66-6	Zinc	4.6	J		P	

Color Before: BLACK Clarity Before: MEDIUM Texture: NA

Color After: YELLOW Clarity After: CLEAR Artifacts: NA

Comments:

QW
9/18/08

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-SS15-08B

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806149S

Matrix: (soil/water) SOIL Lab Sample ID: S 806149-008-008-1/1

Level: (low/med) Date Recieved: 06/20/2008

% Solids: 73.2

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	2990		J E	P	SD
7440-36-0	Antimony	5.5	U	UJ N	P	MSL
7440-38-2	Arsenic	1.4			P	
7440-39-3	Barium	18.5 ~~17.3~~	~~J~~	U E	P	BL
7441-41-7	Beryllium	0.17	J		P	
7440-43-9	Cadmium	0.075	J		P	
7440-70-2	Calcium	1150		J E	P	SD
7440-47-3	Chromium	5.4		J ~~E~~	P	SD
7440-48-4	Cobalt	0.12	J		P	
7440-47-3	Copper	2.0	J		P	
7439-89-6	Iron	1570		J E	P	SD
7439-92-1	Lead	6.0			P	
7439-95-4	Magnesium	131	~~J~~	J E	P	SD
7439-96-5	Manganese	11.3		J ~~E~~	P	SD
7439-97-6	Mercury	0.041 ~~0.021~~	~~J~~	U	AV	BL
7440-02-0	Nickel	0.71	J		P	
7440-09-7	Potassium	462	U		P	
7782-49-2	Selenium	3.2	U		P	
7440-22-4	Silver	0.92	U		P	
7440-23-5	Sodium	15.8	J		P	
7440-28-0	Thallium	2.3	~~J~~	UJ N	P	MSL
7440-62-2	Vanadium	5.1		J ~~E~~	P	SD
7440-66-6	Zinc	25.0			P	

Color Before: GREY Clarity Before: MEDIUM Texture: NA

Color After: YELLOW Clarity After: CLEAR Artifacts: NA

Comments:

9/18/08

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-SS15D-08B

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806149S

Matrix: (soil/water) SOIL Lab Sample ID: S 806149-009-009-1/1

Level: (low/med) Date Recieved: 06/20/2008

% Solids: 84.0

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	3330		J ~~E~~	P	SD
7440-36-0	Antimony	5.0	B	UJ ~~N~~	P	MSL
7440-38-2	Arsenic	1.5			P	
7440-39-3	Barium	20.2		J ~~E~~	P	SD
7441-41-7	Beryllium	0.19	J		P	
7440-43-9	Cadmium	0.10	J		P	
7440-70-2	Calcium	1620		J ~~E~~	P	SD
7440-47-3	Chromium	6.3		J ~~E~~	P	SD
7440-48-4	Cobalt	0.15	J		P	
7440-47-3	Copper	2.3			P	
7439-89-6	Iron	1720		J ~~E~~	P	SD
7439-92-1	Lead	6.4			P	
7439-95-4	Magnesium	152	B	J ~~E~~	P	SD
7439-96-5	Manganese	13.0		J ~~E~~	P	SD
7439-97-6	Mercury	0.037 ~~0.031~~	J	U	AV	BL
7440-02-0	Nickel	0.70	J		P	
7440-09-7	Potassium	419	U		P	
7782-49-2	Selenium	2.9	U		P	
7440-22-4	Silver	0.84	U		P	
7440-23-5	Sodium	21.5	J		P	
7440-28-0	Thallium	2.1	B	UJ ~~N~~	P	MSL
7440-62-2	Vanadium	5.8		J ~~E~~	P	SD
7440-66-6	Zinc	38.8			P	

Color Before: GREY Clarity Before: MEDIUM Texture: NA

Color After: YELLOW Clarity After: CLEAR Artifacts: NA

Comments:

DW 9/18/08

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-SS22-08B

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806149S

Matrix: (soil/water) SOIL Lab Sample ID: S 806149-010-010-1/1

Level: (low/med) Date Recieved: 06/20/2008

% Solids: 98.7

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	3210		J ~~E~~	P	SD
7440-36-0	Antimony	4.3	~~U~~	UJ ~~N~~	P	MSL
7440-38-2	Arsenic	1.0			P	
7440-39-3	Barium	14.5 ~~10.4~~	~~J~~	U ~~E~~	P	BL
7441-41-7	Beryllium	0.082	J		P	
7440-43-9	Cadmium	0.062	J		P	
7440-70-2	Calcium	1520		J ~~E~~	P	SD
7440-47-3	Chromium	4.6		J ~~E~~	P	SD
7440-48-4	Cobalt	0.17	J		P	
7440-47-3	Copper	1.9			P	
7439-89-6	Iron	1760		J ~~E~~	P	SD
7439-92-1	Lead	6.8			P	
7439-95-4	Magnesium	138	~~J~~	J ~~E~~	P	SD
7439-96-5	Manganese	28.4		J ~~*E~~	P	SD
7439-97-6	Mercury	0.03 ~~0.019~~	~~J~~	U	AV	BL
7440-02-0	Nickel	0.75	J		P	
7440-09-7	Potassium	362	U		P	
7782-49-2	Selenium	2.5	U		P	
7440-22-4	Silver	0.72	U		P	
7440-23-5	Sodium	26.9	J		P	
7440-28-0	Thallium	1.8	~~U~~	UJ ~~N~~	P	MSL
7440-62-2	Vanadium	5.9		J ~~E~~	P	SD
7440-66-6	Zinc	17.7			P	

Color Before: GREY Clarity Before: MEDIUM Texture: NA

Color After: YELLOW Clarity After: CLEAR Artifacts: NA

Comments:

JW 9/18/08

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-SS11-08B

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806149S

Matrix: (soil/water) SOIL Lab Sample ID: S 806149-011-011-1/1

Level: (low/med) Date Recieved: 06/20/2008

% Solids: 58.1

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	4560		J E	P	SD
7440-36-0	Antimony	0.27		J N	P	MSL
7440-38-2	Arsenic	1.4			P	
7440-39-3	Barium	25 ~~17.0~~	~~J~~	U E	P	BL
7441-41-7	Beryllium	0.17	J		P	
7440-43-9	Cadmium	0.034	J		P	
7440-70-2	Calcium	276		J E	P	SD
7440-47-3	Chromium	3.6		J E	P	SD
7440-48-4	Cobalt	0.42	J		P	
7440-47-3	Copper	2.9	J		P	
7439-89-6	Iron	2310		J E	P	SD
7439-92-1	Lead	16.1			P	
7439-95-4	Magnesium	116		J E	P	SD
7439-96-5	Manganese	5.1		J E	P	SD
7439-97-6	Mercury	0.094			AV	
7440-02-0	Nickel	0.98	J		P	
7440-09-7	Potassium	624	U		P	
7782-49-2	Selenium	1.1	J		P	
7440-22-4	Silver	1.2	U		P	
7440-23-5	Sodium	45.0	J		P	
7440-28-0	Thallium	3.1		UJ N	P	MSL
7440-62-2	Vanadium	4.9		J E	P	SD
7440-66-6	Zinc	3.6	J		P	

Color Before: BLACK Clarity Before: MEDIUM Texture: NA

Color After: YELLOW Clarity After: CLEAR Artifacts: NA

Comments:

CW 9/18/08

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-EB061808-SS

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806149

Matrix: (soil/water) WATER Lab Sample ID: S 806149-012-029-1/1

Level: (low/med) Date Recieved: 06/20/2008

% 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	200	U	!	P	
7440-36-0	Antimony	60.0	U		P	
7440-38-2	Arsenic	10.0	U		P	
7440-39-3	Barium	200 ~~0.79~~ J		U	P	BL
7441-41-7	Beryllium	5.0	U		P	
7440-43-9	Cadmium	5.0	U		P	
7440-70-2	Calcium	5000	U		P	
7440-47-3	Chromium	10.0	U		P	
7440-48-4	Cobalt	50.0	U		P	
7440-50-8	Copper	25.0	U		P	
7439-89-6	Iron	100 ~~15.4~~ J		U	P	BL
7439-92-1	Lead	10.0	U		P	
7439-95-4	Magnesium	5000 ~~22.6~~ J		U	P	BL
7439-96-5	Manganese	15.0	U		P	
7439-97-6	Mercury	0.20 ~~0.068~~ J		U	CV	BL
7440-02-0	Nickel	40.0	U		P	
7440-09-7	Potassium	5000 ~~102~~ J		U	P	BL
7782-49-2	Selenium	35 ~~3.8~~ J		U	P	BL
7440-22-4	Silver	10.0	U		P	
7440-23-5	Sodium	5000 ~~556~~ J		U	P	BL
7440-28-0	Thallium	25.0	U		P	
7440-62-2	Vanadium	50.0	U		P	
7440-66-6	Zinc	60 ~~3.1~~ J		U	P	BL

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.

MR03-FB061808

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806149

Matrix: (soil/water) WATER Lab Sample ID: S 806149-013-030-1/1

Level: (low/med) Date Recieved: 06/20/2008

% 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	200	U	/	P	
7440-36-0	Antimony	60.0	U		P	
7440-38-2	Arsenic	10.0	U		P	
7440-39-3	Barium	200 ~~0.74~~	~~J~~	U	P	BL
7441-41-7	Beryllium	5.0	U		P	
7440-43-9	Cadmium	5.0	U		P	
7440-70-2	Calcium	5000	U		P	
7440-47-3	Chromium	10.0	U		P	
7440-48-4	Cobalt	50.0	U		P	
7440-50-8	Copper	25 ~~2.3~~	~~J~~	U	P	BL
7439-89-6	Iron	100 ~~23.2~~	~~J~~	U	P	BL
7439-92-1	Lead	10.0	U		P	
7439-95-4	Magnesium	5000 ~~22.6~~	~~J~~	U	P	BL
7439-96-5	Manganese	15.0	U		P	
7439-97-6	Mercury	0.20	U		CV	
7440-02-0	Nickel	40 ~~2.9~~	~~J~~	U	P	BL
7440-09-7	Potassium	5000 ~~84.5~~	~~J~~	U	P	BL
7782-49-2	Selenium	35.0	U		P	
7440-22-4	Silver	10.0	U		P	
7440-23-5	Sodium	5000 ~~450~~	~~J~~	U	P	BL
7440-28-0	Thallium	25.0	U		P	
7440-62-2	Vanadium	50.0	U		P	
7440-66-6	Zinc	60 ~~8.3~~	~~J~~	U	P	BL

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.

MR03-SS08-08B

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806149S

Matrix: (soil/water) SOIL Lab Sample ID: S 806149-014-012-1/1

Level: (low/med) Date Recieved: 06/20/2008

% Solids: 68.7

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	6190		J E	P	SD
7440-36-0	Antimony	0.31	J	J N	P	MSL
7440-38-2	Arsenic	0.86	J		P	
7440-39-3	Barium	21.1 11.8	J	U E	P	BL
7441-41-7	Beryllium	0.098	J		P	
7440-43-9	Cadmium	0.035	J		P	
7440-70-2	Calcium	220	J	J E	P	SD
7440-47-3	Chromium	5.5		J E	P	SD
7440-48-4	Cobalt	0.23	J		P	
7440-47-3	Copper	2.0	J		P	
7439-89-6	Iron	2120		J E	P	SD
7439-92-1	Lead	13.5			P	
7439-95-4	Magnesium	168	J	J E	P	SD
7439-96-5	Manganese	11.9		J *E	P	SD
7439-97-6	Mercury	0.057			AV	
7440-02-0	Nickel	1.1	J		P	
7440-09-7	Potassium	527	U		P	
7782-49-2	Selenium	3.7	U		P	
7440-22-4	Silver	1.1	U		P	
7440-23-5	Sodium	19.7	J		P	
7440-28-0	Thallium	2.6	J	UJ N	P	MSL
7440-62-2	Vanadium	8.4		J E	P	SD
7440-66-6	Zinc	4.6	J		P	

Color Before: GREY Clarity Before: MEDIUM Texture: NA

Color After: YELLOW Clarity After: CLEAR Artifacts: NA

Comments:

fw 9/18/08

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-SS07-08B

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806149S

Matrix: (soil/water) SOIL Lab Sample ID: S 806149-015-013-1/1

Level: (low/med) Date Recieved: 06/20/2008

% Solids: 78.2

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	2380		J ~~E~~	P	SD
7440-36-0	Antimony	0.17	~~J~~	J ~~N~~	P	MSL
7440-38-2	Arsenic	0.60	J		P	
7440-39-3	Barium	18.4 ~~16.1~~	~~J~~	U ~~E~~	P	BL
7441-41-7	Beryllium	0.081	J		P	
7440-43-9	Cadmium	0.020	J		P	
7440-70-2	Calcium	274	~~J~~	J ~~E~~	P	SD
7440-47-3	Chromium	1.8		J ~~E~~	P	SD
7440-48-4	Cobalt	0.15	J		P	
7440-47-3	Copper	1.9	J		P	
7439-89-6	Iron	1020		J ~~E~~	P	SD
7439-92-1	Lead	30.5			P	
7439-95-4	Magnesium	57.8	~~J~~	J ~~E~~	P	SD
7439-96-5	Manganese	5.1		J ~~E~~	P	SD
7439-97-6	Mercury	0.069			AV	
7440-02-0	Nickel	0.75	J		P	
7440-09-7	Potassium	460	U		P	
7782-49-2	Selenium	3.2	U		P	
7440-22-4	Silver	0.92	U		P	
7440-23-5	Sodium	38.5	J		P	
7440-28-0	Thallium	2.3	~~U~~	UJ ~~N~~	P	MSL
7440-62-2	Vanadium	3.7	~~J~~	J ~~E~~	P	SD
7440-66-6	Zinc	3.0	J		P	

Color Before: GREY Clarity Before: MEDIUM Texture: NA

Color After: YELLOW Clarity After: CLEAR Artifacts: NA

Comments:

9/18/08

ENVIRONMENTAL
Data Services, Inc.

PERCHLORATE

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, UXO-03, CTO-168 SDG #: 806149

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: September 18, 2008

Laboratory: GPL Laboratories, Frederick, Maryland Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR03-DU02-SS02-08B	806149-001	Soil
2	MR03-DU02-SS03-08B	806149-002	Soil
3	MR03-SS16-08B	806149-003	Soil
4	MR03-SS13-08B	806149-004	Soil
5	MR03-SS19-08B	806149-005	Soil
6	MR03-SS23-08B	806149-006	Soil
7	MR03-SS12-08B	806149-007	Soil
8	MR03-SS15-08B	806149-008	Soil
9	MR03-SS15D-08B	806149-009	Soil
10	MR03-SS22-08B	806149-010	Soil
11	MR03-SS11-08B	806149-011	Soil
12	MR03-SS08-08B	806149-012	Soil
13	MR03-SS07-08B	806149-013	Soil
14	MR03-EB061808-SS	806149-014	Water
15	MR03-FB061808	806149-015	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.

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
MR03-EB061808-SS	None - ND	-	-	-	-
MR03-FB061808	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	MR03-SS15-08B ug/kg	MR03-SS15D-08B ug/kg	RPD	Qualifier
None	ND	ND	-	-

Compound Quantitation - No discrepancies were identified.

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

Form RLIMS63A-V1.4
07110810392210

S085S03T

Date Printed.....: 11-JUL-08 10:39

Client Name.....: GPL Laboratories
Client Ref Number....: 806149
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 806149

Date Received.....: 25-JUN-08 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 30-JUN-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: MR03-DU02-SS|02-08B
DCL Sample Name...: 08E03134
DCL Report Group..: 08E-0500-01

Matrix.....: SOIL
Date Sampled.....: 18-JUN-08 15:30
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 67.86

DCL Analysis Group: G086000Q
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: EP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	30-JUN-08 21:02	0.977	ND		U	1	2.95

lw 9/18/08

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S085S03V

Date Printed.....: 11-JUL-08 10:39

Client Name.....: GPL Laboratories
Client Ref Number....: 806149
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 806149

Date Received.....: 25-JUN-08 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 30-JUN-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: MR03-DU02-SS|03-08B
DCL Sample Name...: 08E03135
DCL Report Group..: 08E-0500-01

Matrix.....: SOIL
Date Sampled.....: 18-JUN-08 16:00
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 91.32

DCL Analysis Group: G0860000
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: RP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	30-JUN-08 21:22	0.726	ND		U	1	2.19

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DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

Form RLIMS63A-V1.4
07110810392210
Page 5

S085S03W

Date Printed.....: 11-JUL-08 10:39

Client Name.....: GPL Laboratories
Client Ref Number....: 806149
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 806149

Date Received.....: 25-JUN-08 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 30-JUN-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: MR03-SS16-08|B
DCL Sample Name...: 08E03136
DCL Report Group..: 08E-0500-01

Matrix.....: SOIL
Date Sampled.....: 18-JUN-08 15:10
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 73.69

DCL Analysis Group: G086000Q
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: RP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	30-JUN-08 21:43	0.900	ND		U	1	2.71

9/18/08

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

Form RLIMS63A-V1.4
07110810392210
Page 6

S085S03X

Date Printed.....: 11-JUL-08 10:39

Client Name.....: GPL Laboratories
Client Ref Number....: 806149
Sampling_Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 806149

Date Received.....: 25-JUN-08 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 30-JUN-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: MR03-SS13-08|B
DCL Sample Name...: 08E03137
DCL Report Group..: 08E-0500-01

Matrix.....: SOIL
Date Sampled.....: 18-JUN-08 16:00
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 67.28

DCL Analysis Group: G0860000Q
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: XP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	30-JUN-08 22:03	0.985	ND		U	1	2.97

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DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

Form RLIMS63A-V1.4
07110810392210
Page 7

S085S03Y

Date Printed.....: 11-JUL-08 10:39

Client Name.....: GPL Laboratories
Client Ref Number....: 806149
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 806149

Date Received.....: 25-JUN-08 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 30-JUN-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: MR03-SS19-08|B
DCL Sample Name...: 08E03138
DCL Report Group..: 08E-0500-01

Matrix.....: SOIL
Date Sampled.....: 18-JUN-08 15:00
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 98.31

DCL Analysis Group: G0860000Q
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	30-JUN-08 22:23	0.674	ND		U	1	2.03

lw
9/18/08

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S085S03Z

Date Printed.....: 11-JUL-08 10:39

Client Name.....: GPL Laboratories
Client Ref Number....: 806149
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 806149

Date Received.....: 25-JUN-08 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 30-JUN-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: MR03-SS23-08|B
DCL Sample Name...: 08E03139
DCL Report Group..: 08E-0500-01

Matrix.....: SOIL
Date Sampled.....: 18-JUN-08 14:50
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 93.11

DCL Analysis Group: G086000Q
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	30-JUN-08 22:43	0.712	ND		U	1	2.15

jrw
9/18/08

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S085S040

Date Printed.....: 11-JUL-08 10:39

Client Name.....: GPL Laboratories
Client Ref Number....: 806149
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 806149

Date Received.....: 25-JUN-08 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 30-JUN-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: MR03-SS12-08|B
DCL Sample Name...: 08E03140
DCL Report Group..: 08E-0500-01

Matrix.....: SOIL
Date Sampled.....: 18-JUN-08 15:50
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 65.45

DCL Analysis Group: G0860000
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: RP-RPFX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	30-JUN-08 23:04	1.01	ND		U	1	3.06

9/18/08

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S085S041

Date Printed.....: 11-JUL-08 10:39

Client Name.....: GPL Laboratories
Client Ref Number....: 806149
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 806149

Date Received.....: 25-JUN-08 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 30-JUN-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: MR03-SS15-08|B
DCL Sample Name...: 08E03141
DCL Report Group..: 08E-0500-01

Matrix.....: SOIL
Date Sampled.....: 18-JUN-08 15:20
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 73.20

DCL Analysis Group: G0860000
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: XP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	30-JUN-08 23:24	0.906	ND		U	1	2.73

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DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

Form RLIMS63A-V1.4
07110810392210
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S085S042

Date Printed.....: 11-JUL-08 10:39

Client Name.....: GPL Laboratories
Client Ref Number....: 806149
Sampling_Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 806149

Date Received.....: 25-JUN-08 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 30-JUN-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: MR03-SS15D-0|8B
DCL Sample Name...: 08E03142
DCL Report Group..: 08E-0500-01

Matrix.....: SOIL
Date Sampled.....: 18-JUN-08 15:20
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 83.96

DCL Analysis Group: G086000Q
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	30-JUN-08 23:44	0.790	ND		U	1	2.38

9/18/08

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S085S043

Data Printed.....: 11-JUL-08 10:39

Client Name.....: GPL Laboratories
Client Ref Number....: 806149
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 806149

Date Received.....: 25-JUN-08 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 30-JUN-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: MR03-SS22-08|B
DCL Sample Name...: 08E03143
DCL Report Group..: 08E-0500-01

Matrix.....: SOIL
Date Sampled.....: 18-JUN-08 14:30
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 98.68

DCL Analysis Group: G0860000Q
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	01-JUL-08 00:45	0.672	ND		U	1	2.03

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DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S0855044

Date Printed.....: 11-JUL-08 10:39

Client Name.....: GPL Laboratories
Client Ref Number....: 806149
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 806149

Date Received.....: 25-JUN-08 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 30-JUN-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: MR03-SS11-08|B
DCL Sample Name...: 08E03144
DCL Report Group..: 08E-0500-01

Matrix.....: SOIL
Date Sampled.....: 18-JUN-08 15:35
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 58.06

DCL Analysis Group: G0860000
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: XP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	01-JUL-08 01:05	1.14	ND		U	1	3.44

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DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S085S045

Date Printed.....: 11-JUL-08 10:39

Client Name.....: GPL Laboratories
Client Ref Number....: 806149
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 806149

Date Received.....: 25-JUN-08 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 30-JUN-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: MR03-SS08-08|B
DCL Sample Name...: 08E03145
DCL Report Group..: 08E-0500-01

Matrix.....: SOIL
Date Sampled.....: 18-JUN-08 16:40
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 68.74

DCL Analysis Group: G0860000
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	01-JUL-08 01:26	0.965	ND		U	1	2.91

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Phone (801) 266-7700 Web Page: www.datachem.com

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FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S085S046

Date Printed.....: 11-JUL-08 10:39

Client Name.....: GPL Laboratories
Client Ref Number....: 806149
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 806149

Date Received.....: 25-JUN-08 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 30-JUN-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: MR03-SS07-08|B
DCL Sample Name...: 08E03146
DCL Report Group..: 08E-0500-01

Matrix.....: SOIL
Date Sampled.....: 18-JUN-08 16:50
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 78.17

DCL Analysis Group: G086000Q
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: RP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	01-JUL-08 01:46	0.848	ND		U	1	2.56

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DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S085S04N

Date Printed.....: 27-JUN-08 19:24

Client Name.....: GPL Laboratories
Client Ref Number....: 806149
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 806149

Date Received.....: 25-JUN-08 00:00

Client Sample Name: MR03-EB06180|08-SS
DCL Sample Name...: 08E03147
DCL Report Group..: 08E-0500-03

Matrix.....: WATER
Date Sampled.....: 18-JUN-08 16:00
Reporting Units...: ug/L
Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: Not Applicable
Date Prepared.....: 26-JUN-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: Not Applicable
Net Weight/Volume....: Not Required

DCL Analysis Group: G085V00T
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate-	27-JUN-08 03:39	0.0663	ND		U	1	0.200

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DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

Form RLIMS63A-V1.4
06270819242280
Page 4

S085S04P

Date Printed.....: 27-JUN-08 19:24

Client Name.....: GPL Laboratories
Client Ref Number....: 806149
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 806149

Date Received.....: 25-JUN-08 00:00

Client Sample Name: MR03-FB06180|08
DCL Sample Name...: 08E03148
DCL Report Group..: 08E-0500-03

Matrix.....: WATER
Date Sampled.....: 18-JUN-08 16:45
Reporting Units...: ug/L
Report Basis.....: [X] As Received [ ] Dried

DCL Preparation Group: Not Applicable
Date Prepared.....: 26-JUN-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: Not Applicable
Net Weight/Volume....: Not Required

DCL Analysis Group: G085V00T
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: RP-RPPX250
[X] Primary
[ ] Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	27-JUN-08 04:40	0.0663	ND		U	1	0.200

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ENVIRONMENTAL
Data Services, Inc.

EXPLOSIVES

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, UXO-03, CTO-168 SDG #: 806150

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: September 18, 2008

Laboratory: GPL Laboratories, Frederick, Maryland Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR03-EB061908-SS	806150-001	Water
2	MR03-SS06-08B	806150-002	Soil
3	MR03-SS05-08B	806150-003	Soil
4	MR03-SS01-08B	806150-004	Soil
5	MR03-SS01D-08B	806150-005	Soil
6	MR03-SS05D-08B	806150-006	Soil
7	MR03-SS04-08B	806150-007	Soil
8	MR03-SS03-08B	806150-008	Soil
9	MR03-SS02-08B	806150-009	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Organic Data Review," October 1999, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were extracted within 7 days for water samples, 14 days for soil samples and analyzed within 40 days.

Initial Calibration - The initial calibrations exhibited acceptable %RSD and/or correlation coefficient values.

Calibration Verification - The continuing calibrations exhibited acceptable %D values.

Surrogates - All samples exhibited acceptable surrogate recoveries except the following.

Sample ID	Surrogate	%R	Qualifier
4	4-Nitroaniline	141%	J - All positive results
7	4-Nitroaniline	327%	None - All ND
3	4-Nitroaniline	183%	None - All ND
6	4-Nitroaniline	262%	J - All positive results
2	4-Nitroaniline	162%	None - All ND

MS/MSD - A MS/MSD sample was not analyzed.

Laboratory Control Sample - The LCS samples exhibited acceptable %R values except the following.

LCS ID	Compound	%R	Qualifier	Affected Samples
BKS104341	2,4,6-Trinitrotoluene	144%	None	All ND or already (J)
	Nitrobenzene	132%	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 ug/L	Qualifier	Affected Samples
MR03-EB061908-SS	None - ND	-	-	-	-
MR03-FB061808	None - ND	-	-	-	-

Field Duplicates - Field duplicate results are summarized below.

Compound	MR03-SS05-08B mg/kg	MR03-SS05D-08B mg/kg	RPD	Qualifier
2,4,6-Trinitrotoluene	0.16	0.10 U	NC	None
HMX	1.1	0.20 U	NC	None

Compound	MR03-SS01-08B mg/kg	MR03-SS01D-08B mg/kg	RPD	Qualifier
HMX	1.1	0.20 U	NC	None

Compound Identification - Retention times were acceptable and no further action was taken.

Compound Quantitation - No discrepancies were identified.

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
MR03-EB061908-SS

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	806150
Matrix : (Soil / Water)	WATER	Lab Sample ID :	806150-001-001-1/1
Sample Volume :	1000	Lab File ID :	LCD41927.D
% Moisture:		Date Received	06/20/2008
Extraction:	EXT_SW8330	Date Extracted:	06/24/2008
Extract Volume:	20 mL	Date Analyzed	07/04/2008
Injection Volume :	100 µ L	Dilution Factor :	1
GPC Clean up (Y/N):	pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.20	U
99-65-0	1,3-Dinitrobenzene	0.20	U
118-96-7	2,4,6-Trinitrotoluene	0.20	U
121-14-2	2,4-Dinitrotoluene	0.20	U
606-20-2	2,6-Dinitrotoluene	0.20	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.20	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.20	U
2691-41-0	HMX	0.40	U
98-95-3	Nitrobenzene	0.20	U
121-82-4	RDX	0.40	U
479-45-8	Tetryl	0.40	U
99-08-1	m-Nitrotoluene	0.40	U
88-72-2	o-Nitrotoluene	0.40	U
99-99-0	p-Nitrotoluene	0.40	U

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FORM I
ANALYSIS DATA SHEET

2

SAMPLE NO
MR03-SS06-08B

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	806150
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	806150-002-005-1/1
Sample Volume :	2	Lab File ID :	LCD41972.D
% Moisture:		Date Received	06/20/2008
Extraction:	EXT_SW8330	Date Extracted:	06/26/2008
Extract Volume:	20 mL	Date Analyzed	07/06/2008
Injection Volume :	100 µL	Dilution Factor :	1
GPC Clean up (Y/N):	BLACK pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.10	U
99-65-0	1,3-Dinitrobenzene	0.10	U
118-96-7	2,4,6-Trinitrotoluene	0.10	U
121-14-2	2,4-Dinitrotoluene	0.10	U
606-20-2	2,6-Dinitrotoluene	0.10	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.10	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.10	U
2691-41-0	HMX	0.20	U
98-95-3	Nitrobenzene	0.10	U
121-82-4	RDX	0.20	U
479-45-8	Tetryl	0.20	U
99-08-1	m-Nitrotoluene	0.20	U
88-72-2	o-Nitrotoluene	0.20	U
99-99-0	p-Nitrotoluene	0.20	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

3

SAMPLE NO
MR03-SS05-08B

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	806150
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	806150-003-006-1/1
Sample Volume :	2	Lab File ID :	LCD41973.D
% Moisture:		Date Received	06/20/2008
Extraction:	EXT_SW8330	Date Extracted:	06/26/2008
Extract Volume:	20 mL	Date Analyzed	07/06/2008
Injection Volume :	100 µL	Dilution Factor :	1
GPC Clean up (Y/N):	BLACK pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.10	U
99-65-0	1,3-Dinitrobenzene	0.10	U
118-96-7	2,4,6-Trinitrotoluene	0.10	U
121-14-2	2,4-Dinitrotoluene	0.10	U
606-20-2	2,6-Dinitrotoluene	0.10	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.10	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.10	U
2691-41-0	HMX	0.20	U
98-95-3	Nitrobenzene	0.10	U
121-82-4	RDX	0.20	U
479-45-8	Tetryl	0.20	U
99-08-1	m-Nitrotoluene	0.20	U
88-72-2	o-Nitrotoluene	0.20	U
99-99-0	p-Nitrotoluene	0.20	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
MR03-SS01-08B

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	806150
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	806150-004-007-1/1
Sample Volume :	2	Lab File ID :	LCD41974.D
% Moisture:		Date Received	06/20/2008
Extraction:	EXT_SW8330	Date Extracted:	06/26/2008
Extract Volume:	20 mL	Date Analyzed	07/06/2008
Injection Volume :	100 µL	Dilution Factor :	1
GPC Clean up (Y/N):	BLACK pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.10	U
99-65-0	1,3-Dinitrobenzene	0.10	U
118-96-7	2,4,6-Trinitrotoluene	0.10	U
121-14-2	2,4-Dinitrotoluene	0.10	U
606-20-2	2,6-Dinitrotoluene	0.10	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.10	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.10	U
2691-41-0	HMX	1.1	J SSH
98-95-3	Nitrobenzene	0.10	U
121-82-4	RDX	0.20	U
479-45-8	Tetryl	0.20	U
99-08-1	m-Nitrotoluene	0.20	U
88-72-2	o-Nitrotoluene	0.20	U
99-99-0	p-Nitrotoluene	0.20	U

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GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
MR03-SS01D-08B

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	806150
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	806150-005-008-1/1
Sample Volume :	2.02	Lab File ID :	LCD41975.D
% Moisture:		Date Received	06/20/2008
Extraction:	EXT_SW8330	Date Extracted:	06/26/2008
Extract Volume:	20 mL	Date Analyzed	07/06/2008
Injection Volume :	100 µ L	Dilution Factor :	1
GPC Clean up (Y/N):	BLACK pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.099	U
99-65-0	1,3-Dinitrobenzene	0.099	U
118-96-7	2,4,6-Trinitrotoluene	0.099	U
121-14-2	2,4-Dinitrotoluene	0.099	U
606-20-2	2,6-Dinitrotoluene	0.099	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.099	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.099	U
2691-41-0	HMX	0.20	U
98-95-3	Nitrobenzene	0.099	U
121-82-4	RDX	0.20	U
479-45-8	Tetryl	0.20	U
99-08-1	m-Nitrotoluene	0.20	U
88-72-2	o-Nitrotoluene	0.20	U
99-99-0	p-Nitrotoluene	0.20	U

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FORM I
ANALYSIS DATA SHEET

SAMPLE NO
MR03-SS05D-08B

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	806150
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	806150-006-009-1/1
Sample Volume :	2.03	Lab File ID :	LCD41976.D
% Moisture:		Date Received	06/20/2008
Extraction:	EXT_SW8330	Date Extracted:	06/26/2008
Extract Volume:	20 mL	Date Analyzed	07/06/2008
Injection Volume :	100 µL	Dilution Factor :	1
GPC Clean up (Y/N):	BLACK pH:		

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

CAS NO	COMPOUND		Q	
99-35-4	1,3,5-Trinitrobenzene	0.099	U	
99-65-0	1,3-Dinitrobenzene	0.099	U	
118-96-7	2,4,6-Trinitrotoluene	0.16		J SSH
121-14-2	2,4-Dinitrotoluene	0.099	U	
606-20-2	2,6-Dinitrotoluene	0.099	U	
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.099	U	
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.099	U	
2691-41-0	HMX	1.1		J SSH
98-95-3	Nitrobenzene	0.099	U	
121-82-4	RDX	0.20	U	
479-45-8	Tetryl	0.20	U	
99-08-1	m-Nitrotoluene	0.20	U	
88-72-2	o-Nitrotoluene	0.20	U	
99-99-0	p-Nitrotoluene	0.20	U	

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

7

SAMPLE NO
MR03-SS04-08B

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	806150
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	806150-007-010-1/1
Sample Volume :	2	Lab File ID :	LCD41977.D
% Moisture:		Date Received	06/20/2008
Extraction:	EXT_SW8330	Date Extracted:	06/26/2008
Extract Volume:	20 mL	Date Analyzed	07/06/2008
Injection Volume :	100 µL	Dilution Factor :	1
GPC Clean up (Y/N):	BLACK pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.10	U
99-65-0	1,3-Dinitrobenzene	0.10	U
118-96-7	2,4,6-Trinitrotoluene	0.10	U
121-14-2	2,4-Dinitrotoluene	0.10	U
606-20-2	2,6-Dinitrotoluene	0.10	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.10	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.10	U
2691-41-0	HMX	0.20	U
98-95-3	Nitrobenzene	0.10	U
121-82-4	RDX	0.20	U
479-45-8	Tetryl	0.20	U
99-08-1	m-Nitrotoluene	0.20	U
88-72-2	o-Nitrotoluene	0.20	U
99-99-0	p-Nitrotoluene	0.20	U

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GPL Laboratories

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FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
MR03-SS03-08B

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	806150
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	806150-008-011-1/1
Sample Volume :	2	Lab File ID :	LCD41978.D
% Moisture:		Date Received	06/20/2008
Extraction:	EXT_SW8330	Date Extracted:	06/26/2008
Extract Volume:	20 mL	Date Analyzed	07/06/2008
Injection Volume :	100 µL	Dilution Factor :	1
GPC Clean up (Y/N):	BLACK pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.10	U
99-65-0	1,3-Dinitrobenzene	0.10	U
118-96-7	2,4,6-Trinitrotoluene	0.10	U
121-14-2	2,4-Dinitrotoluene	0.10	U
606-20-2	2,6-Dinitrotoluene	0.10	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.10	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.10	U
2691-41-0	HMX	0.20	U
98-95-3	Nitrobenzene	0.10	U
121-82-4	RDX	0.20	U
479-45-8	Tetryl	0.20	U
99-08-1	m-Nitrotoluene	0.20	U
88-72-2	o-Nitrotoluene	0.20	U
99-99-0	p-Nitrotoluene	0.20	U

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FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
MR03-SS02-08B

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	806150
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	806150-009-012-1/1
Sample Volume :		Lab File ID :	LCD41979.D
% Moisture:		Date Received	06/20/2008
Extraction:		Date Extracted:	
Extract Volume:	mL	Date Analyzed	07/06/2008
Injection Volume :	100 µL	Dilution Factor :	1
GPC Clean up (Y/N):	pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.10	U
99-65-0	1,3-Dinitrobenzene	0.10	U
118-96-7	2,4,6-Trinitrotoluene	0.10	U
121-14-2	2,4-Dinitrotoluene	0.10	U
606-20-2	2,6-Dinitrotoluene	0.10	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.10	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.10	U
2691-41-0	HMX	0.20	U
98-95-3	Nitrobenzene	0.10	U
121-82-4	RDX	0.20	U
479-45-8	Tetryl	0.20	U
99-08-1	m-Nitrotoluene	0.20	U
88-72-2	o-Nitrotoluene	0.20	U
99-99-0	p-Nitrotoluene	0.20	U

ENVIRONMENTAL
Data Services, Inc.

METALS

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, UXO-03, CTO-168 SDG #: 806150

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: September 18, 2008

Laboratory: GPL Laboratories, Frederick, Maryland Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR03-EB061908-SS	806150-001	Water
2	MR03-SS06-08B	806150-002	Soil
3	MR03-SS05-08B	806150-003	Soil
4	MR03-SS01-08B	806150-004	Soil
5	MR03-SS01D-08B	806150-005	Soil
6	MR03-SS05D-08B	806150-006	Soil
7	MR03-SS04-08B	806150-007	Soil
8	MR03-SS03-08B	806150-008	Soil
9	MR03-SS02-08B	806150-009	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 contamination for several compounds, however, all sample results are non-detect or greater than 5X the blank concentration with the exception of the following:

Water

Compound	Conc. ug/L	Qualifier	Affected Samples
Barium	2.630	U	1

Compound	Conc. ug/L	Qualifier	Affected Samples
Calcium	414.148	U	1
Copper	1.671	U	1
Iron	47.438	U	1
Magnesium	22.638	U	1
Potassium	37.134	U	1
Selenium	2.261	U	1
Sodium	297.759	U	1
Zinc	7.578	U	1

Soil

Compound	Conc. mg/kg	Qualifier	Affected Samples
Antimony	2.42	U	2-4, 7-9
Barium	0.038	U	2, 3, 5-8
Cadmium	0.249	U	All soils samples
Cobalt	0.114	U	All soils samples
Magnesium	27.7	U	All soils samples
Potassium	2.753	U	All soils samples
Silver	0.427	U	All soils samples
Sodium	39.339	U	All soils samples
Vanadium	0.076	U	2-7, 9
Zinc	0.252	U	2, 3, 6

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/L	Qualifier	Affected Samples
MR03-EB061908-SS	None - ND	-	-	-	-
MR03-FB061808	None - ND	-	-	-	-

ICP Interference Check Sample - All %R values were acceptable.

Matrix Spike - The matrix spike samples exhibited acceptable %R values except the following.

MS Sample ID	Compound	%R	Qualifier	Affected Samples
Reference	Antimony	65%	J/UJ	All soil samples

Matrix Duplicate - The matrix duplicate samples exhibited acceptable RPD values except the following.

MSD Sample ID	Compound	RPD	Qualifier	Affected Samples
Reference	Calcium	30%	J	All soil samples

LCS - The LCS samples exhibited acceptable %R values.

ICP Serial Dilution - The ICP serial dilution sample exhibited acceptable %D values.

Field Duplicates - Field duplicate results are summarized below.

Compound	MR03-SS05-08B mg/kg	MR03-SS05D-08B mg/kg	RPD	Qualifier
Aluminum	4140	4340	5%	None
Arsenic	1.1	0.88	22%	None
Beryllium	0.041	0.038	8%	None
Calcium	351	540	42%	None
Chromium	2.3	2.4	4%	None
Copper	59.3	72.7	20%	None
Iron	1160	1220	5%	None
Lead	16.9	16.9	0%	None
Manganese	8.1	12.7	44%	None
Mercury	0.099	0.12	19%	None
Nickel	0.78	0.72	8%	None
Selenium	1.2	0.94	24%	None

Compound	MR03-SS01-08B mg/kg	MR03-SS01D-08B mg/kg	RPD	Qualifier
Aluminum	1400	1480	6%	None
Arsenic	0.79	0.72	9%	None
Barium	20.5	23.2 U	NC	None
Beryllium	0.032	0.028	13%	None
Calcium	2190	2320	6%	None
Chromium	2.7	2.5	8%	None
Copper	4.3	4.7	9%	None
Iron	781	791	1%	None
Lead	19.1	21.5	12%	None
Manganese	13.9	15.0	8%	None
Mercury	0.046	0.049	6%	None
Nickel	1.1	1.1	0%	None
Selenium	0.44	0.98	76%	None
Zinc	20.8	18.5	12%	None

Compound Quantitation - No discrepancies were identified.

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-EB061908-SS

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806150W

Matrix: (soil/water) WATER Lab Sample ID: S 806150-001-002-1/1

Level: (low/med) Date Recieved: 06/20/2008

% 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	200	U	/	P	
7440-36-0	Antimony	60.0	U		P	
7440-38-2	Arsenic	10.0	U		P	
7440-39-3	Barium	200 ~~0.86~~ J	U		P	BL
7441-41-7	Beryllium	5.0	U		P	
7440-43-9	Cadmium	5.0	U		P	
7440-70-2	Calcium	5000 ~~66.4~~ J	U		P	BL
7440-47-3	Chromium	10.0	U		P	
7440-48-4	Cobalt	50.0	U		P	
7440-50-8	Copper	25 ~~2.8~~ J	U		P	BL
7439-89-6	Iron	100 ~~26.5~~ J	U		P	BL
7439-92-1	Lead	10.0	U		P	
7439-95-4	Magnesium	5000 ~~22.6~~ J	U		P	BL
7439-96-5	Manganese	15.0	U		P	
7439-97-6	Mercury	0.20	U		CV	
7440-02-0	Nickel	40.0	U		P	
7440-09-7	Potassium	5000 ~~93.8~~ J	U		P	BL
7782-49-2	Selenium	35 ~~3.6~~ J	U		P	BL
7440-22-4	Silver	10.0	U		P	
7440-23-5	Sodium	5000 ~~775~~ J	U		P	BL
7440-28-0	Thallium	25.0	U		P	
7440-62-2	Vanadium	50.0	U		P	
7440-66-6	Zinc	60 ~~6.0~~ J	U		P	BL

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.

MR03-SS06-08B

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806150S

Matrix: (soil/water) SOIL Lab Sample ID: S 806150-002-005-1/1

Level: (low/med) Date Recieved: 06/20/2008

% Solids: 68.6

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	1110			P	
7440-36-0	Antimony	6.2	~~U~~	~~UJ~~	P	MSL
7440-38-2	Arsenic	0.37	J		P	
7440-39-3	Barium	20.5 ~~9.2~~	~~J~~	U	P	BL
7441-41-7	Beryllium	0.019	J		P	
7440-43-9	Cadmium	0.51 ~~0.044~~	~~J~~	U	P	BL
7440-70-2	Calcium	637		J	P	MDP
7440-47-3	Chromium	1.6			P	
7440-48-4	Cobalt	5.1 ~~0.15~~	~~J~~	U	P	BL
7440-50-8	Copper	0.99	J		P	
7439-89-6	Iron	888			P	
7439-92-1	Lead	16.2			P	
7439-95-4	Magnesium	513 ~~113~~	~~J~~	U	P	BL
7439-96-5	Manganese	8.6			P	
7439-97-6	Mercury	0.029	J		AV	
7440-02-0	Nickel	0.66	J		P	
7440-09-7	Potassium	513 ~~108~~	~~J~~	U	P	BL
7782-49-2	Selenium	3.6	U		P	
7440-22-4	Silver	1.0	U		P	
7440-23-5	Sodium	513 ~~76.1~~	~~J~~	U	P	BL
7440-28-0	Thallium	2.6	U		P	
7440-62-2	Vanadium	5.1 ~~4.0~~	~~J~~	U	P	BL
7440-66-6	Zinc	6.2 ~~3.6~~	~~J~~	U	P	BL

Color Before: BLACK Clarity Before: MEDIUM Texture: NA

Color After: YELLOW Clarity After: CLEAR Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-SS05-08B

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806150S

Matrix: (soil/water) SOIL Lab Sample ID: S 806150-003-006-1/1

Level: (low/med) Date Recieved: 06/20/2008

% Solids: 58.0

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	4140			P	
7440-36-0	Antimony	7.6 ~~0.35~~	~~J~~	UJ~~N~~	P	BL, MSL
7440-38-2	Arsenic	1.1	J		P	
7440-39-3	Barium	25.2 ~~18.8~~	~~J~~	U	P	BL
7441-41-7	Beryllium	0.041	J		P	
7440-43-9	Cadmium	0.63 ~~0.078~~	~~J~~	U	P	BL
7440-70-2	Calcium	351	✓	J ✓	P	MDP
7440-47-3	Chromium	2.3			P	
7440-48-4	Cobalt	6.3 ~~0.22~~	~~J~~	U	P	BL
7440-50-8	Copper	59.3			P	
7439-89-6	Iron	1160			P	
7439-92-1	Lead	16.9			P	
7439-95-4	Magnesium	629 ~~103~~	~~J~~	U	P	BL
7439-96-5	Manganese	8.1			P	
7439-97-6	Mercury	0.099			AV	
7440-02-0	Nickel	0.78	J		P	
7440-09-7	Potassium	629 ~~155~~	~~J~~	U	P	BL
7782-49-2	Selenium	1.2	J		P	
7440-22-4	Silver	1.3	U		P	
7440-23-5	Sodium	629 ~~85.9~~	~~J~~	U	P	BL
7440-28-0	Thallium	3.1	U		P	
7440-62-2	Vanadium	6.3 ~~4.5~~	~~J~~	U	P	BL
7440-66-6	Zinc	7.6 ~~5.5~~	~~J~~	U	P	BL

Color Before: BLACK Clarity Before: MEDIUM Texture: NA

Color After: YELLOW Clarity After: CLEAR Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.
MR03-SS01-08B

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806150S

Matrix: (soil/water) SOIL Lab Sample ID: S 806150-004-007-1/1

Level: (low/med) Date Recieved: 06/20/2008

% Solids: 80.9

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	1400			P	
7440-36-0	Antimony	5.2 ~~0.33~~	~~J~~	UJ N	P	BL, MSL
7440-38-2	Arsenic	0.79	J		P	
7440-39-3	Barium	20.5			P	
7441-41-7	Beryllium	0.032	J		P	
7440-43-9	Cadmium	0.44 ~~0.12~~	~~J~~	U	P	BL
7440-70-2	Calcium	2190		J N	P	MDP
7440-47-3	Chromium	2.7			P	
7440-48-4	Cobalt	4.4 ~~0.17~~	~~J~~	U	P	BL
7440-50-8	Copper	4.3			P	
7439-89-6	Iron	781			P	
7439-92-1	Lead	19.1			P	
7439-95-4	Magnesium	435 ~~263~~	~~J~~	U	P	BL
7439-96-5	Manganese	13.9			P	
7439-97-6	Mercury	0.046			AV	
7440-02-0	Nickel	1.1	J		P	
7440-09-7	Potassium	435 ~~147~~	~~J~~	U	P	BL
7782-49-2	Selenium	0.44	J		P	
7440-22-4	Silver	0.87 ~~0.035~~	~~J~~	U	P	BL
7440-23-5	Sodium	435 ~~87.1~~	J	U	P	BL
7440-28-0	Thallium	2.2	U		P	
7440-62-2	Vanadium	4.4 ~~3.2~~	~~J~~	U	P	BL
7440-66-6	Zinc	20.8			P	

Color Before: BLACK Clarity Before: MEDIUM Texture: NA

Color After: YELLOW Clarity After: CLEAR Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-SS01D-08B

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806150S

Matrix: (soil/water) SOIL Lab Sample ID: S 806150-005-008-1/1

Level: (low/med) Date Recieved: 06/20/2008

% Solids: 58.6

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	1480			P	
7440-36-0	Antimony	7.3	~~J~~	UJ ~~N~~	P	MSL
7440-38-2	Arsenic	0.72	J		P	
7440-39-3	Barium	24.2 ~~23.2~~	~~J~~	U	P	BL
7441-41-7	Beryllium	0.028	J		P	
7440-43-9	Cadmium	0.61 ~~0.13~~	~~J~~	U	P	BL
7440-70-2	Calcium	2320		J ~~N~~	P	MDP
7440-47-3	Chromium	2.5			P	
7440-48-4	Cobalt	6.1 ~~0.17~~	~~J~~	U	P	BL
7440-50-8	Copper	4.7			P	
7439-89-6	Iron	791			P	
7439-92-1	Lead	21.5			P	
7439-95-4	Magnesium	605 ~~289~~	~~J~~	U	P	BL
7439-96-5	Manganese	15.0			P	
7439-97-6	Mercury	0.049	J		AV	
7440-02-0	Nickel	1.1	J		P	
7440-09-7	Potassium	605 ~~165~~	~~J~~	U	P	BL
7782-49-2	Selenium	0.98	J		P	
7440-22-4	Silver	1.2	U		P	
7440-23-5	Sodium	605 ~~66.8~~	~~J~~	U	P	BL
7440-28-0	Thallium	3.0	U		P	
7440-62-2	Vanadium	6.1 ~~3.5~~	~~J~~	U	P	BL
7440-66-6	Zinc	18.5			P	

Color Before: BLACK Clarity Before: MEDIUM Texture: NA

Color After: YELLOW Clarity After: CLEAR Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.
MR03-SS05D-08B

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806150S

Matrix: (soil/water) SOIL Lab Sample ID: S 806150-006-009-1/1

Level: (low/med) Date Recieved: 06/20/2008

% Solids: 55.4

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	4340			P	
7440-36-0	Antimony	7.8	~~B~~	~~UJ~~	P	MSL
7440-38-2	Arsenic	0.88	J		P	
7440-39-3	Barium	26.1 ~~21.9~~	~~J~~	U	P	BL
7441-41-7	Beryllium	0.038	J		P	
7440-43-9	Cadmium	0.65 ~~0.069~~	~~J~~	U	P	BL
7440-70-2	Calcium	540	~~B~~	~~J~~ J	P	MDP
7440-47-3	Chromium	2.4			P	
7440-48-4	Cobalt	6.5 ~~0.25~~	~~J~~	U	P	BL
7440-50-8	Copper	72.7			P	
7439-89-6	Iron	1220			P	
7439-92-1	Lead	16.9			P	
7439-95-4	Magnesium	654 ~~430~~	~~J~~	U	P	BL
7439-96-5	Manganese	12.7			P	
7439-97-6	Mercury	0.12			AV	
7440-02-0	Nickel	0.72	J		P	
7440-09-7	Potassium	654 ~~240~~	~~J~~	U	P	BL
7782-49-2	Selenium	0.94	J		P	
7440-22-4	Silver	1.3	U		P	
7440-23-5	Sodium	654 ~~75.4~~	~~J~~	U	P	BL
7440-28-0	Thallium	3.3	U		P	
7440-62-2	Vanadium	6.5 ~~4.6~~	~~J~~	U	P	BL
7440-66-6	Zinc	7.8 ~~6.5~~	~~J~~	U	P	BL

Color Before: BLACK Clarity Before: MEDIUM Texture: NA

Color After: YELLOW Clarity After: CLEAR Artifacts: NA

Comments:

MW 9/18/08

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: MR03-SS04-08B

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806150S

Matrix: (soil/water) SOIL Lab Sample ID: S 806150-007-010-1/1

Level: (low/med) Date Recieved: 06/20/2008

% Solids: 70.4

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	2020			P	
7440-36-0	Antimony	6.3 ~~0.33~~	~~J~~	UJ ~~N~~	P	BL, MSL
7440-38-2	Arsenic	0.54	J		P	
7440-39-3	Barium	21 ~~9.3~~	~~J~~	U	P	BL
7441-41-7	Beryllium	0.028	J		P	
7440-43-9	Cadmium	0.53 ~~0.057~~	~~J~~	U	P	BL
7440-70-2	Calcium	902		J	P	MDP
7440-47-3	Chromium	3.5			P	
7440-48-4	Cobalt	5.3 ~~0.14~~	~~J~~	U	P	BL
7440-50-8	Copper	1.4	J		P	
7439-89-6	Iron	1010			P	
7439-92-1	Lead	22.6			P	
7439-95-4	Magnesium	526 ~~176~~	~~J~~	U	P	BL
7439-96-5	Manganese	13.5			P	
7439-97-6	Mercury	0.025	J		AV	
7440-02-0	Nickel	0.57	J		P	
7440-09-7	Potassium	526 ~~121~~	~~J~~	U	P	BL
7782-49-2	Selenium	0.52	J		P	
7440-22-4	Silver	1.1	U		P	
7440-23-5	Sodium	526 ~~54.7~~	~~J~~	U	P	BL
7440-28-0	Thallium	2.6	U		P	
7440-62-2	Vanadium	5.3 ~~4.0~~	~~J~~	U	P	BL
7440-66-6	Zinc	10.9			P	

Color Before: BLACK Clarity Before: MEDIUM Texture: NA

Color After: YELLOW Clarity After: CLEAR Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: MR03-SS03-08B

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806150S

Matrix: (soil/water) SOIL Lab Sample ID: S 806150-008-011-1/1

Level: (low/med) Date Recieved: 06/20/2008

% Solids: 85.4

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	4190			P	
7440-36-0	Antimony	5 ~~0.43~~	~~J~~	U J N	P	BL, MSL
7440-38-2	Arsenic	1.3			P	
7440-39-3	Barium	16.6 ~~12.4~~	~~J~~	U	P	BL
7441-41-7	Beryllium	0.052	J		P	
7440-43-9	Cadmium	0.42 ~~0.054~~	~~J~~	U	P	BL
7440-70-2	Calcium	757		J	P	MDP
7440-47-3	Chromium	5.2			P	
7440-48-4	Cobalt	4.2 ~~0.23~~	~~J~~	U	P	BL
7440-50-8	Copper	2.1			P	
7439-89-6	Iron	2500			P	
7439-92-1	Lead	28.8			P	
7439-95-4	Magnesium	415 ~~236~~	~~J~~	U	P	BL
7439-96-5	Manganese	8.9			P	
7439-97-6	Mercury	0.078			AV	
7440-02-0	Nickel	1.3	J		P	
7440-09-7	Potassium	415 ~~230~~	~~J~~	U	P	BL
7782-49-2	Selenium	0.59	J		P	
7440-22-4	Silver	0.83	U		P	
7440-23-5	Sodium	415 ~~76.7~~	~~J~~	U	P	BL
7440-28-0	Thallium	2.1	U		P	
7440-62-2	Vanadium	10.4			P	
7440-66-6	Zinc	11.3			P	

Color Before: BLACK Clarity Before: MEDIUM Texture: NA

Color After: YELLOW Clarity After: CLEAR Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-SS02-08B

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806150S

Matrix: (soil/water) SOIL Lab Sample ID: S 806150-009-012-1/1

Level: (low/med) Date Recieved: 06/20/2008

% Solids: 54.3

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	1510			P	
7440-36-0	Antimony	7.8 ~~0.62~~	~~J~~	UJ ~~N~~	P	BL, MSL
7440-38-2	Arsenic	0.99	J		P	
7440-39-3	Barium	40.9			P	
7441-41-7	Beryllium	0.050	J		P	
7440-43-9	Cadmium	0.65 ~~0.15~~	~~J~~	U	P	BL
7440-70-2	Calcium	2610		J	P	MDP
7440-47-3	Chromium	2.0			P	
7440-48-4	Cobalt	6.5 ~~0.28~~	~~J~~	U	P	BL
7440-50-8	Copper	3.1	J		P	
7439-89-6	Iron	753			P	
7439-92-1	Lead	46.4			P	
7439-95-4	Magnesium	648 ~~345~~	~~J~~	U	P	BL
7439-96-5	Manganese	13.0			P	
7439-97-6	Mercury	0.097			AV	
7440-02-0	Nickel	1.9	J		P	
7440-09-7	Potassium	648 ~~146~~	~~J~~	U	P	BL
7782-49-2	Selenium	0.92	J		P	
7440-22-4	Silver	1.3	U		P	
7440-23-5	Sodium	648 ~~128~~	~~J~~	U	P	BL
7440-28-0	Thallium	3.2	U		P	
7440-62-2	Vanadium	6.5 ~~4.8~~	~~J~~	U	P	BL
7440-66-6	Zinc	21.1			P	

Color Before: BLACK Clarity Before: MEDIUM Texture: NA

Color After: YELLOW Clarity After: CLEAR Artifacts: NA

Comments:

ENVIRONMENTAL
Data Services, Inc.

METALS

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, UXO-03, CTO-168 SDG #: 806150

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: September 18, 2008

Laboratory: GPL Laboratories, Frederick, Maryland Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR03-EB061908-SS	806150-001	Water
2	MR03-SS06-08B	806150-002	Soil
3	MR03-SS05-08B	806150-003	Soil
4	MR03-SS01-08B	806150-004	Soil
5	MR03-SS01D-08B	806150-005	Soil
6	MR03-SS05D-08B	806150-006	Soil
7	MR03-SS04-08B	806150-007	Soil
8	MR03-SS03-08B	806150-008	Soil
9	MR03-SS02-08B	806150-009	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 contamination for several compounds, however, all sample results are non-detect or greater than 5X the blank concentration with the exception of the following:

Water

Compound	Conc. ug/L	Qualifier	Affected Samples
Barium	2.630	U	1

Compound	Conc. ug/L	Qualifier	Affected Samples
Calcium	414.148	U	1
Copper	1.671	U	1
Iron	47.438	U	1
Magnesium	22.638	U	1
Potassium	37.134	U	1
Selenium	2.261	U	1
Sodium	297.759	U	1
Zinc	7.578	U	1

Soil

Compound	Conc. mg/kg	Qualifier	Affected Samples
Antimony	2.42	U	2-4, 7-9
Barium	0.038	U	2, 3, 5-8
Cadmium	0.249	U	All soils samples
Cobalt	0.114	U	All soils samples
Magnesium	27.7	U	All soils samples
Potassium	2.753	U	All soils samples
Silver	0.427	U	All soils samples
Sodium	39.339	U	All soils samples
Vanadium	0.076	U	2-7, 9
Zinc	0.252	U	2, 3, 6

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/L	Qualifier	Affected Samples
MR03-EB061908-SS	None - ND	-	-	-	-
MR03-FB061808	None - ND	-	-	-	-

ICP Interference Check Sample - All %R values were acceptable.

Matrix Spike - The matrix spike samples exhibited acceptable %R values except the following.

MS Sample ID	Compound	%R	Qualifier	Affected Samples
Reference	Antimony	65%	J/UJ	All soil samples

Matrix Duplicate - The matrix duplicate samples exhibited acceptable RPD values except the following.

MSD Sample ID	Compound	RPD	Qualifier	Affected Samples
Reference	Calcium	30%	J	All soil samples

LCS - The LCS samples exhibited acceptable %R values.

ICP Serial Dilution - The ICP serial dilution sample exhibited acceptable %D values.

Field Duplicates - Field duplicate results are summarized below.

Compound	MR03-SS05-08B mg/kg	MR03-SS05D-08B mg/kg	RPD	Qualifier
Aluminum	4140	4340	5%	None
Arsenic	1.1	0.88	22%	None
Beryllium	0.041	0.038	8%	None
Calcium	351	540	42%	None
Chromium	2.3	2.4	4%	None
Copper	59.3	72.7	20%	None
Iron	1160	1220	5%	None
Lead	16.9	16.9	0%	None
Manganese	8.1	12.7	44%	None
Mercury	0.099	0.12	19%	None
Nickel	0.78	0.72	8%	None
Selenium	1.2	0.94	24%	None

Compound	MR03-SS01-08B mg/kg	MR03-SS01D-08B mg/kg	RPD	Qualifier
Aluminum	1400	1480	6%	None
Arsenic	0.79	0.72	9%	None
Barium	20.5	23.2 U	NC	None
Beryllium	0.032	0.028	13%	None
Calcium	2190	2320	6%	None
Chromium	2.7	2.5	8%	None
Copper	4.3	4.7	9%	None
Iron	781	791	1%	None
Lead	19.1	21.5	12%	None
Manganese	13.9	15.0	8%	None
Mercury	0.046	0.049	6%	None
Nickel	1.1	1.1	0%	None
Selenium	0.44	0.98	76%	None
Zinc	20.8	18.5	12%	None

Compound Quantitation - No discrepancies were identified.

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-EB061908-SS

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806150W

Matrix: (soil/water) WATER Lab Sample ID: S 806150-001-002-1/1

Level: (low/med) Date Recieved: 06/20/2008

% 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	200	U	/	P	
7440-36-0	Antimony	60.0	U		P	
7440-38-2	Arsenic	10.0	U		P	
7440-39-3	Barium	200 ~~0.86~~ J	U		P	BL
7441-41-7	Beryllium	5.0	U		P	
7440-43-9	Cadmium	5.0	U		P	
7440-70-2	Calcium	5000 ~~66.4~~ J	U		P	BL
7440-47-3	Chromium	10.0	U		P	
7440-48-4	Cobalt	50.0	U		P	
7440-50-8	Copper	25 ~~2.8~~ J	U		P	BL
7439-89-6	Iron	100 ~~26.5~~ J	U		P	BL
7439-92-1	Lead	10.0	U		P	
7439-95-4	Magnesium	5000 ~~22.6~~ J	U		P	BL
7439-96-5	Manganese	15.0	U		P	
7439-97-6	Mercury	0.20	U		CV	
7440-02-0	Nickel	40.0	U		P	
7440-09-7	Potassium	5000 ~~93.8~~ J	U		P	BL
7782-49-2	Selenium	35 ~~3.6~~ J	U		P	BL
7440-22-4	Silver	10.0	U		P	
7440-23-5	Sodium	5000 ~~775~~ J	U		P	BL
7440-28-0	Thallium	25.0	U		P	
7440-62-2	Vanadium	50.0	U		P	
7440-66-6	Zinc	60 ~~6.0~~ J	U		P	BL

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.

MR03-SS06-08B

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806150S

Matrix: (soil/water) SOIL Lab Sample ID: S 806150-002-005-1/1

Level: (low/med) Date Recieved: 06/20/2008

% Solids: 68.6

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	1110			P	
7440-36-0	Antimony	6.2	~~U~~	~~UJ~~	P	MSL
7440-38-2	Arsenic	0.37	J		P	
7440-39-3	Barium	20.5 ~~9.2~~	~~J~~	U	P	BL
7441-41-7	Beryllium	0.019	J		P	
7440-43-9	Cadmium	0.51 ~~0.044~~	~~J~~	U	P	BL
7440-70-2	Calcium	637		J	P	MDP
7440-47-3	Chromium	1.6			P	
7440-48-4	Cobalt	5.1 ~~0.15~~	~~J~~	U	P	BL
7440-50-8	Copper	0.99	J		P	
7439-89-6	Iron	888			P	
7439-92-1	Lead	16.2			P	
7439-95-4	Magnesium	513 ~~113~~	~~J~~	U	P	BL
7439-96-5	Manganese	8.6			P	
7439-97-6	Mercury	0.029	J		AV	
7440-02-0	Nickel	0.66	J		P	
7440-09-7	Potassium	513 ~~108~~	~~J~~	U	P	BL
7782-49-2	Selenium	3.6	U		P	
7440-22-4	Silver	1.0	U		P	
7440-23-5	Sodium	513 ~~76.1~~	~~J~~	U	P	BL
7440-28-0	Thallium	2.6	U		P	
7440-62-2	Vanadium	5.1 ~~4.0~~	~~J~~	U	P	BL
7440-66-6	Zinc	6.2 ~~3.6~~	~~J~~	U	P	BL

Color Before: BLACK Clarity Before: MEDIUM Texture: NA

Color After: YELLOW Clarity After: CLEAR Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-SS05-08B

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806150S

Matrix: (soil/water) SOIL Lab Sample ID: S 806150-003-006-1/1

Level: (low/med) Date Recieved: 06/20/2008

% Solids: 58.0

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	4140			P	
7440-36-0	Antimony	7.6 ~~0.35~~	~~J~~	UJ~~N~~	P	BL, MSL
7440-38-2	Arsenic	1.1	J		P	
7440-39-3	Barium	25.2 ~~18.8~~	~~J~~	U	P	BL
7441-41-7	Beryllium	0.041	J		P	
7440-43-9	Cadmium	0.63 ~~0.078~~	~~J~~	U	P	BL
7440-70-2	Calcium	351	✓	J ✓	P	MDP
7440-47-3	Chromium	2.3			P	
7440-48-4	Cobalt	6.3 ~~0.22~~	~~J~~	U	P	BL
7440-50-8	Copper	59.3			P	
7439-89-6	Iron	1160			P	
7439-92-1	Lead	16.9			P	
7439-95-4	Magnesium	629 ~~103~~	~~J~~	U	P	BL
7439-96-5	Manganese	8.1			P	
7439-97-6	Mercury	0.099			AV	
7440-02-0	Nickel	0.78	J		P	
7440-09-7	Potassium	629 ~~155~~	~~J~~	U	P	BL
7782-49-2	Selenium	1.2	J		P	
7440-22-4	Silver	1.3	U		P	
7440-23-5	Sodium	629 ~~85.9~~	~~J~~	U	P	BL
7440-28-0	Thallium	3.1	U		P	
7440-62-2	Vanadium	6.3 ~~4.5~~	~~J~~	U	P	BL
7440-66-6	Zinc	7.6 ~~5.5~~	~~J~~	U	P	BL

Color Before: BLACK Clarity Before: MEDIUM Texture: NA

Color After: YELLOW Clarity After: CLEAR Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.
MR03-SS01-08B

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806150S

Matrix: (soil/water) SOIL Lab Sample ID: S 806150-004-007-1/1

Level: (low/med) Date Recieved: 06/20/2008

% Solids: 80.9

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	1400			P	
7440-36-0	Antimony	5.2 ~~0.33~~	~~J~~	UJ N	P	BL, MSL
7440-38-2	Arsenic	0.79	J		P	
7440-39-3	Barium	20.5			P	
7441-41-7	Beryllium	0.032	J		P	
7440-43-9	Cadmium	0.44 ~~0.12~~	~~J~~	U	P	BL
7440-70-2	Calcium	2190		J N	P	MDP
7440-47-3	Chromium	2.7			P	
7440-48-4	Cobalt	4.4 ~~0.17~~	~~J~~	U	P	BL
7440-50-8	Copper	4.3			P	
7439-89-6	Iron	781			P	
7439-92-1	Lead	19.1			P	
7439-95-4	Magnesium	435 ~~263~~	~~J~~	U	P	BL
7439-96-5	Manganese	13.9			P	
7439-97-6	Mercury	0.046			AV	
7440-02-0	Nickel	1.1	J		P	
7440-09-7	Potassium	435 ~~147~~	~~J~~	U	P	BL
7782-49-2	Selenium	0.44	J		P	
7440-22-4	Silver	0.87 ~~0.035~~	~~J~~	U	P	BL
7440-23-5	Sodium	435 ~~87.1~~	J	U	P	BL
7440-28-0	Thallium	2.2	U		P	
7440-62-2	Vanadium	4.4 ~~3.2~~	~~J~~	U	P	BL
7440-66-6	Zinc	20.8			P	

Color Before: BLACK Clarity Before: MEDIUM Texture: NA

Color After: YELLOW Clarity After: CLEAR Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-SS01D-08B

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806150S

Matrix: (soil/water) SOIL Lab Sample ID: S 806150-005-008-1/1

Level: (low/med) Date Recieved: 06/20/2008

% Solids: 58.6

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	1480			P	
7440-36-0	Antimony	7.3	~~J~~	UJ ~~N~~	P	MSL
7440-38-2	Arsenic	0.72	J		P	
7440-39-3	Barium	24.2 ~~23.2~~	~~J~~	U	P	BL
7441-41-7	Beryllium	0.028	J		P	
7440-43-9	Cadmium	0.61 ~~0.13~~	~~J~~	U	P	BL
7440-70-2	Calcium	2320		J ~~N~~	P	MDP
7440-47-3	Chromium	2.5			P	
7440-48-4	Cobalt	6.1 ~~0.17~~	~~J~~	U	P	BL
7440-50-8	Copper	4.7			P	
7439-89-6	Iron	791			P	
7439-92-1	Lead	21.5			P	
7439-95-4	Magnesium	605 ~~289~~	~~J~~	U	P	BL
7439-96-5	Manganese	15.0			P	
7439-97-6	Mercury	0.049	J		AV	
7440-02-0	Nickel	1.1	J		P	
7440-09-7	Potassium	605 ~~165~~	~~J~~	U	P	BL
7782-49-2	Selenium	0.98	J		P	
7440-22-4	Silver	1.2	U		P	
7440-23-5	Sodium	605 ~~66.8~~	~~J~~	U	P	BL
7440-28-0	Thallium	3.0	U		P	
7440-62-2	Vanadium	6.1 ~~3.5~~	~~J~~	U	P	BL
7440-66-6	Zinc	18.5			P	

Color Before: BLACK Clarity Before: MEDIUM Texture: NA

Color After: YELLOW Clarity After: CLEAR Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.
MR03-SS05D-08B

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806150S

Matrix: (soil/water) SOIL Lab Sample ID: S 806150-006-009-1/1

Level: (low/med) Date Recieved: 06/20/2008

% Solids: 55.4

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	4340			P	
7440-36-0	Antimony	7.8	~~B~~	~~UJ~~	P	MSL
7440-38-2	Arsenic	0.88	J		P	
7440-39-3	Barium	26.1 ~~21.9~~	~~J~~	U	P	BL
7441-41-7	Beryllium	0.038	J		P	
7440-43-9	Cadmium	0.65 ~~0.069~~	~~J~~	U	P	BL
7440-70-2	Calcium	540	~~B~~	~~J~~ J	P	MDP
7440-47-3	Chromium	2.4			P	
7440-48-4	Cobalt	6.5 ~~0.25~~	~~J~~	U	P	BL
7440-50-8	Copper	72.7			P	
7439-89-6	Iron	1220			P	
7439-92-1	Lead	16.9			P	
7439-95-4	Magnesium	654 ~~430~~	~~J~~	U	P	BL
7439-96-5	Manganese	12.7			P	
7439-97-6	Mercury	0.12			AV	
7440-02-0	Nickel	0.72	J		P	
7440-09-7	Potassium	654 ~~240~~	~~J~~	U	P	BL
7782-49-2	Selenium	0.94	J		P	
7440-22-4	Silver	1.3	U		P	
7440-23-5	Sodium	654 ~~75.4~~	~~J~~	U	P	BL
7440-28-0	Thallium	3.3	U		P	
7440-62-2	Vanadium	6.5 ~~4.6~~	~~J~~	U	P	BL
7440-66-6	Zinc	7.8 ~~6.5~~	~~J~~	U	P	BL

Color Before: BLACK Clarity Before: MEDIUM Texture: NA

Color After: YELLOW Clarity After: CLEAR Artifacts: NA

Comments:

MW 9/18/08

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: MR03-SS04-08B

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806150S

Matrix: (soil/water) SOIL Lab Sample ID: S 806150-007-010-1/1

Level: (low/med) Date Recieved: 06/20/2008

% Solids: 70.4

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	2020			P	
7440-36-0	Antimony	6.3 ~~0.33~~	~~J~~	UJ ~~N~~	P	BL, MSL
7440-38-2	Arsenic	0.54	J		P	
7440-39-3	Barium	21 ~~9.3~~	~~J~~	U	P	BL
7441-41-7	Beryllium	0.028	J		P	
7440-43-9	Cadmium	0.53 ~~0.057~~	~~J~~	U	P	BL
7440-70-2	Calcium	902		J	P	MDP
7440-47-3	Chromium	3.5			P	
7440-48-4	Cobalt	5.3 ~~0.14~~	~~J~~	U	P	BL
7440-50-8	Copper	1.4	J		P	
7439-89-6	Iron	1010			P	
7439-92-1	Lead	22.6			P	
7439-95-4	Magnesium	526 ~~176~~	~~J~~	U	P	BL
7439-96-5	Manganese	13.5			P	
7439-97-6	Mercury	0.025	J		AV	
7440-02-0	Nickel	0.57	J		P	
7440-09-7	Potassium	526 ~~121~~	~~J~~	U	P	BL
7782-49-2	Selenium	0.52	J		P	
7440-22-4	Silver	1.1	U		P	
7440-23-5	Sodium	526 ~~54.7~~	~~J~~	U	P	BL
7440-28-0	Thallium	2.6	U		P	
7440-62-2	Vanadium	5.3 ~~4.0~~	~~J~~	U	P	BL
7440-66-6	Zinc	10.9			P	

Color Before: BLACK Clarity Before: MEDIUM Texture: NA

Color After: YELLOW Clarity After: CLEAR Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: MR03-SS03-08B

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806150S

Matrix: (soil/water) SOIL Lab Sample ID: S 806150-008-011-1/1

Level: (low/med) Date Recieved: 06/20/2008

% Solids: 85.4

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	4190			P	
7440-36-0	Antimony	5 ~~0.43~~	~~J~~	U J N	P	BL, MSL
7440-38-2	Arsenic	1.3			P	
7440-39-3	Barium	16.6 ~~12.4~~	~~J~~	U	P	BL
7441-41-7	Beryllium	0.052	J		P	
7440-43-9	Cadmium	0.42 ~~0.054~~	~~J~~	U	P	BL
7440-70-2	Calcium	757		J	P	MDP
7440-47-3	Chromium	5.2			P	
7440-48-4	Cobalt	4.2 ~~0.23~~	~~J~~	U	P	BL
7440-50-8	Copper	2.1			P	
7439-89-6	Iron	2500			P	
7439-92-1	Lead	28.8			P	
7439-95-4	Magnesium	415 ~~236~~	~~J~~	U	P	BL
7439-96-5	Manganese	8.9			P	
7439-97-6	Mercury	0.078			AV	
7440-02-0	Nickel	1.3	J		P	
7440-09-7	Potassium	415 ~~230~~	~~J~~	U	P	BL
7782-49-2	Selenium	0.59	J		P	
7440-22-4	Silver	0.83	U		P	
7440-23-5	Sodium	415 ~~76.7~~	~~J~~	U	P	BL
7440-28-0	Thallium	2.1	U		P	
7440-62-2	Vanadium	10.4			P	
7440-66-6	Zinc	11.3			P	

Color Before: BLACK Clarity Before: MEDIUM Texture: NA

Color After: YELLOW Clarity After: CLEAR Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-SS02-08B

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806150S

Matrix: (soil/water) SOIL Lab Sample ID: S 806150-009-012-1/1

Level: (low/med) Date Recieved: 06/20/2008

% Solids: 54.3

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	1510			P	
7440-36-0	Antimony	7.8 ~~0.62~~	~~J~~	UJ ~~N~~	P	BL, MSL
7440-38-2	Arsenic	0.99	J		P	
7440-39-3	Barium	40.9			P	
7441-41-7	Beryllium	0.050	J		P	
7440-43-9	Cadmium	0.65 ~~0.15~~	~~J~~	U	P	BL
7440-70-2	Calcium	2610		J	P	MDP
7440-47-3	Chromium	2.0			P	
7440-48-4	Cobalt	6.5 ~~0.28~~	~~J~~	U	P	BL
7440-50-8	Copper	3.1	J		P	
7439-89-6	Iron	753			P	
7439-92-1	Lead	46.4			P	
7439-95-4	Magnesium	648 ~~345~~	~~J~~	U	P	BL
7439-96-5	Manganese	13.0			P	
7439-97-6	Mercury	0.097			AV	
7440-02-0	Nickel	1.9	J		P	
7440-09-7	Potassium	648 ~~146~~	~~J~~	U	P	BL
7782-49-2	Selenium	0.92	J		P	
7440-22-4	Silver	1.3	U		P	
7440-23-5	Sodium	648 ~~128~~	~~J~~	U	P	BL
7440-28-0	Thallium	3.2	U		P	
7440-62-2	Vanadium	6.5 ~~4.8~~	~~J~~	U	P	BL
7440-66-6	Zinc	21.1			P	

Color Before: BLACK Clarity Before: MEDIUM Texture: NA

Color After: YELLOW Clarity After: CLEAR Artifacts: NA

Comments:

ENVIRONMENTAL
Data Services, Inc.

PERCHLORATE

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, UXO-03, CTO-168 SDG #: 806150

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: September 18, 2008

Laboratory: GPL Laboratories, Frederick, Maryland Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR03-SS06-08B	806150-001	Soil
2	MR03-SS05-08B	806150-002	Soil
3	MR03-SS01-08B	806150-003	Soil
4	MR03-SS01D-08B	806150-004	Soil
5	MR03-SS05D-08B	806150-005	Soil
6	MR03-SS04-08B	806150-006	Soil
7	MR03-SS03-08B	806150-007	Soil
8	MR03-SS02-08B	806150-008	Soil
9	MR03-EB061908-SS	806150-009	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.

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
MR03-EB061908-SS	None - ND	-	-	-	-
MR03-FB061808	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	MR03-SS05-08B ug/kg	MR03-SS05D-08B ug/kg	RPD	Qualifier
Perchlorate	7.59	1.20 U	NC	None

Compound	MR03-SS01-08B ug/kg	MR03-SS01D-08B ug/kg	RPD	Qualifier
None	ND	ND	NC	None

Compound Quantitation - No discrepancies were identified.

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S085S04Q

Date Printed.....: 11-JUL-08 14:30

Client Name.....: GPL Laboratories
Client Ref Number....: 806150
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 806150

Date Received.....: 25-JUN-08 00:00

Client Sample Name: MR03-SS06-08|B
DCL Sample Name...: 08E03149
DCL Report Group..: 08E-0501-01

Matrix.....: SOIL
Date Sampled.....: 19-JUN-08 08:45
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 68.54

DCL Preparation Group: Not Applicable
Date Prepared.....: 01-JUL-08 00:00
Preparation Method...: 5850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

DCL Analysis Group: G085Y00F
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: RP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	02-JUL-08 18:47	0.967	ND		U	1	2.92

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DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

Form RLIMS63A-V1.4
0711081430452
Page 4

S085S04R

Date Printed.....: 11-JUL-08 14:30

Client Name.....: GPL Laboratories
Client Ref Number....: 806150
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 806150

Date Received.....: 25-JUN-08 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 01-JUL-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: MR03-SS05-08|B
DCL Sample Name...: 08E03150
DCL Report Group..: 08E-0501-01

Matrix.....: SOIL
Date Sampled.....: 19-JUN-08 09:00
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 57.99

DCL Analysis Group: G085Y00F
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX150
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	02-JUL-08 19:08	1.14	7.59			1	3.45

lw 9/18/08

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

Form RLIMS63A-V1.4
0711081430452
Page 5

S085S04S

Date Printed.....: 11-JUL-08 14:30

Client Name.....: GPL Laboratories
Client Ref Number....: 806150
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 806150

Date Received.....: 25-JUN-08 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 01-JUL-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: MR03-SS01-08|B
DCL Sample Name...: 08S03151
DCL Report Group..: 08E-0501-01

Matrix.....: SOIL
Date Sampled.....: 19-JUN-08 09:35
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 80.88

DCL Analysis Group: G085Y00F
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	02-JUL-08 19:29	0.820	ND		U	1	2.47

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DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63A-V1.4
0711081430452

S085S04T

SAMPLE ANALYSIS DATA SHEET

Date Printed.....: 11-JUL-08 14:30

Client Name.....: GPL Laboratories
Client Ref Number....: 806150
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 806150

Date Received.....: 25-JUN-08 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 01-JUL-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: MR03-SS01D-0|8B
DCL Sample Name...: 08E03152
DCL Report Group..: 08E-0501-01

Matrix.....: SOIL
Date Sampled.....: 19-JUN-08 09:40
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 58.58

DCL Analysis Group: G085Y00F
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	02-JUL-08 19:51	1.13	ND		U	1	3.41

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9/8/08

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S085S04V

Date Printed.....: 11-JUL-08 14:30

Client Name.....: GPL Laboratories
Client Ref Number....: 806150
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 806150

Date Received.....: 25-JUN-08 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 01-JUL-08 00:00
Preparation Method...: 5850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: MR03-SS05D-0|8B
DCL Sample Name...: 08E03153
DCL Report Group..: 08E-0501-01

Matrix.....: SOIL
Date Sampled.....: 19-JUN-08 09:05
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 55.43

DCL Analysis Group: G085Y00F
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	02-JUL-08 20:12	1.20	ND		U	1	3.61

lw 9/18/08

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S085S04W

Date Printed.....: 11-JUL-08 14:30

Client Name.....: GPL Laboratories
Client Ref Number....: 806150
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 806150

Date Received.....: 25-JUN-08 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 01-JUL-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: MR03-SS04-08|B
DCL Sample Name...: 08E03154
DCL Report Group..: 08E-0501-01

Matrix.....: SOIL
Date Sampled.....: 19-JUN-08 09:41
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 70.44

DCL Analysis Group: G085Y00F
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	02-JUL-08 20:33	0.941	ND		U	1	2.84

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9/8/08

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S085S04X

Date Printed.....: 11-JUL-08 14:30

Client Name.....: GPL Laboratories
Client Ref Number....: 806150
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 806150

Date Received.....: 25-JUN-08 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 01-JUL-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: MR03-SS03-08|B
DCL Sample Name...: 08E03155
DCL Report Group..: 08E-0501-01

Matrix.....: SOIL
Date Sampled.....: 19-JUN-08 09:55
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 85.42

DCL Analysis Group: G085Y00F
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: RP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	02-JUL-08 20:55	0.776	ND		U	1	2.34

LW 9/18/08

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S085S04Y

Date Printed.....: 11-JUL-08 14:30

Client Name.....: GPL Laboratories
Client Ref Number....: 806150
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 806150

Date Received.....: 25-JUN-08 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 01-JUL-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: MR03-SS02-08|B
DCL Sample Name...: 08E03156
DCL Report Group..: 08E-0501-01

Matrix.....: SOIL
Date Sampled.....: 19-JUN-08 10:05
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 54.31

DCL Analysis Group: G085Y00F
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	02-JUL-08 21:15	1.22	ND		U	1	3.68

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DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S085S057

Date Printed.....: 27-JUN-08 19:25

Client Name.....: GPL Laboratories
Client Ref Number....: 806150
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 806150

Date Received.....: 25-JUN-08 00:00

Client Sample Name: MR03-EB06190|8-SS
DCL Sample Name...: 08E03157
DCL Report Group..: 08E-0501-03

Matrix.....: WATER
Date Sampled.....: 19-JUN-08 09:30
Reporting Units...: ug/L
Report Basis.....: [X] As Received [ ] Dried

DCL Preparation Group: Not Applicable
Date Prepared.....: 26-JUN-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: Not Applicable
Net Weight/Volume....: Not Required

DCL Analysis Group: G085V00T
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: XP-RPPX250
[X] Primary
[ ] Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate-	27-JUN-08 05:00	0.0663	ND		U	1	0.200

LW
9/18/08

ENVIRONMENTAL
Data Services, Inc.

EXPLOSIVES

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, UXO-03, CTO-168 SDG #: 806151

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: September 20, 2008

Laboratory: GPL Laboratories, Frederick, Maryland Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR03-DU01-SS01-08B	806151-001	Soil
2	MR03-DU01-SS02-08B	806151-002	Soil
2MS	MR03-DU01-SS02-08BMS	806151-002MS	Soil
2MSD	MR03-DU01-SS02-08BMSD	806151-002MSD	Soil
3	MR03-DU01-SS03-08B	806151-003	Soil
4	MR03-DU02-SS01-08B	806151-004	Soil
5	MR03-SS21-08B	806151-005	Soil
6	MR03-SS17-08B	806151-006	Soil
7	MR03-SS10-08B	806151-007	Soil
8	MR03-SS18-08B	806151-008	Soil
9	MR03-SS14-08B	806151-009	Soil
10	MR03-SS09-08B	806151-010	Soil
11	MR03-SS20-08B	806151-011	Soil
12	MR03-SS24-08B	806151-012	Soil

The USEPA "Contract Laboratory Program National Functional Guidelines for Organic Data Review," October 1999, and professional judgement were used in evaluating the data in this summary report.

Holding Times - All samples were extracted within 14 days for soil samples and analyzed within 40 days.

Initial Calibration - The initial calibrations exhibited acceptable %RSD and/or correlation coefficient values.

Calibration Verification - The continuing calibrations exhibited acceptable %D values.

Surrogates - All samples exhibited acceptable surrogate recoveries except the following.

Sample ID	Surrogate	%R	Qualifier
6	4-Nitroaniline	141%	None - All ND

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
2	Nitrobenzene	128%/128%/Ok	None - All ND

Laboratory Control Sample - The LCS samples exhibited acceptable %R values except the following.

LCS ID	Compound	%R	Qualifier	Affected Samples
BKS104374	Nitrobenzene	140%	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 ug/L	Qualifier	Affected Samples
MR03-EB061808-SS	None - ND	-	-	-	-
MR03-FB061808	None - ND	-	-	-	-

Field Duplicates - Field duplicate samples were not included in this data package.

Compound Identification - Retention times were acceptable and no further action was taken.

Compound Quantitation - No discrepancies were identified.

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
MR03-DU01-SS01-08B

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	806151
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	806151-001-001-1/1
Sample Volume :	2	Lab File ID :	LCD41998.D
% Moisture:		Date Received	06/20/2008
Extraction:	EXT_SW8330	Date Extracted:	06/26/2008
Extract Volume:	20 mL	Date Analyzed	07/08/2008
Injection Volume :	100 µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.10	U
99-65-0	1,3-Dinitrobenzene	0.10	U
118-96-7	2,4,6-Trinitrotoluene	0.10	U
121-14-2	2,4-Dinitrotoluene	0.10	U
606-20-2	2,6-Dinitrotoluene	0.10	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.10	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.10	U
2691-41-0	HMX	0.20	U
98-95-3	Nitrobenzene	0.10	U
121-82-4	RDX	0.20	U
479-45-8	Tetryl	0.20	U
99-08-1	m-Nitrotoluene	0.20	U
88-72-2	o-Nitrotoluene	0.20	U
99-99-0	p-Nitrotoluene	0.20	U

LW 9/20/08

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

2

SAMPLE NO
MR03-DU01-SS02-08B

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	806151
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	806151-002-021-1/3
Sample Volume :	2	Lab File ID :	LCD41999.D
% Moisture:		Date Received	06/20/2008
Extraction:	EXT_SW8330	Date Extracted:	06/26/2008
Extract Volume:	20 mL	Date Analyzed	07/08/2008
Injection Volume :	100 µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.10	U
99-65-0	1,3-Dinitrobenzene	0.10	U
118-96-7	2,4,6-Trinitrotoluene	0.10	U
121-14-2	2,4-Dinitrotoluene	0.10	U
606-20-2	2,6-Dinitrotoluene	0.10	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.10	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.10	U
2691-41-0	HMX	0.20	U
98-95-3	Nitrobenzene	0.10	U
121-82-4	RDX	0.20	U
479-45-8	Tetryl	0.20	U
99-08-1	m-Nitrotoluene	0.20	U
88-72-2	o-Nitrotoluene	0.20	U
99-99-0	p-Nitrotoluene	0.20	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
MR03-DU01-SS03-08B

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	806151
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	806151-003-002-1/1
Sample Volume :	2	Lab File ID :	LCD42000.D
% Moisture:		Date Received	06/20/2008
Extraction:	EXT_SW8330	Date Extracted:	06/26/2008
Extract Volume:	20 mL	Date Analyzed	07/08/2008
Injection Volume :	100 µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.10	U
99-65-0	1,3-Dinitrobenzene	0.10	U
118-96-7	2,4,6-Trinitrotoluene	0.10	U
121-14-2	2,4-Dinitrotoluene	0.10	U
606-20-2	2,6-Dinitrotoluene	0.10	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.10	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.10	U
2691-41-0	HMX	0.20	U
98-95-3	Nitrobenzene	0.10	U
121-82-4	RDX	0.20	U
479-45-8	Tetryl	0.20	U
99-08-1	m-Nitrotoluene	0.20	U
88-72-2	o-Nitrotoluene	0.20	U
99-99-0	p-Nitrotoluene	0.20	U

LW 9/20/08

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

4

SAMPLE NO
MR03-DU02-SS01-08B

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	806151
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	806151-004-003-1/1
Sample Volume :	2	Lab File ID :	LCD42001.D
% Moisture:		Date Received	06/20/2008
Extraction:	EXT_SW8330	Date Extracted:	06/26/2008
Extract Volume:	20 mL	Date Analyzed	07/08/2008
Injection Volume :	100 µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.10	U
99-65-0	1,3-Dinitrobenzene	0.10	U
118-96-7	2,4,6-Trinitrotoluene	0.10	U
121-14-2	2,4-Dinitrotoluene	0.10	U
606-20-2	2,6-Dinitrotoluene	0.10	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.10	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.10	U
2691-41-0	HMX	0.20	U
98-95-3	Nitrobenzene	0.10	U
121-82-4	RDX	0.20	U
479-45-8	Tetryl	0.20	U
99-08-1	m-Nitrotoluene	0.20	U
88-72-2	o-Nitrotoluene	0.20	U
99-99-0	p-Nitrotoluene	0.20	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
MR03-SS21-08B

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	806151
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	806151-005-004-1/1
Sample Volume :	2	Lab File ID :	LCD42002.D
% Moisture:		Date Received	06/20/2008
Extraction:	EXT_SW8330	Date Extracted:	06/26/2008
Extract Volume:	20 mL	Date Analyzed	07/08/2008
Injection Volume :	100 µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.10	U
99-65-0	1,3-Dinitrobenzene	0.10	U
118-96-7	2,4,6-Trinitrotoluene	0.10	U
121-14-2	2,4-Dinitrotoluene	0.10	U
606-20-2	2,6-Dinitrotoluene	0.10	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.10	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.10	U
2691-41-0	HMX	0.20	U
98-95-3	Nitrobenzene	0.10	U
121-82-4	RDX	0.20	U
479-45-8	Tetryl	0.20	U
99-08-1	m-Nitrotoluene	0.20	U
88-72-2	o-Nitrotoluene	0.20	U
99-99-0	p-Nitrotoluene	0.20	U

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GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
MR03-SS17-08B

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	806151
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	806151-006-005-1/1
Sample Volume :	2	Lab File ID :	LCD42003.D
% Moisture:		Date Received	06/20/2008
Extraction:	EXT_SW8330	Date Extracted:	06/26/2008
Extract Volume:	20 mL	Date Analyzed	07/08/2008
Injection Volume :	100 µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.10	U
99-65-0	1,3-Dinitrobenzene	0.10	U
118-96-7	2,4,6-Trinitrotoluene	0.10	U
121-14-2	2,4-Dinitrotoluene	0.10	U
606-20-2	2,6-Dinitrotoluene	0.10	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.10	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.10	U
2691-41-0	HMX	0.20	U
98-95-3	Nitrobenzene	0.10	U
121-82-4	RDX	0.20	U
479-45-8	Tetryl	0.20	U
99-08-1	m-Nitrotoluene	0.20	U
88-72-2	o-Nitrotoluene	0.20	U
99-99-0	p-Nitrotoluene	0.20	U

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GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
MR03-SS10-08B

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	806151
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	806151-007-006-1/1
Sample Volume :	2	Lab File ID :	LCD42005.D
% Moisture:		Date Received	06/20/2008
Extraction:	EXT_SW8330	Date Extracted:	06/26/2008
Extract Volume:	20 mL	Date Analyzed	07/08/2008
Injection Volume :	100 µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.10	U
99-65-0	1,3-Dinitrobenzene	0.10	U
118-96-7	2,4,6-Trinitrotoluene	0.10	U
121-14-2	2,4-Dinitrotoluene	0.10	U
606-20-2	2,6-Dinitrotoluene	0.10	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.10	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.10	U
2691-41-0	HMX	0.20	U
98-95-3	Nitrobenzene	0.10	U
121-82-4	RDX	0.20	U
479-45-8	Tetryl	0.20	U
99-08-1	m-Nitrotoluene	0.20	U
88-72-2	o-Nitrotoluene	0.20	U
99-99-0	p-Nitrotoluene	0.20	U

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FORM 1
ANALYSIS DATA SHEET

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SAMPLE NO
MR03-SS18-08B

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	806151
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	806151-008-024-1/3
Sample Volume :	2	Lab File ID :	LCD42006.D
% Moisture:		Date Received	06/20/2008
Extraction:	EXT_SW8330	Date Extracted:	06/26/2008
Extract Volume:	20 mL	Date Analyzed	07/08/2008
Injection Volume :	100 µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.10	U
99-65-0	1,3-Dinitrobenzene	0.10	U
118-96-7	2,4,6-Trinitrotoluene	0.10	U
121-14-2	2,4-Dinitrotoluene	0.10	U
606-20-2	2,6-Dinitrotoluene	0.10	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.10	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.10	U
2691-41-0	HMX	0.20	U
98-95-3	Nitrobenzene	0.10	U
121-82-4	RDX	0.20	U
479-45-8	Tetryl	0.20	U
99-08-1	m-Nitrotoluene	0.20	U
88-72-2	o-Nitrotoluene	0.20	U
99-99-0	p-Nitrotoluene	0.20	U

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GPL Laboratories

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FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
MR03-SS14-08B

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	806151
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	806151-009-007-1/1
Sample Volume :	2	Lab File ID :	LCD42007.D
% Moisture:		Date Received	06/20/2008
Extraction:	EXT_SW8330	Date Extracted:	06/26/2008
Extract Volume:	20 mL	Date Analyzed	07/08/2008
Injection Volume :	100 µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.10	U
99-65-0	1,3-Dinitrobenzene	0.10	U
118-96-7	2,4,6-Trinitrotoluene	0.10	U
121-14-2	2,4-Dinitrotoluene	0.10	U
606-20-2	2,6-Dinitrotoluene	0.10	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.10	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.10	U
2691-41-0	HMX	0.20	U
98-95-3	Nitrobenzene	0.10	U
121-82-4	RDX	0.20	U
479-45-8	Tetryl	0.20	U
99-08-1	m-Nitrotoluene	0.20	U
88-72-2	o-Nitrotoluene	0.20	U
99-99-0	p-Nitrotoluene	0.20	U

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GPL Laboratories

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FORM 1
ANALYSIS DATA SHEET

10

SAMPLE NO
MR03-SS09-08B

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	806151
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	806151-010-008-1/1
Sample Volume :	2	Lab File ID :	LCD42008.D
% Moisture:		Date Received	06/20/2008
Extraction:	EXT_SW8330	Date Extracted:	06/26/2008
Extract Volume:	20 mL	Date Analyzed	07/08/2008
Injection Volume :	100 µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.10	U
99-65-0	1,3-Dinitrobenzene	0.10	U
118-96-7	2,4,6-Trinitrotoluene	0.10	U
121-14-2	2,4-Dinitrotoluene	0.10	U
606-20-2	2,6-Dinitrotoluene	0.10	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.10	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.10	U
2691-41-0	HMX	0.20	U
98-95-3	Nitrobenzene	0.10	U
121-82-4	RDX	0.20	U
479-45-8	Tetryl	0.20	U
99-08-1	m-Nitrotoluene	0.20	U
88-72-2	o-Nitrotoluene	0.20	U
99-99-0	p-Nitrotoluene	0.20	U

GPL Laboratories

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FORM 1
ANALYSIS DATA SHEET

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SAMPLE NO
MR03-SS20-08B

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	806151
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	806151-011-009-1/1
Sample Volume :	2	Lab File ID :	LCD42009.D
% Moisture:		Date Received	06/20/2008
Extraction:	EXT_SW8330	Date Extracted:	06/26/2008
Extract Volume:	20 mL	Date Analyzed	07/08/2008
Injection Volume :	100 µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.10	U
99-65-0	1,3-Dinitrobenzene	0.10	U
118-96-7	2,4,6-Trinitrotoluene	0.10	U
121-14-2	2,4-Dinitrotoluene	0.10	U
606-20-2	2,6-Dinitrotoluene	0.10	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.10	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.10	U
2691-41-0	HMX	0.20	U
98-95-3	Nitrobenzene	0.10	U
121-82-4	RDX	0.20	U
479-45-8	Tetryl	0.20	U
99-08-1	m-Nitrotoluene	0.20	U
88-72-2	o-Nitrotoluene	0.20	U
99-99-0	p-Nitrotoluene	0.20	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
MR03-SS24-08B

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	806151
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	806151-012-010-1/1
Sample Volume :	2	Lab File ID :	LCD42010.D
% Moisture:		Date Received	06/20/2008
Extraction:	EXT_SW8330	Date Extracted:	06/26/2008
Extract Volume:	20 mL	Date Analyzed	07/08/2008
Injection Volume :	100 µ L	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.10	U
99-65-0	1,3-Dinitrobenzene	0.10	U
118-96-7	2,4,6-Trinitrotoluene	0.10	U
121-14-2	2,4-Dinitrotoluene	0.10	U
606-20-2	2,6-Dinitrotoluene	0.10	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.10	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.10	U
2691-41-0	HMX	0.20	U
98-95-3	Nitrobenzene	0.10	U
121-82-4	RDX	0.20	U
479-45-8	Tetryl	0.20	U
99-08-1	m-Nitrotoluene	0.20	U
88-72-2	o-Nitrotoluene	0.20	U
99-99-0	p-Nitrotoluene	0.20	U

CW 9/20/08

ENVIRONMENTAL
Data Services, Inc.

METALS

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, UXO-03, CTO-168 SDG #: 806151

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: September 20, 2008

Laboratory: GPL Laboratories, Frederick, Maryland Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR03-DU01-SS01-08B	806151-001	Soil
2	MR03-DU01-SS02-08B	806151-002	Soil
3	MR03-DU01-SS03-08B	806151-003	Soil
4	MR03-DU02-SS01-08B	806151-004	Soil
5	MR03-SS21-08B	806151-005	Soil
6	MR03-SS17-08B	806151-006	Soil
7	MR03-SS10-08B	806151-007	Soil
8	MR03-SS18-08B	806151-008	Soil
8MS	MR03-SS18-08BMS	806151-008MS	Soil
8MSD	MR03-SS18-08BMSD	806151-008MSD	Soil
9	MR03-SS14-08B	806151-009	Soil
10	MR03-SS09-08B	806151-010	Soil
11	MR03-SS20-08B	806151-011	Soil
12	MR03-SS24-08B	806151-012	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 contamination for several compounds, however, all sample results are non-detect or greater than 5X the blank concentration with the exception of the following:

Compound	Conc. mg/kg	Qualifier	Affected Samples
Antimony	2.37	U	4, 7, 9
Barium	0.168	U	All samples
Cadmium	0.243	U	All samples
Cobalt	2.016	U	All samples
Magnesium	1.536	U	All samples but 9
Potassium	12.06	U	All samples
Sodium	176.7	U	All samples
Vanadium	0.794	U	5, 6
Zinc	0.299	U	5

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/L	Qualifier	Affected Samples
MR03-EB061808- SS	None - ND	-	-	-	-
MR03-FB061808	None - ND	-	-	-	-

ICP Interference Check Sample - All %R values were acceptable.

Matrix Spike - The matrix spike samples exhibited acceptable %R values except the following.

MS Sample ID	Compound	%R	Qualifier	Affected Samples
8	Antimony	67%/59%	J/Uj	All samples

Matrix Duplicate - The matrix duplicate samples exhibited acceptable RPD values.

LCS - The LCS samples exhibited acceptable %R values.

ICP Serial Dilution - The ICP serial dilution sample exhibited acceptable %D values except the following.

ICP Sample ID	Compound	%D	Qualifier	Affected Samples
8	Potassium	11	None	All ND

Field Duplicates - Field duplicate samples were not included in this data package.

Compound Quantitation - No discrepancies were identified.

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-DU01-SS01-08B

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806151

Matrix: (soil/water) SOIL Lab Sample ID: S 806151-001-001-1/1

Level: (low/med) Date Recieved: 06/20/2008

% Solids: 93.7

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	2970			P	
7440-36-0	Antimony	4.5	~~U~~	UJ ~~N~~	P	MSL
7440-38-2	Arsenic	0.61	J		P	
7440-39-3	Barium	15.1 ~~10.3~~	~~J~~	U	P	BL
7441-41-7	Beryllium	0.037	J		P	
7440-43-9	Cadmium	0.38 ~~0.092~~	~~J~~	U	P	BL
7440-70-2	Calcium	1630			P	
7440-47-3	Chromium	4.2			P	
7440-48-4	Cobalt	3.8 ~~0.17~~	~~J~~	U	P	BL
7440-50-8	Copper	5.7			P	
7439-89-6	Iron	1230			P	
7439-92-1	Lead	15.9			P	
7439-95-4	Magnesium	378 ~~176~~	~~J~~	U	P	BL
7439-96-5	Manganese	12.6			P	
7439-97-6	Mercury	0.041			AV	
7440-02-0	Nickel	1.0	J		P	
7440-09-7	Potassium	378 ~~99.5~~	~~J~~	U ~~E~~	P	BL
7782-49-2	Selenium	0.41	J		P	
7440-22-4	Silver	0.76	U		P	
7440-23-5	Sodium	378 ~~53.3~~	~~J~~	U	P	BL
7440-28-0	Thallium	1.9	U		P	
7440-62-2	Vanadium	4.4			P	
7440-66-6	Zinc	42.1			P	

Color Before: ~~NA~~ GREY Clarity Before: ~~NA~~ MEDIUM Texture: NA

Color After: ~~NA~~ YELLOW Clarity After: ~~NA~~ CLEAR Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-DU01-SS02-08B

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806151

Matrix: (soil/water) SOIL Lab Sample ID: S 806151-002-021-1/3

Level: (low/med) Date Recieved: 06/20/2008

% Solids: 94.7

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	2940			P	
7440-36-0	Antimony	4.7	~~U~~	UJ N	P	MSL
7440-38-2	Arsenic	0.73	J		P	
7440-39-3	Barium	15.6 ~~9.1~~	~~J~~	U	P	BL
7441-41-7	Beryllium	0.032	J		P	
7440-43-9	Cadmium	0.39 ~~0.080~~	~~J~~	U	P	BL
7440-70-2	Calcium	2380			P	
7440-47-3	Chromium	4.1			P	
7440-48-4	Cobalt	3.9 ~~0.17~~	~~J~~	U	P	BL
7440-50-8	Copper	3.6			P	
7439-89-6	Iron	1070			P	
7439-92-1	Lead	13.5			P	
7439-95-4	Magnesium	391 ~~163~~	~~J~~	U	P	BL
7439-96-5	Manganese	11.4			P	
7439-97-6	Mercury	0.036			AV	
7440-02-0	Nickel	0.93	J		P	
7440-09-7	Potassium	391 ~~87.1~~	~~J~~	U E	P	BL
7782-49-2	Selenium	2.7	U		P	
7440-22-4	Silver	0.78	U		P	
7440-23-5	Sodium	391 ~~46.3~~	~~J~~	U	P	BL
7440-28-0	Thallium	2.0	U		P	
7440-62-2	Vanadium	4.3			P	
7440-66-6	Zinc	16.7			P	

Color Before: ~~NA~~ GREY Clarity Before: ~~NA~~ MEDIUM Texture: NA

Color After: ~~NA~~ YELLOW Clarity After: ~~NA~~ CLEAR Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-DU01-SS03-08B

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806151

Matrix: (soil/water) SOIL Lab Sample ID: S 806151-003-002-1/1

Level: (low/med) Date Recieved: 06/20/2008

% Solids: 94.3

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	2800			P	
7440-36-0	Antimony	4.4	~~U~~	~~UJ~~ N	P	MSL
7440-38-2	Arsenic	0.98			P	
7440-39-3	Barium	14.6 ~~9.3~~	~~J~~	U	P	BL
7441-41-7	Beryllium	0.033	J		P	
7440-43-9	Cadmium	0.37 ~~0.071~~	~~J~~	U	P	BL
7440-70-2	Calcium	3650			P	
7440-47-3	Chromium	4.3			P	
7440-48-4	Cobalt	3.7 ~~0.20~~	~~J~~	U	P	BL
7440-50-8	Copper	3.2			P	
7439-89-6	Iron	1100			P	
7439-92-1	Lead	15.0			P	
7439-95-4	Magnesium	366 ~~176~~	~~J~~	U	P	BL
7439-96-5	Manganese	13.6			P	
7439-97-6	Mercury	0.021	J		AV	
7440-02-0	Nickel	1.5	J		P	
7440-09-7	Potassium	366 ~~95.6~~	~~J~~	U F	P	BL
7782-49-2	Selenium	2.6	U		P	
7440-22-4	Silver	0.73	U		P	
7440-23-5	Sodium	366 ~~40.8~~	~~J~~	U	P	BL
7440-28-0	Thallium	1.8	U		P	
7440-62-2	Vanadium	4.2			P	
7440-66-6	Zinc	17.9			P	

Color Before: ~~NA~~ GREY Clarity Before: ~~NA~~ Medium Texture: NA

Color After: ~~NA~~ YELLOW Clarity After: ~~NA~~ CLEAR Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-DU02-SS01-08B

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806151

Matrix: (soil/water) SOIL Lab Sample ID: S 806151-004-003-1/1

Level: (low/med) Date Recieved: 06/20/2008

% Solids: 79.4

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	3560			P	
7440-36-0	Antimony	5.5 ~~0.27~~	~~J~~	U J N	P	BL, MSL
7440-38-2	Arsenic	0.69	J		P	
7440-39-3	Barium	18.2 ~~11.9~~	~~J~~	U	P	BL
7441-41-7	Beryllium	0.035	J		P	
7440-43-9	Cadmium	0.46 ~~0.063~~	~~J~~	U	P	BL
7440-70-2	Calcium	1290			P	
7440-47-3	Chromium	4.6			P	
7440-48-4	Cobalt	4.6 ~~0.17~~	~~J~~	U	P	BL
7440-50-8	Copper	4.0			P	
7439-89-6	Iron	1110			P	
7439-92-1	Lead	19.8			P	
7439-95-4	Magnesium	456 ~~187~~	~~J~~	U	P	BL
7439-96-5	Manganese	10.1			P	
7439-97-6	Mercury	0.044			AV	
7440-02-0	Nickel	1.1	J		P	
7440-09-7	Potassium	456 ~~114~~	~~J~~	U E	P	BL
7782-49-2	Selenium	0.47	J		P	
7440-22-4	Silver	0.91	U		P	
7440-23-5	Sodium	456 ~~61.6~~	~~J~~	U	P	BL
7440-28-0	Thallium	2.3	U		P	
7440-62-2	Vanadium	5.1			P	
7440-66-6	Zinc	14.2			P	

Color Before: ~~NA~~ D.Grey Clarity Before: ~~NA~~ Medium Texture: NA

Color After: ~~NA~~ Yellow Clarity After: ~~NA~~ Clear Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-SS21-08B

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806151

Matrix: (soil/water) SOIL Lab Sample ID: S 806151-005-004-1/1

Level: (low/med) Date Recieved: 06/20/2008

% Solids: 95.2

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	1110			P	
7440-36-0	Antimony	4.6	~~U~~	~~UJ~~	P	MSL
7440-38-2	Arsenic	0.86			P	
7440-39-3	Barium	15.4 ~~2.8~~	~~J~~	U	P	BL
7441-41-7	Beryllium	0.013	J		P	
7440-43-9	Cadmium	0.39 ~~0.035~~	~~J~~	U	P	BL
7440-70-2	Calcium	1890			P	
7440-47-3	Chromium	2.0			P	
7440-48-4	Cobalt	3.9 ~~0.36~~	~~J~~	U	P	BL
7440-50-8	Copper	0.64	J		P	
7439-89-6	Iron	793			P	
7439-92-1	Lead	1.9			P	
7439-95-4	Magnesium	386 ~~255~~	~~J~~	U	P	BL
7439-96-5	Manganese	6.7			P	
7439-97-6	Mercury	0.025	J		AV	
7440-02-0	Nickel	0.93	J		P	
7440-09-7	Potassium	386 ~~70.3~~	~~J~~	U ~~UJ~~	P	BL
7782-49-2	Selenium	2.7	U		P	
7440-22-4	Silver	0.77	U		P	
7440-23-5	Sodium	386 ~~53.9~~	~~J~~	U	P	BL
7440-28-0	Thallium	1.9	U		P	
7440-62-2	Vanadium	3.9 ~~2.4~~	~~J~~	U	P	BL
7440-66-6	Zinc	4.6 ~~4.3~~	~~J~~	U	P	BL

Color Before: ~~NA~~ Grey Clarity Before: ~~NA~~ Medium Texture: NA

Color After: ~~NA~~ Yellow Clarity After: ~~NA~~ Clear Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-SS17-08B

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806151

Matrix: (soil/water) SOIL Lab Sample ID: S 806151-006-005-1/1

Level: (low/med) Date Recieved: 06/20/2008

% Solids: 98.2

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	1150			P	
7440-36-0	Antimony	4.3	Ø	UJ X	P	MSL
7440-38-2	Arsenic	0.31	J		P	
7440-39-3	Barium	14.5 ~~14.1~~	~~J~~	U	P	BL
7441-41-7	Beryllium	0.012	J		P	
7440-43-9	Cadmium	0.36 ~~0.035~~	~~J~~	U	P	BL
7440-70-2	Calcium	1470			P	
7440-47-3	Chromium	1.6			P	
7440-48-4	Cobalt	3.6 ~~0.072~~	~~J~~	U	P	BL
7440-50-8	Copper	8.9			P	
7439-89-6	Iron	708			P	
7439-92-1	Lead	7.0			P	
7439-95-4	Magnesium	361 ~~90.0~~	~~J~~	U	P	BL
7439-96-5	Manganese	28.3			P	
7439-97-6	Mercury	0.043			AV	
7440-02-0	Nickel	0.57	J		P	
7440-09-7	Potassium	361 ~~74.1~~	~~J~~	U F	P	BL
7782-49-2	Selenium	2.5	U		P	
7440-22-4	Silver	0.72	U		P	
7440-23-5	Sodium	361 ~~64.7~~	J	U	P	BL
7440-28-0	Thallium	1.8	U		P	
7440-62-2	Vanadium	3.6 ~~3.2~~	~~J~~	U	P	BL
7440-66-6	Zinc	16.2			P	

Color Before: ~~NA~~ D.Grey Clarity Before: ~~NA~~ Medium Texture: NA

Color After: ~~NA~~ Yellow Clarity After: ~~NA~~ Clear Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-SS10-08B

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806151

Matrix: (soil/water) SOIL Lab Sample ID: S 806151-007-006-1/1

Level: (low/med) Date Recieved: 06/20/2008

% Solids: 74.2

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	4030			P	
7440-36-0	Antimony	5.9 ~~0.28~~ ~~J~~		U J N	P	BL, MSL
7440-38-2	Arsenic	1.4			P	
7440-39-3	Barium	19.5 ~~14.5~~ ~~J~~		U	P	BL
7441-41-7	Beryllium	0.038	J		P	
7440-43-9	Cadmium	0.49 ~~0.061~~ ~~J~~		U	P	BL
7440-70-2	Calcium	714			P	
7440-47-3	Chromium	5.2			P	
7440-48-4	Cobalt	4.9 ~~0.15~~ ~~J~~		U	P	BL
7440-50-8	Copper	1.4	J		P	
7439-89-6	Iron	3100			P	
7439-92-1	Lead	6.8			P	
7439-95-4	Magnesium	488 ~~236~~ ~~J~~		U	P	BL
7439-96-5	Manganese	34.0			P	
7439-97-6	Mercury	0.039	J		AV	
7440-02-0	Nickel	1.0	J		P	
7440-09-7	Potassium	488 ~~161~~ ~~J~~		U F	P	BL
7782-49-2	Selenium	0.69	J		P	
7440-22-4	Silver	0.98	U		P	
7440-23-5	Sodium	488 ~~56.9~~ ~~J~~		U	P	BL
7440-28-0	Thallium	2.4	U		P	
7440-62-2	Vanadium	8.9			P	
7440-66-6	Zinc	10.1			P	

Color Before: ~~NA~~ D. Green Clarity Before: ~~NA~~ Medium Texture: NA

Color After: ~~NA~~ Yellow Clarity After: ~~NA~~ Clear Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-SS18-08B

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806151

Matrix: (soil/water) SOIL Lab Sample ID: S 806151-008-024-1/3

Level: (low/med) Date Recieved: 06/20/2008

% Solids: 71.4

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	3820			P	
7440-36-0	Antimony	5.8	~~B~~	~~U J N~~	P	MSL
7440-38-2	Arsenic	0.59	J		P	
7440-39-3	Barium	19.3 ~~13.1~~	~~J~~	U	P	BL
7441-41-7	Beryllium	0.045	J		P	
7440-43-9	Cadmium	0.49 ~~0.070~~	~~J~~	U	P	BL
7440-70-2	Calcium	2280			P	
7440-47-3	Chromium	4.9			P	
7440-48-4	Cobalt	4.8 ~~0.16~~	~~J~~	U	P	BL
7440-50-8	Copper	1.3	J		P	
7439-89-6	Iron	1450			P	
7439-92-1	Lead	5.2			P	
7439-95-4	Magnesium	483 ~~452~~	~~J~~	U	P	BL
7439-96-5	Manganese	8.5			P	
7439-97-6	Mercury	0.030	J		AV	
7440-02-0	Nickel	0.97	J		P	
7440-09-7	Potassium	483 ~~154~~	~~J~~	U ~~F~~	P	BL
7782-49-2	Selenium	3.4	U		P	
7440-22-4	Silver	0.97	U		P	
7440-23-5	Sodium	483 ~~42.1~~	~~J~~	U	P	BL
7440-28-0	Thallium	2.4	U		P	
7440-62-2	Vanadium	5.4			P	
7440-66-6	Zinc	8.0			P	

Color Before: ~~NA~~ Black Clarity Before: ~~NA~~ Medium Texture: NA

Color After: ~~NA~~ Yellow Clarity After: ~~NA~~ Clear Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-SS14-08B

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806151

Matrix: (soil/water) SOIL Lab Sample ID: S 806151-009-007-1/1

Level: (low/med) Date Recieved: 06/20/2008

% Solids: 78.0

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	3320			P	
7440-36-0	Antimony	5.4 ~~0.24~~	~~J~~	UJ N	P	BL, MSL
7440-38-2	Arsenic	1.3			P	
7440-39-3	Barium	17.9 ~~6.7~~	~~J~~	U	P	BL
7441-41-7	Beryllium	0.031	J		P	
7440-43-9	Cadmium	0.45 ~~0.053~~	~~J~~	U	P	BL
7440-70-2	Calcium	2320			P	
7440-47-3	Chromium	5.6			P	
7440-48-4	Cobalt	4.5 ~~0.16~~	~~J~~	U	P	BL
7440-50-8	Copper	0.70	J		P	
7439-89-6	Iron	2590			P	
7439-92-1	Lead	3.2			P	
7439-95-4	Magnesium	658			P	
7439-96-5	Manganese	7.5			P	
7439-97-6	Mercury	0.012	J		AV	
7440-02-0	Nickel	0.93	J		P	
7440-09-7	Potassium	449 ~~209~~	~~J~~	U F	P	BL
7782-49-2	Selenium	3.1	U		P	
7440-22-4	Silver	0.90	U		P	
7440-23-5	Sodium	449 ~~67.6~~	~~J~~	U	P	BL
7440-28-0	Thallium	2.2	U		P	
7440-62-2	Vanadium	7.7			P	
7440-66-6	Zinc	7.1			P	

Color Before: ~~NA~~ Black Clarity Before: ~~NA~~ Medium Texture: NA

Color After: ~~NA~~ Yellow Clarity After: ~~NA~~ Clear Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-SS09-08B

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806151

Matrix: (soil/water) SOIL Lab Sample ID: S 806151-010-008-1/1

Level: (low/med) Date Recieved: 06/20/2008

% Solids: 92.0

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	3130			P	
7440-36-0	Antimony	4.6	~~U~~	UJ N	P	MSL
7440-38-2	Arsenic	0.78			P	
7440-39-3	Barium	22.0		U	P	BL
7441-41-7	Beryllium	0.057	J		P	
7440-43-9	Cadmium	0.39 ~~0.051~~	~~J~~	U	P	BL
7440-70-2	Calcium	1400			P	
7440-47-3	Chromium	4.5			P	
7440-48-4	Cobalt	3.9 ~~0.12~~	~~J~~	U	P	BL
7440-50-8	Copper	1.8	J		P	
7439-89-6	Iron	1710			P	
7439-92-1	Lead	6.6			P	
7439-95-4	Magnesium	386 ~~314~~	~~J~~	U	P	BL
7439-96-5	Manganese	13.5			P	
7439-97-6	Mercury	0.037			AV	
7440-02-0	Nickel	0.69	J		P	
7440-09-7	Potassium	386 ~~138~~	~~J~~	U E	P	BL
7782-49-2	Selenium	2.7	U		P	
7440-22-4	Silver	0.77	U		P	
7440-23-5	Sodium	386 ~~35.4~~	~~J~~	U	P	BL
7440-28-0	Thallium	1.9	U		P	
7440-62-2	Vanadium	5.9			P	
7440-66-6	Zinc	6.5			P	

Color Before: ~~NA~~ Grey Clarity Before: ~~NA~~ Medium Texture: NA

Color After: ~~NA~~ Yellow Clarity After: ~~NA~~ Clear Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-SS20-08B

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806151

Matrix: (soil/water) SOIL Lab Sample ID: S 806151-011-009-1/1

Level: (low/med) Date Recieved: 06/20/2008

% Solids: 90.8

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	2440			P	
7440-36-0	Antimony	4.7	~~J~~	UJ N	P	MSL
7440-38-2	Arsenic	0.87			P	
7440-39-3	Barium	15.5 ~~13.4~~	~~J~~	U	P	BL
7441-41-7	Beryllium	0.029	J		P	
7440-43-9	Cadmium	0.39 ~~0.037~~	~~J~~	U	P	BL
7440-70-2	Calcium	1040			P	
7440-47-3	Chromium	3.4			P	
7440-48-4	Cobalt	3.9 ~~0.15~~	~~J~~	U	P	BL
7440-50-8	Copper	1.4	J		P	
7439-89-6	Iron	1690			P	
7439-92-1	Lead	6.8			P	
7439-95-4	Magnesium	388 ~~203~~	~~J~~	U	P	BL
7439-96-5	Manganese	28.7			P	
7439-97-6	Mercury	0.036			AV	
7440-02-0	Nickel	0.86	J		P	
7440-09-7	Potassium	388 ~~154~~	~~J~~	U B	P	BL
7782-49-2	Selenium	2.7	U		P	
7440-22-4	Silver	0.78	U		P	
7440-23-5	Sodium	388 ~~36.7~~	~~J~~	U	P	BL
7440-28-0	Thallium	1.9	U		P	
7440-62-2	Vanadium	5.8			P	
7440-66-6	Zinc	7.1			P	

Color Before: ~~NA~~ Grey Clarity Before: ~~NA~~ Medium Texture: NA

Color After: ~~NA~~ Yellow Clarity After: ~~NA~~ Clear Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-SS24-08B

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806151

Matrix: (soil/water) SOIL Lab Sample ID: S 806151-012-010-1/1

Level: (low/med) Date Recieved: 06/20/2008

% 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	4210			P	
7440-36-0	Antimony	4.6	~~U~~	~~UJ~~ N	P	MSL
7440-38-2	Arsenic	0.80			P	
7440-39-3	Barium	17.4		U	P	BL
7441-41-7	Beryllium	0.053	J		P	
7440-43-9	Cadmium	0.39 ~~0.039~~	~~J~~	U	P	BL
7440-70-2	Calcium	889			P	
7440-47-3	Chromium	5.9			P	
7440-48-4	Cobalt	3.9 ~~0.15~~	~~J~~	U	P	BL
7440-50-8	Copper	0.68	J		P	
7439-89-6	Iron	2230			P	
7439-92-1	Lead	6.0			P	
7439-95-4	Magnesium	387 ~~200~~	~~J~~	U	P	BL
7439-96-5	Manganese	10.3			P	
7439-97-6	Mercury	0.017	J		AV	
7440-02-0	Nickel	0.64	J		P	
7440-09-7	Potassium	387 ~~148~~	~~J~~	U E	P	BL
7782-49-2	Selenium	0.56	J		P	
7440-22-4	Silver	0.77	U		P	
7440-23-5	Sodium	387 ~~41.2~~	~~J~~	U	P	BL
7440-28-0	Thallium	1.9	U		P	
7440-62-2	Vanadium	7.5			P	
7440-66-6	Zinc	5.4			P	

Color Before: ~~NA~~ Grey Clarity Before: ~~NA~~ Medium Texture: NA

Color After: ~~NA~~ Yellow Clarity After: ~~NA~~ Clear Artifacts: NA

Comments:

ENVIRONMENTAL
Data Services, Inc.

PERCHLORATE

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, UXO-03, CTO-168 SDG #: 806151

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: September 20, 2008

Laboratory: GPL Laboratories, Frederick, Maryland Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR03-DU01-SS01-08B	806151-001	Soil
2	MR03-DU01-SS02-08B	806151-002	Soil
2MS	MR03-DU01-SS02-08BMS	806151-002MS	Soil
2MSD	MR03-DU01-SS02-08BMSD	806151-002MSD	Soil
3	MR03-DU01-SS03-08B	806151-003	Soil
4	MR03-DU02-SS01-08B	806151-004	Soil
5	MR03-SS21-08B	806151-005	Soil
6	MR03-SS17-08B	806151-006	Soil
7	MR03-SS10-08B	806151-007	Soil
8	MR03-SS18-08B	806151-008	Soil
9	MR03-SS14-08B	806151-009	Soil
10	MR03-SS09-08B	806151-010	Soil
11	MR03-SS20-08B	806151-011	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
MR03-EB061808-SS	None - ND	-	-	-	-
MR03-FB061808	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 samples were not included in this data package.

Compound Quantitation - No discrepancies were identified.

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S085S058

Date Printed.....: 11-JUL-08 13:56

Client Name.....: GPL Laboratories
Client Ref Number....: 806151
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 806151

Date Received.....: 25-JUN-08 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 30-JUN-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: MR03-DU01-SS|01-08B
DCL Sample Name...: 08E03158
DCL Report Group..: 08E-0502-01

Matrix.....: SOIL
Date Sampled.....: 18-JUN-08 11:40
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 93.73

DCL Analysis Group: G086000Q
Analysis Method...: 6850
Instrument Type...: LCMS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	01-JUL-08 02:06	0.714	ND		U	1	2.13

MW 9/20/08

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S085S059

Date Printed.....: 11-JUL-08 13:56

Client Name.....: GPL Laboratories
Client Ref Number....: 806151
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 806151

Date Received.....: 25-JUN-08 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 30-JUN-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: MR03-DU01-SS|02-08B
DCL Sample Name...: 08E03159
DCL Report Group..: 08E-0502-01

Matrix.....: SOIL
Date Sampled.....: 18-JUN-08 12:10
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 94.67

DCL Analysis Group: G086000Q
Analysis Method...: 6850
Instrument Type...: LCMS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	01-JUL-08 02:27	0.707	ND		U	1	2.11

LW
9/20/08

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S085S05D

Date Printed.....: 11-JUL-08 13:56

Client Name.....: GPL Laboratories
Client Ref Number....: 806151
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 806151

Date Received.....: 25-JUN-08 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 30-JUN-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: MR03-DU01-SS|03-08B
DCL Sample Name...: 08E03160
DCL Report Group..: 08E-0502-01

Matrix.....: SOIL
Date Sampled.....: 18-JUN-08 12:10
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 94.31

DCL Analysis Group: G086000Q
Analysis Method...: 6850
Instrument Type...: LCMS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	01-JUL-08 03:27	0.709	ND		U	1	2.12

LW
9/20/08

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S085S05F

Date Printed.....: 11-JUL-08 13:56

Client Name.....: GPL Laboratories
Client Ref Number....: 806151
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 806151

Date Received.....: 25-JUN-08 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 30-JUN-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: MR03-DU02-SS|01-08B
DCL Sample Name...: 08E03161
DCL Report Group..: 08E-0502-01

Matrix.....: SOIL
Date Sampled.....: 18-JUN-08 12:35
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 79.43

DCL Analysis Group: G086000Q
Analysis Method...: 6850
Instrument Type...: LCMS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	01-JUL-08 03:48	0.842	ND		U	1	2.52

9/20/08

960 West LeVoy Drive / Salt Lake City, Utah 84123-2547
Phone (801) 266-7700 Web Page: www.datachem.com
FAX (801) 268-9992 E-mail: lab@datachem.com

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S085S05G

Date Printed.....: 11-JUL-08 13:56

Client Name.....: GPL Laboratories
Client Ref Number....: 806151
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 806151

Date Received.....: 25-JUN-08 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 30-JUN-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: MR03-SS21-SS|01-08B
DCL Sample Name...: 08E03162
DCL Report Group..: 08E-0502-01

Matrix.....: SOIL
Date Sampled.....: 18-JUN-08 14:55
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 95.20

DCL Analysis Group: G086000Q
Analysis Method...: 6850
Instrument Type...: LCMS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	01-JUL-08 04:49	0.703	ND		U	1	2.10

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DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

Form RLIMS63A-V1.4
07110813560069
Page 8

S085S05H

Date Printed.....: 11-JUL-08 13:56

Client Name.....: GPL Laboratories
Client Ref Number....: 806151
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 806151

Date Received.....: 25-JUN-08 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 30-JUN-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: MR03-SS17-08|B
DCL Sample Name...: 08E03163
DCL Report Group..: 08E-0502-01

Matrix.....: SOIL
Date Sampled.....: 18-JUN-08 11:50
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 98.16

DCL Analysis Group: G086000Q
Analysis Method...: 6850
Instrument Type...: LCMS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	01-JUL-08 05:09	0.682	ND		U	1	2.04

MW 9/20/08

960 West LeVoy Drive / Salt Lake City, Utah 84123-2547
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FAX (801) 268-9992 E-mail: lab@datachem.com

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S085S05J

Date Printed.....: 11-JUL-08 13:56

Client Name.....: GPL Laboratories
Client Ref Number....: 806151
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 806151

Date Received.....: 25-JUN-08 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 30-JUN-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: MR03-SS10-08|B
DCL Sample Name...: 08E03164
DCL Report Group..: 08E-0502-01

Matrix.....: SOIL
Date Sampled.....: 18-JUN-08 12:45
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 74.22

DCL Analysis Group: G086000Q
Analysis Method...: 6850
Instrument Type...: LCMS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	01-JUL-08 05:29	0.901	ND		U	1	2.69

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DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S085S05K

Date Printed.....: 11-JUL-08 13:56

Client Name.....: GPL Laboratories
Client Ref Number....: 806151
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 806151

Date Received.....: 25-JUN-08 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 30-JUN-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: MR03-SS18-08|B
DCL Sample Name...: 08E03165
DCL Report Group..: 08E-0502-01

Matrix.....: SOIL
Date Sampled.....: 18-JUN-08 12:20
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 71.40

DCL Analysis Group: G086000Q
Analysis Method...: 6850
Instrument Type...: LCMS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	01-JUL-08 05:49	0.937	ND		U	1	2.80

lw 9/20/08

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S085S05N

Date Printed.....: 11-JUL-08 13:56

Client Name.....: GPL Laboratories
Client Ref Number....: 806151
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 806151

Date Received.....: 25-JUN-08 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 30-JUN-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: MR03-SS14-08|B
DCL Sample Name...: 08E03166
DCL Report Group..: 08E-0502-01

Matrix.....: SOIL
Date Sampled.....: 18-JUN-08 12:55
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 77.95

DCL Analysis Group: G086000Q
Analysis Method...: 6850
Instrument Type...: LCMS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	01-JUL-08 06:50	0.858	ND		U	1	2.57

fw 9/20/08

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S085S05P

Date Printed.....: 11-JUL-08 13:56

Client Name.....: GPL Laboratories
Client Ref Number....: 806151
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 806151

Date Received.....: 25-JUN-08 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 30-JUN-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: MR03-SS09-08|B
DCL Sample Name...: 08E03167
DCL Report Group..: 08E-0502-01

Matrix.....: SOIL
Date Sampled.....: 18-JUN-08 12:00
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 91.97

DCL Analysis Group: G086000Q
Analysis Method...: 6850
Instrument Type...: LCMS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	01-JUL-08 07:10	0.727	ND		U	1	2.17

LW 9/20/18

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S085S05Q

Date Printed.....: 11-JUL-08 13:56

Client Name.....: GPL Laboratories
Client Ref Number....: 806151
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 806151

Date Received.....: 25-JUN-08 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 30-JUN-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: MR03-SS20-08|BB
DCL Sample Name...: 08E03168
DCL Report Group..: 08E-0502-01

Matrix.....: SOIL
Date Sampled.....: 18-JUN-08 11:35
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 90.76

DCL Analysis Group: G086000Q
Analysis Method...: 6850
Instrument Type...: LCMS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	01-JUL-08 07:31	0.737	ND		U	1	2.20

QW 9/20/08

ENVIRONMENTAL
Data Services, Inc.

EXPLOSIVES

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, UXO-03, CTO-168 SDG #: 806206

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: September 20, 2008

Laboratory: GPL Laboratories, Frederick, Maryland Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR03-SD01-08B	806206-001	Soil
1MS	MR03-SD01-08BMS	806206-001MS	Soil
1MSD	MR03-SD01-08BMSD	806206-001MSD	Soil
2	MR03-SD02-08B	806206-002	Soil
3	MR03-SD02D-08B	806206-003	Soil
4	MR03-SW01-08B	806206-004	Water
4MS	MR03-SW01-08BMS	806206-004MS	Water
4MSD	MR03-SW01-08BMSD	806206-004MSD	Water
5	MR03-SW02-08B	806206-005	Water
6	MR03-SW02D-08B	806206-006	Water
7	MR03-EB062508	806206-007	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, 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
1	HMX	212%/Ok/65	All ND
4	Tetryl	Ok/Ok/31	None for RPD alone

Laboratory Control Sample - The LCS samples exhibited acceptable %R values.

Method Blank - The method blanks were free of contamination.

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/L	Qualifier	Affected Samples
MR03-FB061808	None - ND	-	-	-	-
MR03-EB062508	None - ND	-	-	-	-

Field Duplicates - Field duplicate results are summarized below.

Compound	MR03-SD02-08B mg/kg	MR03-SD02D-08B mg/kg	RPD	Qualifier
None	ND	ND	-	-

Compound Identification - Retention times were acceptable and no further action was taken.

Compound Quantitation - No discrepancies were identified.

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
MR03-SD01-08B

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	806206
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	806206-001-001-1/3
Sample Volume :	2	Lab File ID :	LCD42238.D
% Moisture:		Date Received	06/26/2008
Extraction:	EXT_SW8330	Date Extracted:	07/03/2008
Extract Volume:	20 mL	Date Analyzed	07/18/2008
Injection Volume :	100 µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.10	U
99-65-0	1,3-Dinitrobenzene	0.10	U
118-96-7	2,4,6-Trinitrotoluene	0.10	U
121-14-2	2,4-Dinitrotoluene	0.10	U
606-20-2	2,6-Dinitrotoluene	0.10	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.10	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.10	U
2691-41-0	HMX	0.20	U
98-95-3	Nitrobenzene	0.10	U
121-82-4	RDX	0.20	U
479-45-8	Tetryl	0.20	U
99-08-1	m-Nitrotoluene	0.20	U
88-72-2	o-Nitrotoluene	0.20	U
99-99-0	p-Nitrotoluene	0.20	U

9/20/08

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

2

SAMPLE NO
MR03-SD02-08B

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	806206
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	806206-002-007-1/1
Sample Volume :	2	Lab File ID :	LCD42239.D
% Moisture:		Date Received	06/26/2008
Extraction:	EXT_SW8330	Date Extracted:	07/03/2008
Extract Volume:	20 mL	Date Analyzed	07/19/2008
Injection Volume :	100 µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.10	U
99-65-0	1,3-Dinitrobenzene	0.10	U
118-96-7	2,4,6-Trinitrotoluene	0.10	U
121-14-2	2,4-Dinitrotoluene	0.10	U
606-20-2	2,6-Dinitrotoluene	0.10	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.10	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.10	U
2691-41-0	HMX	0.20	U
98-95-3	Nitrobenzene	0.10	U
121-82-4	RDX	0.20	U
479-45-8	Tetryl	0.20	U
99-08-1	m-Nitrotoluene	0.20	U
88-72-2	o-Nitrotoluene	0.20	U
99-99-0	p-Nitrotoluene	0.20	U

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GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
MR03-SD02D-08B

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	806206
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	806206-003-008-1/1
Sample Volume :	2	Lab File ID :	LCD42242.D
% Moisture:		Date Received	06/26/2008
Extraction:	EXT_SW8330	Date Extracted:	07/03/2008
Extract Volume:	20 mL	Date Analyzed	07/19/2008
Injection Volume :	100 µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.10	U
99-65-0	1,3-Dinitrobenzene	0.10	U
118-96-7	2,4,6-Trinitrotoluene	0.10	U
121-14-2	2,4-Dinitrotoluene	0.10	U
606-20-2	2,6-Dinitrotoluene	0.10	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.10	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.10	U
2691-41-0	HMX	0.20	U
98-95-3	Nitrobenzene	0.10	U
121-82-4	RDX	0.20	U
479-45-8	Tetryl	0.20	U
99-08-1	m-Nitrotoluene	0.20	U
88-72-2	o-Nitrotoluene	0.20	U
99-99-0	p-Nitrotoluene	0.20	U

LW 9/20/08

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
MR03-SW01-08B

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	806206
Matrix : (Soil / Water)	WATER	Lab Sample ID :	806206-004-011-1/3
Sample Volume :	770	Lab File ID :	LCD42247.D
% Moisture:		Date Received	06/26/2008
Extraction:	EXT_SW8330	Date Extracted:	07/01/2008
Extract Volume:	20 mL	Date Analyzed	07/19/2008
Injection Volume :	100 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
99-35-4	1,3,5-Trinitrobenzene	0.26	U
99-65-0	1,3-Dinitrobenzene	0.26	U
118-96-7	2,4,6-Trinitrotoluene	0.26	U
121-14-2	2,4-Dinitrotoluene	0.26	U
606-20-2	2,6-Dinitrotoluene	0.26	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.26	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.26	U
2691-41-0	HMX	0.52	U
98-95-3	Nitrobenzene	0.26	U
121-82-4	RDX	0.52	U
479-45-8	Tetryl	0.52	U
99-08-1	m-Nitrotoluene	0.52	U
88-72-2	o-Nitrotoluene	0.52	U
99-99-0	p-Nitrotoluene	0.52	U

MW 9/20/08

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
MR03-SW02-08B

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	806206
Matrix : (Soil / Water)	WATER	Lab Sample ID :	806206-005-023-1/1
Sample Volume :	770	Lab File ID :	LCD42248.D
% Moisture:		Date Received	06/26/2008
Extraction:	EXT_SW8330	Date Extracted:	07/01/2008
Extract Volume:	20 mL	Date Analyzed	07/19/2008
Injection Volume :	100 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
99-35-4	1,3,5-Trinitrobenzene	0.26	U
99-65-0	1,3-Dinitrobenzene	0.26	U
118-96-7	2,4,6-Trinitrotoluene	0.26	U
121-14-2	2,4-Dinitrotoluene	0.26	U
606-20-2	2,6-Dinitrotoluene	0.26	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.26	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.26	U
2691-41-0	HMX	0.52	U
98-95-3	Nitrobenzene	0.26	U
121-82-4	RDX	0.52	U
479-45-8	Tetryl	0.52	U
99-08-1	m-Nitrotoluene	0.52	U
88-72-2	o-Nitrotoluene	0.52	U
99-99-0	p-Nitrotoluene	0.52	U

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GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

6

SAMPLE NO
MR03-SW02D-08B

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	806206
Matrix : (Soil / Water)	WATER	Lab Sample ID :	806206-006-024-1/1
Sample Volume :	770	Lab File ID :	LCD42249.D
% Moisture:		Date Received	06/26/2008
Extraction:	EXT_SW8330	Date Extracted:	07/01/2008
Extract Volume:	20 mL	Date Analyzed	07/19/2008
Injection Volume :	100 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
99-35-4	1,3,5-Trinitrobenzene	0.26	U
99-65-0	1,3-Dinitrobenzene	0.26	U
118-96-7	2,4,6-Trinitrotoluene	0.26	U
121-14-2	2,4-Dinitrotoluene	0.26	U
606-20-2	2,6-Dinitrotoluene	0.26	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.26	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.26	U
2691-41-0	HMX	0.52	U
98-95-3	Nitrobenzene	0.26	U
121-82-4	RDX	0.52	U
479-45-8	Tetryl	0.52	U
99-08-1	m-Nitrotoluene	0.52	U
88-72-2	o-Nitrotoluene	0.52	U
99-99-0	p-Nitrotoluene	0.52	U

9/20/08

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
MR03-EB062508

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	806206
Matrix : (Soil / Water)	WATER	Lab Sample ID :	806206-007-025-1/1
Sample Volume :	770	Lab File ID :	LCD42250.D
% Moisture:		Date Received	06/26/2008
Extraction:	EXT_SW8330	Date Extracted:	07/01/2008
Extract Volume:	20 mL	Date Analyzed	07/19/2008
Injection Volume :	100 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
99-35-4	1,3,5-Trinitrobenzene	0.26	U
99-65-0	1,3-Dinitrobenzene	0.26	U
118-96-7	2,4,6-Trinitrotoluene	0.26	U
121-14-2	2,4-Dinitrotoluene	0.26	U
606-20-2	2,6-Dinitrotoluene	0.26	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.26	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.26	U
2691-41-0	HMX	0.52	U
98-95-3	Nitrobenzene	0.26	U
121-82-4	RDX	0.52	U
479-45-8	Tetryl	0.52	U
99-08-1	m-Nitrotoluene	0.52	U
88-72-2	o-Nitrotoluene	0.52	U
99-99-0	p-Nitrotoluene	0.52	U

LW 9/20/08

ENVIRONMENTAL
Data Services, Inc.

TOTAL & DISSOLVED METALS
USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, UXO-03, CTO-168 SDG #: 806206

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: September 20, 2008

Laboratory: GPL Laboratories, Frederick, Maryland Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR03-SD01-08B	806206-001	Soil
1MS	MR03-SD01-08BMS	806206-001MS	Soil
1MSD	MR03-SD01-08BMSD	806206-001MSD	Soil
2	MR03-SD02-08B	806206-002	Soil
3	MR03-SD02D-08B	806206-003	Soil
4	MR03-SW01-08B	806206-004	Water
4F	MR03-SW01-08BFIL	806206-009FIL	Water
5	MR03-SW02-08B	806206-005	Water
5F	MR03-SW02-08BFIL	806206-010FIL	Water
6	MR03-SW02D-08B	806206-006	Water
6F	MR03-SW02D-08BFIL	806206-011FIL	Water
7	MR03-EB062508	806206-007	Water
7F	MR03-EB062508FIL	806206-012	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 contamination for several compounds, however, all sample results are non-detect or greater than 5X the blank concentration with the exception of the following:

Water

Compound	Conc. ug/L	Qualifier	Affected Samples
Aluminum	98.53	U	4F
Arsenic	3.297	U	7
Barium	0.428	U	All water samples
Beryllium	0.090	U	5F, 7
Cadmium	0.489	U	4F, 7
Cobalt	1.118	U	4F, 5
Copper	2.788	U	7
Iron	18.930	U	7
Magnesium	45.263	U	All water samples
Mercury	0.049	U	All water samples
Nickel	2.481	U	All water samples
Sodium	442.761	U	All water samples

Soil

Compound	Conc. mg/kg	Qualifier	Affected Samples
Barium	0.168	U	1-3
Cadmium	0.243	U	1-3
Magnesium	1.536	U	1-3
Potassium	12.06	U	1-3
Silver	0.419	U	1
Sodium	176.4	U	1-3
Vanadium	0.794	U	1-3

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/L	Qualifier	Affected Samples
MR03-EB062508	Calcium	116	580	None	All >5X
	Manganese	0.66	3.3	None	All >5X
	Potassium	75.7	379	None	All >5X
	Zinc	5.1	25.5	U	4-6
MR03-EB062508FIL	Calcium	176	880	None	All >5X
	Potassium	76.6	383	None	All >5X
	Zinc	10.1	50.5	U	4F, 5F, 6F

ICP Interference Check Sample - All %R values were acceptable.

Matrix Spike - The matrix spike samples exhibited acceptable %R values except the following.

MS Sample ID	Compound	%R	Qualifier	Affected Samples
1	Lead	54%	J/UJ	All soil samples
	Mercury	271%	J	All soil samples

Matrix Duplicate - The matrix duplicate samples exhibited acceptable RPD values except the following.

MSD Sample ID	Compound	RPD	Qualifier	Affected Samples
1	Aluminum	43	J	All soil samples
	Iron	40	J	All soil samples

LCS - The LCS samples exhibited acceptable %R values.

ICP Serial Dilution - The ICP serial dilution sample exhibited acceptable %D values except the following.

ICP Sample ID	Compound	%D	Qualifier	Affected Samples
1	Calcium	13%	J	All soil samples
	Vanadium	12%	None	All ND
4	Magnesium	18%	None	All ND
4FIL	Magnesium	24%	None	All ND

Field Duplicates - Field duplicate results are summarized below.

Compound	MR03-SD02-08B mg/kg	MR03-SD02D-08B mg/kg	RPD	Qualifier
Aluminum	1010	794	24%	None
Antimony	0.66	5.4 U	NC	None
Beryllium	0.024	0.011	74%	None
Calcium	905	635	35%	None
Chromium	1.7	1.5	13%	None
Cobalt	0.077	0.048	46%	None
Copper	2.5	1.2	70%	None
Iron	593	530	11%	None
Lead	4.9	6.5	28%	None
Manganese	2.1	1.6 U	NC	None
Mercury	0.014	0.040 U	NC	None
Nickel	0.48	0.36	29%	None
Zinc	12.4	8.2	41%	None

Compound	MR03-SW02-08B ug/L	MR03-SW02D-08B ug/L	RPD	Qualifier
Aluminum	364	225	47%	None
Arsenic	3.8	60.0 U	NC	None
Barium	10.0 U	3.3	NC	None
Calcium	81500	75300	8%	None
Chromium	1.4	10.0 U	NC	None
Copper	3.1	4.2	30%	None
Iron	6920	5660	20%	None
Lead	10.0 U	1.9	NC	None
Manganese	86.3	79.5	8%	None

Compound	MR03-SW02-08B ug/L	MR03-SW02D-08B ug/L	RPD	Qualifier
Potassium	2050	1950	5%	None

Compound	MR03-SW02-08BFIL ug/L	MR03-SW02D-08BFIL ug/L	RPD	Qualifier
Arsenic	3.0	2.9	3%	None
Calcium	82300	74500	10%	None
Copper	4.9	3.8	25%	None
Iron	412	511	21%	None
Lead	10.0 U	1.6	NC	None
Manganese	81.8	74.1	10%	None
Potassium	1970	1930	2%	None

Compound Quantitation - No discrepancies were identified.

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-SD01-08B

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806206S

Matrix: (soil/water) SOIL Lab Sample ID: S 806206-001-001-1/3

Level: (low/med) Date Recieved: 06/26/2008

% Solids: 78.9

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	1340		J *	P	MDP
7440-36-0	Antimony	5.4	U		P	
7440-38-2	Arsenic	0.46	J		P	
7440-39-3	Barium	18 ~~5.7~~	~~J~~	U	P	BL
7441-41-7	Beryllium	0.034	J		P	
7440-43-9	Cadmium	0.45 ~~0.046~~	~~J~~	U	P	BL
7440-70-2	Calcium	~~413~~	~~J~~	J E	P	SD
7440-47-3	Chromium	2.0			P	
7440-48-4	Cobalt	0.087	J		P	
7440-50-8	Copper	1.2	J		P	
7439-89-6	Iron	412		J *	P	MDP
7439-92-1	Lead	7.9		J M*	P	MS-4
7439-95-4	Magnesium	449 ~~66.2~~	~~J~~	U	P	BL
7439-96-5	Manganese	1.9			P	
7439-97-6	Mercury	0.039	~~U~~	M	AV	
7440-02-0	Nickel	0.56	J		P	
7440-09-7	Potassium	449 ~~68.2~~	~~J~~	U	P	BL
7782-49-2	Selenium	3.1	U		P	
7440-22-4	Silver	0.9 ~~0.052~~	~~J~~	U	P	BL
7440-23-5	Sodium	449 ~~45.5~~	~~J~~	U	P	BL
7440-28-0	Thallium	2.2	U		P	
7440-62-2	Vanadium	4.5 ~~2.3~~	~~J~~	U E	P	BL
7440-66-6	Zinc	7.0			P	

Color Before: NA Clarity Before: NA Texture: NA

Color After: NA Clarity After: NA Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-SD02-08B

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806206S

Matrix: (soil/water) SOIL Lab Sample ID: S 806206-002-007-1/1

Level: (low/med) Date Recieved: 06/26/2008

% Solids: 71.6

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	1010		J ~~J~~	P	MDP
7440-36-0	Antimony	0.66	J		P	
7440-38-2	Arsenic	0.98	U		P	
7440-39-3	Barium	19.5 ~~4.0~~ ~~J~~		U	P	BL
7441-41-7	Beryllium	0.024	J		P	
7440-43-9	Cadmium	0.49 ~~0.049~~ ~~J~~		U	P	BL
7440-70-2	Calcium	905		J ~~E~~	P	SD
7440-47-3	Chromium	1.7			P	
7440-48-4	Cobalt	0.077	J		P	
7440-50-8	Copper	2.5			P	
7439-89-6	Iron	593		J ~~J~~	P	MDP
7439-92-1	Lead	4.9		J ~~N~~	P	MSH
7439-95-4	Magnesium	488 ~~51.4~~ ~~J~~		U	P	BL
7439-96-5	Manganese	2.1			P	
7439-97-6	Mercury	0.014	~~J~~	J ~~N~~	AV	MSH
7440-02-0	Nickel	0.48	J		P	
7440-09-7	Potassium	488 ~~45.8~~ ~~J~~		U	P	BL
7782-49-2	Selenium	3.4	U		P	
7440-22-4	Silver	0.98	U		P	
7440-23-5	Sodium	488 ~~49.9~~ ~~J~~		U	P	BL
7440-28-0	Thallium	2.4	U		P	
7440-62-2	Vanadium	4.9 ~~2.0~~ ~~J~~		U ~~E~~	P	BL
7440-66-6	Zinc	12.4			P	

Color Before: NA Clarity Before: NA Texture: NA

Color After: NA Clarity After: NA Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-SD02D-08B

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806206S

Matrix: (soil/water) SOIL Lab Sample ID: S 806206-003-008-1/1

Level: (low/med) Date Recieved: 06/26/2008

% Solids: 76.6

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	794		J *	P	MDP
7440-36-0	Antimony	5.4	U		P	
7440-38-2	Arsenic	0.91	U		P	
7440-39-3	Barium	181 ~~2.9~~	~~J~~	U	P	BL
7441-41-7	Beryllium	0.011	J		P	
7440-43-9	Cadmium	0.45 ~~0.023~~	~~J~~	U	P	BL
7440-70-2	Calcium	635		J E	P	SD
7440-47-3	Chromium	1.5			P	
7440-48-4	Cobalt	0.048	J		P	
7440-50-8	Copper	1.2	J		P	
7439-89-6	Iron	530		J +	P	MDP
7439-92-1	Lead	6.5		J N*	P	MSH
7439-95-4	Magnesium	453 ~~39.5~~	~~J~~	U	P	BL
7439-96-5	Manganese	1.6		U	P	BL
7439-97-6	Mercury	0.040	~~U~~	~~M~~	AV	
7440-02-0	Nickel	0.36	J		P	
7440-09-7	Potassium	453 ~~37.1~~	~~J~~	U	P	BL
7782-49-2	Selenium	3.2	U		P	
7440-22-4	Silver	0.91	U		P	
7440-23-5	Sodium	453 ~~44.3~~	~~J~~	U	P	BL
7440-28-0	Thallium	2.3	U		P	
7440-62-2	Vanadium	4.5 ~~1.8~~	~~J~~	U E	P	BL
7440-66-6	Zinc	8.2			P	

Color Before: NA Clarity Before: NA Texture: NA

Color After: NA Clarity After: NA Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-SW01-08B

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806206W

Matrix: (soil/water) WATER Lab Sample ID: S 806206-004-014-1/3

Level: (low/med) Date Recieved: 06/26/2008

% 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	556			P	
7440-36-0	Antimony	60.0	U		P	
7440-38-2	Arsenic	3.9	J		P	
7440-39-3	Barium	200 ~~13.6~~	~~J~~	U	P	BL
7441-41-7	Beryllium	5.0	U		P	
7440-43-9	Cadmium	5.0	U		P	
7440-70-2	Calcium	19300			P	
7440-47-3	Chromium	1.2	J		P	
7440-48-4	Cobalt	50.0	U		P	
7440-50-8	Copper	6.5	J		P	
7439-89-6	Iron	526			P	
7439-92-1	Lead	2.6	J		P	
7439-95-4	Magnesium	5000 ~~1140~~	~~J~~	U B	P	BL
7439-96-5	Manganese	14.1	J		P	
7440-02-0	Nickel	40 ~~3.1~~	~~J~~	U	P	BL
7439-97-6	Mercury	0.20	U		CV	
7440-09-7	Potassium	1840	J		P	
7782-49-2	Selenium	35.0	U		P	
7440-22-4	Silver	10.0	U		P	
7440-23-5	Sodium	5000 ~~1440~~	~~J~~	U	P	BL
7440-28-0	Thallium	25.0	U		P	
7440-62-2	Vanadium	4.1	J		P	
7440-66-6	Zinc	60 ~~11.5~~	~~J~~	U	P	BL

Color Before: COLORLESS Clarity Before: CLEAR Texture: NA

Color After: COLORLESS Clarity After: CLEAR Artifacts: NA

Comments:

4 FIL

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-SW01-08B FIL

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806206W

Matrix: (soil/water) WATER Lab Sample ID: S 806206-009-037-1/3

Level: (low/med) Date Recieved: 06/26/2008

% 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	200 ~~77.3~~	~~J~~	U	P	BL
7440-36-0	Antimony	6.2	J		P	
7440-38-2	Arsenic	10.0	U		P	
7440-39-3	Barium	200 ~~11.3~~	~~J~~	U	P	BL
7441-41-7	Beryllium	5.0	U		P	
7440-43-9	Cadmium	5 ~~0.39~~	~~J~~	U	P	BL
7440-70-2	Calcium	19300			P	
7440-47-3	Chromium	1.5	J		P	
7440-48-4	Cobalt	50 ~~1.6~~	~~J~~	U	P	BL
7440-50-8	Copper	5.8	J		P	
7439-89-6	Iron	214			P	
7439-92-1	Lead	10.0	U		P	
7439-95-4	Magnesium	5000 ~~1110~~	~~J~~	U E	P	BL
7439-96-5	Manganese	5.3	J		P	
7439-97-6	Mercury	0.2 ~~0.093~~	~~J~~	U	CV	BL
7440-02-0	Nickel	40 ~~2.3~~	~~J~~	U	P	BL
7440-09-7	Potassium	1880	J		P	
7782-49-2	Selenium	35.0	U		P	
7440-22-4	Silver	10.0	U		P	
7440-23-5	Sodium	5000 ~~2280~~	~~J~~	U	P	BL
7440-28-0	Thallium	25.0	U		P	
7440-62-2	Vanadium	2.8	J		P	
7440-66-6	Zinc	60 ~~7.1~~	~~J~~	U	P	BL

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.

MR03-SW02-08B

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806206W

Matrix: (soil/water) WATER Lab Sample ID: S 806206-005-026-1/1

Level: (low/med) Date Recieved: 06/26/2008

% 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	364			P	
7440-36-0	Antimony	3.8	J		P	
7440-38-2	Arsenic	10.0	U		P	
7440-39-3	Barium	200 ~~28.0~~	~~J~~	U	P	BL
7441-41-7	Beryllium	5.0	U		P	
7440-43-9	Cadmium	5.0	U		P	
7440-70-2	Calcium	81500			P	
7440-47-3	Chromium	1.4	J		P	
7440-48-4	Cobalt	50 ~~1.3~~	~~J~~	U	P	BL
7440-50-8	Copper	3.1	J		P	
7439-89-6	Iron	6920			P	
7439-92-1	Lead	10.0	U		P	
7439-95-4	Magnesium	5000 ~~3260~~	~~J~~	U E	P	BL
7439-96-5	Manganese	86.3			P	
7439-97-6	Mercury	0.2 ~~0.020~~	~~J~~	U	CV	BL
7440-02-0	Nickel	40.0	U		P	
7440-09-7	Potassium	2050	J		P	
7782-49-2	Selenium	35.0	U		P	
7440-22-4	Silver	10.0	U		P	
7440-23-5	Sodium	5000 ~~4140~~	~~J~~	U	P	BL
7440-28-0	Thallium	25.0	U		P	
7440-62-2	Vanadium	50.0	U		P	
7440-66-6	Zinc	60 ~~40.4~~	~~J~~	U	P	BL

Color Before: COLORLESS Clarity Before: CLEAR Texture: NA

Color After: COLORLESS Clarity After: CLEAR Artifacts: NA

Comments:

5fil

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-SW02-08B FIL

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806206W

Matrix: (soil/water) WATER Lab Sample ID: S 806206-010-040-1/1

Level: (low/med) Date Recieved: 06/26/2008

% 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	200	U		P	
7440-36-0	Antimony	60.0	U		P	
7440-38-2	Arsenic	3.0	J		P	
7440-39-3	Barium	200 ~~25.9~~ ~~J~~		U	P	BL
7441-41-7	Beryllium	5 ~~0.966~~ ~~J~~		U	P	BL
7440-43-9	Cadmium	5.0	U		P	
7440-70-2	Calcium	82300			P	
7440-47-3	Chromium	10.0	U		P	
7440-48-4	Cobalt	50.0	U		P	
7440-50-8	Copper	4.9	J		P	
7439-89-6	Iron	412			P	
7439-92-1	Lead	10.0	U		P	
7439-95-4	Magnesium	5000 ~~3320~~ ~~J~~		U E	P	BL
7439-96-5	Manganese	81.8			P	
7440-02-0	Nickel	40 ~~2.0~~ ~~J~~		U	P	BL
7439-97-6	Mercury	0.20	U		CV	
7440-09-7	Potassium	1970	J		P	
7782-49-2	Selenium	35.0	U		P	
7440-22-4	Silver	10.0	U		P	
7440-23-5	Sodium	5000 ~~3570~~ ~~J~~		U	P	BL
7440-28-0	Thallium	25.0	U		P	
7440-62-2	Vanadium	50.0	U		P	
7440-66-6	Zinc	60 ~~4.6~~ ~~J~~		U	P	BL

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.

MR03-SW02D-08B

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806206W

Matrix: (soil/water) WATER Lab Sample ID: S 806206-006-027-1/1

Level: (low/med) Date Recieved: 06/26/2008

% 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	225			P	
7440-36-0	Antimony	60.0	U		P	
7440-38-2	Arsenic	3.3	J		P	
7440-39-3	Barium	200 ~~26.5~~	~~J~~	U	P	BL
7441-41-7	Beryllium	5.0	U		P	
7440-43-9	Cadmium	5.0	U		P	
7440-70-2	Calcium	75300			P	
7440-47-3	Chromium	10.0	U		P	
7440-48-4	Cobalt	50.0	U		P	
7440-50-8	Copper	4.2	J		P	
7439-89-6	Iron	5660			P	
7439-92-1	Lead	1.9	J		P	
7439-95-4	Magnesium	5000 ~~3080~~	~~J~~	U F	P	BL
7439-96-5	Manganese	79.5			P	
7440-02-0	Nickel	40 ~~2.9~~	~~J~~	U	P	BL
7439-97-6	Mercury	0.2 ~~0.054~~	~~J~~	U	CV	BL
7440-09-7	Potassium	1950	J		P	
7782-49-2	Selenium	35.0	U		P	
7440-22-4	Silver	10.0	U		P	
7440-23-5	Sodium	5000 ~~3320~~	~~J~~	U	P	BL
7440-28-0	Thallium	25.0	U		P	
7440-62-2	Vanadium	50.0	U		P	
7440-66-6	Zinc	60 ~~11.0~~	~~J~~	U	P	BL

Color Before: COLORLESS Clarity Before: CLEAR Texture: NA

Color After: COLORLESS Clarity After: CLEAR Artifacts: NA

Comments:

6FIL

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-SW02D-08B FIL

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806206W

Matrix: (soil/water) WATER Lab Sample ID: S 806206-011-041-1/1

Level: (low/med) Date Recieved: 06/26/2008

% 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	200	U		P	
7440-36-0	Antimony	60.0	U		P	
7440-38-2	Arsenic	2.9	J		P	
7440-39-3	Barium	200 ~~24.2~~	~~J~~	U	P	BL
7441-41-7	Beryllium	5.0	U		P	
7440-43-9	Cadmium	5.0	U		P	
7440-70-2	Calcium	74500			P	
7440-47-3	Chromium	10.0	U		P	
7440-48-4	Cobalt	50.0	U		P	
7440-50-8	Copper	3.8	J		P	
7439-89-6	Iron	511			P	
7439-92-1	Lead	1.6	J		P	
7439-95-4	Magnesium	5000 ~~3050~~	~~J~~	U B	P	BL
7439-96-5	Manganese	74.1			P	
7439-97-6	Mercury	0.2 ~~0.094~~	~~J~~	U	CV	BL
7440-02-0	Nickel	40 ~~1.5~~	~~J~~	U	P	BL
7440-09-7	Potassium	1930	J		P	
7782-49-2	Selenium	35.0	U		P	
7440-22-4	Silver	10.0	U		P	
7440-23-5	Sodium	5000 ~~3500~~	~~J~~	U	P	BL
7440-28-0	Thallium	25.0	U		P	
7440-62-2	Vanadium	50.0	U		P	
7440-66-6	Zinc	60 ~~4.2~~	~~J~~	U	P	BL

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.

MR03-EB062508

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806206W

Matrix: (soil/water) WATER Lab Sample ID: S 806206-007-028-1/1

Level: (low/med) Date Recieved: 06/26/2008

% 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	200	U		P	
7440-36-0	Antimony	60.0	U		P	
7440-38-2	Arsenic	10 ~~5.1~~	~~J~~	U	P	BL
7440-39-3	Barium	200 ~~1.3~~	~~J~~	U	P	BL
7441-41-7	Beryllium	5 ~~0.072~~	~~J~~	U	P	BL
7440-43-9	Cadmium	5 ~~0.46~~	~~J~~	U	P	BL
7440-70-2	Calcium	116	J		P	
7440-47-3	Chromium	10.0	U		P	
7440-48-4	Cobalt	50.0	U		P	
7440-50-8	Copper	25 ~~3.8~~	~~J~~	U	P	BL
7439-89-6	Iron	100 ~~52.3~~	~~J~~	U	P	BL
7439-92-1	Lead	10.0	U		P	
7439-95-4	Magnesium	5000 ~~103~~	~~J~~	U E	P	BL
7439-96-5	Manganese	0.66	J		P	
7439-97-6	Mercury	0.2 ~~0.035~~	~~J~~	U	CV	BL
7440-02-0	Nickel	40 ~~2.2~~	~~J~~	U	P	BL
7440-09-7	Potassium	75.7	J		P	
7782-49-2	Selenium	35.0	U		P	
7440-22-4	Silver	10.0	U		P	
7440-23-5	Sodium	5000 ~~408~~	~~J~~	U	P	BL
7440-28-0	Thallium	25.0	U		P	
7440-62-2	Vanadium	50.0	U		P	
7440-66-6	Zinc	5.1	J		P	

Color Before: COLORLESS Clarity Before: CLEAR Texture: NA

Color After: COLORLESS Clarity After: CLEAR Artifacts: NA

Comments:

TFIL

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MRO3-EB0625-08 FIL

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 806206W

Matrix: (soil/water) WATER Lab Sample ID: S 806206-012-042-1/1

Level: (low/med) Date Recieved: 06/26/2008

% 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	200	U		P	
7440-36-0	Antimony	60.0	U		P	
7440-38-2	Arsenic	10.0	U		P	
7440-39-3	Barium	200 ~~0.89~~	~~J~~	U	P	BL
7441-41-7	Beryllium	5.0	U		P	
7440-43-9	Cadmium	5.0	U		P	
7440-70-2	Calcium	176	J		P	
7440-47-3	Chromium	10.0	U		P	
7440-48-4	Cobalt	50.0	U		P	
7440-50-8	Copper	25.0	U		P	
7439-89-6	Iron	100	U		P	
7439-92-1	Lead	10.0	U		P	
7439-95-4	Magnesium	5000 ~~95.2~~	~~J~~	U F	P	BL
7439-96-5	Manganese	15.0	U		P	
7439-97-6	Mercury	0.2 ~~0.060~~	~~J~~	U	CV	BL
7440-02-0	Nickel	40.0	U		P	
7440-09-7	Potassium	76.6	J		P	
7782-49-2	Selenium	35.0	U		P	
7440-22-4	Silver	10.0	U		P	
7440-23-5	Sodium	5000 ~~670~~	~~J~~	U	P	BL
7440-28-0	Thallium	25.0	U		P	
7440-62-2	Vanadium	50.0	U		P	
7440-66-6	Zinc	10.1	J		P	

Color Before: COLORLESS Clarity Before: CLEAR Texture: NA

Color After: COLORLESS Clarity After: CLEAR Artifacts: NA

Comments:

ENVIRONMENTAL
Data Services, Inc.

PERCHLORATE

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, UXO-03, CTO-168 SDG #: 806206

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: September 20, 2008

Laboratory: GPL Laboratories, Frederick, Maryland Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR03-SD01-08B	806206-001	Soil
1MS	MR03-SD01-08BMS	806206-001MS	Soil
1MSD	MR03-SD01-08BMSD	806206-001MSD	Soil
2	MR03-SD02-08B	806206-002	Soil
3	MR03-SD02D-08B	806206-003	Soil
4	MR03-SW01-08B	806206-004	Water
4MS	MR03-SW01-08BMS	806206-004MS	Water
4MSD	MR03-SW01-08BMSD	806206-004MSD	Water
5	MR03-SW02-08B	806206-005	Water
6	MR03-SW02D-08B	806206-006	Water
7	MR03-EB062508	806206-007	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.

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
MR03-EB062508	None - ND	-	-	-	-
MR03-FB061808	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	MR03-SD02-08B ug/kg	MR03-SD02D-08B ug/kg	RPD	Qualifier
None	ND	ND	-	-

Compound Quantitation - No discrepancies were identified.

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

Form RLIMS63A-V1.4
07140815260448

S086200S

Date Printed.....: 14-JUL-08 15:26

Client Name.....: GPL Laboratories
Client Ref Number....: 806206
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 806206

Date Received.....: 02-JUL-08 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 09-JUL-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: MR03-SD01-08|B
DCL Sample Name...: 08E03429
DCL Report Group..: 08E-0536-01

Matrix.....: SOIL
Date Sampled.....: 25-JUN-08 10:35
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 78.92

DCL Analysis Group: G086800X
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: XP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	10-JUL-08 05:07	0.840	ND		U	1	2.53

RW 9/20/18

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S086200W

Date Printed.....: 14-JUL-08 15:26

Client Name.....: GPL Laboratories
Client Ref Number....: 806206
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 806206

Date Received.....: 02-JUL-08 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 09-JUL-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: MR03-SD02-08|B
DCL Sample Name...: 08E03430
DCL Report Group..: 08E-0536-01

Matrix.....: SOIL
Date Sampled.....: 25-JUN-08 10:45
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 71.59

DCL Analysis Group: G086800X
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: XB-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	10-JUL-08 06:54	0.926	ND		U	1	2.79

fcw 9/20/08

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

Form RLIMS63A-V1.4
07140815260448
Page 5

S086200X

Date Printed.....: 14-JUL-08 15:26

Client Name.....: GPL Laboratories
Client Ref Number....: 806206
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 806206

Date Received.....: 02-JUL-08 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 09-JUL-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: MR03-SD02D-0|8B
DCL Sample Name...: 08E03431
DCL Report Group..: 08E-0536-01

Matrix.....: SOIL
Date Sampled.....: 25-JUN-08 10:50
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 76.64

DCL Analysis Group: G086800X
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	10-JUL-08 07:16	0.865	ND		U	1	2.61

RW 9/20/08

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S086201G

Date Printed.....: 10-JUL-08 12:30

Client Name.....: GPL Laboratories
Client Ref Number....: 806206
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 806206

Date Received.....: 02-JUL-08 00:00

Client Sample Name: MR03-SW01-08|B
DCL Sample Name...: 08E03432
DCL Report Group..: 08E-0536-03

Matrix.....: WATER
Date Sampled.....: 25-JUN-08 10:25
Reporting Units...: ug/L
Report Basis.....: [X] As Received [ ] Dried

DCL Preparation Group: Not Applicable
Date Prepared.....: 07-JUL-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: Not Applicable
Net Weight/Volume....: Not Required

DCL Analysis Group: G086600R
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
[X] Primary
[ ] Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	08-JUL-08 04:26	0.00663	ND		U	1	0.200

lw 9/20/08

960 West LeVoy Drive / Salt Lake City, Utah 84123-2547
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FAX (801) 268-9992 E-mail: lab@datachem.com

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S086201K

Date Printed.....: 10-JUL-08 12:30

Client Name.....: GPL Laboratories
Client Ref Number....: 806206
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 806206

Date Received.....: 02-JUL-08 00:00

Client Sample Name: MR03-SW02-08|B
DCL Sample Name...: 08E03433
DCL Report Group..: 08E-0536-03

Matrix.....: WATER
Date Sampled.....: 25-JUN-08 10:30
Reporting Units...: ug/L
Report Basis.....: [X] As Received [ ] Dried

DCL Preparation Group: Not Applicable
Date Prepared.....: 07-JUL-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: Not Applicable
Net Weight/Volume....: Not Required

DCL Analysis Group: G086600K
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
[X] Primary
[ ] Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	08-JUL-08 05:30	0.00663	0.234			1	0.200

9/20/08

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DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S086201L

Date Printed.....: 10-JUL-08 12:30

Client Name.....: GPL Laboratories
Client Ref Number....: 806206
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 806206

Date Received.....: 02-JUL-08 00:00

Client Sample Name: MR03-SW02D-0|8B
DCL Sample Name...: 08E03434
DCL Report Group..: 08E-0536-03

Matrix.....: WATER
Date Sampled.....: 25-JUN-08 10:35
Reporting Units...: ug/L
Report Basis.....: [X] As Received [ ] Dried

DCL Preparation Group: Not Applicable
Date Prepared.....: 07-JUL-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: Not Applicable
Net Weight/Volume....: Not Required

DCL Analysis Group: G086600K
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
[X] Primary
[ ] Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	08-JUL-08 05:51	0.00663	ND		U	1	0.200

lew 9/20/08

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DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S086201M

Date Printed.....: 10-JUL-08 12:30

Client Name.....: GPL Laboratories
Client Ref Number....: 806206
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 806206

Date Received.....: 02-JUL-08 00:00

Client Sample Name: MR03-EB0625-|08B
DCL Sample Name...: 08E03435
DCL Report Group..: 08E-0536-03

Matrix.....: WATER
Date Sampled.....: 25-JUN-08 10:15
Reporting Units...: ug/L
Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: Not Applicable
Date Prepared.....: 07-JUL-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: Not Applicable
Net Weight/Volume....: Not Required

DCL Analysis Group: G086600K
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	08-JUL-08 06:13	0.00663	ND		U	1	0.200

LW 9/20/08

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FAX (801) 268-9992 E-mail: lab@datachem.com

ENVIRONMENTAL
Data Services, Inc.

EXPLOSIVES

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, UXO-03, CTO-168 SDG #: 807090

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: October 3, 2008

Laboratory: GPL Laboratories, Frederick, Maryland Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR03-IS10-5-6-08C	807090-001	Soil
2	MR03-IS05-3-4-08C	807090-002	Soil
3	MR03-IS06-4-5-08C	807090-003	Soil
4	MR03-IS08-4-5-08C	807090-004	Soil
5	MR03-IS04-7-8-08C	807090-005	Soil
6	MR03-EB071008	807090-006	Water
7	MR03-IS09-4.5-5.5-08C	807090-007	Soil
8	MR03-IS09D-4.5-5.5-08C	807090-008	Soil
9	MR03-IS02-4.5-5.5-08C	807090-009	Soil
10	MR03-IS01-3-4-08C	807090-010	Soil
10MS	MR03-IS01-3-4-08CMS	807090-010MS	Soil
10MSD	MR03-IS01-3-4-08CMSD	807090-010MSD	Soil
11	MR03-IS07-3-4-08C	807090-011	Soil
12	MR03-IS03-4-5-08C	807090-012	Soil
13	MR03-FB-071208	807090-013	Water
14	MR03-EB071208-IS	807090-014	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, 14 days for soil samples and analyzed within 40 days.

Initial Calibration - The initial calibrations exhibited acceptable %RSD and/or correlation coefficient values.

Calibration Verification - The continuing calibrations exhibited acceptable %D values.

Surrogates - All samples exhibited acceptable surrogate recoveries.

MS/MSD - The MS/MSD sample exhibited acceptable %R and RPD values.

Laboratory Control Sample - The LCS samples exhibited acceptable %R values.

Method Blank - The method blanks were free of contamination.

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/L	Qualifier	Affected Samples
MR03-EB071008	None - ND	-	-	-	-
MR03-FB071208	None - ND	-	-	-	-
MR03-EB071208-IS	None - ND	-	-	-	-

Field Duplicates - Field duplicate results are summarized below.

Compound	MR03-IS09-4.5-5.5-08C mg/kg	MR03-IS09D-4.5-5.5-08C mg/kg	RPD	Qualifier
None	ND	ND	-	-

Compound Identification - Retention times were acceptable and no further action was taken.

Compound Quantitation - No discrepancies were identified.

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
MR03-IS10-5-6-08C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	807090
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	807090-001-001-1/1
Sample Volume :	2	Lab File ID :	LCA25907.D
% Moisture:		Date Received	07/15/2008
Extraction:	EXT_SW8330	Date Extracted:	07/17/2008
Extract Volume:	20 mL	Date Analyzed	07/29/2008
Injection Volume :	100 µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.10	U
99-65-0	1,3-Dinitrobenzene	0.10	U
118-96-7	2,4,6-Trinitrotoluene	0.10	U
121-14-2	2,4-Dinitrotoluene	0.10	U
606-20-2	2,6-Dinitrotoluene	0.10	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.10	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.10	U
2691-41-0	HMX	0.20	U
98-95-3	Nitrobenzene	0.10	U
121-82-4	RDX	0.20	U
479-45-8	Tetryl	0.20	U
99-08-1	m-Nitrotoluene	0.20	U
88-72-2	o-Nitrotoluene	0.20	U
99-99-0	p-Nitrotoluene	0.20	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

2

SAMPLE NO
MR03-IS05-3-4-08C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	807090
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	807090-002-002-1/1
Sample Volume :	2	Lab File ID :	LCA25908.D
% Moisture:		Date Received	07/15/2008
Extraction:	EXT_SW8330	Date Extracted:	07/17/2008
Extract Volume:	20 mL	Date Analyzed	07/29/2008
Injection Volume :	100 µ L	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.10	U
99-65-0	1,3-Dinitrobenzene	0.10	U
118-96-7	2,4,6-Trinitrotoluene	0.10	U
121-14-2	2,4-Dinitrotoluene	0.10	U
606-20-2	2,6-Dinitrotoluene	0.10	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.10	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.10	U
2691-41-0	HMX	0.20	U
98-95-3	Nitrobenzene	0.10	U
121-82-4	RDX	0.20	U
479-45-8	Tetryl	0.20	U
99-08-1	m-Nitrotoluene	0.20	U
88-72-2	o-Nitrotoluene	0.20	U
99-99-0	p-Nitrotoluene	0.20	U

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SAMPLE NO
MR03-IS06-4-5-08C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	807090
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	807090-003-003-1/1
Sample Volume :	2	Lab File ID :	LCA25909.D
% Moisture:		Date Received	07/15/2008
Extraction:	EXT_SW8330	Date Extracted:	07/17/2008
Extract Volume:	20 mL	Date Analyzed	07/29/2008
Injection Volume :	100 µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.10	U
99-65-0	1,3-Dinitrobenzene	0.10	U
118-96-7	2,4,6-Trinitrotoluene	0.10	U
121-14-2	2,4-Dinitrotoluene	0.10	U
606-20-2	2,6-Dinitrotoluene	0.10	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.10	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.10	U
2691-41-0	HMX	0.20	U
98-95-3	Nitrobenzene	0.10	U
121-82-4	RDX	0.20	U
479-45-8	Tetryl	0.20	U
99-08-1	m-Nitrotoluene	0.20	U
88-72-2	o-Nitrotoluene	0.20	U
99-99-0	p-Nitrotoluene	0.20	U

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SAMPLE NO
MR03-IS08-4-5-08C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	807090
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	807090-004-004-1/1
Sample Volume :	2	Lab File ID :	LCA25910.D
% Moisture:		Date Received	07/15/2008
Extraction:	EXT_SW8330	Date Extracted:	07/17/2008
Extract Volume:	20 mL	Date Analyzed	07/29/2008
Injection Volume :	100 µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.10	U
99-65-0	1,3-Dinitrobenzene	0.10	U
118-96-7	2,4,6-Trinitrotoluene	0.10	U
121-14-2	2,4-Dinitrotoluene	0.10	U
606-20-2	2,6-Dinitrotoluene	0.10	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.10	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.10	U
2691-41-0	HMX	0.20	U
98-95-3	Nitrobenzene	0.10	U
121-82-4	RDX	0.20	U
479-45-8	Tetryl	0.20	U
99-08-1	m-Nitrotoluene	0.20	U
88-72-2	o-Nitrotoluene	0.20	U
99-99-0	p-Nitrotoluene	0.20	U

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SAMPLE NO
MR03-IS04-7-8-08C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	807090
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	807090-005-005-1/1
Sample Volume :	2	Lab File ID :	LCA25911.D
% Moisture:		Date Received	07/15/2008
Extraction:	EXT_SW8330	Date Extracted:	07/17/2008
Extract Volume:	20 mL	Date Analyzed	07/29/2008
Injection Volume :	100 µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.10	U
99-65-0	1,3-Dinitrobenzene	0.10	U
118-96-7	2,4,6-Trinitrotoluene	0.10	U
121-14-2	2,4-Dinitrotoluene	0.10	U
606-20-2	2,6-Dinitrotoluene	0.10	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.10	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.10	U
2691-41-0	HMX	0.20	U
98-95-3	Nitrobenzene	0.10	U
121-82-4	RDX	0.20	U
479-45-8	Tetryl	0.20	U
99-08-1	m-Nitrotoluene	0.20	U
88-72-2	o-Nitrotoluene	0.20	U
99-99-0	p-Nitrotoluene	0.20	U

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SAMPLE NO
MR03-EB071008

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	807090
Matrix : (Soil / Water)	WATER	Lab Sample ID :	807090-006-021-1/1
Sample Volume :	1000	Lab File ID :	LCD42569.D
% Moisture:		Date Received	07/15/2008
Extraction:	EXT_SW8330	Date Extracted:	07/16/2008
Extract Volume:	20 mL	Date Analyzed	07/29/2008
Injection Volume :	100 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
99-35-4	1,3,5-Trinitrobenzene	0.20	U
99-65-0	1,3-Dinitrobenzene	0.20	U
118-96-7	2,4,6-Trinitrotoluene	0.20	U
121-14-2	2,4-Dinitrotoluene	0.20	U
606-20-2	2,6-Dinitrotoluene	0.20	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.20	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.20	U
2691-41-0	HMX	0.40	U
98-95-3	Nitrobenzene	0.20	U
121-82-4	RDX	0.40	U
479-45-8	Tetryl	0.40	U
99-08-1	m-Nitrotoluene	0.40	U
88-72-2	o-Nitrotoluene	0.40	U
99-99-0	p-Nitrotoluene	0.40	U

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SAMPLE NO
MR03-IS09-4.5-5.5-08C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	807090
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	807090-007-006-1/1
Sample Volume :	2	Lab File ID :	LCA25913.D
% Moisture:		Date Received	07/15/2008
Extraction:	EXT_SW8330	Date Extracted:	07/17/2008
Extract Volume:	20 mL	Date Analyzed	07/29/2008
Injection Volume :	100 µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.10	U
99-65-0	1,3-Dinitrobenzene	0.10	U
118-96-7	2,4,6-Trinitrotoluene	0.10	U
121-14-2	2,4-Dinitrotoluene	0.10	U
606-20-2	2,6-Dinitrotoluene	0.10	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.10	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.10	U
2691-41-0	HMX	0.20	U
98-95-3	Nitrobenzene	0.10	U
121-82-4	RDX	0.20	U
479-45-8	Tetryl	0.20	U
99-08-1	m-Nitrotoluene	0.20	U
88-72-2	o-Nitrotoluene	0.20	U
99-99-0	p-Nitrotoluene	0.20	U

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SAMPLE NO
MR03-IS09D-4.5-5.5-08C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	807090
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	807090-008-007-1/1
Sample Volume :	2	Lab File ID :	LCA25914.D
% Moisture:		Date Received	07/15/2008
Extraction:	EXT_SW8330	Date Extracted:	07/17/2008
Extract Volume:	20 mL	Date Analyzed	07/29/2008
Injection Volume :	100 µ L	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.10	U
99-65-0	1,3-Dinitrobenzene	0.10	U
118-96-7	2,4,6-Trinitrotoluene	0.10	U
121-14-2	2,4-Dinitrotoluene	0.10	U
606-20-2	2,6-Dinitrotoluene	0.10	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.10	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.10	U
2691-41-0	HMX	0.20	U
98-95-3	Nitrobenzene	0.10	U
121-82-4	RDX	0.20	U
479-45-8	Tetryl	0.20	U
99-08-1	m-Nitrotoluene	0.20	U
88-72-2	o-Nitrotoluene	0.20	U
99-99-0	p-Nitrotoluene	0.20	U

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SAMPLE NO
MR03-IS02-4.5-5.5-08C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	807090
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	807090-009-008-1/1
Sample Volume :	2	Lab File ID :	LCA25915.D
% Moisture:		Date Received	07/15/2008
Extraction:	EXT_SW8330	Date Extracted:	07/17/2008
Extract Volume:	20 mL	Date Analyzed	07/29/2008
Injection Volume :	100 µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.10	U
99-65-0	1,3-Dinitrobenzene	0.10	U
118-96-7	2,4,6-Trinitrotoluene	0.10	U
121-14-2	2,4-Dinitrotoluene	0.10	U
606-20-2	2,6-Dinitrotoluene	0.10	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.10	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.10	U
2691-41-0	HMX	0.20	U
98-95-3	Nitrobenzene	0.10	U
121-82-4	RDX	0.20	U
479-45-8	Tetryl	0.20	U
99-08-1	m-Nitrotoluene	0.20	U
88-72-2	o-Nitrotoluene	0.20	U
99-99-0	p-Nitrotoluene	0.20	U

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SAMPLE NO
MR03-IS01-3-4-08C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	807090
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	807090-010-025-1/3
Sample Volume :	2	Lab File ID :	LCA25916.D
% Moisture:		Date Received	07/15/2008
Extraction:	EXT_SW8330	Date Extracted:	07/17/2008
Extract Volume:	20 mL	Date Analyzed	07/29/2008
Injection Volume :	100 µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.10	U
99-65-0	1,3-Dinitrobenzene	0.10	U
118-96-7	2,4,6-Trinitrotoluene	0.10	U
121-14-2	2,4-Dinitrotoluene	0.10	U
606-20-2	2,6-Dinitrotoluene	0.10	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.10	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.10	U
2691-41-0	HMX	0.20	U
98-95-3	Nitrobenzene	0.10	U
121-82-4	RDX	0.20	U
479-45-8	Tetryl	0.20	U
99-08-1	m-Nitrotoluene	0.20	U
88-72-2	o-Nitrotoluene	0.20	U
99-99-0	p-Nitrotoluene	0.20	U

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SAMPLE NO
MR03-IS07-3-4-08C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	807090
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	807090-011-009-1/1
Sample Volume :	2	Lab File ID :	LCA25917.D
% Moisture:		Date Received	07/15/2008
Extraction:	EXT_SW8330	Date Extracted:	07/17/2008
Extract Volume:	20 mL	Date Analyzed	07/29/2008
Injection Volume :	100 µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.10	U
99-65-0	1,3-Dinitrobenzene	0.10	U
118-96-7	2,4,6-Trinitrotoluene	0.10	U
121-14-2	2,4-Dinitrotoluene	0.10	U
606-20-2	2,6-Dinitrotoluene	0.10	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.10	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.10	U
2691-41-0	HMX	0.20	U
98-95-3	Nitrobenzene	0.10	U
121-82-4	RDX	0.20	U
479-45-8	Tetryl	0.20	U
99-08-1	m-Nitrotoluene	0.20	U
88-72-2	o-Nitrotoluene	0.20	U
99-99-0	p-Nitrotoluene	0.20	U

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SAMPLE NO
MR03-IS03-4-5-08C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	807090
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	807090-012-010-1/1
Sample Volume :	2	Lab File ID :	LCA25918.D
% Moisture:		Date Received	07/15/2008
Extraction:	EXT_SW8330	Date Extracted:	07/17/2008
Extract Volume:	20 mL	Date Analyzed	07/29/2008
Injection Volume :	100 µ L	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	0.10	U
99-65-0	1,3-Dinitrobenzene	0.10	U
118-96-7	2,4,6-Trinitrotoluene	0.10	U
121-14-2	2,4-Dinitrotoluene	0.10	U
606-20-2	2,6-Dinitrotoluene	0.10	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.10	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.10	U
2691-41-0	HMX	0.20	U
98-95-3	Nitrobenzene	0.10	U
121-82-4	RDX	0.20	U
479-45-8	Tetryl	0.20	U
99-08-1	m-Nitrotoluene	0.20	U
88-72-2	o-Nitrotoluene	0.20	U
99-99-0	p-Nitrotoluene	0.20	U

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SAMPLE NO
MR03-FB-071208

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	807090
Matrix : (Soil / Water)	WATER	Lab Sample ID :	807090-013-031-1/1
Sample Volume :	1000	Lab File ID :	LCD42570.D
% Moisture:		Date Received	07/15/2008
Extraction:	EXT_SW8330	Date Extracted:	07/16/2008
Extract Volume:	20 mL	Date Analyzed	07/29/2008
Injection Volume :	100 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
99-35-4	1,3,5-Trinitrobenzene	0.20	U
99-65-0	1,3-Dinitrobenzene	0.20	U
118-96-7	2,4,6-Trinitrotoluene	0.20	U
121-14-2	2,4-Dinitrotoluene	0.20	U
606-20-2	2,6-Dinitrotoluene	0.20	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.20	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.20	U
2691-41-0	HMX	0.40	U
98-95-3	Nitrobenzene	0.20	U
121-82-4	RDX	0.40	U
479-45-8	Tetryl	0.40	U
99-08-1	m-Nitrotoluene	0.40	U
88-72-2	o-Nitrotoluene	0.40	U
99-99-0	p-Nitrotoluene	0.40	U

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SAMPLE NO
MR03-EB071208-IS

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	807090
Matrix : (Soil / Water)	WATER	Lab Sample ID :	807090-014-035-1/1
Sample Volume :	1000	Lab File ID :	LCD42603.D
% Moisture:		Date Received	07/15/2008
Extraction:	EXT_SW8330	Date Extracted:	07/16/2008
Extract Volume:	20 mL	Date Analyzed	07/30/2008
Injection Volume :	100 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
99-35-4	1,3,5-Trinitrobenzene	0.20	U
99-65-0	1,3-Dinitrobenzene	0.20	U
118-96-7	2,4,6-Trinitrotoluene	0.20	U
121-14-2	2,4-Dinitrotoluene	0.20	U
606-20-2	2,6-Dinitrotoluene	0.20	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.20	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.20	U
2691-41-0	HMX	0.40	U
98-95-3	Nitrobenzene	0.20	U
121-82-4	RDX	0.40	U
479-45-8	Tetryl	0.40	U
99-08-1	m-Nitrotoluene	0.40	U
88-72-2	o-Nitrotoluene	0.40	U
99-99-0	p-Nitrotoluene	0.40	U

ENVIRONMENTAL
Data Services, Inc.

METALS

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, UXO-03, CTO-168 SDG #: 807090

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: October 3, 2008

Laboratory: GPL Laboratories, Frederick, Maryland Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR03-IS10-5-6-08C	807090-001	Soil
2	MR03-IS05-3-4-08C	807090-002	Soil
3	MR03-IS06-4-5-08C	807090-003	Soil
4	MR03-IS08-4-5-08C	807090-004	Soil
5	MR03-IS04-7-8-08C	807090-005	Soil
6	MR03-EB071008	807090-006	Water
7	MR03-IS09-4.5-5.5-08C	807090-007	Soil
8	MR03-IS09D-4.5-5.5-08C	807090-008	Soil
9	MR03-IS02-4.5-5.5-08C	807090-009	Soil
10	MR03-IS01-3-4-08C	807090-010	Soil
10MS	MR03-IS01-3-4-08CMS	807090-010MS	Soil
10MSD	MR03-IS01-3-4-08CMSD	807090-010MSD	Soil
11	MR03-IS07-3-4-08C	807090-011	Soil
12	MR03-IS03-4-5-08C	807090-012	Soil
13	MR03-FB-071208	807090-013	Water
14	MR03-EB071208-IS	807090-014	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 contamination for several compounds, however, all sample results are non-detect or greater than 5X the blank concentration with the exception of the following:

Water

Compound	Conc. ug/L	Qualifier	Affected Samples
Aluminum	59.164	U	14
Barium	2.679	U	13, 14
Copper	1.870	U	6, 14
Lead	2.189	U	13, 14
Magnesium	37.428	U	6, 13, 14
Mercury	0.066	U	6, 13, 14
Thallium	6.492	U	6
Zinc	2.790	U	6, 13, 14

Soil

Compound	Conc. mg/kg	Qualifier	Affected Samples
Barium	0.094	U	All samples
Beryllium	0.1093	U	All samples
Cadmium	0.034	U	All samples
Copper	0.240	U	1-11
Magnesium	5.540	U	All samples
Mercury	0.414	U	4, 9-12
Potassium	3.184	U	1-4, 6-14
Sodium	55.575	U	All samples
Vanadium	0.052	U	12
Zinc	0.539	U	1-11, 13, 14

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level mg/kg	Qualifier	Affected Samples
MR03-EB071008	None - ND	-	-	-	-
MR03-FB071208	Calcium	79.8	285	U	1-11, 13, 14
	Potassium	35.3	126	None	Already qualified due to MB
MR03-EB071208-IS	Calcium	130	464	None	See FB
	Chromium	2.5	8.93	U	10-12
	Sodium	486	1735	None	Already qualified due to MB

ICP Interference Check Sample - All %R values were acceptable.

Matrix Spike - The matrix spike samples exhibited acceptable %R values except the following.

MS Sample ID	Compound	%R	Qualifier	Affected Samples
10	Antimony	61%	J/UJ	All soils

Matrix Duplicate - The matrix duplicate samples exhibited acceptable RPD values.

LCS - The LCS samples exhibited acceptable %R values.

ICP Serial Dilution - The ICP serial dilution sample exhibited acceptable %D values except the following.

ICP Sample ID	Compound	%D	Qualifier	Affected Samples
Reference	Magnesium	14	None	All ND

Field Duplicates - Field duplicate results are summarized below.

Compound	MR03-IS09-4.5-5.5-08C mg/kg	MR03-IS09D-4.5-5.5-08C mg/kg	RPD	Qualifier
Aluminum	4660	5060	8%	None
Arsenic	1.2	0.64	61%	None
Chromium	7.2	7.5	4%	None
Cobalt	0.12	0.27	77%	None
Iron	2230	1450	42%	None
Lead	4.0	3.7	8%	None
Manganese	3.8	3.8	0%	None
Mercury	0.032 U	0.038	NC	None
Nickel	0.76	0.68	11%	None
Selenium	2.8 U	0.52	NC	None
Vanadium	6.9	6.2	11%	None

Compound Quantitation - No discrepancies were identified.

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-IS10-5-6-08C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807090S

Matrix: (soil/water) SOIL Lab Sample ID: S 807090-001-001-1/1

Level: (low/med) Date Recieved: 07/15/2008

% Solids: 80.4

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	6680			P	
7440-36-0	Antimony	5.3	~~U~~	~~UJ~~	P	MSL
7440-38-2	Arsenic	0.75	J		P	
7440-39-3	Barium	17.7 ~~6.5~~	~~J~~	U	P	BL
7441-41-7	Beryllium	0.44 ~~0.060~~	~~J~~	U	P	BL
7440-43-9	Cadmium	0.44 ~~0.043~~	~~J~~	U	P	BL
7440-70-2	Calcium	441 ~~66.6~~	~~J~~	U	P	BL
7440-47-3	Chromium	7.7			P	
7440-48-4	Cobalt	0.16	J		P	
7440-50-8	Copper	2.2 ~~0.67~~	~~J~~	U	P	BL
7439-89-6	Iron	2160			P	
7439-92-1	Lead	3.9			P	
7439-95-4	Magnesium	441 ~~275~~	~~J~~	U	P	BL
7439-96-5	Manganese	5.1			P	
7439-97-6	Mercury	0.039	U		AV	
7440-02-0	Nickel	1.1	J		P	
7440-09-7	Potassium	441 ~~252~~	~~J~~	U	P	BL
7782-49-2	Selenium	3.1	U		P	
7440-22-4	Silver	0.88	U		P	
7440-23-5	Sodium	441 ~~56.6~~	~~J~~	U	P	BL
7440-28-0	Thallium	2.2	U		P	
7440-62-2	Vanadium	9.2			P	
7440-66-6	Zinc	5.3 ~~3.7~~	~~J~~	U	P	BL

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.

MR03-IS05-3-4-08C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807090S

Matrix: (soil/water) SOIL Lab Sample ID: S 807090-002-002-1/1

Level: (low/med) Date Recieved: 07/15/2008

% Solids: 85.9

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	3110			P	
7440-36-0	Antimony	4.8	~~B~~	UJ N	P	MSL
7440-38-2	Arsenic	4.6			P	
7440-39-3	Barium	16.1 ~~3.4~~	~~J~~	U	P	BL
7441-41-7	Beryllium	0.4 ~~0.039~~	~~J~~	U	P	BL
7440-43-9	Cadmium	0.4 ~~0.040~~	~~J~~	U	P	BL
7440-70-2	Calcium	402 ~~17.3~~	~~J~~	U	P	BL
7440-47-3	Chromium	5.8			P	
7440-48-4	Cobalt	4.0	U		P	
7440-50-8	Copper	2 ~~0.48~~	~~J~~	U	P	BL
7439-89-6	Iron	4590			P	
7439-92-1	Lead	2.5			P	
7439-95-4	Magnesium	402 ~~122~~	~~J~~	U	P	BL
7439-96-5	Manganese	1.9			P	
7439-97-6	Mercury	0.036	U		AV	
7440-02-0	Nickel	0.54	J		P	
7440-09-7	Potassium	402 ~~176~~	~~J~~	U	P	BL
7782-49-2	Selenium	2.8	U		P	
7440-22-4	Silver	0.80	U		P	
7440-23-5	Sodium	402 ~~52.7~~	~~J~~	U	P	BL
7440-28-0	Thallium	2.0	U		P	
7440-62-2	Vanadium	11.5			P	
7440-66-6	Zinc	4.8 ~~1.5~~	~~J~~	U	P	BL

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.

MR03-IS06-4-5-08C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807090S

Matrix: (soil/water) SOIL Lab Sample ID: S 807090-003-003-1/1

Level: (low/med) Date Recieved: 07/15/2008

% 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	4670			P	
7440-36-0	Antimony	5.0	~~U~~	u J N	P	MSL
7440-38-2	Arsenic	2.6			P	
7440-39-3	Barium	16.6 ~~5.4~~	~~J~~	u	P	BL
7441-41-7	Beryllium	0.4 ~~0.054~~	~~J~~	u	P	BL
7440-43-9	Cadmium	0.42 ~~0.032~~	~~J~~	u	P	BL
7440-70-2	Calcium	415 ~~35.7~~	~~J~~	u	P	BL
7440-47-3	Chromium	7.8			P	
7440-48-4	Cobalt	0.10	J		P	
7440-50-8	Copper	2.1 ~~0.42~~	~~J~~	u	P	BL
7439-89-6	Iron	6080			P	
7439-92-1	Lead	2.9			P	
7439-95-4	Magnesium	415 ~~198~~	~~J~~	u	P	BL
7439-96-5	Manganese	2.5			P	
7439-97-6	Mercury	0.036	U		AV	
7440-02-0	Nickel	0.58	J		P	
7440-09-7	Potassium	415 ~~219~~	~~J~~	u	P	BL
7782-49-2	Selenium	2.9	U		P	
7440-22-4	Silver	0.83	U		P	
7440-23-5	Sodium	415 ~~58.1~~	J	u	P	BL
7440-28-0	Thallium	2.1	U		P	
7440-62-2	Vanadium	12.8			P	
7440-66-6	Zinc	5 ~~1.9~~	~~J~~	u	P	BL

Color Before: Grey Clarity Before: NA Texture: Medium

Color After: YELLOW Clarity After: CLEAR Artifacts: NA

Comments:

4

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-IS08-4-5-08C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807090S

Matrix: (soil/water) SOIL Lab Sample ID: S 807090-004-004-1/1

Level: (low/med) Date Recieved: 07/15/2008

% Solids: 90.6

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	8530			P	
7440-36-0	Antimony	4.7	~~U~~	UJ N	P	MSL
7440-38-2	Arsenic	0.91			P	
7440-39-3	Barium	15.7 ~~7.4~~	~~J~~	U	P	BL
7441-41-7	Beryllium	0.39 ~~0.077~~	~~J~~	U	P	BL
7440-43-9	Cadmium	0.39 ~~0.041~~	~~J~~	U	P	BL
7440-70-2	Calcium	392 ~~26.8~~	J	U	P	BL
7440-47-3	Chromium	9.9			P	
7440-48-4	Cobalt	0.44	J		P	
7440-50-8	Copper	2 ~~0.81~~	~~J~~	U	P	BL
7439-89-6	Iron	2740			P	
7439-92-1	Lead	4.9			P	
7439-95-4	Magnesium	392 ~~365~~	~~J~~	U	P	BL
7439-96-5	Manganese	5.6			P	
7439-97-6	Mercury	0.034 ~~0.013~~	~~J~~	U	AV	BL
7440-02-0	Nickel	1.4	J		P	
7440-09-7	Potassium	392 ~~321~~	~~J~~	U	P	BL
7782-49-2	Selenium	2.7	U		P	
7440-22-4	Silver	0.78	U		P	
7440-23-5	Sodium	392 ~~77.2~~	~~J~~	U	P	BL
7440-28-0	Thallium	2.0	U		P	
7440-62-2	Vanadium	11.7			P	
7440-66-6	Zinc	4.7 ~~3.2~~	~~J~~	U	P	BL

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.

MR03-IS04-7-8-08C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807090S

Matrix: (soil/water) SOIL Lab Sample ID: S 807090-005-005-1/1

Level: (low/med) Date Recieved: 07/15/2008

% Solids: 89.0

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	6090			P	
7440-36-0	Antimony	4.9	~~U~~	UJ ~~N~~	P	MSL
7440-38-2	Arsenic	1.6			P	
7440-39-3	Barium	16.3 ~~7.2~~	~~J~~	U	P	BL
7441-41-7	Beryllium	0.41 ~~0.11~~	~~J~~	U	P	BL
7440-43-9	Cadmium	0.41 ~~0.074~~	~~J~~	U	P	BL
7440-70-2	Calcium	407 ~~17.4~~	~~J~~	U	P	BL
7440-47-3	Chromium	11.6			P	
7440-48-4	Cobalt	0.25	J		P	
7440-50-8	Copper	2 ~~2.0~~	~~J~~	U	P	BL
7439-89-6	Iron	10600			P	
7439-92-1	Lead	5.9			P	
7439-95-4	Magnesium	407 ~~319~~	~~J~~	U	P	BL
7439-96-5	Manganese	5.8			P	
7439-97-6	Mercury	0.035	U		AV	
7440-02-0	Nickel	0.93	J		P	
7440-09-7	Potassium	450			P	
7782-49-2	Selenium	2.8	U		P	
7440-22-4	Silver	0.81	U		P	
7440-23-5	Sodium	407 ~~63.1~~	~~J~~	U	P	BL
7440-28-0	Thallium	2.0	U		P	
7440-62-2	Vanadium	13.8			P	
7440-66-6	Zinc	4.9 ~~3.9~~	~~J~~	U	P	BL

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.

MR03-EB071008

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807090W

Matrix: (soil/water) WATER Lab Sample ID: S 807090-006-022-1/1

Level: (low/med) Date Recieved: 07/15/2008

% 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	200	U		P	
7440-36-0	Antimony	60.0	U		P	
7440-38-2	Arsenic	10.0	U		P	
7440-39-3	Barium	200	U		P	
7441-41-7	Beryllium	5.0	U		P	
7440-43-9	Cadmium	5.0	U		P	
7440-70-2	Calcium	5000	U		P	
7440-47-3	Chromium	10.0	U		P	
7440-48-4	Cobalt	50.0	U		P	
7440-50-8	Copper	25 ~~1.9~~	~~J~~	U	P	BL
7439-89-6	Iron	100	U		P	
7439-92-1	Lead	10.0	U		P	
7439-95-4	Magnesium	5000 ~~42.0~~	~~J~~	U ~~E~~	P	BL
7439-96-5	Manganese	15.0	U		P	
7440-02-0	Nickel	40.0	U		P	
7439-97-6	Mercury	0.2 ~~0.11~~	~~J~~	U	CV	BL
7440-09-7	Potassium	5000	U		P	
7782-49-2	Selenium	35.0	U		P	
7440-22-4	Silver	10.0	U		P	
7440-23-5	Sodium	5000	U		P	
7440-28-0	Thallium	25 ~~5.8~~	~~J~~	U	P	BL
7440-62-2	Vanadium	50.0	U		P	
7440-66-6	Zinc	60 ~~3.6~~	~~J~~	U	P	BL

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.

MR03-IS09-4.5-5.5-08C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807090S

Matrix: (soil/water) SOIL Lab Sample ID: S 807090-007-006-1/1

Level: (low/med) Date Recieved: 07/15/2008

% Solids: 90.4

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	4660			P	
7440-36-0	Antimony	4.7	~~U~~	UJ ~~N~~	P	MSL
7440-38-2	Arsenic	1.2			P	
7440-39-3	Barium	15.8 ~~5.2~~	~~J~~	U	P	BL
7441-41-7	Beryllium	0.4 ~~0.039~~	~~J~~	U	P	BL
7440-43-9	Cadmium	0.4 ~~0.038~~	~~J~~	U	P	BL
7440-70-2	Calcium	395 ~~83.3~~	~~J~~	U	P	BL
7440-47-3	Chromium	7.2			P	
7440-48-4	Cobalt	0.12	J		P	
7440-50-8	Copper	2 ~~0.87~~	~~J~~	U	P	BL
7439-89-6	Iron	2230			P	
7439-92-1	Lead	4.0			P	
7439-95-4	Magnesium	395 ~~204~~	~~J~~	U	P	BL
7439-96-5	Manganese	3.8			P	
7439-97-6	Mercury	0.032	U		AV	
7440-02-0	Nickel	0.76	J		P	
7440-09-7	Potassium	395 ~~182~~	~~J~~	U	P	BL
7782-49-2	Selenium	2.8	U		P	
7440-22-4	Silver	0.79	U		P	
7440-23-5	Sodium	395 ~~107~~	~~J~~	U	P	BL
7440-28-0	Thallium	2.0	U		P	
7440-62-2	Vanadium	6.9			P	
7440-66-6	Zinc	4.7 ~~4.0~~	~~J~~	U	P	BL

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.

MR03-IS09D-4.5-5.5-08 C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807090S

Matrix: (soil/water) SOIL Lab Sample ID: S 807090-008-007-1/1

Level: (low/med) Date Recieved: 07/15/2008

% Solids: 90.4

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	5060			P	
7440-36-0	Antimony	0.43	~~J~~	J ~~N~~	P	MSL
7440-38-2	Arsenic	0.64	J		P	
7440-39-3	Barium	16 ~~7.6~~	~~J~~	U	P	BL
7441-41-7	Beryllium	0.4 ~~0.045~~	~~J~~	U	P	BL
7440-43-9	Cadmium	0.4 ~~0.045~~	~~J~~	U	P	BL
7440-70-2	Calcium	401 ~~28.0~~	~~J~~	U	P	BL
7440-47-3	Chromium	7.5			P	
7440-48-4	Cobalt	0.27	J		P	
7440-50-8	Copper	2 ~~0.57~~	~~J~~	U	P	BL
7439-89-6	Iron	1450			P	
7439-92-1	Lead	3.7			P	
7439-95-4	Magnesium	401 ~~276~~	~~J~~	U	P	BL
7439-96-5	Manganese	3.8			P	
7439-97-6	Mercury	0.038			AV	
7440-02-0	Nickel	0.68	J		P	
7440-09-7	Potassium	401 ~~241~~	~~J~~	U	P	BL
7782-49-2	Selenium	0.52	J		P	
7440-22-4	Silver	0.80	U		P	
7440-23-5	Sodium	401 ~~260~~	~~J~~	U	P	BL
7440-28-0	Thallium	2.0	U		P	
7440-62-2	Vanadium	6.2			P	
7440-66-6	Zinc	4.8 ~~2.7~~	~~J~~	U	P	BL

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.

MR03-IS02-4.5-5.5-08C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807090S

Matrix: (soil/water) SOIL Lab Sample ID: S 807090-009-008-1/1

Level: (low/med) Date Recieved: 07/15/2008

% Solids: 84.5

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	5550			P	
7440-36-0	Antimony	0.50	~~J~~	J ~~N~~	P	MSL
7440-38-2	Arsenic	2.0			P	
7440-39-3	Barium	16.5 ~~7.4~~	~~J~~	U	P	BL
7441-41-7	Beryllium	0.41 ~~0.059~~	J	U	P	BL
7440-43-9	Cadmium	0.41 ~~0.033~~	~~J~~	U	P	BL
7440-70-2	Calcium	414 ~~238~~	~~J~~	U	P	BL
7440-47-3	Chromium	8.8			P	
7440-48-4	Cobalt	0.35	J		P	
7440-50-8	Copper	2.1 ~~0.86~~	~~J~~	U	P	BL
7439-89-6	Iron	3410			P	
7439-92-1	Lead	4.0			P	
7439-95-4	Magnesium	414 ~~294~~	~~J~~	U	P	BL
7439-96-5	Manganese	4.3			P	
7439-97-6	Mercury	0.035 ~~0.012~~	~~J~~	U	AV	BL
7440-02-0	Nickel	0.89	J		P	
7440-09-7	Potassium	414 ~~280~~	~~J~~	U	P	BL
7782-49-2	Selenium	2.9	U		P	
7440-22-4	Silver	0.056	J		P	
7440-23-5	Sodium	414 ~~90.8~~	~~J~~	U	P	BL
7440-28-0	Thallium	2.1	U		P	
7440-62-2	Vanadium	14.6			P	
7440-66-6	Zinc	5 ~~2.8~~	~~J~~	U	P	BL

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.

MR03-IS01-3-4-08C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807090S

Matrix: (soil/water) SOIL Lab Sample ID: S 807090-010-025-1/3

Level: (low/med) Date Recieved: 07/15/2008

% Solids: 85.3

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	6830			P	
7440-36-0	Antimony	0.24	~~J~~	J ~~N~~	P	MSL
7440-38-2	Arsenic	1.2			P	
7440-39-3	Barium	164 ~~6.0~~	~~J~~	U	P	BL
7441-41-7	Beryllium	0.41 ~~0.057~~	~~J~~	U	P	BL
7440-43-9	Cadmium	0.41 ~~0.065~~	~~J~~	U	P	BL
7440-70-2	Calcium	410 ~~40.4~~	~~J~~	U	P	BL
7440-47-3	Chromium	8.2		U	P	BL
7440-48-4	Cobalt	0.27	J		P	
7440-50-8	Copper	2 ~~0.38~~	~~J~~	U	P	BL
7439-89-6	Iron	7050			P	
7439-92-1	Lead	3.8			P	
7439-95-4	Magnesium	410 ~~263~~	~~J~~	U	P	BL
7439-96-5	Manganese	3.6			P	
7439-97-6	Mercury	0.036 ~~0.019~~	~~J~~	U	AV	BL
7440-02-0	Nickel	0.92	J		P	
7440-09-7	Potassium	410 ~~196~~	~~J~~	U	P	BL
7782-49-2	Selenium	0.59	J		P	
7440-22-4	Silver	0.82	U		P	
7440-23-5	Sodium	410 ~~49.5~~	~~J~~	U	P	BL
7440-28-0	Thallium	2.0	U		P	
7440-62-2	Vanadium	11.9			P	
7440-66-6	Zinc	4.9 ~~2.8~~	~~J~~	U	P	BL

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.

MR03-IS07-3-4-08C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807090S

Matrix: (soil/water) SOIL Lab Sample ID: S 807090-011-009-1/1

Level: (low/med) Date Recieved: 07/15/2008

% Solids: 87.0

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	5470			P	
7440-36-0	Antimony	0.20	~~J~~	J ~~N~~	P	MSL
7440-38-2	Arsenic	0.33	J		P	
7440-39-3	Barium	16.4 ~~6.3~~	~~J~~	U	P	BL
7441-41-7	Beryllium	0.41 ~~0.023~~	~~J~~	U	P	BL
7440-43-9	Cadmium	0.41 ~~0.025~~	~~J~~	U	P	BL
7440-70-2	Calcium	411 ~~19.4~~	~~J~~	U	P	BL
7440-47-3	Chromium	5.2		U	P	BL
7440-48-4	Cobalt	0.22	J		P	
7440-50-8	Copper	2.1 ~~0.30~~	~~J~~	U	P	BL
7439-89-6	Iron	1090			P	
7439-92-1	Lead	4.4			P	
7439-95-4	Magnesium	411 ~~145~~	~~J~~	U	P	BL
7439-96-5	Manganese	3.3			P	
7439-97-6	Mercury	0.03 ~~0.016~~	~~J~~	U	AV	BL
7440-02-0	Nickel	0.64	J		P	
7440-09-7	Potassium	411 ~~122~~	~~J~~	U	P	BL
7782-49-2	Selenium	2.9	U		P	
7440-22-4	Silver	0.050	J		P	
7440-23-5	Sodium	411 ~~87.3~~	~~J~~	U	P	BL
7440-28-0	Thallium	2.1	U		P	
7440-62-2	Vanadium	5.8			P	
7440-66-6	Zinc	4.9 ~~1.6~~	~~J~~	U	P	BL

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.

MR03-IS03-4-5-08C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807090S

Matrix: (soil/water) SOIL Lab Sample ID: S 807090-012-010-1/1

Level: (low/med) Date Recieved: 07/15/2008

% Solids: 87.4

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	2280			P	
7440-36-0	Antimony	4.7	~~U~~	U J N	P	MSL
7440-38-2	Arsenic	0.90			P	
7440-39-3	Barium	15.8 ~~14.5~~	~~J~~	U	P	BL
7441-41-7	Beryllium	0.39 ~~0.097~~	~~J~~	U	P	BL
7440-43-9	Cadmium	0.39 ~~0.17~~	~~J~~	U	P	BL
7440-70-2	Calcium	18000			P	
7440-47-3	Chromium	7.0		U	P	BL
7440-48-4	Cobalt	0.22	J		P	
7440-50-8	Copper	2.9			P	
7439-89-6	Iron	2310			P	
7439-92-1	Lead	2.9			P	
7439-95-4	Magnesium	395 ~~297~~	~~J~~	U	P	BL
7439-96-5	Manganese	13.2			P	
7439-97-6	Mercury	0.035 ~~0.012~~	~~J~~	U	AV	BL
7440-02-0	Nickel	1.4	J		P	
7440-09-7	Potassium	395 ~~76.9~~	~~J~~	U	P	BL
7782-49-2	Selenium	0.43	J		P	
7440-22-4	Silver	0.79	U		P	
7440-23-5	Sodium	395 ~~55.7~~	~~J~~	U	P	BL
7440-28-0	Thallium	2.0	U		P	
7440-62-2	Vanadium	3.9 ~~3.8~~	~~J~~	U	P	BL
7440-66-6	Zinc	38.9			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.

MR03-FB-071208

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807090W

Matrix: (soil/water) WATER Lab Sample ID: S 807090-013-032-1/1

Level: (low/med) Date Recieved: 07/15/2008

% 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	200	U		P	
7440-36-0	Antimony	60.0	U		P	
7440-38-2	Arsenic	10.0	U		P	
7440-39-3	Barium	200 ~~0.51~~	~~J~~	u	P	BL
7441-41-7	Beryllium	5.0	U		P	
7440-43-9	Cadmium	5.0	U		P	
7440-70-2	Calcium	79.8	J		P	
7440-47-3	Chromium	10.0	U		P	
7440-48-4	Cobalt	50.0	U		P	
7440-50-8	Copper	25.0	U		P	
7439-89-6	Iron	100	U		P	
7439-92-1	Lead	10 ~~2.3~~	~~J~~	u	P	BL
7439-95-4	Magnesium	5000 ~~62.0~~	~~J~~	u E	P	BL
7439-96-5	Manganese	15.0	U		P	
7439-97-6	Mercury	0.2 ~~0.16~~	~~J~~	u	CV	BL
7440-02-0	Nickel	40.0	U		P	
7440-09-7	Potassium	35.3	J		P	
7782-49-2	Selenium	35.0	U		P	
7440-22-4	Silver	10.0	U		P	
7440-23-5	Sodium	5000	U		P	
7440-28-0	Thallium	25.0	U		P	
7440-62-2	Vanadium	50.0	U		P	
7440-66-6	Zinc	60 ~~4.7~~	~~J~~	u	P	BL

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.

MR03-EB071208-IS

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807090W

Matrix: (soil/water) WATER Lab Sample ID: S 807090-014-036-1/1

Level: (low/med) Date Recieved: 07/15/2008

% 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	200 ~~69.3~~	~~J~~	U	P	BL
7440-36-0	Antimony	60.0	U		P	
7440-38-2	Arsenic	10.0	U		P	
7440-39-3	Barium	200 ~~0.77~~	~~J~~	U	P	BL
7441-41-7	Beryllium	5.0	U		P	
7440-43-9	Cadmium	5.0	U		P	
7440-70-2	Calcium	130	J		P	
7440-47-3	Chromium	2.5	J		P	
7440-48-4	Cobalt	50.0	U		P	
7440-50-8	Copper	25 ~~4.0~~	~~J~~	U	P	BL
7439-89-6	Iron	100	U		P	
7439-92-1	Lead	10 ~~3.5~~	~~J~~	U	P	BL
7439-95-4	Magnesium	5000 ~~73.1~~	~~J~~	U E	P	BL
7439-96-5	Manganese	15.0	U		P	
7439-97-6	Mercury	0.2 ~~0.048~~	~~J~~	U	CV	BL
7440-02-0	Nickel	40.0	U		P	
7440-09-7	Potassium	5000	U		P	
7782-49-2	Selenium	35.0	U		P	
7440-22-4	Silver	10.0	U		P	
7440-23-5	Sodium	486	J		P	
7440-28-0	Thallium	25.0	U		P	
7440-62-2	Vanadium	50.0	U		P	
7440-66-6	Zinc	60 ~~8.9~~	~~J~~	U	P	BL

Color Before: Colorless Clarity Before: CLEAR Texture: NA

Color After: Colorless Clarity After: CLEAR Artifacts: NA

Comments:

ENVIRONMENTAL
Data Services, Inc.

PERCHLORATE

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, UXO-03, CTO-168 SDG #: 807090

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: October 3, 2008

Laboratory: DataChem Laboratories, Salt Lake City, Utah Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR03-IS10-5-6-08C	08E03779	Soil
2	MR03-IS05-3-4-08C	08E03780	Soil
3	MR03-IS06-4-5-08C	08E03781	Soil
4	MR03-IS08-4-5-08C	08E03782	Soil
5	MR03-IS04-7-8-08C	08E03783	Soil
6	MR03-IS09-4.5-5.5-08C	08E03784	Soil
7	MR03-IS09D-4.5-5.5-08C	08E03785	Soil
8	MR03-IS02-4.5-5.5-08C	08E03786	Soil
9	MR03-IS01-3-4-08C	08E03787	Soil
9MS	MR03-IS01-3-4-08CMS	08E03787MS	Soil
9MSD	MR03-IS01-3-4-08CMSD	08E03787MSD	Soil
10	MR03-IS07-3-4-08C	08E03788	Soil
11	MR03-IS03-4-5-08C	08E03789	Soil
12	MR03-EB071008	08E03790	Water
13	MR03-FB-071208	08E03791	Water
14	MR03-EB071208-IS	08E03792	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.

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
MR03-EB071008	None - ND	-	-	-	-
MR03-FB071208	None - ND	-	-	-	-
MR03-EB071208-IS	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	MR03-IS09-4.5-5.5-08C ug/kg	MR03-IS09D-4.5-5.5-08C ug/kg	RPD	Qualifier
None	ND	ND	-	-

Compound Quantitation - No discrepancies were identified.

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

Form RLIMS63A-V1.4
07230812584359
Page 3

S086P01R

Date Printed.....: 23-JUL-08 12:58

Client Name.....: GPL Laboratories
Client Ref Number....: 807090
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 807090

Date Received.....: 17-JUL-08 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 21-JUL-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: MR03-IS10-5-16-08C
DCL Sample Name...: 08E03779
DCL Report Group..: 08E-0587-01

Matrix.....: SOLID
Date Sampled.....: 10-JUL-08 08:45
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 80.36

DCL Analysis Group: G086P00T
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	22-JUL-08 12:38	0.825	ND		U	1	2.49

lmw 10/3/08

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S086P01S

Date Printed.....: 23-JUL-08 12:58

Client Name.....: GPL Laboratories
Client Ref Number....: 807090
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 807090

Date Received.....: 17-JUL-08 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 21-JUL-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: MR03-IS05-3-|4-08C
DCL Sample Name...: 08E03780
DCL Report Group..: 08E-0587-01

Matrix.....: SOLID
Date Sampled.....: 10-JUL-08 10:00
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 85.85

DCL Analysis Group: G086P00T
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	22-JUL-08 12:59	0.772	ND		U	1	2.33

RW 10/3/08

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S086P01T

Date Printed.....: 23-JUL-08 12:58

Client Name.....: GPL Laboratories
Client Ref Number....: 807090
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 807090

Date Received.....: 17-JUL-08 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 21-JUL-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: MR03-IS06-4-|5-08C
DCL Sample Name...: 08E03781
DCL Report Group..: 08E-0587-01

Matrix.....: SOLID
Date Sampled.....: 10-JUL-08 10:45
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 83.59

DCL Analysis Group: G086P00T
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	22-JUL-08 13:20	0.793	ND		U	1	2.39

lw 10/3/08

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S086P01V

Date Printed.....: 23-JUL-08 12:58

Client Name.....: GPL Laboratories
Client Ref Number....: 807090
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 807090

Date Received.....: 17-JUL-08 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 21-JUL-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: MR03-IS08-4-|5-08C
DCL Sample Name...: 08E03782
DCL Report Group..: 08E-0587-01

Matrix.....: SOLID
Date Sampled.....: 10-JUL-08 13:15
Reporting Units...: ug/kg
Report Basis.....: ☐As Received ☒Dried
Percent Solids....: 90.56

DCL Analysis Group: G086P00T
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
☒Primary
☐Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	22-JUL-08 13:42	0.732	ND		U	1	2.21

QW 10/31/08

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S086P01W

Date Printed.....: 23-JUL-08 12:58

Client Name.....: GPL Laboratories
Client Ref Number....: 807090
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 807090

Date Received.....: 17-JUL-08 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 21-JUL-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: MR03-IS04-7-|8-08C
DCL Sample Name...: 08E03783
DCL Report Group..: 08E-0587-01

Matrix.....: SOLID
Date Sampled.....: 10-JUL-08 15:35
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 89.01

DCL Analysis Group: G086P00T
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	22-JUL-08 14:03	0.745	ND		U	1	2.25

LW 10/31/08

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S086P01X

Date Printed.....: 23-JUL-08 12:58

Client Name.....: GPL Laboratories
Client Ref Number....: 807090
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 807090

Date Received.....: 17-JUL-08 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 21-JUL-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: MR03-IS09-4.|5-5.5-08C
DCL Sample Name...: 08E03784
DCL Report Group..: 08E-0587-01

Matrix.....: SOLID
Date Sampled.....: 11-JUL-08 09:00
Reporting Units...: ug/kg
Report Basis.....: ☐As Received ☒Dried
Percent Solids....: 90.37

DCL Analysis Group: G086P00T
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
☒Primary
☐Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	22-JUL-08 15:07	0.734	ND		U	1	2.21

10/31/08

960 West LeVoy Drive / Salt Lake City, Utah 84123-2547
Phone (801) 266-7700 Web Page: www.datachem.com

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

Date Printed.....: 23-JUL-08 12:58

Client Name.....: GPL Laboratories
Client Ref Number....: 807090
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 807090

Date Received.....: 17-JUL-08 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 21-JUL-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: MR03-IS09D-4|.5-5.5-08C
DCL Sample Name...: 08E03785
DCL Report Group..: 08E-0587-01

Matrix.....: SOLID
Date Sampled.....: 11-JUL-08 09:00
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 90.42

DCL Analysis Group: G086P00T
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	22-JUL-08 15:29	0.733	ND		U	1	2.21

LW 10/3/08

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S086P01Z

Date Printed.....: 23-JUL-08 12:58

Client Name.....: GPL Laboratories
Client Ref Number....: 807090
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 807090

Date Received.....: 17-JUL-08 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 21-JUL-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: MR03-IS02-4.|5-5.5-08C
DCL Sample Name...: 08E03786
DCL Report Group..: 08E-0587-01

Matrix.....: SOLID
Date Sampled.....: 11-JUL-08 10:55
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids.....: 84.53

DCL Analysis Group: G086P00T
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	22-JUL-08 15:50	0.784	ND		U	1	2.37

QW 10/3/08

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S086P020

Date Printed.....: 23-JUL-08 12:58

Client Name.....: GPL Laboratories
Client Ref Number....: 807090
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 807090

Date Received.....: 17-JUL-08 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 21-JUL-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: MR03-IS01-3-|4-08C
DCL Sample Name...: 08E03787
DCL Report Group..: 08E-0587-01

Matrix.....: SOLID
Date Sampled.....: 11-JUL-08 13:45
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 85.34

DCL Analysis Group: G086P00T
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	22-JUL-08 16:11	0.777	ND		U	1	2.34

kw 10/3/08

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S086P023

Date Printed.....: 23-JUL-08 12:58

Client Name.....: GPL Laboratories
Client Ref Number....: 807090
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 807090

Date Received.....: 17-JUL-08 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 21-JUL-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: MR03-IS07-3-|4-08C
DCL Sample Name...: 08E03788
DCL Report Group..: 08E-0587-01

Matrix.....: SOLID
Date Sampled.....: 11-JUL-08 14:30
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 86.98

DCL Analysis Group: G086P00T
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	22-JUL-08 17:16	0.762	ND		U	1	2.30

LW
10/3/08

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S086P024

Date Printed.....: 23-JUL-08 12:58

Client Name.....: GPL Laboratories
Client Ref Number....: 807090
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 807090

Date Received.....: 17-JUL-08 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 21-JUL-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: MR03-IS03-4-|5-08C
DCL Sample Name...: 08E03789
DCL Report Group..: 08E-0587-01

Matrix.....: SOLID
Date Sampled.....: 11-JUL-08 15:15
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 87.35

DCL Analysis Group: G086P00T
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	22-JUL-08 17:37	0.759	ND		U	1	2.29

MW 10/3/18

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S086J079

Date Printed.....: 22-JUL-08 14:22

Client Name.....: GPL Laboratories
Client Ref Number....: 807090
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 807090

Date Received.....: 17-JUL-08 00:00

Client Sample Name: MR03-EB07100|8
DCL Sample Name...: 08E03790
DCL Report Group..: 08E-0587-03

Matrix.....: WATER
Date Sampled.....: 10-JUL-08 17:05
Reporting Units...: ug/L
Report Basis.....: [X] As Received [ ] Dried

DCL Preparation Group: Not Applicable
Date Prepared.....: 21-JUL-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: Not Applicable
Net Weight/Volume....: Not Required

DCL Analysis Group: G086P00J
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
[X] Primary
[ ] Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	21-JUL-08 20:15	0.0663	ND		U	1	0.200

10/3/08

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S086J07B

Date Printed.....: 22-JUL-08 14:22

Client Name.....: GPL Laboratories
Client Ref Number....: 807090
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 807090

Date Received.....: 17-JUL-08 00:00

Client Sample Name: MR03-FB-0712|08
DCL Sample Name...: 08E03791
DCL Report Group..: 08E-0587-03

Matrix.....: WATER
Date Sampled.....: 12-JUL-08 08:20
Reporting Units...: ug/L
Report Basis.....: [X] As Received [ ] Dried

DCL Preparation Group: Not Applicable
Date Prepared.....: 21-JUL-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: Not Applicable
Net Weight/Volume....: Not Required

DCL Analysis Group: G086P00J
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
[X] Primary
[ ] Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	21-JUL-08 20:36	0.0663	ND		U	1	0.200

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S086J07C

Date Printed.....: 22-JUL-08 14:22

Client Name.....: GPL Laboratories
Client Ref Number....: 807090
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 807090

Date Received.....: 17-JUL-08 00:00

Client Sample Name: MR03-EB07120|8-IS
DCL Sample Name...: 08E03792
DCL Report Group..: 08E-0587-03

Matrix.....: WATER
Date Sampled.....: 12-JUL-08 08:25
Reporting Units...: ug/L
Report Basis.....: [X] As Received [ ] Dried

DCL Preparation Group: Not Applicable
Date Prepared.....: 21-JUL-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: Not Applicable
Net Weight/Volume....: Not Required

DCL Analysis Group: G086P00J
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
[X] Primary
[ ] Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	21-JUL-08 20:57	0.0663	ND		U	1	0.200

ENVIRONMENTAL
Data Services, Inc.

EXPLOSIVES

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, UXO-03, CTO-168 SDG #: 807096

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: October 3, 2008

Laboratory: GPL Laboratories, Frederick, Maryland Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR03-TW04-08C	807096-001	Water
1MS	MR03-TW04-08CMS	807096-001MS	Water
1MSD	MR03-TW04-08CMSD	807096-001MSD	Water
2	MR03-TW03-08C	807096-003	Water
3	MR03-TW03D-08C	807096-005	Water
4	MR03-TW02-08C	807096-007	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
1	p-Nitrotoluene	Ok/740%/146	None - All 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 ug/L	Qualifier	Affected Samples
MR03-EB071608-GW	None - ND	-	-	-	-
MR03-FB071408	None - ND	-	-	-	-

Field Duplicates - Field duplicate results are summarized below.

Compound	MR03-TW03-08C ug/L	MR03-TW03D-08C ug/L	RPD	Qualifier
None	ND	ND	-	-

Compound Identification - Retention times were acceptable and no further action was taken.

Compound Quantitation - No discrepancies were identified.

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
MR03-TW04-08C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	807096
Matrix : (Soil / Water)	WATER	Lab Sample ID :	807096-001-001-1/3
Sample Volume :	1000	Lab File ID :	LCD42619.D
% Moisture:		Date Received	07/16/2008
Extraction:	EXT_SW8330	Date Extracted:	07/17/2008
Extract Volume:	20 mL	Date Analyzed	07/31/2008
Injection Volume :	100 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
99-35-4	1,3,5-Trinitrobenzene	0.20	U
99-65-0	1,3-Dinitrobenzene	0.20	U
118-96-7	2,4,6-Trinitrotoluene	0.20	U
121-14-2	2,4-Dinitrotoluene	0.20	U
606-20-2	2,6-Dinitrotoluene	0.20	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.20	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.20	U
2691-41-0	HMX	0.40	U
98-95-3	Nitrobenzene	0.20	U
121-82-4	RDX	0.40	U
479-45-8	Tetryl	0.40	U
99-08-1	m-Nitrotoluene	0.40	U
88-72-2	o-Nitrotoluene	0.40	U
99-99-0	p-Nitrotoluene	0.40	U

lw 10/3/08

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

2

SAMPLE NO
MR03-TW03-08C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	807096
Matrix : (Soil / Water)	WATER	Lab Sample ID :	807096-003-016-1/1
Sample Volume :	1000	Lab File ID :	LCD42620.D
% Moisture:		Date Received	07/16/2008
Extraction:	EXT_SW8330	Date Extracted:	07/17/2008
Extract Volume:	20 mL	Date Analyzed	07/31/2008
Injection Volume :	100 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
99-35-4	1,3,5-Trinitrobenzene	0.20	U
99-65-0	1,3-Dinitrobenzene	0.20	U
118-96-7	2,4,6-Trinitrotoluene	0.20	U
121-14-2	2,4-Dinitrotoluene	0.20	U
606-20-2	2,6-Dinitrotoluene	0.20	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.20	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.20	U
2691-41-0	HMX	0.40	U
98-95-3	Nitrobenzene	0.20	U
121-82-4	RDX	0.40	U
479-45-8	Tetryl	0.40	U
99-08-1	m-Nitrotoluene	0.40	U
88-72-2	o-Nitrotoluene	0.40	U
99-99-0	p-Nitrotoluene	0.40	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
MR03-TW03D-08C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	807096
Matrix : (Soil / Water)	WATER	Lab Sample ID :	807096-005-017-1/1
Sample Volume :	1000	Lab File ID :	LCD42621.D
% Moisture:		Date Received	07/16/2008
Extraction:	EXT_SW8330	Date Extracted:	07/17/2008
Extract Volume:	20 mL	Date Analyzed	07/31/2008
Injection Volume :	100 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
99-35-4	1,3,5-Trinitrobenzene	0.20	U
99-65-0	1,3-Dinitrobenzene	0.20	U
118-96-7	2,4,6-Trinitrotoluene	0.20	U
121-14-2	2,4-Dinitrotoluene	0.20	U
606-20-2	2,6-Dinitrotoluene	0.20	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.20	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.20	U
2691-41-0	HMX	0.40	U
98-95-3	Nitrobenzene	0.20	U
121-82-4	RDX	0.40	U
479-45-8	Tetryl	0.40	U
99-08-1	m-Nitrotoluene	0.40	U
88-72-2	o-Nitrotoluene	0.40	U
99-99-0	p-Nitrotoluene	0.40	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

4

SAMPLE NO
MR03-TW02-08C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	807096
Matrix : (Soil / Water)	WATER	Lab Sample ID :	807096-007-018-1/1
Sample Volume :	1000	Lab File ID :	LCD42622.D
% Moisture:		Date Received	07/16/2008
Extraction:	EXT_SW8330	Date Extracted:	07/17/2008
Extract Volume:	20 mL	Date Analyzed	07/31/2008
Injection Volume :	100 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
99-35-4	1,3,5-Trinitrobenzene	0.20	U
99-65-0	1,3-Dinitrobenzene	0.20	U
118-96-7	2,4,6-Trinitrotoluene	0.20	U
121-14-2	2,4-Dinitrotoluene	0.20	U
606-20-2	2,6-Dinitrotoluene	0.20	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.20	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.20	U
2691-41-0	HMX	0.40	U
98-95-3	Nitrobenzene	0.20	U
121-82-4	RDX	0.40	U
479-45-8	Tetryl	0.40	U
99-08-1	m-Nitrotoluene	0.40	U
88-72-2	o-Nitrotoluene	0.40	U
99-99-0	p-Nitrotoluene	0.40	U

ENVIRONMENTAL
Data Services, Inc.

METALS

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, UXO-03, CTO-168 SDG #: 807096

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: October 3, 2008

Laboratory: GPL Laboratories, Frederick, Maryland Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR03-TW04-08C	807096-001	Water
1MS	MR03-TW04-08CMS	807096-001MS	Water
1MSD	MR03-TW04-08CMSD	807096-001MSD	Water
2	MR03-TW04-08C FIL	807096-002	Water
2MS	MR03-TW04-08C FILMS	807096-002MS	Water
2MSD	MR03-TW04-08C FILMSD	807096-002MSD	Water
3	MR03-TW03-08C	807096-003	Water
4	MR03-TW03-08C FIL	807096-004	Water
5	MR03-TW03D-08C	807096-005	Water
6	MR03-TW03D-08C FIL	807096-006	Water
7	MR03-TW02-08C	807096-007	Water
8	MR03-TW02-08C FIL	807096-008	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 contamination for several compounds, however, all sample results are non-detect or greater than 5X the blank concentration with the exception of the following:

Compound	Conc. ug/L	Qualifier	Affected Samples
Aluminum	71.681	U	2, 8
Arsenic	5.001	U	1, 3, 5-7
Barium	4.645	U	1-9
Beryllium	0.096	U	All samples
Calcium	73.085	U	All samples
Chromium	1.163	U	1, 3-5, 8
Copper	2.957	U	1-8
Magnesium	84.384	U	All samples
Mercury	0.066	U	5, 6
Zinc	2.337	U	All samples

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/L	Qualifier	Affected Samples
MR03-EB071608-GW	None - ND	-	-	-	-
MR03-EB071608-GWFIL	Mercury	0.18	9.0	U	2, 4, 6, 8
MR03-FB071408	None - ND	-	-	-	-
MR03-FB071408 FIL	None - ND	-	-	-	-

ICP Interference Check Sample - All %R values were acceptable.

Matrix Spike - The matrix spike samples exhibited acceptable %R values except the following.

MS Sample ID	Compound	%R	Qualifier	Affected Samples
1	Aluminum	148%	J	All positive samples

Matrix Duplicate - The matrix duplicate samples exhibited acceptable RPD values.

LCS - The LCS samples exhibited acceptable %R values.

ICP Serial Dilution - The ICP serial dilution sample exhibited acceptable %D values except the following.

ICP Sample ID	Compound	%D	Qualifier	Affected Samples
1	Magnesium	16%	None	All ND
	Manganese	15%	None	All positive samples

Field Duplicates - Field duplicate results are summarized below.

Compound	MR03-TW03-08C ug/L	MR03-TW03D-08C ug/L	RPD	Qualifier
Aluminum	630	640	2%	None
Iron	11300	11400	1%	None
Manganese	108	109	1%	None
Mercury	0.22	0.16 U	NC	None
Nickel	11.0	9.1	19%	None
Silver	10.0 U	1.3	NC	None

Compound	MR03-TW03-08C FIL ug/L	MR03-TW03D-08C FIL ug/L	RPD	Qualifier
Aluminum	281	210	29%	None
Iron	11600	11200	4%	None
Manganese	123	107	14%	None
Nickel	10.3	10.8	5%	None

Compound Quantitation - No discrepancies were identified.

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-TW04-08C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807096

Matrix: (soil/water) WATER Lab Sample ID: S 807096-001-004-1/3

Level: (low/med) Date Recieved: 07/16/2008

% 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	1120		J ~~N~~	P	MSH
7440-36-0	Antimony	60.0	U		P	
7440-38-2	Arsenic	10 ~~3.3~~	~~J~~	U	P	BL
7440-39-3	Barium	200 ~~56.0~~	~~J~~	U	P	BL
7441-41-7	Beryllium	5 ~~0.16~~	~~J~~	U	P	BL
7440-43-9	Cadmium	5.0	U		P	
7440-70-2	Calcium	5000 ~~2850~~	~~J~~	U	P	BL
7440-47-3	Chromium	10 ~~3.8~~	~~J~~	U	P	BL
7440-48-4	Cobalt	1.7	J		P	
7440-50-8	Copper	25 ~~2.7~~	~~J~~	U	P	BL
7439-89-6	Iron	5740			P	
7439-92-1	Lead	10.0	U		P	
7439-95-4	Magnesium	5000 ~~1820~~	~~J~~	U ~~E~~	P	BL
7439-96-5	Manganese	166		J ~~E~~	P	SD
7440-02-0	Nickel	28.8	J		P	
~~7439-97-6~~	~~Mercury~~	~~0.22~~	~~J~~	~~CV~~		
~~7439-97-6~~	~~Mercury~~	~~0.18~~	~~J~~	~~CV~~		NW
7439-97-6	Mercury	1.1			CV	
~~7439-97-6~~	~~Mercury~~	~~0.16~~	~~J~~	~~CV~~		NW
7782-49-2	Selenium	35.0	U		P	
7440-22-4	Silver	10.0	U		P	
7440-28-0	Thallium	25.0	U		P	
7440-62-2	Vanadium	50.0	U		P	
7440-66-6	Zinc	60 ~~33.1~~	~~J~~	U	P	BL

Color Before: BLACK Clarity Before: NA Texture: FINE

Color After: YELLOW Clarity After: CLEAR Artifacts: NA

Comments:

FORM IA - IN

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10/3/08

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-TW04-08C FIL

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807096

Matrix: (soil/water) WATER Lab Sample ID: S 807096-002-013-1/3

Level: (low/med) Date Recieved: 07/16/2008

% 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	200 ~~122~~	~~J~~	U ~~N~~	P	BL
7440-36-0	Antimony	60.0	U		P	
7440-38-2	Arsenic	10.0	U		P	
7440-39-3	Barium	200 ~~64.0~~	~~J~~	U	P	BL
7441-41-7	Beryllium	5 ~~0.22~~	~~J~~	U	P	BL
7440-43-9	Cadmium	5.0	U		P	
7440-70-2	Calcium	5000 ~~1490~~	~~J~~	U	P	BL
7440-47-3	Chromium	10.0	U		P	
7440-48-4	Cobalt	50.0	U		P	
7440-50-8	Copper	25 ~~2.8~~	~~J~~	U	P	BL
7439-89-6	Iron	5690			P	
7439-92-1	Lead	10.0	U		P	
7439-95-4	Magnesium	5000 ~~1740~~	~~J~~	U ~~E~~	P	BL
7439-96-5	Manganese	88.2		J ~~E~~	P	SD
7440-02-0	Nickel	12.4	J		P	
7439-97-6	Mercury	0.2 ~~0.18~~	~~J~~	U	CV	BL
7782-49-2	Selenium	35.0	U		P	
7440-22-4	Silver	10.0	U		P	
7440-28-0	Thallium	25.0	U		P	
7440-62-2	Vanadium	50.0	U		P	
7440-66-6	Zinc	60 ~~13.8~~	~~J~~	U	P	BL

Color Before: BLACK Clarity Before: NA Texture: FINE

Color After: YELLOW Clarity After: CLEAR Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-TW03-08C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807096

Matrix: (soil/water) WATER Lab Sample ID: S 807096-003-019-1/1

Level: (low/med) Date Recieved: 07/16/2008

% 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	630		J ~~N~~	P	MSH
7440-36-0	Antimony	60.0	U		P	
7440-38-2	Arsenic	10 ~~6.3~~	~~J~~	U	P	BL
7440-39-3	Barium	200 ~~50.2~~	~~J~~	U	P	BL
7441-41-7	Beryllium	5 ~~0.16~~	~~J~~	U	P	BL
7440-43-9	Cadmium	5.0	U		P	
7440-70-2	Calcium	5000 ~~1950~~	~~J~~	U	P	BL
7440-47-3	Chromium	10 ~~2.3~~	~~J~~	U	P	BL
7440-48-4	Cobalt	50.0	U		P	
7440-50-8	Copper	25 ~~3.7~~	~~J~~	U	P	BL
7439-89-6	Iron	11300			P	
7439-92-1	Lead	10.0	U		P	
7439-95-4	Magnesium	5000 ~~4720~~	~~J~~	U ~~E~~	P	BL
7439-96-5	Manganese	108		J ~~E~~	P	SD
7440-02-0	Nickel	11.0	J		P	
7439-97-6	Mercury	0.22			CV	
7782-49-2	Selenium	35.0	U		P	
7440-22-4	Silver	10.0	U		P	
7440-28-0	Thallium	25.0	U		P	
7440-62-2	Vanadium	50.0	U		P	
7440-66-6	Zinc	60 ~~12.2~~	~~J~~	U	P	BL

Color Before: BLACK Clarity Before: NA Texture: FINE

Color After: YELLOW Clarity After: CLEAR Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-TW03-08C FIL

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807096

Matrix: (soil/water) WATER Lab Sample ID: S 807096-004-028-1/1

Level: (low/med) Date Recieved: 07/16/2008

% 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	281		J N	P	MSH
7440-36-0	Antimony	60.0	U		P	
7440-38-2	Arsenic	10.0	U		P	
7440-39-3	Barium	200 ~~44.3~~	~~J~~	U	P	BL
7441-41-7	Beryllium	5 ~~0.10~~	~~J~~	U	P	BL
7440-43-9	Cadmium	5.0	U		P	
7440-70-2	Calcium	5000 ~~2020~~	J	U	P	BL
7440-47-3	Chromium	10 ~~1.4~~	~~J~~	U	P	BL
7440-48-4	Cobalt	50.0	U		P	
7440-50-8	Copper	25 ~~2.6~~	~~J~~	U	P	BL
7439-89-6	Iron	11600			P	
7439-92-1	Lead	10.0	U		P	
7439-95-4	Magnesium	5000 ~~4290~~	~~J~~	U E	P	BL
7439-96-5	Manganese	123		J E	P	SD
7439-97-6	Mercury	0.2 ~~0.15~~	~~J~~	U	CV	BL
7440-02-0	Nickel	10.3	J		P	
7782-49-2	Selenium	35.0	U		P	
7440-22-4	Silver	10.0	U		P	
7440-28-0	Thallium	25.0	U		P	
7440-62-2	Vanadium	50.0	U		P	
7440-66-6	Zinc	60 ~~12.3~~	~~J~~	U	P	BL

Color Before: BLACK Clarity Before: NA Texture: FINE

Color After: YELLOW Clarity After: CLEAR Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-TW03D-08C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807096

Matrix: (soil/water) WATER Lab Sample ID: S 807096-005-020-1/1

Level: (low/med) Date Recieved: 07/16/2008

% 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	640		~~J~~ N	P	MSH
7440-36-0	Antimony	60.0	U		P	
7440-38-2	Arsenic	10 ~~2.6~~	~~J~~	U	P	BL
7440-39-3	Barium	200 ~~50.7~~	~~J~~	U	P	BL
7441-41-7	Beryllium	5 ~~0.098~~	~~J~~	U	P	BL
7440-43-9	Cadmium	5.0	U		P	
7440-70-2	Calcium	5000 ~~1950~~	~~J~~	U	P	BL
7440-47-3	Chromium	10 ~~2.4~~	~~J~~	U	P	BL
7440-48-4	Cobalt	50.0	U		P	
7440-50-8	Copper	25 ~~3.0~~	~~J~~	U	P	BL
7439-89-6	Iron	11400			P	
7439-92-1	Lead	10.0	U		P	
7439-95-4	Magnesium	5000 ~~4720~~	~~J~~	U E	P	BL
7439-96-5	Manganese	109		J E	P	SD
7440-02-0	Nickel	9.1	J		P	
7439-97-6	Mercury	0.2 ~~0.16~~	~~J~~	U	CV	BL
7782-49-2	Selenium	35.0	U		P	
7440-22-4	Silver	1.3	J		P	
7440-28-0	Thallium	25.0	U		P	
7440-62-2	Vanadium	50.0	U		P	
7440-66-6	Zinc	60 ~~12.8~~	~~J~~	U	P	BL

Color Before: BLACK Clarity Before: NA Texture: FINE

Color After: YELLOW Clarity After: CLEAR Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-TW03D-08C FIL

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807096

Matrix: (soil/water) WATER Lab Sample ID: S 807096-006-029-1/1

Level: (low/med) Date Recieved: 07/16/2008

% 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	210		J N	P	MSH
7440-36-0	Antimony	60.0	U		P	
7440-38-2	Arsenic	10 ~~2.4~~	~~J~~	U	P	BL
7440-39-3	Barium	200 ~~52.1~~	~~J~~	U	P	BL
7441-41-7	Beryllium	5 ~~0.12~~	~~J~~	U	P	BL
7440-43-9	Cadmium	5.0	U		P	
7440-70-2	Calcium	5000 ~~1900~~	J	U	P	BL
7440-47-3	Chromium	10.0	U		P	
7440-48-4	Cobalt	50.0	U		P	
7440-50-8	Copper	25 ~~2.6~~	~~J~~	U	P	BL
7439-89-6	Iron	11200			P	
7439-92-1	Lead	10.0	U		P	
7439-95-4	Magnesium	5000 ~~4750~~	J	U E	P	BL
7439-96-5	Manganese	107		J E	P	SD
7439-97-6	Mercury	0.2 ~~0.11~~	~~J~~	U	CV	BL
7440-02-0	Nickel	10.8	J		P	
7782-49-2	Selenium	35.0	U		P	
7440-22-4	Silver	10.0	U		P	
7440-28-0	Thallium	25.0	U		P	
7440-62-2	Vanadium	50.0	U		P	
7440-66-6	Zinc	60 ~~11.2~~	~~J~~	U	P	BL

Color Before: BLACK Clarity Before: NA Texture: FINE

Color After: YELLOW Clarity After: CLEAR Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-TW02-08C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807096

Matrix: (soil/water) WATER Lab Sample ID: S 807096-007-021-1/1

Level: (low/med) Date Recieved: 07/16/2008

% 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	4880		J N	P	MSH
7440-36-0	Antimony	60.0	U		P	
7440-38-2	Arsenic	10 ~~4.8~~	~~J~~	U	P	BL
7440-39-3	Barium	200 ~~37.4~~	~~J~~	U	P	BL
7441-41-7	Beryllium	5 ~~0.15~~	~~J~~	U	P	BL
7440-43-9	Cadmium	5.0	U		P	
7440-70-2	Calcium	5000 ~~4510~~	~~J~~	U	P	BL
7440-47-3	Chromium	18.8			P	
7440-48-4	Cobalt	50.0	U		P	
7440-50-8	Copper	25 ~~6.3~~	~~J~~	U	P	BL
7439-89-6	Iron	34500			P	
7439-92-1	Lead	2.0	J		P	
7439-95-4	Magnesium	5000 ~~2380~~	~~J~~	U E	P	BL
7439-96-5	Manganese	272		J E	P	SD
7440-02-0	Nickel	6.4	J		P	
7439-97-6	Mercury	0.24			CV	
7782-49-2	Selenium	35.0	U		P	
7440-22-4	Silver	10.0	U		P	
7440-28-0	Thallium	25.0	U		P	
7440-62-2	Vanadium	6.2	J		P	
7440-66-6	Zinc	60 ~~27.3~~	~~J~~	U	P	BL

Color Before: BLACK Clarity Before: NA Texture: FINE

Color After: YELLOW Clarity After: CLEAR Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-TW02-08C FIL

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807096

Matrix: (soil/water) WATER Lab Sample ID: S 807096-008-030-1/1

Level: (low/med) Date Recieved: 07/16/2008

% 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	200 ~~121~~	~~J~~	U ~~M~~	P	BL
7440-36-0	Antimony	60.0	U		P	
7440-38-2	Arsenic	10.0	U		P	
7440-39-3	Barium	200 ~~21.3~~	~~J~~	U	P	BL
7441-41-7	Beryllium	5 ~~0.060~~	~~J~~	U	P	BL
7440-43-9	Cadmium	5.0	U		P	
7440-70-2	Calcium	5000 ~~3160~~	~~J~~	U	P	BL
7440-47-3	Chromium	10 1.1	~~J~~	U	P	BL
7440-48-4	Cobalt	50.0	U		P	
7440-50-8	Copper	25 ~~2.0~~	~~J~~	U	P	BL
7439-89-6	Iron	13500			P	
7439-92-1	Lead	10.0	U		P	
7439-95-4	Magnesium	5000 ~~1930~~	~~J~~	U ~~E~~	P	BL
7439-96-5	Manganese	125		J ~~E~~	P	SD
7439-97-6	Mercury	0.38		U	CV	BL
7440-02-0	Nickel	40.0	U		P	
7782-49-2	Selenium	35.0	U		P	
7440-22-4	Silver	10.0	U		P	
7440-28-0	Thallium	25.0	U		P	
7440-62-2	Vanadium	50.0	U		P	
7440-66-6	Zinc	60 ~~4.7~~	~~J~~	U	P	BL

Color Before: BLACK Clarity Before: NA Texture: FINE

Color After: YELLOW Clarity After: CLEAR Artifacts: NA

Comments:

ENVIRONMENTAL
Data Services, Inc.

PERCHLORATE

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, UXO-03, CTO-168 SDG #: 807096

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: October 3, 2008

Laboratory: DataChem Laboratories, Salt Lake City, Utah Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR03-TW04-08C	807096-001	Water
1MS	MR03-TW04-08CMS	807096-001MS	Water
1MSD	MR03-TW04-08CMSD	807096-001MSD	Water
2	MR03-TW03-08C	807096-003	Water
3	MR03-TW03D-08C	807096-005	Water
4	MR03-TW02-08C	807096-007	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.

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
MR03-EB071608-GW	None - ND	-	-	-	-
MR03-FB071408	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	MR03-TW03-08C ug/L	MR03-TW03D-08C ug/L	RPD	Qualifier
None	ND	ND	-	-

Compound Quantitation - No discrepancies were identified.

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S086J07D

Date Printed.....: 22-JUL-08 14:23

Client Name.....: GPL Laboratories
Client Ref Number....: 807096
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 807096

Date Received.....: 17-JUL-08 00:00

Client Sample Name: MR03-TW04-08|C
DCL Sample Name...: 08E03793
DCL Report Group..: 08E-0588-01

Matrix.....: WATER
Date Sampled.....: 14-JUL-08 12:05
Reporting Units...: ug/L
Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: Not Applicable
Date Prepared.....: 21-JUL-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: Not Applicable
Net Weight/Volume....: Not Required

DCL Analysis Group: G086P00J
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	21-JUL-08 22:01	0.0663	ND		U	1	0.200

EW 10/3/08

960 West LeVoy Drive / Salt Lake City, Utah 84123-2547
Phone (801) 266-7700 Web Page: www.datachem.com
FAX (801) 268-9992 E-mail: lab@datachem.com

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S086J07H

Date Printed.....: 22-JUL-08 14:23

Client Name.....: GPL Laboratories
Client Ref Number....: 807096
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 807096

Date Received.....: 17-JUL-08 00:00

Client Sample Name: MR03-TW03-08|C
DCL Sample Name...: 08E03794
DCL Report Group..: 08E-0588-01

Matrix.....: WATER
Date Sampled.....: 14-JUL-08 12:30
Reporting Units...: ug/L
Report Basis.....: [X] As Received [ ] Dried

DCL Preparation Group: Not Applicable
Date Prepared.....: 21-JUL-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: Not Applicable
Net Weight/Volume....: Not Required

DCL Analysis Group: G086P00J
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: XP-RPPX250
[X] Primary
[ ] Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	21-JUL-08 23:05	0.0663	ND		U	1	0.200

10/3/08

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S086J07J

Date Printed.....: 22-JUL-08 14:23

Client Name.....: GPL Laboratories
Client Ref Number....: 807096
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 807096

Date Received.....: 17-JUL-08 00:00

Client Sample Name: MR03-TW03D-0|8C
DCL Sample Name...: 08E03795
DCL Report Group..: 08E-0588-01

Matrix.....: WATER
Date Sampled.....: 14-JUL-08 12:45
Reporting Units...: ug/L
Report Basis.....: [X] As Received [ ] Dried

DCL Preparation Group: Not Applicable
Date Prepared.....: 21-JUL-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: Not Applicable
Net Weight/Volume....: Not Required

DCL Analysis Group: G086P00J
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
[X] Primary
[ ] Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	21-JUL-08 23:27	0.0663	ND		U	1	0.200

mw
10/3/08

960 West LeVoy Drive / Salt Lake City, Utah 84123-2547
Phone (801) 266-7700 Web Page: www.datachem.com
FAX (801) 268-9992 E-mail: lab@datachem.com

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S086J07K

Date Printed.....: 22-JUL-08 14:23

Client Name.....: GPL Laboratories
Client Ref Number....: 807096
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 807096

Date Received.....: 17-JUL-08 00:00

Client Sample Name: MR03-TW02-08|C
DCL Sample Name...: 08E03796
DCL Report Group..: 08E-0588-01

Matrix.....: WATER
Date Sampled.....: 14-JUL-08 17:00
Reporting Units...: ug/L
Report Basis.....: [X] As Received [ ] Dried

DCL Preparation Group: Not Applicable
Date Prepared.....: 21-JUL-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: Not Applicable
Net Weight/Volume....: Not Required

DCL Analysis Group: G086P00J
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
[X] Primary
[ ] Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	21-JUL-08 23:48	0.0663	ND		U	1	0.200

lw
10/3/08

960 West LeVoy Drive / Salt Lake City, Utah 84123-2547
Phone (801) 266-7700 Web Page: www.datachem.com
FAX (801) 268-9992 E-mail: lab@datachem.com

ENVIRONMENTAL
Data Services, Inc.

EXPLOSIVES

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, UXO-03, CTO-168 SDG #: 807118

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: October 3, 2008

Laboratory: GPL Laboratories, Frederick, Maryland Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR03-EB071608-GW	807118-001	Water
2	MR03-FB071408	807118-004	Water
3	MR03-TW01-08C-1	807118-006	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 - A MS/MSD sample was not analyzed.

Laboratory Control Sample - The LCS samples exhibited acceptable %R values.

Method Blank - The method blanks were free of contamination.

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/L	Qualifier	Affected Samples
MR03-EB071608-GW	None - ND	-	-	-	-
MR03-FB071408	None - ND	-	-	-	-

Field Duplicates - Field duplicate samples were not included in this data package.

Compound Identification - Retention times were acceptable and no further action was taken.

Compound Quantitation - No discrepancies were identified.

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

1

SAMPLE NO
MR03-EB071608-GW

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	807118
Matrix : (Soil / Water)	WATER	Lab Sample ID :	807118-001-007-1/1
Sample Volume :	770	Lab File ID :	LCD42674.D
% Moisture:		Date Received	07/18/2008
Extraction:	EXT_SW8330	Date Extracted:	07/21/2008
Extract Volume:	20 mL	Date Analyzed	08/02/2008
Injection Volume :	100 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
99-35-4	1,3,5-Trinitrobenzene	0.26	U
99-65-0	1,3-Dinitrobenzene	0.26	U
118-96-7	2,4,6-Trinitrotoluene	0.26	U
121-14-2	2,4-Dinitrotoluene	0.26	U
606-20-2	2,6-Dinitrotoluene	0.26	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.26	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.26	U
2691-41-0	HMX	0.52	U
98-95-3	Nitrobenzene	0.26	U
121-82-4	RDX	0.52	U
479-45-8	Tetryl	0.52	U
99-08-1	m-Nitrotoluene	0.52	U
88-72-2	o-Nitrotoluene	0.52	U
99-99-0	p-Nitrotoluene	0.52	U

lw 10/31/08

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

2

SAMPLE NO
MR03-FB071408

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	807118
Matrix : (Soil / Water)	WATER	Lab Sample ID :	807118-004-008-1/1
Sample Volume :	770	Lab File ID :	LCD42675.D
% Moisture:		Date Received	07/18/2008
Extraction:	EXT_SW8330	Date Extracted:	07/21/2008
Extract Volume:	20 mL	Date Analyzed	08/02/2008
Injection Volume :	100 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
99-35-4	1,3,5-Trinitrobenzene	0.26	U
99-65-0	1,3-Dinitrobenzene	0.26	U
118-96-7	2,4,6-Trinitrotoluene	0.26	U
121-14-2	2,4-Dinitrotoluene	0.26	U
606-20-2	2,6-Dinitrotoluene	0.26	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.26	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.26	U
2691-41-0	HMX	0.52	U
98-95-3	Nitrobenzene	0.26	U
121-82-4	RDX	0.52	U
479-45-8	Tetryl	0.52	U
99-08-1	m-Nitrotoluene	0.52	U
88-72-2	o-Nitrotoluene	0.52	U
99-99-0	p-Nitrotoluene	0.52	U

ENVIRONMENTAL
Data Services, Inc.

EXPLOSIVES

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, UXO-03, CTO-168 SDG #: 807118

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: October 3, 2008

Laboratory: GPL Laboratories, Frederick, Maryland Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR03-EB071608-GW	807118-001	Water
2	MR03-FB071408	807118-004	Water
3	MR03-TW01-08C-1	807118-006	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 - A MS/MSD sample was not analyzed.

Laboratory Control Sample - The LCS samples exhibited acceptable %R values.

Method Blank - The method blanks were free of contamination.

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/L	Qualifier	Affected Samples
MR03-EB071608-GW	None - ND	-	-	-	-
MR03-FB071408	None - ND	-	-	-	-

Field Duplicates - Field duplicate samples were not included in this data package.

Compound Identification - Retention times were acceptable and no further action was taken.

Compound Quantitation - No discrepancies were identified.

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

1

SAMPLE NO
MR03-EB071608-GW

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	807118
Matrix : (Soil / Water)	WATER	Lab Sample ID :	807118-001-007-1/1
Sample Volume :	770	Lab File ID :	LCD42674.D
% Moisture:		Date Received	07/18/2008
Extraction:	EXT_SW8330	Date Extracted:	07/21/2008
Extract Volume:	20 mL	Date Analyzed	08/02/2008
Injection Volume :	100 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
99-35-4	1,3,5-Trinitrobenzene	0.26	U
99-65-0	1,3-Dinitrobenzene	0.26	U
118-96-7	2,4,6-Trinitrotoluene	0.26	U
121-14-2	2,4-Dinitrotoluene	0.26	U
606-20-2	2,6-Dinitrotoluene	0.26	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.26	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.26	U
2691-41-0	HMX	0.52	U
98-95-3	Nitrobenzene	0.26	U
121-82-4	RDX	0.52	U
479-45-8	Tetryl	0.52	U
99-08-1	m-Nitrotoluene	0.52	U
88-72-2	o-Nitrotoluene	0.52	U
99-99-0	p-Nitrotoluene	0.52	U

lw 10/31/08

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

2

SAMPLE NO
MR03-FB071408

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	807118
Matrix : (Soil / Water)	WATER	Lab Sample ID :	807118-004-008-1/1
Sample Volume :	770	Lab File ID :	LCD42675.D
% Moisture:		Date Received	07/18/2008
Extraction:	EXT_SW8330	Date Extracted:	07/21/2008
Extract Volume:	20 mL	Date Analyzed	08/02/2008
Injection Volume :	100 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
99-35-4	1,3,5-Trinitrobenzene	0.26	U
99-65-0	1,3-Dinitrobenzene	0.26	U
118-96-7	2,4,6-Trinitrotoluene	0.26	U
121-14-2	2,4-Dinitrotoluene	0.26	U
606-20-2	2,6-Dinitrotoluene	0.26	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.26	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.26	U
2691-41-0	HMX	0.52	U
98-95-3	Nitrobenzene	0.26	U
121-82-4	RDX	0.52	U
479-45-8	Tetryl	0.52	U
99-08-1	m-Nitrotoluene	0.52	U
88-72-2	o-Nitrotoluene	0.52	U
99-99-0	p-Nitrotoluene	0.52	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

3

SAMPLE NO
MR03-TW01-08C-1

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	807118
Matrix : (Soil / Water)	WATER	Lab Sample ID :	807118-006-009-1/1
Sample Volume :	770	Lab File ID :	LCD42676.D
% Moisture:		Date Received	07/18/2008
Extraction:	EXT_SW8330	Date Extracted:	07/21/2008
Extract Volume:	20 mL	Date Analyzed	08/02/2008
Injection Volume :	100 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
99-35-4	1,3,5-Trinitrobenzene	0.26	U
99-65-0	1,3-Dinitrobenzene	0.19	J
118-96-7	2,4,6-Trinitrotoluene	0.26	U
121-14-2	2,4-Dinitrotoluene	0.26	U
606-20-2	2,6-Dinitrotoluene	0.26	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.26	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.26	U
2691-41-0	HMX	0.52	U
98-95-3	Nitrobenzene	0.26	U
121-82-4	RDX	0.52	U
479-45-8	Tetryl	0.52	U
99-08-1	m-Nitrotoluene	0.52	U
88-72-2	o-Nitrotoluene	0.52	U
99-99-0	p-Nitrotoluene	0.52	U

dew 10/31/08

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

3

SAMPLE NO
MR03-TW01-08C-1

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	807118
Matrix : (Soil / Water)	WATER	Lab Sample ID :	807118-006-009-1/1
Sample Volume :	770	Lab File ID :	LCD42676.D
% Moisture:		Date Received	07/18/2008
Extraction:	EXT_SW8330	Date Extracted:	07/21/2008
Extract Volume:	20 mL	Date Analyzed	08/02/2008
Injection Volume :	100 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
99-35-4	1,3,5-Trinitrobenzene	0.26	U
99-65-0	1,3-Dinitrobenzene	0.19	J
118-96-7	2,4,6-Trinitrotoluene	0.26	U
121-14-2	2,4-Dinitrotoluene	0.26	U
606-20-2	2,6-Dinitrotoluene	0.26	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.26	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.26	U
2691-41-0	HMX	0.52	U
98-95-3	Nitrobenzene	0.26	U
121-82-4	RDX	0.52	U
479-45-8	Tetryl	0.52	U
99-08-1	m-Nitrotoluene	0.52	U
88-72-2	o-Nitrotoluene	0.52	U
99-99-0	p-Nitrotoluene	0.52	U

dew 10/31/08

ENVIRONMENTAL
Data Services, Inc.

METALS

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, UXO-03, CTO-168 SDG #: 807118

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: October 3, 2008

Laboratory: GPL Laboratories, Frederick, Maryland Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR03-EB071608-GW	807118-001	Water
2	MR03-EB071608-GW FIL	807118-002	Water
3	MR03-TW01-08C-2 FIL	807118-003	Water
4	MR03-FB071408	807118-004	Water
5	MR03-FB071408 FIL	807118-005	Water
6	MR03-TW01-08C-1	807118-006	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 contamination for several compounds, however, all sample results are non-detect or greater than 5X the blank concentration with the exception of the following:

Compound	Conc. ug/L	Qualifier	Affected Samples
Aluminum	137.527	U	1, 3, 5, 6
Barium	14.047	U	All samples
Beryllium	0.072	U	3
Copper	4.787	U	All samples
Iron	40.587	U	1, 4

Compound	Conc. ug/L	Qualifier	Affected Samples
Magnesium	50.216	U	1, 2, 4, 5
Potassium	27.360	U	All samples
Sodium	482.994	U	1, 2, 4, 5
Zinc	4.649	U	1, 2, 3, 5

Field and Equipment Blank - Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/L	Qualifier	Affected Samples
MR03-EB071608-GW	None - ND	-	-	-	-
MR03-EB071608-GWFIL	Mercury	0.18	9.0	None	Applies to samples in other data packages
MR03-FB071408	None - ND	-	-	-	-
MR03-FB071408 FIL	None - ND	-	-	-	-

ICP Interference Check Sample - All %R values were acceptable.

Matrix Spike - The matrix spike samples exhibited acceptable %R values.

Matrix Duplicate - The matrix duplicate samples exhibited acceptable RPD values.

LCS - The LCS samples exhibited acceptable %R values.

ICP Serial Dilution - The ICP serial dilution sample exhibited acceptable %D values.

Field Duplicates - Field duplicate samples were not included in this data package.

Compound Quantitation - No discrepancies were identified.

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-EB071608-GW

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807118

Matrix: (soil/water) WATER Lab Sample ID: S 807118-001-001-1/1

Level: (low/med) Date Recieved: 07/18/2008

% 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	200 ~~40.5~~	~~J~~	U	P	BL
7440-36-0	Antimony	60.0	U		P	
7440-38-2	Arsenic	20.0	U		P	
7440-39-3	Barium	200 ~~0.09~~	~~J~~	U	P	BL
7441-41-7	Beryllium	5.0	U		P	
7440-43-9	Cadmium	5.0	U		P	
7440-70-2	Calcium	5000	U		P	
7440-47-3	Chromium	10.0	U		P	
7440-48-4	Cobalt	50.0	U		P	
7440-50-8	Copper	25 ~~1.7~~	~~J~~	U	P	BL
7439-89-6	Iron	100 ~~15.8~~	~~J~~	U	P	BL
7439-92-1	Lead	10.0	U		P	
7439-95-4	Magnesium	5000 ~~73.1~~	~~J~~	U	P	BL
7439-96-5	Manganese	15.0	U		P	
7440-02-0	Nickel	40.0	U		P	
7439-97-6	Mercury	0.20	U		CV	
7440-09-7	Potassium	5000 ~~40.2~~	~~J~~	U	P	BL
7782-49-2	Selenium	35.0	U		P	
7440-22-4	Silver	10.0	U		P	
7440-23-5	Sodium	5000 ~~362~~	~~J~~	U	P	BL
7440-28-0	Thallium	25.0	U		P	
7440-62-2	Vanadium	50.0	U		P	
7440-66-6	Zinc	60 ~~4.9~~	~~J~~	U	P	BL

Color Before: NA Clarity Before: NA Texture: NA

Color After: NA Clarity After: NA Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-EB071608-GW FIL

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807118

Matrix: (soil/water) WATER Lab Sample ID: S 807118-002-002-1/1

Level: (low/med) Date Recieved: 07/18/2008

% 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	200	U		P	
7440-36-0	Antimony	60.0	U		P	
7440-38-2	Arsenic	20.0	U		P	
7440-39-3	Barium	200 ~~0.70~~	~~J~~	U	P	BL
7441-41-7	Beryllium	5.0	U		P	
7440-43-9	Cadmium	5.0	U		P	
7440-70-2	Calcium	5000	U		P	
7440-47-3	Chromium	10.0	U		P	
7440-48-4	Cobalt	50.0	U		P	
7440-50-8	Copper	25 ~~1.9~~	~~J~~	U	P	BL
7439-89-6	Iron	100	U		P	
7439-92-1	Lead	10.0	U		P	
7439-95-4	Magnesium	5000 ~~82.6~~	~~J~~	U	P	BL
7439-96-5	Manganese	15.0	U		P	
7440-02-0	Nickel	40.0	U		P	
7439-97-6	Mercury	0.18	J		CV	
7440-09-7	Potassium	5000 ~~75.6~~	~~J~~	U	P	BL
7782-49-2	Selenium	35.0	U		P	
7440-22-4	Silver	10.0	U		P	
7440-23-5	Sodium	5000 ~~675~~	~~J~~	U	P	BL
7440-28-0	Thallium	25.0	U		P	
7440-62-2	Vanadium	50.0	U		P	
7440-66-6	Zinc	60 ~~3.8~~	~~J~~	U	P	BL

Color Before: NA Clarity Before: NA Texture: NA

Color After: NA Clarity After: NA Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-TW01-08C-2 FIL

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807118

Matrix: (soil/water) WATER Lab Sample ID: S 807118-003-003-1/1

Level: (low/med) Date Recieved: 07/18/2008

% 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	200 ~~147~~	~~J~~	U	P	BL
7440-36-0	Antimony	60.0	U		P	
7440-38-2	Arsenic	20.0	U		P	
7440-39-3	Barium	200 ~~84.6~~	~~J~~	U	P	BL
7441-41-7	Beryllium	5 ~~0.081~~	~~J~~	U	P	BL
7440-43-9	Cadmium	5.0	U		P	
7440-70-2	Calcium	21600			P	
7440-47-3	Chromium	10.0	U		P	
7440-48-4	Cobalt	2.6	J		P	
7440-50-8	Copper	25 ~~7.4~~	~~J~~	U	P	BL
7439-89-6	Iron	3780			P	
7439-92-1	Lead	10.0	U		P	
7439-95-4	Magnesium	10600			P	
7439-96-5	Manganese	351			P	
7439-97-6	Mercury	0.20	U		CV	
7440-02-0	Nickel	80.0			P	
7440-09-7	Potassium	5000 ~~3900~~	~~J~~	U	P	BL
7782-49-2	Selenium	35.0	U		P	
7440-22-4	Silver	10.0	U		P	
7440-23-5	Sodium	13600			P	
7440-28-0	Thallium	25.0	U		P	
7440-62-2	Vanadium	50.0	U		P	
7440-66-6	Zinc	60 ~~40.6~~	~~J~~	U	P	BL

Color Before: NA Clarity Before: NA Texture: NA

Color After: NA Clarity After: NA Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-FB071408

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807118

Matrix: (soil/water) WATER Lab Sample ID: S 807118-004-004-1/1

Level: (low/med) Date Recieved: 07/18/2008

% 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	200	U		P	
7440-36-0	Antimony	60.0	U		P	
7440-38-2	Arsenic	20.0	U		P	
7440-39-3	Barium	200 ~~3.0~~	~~J~~	U	P	BL
7441-41-7	Beryllium	5.0	U		P	
7440-43-9	Cadmium	5.0	U		P	
7440-70-2	Calcium	5000	U		P	
7440-47-3	Chromium	10.0	U		P	
7440-48-4	Cobalt	50.0	U		P	
7440-50-8	Copper	25 ~~3.5~~	~~J~~	U	P	BL
7439-89-6	Iron	100 ~~17.3~~	~~J~~	U	P	BL
7439-92-1	Lead	10.0	U		P	
7439-95-4	Magnesium	5000 ~~63.8~~	~~J~~	U	P	BL
7439-96-5	Manganese	15.0	U		P	
7440-02-0	Nickel	40.0	U		P	
7439-97-6	Mercury	0.20	U		CV	
7440-09-7	Potassium	5000 ~~55.9~~	~~J~~	U	P	BL
7782-49-2	Selenium	35.0	U		P	
7440-22-4	Silver	10.0	U		P	
7440-23-5	Sodium	5000 ~~857~~	~~J~~	U	P	BL
7440-28-0	Thallium	25.0	U		P	
7440-62-2	Vanadium	50.0	U		P	
7440-66-6	Zinc	60.0	U		P	

Color Before: NA Clarity Before: NA Texture: NA

Color After: NA Clarity After: NA Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-FB071408 FIL

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807118

Matrix: (soil/water) WATER Lab Sample ID: S 807118-005-005-1/1

Level: (low/med) Date Recieved: 07/18/2008

% 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	200 ~~54.2~~	~~J~~	U	P	BL
7440-36-0	Antimony	60.0	U		P	
7440-38-2	Arsenic	20.0	U		P	
7440-39-3	Barium	200 ~~3.1~~	~~J~~	U	P	BL
7441-41-7	Beryllium	5.0	U		P	
7440-43-9	Cadmium	5.0	U		P	
7440-70-2	Calcium	5000	U		P	
7440-47-3	Chromium	10.0	U		P	
7440-48-4	Cobalt	50.0	U		P	
7440-50-8	Copper	25 ~~2.8~~	~~J~~	U	P	BL
7439-89-6	Iron	100	U		P	
7439-92-1	Lead	10.0	U		P	
7439-95-4	Magnesium	5000 ~~64.8~~	~~J~~	U	P	BL
7439-96-5	Manganese	15.0	U		P	
7439-97-6	Mercury	0.20	U		CV	
7440-02-0	Nickel	40.0	U		P	
7440-09-7	Potassium	5000 ~~38.4~~	~~J~~	U	P	BL
7782-49-2	Selenium	35.0	U		P	
7440-22-4	Silver	10.0	U		P	
7440-23-5	Sodium	5000 ~~900~~	~~J~~	U	P	BL
7440-28-0	Thallium	25.0	U		P	
7440-62-2	Vanadium	50.0	U		P	
7440-66-6	Zinc	60 ~~2.5~~	~~J~~	U	P	BL

Color Before: NA Clarity Before: NA Texture: NA

Color After: NA Clarity After: NA Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-TW01-08C-1

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807118

Matrix: (soil/water) WATER Lab Sample ID: S 807118-006-006-1/1

Level: (low/med) Date Recieved: 07/18/2008

% 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	200 ~~120~~	~~J~~	U	P	BL
7440-36-0	Antimony	60.0	U		P	
7440-38-2	Arsenic	20.0	U		P	
7440-39-3	Barium	200 ~~56.9~~	~~J~~	U	P	BL
7441-41-7	Beryllium	5.0	U		P	
7440-43-9	Cadmium	5.0	U		P	
7440-70-2	Calcium	16900			P	
7440-47-3	Chromium	0.98	J		P	
7440-48-4	Cobalt	1.9	J		P	
7440-50-8	Copper	25 ~~4.5~~	~~J~~	U	P	BL
7439-89-6	Iron	5540			P	
7439-92-1	Lead	10.0	U		P	
7439-95-4	Magnesium	8740			P	
7439-96-5	Manganese	356			P	
7440-02-0	Nickel	90.0			P	
7439-97-6	Mercury	0.13	J		CV	
7440-09-7	Potassium	5000 ~~3440~~	~~J~~	U	P	BL
7782-49-2	Selenium	35.0	U		P	
7440-22-4	Silver	10.0	U		P	
7440-23-5	Sodium	12100			P	
7440-28-0	Thallium	25.0	U		P	
7440-62-2	Vanadium	50.0	U		P	
7440-66-6	Zinc	78.0			P	

Color Before: NA Clarity Before: NA Texture: NA

Color After: NA Clarity After: NA Artifacts: NA

Comments:

ENVIRONMENTAL
Data Services, Inc.

PERCHLORATE

USEPA Region IV - Level IV Review

Site: MCB Camp Lejeune, UXO-03, CTO-168 SDG #: 807118

Client: CH2M HILL, Inc., Virginia Beach, Virginia Date: October 3, 2008

Laboratory: DataChem, Salt Lake City, Utah Reviewer: Nancy Weaver

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MR03-EB071608-GW	807118-001	Water
2	MR03-FB071408	807118-004	Water
3	MR03-TW01-08C-1	807118-006	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.

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
MR03-EB071608-GW	None - ND	-	-	-	-
MR03-FB071408	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 samples were not included in this data package.

Compound Quantitation - No discrepancies were identified.

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S086Q02C

Date Printed.....: 29-JUL-08 16:29

Client Name.....: GPL Laboratories
Client Ref Number....: 807118
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 807118

Date Received.....: 23-JUL-08 00:00

Client Sample Name: MR03-EB07160|08-GW
DCL Sample Name...: 08E03925
DCL Report Group..: 08E-0613-01

Matrix.....: WATER
Date Sampled.....: 16-JUL-08 14:00
Reporting Units...: ug/L
Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: Not Applicable
Date Prepared.....: 28-JUL-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: Not Applicable
Net Weight/Volume....: Not Required

DCL Analysis Group: G086X005
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	28-JUL-08 21:48	0.0663	ND		U	1	0.200

MW 10/3/08

960 West LeVoy Drive / Salt Lake City, Utah 84123-2547
Phone (801) 266-7700 Web Page: www.datachem.com
FAX (801) 268-9992 E-mail: lab@datachem.com

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

Form RLIMS63A-V1.4
07290816291467
Page 4

S086Q02D

Date Printed.....: 29-JUL-08 16:29

Client Name.....: GPL Laboratories
Client Ref Number....: 807118
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 807118

Date Received.....: 23-JUL-08 00:00

Client Sample Name: MR03-FB07140|8
DCL Sample Name...: 08E03926
DCL Report Group..: 08E-0613-01

Matrix.....: WATER
Date Sampled.....: 14-JUL-08 17:45
Reporting Units...: ug/L
Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: Not Applicable
Date Prepared.....: 28-JUL-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: Not Applicable
Net Weight/Volume....: Not Required

DCL Analysis Group: G086X005
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	28-JUL-08 22:09	0.0663	ND		U	1	0.200

LW
10/3/08

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S086Q02F

Date Printed.....: 29-JUL-08 16:29

Client Name.....: GPL Laboratories
Client Ref Number....: 807118
Sampling Site.....: CAMP LEJEUNE UXO-03
Release Number.....: 807118

Date Received.....: 23-JUL-08 00:00

Client Sample Name: MR03-TW01-08|C-1
DCL Sample Name...: 08E03927
DCL Report Group..: 08E-0613-01

Matrix.....: WATER
Date Sampled.....: 14-JUL-08 15:35
Reporting Units...: ug/L
Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: Not Applicable
Date Prepared.....: 28-JUL-08 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: Not Applicable
Net Weight/Volume....: Not Required

DCL Analysis Group: G086X005
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	28-JUL-08 22:30	0.0663	ND		U	1	0.200

MW 10/3/08

Appendix G
Groundwater Sampling Data

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client: NAVFAC
Location: Grenade Range
Event: Site Investigation
Date: 7-28-07
Weather: sunny, light clouds

Project Number:
Well ID: GR-TW02
Sample ID: GR-TW02-070C
Sampling Team: Matt W. / Lacy S.

Total Depth: 34.49 FT.(BTOC)
Depth to water: (-) 14.70 FT.(BTOC)
Water Column: 19.79 FT.
(x) 0.041 GAL/FT.
Well Volume: 0.811 GAL. x3
Total Purge Vol.: 2.434 GAL.

Purge Device: Peristaltic Pump, new HDPE tubing

Measuring Device: Heron IFM
Date and Time:

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: 7-28-07 / Time: 1800	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP (redox) mV	Turbidity NTU	Other:	Depth to water	Color / Odor / Comments
Method:	18.07	0.320	0.00	7.17	-158	135.7			

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
1715	3.0	18.13	0.316	1.11	6.71	-120	471.9			
1720	4.0	18.15	0.318	0.49	6.87	-134	658.4			
1725	5.0	18.17	0.312	0.07	6.97	-142	577.4			
1730	6.0	18.09	0.320	0.05	7.02	-146	535.2			
1735	7.0	18.12	0.320	0.01	7.06	-149	488.4			
1745	10.5	18.01	0.321	0.00	7.13	-154	245.7			
1755	14.0	18.04	0.321	0.00	7.14	-155	221.2			
1800	16.5	18.07	0.320	0.00	7.17	-158	135.7			

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

Analysis	Preservative	Container requirements	No. of containers
VOCs	HCL		2
MEE	HCL		2
Alk, Anions, Ferrous Iron			1
Sulfide			1
TOC			1
Ferric Iron	HNO3		1

Observations/Notes:
Start purging @ 1700. Increased @ 1735

Flow rate =

Ferrous Iron =

MS/MSD | Duplicate ID No.:

Signature(s): Matt W. Waterbury

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client: NAVFAC
Location: Grenade Range
Event: Site Investigation
Date: 7-27-07
Weather: sunny Humid 90°

Project Number:
Well ID: GR-TW03
Sample ID: GR-TW03-070
Sampling Team: Matt W. / Lacy S.

Total Depth: 20.16 FT.(BTOC)
Depth to water: (-) 11.52 FT.(BTOC)
Water Column: 8.64 FT.
(x) 0.041 GAL/FT.
Well Volume: 0.354 GAL. x 3
Total Purge Vol.: 1.062 GAL.

Purge Device: Peristaltic Pump, new HDPE tubing

Measuring Device: Heron IFM
Date and Time:

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: 7-27-07 Time: 1445	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP (redox) mV	Turbidity NTU	Other:	Depth to water	Color / Odor / Comments
Method:	18.32	0.219	0.88	5.15	38	33.56			

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
1430	1	18.32	0.219	0.88	5.15	38	~~0.0~~			

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

Analysis	Preservative	Container requirements		No. of containers
VOCs	HCL			2
MEE	HCL			2
Alk, Anions, Ferrous Iron				1
Sulfide				1
TOC				1
Ferric Iron	HNO3			1

Observations/Notes:
Flow rate =
Ferrous Iron =

start purging @ 1420 Dry @ 1430
Recharge @ every 5 min. 1 Liter and a half.
All samples collected within 25 min

MS/MSD | Duplicate ID No.

Signature(s): Matt W. / Lacy S.

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client:	NAVFAC Mid-Atlantic	Project Number:	358852.SI.FQ
Location:	UXO-03	Well ID:	MR03-TW01
Event:	UXO-03 PA/SI	Sample ID:	MR03-TW01-08C
Date:	7/15/2008	Sampling Team:	D. Seed/RDU
Weather:	90F		S. Kline/RDU

Total Depth:		14.1	FT.(BTOC)	Measuring Device:	Solinst/Horiba U-22
Depth to water:	(-)	7.71	FT.(BTOC)	Date and Time:	7/15/2008
Water Column:		6.39	FT.		
	(x)	0.041	GAL/FT.		
Well Volume:		0.26	GAL.		
Total Purge Vol.:		0.8	GAL.		

Purge Device: Peristaltic Pump

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: 7/15/2008 / Time: 1350	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	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Depth to water (ft bgs)	Color / Odor / Comments
Stabilization Criteria		Constant for 3 readings	± 3%	± 10%	± 0.1	± 10 mV	± 10% or <10		
1440	0							7.78	
1450	0.2	25.65	0.345	2.33	5.33	55	14	10.78	
1455	0.3	25.72	0.326	2.14	5.53	56		12.18	
1500	0.4								well dry
1535								13.4	

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

Analysis	Preservative	Container requirements	No. of containers
Explosive Residues	none	1 L Amber	1
Total Metals	HNO3	1 L Poly	1
Perchlorate	none	40 mL Vial	2

Observations/Notes:

well went dry--water for dissolved metal analysis collected 7/16/08

MS/MSD | Duplicate ID No.:

Signature(s): David Seed

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client:	NAVFAC Mid-Atlantic	Project Number:	358852.SI.FQ
Location:	UXO-03	Well ID:	MR03-TW01
Event:	UXO-03 PA/SI	Sample ID:	MR03-TW01-08C-2
Date:	7/16/2008	Sampling Team:	D. Seed/RDU
Weather:	90F		S. Kline/RDU

Total Depth:	14.1	FT.(BTOC)	
Depth to water:	(-) 7.71	FT.(BTOC)	
Water Column:	6.39	FT.	
	(x) 0.041	GAL/FT.	
Well Volume:	0.26	GAL.	
Total Purge Vol.:		GAL.	

Measuring Device: Horiba U-22

Date and Time: 7/16/2008

Purge Device: Peristaltic Pump

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: Low flow	N/A	0.327	1.98	5.52	74	9.8	N/A	N/A

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Depth to water (ft bgs)	Color / Odor / Comments
Stabilization Criteria		Constant for 3 readings	± 3%	± 10%	± 0.1	± 10 mV	± 10% or <10		
1415	0		0.327	1.98	5.52	74	9.8		

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

Analysis	Preservative	Container requirements	No. of containers
Dissolved Metals	Field Filtered (0.45 microns)	1 L Poly	1

Observations/Notes:

Water collected for dissolved metal analysis only

MS/MSD	Duplicate ID No.:
Signature(s): David Seed	

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client:	NAVFAC Mid-Atlantic	Project Number:	358852.SI.FQ
Location:	UXO-03	Well ID:	MR03-TW02
Event:	UXO-03 PA/SI	Sample ID:	MR03-TW02-08C
Date:	7/14/2008	Sampling Team:	D. Seed/RDU
Weather:	Sunny 90F		S. Kline/RDU

Total Depth:		16	FT.(BTOC)	Measuring Device:	Solinst/Horiba U-22
Depth to water:	(-)	9.3	FT.(BTOC)	Date and Time:	7/14/2008 1700
Water Column:		6.70	FT.		
	(x)	0.041	GAL/FT.		
Well Volume:		0.26	GAL.		
Total Purge Vol.:		0.8	GAL.		

Purge Device: Peristaltic Pump

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: Low flow	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Depth to water (ft bgs)	Color / Odor / Comments
Stabilization Criteria		Constant for 3 readings	± 3%	± 10%	± 0.1	± 10 mV	± 10% or <10		
1600	0.5	18.36	0.351	0.49	4.7	-9	68	11.4	clear/none
1605		18.7	0.369	0.27	4.54	-17	39.1	13.2	clear/none
1608		18.79	0.349	0.15	4.5	-24	18.7	15.1	slight turbidity/none
1612	0.75	18.78	0.347	0.12	4.51	-31	24.3	--	dry

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

Analysis	Preservative	Container requirements	No. of containers
Explosive Residues	none	1 L Amber	1
Total Metals	HNO3	1 L Poly	1
Dissolved Metals	Field Filtered (0.45 microns)	1 L Poly	1
Perchlorate	none	40 mL Vial	2

Observations/Notes:

Purge Dry at 0.75 gallons

Sample at 1700

MS/MSD | Duplicate ID No.:

Signature(s): Simon Kline

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client:	NAVFAC Mid-Atlantic	Project Number:	358852.SI.FQ
Location:	UXO-03	Well ID:	MR03-TW03
Event:	UXO-03 PA/SI	Sample ID:	MR03-TW03-08C
Date:	7/14/2008	Sampling Team:	D. Seed/RDU
Weather:	Sunny 85F		S. Kline/RDU

Total Depth:	14	FT.(BTOC)	
Depth to water:	(-) 8.5	FT.(BTOC)	
Water Column:	5.50	FT.	
	(x) 0.041	GAL/FT.	
Well Volume:	0.23	GAL.	
Total Purge Vol.:	0.7	GAL.	

Measuring Device: Solinst/Horiba U-22

Date and Time: 7/14/2008 1230

Purge Device: Peristaltic Pump

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:	Method:	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Depth to water (ft bgs)	Color / Odor / Comments
7/14/2008 1230	Low flow	19.43	0.254	0.01	4.4	-60	15.1	8.69	clear/none

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Depth to water (ft bgs)	Color / Odor / Comments
Stabilization Criteria		Constant for 3 readings	± 3%	± 10%	± 0.1	± 10 mV	± 10% or <10		
1200	0.5	19.36	0.263	0.37	4.38	-10	84.5	8.95	clear/none
1204		19.43	0.264	0.16	4.37	-29	70.1	8.85	clear/none
1209		19.38	0.257	0.06	4.32	-56	19.1	8.8	clear/none
1214	0.75	19.52	0.256	0.04	4.43	-59	18.1	8.7	clear/none
1220		19.43	0.254	0.01	4.4	-60	15.1	8.69	clear/none

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

Analysis	Preservative	Container requirements	No. of containers
Explosive Residues	none	1 L Amber	1
Total Metals	HNO3	1 L Poly	1
Dissolved Metals	Field Filered (0.45 microns)	1 L Poly	1
Perchlorate	none	40 mL Vial	2

Observations/Notes:

Sample at 1230

MS/MSD — Duplicate ID No.: MR03-TW03DUP-08C at 1245

Signature(s): Simon Kline

CH2MHILL

GROUNDWATER SAMPLING DATA SHEET

Client:	NAVFAC Mid-Atlantic	Project Number:	358852.SI.FQ
Location:	UXO-03	Well ID:	MR03-TW04
Event:	UXO-03 PA/SI	Sample ID:	MR03-TW04-08C
Date:	7/14/2008	Sampling Team:	D. Seed/RDU
Weather:	89F		S. Kline/RDU

Total Depth:	14	FT.(BTOC)	
Depth to water:	(-) 8.42	FT.(BTOC)	
Water Column:	5.58	FT.	
	(x) 0.041	GAL/FT.	
Well Volume:	0.22	GAL.	
Total Purge Vol.:	0.7	GAL.	

Measuring Device: Solinst/Horiba U-22

Date and Time: 7/14/2008

Purge Device: Peristaltic Pump

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:	Method:	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Depth to water (ft bgs)	Color / Odor / Comments
7/14/2008 1205	Low Flow	20.56	0.228	1.51	4.74	-28	9	8.48	

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp. °C	Cond. mS/cm	DO mg/L	pH SU	ORP mV	Turbidity NTU	Depth to water (ft bgs)	Color / Odor / Comments
Stabilization Criteria		Constant for 3 readings	± 3%	± 10%	± 0.1	± 10 mV	± 10% or <10		
1145	0							8.48	
1150	0.1	20.95	0.252	2.81	4.72	44	23	8.48	
1155	0.2	20.84	0.244	2.24	4.7	-1	17	8.48	
1200	0.3	20.58	0.229	1.57	4.73	-25	17	8.48	
1205	0.4	20.56	0.228	1.51	4.74	-28	9	8.48	

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

Analysis	Preservative	Container requirements	No. of containers
Explosive Residues	none	1 L Amber	1
Total Metals	HNO3	1 L Poly	1
Dissolved Metals	Field Filered (0.45 microns)	1 L Poly	1
Perchlorate	none	40 mL Vial	2

Observations/Notes:

MS/MSD: YES

Duplicate ID No.:

Signature(s): David Seed

Appendix H
Munitions Debris Disposal Documents

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

PREVIOUS EDITION MAY BE USED

1	2	3	4	5	6	7	23	24	25	26	27	28	29	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
DOC	IDENT	RI FROM				M&S	UNIT	ISS	QUANTITY					SER	SUPPLEMENTARY ADDRESS					SIG	FUND	DISTRIBUTION				PROJECT			PRI		REQD	DEL	DATE		ADV	RI			O/P	COND	MGT	UNIT PRICE		DOLLARS		CTS			

1. TOTAL PRICE

2. SHIP FROM

3. SHIP TO

4. MARK FOR

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

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

16. FREIGHT CLASSIFICATION NOMENCLATURE

17. ITEM NOMENCLATURE

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

22. RECEIVED BY	23. DATE RECEIVED

24. DOCUMENT NUMBER & SUFFIX (30-44)

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

Cultural Debris
40 lb
Camp Lejeune - Site UXO-03

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

This certifies that cultural debris listed has been 100 percent properly inspected and to the best of our knowledge and belief, is inert and/or free of explosives or related materials.

27. ADDITIONAL DATA

Phillip Ratliff (SUXOS)
USA Environmental, Inc
720 Brooker Creek Blvd
Suite 204
Oldsmar, Fl 34677
(813) 343-6370

Adobe Designer 8.0

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

1 2 3	4 5 6 7	23 24 25 26 27 28 29	45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80	1. TOTAL PRICE	2. SHIP FROM	3. SHIP TO
DOC IDENT	RI FROM / M&S	UNIT / ISS QUANTITY	SER SUPPLEMENTARY ADDRESS / SIG / FUND / DISTRIBUTION / PROJECT / PRI / REQD / DEL DATE / ADV / RI / O/P / COND / MGT	UNIT PRICE DOLLARS CTS	DOLLARS CTS	4. MARK FOR

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

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

16. FREIGHT CLASSIFICATION NOMENCLATURE

17. ITEM NOMENCLATURE

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

22. RECEIVED BY

23. DATE RECEIVED

24. DOCUMENT NUMBER & SUFFIX (30-44)

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

Munitions Debris - Material Documented As Safe
1 lb
Camp Lejeune - Site UXO-03

Seal # - 184169

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

This certifies that material potentially presenting an explosive hazard listed has been 100 percent properly inspected and to the best of our knowledge and belief, is inert and/or free of explosives or related materials.

27. ADDITIONAL DATA

Phillip Ratliff (SUXOS)
USA Environmental, Inc
720 Brooker Creek Blvd
Suite 204
Oldsmar, Fl 34677
(813) 343-6370

Ted Dingle (UXOQCS/UXOSO)
CH2M HILL, Inc
5700 Cleveland Street
Virginia Beach, VA 23462
(757) 671-8311

PREVIOUS EDITION MAY BE USED

Adobe Designer 8.0

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

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

Received at Bedford Regaley 1/21/10

This certifies and verifies that the AEDA Residue, Range Residue and/or Explosive Contaminated property has been 100 percent properly inspected and, to the best of our knowledge and belief, are free of explosives or related materials.

Certified By

Verified By

Container ID 3

Seal Number 184158

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

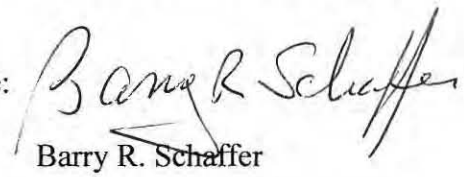
From: Barry R. Schaffer
President
Demil Metals, Inc.

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: 

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

Appendix I
Raw Analytical Data

Analytical Report For 707172

for

CH2M Hill Inc

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

One water and sixteen soil samples were received on 07/27/2007. 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

Eight 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 soil sample, the water sample and the Holding Blank had surrogate recoveries slightly above the QC limits. The analysis of sample 25-IS02-5-7-07C was cut short due to an instrument failure, therefore the final surrogate was not recovered. Samples 25-IS01-0-1-07C, 25-IS02-0-1-07C, and 25-IS04-0-1-07C had low internal standard responses. All these samples were reanalyzed within the holding time. The reanalysis results also exhibited high surrogate recoveries and low internal standard responses, possibly due to matrix interference. Results are reported from initial analyses, and the reanalysis data is included in the package for QA/QC purposes.

Toluene and methylene chloride were identified in the reanalysis of HOLDING BLANK sample and the associated method blank due to laboratory contamination. These compounds were deleted from the sample and blank as a corrective action.

Matrix spike and matrix spike duplicate analyses could not be performed due to a lack of sample fractions.

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 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

Eight soil samples were extracted and analyzed for semivolatile organic compounds using CLP OLM04.3 methodology. In addition to the regular list of compounds, the samples were also analyzed for 2-Chloroacetophenone (CN) and 2-Chlorobenzalmalononitrile (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. This concentration is less than half the reporting limit, therefore no corrective action is necessary.

Matrix spike and matrix spike duplicate analyses were shared with GPL work order 707158. Percent recovery of 2,4-dinitrotoluene was slightly above the QC limits in the MSD. All other recoveries were within QC limits.

A laboratory control samples was extracted and analyzed along with this batch. Five spike recoveries were slightly above the QC limits. Because all recoveries were less than 115%, and none of the compounds was detected above the reporting limit in any associated client sample, no further corrective action was taken.

TIC analysis is provided with these analyses. Alkanes found, if any, are also listed as part of the case narrative, 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.

Pesticides

Eight soil samples were extracted and analyzed for Pesticide and PCB compounds by CLP OLM04.3 methodology.

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 25-IS02-0-1-07C. All recoveries were within QC limits.

A laboratory control sample was extracted and analyzed along with the batch. All recoveries were within QC limits.

Combined % breakdown for PEM-401 on RTxCLP2 was slightly above QC limits. Endrin breakdown for both columns on PEM-402 was outside QC limits. Endrin breakdown for PEM-403 on both columns was slightly above QC limits.
4,4-DDT recovery for PEM-402,403 on RTxCLP were slightly above QC limits. Endrin recovery for PEM-403 on RTxCLP was slightly above QC limits.

GPC Check Aldrin and Dieldrin recoveries were slightly above QC limits.

Some GC quantitation reports in this package required manual integration of the peak areas. When such integration is required, the quantitation reports were flagged with an "m" next to the concentration. The need for manual integration is due to software failure to integrate peak of interest or the failure to correctly integrate the peak area.
The following GC columns were used:

GC column RTx-CLP (RESTEK)
ID 0.32mm
Length□30m
Coating 5% diphenyl-95%dimethyl polysiloxane
Film thickness 0.50um

GC column RTx-CLP2 (RESTEK)
ID 0.32mm
Length 30m
Coating 14% cyanopropylphenyl-86% dimethyl polysiloxane

Explosives/Propellants

Eight soil samples were extracted and analyzed for explosive compounds by SW846 method 8330.

All extraction and analysis holding times were met.

All surrogate recoveries were within the QC limits.

Matrix spike and matrix spike duplicate analyses were shared with GPL work order 707175. All recoveries were within the QC limits.

A laboratory control sample was extracted and analyzed along with the batch. All recoveries were within the QC limits.

Manual integration was performed on some data files, when automatic integration provided by the software was inappropriate.

Metals

Sixteen soil samples were analyzed for HSL metals by CLP ILM05.3 methods.

A matrix spike, duplicate, and serial dilution were performed on sample GR-IS01-0-1-07C for all required ICP analytes. The matrix spike was outside of the control limits for antimony and lead; all associated data were flagged with an "N". A post digestion analytical spike was performed with recoveries within 10% of true values.

A matrix spike and duplicate were performed on sample GR-IS02-6-8-07C 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 with the exceptions of those mentioned above.

Subcontract Analysis

Eight soil samples were subcontracted for Perchlorate analysis by SW846 methos 6850.
See subcontractor case narrative for details of this analysis.

Reviewed By,

Project Manager

Approved By,

Laboratory Director

Sample Summary Report

CH2M Hill Inc

Work Order: 707172

Client Sample ID	Lab Sample ID	Analytical Method	Matrix	Date Sampled	Date Recieved
HOLDING BLANK	707172-018-067-1/2	CLP_OLM04.3_VOA	WATER	07/27/2007	07/27/2007
HOLDING BLANKRE	707172-018-068-2/2RE	CLP_OLM04.3_VOA	WATER	07/27/2007	07/27/2007
TRIP BLANK	707172-017-065-1/2	CLP_OLM04.3_VOA	WATER	07/26/2007	07/27/2007
TRIP BLANKRE	707172-017-066-2/2RE	CLP_OLM04.3_VOA	WATER	07/26/2007	07/27/2007
25-IS01-0-1-07C	707172-009-025-1/3	CLP_OLM04.3_VOA	SOIL	07/26/2007	07/27/2007
	707172-009-049-1/1	CLP_OLM04.3_BNA			
	707172-009-049-1/1	CLP_OLM04.3_PEST			
	707172-009-057-1/1	CLP_ILM05.3			
	707172-009-057-1/1	CLP_ILM05.3HG			
	707172-009-057-1/1	CLP_SOLIDS			
25-IS01-0-1-07CRE	707172-009-026-2/3RE	CLP_OLM04.3_VOA	SOIL	07/26/2007	07/27/2007
25-IS01-4-6-07C	707172-010-028-1/3	CLP_OLM04.3_VOA	SOIL	07/26/2007	07/27/2007
	707172-010-050-1/1	CLP_OLM04.3_BNA			
	707172-010-050-1/1	CLP_OLM04.3_PEST			
	707172-010-058-1/1	CLP_ILM05.3			
	707172-010-058-1/1	CLP_ILM05.3HG			
	707172-010-058-1/1	CLP_SOLIDS			
25-IS02-0-1-07C	707172-011-031-1/3	CLP_OLM04.3_VOA	SOIL	07/26/2007	07/27/2007
	707172-011-051-1/1	CLP_OLM04.3_BNA			
	707172-011-051-1/1	CLP_OLM04.3_PEST			
	707172-011-059-1/1	CLP_ILM05.3			
	707172-011-059-1/1	CLP_ILM05.3HG			
	707172-011-059-1/1	CLP_SOLIDS			
25-IS02-0-1-07CRE	707172-011-032-2/3RE	CLP_OLM04.3_VOA	SOIL	07/26/2007	07/27/2007
25-IS02-5-7-07C	707172-012-034-1/3	CLP_OLM04.3_VOA	SOIL	07/26/2007	07/27/2007
	707172-012-052-1/1	CLP_OLM04.3_BNA			
	707172-012-052-1/1	CLP_OLM04.3_PEST			
	707172-012-060-1/1	CLP_ILM05.3			
	707172-012-060-1/1	CLP_ILM05.3HG			
	707172-012-060-1/1	CLP_SOLIDS			
25-IS02-5-7-07CRE	707172-012-035-2/3RE	CLP_OLM04.3_VOA	SOIL	07/26/2007	07/27/2007

GPL Laboratories, LLLP

Sample Summary Report

CH2M Hill Inc

Work Order: 707172

Client Sample ID	Lab Sample ID	Analytical Method	Matrix	Date Sampled	Date Recieved
25-IS03-0-1-07C	707172-013-037-1/3	CLP_OLM04.3_VOA	SOIL	07/26/2007	07/27/2007
	707172-013-053-1/1	CLP_OLM04.3_BNA			
	707172-013-053-1/1	CLP_OLM04.3_PEST			
	707172-013-061-1/1	CLP_ILM05.3			
	707172-013-061-1/1	CLP_ILM05.3HG			
	707172-013-061-1/1	CLP_SOLIDS			
25-IS03-8-10-07C	707172-014-040-1/3	CLP_OLM04.3_VOA	SOIL	07/26/2007	07/27/2007
	707172-014-054-1/1	CLP_OLM04.3_BNA			
	707172-014-054-1/1	CLP_OLM04.3_PEST			
	707172-014-062-1/1	CLP_ILM05.3			
	707172-014-062-1/1	CLP_ILM05.3HG			
	707172-014-062-1/1	CLP_SOLIDS			
25-IS03-8-10-07CRE	707172-014-041-2/3RE	CLP_OLM04.3_VOA	SOIL	07/26/2007	07/27/2007
25-IS04-0-1-07C	707172-015-043-1/3	CLP_OLM04.3_VOA	SOIL	07/26/2007	07/27/2007
	707172-015-055-1/1	CLP_OLM04.3_BNA			
	707172-015-055-1/1	CLP_OLM04.3_PEST			
	707172-015-063-1/1	CLP_ILM05.3			
	707172-015-063-1/1	CLP_ILM05.3HG			
	707172-015-063-1/1	CLP_SOLIDS			
25-IS04-0-1-07CRE	707172-015-044-2/3RE	CLP_OLM04.3_VOA	SOIL	07/26/2007	07/27/2007
25-IS04-10-12-07C	707172-016-046-1/3	CLP_OLM04.3_VOA	SOIL	07/26/2007	07/27/2007
	707172-016-056-1/1	CLP_OLM04.3_BNA			
	707172-016-056-1/1	CLP_OLM04.3_PEST			
	707172-016-064-1/1	CLP_ILM05.3			
	707172-016-064-1/1	CLP_ILM05.3HG			
	707172-016-064-1/1	CLP_SOLIDS			
25-IS04-10-12-07CRE	707172-016-047-2/3RE	CLP_OLM04.3_VOA	SOIL	07/26/2007	07/27/2007
GR-IS01-0-1-07C	707172-001-001-1/1	SW8330	SOIL	07/26/2007	07/27/2007
	707172-001-009-1/1	CLP_ILM05.3			
	707172-001-009-1/1	CLP_ILM05.3HG			
	707172-001-009-1/1	CLP_SOLIDS			
GR-IS01-4-6-07C	707172-002-002-1/1	SW8330	SOIL	07/26/2007	07/27/2007

Sample Summary Report

CH2M Hill Inc

Work Order: 707172

Client Sample ID	Lab Sample ID	Analytical Method	Matrix	Date Sampled	Date Recieved
	707172-002-010-1/1	CLP_ILM05.3			
	707172-002-010-1/1	CLP_ILM05.3HG			
	707172-002-010-1/1	CLP_SOLIDS			
GR-IS02-0-1-07C	707172-003-003-1/1	SW8330	SOIL	07/26/2007	07/27/2007
	707172-003-011-1/1	CLP_ILM05.3			
	707172-003-011-1/1	CLP_ILM05.3HG			
	707172-003-011-1/1	CLP_SOLIDS			
GR-IS02-6-8-07C	707172-004-004-1/1	SW8330	SOIL	07/26/2007	07/27/2007
	707172-004-012-1/1	CLP_ILM05.3			
	707172-004-012-1/1	CLP_ILM05.3HG			
	707172-004-012-1/1	CLP_SOLIDS			
GR-IS03-0-1-07C	707172-005-005-1/1	SW8330	SOIL	07/26/2007	07/27/2007
	707172-005-013-1/1	CLP_ILM05.3			
	707172-005-013-1/1	CLP_ILM05.3HG			
	707172-005-013-1/1	CLP_SOLIDS			
GR-IS03-4-6-07C	707172-006-006-1/1	SW8330	SOIL	07/26/2007	07/27/2007
	707172-006-014-1/1	CLP_ILM05.3			
	707172-006-014-1/1	CLP_ILM05.3HG			
	707172-006-014-1/1	CLP_SOLIDS			
GR-IS04-0-1-07C	707172-007-007-1/1	SW8330	SOIL	07/26/2007	07/27/2007
	707172-007-015-1/1	CLP_ILM05.3			
	707172-007-015-1/1	CLP_ILM05.3HG			
	707172-007-015-1/1	CLP_SOLIDS			
GR-IS04-4-6-07C	707172-008-008-1/1	SW8330	SOIL	07/26/2007	07/27/2007
	707172-008-016-1/1	CLP_ILM05.3			
	707172-008-016-1/1	CLP_ILM05.3HG			
	707172-008-016-1/1	CLP_SOLIDS			

Qualifier Definitions

CH2M Hill Inc

Work Order: 707172

All Departments

U	Indicates that the compound was analyzed for but not detected
BQL	Below Quantitation Limit

Organics

B	Indicates that the analyte was found in the associated blank as well as in the sample
D	Indicates that the analyte was reported from a diluted analysis
E	Indicates that the concentration detected exceeded the calibration range of the instrument
J	Value is less than the reporting limit but greater than the MDL
P	Indicates that there is greater than 25% difference for detected pesticide/Arochlor results between the two GC columns

Metals

J	Indicates that the reported value was less than the reporting limit but greater than or equal to the IDL/MDL
E	Indicates that the reported value is estimated because of the possible presence of interference (i.e. the serial dilution not within control limits)
H	Indicates that the element was found in the associated blank as well as in the sample and the value is greater than or equal to the reporting limit
D	Indicates that the analyte was reported from a diluted analysis
N	Spiked sample recovery not within control limits
*	Duplicate analysis not within control limits

GPL LABORATORIES

Client: CH2M HILL
SDG: 707172
Sample ID: 25-IS01-0-1-07C

Retention Time	CAS Number	Alkane Compound	Est. Conc. (ug/KG)
10.46		Alkane Type 4	130

*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

Client: CH2M HILL
SDG: 707172
Sample ID: 25-IS01-4-6-07C

Retention Time	CAS Number	Alkane Compound	Est. Conc. (ug/KG)
10.46		Alkane Type 4	140

*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

Client: CH2M HILL
SDG: 707172
Sample ID: 25-IS02-0-1-07C

Retention Time	CAS Number	Alkane Compound	Est. Conc. (ug/KG)
10.46		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

Client: CH2M HILL
SDG: 707172
Sample ID: 25-IS02-5-7-07C

Retention Time	CAS Number	Alkane Compound	Est. Conc. (ug/KG)
10.45		Alkane Type 4	130

*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

Client: CH2M HILL
SDG: 707172
Sample ID: 25-IS03-8-10-07C

Retention Time	CAS Number	Alkane Compound	Est. Conc. (ug/KG)
10.45		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

Client: CH2M HILL
SDG: 707172
Sample ID: 25-IS04-10-12-07C

Retention Time	CAS Number	Alkane Compound	Est. Conc. (ug/KG)
10.45		Alkane Type 4	170

*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

QC SUMMARY PACKAGE

GPL Laboratories

VOLATILE ORGANICS

GPL Laboratories

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

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

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-009-025-1/3
Sample Volume :	4.71	Lab File ID :	F46678.D
Level :	Low	Date Received	07/27/2007
% Moisture: not dec	7.25	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	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	10	J
591-78-6	2-Hexanone	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
67-64-1	Acetone	210	
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
25-IS01-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-009-025-1/3
Sample Volume :	4.71	Lab File ID :	F46678.D
Level :	Low	Date Received	07/27/2007
% Moisture: not dec	7.25	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	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.
25-IS01-0-1-07C

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707172

Matrix (soil/water): SOIL Lab Sample ID: 707172-009-025-1/3

Sample wt/vol: 4.71 (g/ml) g Lab File ID: F46678.D

Level (low/med): LOW Date Recieved 07/27/2007

% Moisture: 7.25 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	000075-12-7	Formamide	4.86	3.29	JN
2		unknown	16.1	6.19	J

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

for QA/QC

SAMPLE NO
25-IS01-0-1-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-009-026-2/3RE
Sample Volume :	4.59	Lab File ID :	F46715.D
Level :	Low	Date Received	07/27/2007
% Moisture: not dec	7.25	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	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	64	
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
25-IS01-0-1-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-009-026-2/3RE
Sample Volume :	4.59	Lab File ID :	F46715.D
Level :	Low	Date Received	07/27/2007
% Moisture: not dec	7.25	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	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.
25-IS01-0-1-07CRE

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707172

Matrix (soil/water): SOIL Lab Sample ID: 707172-009-026-2/3RE

Sample wt/vol: 4.59 (g/ml) g Lab File ID: F46715.D

Level (low/med): LOW Date Recieved 07/27/2007

% Moisture: 7.25 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	000066-25-1	Hexanal	17.51	3.22	JN

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
25-IS01-4-6-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-010-028-1/3
Sample Volume :	5.3	Lab File ID :	F46679.D
Level :	Low	Date Received	07/27/2007
% Moisture: not dec	9.89	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	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	
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
25-IS01-4-6-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-010-028-1/3
Sample Volume :	5.3	Lab File ID :	F46679.D
Level :	Low	Date Received	07/27/2007
% Moisture: not dec	9.89	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	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	18	
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.
25-IS01-4-6-07C

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707172

Matrix (soil/water): SOIL Lab Sample ID: 707172-010-028-1/3

Sample wt/vol: 5.3 (g/ml) g Lab File ID: F46679.D

Level (low/med): LOW Date Recieved 07/27/2007

% Moisture: 9.89 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
25-IS02-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-011-031-1/3
Sample Volume :	5.33	Lab File ID :	F46680.D
Level :	Low	Date Received	07/27/2007
% Moisture: not dec	18.16	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)

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	8.0	J
591-78-6	2-Hexanone	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
67-64-1	Acetone	160	
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
25-IS02-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-011-031-1/3
Sample Volume :	5.33	Lab File ID :	F46680.D
Level :	Low	Date Received	07/27/2007
% Moisture: not dec	18.16	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)

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	30	
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.
25-IS02-0-1-07C

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707172

Matrix (soil/water): SOIL Lab Sample ID: 707172-011-031-1/3

Sample wt/vol: 5.33 (g/ml) g Lab File ID: F46680.D

Level (low/med): LOW Date Recieved 07/27/2007

% Moisture: 18.16 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: 2 Concentration Units (ug/L or ug/kg): ug/kg

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q
1	000074-98-6	Propane	4.54	13	JN
2		unknown	20.27	4.090	J

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

for 24/QC

SAMPLE NO
25-IS02-0-1-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-011-032-2/3RE
Sample Volume :	5.31	Lab File ID :	F46716.D
Level :	Low	Date Received	07/27/2007
% Moisture: not dec	18.16	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	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	47	
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
25-IS02-0-1-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-011-032-2/3RE
Sample Volume :	5.31	Lab File ID :	F46716.D
Level :	Low	Date Received	07/27/2007
% Moisture: not dec	18.16	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	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.
25-IS02-0-1-07CRE

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707172

Matrix (soil/water): SOIL Lab Sample ID: 707172-011-032-2/3RE

Sample wt/vol: 5.31 (g/ml) g Lab File ID: F46716.D

Level (low/med): LOW Date Recieved 07/27/2007

% Moisture: 18.16 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: 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
25-IS02-5-7-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-012-034-1/3
Sample Volume :	5.59	Lab File ID :	F46687.D
Level :	Low	Date Received	07/27/2007
% Moisture: not dec	17.26	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	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	25	
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
25-IS02-5-7-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-012-034-1/3
Sample Volume :	5.59	Lab File ID :	F46687.D
Level :	Low	Date Received	07/27/2007
% Moisture: not dec	17.26	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	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	17	
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.
25-IS02-5-7-07C

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707172

Matrix (soil/water): SOIL Lab Sample ID: 707172-012-034-1/3

Sample wt/vol: 5.59 (g/ml) g Lab File ID: F46687.D

Level (low/med): LOW Date Recieved 07/27/2007

% Moisture: 17.26 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 1
ANALYSIS DATA SHEET

for QAPC

SAMPLE NO
25-IS02-5-7-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-012-035-2/3RE
Sample Volume :	5.2	Lab File ID :	F46717.D
Level :	Low	Date Received	07/27/2007
% Moisture: not dec	17.26	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	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 1
ANALYSIS DATA SHEET

SAMPLE NO
25-IS02-5-7-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-012-035-2/3RE
Sample Volume :	5.2	Lab File ID :	F46717.D
Level :	Low	Date Received	07/27/2007
% Moisture: not dec	17.26	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	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	19	
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.
25-IS02-5-7-07CRE

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707172

Matrix (soil/water): SOIL Lab Sample ID: 707172-012-035-2/3RE

Sample wt/vol: 5.2 (g/ml) g Lab File ID: F46717.D

Level (low/med): LOW Date Recieved 07/27/2007

% Moisture: 17.26 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: 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
25-IS03-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-013-037-1/3
Sample Volume :	5.7	Lab File ID :	F46688.D
Level :	Low	Date Received	07/27/2007
% Moisture: not dec	9.05	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	9.6	U
79-34-5	1,1,2,2-Tetrachloroethane	9.6	U
79-00-5	1,1,2-Trichloroethane	9.6	U
75-34-3	1,1-Dichloroethane	9.6	U
75-35-4	1,1-Dichloroethene	9.6	U
120-82-1	1,2,4-Trichlorobenzene	9.6	U
96-12-8	1,2-Dibromo-3-Chloropropane	9.6	U
95-50-1	1,2-Dichlorobenzene	9.6	U
107-06-2	1,2-Dichloroethane	9.6	U
78-87-5	1,2-Dichloropropane	9.6	U
541-73-1	1,3-Dichlorobenzene	9.6	U
106-46-7	1,4-Dichlorobenzene	9.6	U
78-93-3	2-Butanone	5.0	J
591-78-6	2-Hexanone	9.6	U
108-10-1	4-Methyl-2-Pentanone	9.6	U
67-64-1	Acetone	44	
71-43-2	Benzene	9.6	U
75-27-4	Bromodichloromethane	9.6	U
75-25-2	Bromoform	9.6	U
74-83-9	Bromomethane	4.5	J
75-15-0	Carbon Disulfide	9.6	U
56-23-5	Carbon Tetrachloride	9.6	U
108-90-7	Chlorobenzene	9.6	U
75-00-3	Chloroethane	9.6	U
67-66-3	Chloroform	9.6	U
74-87-3	Chloromethane	9.6	U
110-82-7	Cyclohexane	9.6	U
124-48-1	Dibromochloromethane	9.6	U
75-71-8	Dichlorodifluoromethane	9.6	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
25-IS03-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-013-037-1/3
Sample Volume :	5.7	Lab File ID :	F46688.D
Level :	Low	Date Received	07/27/2007
% Moisture: not dec	9.05	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	9.6	U
106-93-4	Ethylene Dibromide	9.6	U
76-13-1	Freon 113	9.6	U
98-82-8	Isopropylbenzene	9.6	U
79-20-9	Methyl Acetate	9.6	U
108-87-2	Methylcyclohexane	9.6	U
75-09-2	Methylene Chloride	16	
100-42-5	Styrene	9.6	U
127-18-4	Tetrachloroethylene	9.6	U
108-88-3	Toluene	9.6	U
79-01-6	Trichloroethene	9.6	U
75-69-4	Trichlorofluoromethane	9.6	U
75-01-4	Vinyl Chloride	9.6	U
1330-20-7	Xylenes, Total	9.6	U
156-59-2	cis-1,2-Dichloroethene	9.6	U
10061-01-5	cis-1,3-Dichloropropene	9.6	U
1634-04-4	tert-butyl methyl ether	9.6	U
156-60-5	trans-1,2-dichloroethene	9.6	U
10061-02-6	trans-1,3-dichloropropene	9.6	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
25-IS03-0-1-07C

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707172

Matrix (soil/water): SOIL Lab Sample ID: 707172-013-037-1/3

Sample wt/vol: 5.7 (g/ml) g Lab File ID: F46688.D

Level (low/med): LOW Date Recieved 07/27/2007

% Moisture: 9.05 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: 1 Concentration Units (ug/L or ug/kg): ug/kg

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q
1	000066-25-1	Hexanal	17.49	7.61	JN

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
25-IS03-8-10-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-014-040-1/3
Sample Volume :	5.99	Lab File ID :	F46689.D
Level :	Low	Date Received	07/27/2007
% Moisture: not dec	21.49	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	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	14	
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
25-IS03-8-10-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-014-040-1/3
Sample Volume :	5.99	Lab File ID :	F46689.D
Level :	Low	Date Received	07/27/2007
% Moisture: not dec	21.49	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	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	20	
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.
25-IS03-8-10-07C

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707172

Matrix (soil/water): SOIL Lab Sample ID: 707172-014-040-1/3

Sample wt/vol: 5.99 (g/ml) g Lab File ID: F46689.D

Level (low/med): LOW Date Recieved 07/27/2007

% Moisture: 21.49 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: ~~1~~ 0 Concentration Units (ug/L or ug/kg): ug/kg

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q
~~1~~	~~000556-67-2~~	~~Cyclotetrasiloxane,~~	~~20.26~~	~~8.090~~	~~JN~~

ZT 08/13/07

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

for QA/QC

SAMPLE NO
25-IS03-8-10-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-014-041-2/3RE
Sample Volume :	5.93	Lab File ID :	F46718.D
Level :	Low	Date Received	07/27/2007
% Moisture: not dec	21.49	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	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	13	U
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
25-IS03-8-10-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-014-041-2/3RE
Sample Volume :	5.93	Lab File ID :	F46718.D
Level :	Low	Date Received	07/27/2007
% Moisture: not dec	21.49	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	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	13	
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.
25-IS03-8-10-07CRE

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707172

Matrix (soil/water): SOIL Lab Sample ID: 707172-014-041-2/3RE

Sample wt/vol: 5.93 (g/ml) g Lab File ID: F46718.D

Level (low/med): LOW Date Recieved 07/27/2007

% Moisture: 21.49 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: 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
25-IS04-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-015-043-1/3
Sample Volume :	5.15	Lab File ID :	F46690.D
Level :	Low	Date Received	07/27/2007
% Moisture: not dec	10.3	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	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	93	
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
25-IS04-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-015-043-1/3
Sample Volume :	5.15	Lab File ID :	F46690.D
Level :	Low	Date Received	07/27/2007
% Moisture: not dec	10.3	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	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.
25-IS04-0-1-07C

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707172

Matrix (soil/water): SOIL Lab Sample ID: 707172-015-043-1/3

Sample wt/vol: 5.15 (g/ml) g Lab File ID: F46690.D

Level (low/med): LOW Date Recieved 07/27/2007

% Moisture: 10.3 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 1
ANALYSIS DATA SHEET

for QA/QC

SAMPLE NO
25-IS04-0-1-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-015-044-2/3RE
Sample Volume :	5.09	Lab File ID :	F46719.D
Level :	Low	Date Received	07/27/2007
% Moisture: not dec	10.3	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	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	220	
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
25-IS04-0-1-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-015-044-2/3RE
Sample Volume :	5.09	Lab File ID :	F46719.D
Level :	Low	Date Received	07/27/2007
% Moisture: not dec	10.3	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	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	13	
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.
25-IS04-0-1-07CRE

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707172

Matrix (soil/water): SOIL Lab Sample ID: 707172-015-044-2/3RE

Sample wt/vol: 5.09 (g/ml) g Lab File ID: F46719.D

Level (low/med): LOW Date Recieved 07/27/2007

% Moisture: 10.3 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: 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
25-IS04-10-12-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-016-046-1/3
Sample Volume :	5.47	Lab File ID :	F46691.D
Level :	Low	Date Received	07/27/2007
% Moisture: not dec	22.05	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	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	19	
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
25-IS04-10-12-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-016-046-1/3
Sample Volume :	5.47	Lab File ID :	F46691.D
Level :	Low	Date Received	07/27/2007
% Moisture: not dec	22.05	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	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	28	
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

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
25-IS04-10-12-07C

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707172

Matrix (soil/water): SOIL Lab Sample ID: 707172-016-046-1/3

Sample wt/vol: 5.47 (g/ml) g Lab File ID: F46691.D

Level (low/med): LOW Date Recieved 07/27/2007

% Moisture: 22.05 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 1
ANALYSIS DATA SHEET

for QA/QC

SAMPLE NO
25-IS04-10-12-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-016-047-2/3RE
Sample Volume :	5.43	Lab File ID :	F46720.D
Level :	Low	Date Received	07/27/2007
% Moisture: not dec	22.05	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	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	13	U
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
25-IS04-10-12-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-016-047-2/3RE
Sample Volume :	5.43	Lab File ID :	F46720.D
Level :	Low	Date Received	07/27/2007
% Moisture: not dec	22.05	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	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	21	
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.
25-IS04-10-12-07CRE

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707172

Matrix (soil/water): SOIL Lab Sample ID: 707172-016-047-2/3RE

Sample wt/vol: 5.43 (g/ml) g Lab File ID: F46720.D

Level (low/med): LOW Date Recieved 07/27/2007

% Moisture: 22.05 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: 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 BLANK

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707172-017-065-1/2
Sample Volume :	5	Lab File ID :	F46692.D
Level :	Low	Date Received	07/27/2007
% 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)

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. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707172-017-065-1/2
Sample Volume :	5	Lab File ID :	F46692.D
Level :	Low	Date Received	07/27/2007
% 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)

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.: 707172

Matrix (soil/water): WATER Lab Sample ID: 707172-017-065-1/2

Sample wt/vol: 5 (g/ml) ml Lab File ID: F46692.D

Level (low/med): LOW Date Recieved 07/27/2007

% Moisture: 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: 1 Concentration Units (ug/L or ug/kg): ug/L

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q
1		unknown	8.73	5.00	J

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

for QA/QC

SAMPLE NO
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Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707172-017-066-2/2RE
Sample Volume :	5	Lab File ID :	F46721.D
Level :	Low	Date Received	07/27/2007
% 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)

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 BLANKRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707172-017-066-2/2RE
Sample Volume :	5	Lab File ID :	F46721.D
Level :	Low	Date Received	07/27/2007
% 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)

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 BLANKRE

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707172

Matrix (soil/water): WATER Lab Sample ID: 707172-017-066-2/2RE

Sample wt/vol: 5 (g/ml) ml Lab File ID: F46721.D

Level (low/med): LOW Date Recieved 07/27/2007

% 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: 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
HOLDING BLANK

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707172-018-067-1/2
Sample Volume :	5	Lab File ID :	F46693.D
Level :	Low	Date Received	07/27/2007
% 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)

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. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707172-018-067-1/2
Sample Volume :	5	Lab File ID :	F46693.D
Level :	Low	Date Received	07/27/2007
% 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)

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 BLANK

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707172

Matrix (soil/water): WATER Lab Sample ID: 707172-018-067-1/2

Sample wt/vol: 5 (g/ml) ml Lab File ID: F46693.D

Level (low/med): LOW Date Recieved 07/27/2007

% Moisture: 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: 1 Concentration Units (ug/L or ug/kg): ug/L

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q
1		unknown	8.73	5.30	J

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. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707172-018-068-2/2RE
Sample Volume :	5	Lab File ID :	F46754.D
Level :	Low	Date Received	07/27/2007
% 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
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

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707172-018-068-2/2RE
Sample Volume :	5	Lab File ID :	F46754.D
Level :	Low	Date Received	07/27/2007
% 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.: 707172

Matrix (soil/water): WATER Lab Sample ID: 707172-018-068-2/2RE

Sample wt/vol: 5 (g/ml) ml Lab File ID: F46754.D

Level (low/med): LOW Date Recieved 07/27/2007

% 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: 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
BLK99461

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BLK99461
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
BLK99461

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BLK99461
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.
BLK99461

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707172

Matrix (soil/water): SOIL Lab Sample ID: BLK99461

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 1
ANALYSIS DATA SHEET

SAMPLE NO
BLK99511

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BLK99511
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 1
ANALYSIS DATA SHEET

SAMPLE NO
BLK99511

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BLK99511
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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
BLK99511

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707172

Matrix (soil/water): SOIL Lab Sample ID: BLK99511

Sample wt/vol: 5 (g/ml) g Lab File ID: F46684.D

Level (low/med): LOW Date Recieved

% Moisture: 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: 1 Concentration Units (ug/L or ug/kg): ug/kg

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q
1		unknown	8.73	4.28	J

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BLK99512

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BLK99512
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
BLK99512

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BLK99512
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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
BLK99512

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707172

Matrix (soil/water): WATER Lab Sample ID: BLK99512

Sample wt/vol: 5 (g/ml) ml Lab File ID: F46684.D

Level (low/med): LOW Date Recieved

% Moisture: 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 1
ANALYSIS DATA SHEET

SAMPLE NO
BLK99604

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BLK99604
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
BLK99604

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BLK99604
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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
BLK99604

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707172

Matrix (soil/water): SOIL Lab Sample ID: BLK99604

Sample wt/vol: 5 (g/ml) g Lab File ID: F46706.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: 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
BLK99607

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BLK99607
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
BLK99607

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BLK99607
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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
BLK99607

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707172

Matrix (soil/water): WATER Lab Sample ID: BLK99607

Sample wt/vol: 5 (g/ml) ml Lab File ID: F46706.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: 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
BLK99608

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BLK99608
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
BLK99608

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BLK99608
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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
BLK99608

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707172

Matrix (soil/water): WATER Lab Sample ID: BLK99608

Sample wt/vol: 5 (g/ml) ml Lab File ID: F46747.D

Level (low/med): LOW Date Recieved

% 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: 1 Concentration Units (ug/L or ug/kg): ug/L

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q
1	003789-85-3	Benzoic acid, 2-	23.52	9.81	JN

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BKS99461

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BKS99461
Sample Volume :	5	Lab File ID :	F46665.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	53	
79-34-5	1,1,2,2-Tetrachloroethane	59	
79-00-5	1,1,2-Trichloroethane	53	
75-34-3	1,1-Dichloroethane	54	
75-35-4	1,1-Dichloroethene	52	
120-82-1	1,2,4-Trichlorobenzene	52	
96-12-8	1,2-Dibromo-3-Chloropropane	55	
95-50-1	1,2-Dichlorobenzene	52	
107-06-2	1,2-Dichloroethane	54	
78-87-5	1,2-Dichloropropane	53	
541-73-1	1,3-Dichlorobenzene	51	
106-46-7	1,4-Dichlorobenzene	52	
78-93-3	2-Butanone	49	
591-78-6	2-Hexanone	58	
108-10-1	4-Methyl-2-Pentanone	57	
67-64-1	Acetone	37	
71-43-2	Benzene	52	
75-27-4	Bromodichloromethane	52	
75-25-2	Bromoform	54	
74-83-9	Bromomethane	52	
75-15-0	Carbon Disulfide	52	
56-23-5	Carbon Tetrachloride	51	
108-90-7	Chlorobenzene	53	
75-00-3	Chloroethane	51	
67-66-3	Chloroform	53	
74-87-3	Chloromethane	45	
110-82-7	Cyclohexane	53	
124-48-1	Dibromochloromethane	51	
75-71-8	Dichlorodifluoromethane	51	

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BKS99461

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BKS99461
Sample Volume :	5	Lab File ID :	F46665.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	53	
106-93-4	Ethylene Dibromide	54	
76-13-1	Freon 113	52	
98-82-8	Isopropylbenzene	53	
79-20-9	Methyl Acetate	59	
108-87-2	Methylcyclohexane	52	
75-09-2	Methylene Chloride	54	
100-42-5	Styrene	53	
127-18-4	Tetrachloroethylene	52	
108-88-3	Toluene	57	
79-01-6	Trichloroethene	49	
75-69-4	Trichlorofluoromethane	52	
75-01-4	Vinyl Chloride	77	
1330-20-7	Xylenes, Total	160	
156-59-2	cis-1,2-Dichloroethene	52	
10061-01-5	cis-1,3-Dichloropropene	54	
1634-04-4	tert-butyl methyl ether	63	
156-60-5	trans-1,2-dichloroethene	52	
10061-02-6	trans-1,3-dichloropropene	52	

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BKS99511

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BKS99511
Sample Volume :	5	Lab File ID :	F46686.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	55	
79-34-5	1,1,2,2-Tetrachloroethane	52	
79-00-5	1,1,2-Trichloroethane	55	
75-34-3	1,1-Dichloroethane	50	
75-35-4	1,1-Dichloroethene	50	
120-82-1	1,2,4-Trichlorobenzene	53	
96-12-8	1,2-Dibromo-3-Chloropropane	58	
95-50-1	1,2-Dichlorobenzene	50	
107-06-2	1,2-Dichloroethane	49	
78-87-5	1,2-Dichloropropane	52	
541-73-1	1,3-Dichlorobenzene	48	
106-46-7	1,4-Dichlorobenzene	49	
78-93-3	2-Butanone	56	
591-78-6	2-Hexanone	55	
108-10-1	4-Methyl-2-Pentanone	58	
67-64-1	Acetone	60	
71-43-2	Benzene	53	
75-27-4	Bromodichloromethane	50	
75-25-2	Bromoform	56	
74-83-9	Bromomethane	25	
75-15-0	Carbon Disulfide	56	
56-23-5	Carbon Tetrachloride	49	
108-90-7	Chlorobenzene	51	
75-00-3	Chloroethane	31	
67-66-3	Chloroform	48	
74-87-3	Chloromethane	41	
110-82-7	Cyclohexane	51	
124-48-1	Dibromochloromethane	54	
75-71-8	Dichlorodifluoromethane	38	

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BKS99511

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BKS99511
Sample Volume :	5	Lab File ID :	F46686.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	50	
106-93-4	Ethylene Dibromide	58	
76-13-1	Freon 113	50	
98-82-8	Isopropylbenzene	50	
79-20-9	Methyl Acetate	54	
108-87-2	Methylcyclohexane	49	
75-09-2	Methylene Chloride	49	
100-42-5	Styrene	51	
127-18-4	Tetrachloroethylene	50	
108-88-3	Toluene	52	
79-01-6	Trichloroethene	53	
75-69-4	Trichlorofluoromethane	40	
75-01-4	Vinyl Chloride	45	
1330-20-7	Xylenes, Total	150	
156-59-2	cis-1,2-Dichloroethene	48	
10061-01-5	cis-1,3-Dichloropropene	50	
1634-04-4	tert-butyl methyl ether	220	E
156-60-5	trans-1,2-dichloroethene	48	
10061-02-6	trans-1,3-dichloropropene	50	

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BKS99512

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BKS99512
Sample Volume :	5	Lab File ID :	F46686.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	55	
79-34-5	1,1,2,2-Tetrachloroethane	52	
79-00-5	1,1,2-Trichloroethane	55	
75-34-3	1,1-Dichloroethane	50	
75-35-4	1,1-Dichloroethene	50	
120-82-1	1,2,4-Trichlorobenzene	53	
96-12-8	1,2-Dibromo-3-Chloropropane	58	
95-50-1	1,2-Dichlorobenzene	50	
107-06-2	1,2-Dichloroethane	49	
78-87-5	1,2-Dichloropropane	52	
541-73-1	1,3-Dichlorobenzene	48	
106-46-7	1,4-Dichlorobenzene	49	
78-93-3	2-Butanone	56	
591-78-6	2-Hexanone	55	
108-10-1	4-Methyl-2-Pentanone	58	
67-64-1	Acetone	60	
71-43-2	Benzene	53	
75-27-4	Bromodichloromethane	50	
75-25-2	Bromoform	56	
74-83-9	Bromomethane	25	
75-15-0	Carbon Disulfide	56	
56-23-5	Carbon Tetrachloride	49	
108-90-7	Chlorobenzene	51	
75-00-3	Chloroethane	31	
67-66-3	Chloroform	48	
74-87-3	Chloromethane	41	
110-82-7	Cyclohexane	51	
124-48-1	Dibromochloromethane	54	
75-71-8	Dichlorodifluoromethane	38	

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BKS99512

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BKS99512
Sample Volume :	5	Lab File ID :	F46686.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	50	
106-93-4	Ethylene Dibromide	58	
76-13-1	Freon 113	50	
98-82-8	Isopropylbenzene	50	
79-20-9	Methyl Acetate	54	
108-87-2	Methylcyclohexane	49	
75-09-2	Methylene Chloride	49	
100-42-5	Styrene	51	
127-18-4	Tetrachloroethylene	50	
108-88-3	Toluene	52	
79-01-6	Trichloroethene	53	
75-69-4	Trichlorofluoromethane	40	
75-01-4	Vinyl Chloride	45	
1330-20-7	Xylenes, Total	150	
156-59-2	cis-1,2-Dichloroethene	48	
10061-01-5	cis-1,3-Dichloropropene	50	
1634-04-4	tert-butyl methyl ether	220	E
156-60-5	trans-1,2-dichloroethene	48	
10061-02-6	trans-1,3-dichloropropene	50	

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BKS99604

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BKS99604
Sample Volume :	5	Lab File ID :	F46707.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	53	
79-34-5	1,1,2,2-Tetrachloroethane	55	
79-00-5	1,1,2-Trichloroethane	53	
75-34-3	1,1-Dichloroethane	52	
75-35-4	1,1-Dichloroethene	49	
120-82-1	1,2,4-Trichlorobenzene	48	
96-12-8	1,2-Dibromo-3-Chloropropane	54	
95-50-1	1,2-Dichlorobenzene	51	
107-06-2	1,2-Dichloroethane	50	
78-87-5	1,2-Dichloropropane	51	
541-73-1	1,3-Dichlorobenzene	52	
106-46-7	1,4-Dichlorobenzene	51	
78-93-3	2-Butanone	66	
591-78-6	2-Hexanone	70	
108-10-1	4-Methyl-2-Pentanone	56	
67-64-1	Acetone	73	
71-43-2	Benzene	50	
75-27-4	Bromodichloromethane	51	
75-25-2	Bromoform	54	
74-83-9	Bromomethane	52	
75-15-0	Carbon Disulfide	50	
56-23-5	Carbon Tetrachloride	51	
108-90-7	Chlorobenzene	51	
75-00-3	Chloroethane	47	
67-66-3	Chloroform	50	
74-87-3	Chloromethane	37	
110-82-7	Cyclohexane	51	
124-48-1	Dibromochloromethane	52	
75-71-8	Dichlorodifluoromethane	45	

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BKS99604

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BKS99604
Sample Volume :	5	Lab File ID :	F46707.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	51	
106-93-4	Ethylene Dibromide	54	
76-13-1	Freon 113	52	
98-82-8	Isopropylbenzene	50	
79-20-9	Methyl Acetate	56	
108-87-2	Methylcyclohexane	51	
75-09-2	Methylene Chloride	50	
100-42-5	Styrene	51	
127-18-4	Tetrachloroethylene	52	
108-88-3	Toluene	43	
79-01-6	Trichloroethene	50	
75-69-4	Trichlorofluoromethane	48	
75-01-4	Vinyl Chloride	39	
1330-20-7	Xylenes, Total	150	
156-59-2	cis-1,2-Dichloroethene	50	
10061-01-5	cis-1,3-Dichloropropene	51	
1634-04-4	tert-butyl methyl ether	120	
156-60-5	trans-1,2-dichloroethene	50	
10061-02-6	trans-1,3-dichloropropene	50	

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BKS99607

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BKS99607
Sample Volume :	5	Lab File ID :	F46707.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	53	
79-34-5	1,1,2,2-Tetrachloroethane	55	
79-00-5	1,1,2-Trichloroethane	53	
75-34-3	1,1-Dichloroethane	52	
75-35-4	1,1-Dichloroethene	49	
120-82-1	1,2,4-Trichlorobenzene	48	
96-12-8	1,2-Dibromo-3-Chloropropane	54	
95-50-1	1,2-Dichlorobenzene	51	
107-06-2	1,2-Dichloroethane	50	
78-87-5	1,2-Dichloropropane	51	
541-73-1	1,3-Dichlorobenzene	52	
106-46-7	1,4-Dichlorobenzene	51	
78-93-3	2-Butanone	66	
591-78-6	2-Hexanone	70	
108-10-1	4-Methyl-2-Pentanone	56	
67-64-1	Acetone	73	
71-43-2	Benzene	50	
75-27-4	Bromodichloromethane	51	
75-25-2	Bromoform	54	
74-83-9	Bromomethane	52	
75-15-0	Carbon Disulfide	50	
56-23-5	Carbon Tetrachloride	51	
108-90-7	Chlorobenzene	51	
75-00-3	Chloroethane	47	
67-66-3	Chloroform	50	
74-87-3	Chloromethane	37	
110-82-7	Cyclohexane	51	
124-48-1	Dibromochloromethane	52	
75-71-8	Dichlorodifluoromethane	45	

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BKS99607

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BKS99607
Sample Volume :	5	Lab File ID :	F46707.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	51	
106-93-4	Ethylene Dibromide	54	
76-13-1	Freon 113	52	
98-82-8	Isopropylbenzene	50	
79-20-9	Methyl Acetate	56	
108-87-2	Methylcyclohexane	51	
75-09-2	Methylene Chloride	50	
100-42-5	Styrene	51	
127-18-4	Tetrachloroethylene	52	
108-88-3	Toluene	43	
79-01-6	Trichloroethene	50	
75-69-4	Trichlorofluoromethane	48	
75-01-4	Vinyl Chloride	39	
1330-20-7	Xylenes, Total	150	
156-59-2	cis-1,2-Dichloroethene	50	
10061-01-5	cis-1,3-Dichloropropene	51	
1634-04-4	tert-butyl methyl ether	120	
156-60-5	trans-1,2-dichloroethene	50	
10061-02-6	trans-1,3-dichloropropene	50	

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BKS99608

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BKS99608
Sample Volume :	5	Lab File ID :	F46748.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	54	
79-34-5	1,1,2,2-Tetrachloroethane	57	
79-00-5	1,1,2-Trichloroethane	54	
75-34-3	1,1-Dichloroethane	53	
75-35-4	1,1-Dichloroethene	51	
120-82-1	1,2,4-Trichlorobenzene	63	
96-12-8	1,2-Dibromo-3-Chloropropane	57	
95-50-1	1,2-Dichlorobenzene	53	
107-06-2	1,2-Dichloroethane	51	
78-87-5	1,2-Dichloropropane	52	
541-73-1	1,3-Dichlorobenzene	55	
106-46-7	1,4-Dichlorobenzene	55	
78-93-3	2-Butanone	43	
591-78-6	2-Hexanone	53	
108-10-1	4-Methyl-2-Pentanone	56	
67-64-1	Acetone	29	
71-43-2	Benzene	53	
75-27-4	Bromodichloromethane	52	
75-25-2	Bromoform	57	
74-83-9	Bromomethane	25	
75-15-0	Carbon Disulfide	53	
56-23-5	Carbon Tetrachloride	52	
108-90-7	Chlorobenzene	53	
75-00-3	Chloroethane	31	
67-66-3	Chloroform	51	
74-87-3	Chloromethane	32	
110-82-7	Cyclohexane	53	
124-48-1	Dibromochloromethane	55	
75-71-8	Dichlorodifluoromethane	38	

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BKS99608

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BKS99608
Sample Volume :	5	Lab File ID :	F46748.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	53	
106-93-4	Ethylene Dibromide	56	
76-13-1	Freon 113	54	
98-82-8	Isopropylbenzene	54	
79-20-9	Methyl Acetate	53	
108-87-2	Methylcyclohexane	58	
75-09-2	Methylene Chloride	52	
100-42-5	Styrene	53	
127-18-4	Tetrachloroethylene	55	
108-88-3	Toluene	68	
79-01-6	Trichloroethene	53	
75-69-4	Trichlorofluoromethane	44	
75-01-4	Vinyl Chloride	40	
1330-20-7	Xylenes, Total	160	
156-59-2	cis-1,2-Dichloroethene	52	
10061-01-5	cis-1,3-Dichloropropene	54	
1634-04-4	tert-butyl methyl ether	300	E
156-60-5	trans-1,2-dichloroethene	52	
10061-02-6	trans-1,3-dichloropropene	52	

Surrogate Recovery Summary

Matrix : SOIL **Analytical Method : CLP_OLM04.3_VO/** **SDG No : 707172**

Surrogate	BR4FBZ	BZMED8	DCA12D4
Lower QC Limits	59	84	70
Upper QC Limits	113	138	121
Sample ID			
25-IS01-0-1-07C	92	96	155 *
25-IS01-4-6-07C	95	105	117
25-IS02-0-1-07C	110	175 *	165 *
BKS99461	94	93	97
BLK99461	102	106	113

* 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 : 707172

Surrogate	BR4FBZ	BZMED8	DCA12D4
Lower QC Limits	59	84	70
Upper QC Limits	113	138	121
Sample ID			
25-IS02-5-7-07C	0 *	111	101
25-IS03-0-1-07C	84	115	98
25-IS03-8-10-07C	126 *	134	140 *
25-IS04-0-1-07C	73	113	109
25-IS04-10-12-07C	103	123	124 *
BKS99511	108	110	105
BLK99511	99	106	107

* 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 : 707172**

Surrogate	BR4FBZ	BZMED8	DCA12D4
Lower QC Limits	**86**	**88**	**76**
Upper QC Limits	**115**	**110**	**114**
Sample ID			
BKS99512	108	110	105
BLK99512	99	106	107
HOLDING BLANK	104	111 *	120 *
TRIP BLANK	110	116 *	116 *

* 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 : 707172**

Surrogate	BR4FBZ	BZMED8	DCA12D4
Lower QC Limits	**86**	**88**	**76**
Upper QC Limits	**115**	**110**	**114**
Sample ID			
BKS99607	96	100	96
BLK99607	97	104	104
TRIP BLANKRE	92	99	99

* 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 : 707172**

Surrogate	BR4FBZ	BZMED8	DCA12D4
Lower QC Limits	86	88	76
Upper QC Limits	115	110	114
Sample ID			
BKS99608	90	94	93
BLK99608	101	109	106
HOLDING BLANKRE	106	116 *	126 *

* 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 : 707172**

Surrogate	BR4FBZ	BZMED8	DCA12D4
Lower QC Limits	59	84	70
Upper QC Limits	113	138	121
Sample ID			
25-IS01-0-1-07CRE	85	107	102
25-IS02-0-1-07CRE	81	107	99
25-IS02-5-7-07CRE	92	94	114
25-IS03-8-10-07CRE	84	79 *	124 *
25-IS04-0-1-07CRE	87	88	136 *
25-IS04-10-12-07CRE	88	106	106
BKS99604	96	100	96
BLK99604	97	104	104

* Value outside of QC Limts

BR4FBZ = 4-Bromofluorobenzene BZMED8 = Toluene-D8 DCA12D4 = 1,2-Dichloroethane-d4

GPL Laboratories

LCS SUMMARY

SAMPLE NO
BKS99461

Lab Name : GPL Laboratories
Contract. : MILCON Area Investigations - CTO-169
Lab Code : GPL
SDG NO : 707172
Matrix : SOIL
Lab Sample ID : BKS99461
Method : CLP_OLM04.3_VOA
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
BKS99511

Lab Name : GPL Laboratories
Contract. : MILCON Area Investigations - CTO-169
Lab Code : GPL
SDG NO : 707172
Matrix : SOIL
Lab Sample ID : BKS99511
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
BKS99512

Lab Name : GPL Laboratories
Contract. : MILCON Area Investigations - CTO-169
Lab Code : GPL
SDG NO : 707172
Matrix : WATER
Lab Sample ID : BKS99512
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
BKS99604

Lab Name : GPL Laboratories
Contract. : MILCON Area Investigations - CTO-169
Lab Code : GPL
SDG NO : 707172
Matrix : SOIL
Lab Sample ID : BKS99604
Method : CLP_OLM04.3_VOA
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
BKS99607

Lab Name : GPL Laboratories
Contract. : MILCON Area Investigations - CTO-169
Lab Code : GPL
SDG NO : 707172
Matrix : WATER
Lab Sample ID : BKS99607
Method : CLP_OLM04.3_VOA
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
BKS99608

Lab Name : GPL Laboratories
Contract. : MILCON Area Investigations - CTO-169
Lab Code : GPL
SDG NO : 707172
Matrix : WATER
Lab Sample ID : BKS99608
Method : CLP_OLM04.3_VOA
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
BLK99461

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Lab File ID :	F46664.D	SDG NO :	707172
Date Analyzed	08/01/2007	Lab Sample ID :	BLK99461
GC Column :	RTX_VOA ID. 0.25	Time Analyzed :	10:44

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES,MS AND MSD :

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
25-IS01-0-1-07C	707172-009-025-1/3	F46678.D	19:12
25-IS01-4-6-07C	707172-010-028-1/3	F46679.D	19:48
25-IS02-0-1-07C	707172-011-031-1/3	F46680.D	20:24
BKS99461	BKS99461	F46665.D	11:20

GPL Laboratories

GPL
FORM 4
VOLATILE METHOD BLANK SUMMARY

SAMPLE NO
BLK99511

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Lab File ID :	F46684.D	SDG NO :	707172
Date Analyzed	08/02/2007	Lab Sample ID :	BLK99511
GC Column :	RTX_VOA ID. 0.25	Time Analyzed :	10:20

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES,MS AND MSD :

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
25-IS02-5-7-07C	707172-012-034-1/3	F46687.D	12:09
25-IS03-0-1-07C	707172-013-037-1/3	F46688.D	12:49
25-IS03-8-10-07C	707172-014-040-1/3	F46689.D	13:25
25-IS04-0-1-07C	707172-015-043-1/3	F46690.D	14:02
25-IS04-10-12-07C	707172-016-046-1/3	F46691.D	14:38
BKS99511	BKS99511	F46686.D	11:33

GPL Laboratories

GPL
FORM 4
VOLATILE METHOD BLANK SUMMARY

SAMPLE NO
BLK99512

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Lab File ID :	F46684.D	SDG NO :	707172
Date Analyzed	08/02/2007	Lab Sample ID :	BLK99512
GC Column :	RTX_VOA ID. 0.25	Time Analyzed :	10:20

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES,MS AND MSD :

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
BKS99512	BKS99512	F46686.D	11:33
HOLDING BLANK	707172-018-067-1/2	F46693.D	15:51
TRIP BLANK	707172-017-065-1/2	F46692.D	15:14

GPL Laboratories

GPL
FORM 4
VOLATILE METHOD BLANK SUMMARY

SAMPLE NO
BLK99604

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Lab File ID :	F46706.D	SDG NO :	707172
Date Analyzed	08/03/2007	Lab Sample ID :	BLK99604
GC Column :	RTX_VOA ID. 0.25	Time Analyzed :	10:40

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES,MS AND MSD :

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
25-IS01-0-1-07CRE	707172-009-026-2/3RE	F46715.D	16:19
25-IS02-0-1-07CRE	707172-011-032-2/3RE	F46716.D	16:55
25-IS02-5-7-07CRE	707172-012-035-2/3RE	F46717.D	17:31
25-IS03-8-10-07CRE	707172-014-041-2/3RE	F46718.D	18:07
25-IS04-0-1-07CRE	707172-015-044-2/3RE	F46719.D	18:44
25-IS04-10-12-07CRE	707172-016-047-2/3RE	F46720.D	19:20
BKS99604	BKS99604	F46707.D	11:29

GPL Laboratories

GPL
FORM 4
VOLATILE METHOD BLANK SUMMARY

SAMPLE NO
BLK99607

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Lab File ID :	F46706.D	SDG NO :	707172
Date Analyzed	08/03/2007	Lab Sample ID :	BLK99607
GC Column :	RTX_VOA ID. 0.25	Time Analyzed :	10:40

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES,MS AND MSD :

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
BKS99607	BKS99607	F46707.D	11:29
TRIP BLANKRE	707172-017-066-2/2RE	F46721.D	19:56

GPL Laboratories

GPL
FORM 4
VOLATILE METHOD BLANK SUMMARY

SAMPLE NO
BLK99608

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707172
Lab File ID :	F46747.D	SDG NO :	707172
Date Analyzed	08/06/2007	Lab Sample ID :	BLK99608
GC Column :	RTX_VOA ID. 0.25	Time Analyzed :	12:06

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES,MS AND MSD :

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
BKS99608	BKS99608	F46748.D	12:52
HOLDING BLANKRE	707172-018-068-2/2RE	F46754.D	16:30

5A-8260

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: GPL LABORATORIES Contract: N/A

Lab Code: GPL Case No.: N/A SAS No.: N/A SDG No.: N/A

Lab File ID: F46626.D BFB Injection Date: 07/30/07

Instrument ID: HP#F BFB Injection Time: 16:38

GC Column: RTX_502.2 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.9
75	30.0 - 60.0% of mass 95	44.7
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.0
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	>50% of mass 95	77.5
175	5.0 - 9.0% of mass 174	5.6 (7.3)1
176	95.0 - 101.0% of mass 174	76.0 (98.0)1
177	5.0 - 9.0% of mass 176	5.2 (6.9)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	ICV050	ICV050	F46627.D	07/30/07	17:21
02	ICV010	ICV010	F46628.D	07/30/07	17:57
03	ICV200	ICV200	F46632.D	07/30/07	20:22
04	ICV020	ICV020	F46633.D	07/30/07	20:58
05	ICV100	ICV100	F46634.D	07/30/07	21:34
06	ICVREF	ICVREF	F46637.D	07/30/07	23:22
07	CCV050	CCV050	F46640.D	07/31/07	09:53
08	CCV050	CCV050	F46662.D	08/01/07	09:31
09	CCV050	CCV050	F46683.D	08/02/07	09:44
10	CCV050	CCV050	F46703.D	08/03/07	08:51
11	CCV050	CCV050	F46724.D	08/03/07	21:37
12	CCV050	CCV050	F46745.D	08/06/07	10:53

GPL
Form 5

'OLATILE INSTRUMENT PERFORMANCE CHECK BROMOFLUROBENZENE(BFE

Lab Name: GPL LABORATORIES Contract : CH2M Hill Inc

Lab Code: GPL Case No: N/A SAS No:N/A SDG No : 707172

Lab File ID: F46660.D BFB Injection Date : 08/01/2007 BFB Injection Time : 08:14

GC Column: RTX_VOA ID: 0.25

m/e	ION ABUNDANCE CRITERIA	%Relative Abundance	
50	8.0 - 40.0% of mass 95	17.5	
75	30.0 - 66.0%of mass 95	45.7	
95	Base peak, 100% relative abundance	100.0	
96	5.0 - 9.0% of mass 95	7.3	
173	Less than 2.0% of mass 174	0.0	(0.0)1
174	50.0 - 120.0% of mass 95	73.6	
175	4.0 - 9.0% of mass 174	5.4	(7.3)1
176	93.0 - 101.0% of mass 174	72.9	(99.0)1
177	5.0 - 9.0% of mass 176	5.1	(7.0)2

1-Value is % mass 174 2-Value is % mass 176

	Client Sample	Lab Sample NO	Lab File ID	Date Analyzed	Time Analyzed
1	CCV050-04	CCV050-04	F46662.D	08/01/2007	09:31
2	BLK99461	BLK99461	F46664.D	08/01/2007	10:44
3	BKS99461	BKS99461	F46665.D	08/01/2007	11:20
4	25-IS01-0-1-07C	707172-009-025-1/3	F46678.D	08/01/2007	19:12
5	25-IS01-4-6-07C	707172-010-028-1/3	F46679.D	08/01/2007	19:48
6	25-IS02-0-1-07C	707172-011-031-1/3	F46680.D	08/01/2007	20:24

GPL
Form 5

'OLATILE INSTRUMENT PERFORMANCE CHECK BROMOFLUROBENZENE(BFE

Lab Name: GPL LABORATORIES Contract : CH2M Hill Inc

Lab Code: GPL Case No: N/A SAS No:N/A SDG No : 707172

Lab File ID: F46681.D BFB Injection Date : 08/02/2007 BFB Injection Time : 08:18

GC Column: RTX_VOA ID: 0.25

m/e	ION ABUNDANCE CRITERIA	%Relative Abundance	
50	8.0 - 40.0% of mass 95	18.6	
75	30.0 - 66.0%of mass 95	45.9	
95	Base peak. 100% relative abundance	100.0	
96	5.0 - 9.0% of mass 95	7.3	
173	Less than 2.0% of mass 174	0.0	(0.0)1
174	50.0 - 120.0% of mass 95	71.3	
175	4.0 - 9.0% of mass 174	5.3	(7.4)1
176	93.0 - 101.0% of mass 174	69.7	(97.7)1
177	5.0 - 9.0% of mass 176	4.6	(6.6)2

1-Value is % mass 174 2-Value is % mass 176

	Client Sample	Lab Sample NO	Lab File ID	Date Analyzed	Time Analyzed
1	CCV050-02	CCV050-02	F46683.D	08/02/2007	09:44
2	BLK99511	BLK99511	F46684.D	08/02/2007	10:20
3	BKS99511	BKS99511	F46686.D	08/02/2007	11:33
4	25-IS02-5-7-07C	707172-012-034-1/3	F46687.D	08/02/2007	12:09
5	25-IS03-0-1-07C	707172-013-037-1/3	F46688.D	08/02/2007	12:49
6	25-IS03-8-10-07C	707172-014-040-1/3	F46689.D	08/02/2007	13:25
7	25-IS04-0-1-07C	707172-015-043-1/3	F46690.D	08/02/2007	14:02
8	25-IS04-10-12-07C	707172-016-046-1/3	F46691.D	08/02/2007	14:38

GPL
Form 5

'OLATILE INSTRUMENT PERFORMANCE CHECK BROMOFLUROBENZENE(BFE

Lab Name: GPL LABORATORIES Contract : CH2M Hill Inc

Lab Code: GPL Case No: N/A SAS No:N/A SDG No : 707172

Lab File ID: F46681.D BFB Injection Date : 08/02/2007 BFB Injection Time : 08:18

GC Column: RTX_VOA ID: 0.25

m/e	ION ABUNDANCE CRITERIA	%Relative Abundance	
50	8.0 - 40.0% of mass 95	18.6	
75	30.0 - 66.0%of mass 95	45.9	
95	Base oeak. 100% relative abundance	100.0	
96	5.0 - 9.0% of mass 95	7.3	
173	Less than 2.0% of mass 174	0.0	(0.0)1
174	50.0 - 120.0% of mass 95	71.3	
175	4.0 - 9.0% of mass 174	5.3	(7.4)1
176	93.0 - 101.0% of mass 174	69.7	(97.7)1
177	5.0 - 9.0% of mass 176	4.6	(6.6)2

1-Value is % mass 174 2-Value is % mass 176

	Client Sample	Lab Sample NO	Lab File ID	Date Analyzed	Time Analyzed
1	CCV050-02	CCV050-02	F46683.D	08/02/2007	09:44
2	BLK99512	BLK99512	F46684.D	08/02/2007	10:20
3	BKS99512	BKS99512	F46686.D	08/02/2007	11:33
4	TRIP BLANK	707172-017-065-1/2	F46692.D	08/02/2007	15:14
5	HOLDING BLANK	707172-018-067-1/2	F46693.D	08/02/2007	15:51

GPL
Form 5

VOLATILE INSTRUMENT PERFORMANCE CHECK BROMOFLUROBENZENE(BFE

Lab Name: GPL LABORATORIES Contract : CH2M Hill Inc

Lab Code: GPL Case No: N/A SAS No:N/A SDG No : 707172

Lab File ID: F46702.D BFB Injection Date : 08/03/2007 BFB Injection Time : 08:12

GC Column: RTX_VOA ID: 0.25

m/e	ION ABUNDANCE CRITERIA	%Relative Abundance	
50	8.0 - 40.0% of mass 95	17.6	
75	30.0 - 66.0%of mass 95	45.9	
95	Base peak. 100% relative abundance	100.0	
96	5.0 - 9.0% of mass 95	7.2	
173	Less than 2.0% of mass 174	0.0	(0.0)1
174	50.0 - 120.0% of mass 95	70.9	
175	4.0 - 9.0% of mass 174	5.2	(7.3)1
176	93.0 - 101.0% of mass 174	68.6	(96.8)1
177	5.0 - 9.0% of mass 176	5.0	(7.3)2

1-Value is % mass 174 2-Value is % mass 176

	Client Sample	Lab Sample NO	Lab File ID	Date Analyzed	Time Analyzed
1	CCV050-01	CCV050-01	F46703.D	08/03/2007	08:51
2	BLK99607	BLK99607	F46706.D	08/03/2007	10:40
3	BKS99607	BKS99607	F46707.D	08/03/2007	11:29
4	TRIP BLANKRE	707172-017-066-2/2RE	F46721.D	08/03/2007	19:56

GPL
Form 5

'OLATILE INSTRUMENT PERFORMANCE CHECK BROMOFLUROBENZENE(BFE

Lab Name: GPL LABORATORIES Contract : CH2M Hill Inc

Lab Code: GPL Case No: N/A SAS No:N/A SDG No : 707172

Lab File ID: F46743.D BFB Injection Date : 08/06/2007 BFB Injection Time : 09:37

GC Column: RTX_VOA ID: 0.25

m/e	ION ABUNDANCE CRITERIA	%Relative Abundance	
50	8.0 - 40.0% of mass 95	17.3	
75	30.0 - 66.0%of mass 95	44.9	
95	Base oeak. 100% relative abundance	100.0	
96	5.0 - 9.0% of mass 95	6.9	
173	Less than 2.0% of mass 174	0.4	(.5)1
174	50.0 - 120.0% of mass 95	70.7	
175	4.0 - 9.0% of mass 174	5.1	(7.2)1
176	93.0 - 101.0% of mass 174	68.9	(97.4)1
177	5.0 - 9.0% of mass 176	4.8	(7.0)2

1-Value is % mass 174 2-Value is % mass 176

	Client Sample	Lab Sample NO	Lab File ID	Date Analyzed	Time Analyzed
1	CCV050-02	CCV050-02	F46745.D	08/06/2007	10:53
2	BLK99608	BLK99608	F46747.D	08/06/2007	12:06
3	BKS99608	BKS99608	F46748.D	08/06/2007	12:52
4	HOLDING BLANKRE	707172-018-068-2/2RE	F46754.D	08/06/2007	16:30

GPL
Form 5

VOLATILE INSTRUMENT PERFORMANCE CHECK BROMOFLUROBENZENE(BFE

Lab Name: GPL LABORATORIES Contract : CH2M Hill Inc

Lab Code: GPL Case No: N/A SAS No:N/A SDG No : 707172

Lab File ID: F46702.D BFB Injection Date : 08/03/2007 BFB Injection Time : 08:12

GC Column: RTX_VOA ID: 0.25

m/e	ION ABUNDANCE CRITERIA	%Relative Abundance	
50	8.0 - 40.0% of mass 95	17.6	
75	30.0 - 66.0%of mass 95	45.9	
95	Base oeak. 100% relative abundance	100.0	
96	5.0 - 9.0% of mass 95	7.2	
173	Less than 2.0% of mass 174	0.0	(0.0)1
174	50.0 - 120.0% of mass 95	70.9	
175	4.0 - 9.0% of mass 174	5.2	(7.3)1
176	93.0 - 101.0% of mass 174	68.6	(96.8)1
177	5.0 - 9.0% of mass 176	5.0	(7.3)2

1-Value is % mass 174 2-Value is % mass 176

	Client Sample	Lab Sample NO	Lab File ID	Date Analyzed	Time Analyzed
1	CCV050-01	CCV050-01	F46703.D	08/03/2007	08:51
2	BLK99604	BLK99604	F46706.D	08/03/2007	10:40
3	BKS99604	BKS99604	F46707.D	08/03/2007	11:29
4	25-IS01-0-1-07CRE	707172-009-026-2/3RE	F46715.D	08/03/2007	16:19
5	25-IS02-0-1-07CRE	707172-011-032-2/3RE	F46716.D	08/03/2007	16:55
6	25-IS02-5-7-07CRE	707172-012-035-2/3RE	F46717.D	08/03/2007	17:31
7	25-IS03-8-10-07CRE	707172-014-041-2/3RE	F46718.D	08/03/2007	18:07
8	25-IS04-0-1-07CRE	707172-015-044-2/3RE	F46719.D	08/03/2007	18:44
9	25-IS04-10-12-07CRE	707172-016-047-2/3RE	F46720.D	08/03/2007	19:20

GPL
Form 8 1 of 1

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GPL LABORATORIES Contract : CH2M Hill Inc

Lab Code: GPL Case No: N/A SAS No:N/A SDG No : 707172

Lab File ID: F46662.D Date Analyzed: 08/01/2007 Time Analyzed: 09:31

	14DFBZ		BRCLME		CLBZD5	
	Area #	RT #	Area #	RT #	Area #	RT #
12 HOUR STD	622545	13.59	118733	11.89	536873	19.36
UPPER LIMIT	1245090	14.09	237466	12.39	1073746	19.86
LOWER LIMIT	311273	13.09	59367	11.39	268437	18.86
Client Sample						
25-IS01-0-1-07C	73620*	13.59	23243*	11.88	66952*	19.35
25-IS01-4-6-07C	438371	13.61	70023	11.88	355395	19.37
25-IS02-0-1-07C	243710*	13.59	40931*	11.89	151592*	19.36
BKS99461	601694	13.59	113389	11.88	515861	19.35
BLK99461	603972	13.59	99209	11.88	502220	19.35

14DFBZ = 1,4-Difluorobenzene
BRCLME = Bromochloromethane
CLBZD5 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard are
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +.50 minutes of internal standard RT
RT LOWER LIMIT = -.50 minutes of internal standard RT
Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

GPL
Form 8 1 of 1

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GPL LABORATORIES Contract : CH2M Hill Inc

Lab Code: GPL Case No: N/A SAS No:N/A SDG No : 707172

Lab File ID: F46683.D Date Analyzed: 08/02/2007 Time Analyzed: 09:44

	14DFBZ		BRCLME		CLBZD5	
	Area #	RT #	Area #	RT #	Area #	RT #
12 HOUR STD	656304	13.59	115331	11.88	570919	19.35
UPPER LIMIT	1312608	14.09	230662	12.38	1141838	19.85
LOWER LIMIT	328152	13.09	57666	11.38	285460	18.85
Client Sample						
25-IS02-5-7-07C	523120	13.57	85649	11.86	403118	19.35
25-IS03-0-1-07C	402823	13.57	81569	11.88	288849	19.35
25-IS03-8-10-07C	416112	13.59	65706	11.88	348380	19.35
25-IS04-0-1-07C	363032	13.59	63243	11.88	247852*	19.35
25-IS04-10-12-07C	371189	13.59	58858	11.89	307036	19.36
BKS99511	658232	13.57	120900	11.87	543293	19.36
BLK99511	626277	13.59	104740	11.88	527531	19.35

14DFBZ = 1,4-Difluorobenzene
BRCLME = Bromochloromethane
CLBZD5 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard are
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +.50 minutes of internal standard RT
RT LOWER LIMIT = -.50 minutes of internal standard RT
Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

GPL
Form 8 1 of 1

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GPL LABORATORIES Contract : CH2M Hill Inc

Lab Code: GPL Case No: N/A SAS No:N/A SDG No : 707172

Lab File ID: F46683.D Date Analyzed: 08/02/2007 Time Analyzed: 09:44

	14DFBZ		BRCLME		CLBZD5	
	Area #	RT #	Area #	RT #	Area #	RT #
12 HOUR STD	656304	13.59	115331	11.88	570919	19.35
UPPER LIMIT	1312608	14.09	230662	12.38	1141838	19.85
LOWER LIMIT	328152	13.09	57666	11.38	285460	18.85
Client Sample						
BKS99512	658232	13.57	120900	11.87	543293	19.36
BLK99512	626277	13.59	104740	11.88	527531	19.35
HOLDING BLANK	607397	13.59	92134	11.88	506810	19.35
TRIP BLANK	557309	13.59	94932	11.88	471821	19.35

14DFBZ = 1,4-Difluorobenzene
BRCLME = Bromochloromethane
CLBZD5 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard are
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +.50 minutes of internal standard RT
RT LOWER LIMIT = -.50 minutes of internal standard RT
Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

GPL
Form 8 1 of 1

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GPL LABORATORIES Contract : CH2M Hill Inc

Lab Code: GPL Case No: N/A SAS No:N/A SDG No : 707172

Lab File ID: F46703.D Date Analyzed: 08/03/2007 Time Analyzed: 08:51

	14DFBZ		BRCLME		CLBZD5	
	Area #	RT #	Area #	RT #	Area #	RT #
12 HOUR STD	593996	13.61	104709	11.88	503225	19.37
UPPER LIMIT	1187992	14.11	209418	12.38	1006450	19.87
LOWER LIMIT	296998	13.11	52355	11.38	251613	18.87
Client Sample						
25-IS01-0-1-07CRE	397340	13.61	72853	11.88	312609	19.37
25-IS02-0-1-07CRE	342839	13.61	66012	11.90	258673	19.37
25-IS02-5-7-07CRE	216622*	13.61	43691*	11.88	197328*	19.37
25-IS03-8-10-07CRE	16114*	13.61	6148*	11.89	19869*	19.39
25-IS04-0-1-07CRE	28139*	13.59	10517*	11.89	27247*	19.36
25-IS04-10-12-07CRE	334855	13.61	51878*	11.89	270081	19.38
BKS99604	615891	13.59	108406	11.88	522610	19.35
BLK99604	631209	13.59	106319	11.87	531773	19.36

14DFBZ = 1,4-Difluorobenzene
BRCLME = Bromochloromethane
CLBZD5 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard are
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +.50 minutes of internal standard RT
RT LOWER LIMIT = -.50 minutes of internal standard RT
Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GPL LABORATORIES Contract : CH2M Hill Inc

Lab Code: GPL Case No: N/A SAS No:N/A SDG No : 707172

Lab File ID: F46703.D Date Analyzed: 08/03/2007 Time Analyzed: 08:51

	14DFBZ		BRCLME		CLBZD5	
	Area #	RT #	Area #	RT #	Area #	RT #
12 HOUR STD	593996	13.61	104709	11.88	503225	19.37
UPPER LIMIT	1187992	14.11	209418	12.38	1006450	19.87
LOWER LIMIT	296998	13.11	52355	11.38	251613	18.87
Client Sample						
BKS99607	615891	13.59	108406	11.88	522610	19.35
BLK99607	631209	13.59	106319	11.87	531773	19.36
TRIP BLANKRE	482135	13.61	82785	11.90	405801	19.37

14DFBZ = 1,4-Difluorobenzene
BRCLME = Bromochloromethane
CLBZD5 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard are
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +.50 minutes of internal standard RT
RT LOWER LIMIT = -.50 minutes of internal standard RT
Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GPL LABORATORIES · Contract : CH2M Hill Inc

Lab Code: GPL Case No: N/A SAS No:N/A SDG No : 707172

Lab File ID: F46745.D Date Analyzed: 08/06/2007 Time Analyzed: 10:53

	14DFBZ		BRCLME		CLBZD5	
	Area #	RT #	Area #	RT #	Area #	RT #
12 HOUR STD	600158	13.60	106879	11.90	510452	19.37
UPPER LIMIT	1200316	14.10	213758	12.40	1020904	19.87
LOWER LIMIT	300079	13.10	53440	11.40	255226	18.87
Client Sample						
BKS99608	612131	13.59	110761	11.90	517646	19.37
BLK99608	559988	13.59	99616	11.89	465243	19.36
HOLDING BLANKRE	495258	13.61	76429	11.90	411761	19.37

14DFBZ = 1,4-Difluorobenzene
BRCLME = Bromochloromethane
CLBZD5 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard are
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +.50 minutes of internal standard RT
RT LOWER LIMIT = -.50 minutes of internal standard RT
Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: GPL LABORATORIES Contract: N/A

Lab Code: GPL Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: HP#F Calibration Date(s): 07/30/07 07/30/07

Heated Purge (Y/N): Y Calibration Times: 17:21 21:34

GC Column: RTX_502.2 ID: 0.25 (mm)

LAB FILE ID: RRF10 = F46628.D RRF20 = F46633.D

RRF50 = F46627.D RRF100 = F46634.D RRF200 = F46632.D

COMPOUND		RRF10	RRF20	RRF50	RRF100	RRF200	$\overline{RRF}$	% RSD	
Chloromethane		2.652	2.699	1.897	1.529	1.958	2.147	23.7	
Bromomethane	*	0.987	1.643	1.333	1.309	1.701	1.395	20.7	*
Vinyl Chloride	*	0.989	0.806	0.578	0.394	0.436	0.641	39.5	*
Chloroethane		1.308	1.521	1.153	1.018	1.259	1.252	15.0	
Methylene Chloride		2.230	2.284	1.919	1.737	2.046	2.043	11.0	
Acetone		1.287	1.050	0.969	0.782	0.886	0.995	19.2	
Carbon Disulfide		3.549	3.980	4.119	4.291	5.363	4.261	15.8	
1,1-Dichloroethene	*	1.696	1.619	1.626	1.457	1.744	1.628	6.7	*
1,1-Dichloroethane	*	2.795	3.211	3.091	3.032	3.616	3.149	9.6	*
Chloroform	*	3.880	3.881	3.576	3.253	3.912	3.700	7.7	*
1,2-Dichloroethane	*	3.018	3.174	2.768	2.557	3.057	2.915	8.5	*
2-Butanone		0.723	0.851	0.817	0.673	0.823	0.777	9.7	
1,1,1-Trichloroethane	*	0.250	0.275	0.277	0.235	0.288	0.265	8.3	*
Carbon Tetrachloride	*	0.308	0.385	0.427	0.387	0.485	0.398	16.2	*
Bromodichloromethane	*	0.329	0.394	0.427	0.400	0.503	0.411	15.3	*
1,2-Dichloropropane		0.292	0.329	0.295	0.281	0.337	0.307	8.0	
cis-1,3-Dichloropropene	*	0.298	0.378	0.421	0.394	0.504	0.399	18.8	*
Trichloroethene	*	0.369	0.376	0.370	0.324	0.379	0.363	6.1	*
Benzene	*	1.142	1.226	1.164	1.059	1.264	1.171	6.8	*
Dibromochloromethane	*	0.219	0.260	0.316	0.291	0.339	0.285	16.6	*
trans-1,3-Dichloropropene	*	0.344	0.435	0.468	0.439	0.544	0.446	16.1	*
1,1,2-Trichloroethane	*	0.250	0.275	0.277	0.235	0.288	0.265	8.3	*
Bromoform	*	0.119	0.132	0.190	0.183	0.151	0.155	20.0	*
4-Methyl-2-Pentanone		0.277	0.266	0.288	0.257	0.311	0.280	7.5	
2-Hexanone		0.230	0.021	0.256	0.218	0.265	0.198	50.9	
Tetrachloroethene	*	0.381	0.373	0.375	0.309	0.359	0.359	8.2	*
1,1,2,2-Tetrachloroethane	*	0.344	0.397	0.421	0.359	0.445	0.393	10.7	*
Toluene	*	0.873	0.909	0.859	0.753	0.887	0.856	7.1	*
Chlorobenzene	*	1.088	1.056	1.046	0.893	1.038	1.024	7.4	*
Ethylbenzene	*	0.489	0.507	0.503	0.431	0.502	0.486	6.6	*
Dichlorodifluoromethane		2.872	2.721	2.295	1.679	2.188	2.351	20.1	
Freon 113		2.448	2.377	2.136	1.947	2.334	2.248	9.1	
Styrene	*	0.896	0.971	1.009	0.897	1.059	0.966	7.3	*
Trichlorofluoromethane		3.752	3.918	3.222	2.538	3.219	3.330	16.3	
Xylene (total)	*	0.611	0.629	0.612	0.529	0.605	0.597	6.6	*
Trans-1,2-Dichloroethene		1.975	2.040	1.894	1.718	2.045	1.934	7.0	
MTBE		0.261	0.571	0.450	0.322	0.273	0.376	35.3	
Methyl Acetate		1.290	1.207	1.045	0.933	1.143	1.124	12.4	
Cis-1,2-Dichloroethene		2.074	2.144	1.951	1.771	2.086	2.005	7.4	

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: GPL LABORATORIES Contract: N/A

Lab Code: GPL Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: HP#F Calibration Date(s): 07/30/07 07/30/07

Heated Purge (Y/N): Y Calibration Times: 17:21 21:34

GC Column: RTX_502.2 ID: 0.25 (mm)

LAB FILE ID: RRF10 = F46628.D RRF20 = F46633.D

RRF50 = F46627.D RRF100 = F46634.D RRF200 = F46632.D

COMPOUND		RRF10	RRF20	RRF50	RRF100	RRF200	RRF	% RSD	
Cyclohexane		0.526	0.547	0.500	0.467	0.554	0.519	6.9	
Methylcyclohexane		0.516	0.540	0.508	0.459	0.554	0.516	7.1	
1,2-Dibromoethane		0.341	0.368	0.379	0.328	0.405	0.364	8.4	
Isopropylbenzene		1.615	1.674	1.694	1.446	1.696	1.625	6.5	
1,2-Dichlorobenzene	*	0.789	0.797	0.825	0.671	0.800	0.776	7.8	*
1,3-Dichlorobenzene	*	0.861	0.863	0.881	0.720	0.858	0.837	7.8	*
1,4-Dichlorobenzene	*	0.894	0.875	0.890	0.738	0.871	0.853	7.7	*
1,2-Dichloroethane-d4		2.091	3.323	2.887	2.350	2.724	2.675	17.9	
Toluene-d8		1.072	1.631	1.544	1.220	1.364	1.366	16.8	
4-Bromofluorobenzene	*	0.553	0.792	0.794	0.618	0.693	0.690	15.4	*

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GPL LABORATORIES Contract: N/A

Lab Code: GPL Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: HP#F Calibration Date: 08/02/07 Time: 09:44

Lab File ID: F46683.D Init. Calib. Date(s): 07/30/07 07/30/07

Heated Purge: (Y/N) Y Init. Calib. Times: 17:21 21:34

GC Column: RTX_502.2 ID: 0.25 (mm)

COMPOUND	RRF	RRF50	MIN RRF	% D	MAX % D
Chloromethane	2.147	1.651		23.1	
Bromomethane	1.395	1.400	0.100	-0.4	25.0
Vinyl Chloride	0.641	0.445	0.100	30.6	25.0
Chloroethane	1.252	1.192		4.8	
Methylene Chloride	2.043	2.085		-2.0	
Acetone	0.995	0.515		48.2	
Carbon Disulfide	4.261	2.671		37.3	
1,1-Dichloroethene	1.628	1.381	0.100	15.2	25.0
1,1-Dichloroethane	3.149	3.451	0.200	-9.6	25.0
Chloroform	3.700	3.883	0.200	-4.9	25.0
1,2-Dichloroethane	2.915	2.991	0.100	-2.6	25.0
2-Butanone	0.777	0.658		15.4	
1,1,1-Trichloroethane	0.265	0.273	0.100	-2.9	25.0
Carbon Tetrachloride	0.398	0.420	0.100	-5.3	25.0
Bromodichloromethane	0.411	0.429	0.200	-4.4	25.0
1,2-Dichloropropane	0.307	0.326		-6.3	
cis-1,3-Dichloropropene	0.399	0.429	0.200	-7.7	25.0
Trichloroethene	0.363	0.358	0.300	1.6	25.0
Benzene	1.171	1.189	0.500	-1.5	25.0
Dibromochloromethane	0.285	0.299	0.100	-4.8	25.0
trans-1,3-Dichloropropene	0.446	0.480	0.100	-7.6	25.0
1,1,2-Trichloroethane	0.265	0.273	0.100	-2.9	25.0
Bromoform	0.155	0.165	0.100	-6.6	25.0
4-Methyl-2-Pentanone	0.280	0.278		0.7	
2-Hexanone	0.198	0.207		-4.6	
Tetrachloroethene	0.359	0.343	0.200	4.6	25.0
1,1,2,2-Tetrachloroethane	0.393	0.413	0.300	-5.1	25.0
Toluene	0.856	0.861	0.400	-0.6	25.0
Chlorobenzene	1.024	1.039	0.500	-1.4	25.0
Ethylbenzene	0.486	0.490	0.100	-0.8	25.0
Dichlorodifluoromethane	2.351	2.018		14.1	
Freon 113	2.248	1.934		14.0	
Styrene	0.966	0.983	0.300	-1.7	25.0
Trichlorofluoromethane	3.330	3.186		4.3	
Xylene (total)	0.597	0.604	0.300	-1.2	25.0
Trans-1,2-Dichloroethene	1.934	1.874		3.1	
MTBE	0.376	0.654		-74.2	
Methyl Acetate	1.124	1.068		4.9	
Cis-1,2-Dichloroethene	2.005	2.063		-2.9	

All other compounds must meet a minimum RRF of 0.010.

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GPL LABORATORIES Contract: N/A

Lab Code: GPL Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: HP#F Calibration Date: 08/02/07 Time: 09:44

Lab File ID: F46683.D Init. Calib. Date(s): 07/30/07 07/30/07

Heated Purge: (Y/N) Y Init. Calib. Times: 17:21 21:34

GC Column: RTX_502.2 ID: 0.25 (mm)

COMPOUND	RRF	RRF50	MIN RRF	% D	MAX % D
Cyclohexane	0.519	0.485		6.5	
Methylcyclohexane	0.516	0.487		5.6	
1,2-Dibromoethane	0.364	0.363		0.2	
Isopropylbenzene	1.625	1.609		1.0	
1,2-Dichlorobenzene	0.776	0.760	0.400	2.1	25.0
1,3-Dichlorobenzene	0.837	0.816	0.600	2.5	25.0
1,4-Dichlorobenzene	0.853	0.826	0.500	3.2	25.0
1,2-Dichloroethane-d4	2.675	2.291		14.3	
Toluene-d8	1.366	1.124		17.7	
4-Bromofluorobenzene	0.690	0.578	0.200	16.3	25.0

All other compounds must meet a minimum RRF of 0.010.

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GPL LABORATORIES Contract: N/A

Lab Code: GPL Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: HP#F Calibration Date: 08/03/07 Time: 08:51

Lab File ID: F46703.D Init. Calib. Date(s): 07/30/07 07/30/07

Heated Purge: (Y/N) Y Init. Calib. Times: 17:21 21:34

GC Column: RTX_502.2 ID: 0.25 (mm)

COMPOUND	RRF	RRF50	MIN RRF	% D	MAX % D
Chloromethane	2.147	1.840		14.3	
Bromomethane	1.395	1.137	0.100	18.4	25.0
Vinyl Chloride	0.641	0.503	0.100	21.5	25.0
Chloroethane	1.252	1.143		8.7	
Methylene Chloride	2.043	2.149		-5.2	
Acetone	0.995	0.502		49.5	
Carbon Disulfide	4.261	2.209		48.2	
1,1-Dichloroethene	1.628	1.392	0.100	14.5	25.0
1,1-Dichloroethane	3.149	3.400	0.200	-8.0	25.0
Chloroform	3.700	4.130	0.200	-11.6	25.0
1,2-Dichloroethane	2.915	3.240	0.100	-11.2	25.0
2-Butanone	0.777	0.662		14.8	
1,1,1-Trichloroethane	0.265	0.296	0.100	-11.8	25.0
Carbon Tetrachloride	0.398	0.443	0.100	-11.2	25.0
Bromodichloromethane	0.411	0.448	0.200	-9.1	25.0
1,2-Dichloropropane	0.307	0.343		-11.7	
cis-1,3-Dichloropropene	0.399	0.436	0.200	-9.4	25.0
Trichloroethene	0.363	0.388	0.300	-6.8	25.0
Benzene	1.171	1.268	0.500	-8.3	25.0
Dibromochloromethane	0.285	0.321	0.100	-12.5	25.0
trans-1,3-Dichloropropene	0.446	0.498	0.100	-11.8	25.0
1,1,2-Trichloroethane	0.265	0.296	0.100	-11.8	25.0
Bromoform	0.155	0.177	0.100	-14.0	25.0
4-Methyl-2-Pentanone	0.280	0.312		-11.7	
2-Hexanone	0.198	0.195		1.6	
Tetrachloroethene	0.359	0.382	0.200	-6.4	25.0
1,1,2,2-Tetrachloroethane	0.393	0.464	0.300	-17.9	25.0
Toluene	0.856	1.098	0.400	-28.3	25.0
Chlorobenzene	1.024	1.134	0.500	-10.7	25.0
Ethylbenzene	0.486	0.537	0.100	-10.4	25.0
Dichlorodifluoromethane	2.351	2.127		9.5	
Freon 113	2.248	1.963		12.7	
Styrene	0.966	1.088	0.300	-12.6	25.0
Trichlorofluoromethane	3.330	3.153		5.3	
Xylene (total)	0.597	0.655	0.300	-9.6	25.0
Trans-1,2-Dichloroethene	1.934	1.978		-2.2	
MTBE	0.376	0.279		25.7	
Methyl Acetate	1.124	1.149		-2.3	
Cis-1,2-Dichloroethene	2.005	2.178		-8.6	

All other compounds must meet a minimum RRF of 0.010.

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GPL LABORATORIES Contract: N/A

Lab Code: GPL Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: HP#F Calibration Date: 08/03/07 Time: 08:51

Lab File ID: F46703.D Init. Calib. Date(s): 07/30/07 07/30/07

Heated Purge: (Y/N) Y Init. Calib. Times: 17:21 21:34

GC Column: RTX_502.2 ID: 0.25 (mm)

COMPOUND	RRF	RRF50	MIN RRF	% D	MAX % D
Cyclohexane	0.519	0.495		4.5	
Methylcyclohexane	0.516	0.526		-2.1	
1,2-Dibromoethane	0.364	0.406		-11.4	
Isopropylbenzene	1.625	1.802		-10.9	
1,2-Dichlorobenzene	0.776	0.839	0.400	-8.1	25.0
1,3-Dichlorobenzene	0.837	0.896	0.600	-7.1	25.0
1,4-Dichlorobenzene	0.853	0.923	0.500	-8.1	25.0
1,2-Dichloroethane-d4	2.675	2.486		7.1	
Toluene-d8	1.366	1.218		10.8	
4-Bromofluorobenzene	0.690	0.653	0.200	5.5	25.0

All other compounds must meet a minimum RRF of 0.010.

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GPL LABORATORIES Contract: N/A

Lab Code: GPL Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: HP#F Calibration Date: 08/01/07 Time: 09:31

Lab File ID: F46662.D Init. Calib. Date(s): 07/30/07 07/30/07

Heated Purge: (Y/N) Y Init. Calib. Times: 17:21 21:34

GC Column: RTX_502.2 ID: 0.25 (mm)

COMPOUND	RRF	RRF50	MIN RRF	% D	MAX % D
Chloromethane	2.147	1.887		12.1	
Bromomethane	1.395	1.202	0.100	13.8	25.0
Vinyl Chloride	0.641	0.321	0.100	49.9	25.0
Chloroethane	1.252	1.101		12.0	
Methylene Chloride	2.043	1.991		2.5	
Acetone	0.995	0.588		40.9	
Carbon Disulfide	4.261	3.669		13.9	
1,1-Dichloroethene	1.628	1.534	0.100	5.8	25.0
1,1-Dichloroethane	3.149	3.178	0.200	-0.9	25.0
Chloroform	3.700	3.751	0.200	-1.4	25.0
1,2-Dichloroethane	2.915	2.923	0.100	-0.3	25.0
2-Butanone	0.777	0.662		14.9	
1,1,1-Trichloroethane	0.265	0.295	0.100	-11.2	25.0
Carbon Tetrachloride	0.398	0.456	0.100	-14.5	25.0
Bromodichloromethane	0.411	0.441	0.200	-7.4	25.0
1,2-Dichloropropane	0.307	0.336		-9.3	
cis-1,3-Dichloropropene	0.399	0.395	0.200	1.0	25.0
Trichloroethene	0.363	0.406	0.300	-11.7	25.0
Benzene	1.171	1.257	0.500	-7.3	25.0
Dibromochloromethane	0.285	0.334	0.100	-17.3	25.0
trans-1,3-Dichloropropene	0.446	0.456	0.100	-2.3	25.0
1,1,2-Trichloroethane	0.265	0.295	0.100	-11.2	25.0
Bromoform	0.155	0.183	0.100	-18.1	25.0
4-Methyl-2-Pentanone	0.280	0.287		-2.5	
2-Hexanone	0.198	0.201		-1.3	
Tetrachloroethene	0.359	0.377	0.200	-5.0	25.0
1,1,2,2-Tetrachloroethane	0.393	0.415	0.300	-5.5	25.0
Toluene	0.856	0.912	0.400	-6.6	25.0
Chlorobenzene	1.024	1.100	0.500	-7.4	25.0
Ethylbenzene	0.486	0.525	0.100	-8.0	25.0
Dichlorodifluoromethane	2.351	1.979		15.8	
Freon 113	2.248	2.188		2.7	
Styrene	0.966	1.039	0.300	-7.5	25.0
Trichlorofluoromethane	3.330	2.961		11.1	
Xylene (total)	0.597	0.630	0.300	-5.6	25.0
Trans-1,2-Dichloroethene	1.934	1.932		0.1	
MTBE	0.376	0.365		2.9	
Methyl Acetate	1.124	1.054		6.2	
Cis-1,2-Dichloroethene	2.005	2.030		-1.3	

All other compounds must meet a minimum RRF of 0.010.

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GPL LABORATORIES Contract: N/A

Lab Code: GPL Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: HP#F Calibration Date: 08/01/07 Time: 09:31

Lab File ID: F46662.D Init. Calib. Date(s): 07/30/07 07/30/07

Heated Purge: (Y/N) Y Init. Calib. Times: 17:21 21:34

GC Column: RTX_502.2 ID: 0.25 (mm)

COMPOUND	RRF	RRF50	MIN RRF	% D	MAX % D
Cyclohexane	0.519	0.537		-3.5	
Methylcyclohexane	0.516	0.552		-7.1	
1,2-Dibromoethane	0.364	0.404		-10.9	
Isopropylbenzene	1.625	1.709		-5.2	
1,2-Dichlorobenzene	0.776	0.817	0.400	-5.3	25.0
1,3-Dichlorobenzene	0.837	0.875	0.600	-4.6	25.0
1,4-Dichlorobenzene	0.853	0.886	0.500	-3.8	25.0
1,2-Dichloroethane-d4	2.675	2.282		14.7	
Toluene-d8	1.366	1.163		14.9	
4-Bromofluorobenzene	0.690	0.576	0.200	16.6	25.0

All other compounds must meet a minimum RRF of 0.010.

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GPL LABORATORIES Contract: N/A

Lab Code: GPL Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: HP#F Calibration Date: 08/06/07 Time: 10:53

Lab File ID: F46745.D Init. Calib. Date(s): 07/30/07 07/30/07

Heated Purge: (Y/N) Y Init. Calib. Times: 17:21 21:34

GC Column: RTX_502.2 ID: 0.25 (mm)

COMPOUND	RRF	RRF50	MIN RRF	% D	MAX % D
Chloromethane	2.147	1.587		26.1	
Bromomethane	1.395	1.002	0.100	28.1	25.0
Vinyl Chloride	0.641	0.419	0.100	34.6	25.0
Chloroethane	1.252	0.996		20.5	
Methylene Chloride	2.043	2.243		-9.8	
Acetone	0.995	0.809		18.6	
Carbon Disulfide	4.261	2.023		52.5	
1,1-Dichloroethene	1.628	1.244	0.100	23.6	25.0
1,1-Dichloroethane	3.149	3.305	0.200	-5.0	25.0
Chloroform	3.700	3.910	0.200	-5.7	25.0
1,2-Dichloroethane	2.915	3.043	0.100	-4.4	25.0
2-Butanone	0.777	0.832		-7.0	
1,1,1-Trichloroethane	0.265	0.284	0.100	-7.0	25.0
Carbon Tetrachloride	0.398	0.406	0.100	-2.0	25.0
Bromodichloromethane	0.411	0.425	0.200	-3.6	25.0
1,2-Dichloropropane	0.307	0.335		-9.1	
cis-1,3-Dichloropropene	0.399	0.425	0.200	-6.6	25.0
Trichloroethene	0.363	0.349	0.300	3.9	25.0
Benzene	1.171	1.192	0.500	-1.8	25.0
Dibromochloromethane	0.285	0.296	0.100	-3.9	25.0
trans-1,3-Dichloropropene	0.446	0.472	0.100	-5.8	25.0
1,1,2-Trichloroethane	0.265	0.284	0.100	-7.0	25.0
Bromoform	0.155	0.168	0.100	-8.7	25.0
4-Methyl-2-Pentanone	0.280	0.308		-10.0	
2-Hexanone	0.198	0.229		-15.6	
Tetrachloroethene	0.359	0.328	0.200	8.7	25.0
1,1,2,2-Tetrachloroethane	0.393	0.450	0.300	-14.4	25.0
Toluene	0.856	0.890	0.400	-3.9	25.0
Chlorobenzene	1.024	1.058	0.500	-3.3	25.0
Ethylbenzene	0.486	0.501	0.100	-3.0	25.0
Dichlorodifluoromethane	2.351	1.713		27.1	
Freon 113	2.248	1.747		22.3	
Styrene	0.966	1.009	0.300	-4.4	25.0
Trichlorofluoromethane	3.330	2.738		17.8	
Xylene (total)	0.597	0.615	0.300	-3.0	25.0
Trans-1,2-Dichloroethene	1.934	1.801		6.9	
MTBE	0.376	0.411		-9.3	
Methyl Acetate	1.124	1.183		-5.3	
Cis-1,2-Dichloroethene	2.005	2.014		-0.5	

All other compounds must meet a minimum RRF of 0.010.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GPL LABORATORIES Contract: N/A

Lab Code: GPL Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: HP#F Calibration Date: 08/06/07 Time: 10:53

Lab File ID: F46745.D Init. Calib. Date(s): 07/30/07 07/30/07

Heated Purge: (Y/N) Y Init. Calib. Times: 17:21 21:34

GC Column: RTX_502.2 ID: 0.25 (mm)

COMPOUND	RRF	RRF50	MIN RRF	% D	MAX % D
Cyclohexane	0.519	0.448		13.6	
Methylcyclohexane	0.516	0.429		16.9	
1,2-Dibromoethane	0.364	0.389		-6.9	
Isopropylbenzene	1.625	1.623		0.1	
1,2-Dichlorobenzene	0.776	0.781	0.400	-0.6	25.0
1,3-Dichlorobenzene	0.837	0.805	0.600	3.8	25.0
1,4-Dichlorobenzene	0.853	0.817	0.500	4.2	25.0
1,2-Dichloroethane-d4	2.675	2.241		16.2	
Toluene-d8	1.366	1.110		18.7	
4-Bromofluorobenzene	0.690	0.596	0.200	13.7	25.0

All other compounds must meet a minimum RRF of 0.010.

SEMIVOLATILE ORGANICS

GPL Laboratories

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

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

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-009-049-1/1
Sample Volume :	30	Lab File ID :	D43480.D
% Moisture:	7.25	Date Received	07/27/2007
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:		

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
25-IS01-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-009-049-1/1
Sample Volume :	30	Lab File ID :	D43480.D
% Moisture:	7.25	Date Received	07/27/2007
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:		

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
25-IS01-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-009-049-1/1
Sample Volume :	30	Lab File ID :	D43480.D
% Moisture:	7.25	Date Received	07/27/2007
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:		

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	65	JB
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

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
25-IS01-0-1-07C

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707172

Matrix (soil/water): SOIL Lab Sample ID: 707172-009-049-1/1

Sample wt/vol: 30 (g/ml) g Lab File ID: D43480.D

Level (low/med): LOW Date Recieved 07/27/2007

% Moisture: 7.25 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: 17 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	110	JN
2	000301-02-0	9-Octadecenamide, (Z)-	22.3	88	JN
3	000640-61-9	Benzenesulfonamide,	18.87	80	JN
4	001235-74-1	1-	22.48	93	JN
5	004291-79-6	Cyclohexane, 1-methyl-	10.54	110	JN
6	074663-85-7	Cyclopropane, nonyl-	16.72	570	JN
7	1000131-11-8	Z-5-Nonadecene	22.82	200	JN
8		unknown	10.03	300	J
9		unknown	10.23	380	J
10		unknown	10.38	150	J
11		unknown	20	800	J
12		unknown	21.27	160	J
13		unknown	24.04	76	J
14		unknown	30.91	120	J
15		unknown	33.76	160	J
16		unknown	36.4	510	J
17		unknown	36.83	710	J

GPL LABORATORIES

Client: CH2M HILL
SDG: 707172
Sample ID: 25-IS01-0-1-07C

Retention Time	CAS Number	Alkane Compound	Est. Conc. (ug/KG)
10.46		Alkane Type 4	130

*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
25-IS01-4-6-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-010-050-1/1
Sample Volume :	30.02	Lab File ID :	D43481.D
% Moisture:	9.89	Date Received	07/27/2007
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:		

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
25-IS01-4-6-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-010-050-1/1
Sample Volume :	30.02	Lab File ID :	D43481.D
% Moisture:	9.89	Date Received	07/27/2007
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:		

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
25-IS01-4-6-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-010-050-1/1
Sample Volume :	30.02	Lab File ID :	D43481.D
% Moisture:	9.89	Date Received	07/27/2007
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:		

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	53	JB
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

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
25-IS01-4-6-07C

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707172

Matrix (soil/water): SOIL Lab Sample ID: 707172-010-050-1/1

Sample wt/vol: 30.02 (g/ml) g Lab File ID: D43481.D

Level (low/med): LOW Date Recieved 07/27/2007

% Moisture: 9.89 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	001599-67-3	1-Docosene	22.81	110	JN
2	004291-79-6	Cyclohexane, 1-methyl-	10.53	110	JN
3		unknown	10.02	170	J
4		unknown	10.24	520	J
5		unknown	22.29	210	J
6		unknown	23.43	280	J
7		unknown	24.33	290	J

GPL LABORATORIES

Client: CH2M HILL
SDG: 707172
Sample ID: 25-IS01-4-6-07C

Retention Time	CAS Number	Alkane Compound	Est. Conc. (ug/KG)
10.46		Alkane Type 4	140

*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
25-IS02-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-011-051-1/1
Sample Volume :	30	Lab File ID :	D43494.D
% Moisture:	18.16	Date Received	07/27/2007
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:		

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
25-IS02-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-011-051-1/1
Sample Volume :	30	Lab File ID :	D43494.D
% Moisture:	18.16	Date Received	07/27/2007
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:		

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	64	J
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
25-IS02-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-011-051-1/1
Sample Volume :	30	Lab File ID :	D43494.D
% Moisture:	18.16	Date Received	07/27/2007
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:		

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	76	J
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

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
25-IS02-0-1-07C

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707172

Matrix (soil/water): SOIL Lab Sample ID: 707172-011-051-1/1

Sample wt/vol: 30 (g/ml) g Lab File ID: D43494.D

Level (low/med): LOW Date Recieved 07/27/2007

% Moisture: 18.16 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	20.36	140	JN
2	000118-65-0	Bicyclo[7.2.0]undec-4-	16.58	180	JN
3	000122-69-0	Cinnamyl cinnamate	22.73	170	JN
4	000661-19-8	1-Docosanol	22.83	150	JN
5	002156-97-0	Dodecyl acrylate	18.69	130	JN
6	004291-79-6	Cyclohexane, 1-methyl-	10.52	100	JN
7	006330-67-2	2-Propenoic acid, 3-	21.88	130	JN
8		unknown	10.02	260	J
9		unknown	10.23	590	J
10		unknown	16.71	770	J
11		unknown	21.27	150	J
12		unknown	22.3	90	J

GPL LABORATORIES

Client: CH2M HILL
SDG: 707172
Sample ID: 25-IS02-0-1-07C

Retention Time	CAS Number	Alkane Compound	Est. Conc. (ug/KG)
10.46		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
25-IS02-5-7-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-012-052-1/1
Sample Volume :	30.01	Lab File ID :	D43495.D
% Moisture:	17.26	Date Received	07/27/2007
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:		

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
25-IS02-5-7-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-012-052-1/1
Sample Volume :	30.01	Lab File ID :	D43495.D
% Moisture:	17.26	Date Received	07/27/2007
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
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
25-IS02-5-7-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-012-052-1/1
Sample Volume :	30.01	Lab File ID :	D43495.D
% Moisture:	17.26	Date Received	07/27/2007
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:		

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	80	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

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
25-IS02-5-7-07C

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707172

Matrix (soil/water): SOIL Lab Sample ID: 707172-012-052-1/1

Sample wt/vol: 30.01 (g/ml) g Lab File ID: D43495.D

Level (low/med): LOW Date Recieved 07/27/2007

% Moisture: 17.26 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: 8 Concentration Units (ug/L or ug/kg): ug/kg

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q
1	000123-95-5	Octadecanoic acid,	22.26	81	JN
2	004291-79-6	Cyclohexane, 1-methyl-	10.53	100	JN
3	031158-91-5	Hexadecanoic acid, 1,1-	21.4	130	JN
4	074663-85-7	Cyclopropane, nonyl-	16.71	760	JN
5	074685-30-6	5-Eicosene, (E)-	22.82	140	JN
6		unknown	10.01	260	J
7		unknown	10.23	390	J
8		unknown	19.99	440	J

GPL LABORATORIES

Client: CH2M HILL
SDG: 707172
Sample ID: 25-IS02-5-7-07C

Retention Time	CAS Number	Alkane Compound	Est. Conc. (ug/KG)
10.45		Alkane Type 4	130

*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
25-IS03-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-013-053-1/1
Sample Volume :	30.02	Lab File ID :	D43487.D
% Moisture:	9.05	Date Received	07/27/2007
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:		

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
25-IS03-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-013-053-1/1
Sample Volume :	30.02	Lab File ID :	D43487.D
% Moisture:	9.05	Date Received	07/27/2007
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:		

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
25-IS03-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-013-053-1/1
Sample Volume :	30.02	Lab File ID :	D43487.D
% Moisture:	9.05	Date Received	07/27/2007
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:		

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	61	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

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
25-IS03-0-1-07C

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707172

Matrix (soil/water): SOIL Lab Sample ID: 707172-013-053-1/1

Sample wt/vol: 30.02 (g/ml) g Lab File ID: D43487.D

Level (low/med): LOW Date Recieved 07/27/2007

% Moisture: 9.05 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: 4 Concentration Units (ug/L or ug/kg): ug/kg

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q
1	000111-06-8	Hexadecanoic acid,	21.41	140	JN
2	000111-77-3	Ethanol, 2-(2-	10.24	4400	JN
3		unknown	10.01	180	J
4		unknown	10.45	160	J

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
25-IS03-8-10-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-014-054-1/1
Sample Volume :	30	Lab File ID :	D43488.D
% Moisture:	21.49	Date Received	07/27/2007
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:		

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

CAS NO	COMPOUND		Q
92-52-4	1,1- Biphenyl	430	U
108-60-1	2,2-Oxybis(1-chloropropane)	430	U
95-95-4	2,4,5-Trichlorophenol	1100	U
88-06-2	2,4,6-Trichlorophenol	430	U
120-83-2	2,4-Dichlorophenol	430	U
105-67-9	2,4-Dimethylphenol	430	U
51-28-5	2,4-Dinitrophenol	1100	U
121-14-2	2,4-Dinitrotoluene	430	U
606-20-2	2,6-Dinitrotoluene	430	U
532-27-4	2-Chloroacetophenone - CN	430	U
2698-41-1	2-Chlorobenzalmalononitrile	430	U
91-58-7	2-Chloronaphthalene	430	U
95-57-8	2-Chlorophenol	430	U
91-57-6	2-Methylnaphthalene	430	U
88-74-4	2-Nitroaniline	1100	U
88-75-5	2-Nitrophenol	430	U
95-48-7	2-methylphenol	430	U
91-94-1	3,3-Dichlorobenzidine	430	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	430	U
106-47-8	4-Chloroaniline	430	U
7005-72-3	4-Chlorophenyl Phenyl Ether	430	U
100-01-6	4-Nitroaniline	1100	U
100-02-7	4-Nitrophenol	1100	U
59-50-7	4-chloro-3-methylphenol	430	U
106-44-5	4-methylphenol	430	U
83-32-9	Acenaphthene	430	U
208-96-8	Acenaphthylene	430	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
25-IS03-8-10-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-014-054-1/1
Sample Volume :	30	Lab File ID :	D43488.D
% Moisture:	21.49	Date Received	07/27/2007
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
98-86-2	Acetophenone	430	U
120-12-7	Anthracene	430	U
1912-24-9	Atrazine	430	U
100-52-7	Benzaldehyde	430	U
56-55-3	Benzo(a)anthracene	430	U
50-32-8	Benzo(a)pyrene	430	U
205-99-2	Benzo(b)fluoranthene	430	U
191-24-2	Benzo(g,h,i)perylene	430	U
207-08-9	Benzo(k)fluoranthene	430	U
85-68-7	Benzyl Butyl Phthalate	430	U
105-60-2	Caprolactam	430	U
86-74-8	Carbazole	430	U
218-01-9	Chrysene	430	U
53-70-3	Dibenz(a,h)Anthracene	430	U
132-64-9	Dibenzofuran	430	U
84-66-2	Diethyl Phthalate	430	U
131-11-3	Dimethyl Phthalate	430	U
206-44-0	Fluoranthene	430	U
86-73-7	Fluorene	430	U
118-74-1	Hexachlorobenzene	430	U
87-68-3	Hexachlorobutadiene	430	U
77-47-4	Hexachlorocyclopentadiene	430	U
67-72-1	Hexachloroethane	430	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	430	U
78-59-1	Isophorone	430	U
91-20-3	Naphthalene	430	U
98-95-3	Nitrobenzene	430	U
87-86-5	Pentachlorophenol	1100	U
85-01-8	Phenanthrene	430	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
25-IS03-8-10-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-014-054-1/1
Sample Volume :	30	Lab File ID :	D43488.D
% Moisture:	21.49	Date Received	07/27/2007
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	430	U
129-00-0	Pyrene	430	U
111-91-1	bis(2-chloroethoxy) methane	430	U
111-44-4	bis(2-chloroethyl) ether	430	U
117-81-7	bis(2-ethylhexyl) phthalate	430	U
84-74-2	di-n-Butyl Phthalate	73	J
117-84-0	di-n-Octyl Phthalate	430	U
621-64-7	n-Nitrosodi-n-Propylamine	430	U
86-30-6	n-Nitrosodiphenylamine	430	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
25-IS03-8-10-07C

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707172

Matrix (soil/water): SOIL Lab Sample ID: 707172-014-054-1/1

Sample wt/vol: 30 (g/ml) g Lab File ID: D43488.D

Level (low/med): LOW Date Recieved 07/27/2007

% Moisture: 21.49 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: 6 Concentration Units (ug/L or ug/kg): ug/kg

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q
1	000111-06-8	Hexadecanoic acid,	21.4	170	JN
2	000123-95-5	Octadecanoic acid,	22.26	120	JN
3	004291-79-6	Cyclohexane, 1-methyl-	10.53	120	JN
4	036653-82-4	1-Hexadecanol	22.81	85	JN
5		unknown	10.01	180	J
6		unknown	10.22	500	J

GPL LABORATORIES

Client: CH2M HILL
SDG: 707172
Sample ID: 25-IS03-8-10-07C

Retention Time	CAS Number	Alkane Compound	Est. Conc. (ug/KG)
10.45		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
25-IS04-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-015-055-1/1
Sample Volume :	30	Lab File ID :	D43496.D
% Moisture:	10.3	Date Received	07/27/2007
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:		

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
25-IS04-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-015-055-1/1
Sample Volume :	30	Lab File ID :	D43496.D
% Moisture:	10.3	Date Received	07/27/2007
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:		

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 1
ANALYSIS DATA SHEET

SAMPLE NO
25-IS04-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-015-055-1/1
Sample Volume :	30	Lab File ID :	D43496.D
% Moisture:	10.3	Date Received	07/27/2007
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:		

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	65	J
84-74-2	di-n-Butyl Phthalate	72	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

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
25-IS04-0-1-07C

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707172

Matrix (soil/water): SOIL Lab Sample ID: 707172-015-055-1/1

Sample wt/vol: 30 (g/ml) g Lab File ID: D43496.D

Level (low/med): LOW Date Recieved 07/27/2007

% Moisture: 10.3 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: 15 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	200	JN
2	000111-06-8	Hexadecanoic acid,	21.41	160	JN
3	000122-69-0	Cinnamyl cinnamate	22.73	820	JN
4	000123-95-5	Octadecanoic acid,	22.25	120	JN
5	000295-17-0	Cyclotetradecane	22.83	83	JN
6	002156-97-0	Dodecyl acrylate	18.69	86	JN
7	004291-79-6	Cyclohexane, 1-methyl-	10.52	79	JN
8	004630-07-3	Unknown Naphthalene	32.44	300	JN
9	074663-85-7	Cyclopropane, nonyl-	16.72	770	JN
10		unknown	10.02	190	J
11		unknown	10.23	450	J
12		unknown	10.37	120	J
13		unknown	20.81	100	J
14		unknown	21.27	78	J
15		unknown	33.73	200	J

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
25-IS04-10-12-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-016-056-1/1
Sample Volume :	30.01	Lab File ID :	D43489.D
% Moisture:	22.05	Date Received	07/27/2007
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
92-52-4	1,1- Biphenyl	430	U
108-60-1	2,2-Oxybis(1-chloropropane)	430	U
95-95-4	2,4,5-Trichlorophenol	1100	U
88-06-2	2,4,6-Trichlorophenol	430	U
120-83-2	2,4-Dichlorophenol	430	U
105-67-9	2,4-Dimethylphenol	430	U
51-28-5	2,4-Dinitrophenol	1100	U
121-14-2	2,4-Dinitrotoluene	430	U
606-20-2	2,6-Dinitrotoluene	430	U
532-27-4	2-Chloroacetophenone - CN	430	U
2698-41-1	2-Chlorobenzalmalononitrile	430	U
91-58-7	2-Chloronaphthalene	430	U
95-57-8	2-Chlorophenol	430	U
91-57-6	2-Methylnaphthalene	430	U
88-74-4	2-Nitroaniline	1100	U
88-75-5	2-Nitrophenol	430	U
95-48-7	2-methylphenol	430	U
91-94-1	3,3-Dichlorobenzidine	430	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	430	U
106-47-8	4-Chloroaniline	430	U
7005-72-3	4-Chlorophenyl Phenyl Ether	430	U
100-01-6	4-Nitroaniline	1100	U
100-02-7	4-Nitrophenol	1100	U
59-50-7	4-chloro-3-methylphenol	430	U
106-44-5	4-methylphenol	430	U
83-32-9	Acenaphthene	430	U
208-96-8	Acenaphthylene	430	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
25-IS04-10-12-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-016-056-1/1
Sample Volume :	30.01	Lab File ID :	D43489.D
% Moisture:	22.05	Date Received	07/27/2007
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:		

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

CAS NO	COMPOUND		Q
98-86-2	Acetophenone	430	U
120-12-7	Anthracene	430	U
1912-24-9	Atrazine	430	U
100-52-7	Benzaldehyde	430	U
56-55-3	Benzo(a)anthracene	430	U
50-32-8	Benzo(a)pyrene	430	U
205-99-2	Benzo(b)fluoranthene	430	U
191-24-2	Benzo(g,h,i)perylene	430	U
207-08-9	Benzo(k)fluoranthene	430	U
85-68-7	Benzyl Butyl Phthalate	430	U
105-60-2	Caprolactam	430	U
86-74-8	Carbazole	430	U
218-01-9	Chrysene	430	U
53-70-3	Dibenz(a,h)Anthracene	430	U
132-64-9	Dibenzofuran	430	U
84-66-2	Diethyl Phthalate	430	U
131-11-3	Dimethyl Phthalate	430	U
206-44-0	Fluoranthene	430	U
86-73-7	Fluorene	430	U
118-74-1	Hexachlorobenzene	430	U
87-68-3	Hexachlorobutadiene	430	U
77-47-4	Hexachlorocyclopentadiene	430	U
67-72-1	Hexachloroethane	430	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	430	U
78-59-1	Isophorone	430	U
91-20-3	Naphthalene	430	U
98-95-3	Nitrobenzene	430	U
87-86-5	Pentachlorophenol	1100	U
85-01-8	Phenanthrene	430	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
25-IS04-10-12-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-016-056-1/1
Sample Volume :	30.01	Lab File ID :	D43489.D
% Moisture:	22.05	Date Received	07/27/2007
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:		

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

CAS NO	COMPOUND		Q
108-95-2	Phenol	430	U
129-00-0	Pyrene	430	U
111-91-1	bis(2-chloroethoxy) methane	430	U
111-44-4	bis(2-chloroethyl) ether	430	U
117-81-7	bis(2-ethylhexyl) phthalate	430	U
84-74-2	di-n-Butyl Phthalate	79	J
117-84-0	di-n-Octyl Phthalate	430	U
621-64-7	n-Nitrosodi-n-Propylamine	430	U
86-30-6	n-Nitrosodiphenylamine	430	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
25-IS04-10-12-07C

Lab Name: GPL Laboratories, LLLP
Contract: CH2M Hill Inc
Lab Code: GPL
Case No.: NA
SAS No.: NA
SDG No.: 707172
Matrix (soil/water): SOIL
Lab Sample ID: 707172-016-056-1/1
Sample wt/vol: 30.01 (g/ml) g
Lab File ID: D43489.D
Level (low/med): LOW
Date Recieved 07/27/2007
% Moisture: 22.05
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: 16
Concentration Units (ug/L or ug/kg): ug/kg

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q
1	004291-79-6	Cyclohexane, 1-methyl-	10.52	130	JN
2	031158-91-5	Hexadecanoic acid, 1,1-	21.4	210	JN
3	1000131-11-8	Z-5-Nonadecene	22.81	94	JN
4		unknown	10.01	200	J
5		unknown	10.22	710	J
6		unknown	16.76	120	J
7		unknown	18.35	160	J
8		unknown	19.5	130	J
9		unknown	20.35	140	J
10		unknown	21.06	110	J
11		unknown	21.66	110	J
12		unknown	22.26	250	J
13		unknown	22.9	140	J
14		unknown	23.68	120	J
15		unknown	24.63	110	J
16		unknown	25.8	130	J

GPL LABORATORIES

Client: CH2M HILL
SDG: 707172
Sample ID: 25-IS04-10-12-07C

Retention Time	CAS Number	Alkane Compound	Est. Conc. (ug/KG)
10.45		Alkane Type 4	170

*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
BLK99545

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
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
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 :	707172
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 :	707172
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

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
BLK99545

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707172

Matrix (soil/water): SOIL Lab Sample ID: BLK99545

Sample wt/vol: 30 (g/ml) g Lab File ID: D43478.D

Level (low/med): LOW Date Recieved

% Moisture: 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: 4 Concentration Units (ug/L or ug/kg): ug/kg

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q
1	004291-79-6	Cyclohexane, 1-methyl-	10.54	93	JN
2		unknown	10.02	190	J
3		unknown	10.23	250	J
4		unknown	10.46	120	J

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-ISO9-0-1-07CMS

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 :	707158-001-013-1/1MS
Sample Volume :	30.01	Lab File ID :	D43491.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:		

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	1700	
606-20-2	2,6-Dinitrotoluene	400	U
532-27-4	2-Chloroacetophenone - CN	1500	
2698-41-1	2-Chlorobenzalmalononitrile	1300	
91-58-7	2-Chloronaphthalene	400	U
95-57-8	2-Chlorophenol	2300	
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	2400	
59-50-7	4-chloro-3-methylphenol	2000	
106-44-5	4-methylphenol	400	U
83-32-9	Acenaphthene	1600	
208-96-8	Acenaphthylene	1600	

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-ISO9-0-1-07CMS

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 :	707158-001-013-1/1MS
Sample Volume :	30.01	Lab File ID :	D43491.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:		

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	2400	
85-01-8	Phenanthrene	400	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-ISO9-0-1-07CMS

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 :	707158-001-013-1/1MS
Sample Volume :	30.01	Lab File ID :	D43491.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:		

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

CAS NO	COMPOUND		Q
108-95-2	Phenol	2300	
129-00-0	Pyrene	1700	
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	56	J
117-84-0	di-n-Octyl Phthalate	400	U
621-64-7	n-Nitrosodi-n-Propylamine	1400	
86-30-6	n-Nitrosodiphenylamine	400	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-ISO9-0-1-07CMSD

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 :	707158-001-013-1/1MSD
Sample Volume :	30	Lab File ID :	D43492.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:		

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	1900	
606-20-2	2,6-Dinitrotoluene	400	U
532-27-4	2-Chloroacetophenone - CN	1800	
2698-41-1	2-Chlorobenzalmalononitrile	1600	
91-58-7	2-Chloronaphthalene	400	U
95-57-8	2-Chlorophenol	2400	
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	2900	
59-50-7	4-chloro-3-methylphenol	2300	
106-44-5	4-methylphenol	400	U
83-32-9	Acenaphthene	1700	
208-96-8	Acenaphthylene	1700	

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-ISO9-0-1-07CMSD

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 :	707158-001-013-1/1MSD
Sample Volume :	30	Lab File ID :	D43492.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:		

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	2600	
85-01-8	Phenanthrene	400	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GC-ISO9-0-1-07CMSD

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 :	707158-001-013-1/1MSD
Sample Volume :	30	Lab File ID :	D43492.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:		

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

CAS NO	COMPOUND		Q
108-95-2	Phenol	2400	
129-00-0	Pyrene	1700	
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	66	J
117-84-0	di-n-Octyl Phthalate	400	U
621-64-7	n-Nitrosodi-n-Propylamine	1600	
86-30-6	n-Nitrosodiphenylamine	400	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BKS99545

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BKS99545
Sample Volume :	30	Lab File ID :	D43479.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	1900	
606-20-2	2,6-Dinitrotoluene	330	U
532-27-4	2-Chloroacetophenone - CN	1600	
2698-41-1	2-Chlorobenzalmalononitrile	1400	
91-58-7	2-Chloronaphthalene	330	U
95-57-8	2-Chlorophenol	2300	
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	2800	
59-50-7	4-chloro-3-methylphenol	2400	
106-44-5	4-methylphenol	330	U
83-32-9	Acenaphthene	1600	
208-96-8	Acenaphthylene	1500	

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BKS99545

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BKS99545
Sample Volume :	30	Lab File ID :	D43479.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
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	2300	
85-01-8	Phenanthrene	330	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BKS99545

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BKS99545
Sample Volume :	30	Lab File ID :	D43479.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
108-95-2	Phenol	2400	
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	69	JB
117-84-0	di-n-Octyl Phthalate	330	U
621-64-7	n-Nitrosodi-n-Propylamine	1500	
86-30-6	n-Nitrosodiphenylamine	330	U

Surrogate Recovery Summary

Matrix : SOIL **Analytical Method : CLP_OLM04.3_BN** **SDG No : 707172**

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								
25-IS01-0-1-07C	92	71	90	96	85	98	89	101
25-IS01-4-6-07C	96	73	90	101	88	103	92	114
BKS99545	96	73	90	100	86	101	90	106
BLK99545	96	75	93	98	89	104	95	111

* 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 : 707172**

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								
25-IS02-0-1-07C	80	68	85	92	71	81	84	100
25-IS02-5-7-07C	81	70	83	82	65	79	83	98
25-IS03-0-1-07C	86	74	92	85	73	85	94	105
25-IS03-8-10-07C	81	69	83	81	70	82	81	96
25-IS04-0-1-07C	81	71	89	91	67	82	91	101
25-IS04-10-12-07C	80	69	85	77	66	79	87	97

* 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

LCS SUMMARY

SAMPLE NO
BKS99545

Lab Name : GPL Laboratories
Contract. : MILCON Area Investigations - CTO-169
Lab Code : GPL
SDG NO : 707172
Matrix : SOIL
Lab Sample ID : BKS99545
Method : CLP_OLM04.3_BNA
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 4
SEMI-VOLATILE METHOD BLANK SUMMARY

SAMPLE NO
BLK99545

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	99545
Lab File ID :	D43478.D	SDG NO :	707172
Date Analyzed	08/10/2007	Lab Sample ID :	BLK99545
Date Extracted :	08/02/2007	Time Analyzed :	16:16
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
BKS99545	BKS99545	D43479.D	08/10/2007
25-IS01-0-1-07C	707172-009-049-1/1	D43480.D	08/10/2007
25-IS01-4-6-07C	707172-010-050-1/1	D43481.D	08/10/2007
25-IS03-0-1-07C	707172-013-053-1/1	D43487.D	08/13/2007
25-IS03-8-10-07C	707172-014-054-1/1	D43488.D	08/13/2007
25-IS04-10-12-07C	707172-016-056-1/1	D43489.D	08/13/2007
25-IS02-0-1-07C	707172-011-051-1/1	D43494.D	08/13/2007
25-IS02-5-7-07C	707172-012-052-1/1	D43495.D	08/13/2007
25-IS04-0-1-07C	707172-015-055-1/1	D43496.D	08/13/2007

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: GPL LABORATORIES Contract: N/A

Lab Code: GPL Case No.: N/A SAS No.: N/A SDG No.: N/A

Lab File ID: D43125.D DFTPP Injection Date: 07/11/07

Instrument ID: HP#D DFTPP Injection Time: 10:08

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	55.8
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 Relative abundance	62.8
70	Less than 2.0% of mass 69	0.2 (0.4)1
127	25.0 - 75.0% of mass 198	44.9
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 30.0% of mass 198	23.6
365	Greater than 0.75% of mass 198	2.3
441	Present, but less than mass 443	11.1
442	40.0 - 110.0% of mass 198	69.8
443	15.0 - 24.0% of mass 442	13.6 (19.5)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD025	SSTD025	D43126.D	07/11/07	10:32
02	SSTD080	SSTD080	D43127.D	07/11/07	11:19
03	SSTD010	SSTD010	D43128.D	07/11/07	12:06
04	SSTD060	SSTD060	D43129.D	07/11/07	12:53
05	SSTD040	SSTD040	D43130.D	07/11/07	13:40

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: GPL LABORATORIES Contract: N/A

Lab Code: GPL Case No.: N/A SAS No.: N/A SDG No.: N/A

Lab File ID: D43465.D DFTPP Injection Date: 08/10/07

Instrument ID: HP#D DFTPP Injection Time: 08:27

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 80.0% of mass 198	70.9	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 Relative abundance	79.8	
70	Less than 2.0% of mass 69	0.0	(0.0)1
127	25.0 - 75.0% of mass 198	51.0	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.7	
275	10.0 - 30.0% of mass 198	24.3	
365	Greater than 0.75% of mass 198	2.3	
441	Present, but less than mass 443	10.1	
442	40.0 - 110.0% of mass 198	61.0	
443	15.0 - 24.0% of mass 442	12.3	(20.2)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD080 CS&CN	SSTD080 CS&CN	D43468.D	08/10/07	09:59
02	SSTD025 CS&CN	SSTD025 CS&CN	D43469.D	08/10/07	10:39
03	SSTD060 CS&CN	SSTD060 CS&CN	D43471.D	08/10/07	11:53
04	SSTD010 CS&CN	SSTD010 CS&CN	D43472.D	08/10/07	12:31
05	SSTD040 CS&CN	SSTD040 CS&CN	D43473.D	08/10/07	13:08

GPL
Form 5

SEMI-VOLATILE INSTRUMENT PERFORMANCE CHECK DECAFLUOROTRIPHENYLPHOSPHINE(DFTPP)

Lab Name: GPL LABORATORIES Contract : CH2M Hill Inc

Lab Code: GPL Case No: N/A SAS No:N/A SDG No : 707172

Lab File ID: D43474.D DFTPP Injection Date : 08/10/2007 DFTPP Injection Time : 13:46

GC Column: _ ID: DB-5

m/e	ION ABUNDANCE CRITERIA	%Relative Abundance	
51	30.0 - 80.0% of mass 198	67.9	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	78.0	
70	Less than 2.0% of mass-69	0.2	(0.3)1
127	25.0 - 75.0% of mass 198	49.0	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak. 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.9	
275	10.0 - 30.0% of mass 198	25.8	
365	Greater than 0.75% of mass 198	2.7	
441	Present. but less than mass 443	3.2	
442	40.0 - 110.0% of mass 198	82.2	
443	15.0 - 24.0% of mass 442	16.0	(19.5)2

1-Value is % mass 69 2-Value is % mass 442

	Client Sample	Lab Sample NO	Lab File ID	Date Analyzed	Time Analyzed
1	SSTD025	SSTD025	D43475.D	08/10/2007	14:04
2	SSTD025 CS&CN	SSTD025 CS&CN	D43476.D	08/10/2007	14:50
3	BLK99545	BLK99545	D43478.D	08/10/2007	16:16
4	BKS99545	BKS99545	D43479.D	08/10/2007	17:04
5	25-IS01-0-1-07C	707172-009-049-1/1	D43480.D	08/10/2007	17:51
6	25-IS01-4-6-07C	707172-010-050-1/1	D43481.D	08/10/2007	18:39

GPL
Form 5

SEMI-VOLATILE INSTRUMENT PERFORMANCE CHECK DECAFLUOROTRIPHENYLPHOSPHINE(DFTPP)

Lab Name: GPL LABORATORIES Contract : CH2M Hill Inc

Lab Code: GPL Case No: N/A SAS No:N/A SDG No : 707172

Lab File ID: D43484.D DFTPP Injection Date : 08/13/2007 DFTPP Injection Time : 07:16

GC Column: _ ID: DB-5

m/e	ION ABUNDANCE CRITERIA	%Relative Abundance	
51	30.0 - 80.0% of mass 198	68.9	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	77.5	
70	Less than 2.0% of mass-69	0.0	(0.0)1
127	25.0 - 75.0% of mass 198	49.8	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak. 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0 - 30.0% of mass 198	23.1	
365	Greater than 0.75% of mass 198	2.2	
441	Present. but less than mass 443	10.0	
442	40.0 - 110.0% of mass 198	62.4	
443	15.0 - 24.0% of mass 442	12.1	(19.3)2

1-Value is % mass 69 2-Value is % mass 442

	Client Sample	Lab Sample NO	Lab File ID	Date Analyzed	Time Analyzed
1	SSTD025	SSTD025	D43485.D	08/13/2007	07:34
2	SSTD025 CS&CN	SSTD025 CS&CN	D43486.D	08/13/2007	08:18
3	25-IS03-0-1-07C	707172-013-053-1/1	D43487.D	08/13/2007	08:56
4	25-IS03-8-10-07C	707172-014-054-1/1	D43488.D	08/13/2007	09:43
5	25-IS04-10-12-07C	707172-016-056-1/1	D43489.D	08/13/2007	10:30
6	25-IS02-0-1-07C	707172-011-051-1/1	D43494.D	08/13/2007	14:30
7	25-IS02-5-7-07C	707172-012-052-1/1	D43495.D	08/13/2007	15:18
8	25-IS04-0-1-07C	707172-015-055-1/1	D43496.D	08/13/2007	16:05

GPL

Form 8 1 of 2

SEMI-VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GPL LABORATORIES Contract : CH2M Hill Inc

Lab Code: GPL Case No: N/A SAS No:N/A SDG No : 707172

Lab File ID: D43475.D Date Analyzed: 08/10/2007 Time Analyzed: 14:04

	ACNPD10		CHRYSENED12		DCBZ14D4	
	Area #	RT #	Area #	RT #	Area #	RT #
12 HOUR STD	959871	17.28	2009807	23.54	713763	11.56
UPPER LIMIT	1919742	17.78	4019614	24.04	1427526	12.06
LOWER LIMIT	479936	16.78	1004904	23.04	356882	11.06
Client Sample						
25-IS01-0-1-07C	795817	17.28	2040511	23.53	525544	11.56
25-IS01-4-6-07C	925230	17.28	2008847	23.54	581591	11.57
BKS99545	1013471	17.28	2372077	23.53	622946	11.56
BLK99545	895678	17.28	2018849	23.53	608548	11.56

ACNPD10 = acenaphthene-d1(
CHRYSENED12 = Chrysene-d12
DCBZ14D4 = 1,4-Dichlorobenzene-d·
NAPHD8 = Naphthalene-d8
PERYD12 = Perylene-d12
PHAND10 = phenanthrene-d1(

AREA UPPER LIMIT = +100% of internal standard are
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +.50 minutes of internal standard RT
RT LOWER LIMIT = -.50 minutes of internal standard RT
Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

GPL
Form 8 2 of 2

SEMI-VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GPL LABORATORIES Contract : CH2M Hill Inc

Lab Code: GPL Case No: N/A SAS No:N/A SDG No : 707172

Lab File ID: D43475.D Date Analyzed: 08/10/2007 Time Analyzed: 14:04

	NAPHD8		PERYD12		PHAND10	
	Area #	RT #	Area #	RT #	Area #	RT #
12 HOUR STD	2133404	13.92	1398391	27.39	1662001	19.81
UPPER LIMIT	4266808	14.42	2796782	27.89	3324002	20.31
LOWER LIMIT	1066702	13.42	699196	26.89	831001	19.31
Client Sample						
25-IS01-0-1-07C	1662259	13.92	1157058	27.38	1671636	19.81
25-IS01-4-6-07C	1917795	13.93	1117255	27.38	1831999	19.81
BKS99545	2076201	13.92	1382153	27.39	2081280	19.81
BLK99545	1928066	13.92	1130347	27.39	1753075	19.81

ACNPD10 = acenaphthene-d1(
CHRYSENED12 = Chrysene-d12
DCBZ14D4 = 1,4-Dichlorobenzene-d·
NAPHD8 = Naphthalene-dE
PERYD12 = Perylene-d12
PHAND10 = phenanthrene-d1(

AREA UPPER LIMIT = +100% of internal standard are
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +.50 minutes of internal standard RT
RT LOWER LIMIT = -.50 minutes of internal standard RT
Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

GPL

Form 8 1 of 2

SEMI-VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GPL LABORATORIES Contract : CH2M Hill Inc

Lab Code: GPL Case No: N/A SAS No:N/A SDG No : 707172

Lab File ID: D43485.D Date Analyzed: 08/13/2007 Time Analyzed: 07:34

	ACNPD10		CHRYSENED12		DCBZ14D4	
	Area #	RT #	Area #	RT #	Area #	RT #
12 HOUR STD	1321012	17.27	2727478	23.53	846719	11.55
UPPER LIMIT	2642024	17.77	5454956	24.03	1693438	12.05
LOWER LIMIT	660506	16.77	1363739	23.03	423360	11.05
Client Sample						
25-IS02-0-1-07C	1051948	17.27	2472597	23.53	692458	11.55
25-IS02-5-7-07C	846727	17.27	2196335	23.52	515124	11.56
25-IS03-0-1-07C	831585	17.27	1930510	23.53	557049	11.55
25-IS03-8-10-07C	1040783	17.27	2481813	23.53	612748	11.55
25-IS04-0-1-07C	791581	17.27	2026280	23.53	512841	11.55
25-IS04-10-12-07C	1007742	17.27	2223076	23.52	658979	11.56

ACNPD10 = acenaphthene-d1(
CHRYSENED12 = Chrysene-d12
DCBZ14D4 = 1,4-Dichlorobenzene-d·
NAPHD8 = Naphthalene-dE
PERYD12 = Perylene-d12
PHAND10 = phenanthrene-d1(

AREA UPPER LIMIT = +100% of internal standard are
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +.50 minutes of internal standard RT
RT LOWER LIMIT = -.50 minutes of internal standard RT
Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

GPL
Form 8 2 of 2

SEMI-VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GPL LABORATORIES Contract : CH2M Hill Inc

Lab Code: GPL Case No: N/A SAS No:N/A SDG No : 707172

Lab File ID: D43485.D Date Analyzed: 08/13/2007 Time Analyzed: 07:34

	NAPHD8		PERYD12		PHAND10	
	Area #	RT #	Area #	RT #	Area #	RT #
12 HOUR STD	2771685	13.91	1766065	27.37	2553826	19.81
UPPER LIMIT	5543370	14.41	3532130	27.87	5107652	20.31
LOWER LIMIT	1385843	13.41	883033	26.87	1276913	19.31
Client Sample						
25-IS02-0-1-07C	2211816	13.92	1327159	27.38	2163047	19.81
25-IS02-5-7-07C	1711488	13.91	1002003	27.37	1822132	19.80
25-IS03-0-1-07C	1758103	13.91	947617	27.36	1754287	19.81
25-IS03-8-10-07C	2036938	13.91	1250950	27.37	2238083	19.80
25-IS04-0-1-07C	1672290	13.91	942596	27.36	1664496	19.81
25-IS04-10-12-07C	2132529	13.91	1144114	27.37	2014728	19.80

ACNPD10 = acenaphthene-d1(
CHRYSENED12 = Chrysene-d12
DCBZ14D4 = 1,4-Dichlorobenzene-d
NAPHD8 = Naphthalene-d8
PERYD12 = Perylene-d12
PHAND10 = phenanthrene-d1(

AREA UPPER LIMIT = +100% of internal standard are
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +.50 minutes of internal standard RT
RT LOWER LIMIT = -.50 minutes of internal standard RT
Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

6B

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: GPL LABORATORIES Contract: N/A

Lab Code: GPL Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: HP#D Calibration Date(s): 07/11/07 07/11/07

Calibration Times: 10:32 13:40

LAB FILE ID: RRF10 = D43128.D RRF25 = D43126.D

RRF40 = D43130.D RRF60 = D43129.D RRF80 = D43127.D

	COMPOUND	RRF10	RRF25	RRF40	RRF60	RRF80	RRF	% RSD	
	Benzaldehyde	0.459	0.750	1.019	0.771	0.556	0.711	30.5	
*	bis(2-Chloroethyl)ether	1.433	1.506	1.523	1.585	1.471	1.504	3.8	*
*	Phenol	1.989	1.803	1.819	2.022	1.827	1.892	5.5	*
*	2-Chlorophenol	1.487	1.333	1.345	1.467	1.339	1.394	5.5	*
	2,2-oxybis(1-chloropropane)	4.374	3.871	3.887	4.180	3.779	4.018	6.2	
*	2-Methylphenol	1.262	1.122	1.152	1.275	1.184	1.199	5.6	*
	Acetophenone	1.629	1.436	1.495	1.660	1.514	1.547	6.1	
*	Hexachloroethane	0.720	0.630	0.653	0.697	0.640	0.668	5.8	*
*	N-Nitroso-di-n-propylamine	1.080	0.951	0.958	1.081	0.980	1.010	6.5	*
*	4-Methylphenol	1.241	1.102	1.131	1.268	1.152	1.179	6.1	*
*	Nitrobenzene	0.497	0.444	0.452	0.484	0.448	0.465	5.1	*
*	Isophorone	0.852	0.768	0.785	0.875	0.810	0.818	5.5	*
*	2-Nitrophenol	0.221	0.207	0.210	0.228	0.216	0.216	3.8	*
*	2,4-Dimethylphenol	0.378	0.339	0.345	0.376	0.348	0.357	5.2	*
*	bis(2-Chloroethoxy)methane	0.512	0.479	0.477	0.523	0.479	0.494	4.4	*
*	2,4-Dichlorophenol	0.286	0.259	0.270	0.295	0.271	0.276	5.1	*
*	Naphthalene	1.003	0.935	0.933	1.015	0.935	0.964	4.2	*
	4-Chloroaniline	0.337	0.339	0.358	0.409	0.375	0.363	8.2	
	Hexachlorobutadiene	0.268	0.235	0.243	0.257	0.240	0.249	5.5	
	Caprolactam	0.066	0.072	0.079	0.098	0.092	0.081	16.3	
*	4-Chloro-3-methylphenol	0.223	0.217	0.230	0.268	0.246	0.237	8.6	*
*	2-Methylnaphthalene	0.571	0.520	0.525	0.589	0.545	0.550	5.4	*
	Hexachlorocyclopentadiene	0.695	0.600	0.597	0.623	0.592	0.621	6.9	
*	2,4,6-Trichlorophenol	0.459	0.424	0.423	0.466	0.437	0.442	4.5	*
*	2,4,5-Trichlorophenol	0.468	0.438	0.450	0.492	0.459	0.461	4.4	*
	1,1-Biphenyl	1.620	1.423	1.439	1.496	1.401	1.476	6.0	
*	2-Chloronaphthalene	1.328	1.179	1.174	1.257	1.174	1.223	5.6	*
	2-Nitroaniline	0.373	0.373	0.387	0.429	0.401	0.392	6.0	
*	Acenaphthylene	0.484	0.443	0.439	0.462	0.430	0.452	4.7	*
	Dimethylphthalate	1.114	1.077	1.121	1.239	1.180	1.146	5.6	
*	2,6-Dinitrotoluene	0.260	0.269	0.279	0.320	0.305	0.287	8.9	*
*	Acenaphthene	1.008	0.938	0.948	1.019	0.945	0.971	4.0	*
	3-Nitroaniline	0.240	0.253	0.266	0.317	0.302	0.276	11.9	
	2,4-Dinitrophenol	0.102	0.145	0.184	0.226	0.222	0.176	30.0	
*	Dibenzofuran	1.514	1.392	1.424	1.544	1.430	1.461	4.4	*
*	2,4-Dinitrotoluene	0.286	0.326	0.348	0.393	0.388	0.348	12.9	*
	4-Nitrophenol	0.089	0.104	0.119	0.140	0.134	0.117	18.1	
*	Fluorene	0.997	0.947	0.968	1.074	1.019	1.001	4.9	*
*	4-Chlorophenyl-phenylether	0.572	0.549	0.571	0.635	0.598	0.585	5.6	*

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: GPL LABORATORIES Contract: N/A

Lab Code: GPL Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: HP#D Calibration Date(s): 07/11/07 07/11/07

Calibration Times: 10:32 13:40

LAB FILE ID: RRF10 = D43128.D RRF25 = D43126.D

RRF40 = D43130.D RRF60 = D43129.D RRF80 = D43127.D

COMPOUND		RRF10	RRF25	RRF40	RRF60	RRF80	$\overline{RRF}$	% RSD	
Diethylphthalate		1.163	1.146	1.063	1.154	1.105	1.126	3.7	
4-Nitroaniline		0.165	0.209	0.226	0.236	0.241	0.216	14.2	
4,6-Dinitro-2-methylphenol		0.122	0.143	0.160	0.185	0.179	0.158	16.5	
n-Nitrosodiphenylamine		0.494	0.451	0.456	0.497	0.450	0.470	5.1	
4-Bromophenyl-phenylether	*	0.261	0.233	0.233	0.253	0.234	0.243	5.5	*
Hexachlorobenzene	*	0.383	0.361	0.368	0.391	0.358	0.372	3.8	*
Atrazine		0.197	0.183	0.186	0.198	0.190	0.191	3.5	
Pentachlorophenol	*	0.183	0.203	0.229	0.258	0.246	0.224	13.7	*
Phenanthrene	*	0.933	0.861	0.882	0.920	0.882	0.896	3.3	*
Anthracene	*	0.940	0.900	0.913	0.981	0.929	0.933	3.3	*
Carbazole		0.822	0.704	0.709	0.744	0.725	0.741	6.4	
Di-n-butylphthalate		1.130	1.101	1.195	1.210	1.193	1.166	4.1	
Fluoranthene	*	1.056	1.007	1.105	1.126	1.105	1.080	4.5	*
Pyrene	*	0.999	0.880	0.900	1.020	0.932	0.946	6.5	*
Butylbenzylphthalate		0.502	0.449	0.475	0.518	0.481	0.485	5.5	
3,3-Dichlorobenzidine		0.411	0.303	0.343	0.319	0.296	0.334	13.8	
Benzo[a]anthracene	*	1.022	0.918	0.948	1.025	0.969	0.976	4.8	*
Chrysene	*	0.991	0.882	0.917	0.986	0.929	0.941	5.0	*
bis(2-Ethylhexyl)phthalate		0.697	0.622	0.669	0.718	0.680	0.677	5.3	
Di-n-octylphthalate		1.010	0.938	1.019	1.147	1.072	1.037	7.5	
Benzo[b]fluoranthene	*	1.087	0.950	1.059	1.153	1.145	1.079	7.6	*
Benzo[k]fluoranthene	*	1.078	0.958	0.968	1.052	0.920	0.995	6.7	*
Benzo[a]pyrene	*	1.017	0.920	0.962	1.068	1.006	0.995	5.6	*
Indeno[1,2,3-cd]pyrene	*	1.117	1.050	1.041	1.154	1.051	1.082	4.7	*
Dibenz[a,h]anthracene	*	0.938	0.887	0.875	0.968	0.878	0.909	4.6	*
Benzo[g,h,i]perylene	*	0.962	0.918	0.885	0.977	0.888	0.926	4.6	*
2-Fluorophenol	*	1.925	1.709	1.746	1.869	1.727	1.795	5.3	*
Phenol-d5	*	1.909	1.723	1.752	1.936	1.773	1.819	5.3	*
2-Chlorophenol-d4	*	1.437	1.300	1.336	1.459	1.324	1.371	5.2	*
1,2-Dichlorobenzene-d4	*	0.909	0.816	0.827	0.891	0.817	0.852	5.2	*
Nitrobenzene-d5	*	0.472	0.436	0.443	0.475	0.441	0.453	4.1	*
2-Fluorobiphenyl	*	1.558	1.346	1.389	1.428	1.347	1.414	6.2	*
2,4,6-Tribromophenol		0.203	0.192	0.204	0.223	0.206	0.206	5.4	
Terphenyl-d14	*	0.799	0.694	0.729	0.814	0.770	0.761	6.5	*

(1) Cannot be separated from Diphenylamine

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

7B
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GPL LABORATORIES Contract: N/A

Lab Code: GPL Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: HP#D Calibration Date: 08/10/07 Time: 14:04

Lab File ID: D43475.D Init. Calib. Date(s): 07/11/07 07/11/07

Init. Calib. Times: 10:32 13:40

COMPOUND	RRF	RRFCC	MIN RRF	% D	MAX % D
Benzaldehyde	0.711	1.002		-41.0	
bis(2-Chloroethyl)ether	1.504	1.504	0.700	0.0	25.0
Phenol	1.892	1.687	0.800	10.8	25.0
2-Chlorophenol	1.394	1.344	0.800	3.6	25.0
2,2-oxybis(1-chloropropane)	4.018	4.005		0.3	
2-Methylphenol	1.199	1.162	0.700	3.1	25.0
Acetophenone	1.547	1.521		1.7	
Hexachloroethane	0.668	0.667	0.300	0.2	25.0
N-Nitroso-di-n-propylamine	1.010	1.059	0.500	-4.8	25.0
4-Methylphenol	1.179	1.128	0.600	4.3	25.0
Nitrobenzene	0.465	0.456	0.200	1.9	25.0
Isophorone	0.818	0.813	0.400	0.7	25.0
2-Nitrophenol	0.216	0.204	0.100	5.9	25.0
2,4-Dimethylphenol	0.357	0.357	0.200	0.1	25.0
bis(2-Chloroethoxy)methane	0.494	0.469	0.200	5.1	25.0
2,4-Dichlorophenol	0.276	0.268	0.200	2.9	25.0
Naphthalene	0.964	0.929	0.700	3.6	25.0
4-Chloroaniline	0.363	0.367		-0.9	
Hexachlorobutadiene	0.249	0.249		0.0	
Caprolactam	0.081	0.083		-1.8	
4-Chloro-3-methylphenol	0.237	0.254	0.200	-7.4	25.0
2-Methylnaphthalene	0.550	0.551	0.400	-0.2	25.0
Hexachlorocyclopentadiene	0.621	0.468		24.6	
2,4,6-Trichlorophenol	0.442	0.400	0.200	9.5	25.0
2,4,5-Trichlorophenol	0.461	0.434	0.200	6.0	25.0
1,1-Biphenyl	1.476	1.309		11.3	
2-Chloronaphthalene	1.223	1.059	0.800	13.3	25.0
2-Nitroaniline	0.392	0.389		1.0	
Acenaphthylene	0.452	0.424	0.900	6.2	25.0
Dimethylphthalate	1.146	1.086		5.3	
2,6-Dinitrotoluene	0.287	0.272	0.200	5.0	25.0
Acenaphthene	0.971	0.896	0.900	7.8	25.0
3-Nitroaniline	0.276	0.294		-6.6	
2,4-Dinitrophenol	0.176	0.185		-5.2	
Dibenzofuran	1.461	1.362	0.800	6.7	25.0
2,4-Dinitrotoluene	0.348	0.359	0.200	-3.1	25.0
4-Nitrophenol	0.117	0.149		-26.9	
Fluorene	1.001	1.013	0.900	-1.2	25.0
4-Chlorophenyl-phenylether	0.585	0.570	0.400	2.5	25.0

All other compounds must meet a minimum RRF of 0.010.

7C
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GPL LABORATORIES Contract: N/A

Lab Code: GPL Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: HP#D Calibration Date: 08/10/07 Time: 14:04

Lab File ID: D43475.D Init. Calib. Date(s): 07/11/07 07/11/07

Init. Calib. Times: 10:32 13:40

COMPOUND	RRF	RRFCC	MIN RRF	% D	MAX % D
Diethylphthalate	1.126	1.028		8.7	
4-Nitroaniline	0.216	0.296		-37.4	
4,6-Dinitro-2-methylphenol	0.158	0.157		0.3	
n-Nitrosodiphenylamine	0.470	0.427		9.2	
4-Bromophenyl-phenylether	0.243	0.205	0.100	15.8	25.0
Hexachlorobenzene	0.372	0.325	0.100	12.7	25.0
Atrazine	0.191	0.178		6.4	
Pentachlorophenol	0.224	0.231	0.050	-3.2	25.0
Phenanthrene	0.896	0.828	0.700	7.6	25.0
Anthracene	0.933	0.906	0.700	2.9	25.0
Carbazole	0.741	0.843		-13.7	
Di-n-butylphthalate	1.166	1.107		5.0	
Fluoranthene	1.080	1.083	0.600	-0.3	25.0
Pyrene	0.946	0.929	0.600	1.8	25.0
Butylbenzylphthalate	0.485	0.473		2.5	
3,3-Dichlorobenzidine	0.334	0.346		-3.3	
Benzo[a]anthracene	0.976	0.932	0.800	4.5	25.0
Chrysene	0.941	0.908	0.700	3.5	25.0
bis(2-Ethylhexyl)phthalate	0.677	0.614		9.4	
Di-n-octylphthalate	1.037	1.386		-33.6	
Benzo[b]fluoranthene	1.079	1.122	0.700	-4.0	25.0
Benzo[k]fluoranthene	0.995	1.118	0.700	-12.3	25.0
Benzo[a]pyrene	0.995	0.971	0.700	2.3	25.0
Indeno[1,2,3-cd]pyrene	1.082	0.927	0.500	14.4	25.0
Dibenz[a,h]anthracene	0.909	0.795	0.400	12.6	25.0
Benzo[g,h,i]perylene	0.926	0.772	0.500	16.6	25.0
2-Fluorophenol	1.795	1.554	0.600	13.5	25.0
Phenol-d5	1.819	1.665	0.800	8.4	25.0
2-Chlorophenol-d4	1.371	1.287	0.800	6.1	25.0
1,2-Dichlorobenzene-d4	0.852	0.832	0.400	2.3	25.0
Nitrobenzene-d5	0.453	0.452	0.200	0.4	25.0
2-Fluorobiphenyl	1.414	1.249	0.700	11.6	25.0
2,4,6-Tribromophenol	0.206	0.179		12.8	
Terphenyl-d14	0.761	0.738	0.500	3.1	25.0

(1) Cannot be separated from Diphenylamine

All other compounds must meet a minimum RRF of 0.010.

7B
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GPL LABORATORIES Contract: N/A

Lab Code: GPL Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: HP#D Calibration Date: 08/13/07 Time: 07:34

Lab File ID: D43485.D Init. Calib. Date(s): 07/11/07 07/11/07

Init. Calib. Times: 10:32 13:40

COMPOUND	RRF	RRFCC	MIN RRF	% D	MAX % D
Benzaldehyde	0.711	1.070		-50.5	
bis(2-Chloroethyl)ether	1.504	1.559	0.700	-3.7	25.0
Phenol	1.892	1.838	0.800	2.9	25.0
2-Chlorophenol	1.394	1.390	0.800	0.3	25.0
2,2-oxybis(1-chloropropane)	4.018	4.092		-1.8	
2-Methylphenol	1.199	1.248	0.700	-4.1	25.0
Acetophenone	1.547	1.643		-6.2	
Hexachloroethane	0.668	0.644	0.300	3.6	25.0
N-Nitroso-di-n-propylamine	1.010	1.162	0.500	-15.1	25.0
4-Methylphenol	1.179	1.300	0.600	-10.3	25.0
Nitrobenzene	0.465	0.460	0.200	1.0	25.0
Isophorone	0.818	0.823	0.400	-0.7	25.0
2-Nitrophenol	0.216	0.206	0.100	4.7	25.0
2,4-Dimethylphenol	0.357	0.363	0.200	-1.7	25.0
bis(2-Chloroethoxy)methane	0.494	0.470	0.200	5.0	25.0
2,4-Dichlorophenol	0.276	0.280	0.200	-1.3	25.0
Naphthalene	0.964	0.937	0.700	2.8	25.0
4-Chloroaniline	0.363	0.396		-9.1	
Hexachlorobutadiene	0.249	0.216		13.0	
Caprolactam	0.081	0.103		-26.8	
4-Chloro-3-methylphenol	0.237	0.286	0.200	-20.7	25.0
2-Methylnaphthalene	0.550	0.577	0.400	-5.0	25.0
Hexachlorocyclopentadiene	0.621	0.430		30.8	
2,4,6-Trichlorophenol	0.442	0.405	0.200	8.3	25.0
2,4,5-Trichlorophenol	0.461	0.445	0.200	3.6	25.0
1,1-Biphenyl	1.476	1.302		11.8	
2-Chloronaphthalene	1.223	1.089	0.800	11.0	25.0
2-Nitroaniline	0.392	0.445		-13.3	
Acenaphthylene	0.452	0.437	0.900	3.2	25.0
Dimethylphthalate	1.146	1.168		-1.9	
2,6-Dinitrotoluene	0.287	0.299	0.200	-4.3	25.0
Acenaphthene	0.971	0.955	0.900	1.7	25.0
3-Nitroaniline	0.276	0.350		-26.8	
2,4-Dinitrophenol	0.176	0.230		-30.6	
Dibenzofuran	1.461	1.491	0.800	-2.1	25.0
2,4-Dinitrotoluene	0.348	0.406	0.200	-16.6	25.0
4-Nitrophenol	0.117	0.155		-32.7	
Fluorene	1.001	1.081	0.900	-8.0	25.0
4-Chlorophenyl-phenylether	0.585	0.605	0.400	-3.4	25.0

All other compounds must meet a minimum RRF of 0.010.

7C
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GPL LABORATORIES Contract: N/A

Lab Code: GPL Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: HP#D Calibration Date: 08/13/07 Time: 07:34

Lab File ID: D43485.D Init. Calib. Date(s): 07/11/07 07/11/07

Init. Calib. Times: 10:32 13:40

COMPOUND	RRF	RRFCC	MIN RRF	% D	MAX % D
Diethylphthalate	1.126	1.118		0.7	
4-Nitroaniline	0.216	0.340		-57.7	
4,6-Dinitro-2-methylphenol	0.158	0.163		-3.6	
n-Nitrosodiphenylamine	0.470	0.431		8.2	
4-Bromophenyl-phenylether	0.243	0.199	0.100	18.1	25.0
Hexachlorobenzene	0.372	0.302	0.100	18.9	25.0
Atrazine	0.191	0.175		8.0	
Pentachlorophenol	0.224	0.220	0.050	1.8	25.0
Phenanthrene	0.896	0.845	0.700	5.6	25.0
Anthracene	0.933	0.895	0.700	4.1	25.0
Carbazole	0.741	0.848		-14.4	
Di-n-butylphthalate	1.166	1.080		7.4	
Fluoranthene	1.080	1.014	0.600	6.1	25.0
Pyrene	0.946	0.994	0.600	-5.0	25.0
Butylbenzylphthalate	0.485	0.489		-0.8	
3,3-Dichlorobenzidine	0.334	0.327		2.3	
Benzo[a]anthracene	0.976	0.941	0.800	3.6	25.0
Chrysene	0.941	0.897	0.700	4.7	25.0
bis(2-Ethylhexyl)phthalate	0.677	0.629		7.2	
Di-n-octylphthalate	1.037	1.458		-40.5	
Benzo[b]fluoranthene	1.079	1.163	0.700	-7.8	25.0
Benzo[k]fluoranthene	0.995	1.115	0.700	-12.1	25.0
Benzo[a]pyrene	0.995	0.988	0.700	0.7	25.0
Indeno[1,2,3-cd]pyrene	1.082	0.894	0.500	17.4	25.0
Dibenz[a,h]anthracene	0.909	0.768	0.400	15.5	25.0
Benzo[g,h,i]perylene	0.926	0.750	0.500	19.0	25.0
2-Fluorophenol	1.795	1.639	0.600	8.7	25.0
Phenol-d5	1.819	1.850	0.800	-1.8	25.0
2-Chlorophenol-d4	1.371	1.363	0.800	0.6	25.0
1,2-Dichlorobenzene-d4	0.852	0.820	0.400	3.8	25.0
Nitrobenzene-d5	0.453	0.447	0.200	1.4	25.0
2-Fluorobiphenyl	1.414	1.232	0.700	12.8	25.0
2,4,6-Tribromophenol	0.206	0.169		17.8	
Terphenyl-d14	0.761	0.778	0.500	-2.2	25.0

(1) Cannot be separated from Diphenylamine

All other compounds must meet a minimum RRF of 0.010.

Response Factor Report GC/MS-D

Method : C:\HPCHEM\1\METHODS\SOM_CSCN.M (RTE Integrator)
Title : SW-846 Method 8270
Last Update : Fri Aug 10 13:40:55 2007
Response via : Initial Calibration

Calibration Files
25 =D43469.D 80 =D43468.D 10 =D43472.D
40 =D43473.D 60 =D43471.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	0.517	0.552	0.447	0.555	0.529	0.520	8.40
5)	I	Acenaphthene-d10	ISTD						
6)	T	2-Chlorobenzalmalonon	0.563	0.620	0.465	0.651	0.615	0.583	12.48
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\D\081007\D43476.D Vial: 3
Acq On : 10 Aug 2007 14:50 Operator: PY
Sample : SSTD025 Inst : GC/MS-D
Misc : SSTD025 CS&CN HP#D PY Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\SOM_CSCN.M (RTE Integrator)
Title : SW-846 Method 8270
Last Update : Fri Aug 10 13:40:55 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	99	0.00
2	I	Naphthalene-d8	1.000	1.000	0.0	99	0.00
3	S	Nitrobenzene-d5	0.000	0.000#	0.0	0#	-12.62#
4	T	2-Chloroacetophenone - CN	0.520	0.487	6.3	93	0.00
5	I	Acenaphthene-d10	1.000	1.000	0.0	92	0.00
6	T	2-Chlorobenzalmalononitrile	0.583	0.512	12.2	84	0.00
7	S	2-Fluorobiphenyl	0.000	0.000#	0.0	0#	-15.98#
8	I	Phenanthrene-d10	1.000	1.000	0.0	0#	-20.02#
9	I	Chrysene-d12	1.000	1.000	0.0	93	0.00
10	S	Terphenyl-d14	0.000	0.000#	0.0	0#	-22.13#
11	I	Perylene-d12	1.000	1.000	0.0	87	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data File : H:\GCMSDATA\D\081307\D43486.D Vial: 3
Acq On : 13 Aug 2007 8:18 Operator: PY
Sample : SSTD025 Inst : GC/MS-D
Misc : SSTD025 CS&CN HP#D PY Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\SOM_CSCN.M (RTE Integrator)
Title : SW-846 Method 8270
Last Update : Fri Aug 10 13:40:55 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	92	0.00
2	I	Naphthalene-d8	1.000	1.000	0.0	100	0.00
3	S	Nitrobenzene-d5	0.000	0.000#	0.0	0#	-12.62#
4	T	2-Chloroacetophenone - CN	0.520	0.552	-6.2	106	0.00
5	I	Acenaphthene-d10	1.000	1.000	0.0	109	0.00
6	T	2-Chlorobenzalmalononitrile	0.583	0.626	-7.4	121	0.00
7	S	2-Fluorobiphenyl	0.000	0.000#	0.0	0#	-15.98#
8	I	Phenanthrene-d10	1.000	1.000	0.0	0#	-20.02#
9	I	Chrysene-d12	1.000	1.000	0.0	129	0.00
10	S	Terphenyl-d14	0.000	0.000#	0.0	0#	-22.13#
11	I	Perylene-d12	1.000	1.000	0.0	112	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

ORGANOPHOSPHORUS PESTICIDES

GPL Laboratories

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

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

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-009-049-1/1
Sample Volume :	30	Lab File ID :	V023279.D
% Moisture:	7.25	Date Received	07/27/2007
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:		

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

CAS NO	COMPOUND		Q
72-54-8	4,4-DDD	3.6	U
72-55-9	4,4-DDE	3.4	J
50-29-3	4,4-DDT	1.6	J
309-00-2	Aldrin	1.8	U
319-84-6	Alpha-BHC	1.8	U
5103-71-9	Alpha-Chlordane	1.8	U
319-85-7	Beta-BHC	1.8	U
319-86-8	Delta-BHC	1.8	U
60-57-1	Dieldrin	3.6	U
959-98-8	Endosulfan I	1.8	U
33213-65-9	Endosulfan II	3.6	U
1031-07-8	Endosulfan Sulfate	3.6	U
72-20-8	Endrin	3.6	U
7421-93-4	Endrin Aldehyde	3.6	U
53494-70-5	Endrin Ketone	3.6	U
58-89-9	Gamma-BHC (Lindane)	1.8	U
5103-74-2	Gamma-Chlordane	1.8	U
76-44-8	Heptachlor	1.8	U
1024-57-3	Heptachlor Epoxide	1.8	U
72-43-5	Methoxychlor	18	U
12674-11-2	PCB-1016	36	U
11104-28-2	PCB-1221	72	U
11141-16-5	PCB-1232	36	U
53469-21-9	PCB-1242	36	U
12672-29-6	PCB-1248	36	U
11097-69-1	PCB-1254	36	U
11096-82-5	PCB-1260	36	U
8001-35-2	Toxaphene	180	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
25-IS01-4-6-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-010-050-1/1
Sample Volume :	30.02	Lab File ID :	V023280.D
% Moisture:	9.89	Date Received	07/27/2007
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:		

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

CAS NO	COMPOUND		Q
72-54-8	4,4-DDD	3.7	U
72-55-9	4,4-DDE	1.4	J
50-29-3	4,4-DDT	3.7	U
309-00-2	Aldrin	1.9	U
319-84-6	Alpha-BHC	1.9	U
5103-71-9	Alpha-Chlordane	1.9	U
319-85-7	Beta-BHC	1.9	U
319-86-8	Delta-BHC	1.9	U
60-57-1	Dieldrin	3.7	U
959-98-8	Endosulfan I	1.9	U
33213-65-9	Endosulfan II	3.7	U
1031-07-8	Endosulfan Sulfate	3.7	U
72-20-8	Endrin	3.7	U
7421-93-4	Endrin Aldehyde	3.7	U
53494-70-5	Endrin Ketone	3.7	U
58-89-9	Gamma-BHC (Lindane)	1.9	U
5103-74-2	Gamma-Chlordane	1.9	U
76-44-8	Heptachlor	1.9	U
1024-57-3	Heptachlor Epoxide	1.9	U
72-43-5	Methoxychlor	19	U
12674-11-2	PCB-1016	37	U
11104-28-2	PCB-1221	74	U
11141-16-5	PCB-1232	37	U
53469-21-9	PCB-1242	37	U
12672-29-6	PCB-1248	37	U
11097-69-1	PCB-1254	37	U
11096-82-5	PCB-1260	37	U
8001-35-2	Toxaphene	190	U

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

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

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-011-051-1/1
Sample Volume :	30	Lab File ID :	V023281.D
% Moisture:	18.16	Date Received	07/27/2007
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:		

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

CAS NO	COMPOUND		Q
72-54-8	4,4-DDD	0.24	JP
72-55-9	4,4-DDE	3.2	J
50-29-3	4,4-DDT	1.6	J
309-00-2	Aldrin	2.0	U
319-84-6	Alpha-BHC	2.0	U
5103-71-9	Alpha-Chlordane	2.0	U
319-85-7	Beta-BHC	2.0	U
319-86-8	Delta-BHC	2.0	U
60-57-1	Dieldrin	4.1	U
959-98-8	Endosulfan I	2.0	U
33213-65-9	Endosulfan II	4.1	U
1031-07-8	Endosulfan Sulfate	4.1	U
72-20-8	Endrin	4.1	U
7421-93-4	Endrin Aldehyde	4.1	U
53494-70-5	Endrin Ketone	4.1	U
58-89-9	Gamma-BHC (Lindane)	2.0	U
5103-74-2	Gamma-Chlordane	2.0	U
76-44-8	Heptachlor	2.0	U
1024-57-3	Heptachlor Epoxide	2.0	U
72-43-5	Methoxychlor	20	U
12674-11-2	PCB-1016	41	U
11104-28-2	PCB-1221	82	U
11141-16-5	PCB-1232	41	U
53469-21-9	PCB-1242	41	U
12672-29-6	PCB-1248	41	U
11097-69-1	PCB-1254	41	U
11096-82-5	PCB-1260	41	U
8001-35-2	Toxaphene	200	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
25-IS02-5-7-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-012-052-1/1
Sample Volume :	30	Lab File ID :	V023285.D
% Moisture:	17.26	Date Received	07/27/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	08/02/2007
Extract Volume:	5 mL	Date Analyzed	08/14/2007
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
72-54-8	4,4-DDD	4.0	U
72-55-9	4,4-DDE	0.25	J
50-29-3	4,4-DDT	4.0	U
309-00-2	Aldrin	2.0	U
319-84-6	Alpha-BHC	2.0	U
5103-71-9	Alpha-Chlordane	2.0	U
319-85-7	Beta-BHC	2.0	U
319-86-8	Delta-BHC	2.0	U
60-57-1	Dieldrin	4.0	U
959-98-8	Endosulfan I	2.0	U
33213-65-9	Endosulfan II	4.0	U
1031-07-8	Endosulfan Sulfate	4.0	U
72-20-8	Endrin	4.0	U
7421-93-4	Endrin Aldehyde	4.0	U
53494-70-5	Endrin Ketone	4.0	U
58-89-9	Gamma-BHC (Lindane)	2.0	U
5103-74-2	Gamma-Chlordane	2.0	U
76-44-8	Heptachlor	2.0	U
1024-57-3	Heptachlor Epoxide	2.0	U
72-43-5	Methoxychlor	20	U
12674-11-2	PCB-1016	40	U
11104-28-2	PCB-1221	81	U
11141-16-5	PCB-1232	40	U
53469-21-9	PCB-1242	40	U
12672-29-6	PCB-1248	40	U
11097-69-1	PCB-1254	40	U
11096-82-5	PCB-1260	40	U
8001-35-2	Toxaphene	200	U

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
25-IS03-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-013-053-1/1
Sample Volume :	30	Lab File ID :	V023286.D
% Moisture:	9.05	Date Received	07/27/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	08/02/2007
Extract Volume:	5 mL	Date Analyzed	08/14/2007
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
72-54-8	4,4-DDD	1.8	J
72-55-9	4,4-DDE	3.6	J
50-29-3	4,4-DDT	10	
309-00-2	Aldrin	1.8	U
319-84-6	Alpha-BHC	1.8	U
5103-71-9	Alpha-Chlordane	1.8	U
319-85-7	Beta-BHC	1.8	U
319-86-8	Delta-BHC	1.8	U
60-57-1	Dieldrin	1.5	J
959-98-8	Endosulfan I	1.8	U
33213-65-9	Endosulfan II	3.7	U
1031-07-8	Endosulfan Sulfate	3.7	U
72-20-8	Endrin	3.7	U
7421-93-4	Endrin Aldehyde	3.7	U
53494-70-5	Endrin Ketone	3.7	U
58-89-9	Gamma-BHC (Lindane)	1.8	U
5103-74-2	Gamma-Chlordane	1.8	U
76-44-8	Heptachlor	1.8	U
1024-57-3	Heptachlor Epoxide	1.8	U
72-43-5	Methoxychlor	18	U
12674-11-2	PCB-1016	37	U
11104-28-2	PCB-1221	73	U
11141-16-5	PCB-1232	37	U
53469-21-9	PCB-1242	37	U
12672-29-6	PCB-1248	37	U
11097-69-1	PCB-1254	37	U
11096-82-5	PCB-1260	37	U
8001-35-2	Toxaphene	180	U

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
25-IS03-8-10-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-014-054-1/1
Sample Volume :	30.03	Lab File ID :	V023287.D
% Moisture:	21.49	Date Received	07/27/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	08/02/2007
Extract Volume:	5 mL	Date Analyzed	08/14/2007
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
72-54-8	4,4-DDD	4.2	U
72-55-9	4,4-DDE	4.2	U
50-29-3	4,4-DDT	4.2	U
309-00-2	Aldrin	2.1	U
319-84-6	Alpha-BHC	2.1	U
5103-71-9	Alpha-Chlordane	2.1	U
319-85-7	Beta-BHC	2.1	U
319-86-8	Delta-BHC	2.1	U
60-57-1	Dieldrin	4.2	U
959-98-8	Endosulfan I	2.1	U
33213-65-9	Endosulfan II	4.2	U
1031-07-8	Endosulfan Sulfate	4.2	U
72-20-8	Endrin	4.2	U
7421-93-4	Endrin Aldehyde	4.2	U
53494-70-5	Endrin Ketone	4.2	U
58-89-9	Gamma-BHC (Lindane)	2.1	U
5103-74-2	Gamma-Chlordane	2.1	U
76-44-8	Heptachlor	2.1	U
1024-57-3	Heptachlor Epoxide	2.1	U
72-43-5	Methoxychlor	21	U
12674-11-2	PCB-1016	42	U
11104-28-2	PCB-1221	85	U
11141-16-5	PCB-1232	42	U
53469-21-9	PCB-1242	42	U
12672-29-6	PCB-1248	42	U
11097-69-1	PCB-1254	42	U
11096-82-5	PCB-1260	42	U
8001-35-2	Toxaphene	210	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
25-IS04-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-015-055-1/1
Sample Volume :	30	Lab File ID :	V023288.D
% Moisture:	10.3	Date Received	07/27/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	08/02/2007
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
72-54-8	4,4-DDD	3.7	U
72-55-9	4,4-DDE	3.7	U
50-29-3	4,4-DDT	3.7	U
309-00-2	Aldrin	1.9	U
319-84-6	Alpha-BHC	1.9	U
5103-71-9	Alpha-Chlordane	1.9	U
319-85-7	Beta-BHC	1.9	U
319-86-8	Delta-BHC	1.9	U
60-57-1	Dieldrin	3.7	U
959-98-8	Endosulfan I	1.9	U
33213-65-9	Endosulfan II	3.7	U
1031-07-8	Endosulfan Sulfate	3.7	U
72-20-8	Endrin	3.7	U
7421-93-4	Endrin Aldehyde	3.7	U
53494-70-5	Endrin Ketone	3.7	U
58-89-9	Gamma-BHC (Lindane)	1.9	U
5103-74-2	Gamma-Chlordane	1.9	U
76-44-8	Heptachlor	1.9	U
1024-57-3	Heptachlor Epoxide	1.9	U
72-43-5	Methoxychlor	19	U
12674-11-2	PCB-1016	37	U
11104-28-2	PCB-1221	74	U
11141-16-5	PCB-1232	37	U
53469-21-9	PCB-1242	37	U
12672-29-6	PCB-1248	37	U
11097-69-1	PCB-1254	37	U
11096-82-5	PCB-1260	37	U
8001-35-2	Toxaphene	190	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
25-IS04-10-12-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-016-056-1/1
Sample Volume :	30	Lab File ID :	V023289.D
% Moisture:	22.05	Date Received	07/27/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	08/02/2007
Extract Volume:	5 mL	Date Analyzed	08/14/2007
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
72-54-8	4,4-DDD	4.3	U
72-55-9	4,4-DDE	2.0	J
50-29-3	4,4-DDT	1.5	J
309-00-2	Aldrin	2.1	U
319-84-6	Alpha-BHC	2.1	U
5103-71-9	Alpha-Chlordane	2.1	U
319-85-7	Beta-BHC	2.1	U
319-86-8	Delta-BHC	2.1	U
60-57-1	Dieldrin	4.3	U
959-98-8	Endosulfan I	2.1	U
33213-65-9	Endosulfan II	4.3	U
1031-07-8	Endosulfan Sulfate	4.3	U
72-20-8	Endrin	4.3	U
7421-93-4	Endrin Aldehyde	4.3	U
53494-70-5	Endrin Ketone	4.3	U
58-89-9	Gamma-BHC (Lindane)	2.1	U
5103-74-2	Gamma-Chlordane	2.1	U
76-44-8	Heptachlor	2.1	U
1024-57-3	Heptachlor Epoxide	2.1	U
72-43-5	Methoxychlor	21	U
12674-11-2	PCB-1016	43	U
11104-28-2	PCB-1221	86	U
11141-16-5	PCB-1232	43	U
53469-21-9	PCB-1242	43	U
12672-29-6	PCB-1248	43	U
11097-69-1	PCB-1254	43	U
11096-82-5	PCB-1260	43	U
8001-35-2	Toxaphene	210	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BLK99582

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BLK99582
Sample Volume :	30	Lab File ID :	V023277.D
% Moisture:		Date Received	
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:		

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

CAS NO	COMPOUND		Q
72-54-8	4,4-DDD	3.3	U
72-55-9	4,4-DDE	3.3	U
50-29-3	4,4-DDT	3.3	U
309-00-2	Aldrin	1.7	U
319-84-6	Alpha-BHC	1.7	U
5103-71-9	Alpha-Chlordane	1.7	U
319-85-7	Beta-BHC	1.7	U
319-86-8	Delta-BHC	1.7	U
60-57-1	Dieldrin	3.3	U
959-98-8	Endosulfan I	1.7	U
33213-65-9	Endosulfan II	3.3	U
1031-07-8	Endosulfan Sulfate	3.3	U
72-20-8	Endrin	3.3	U
7421-93-4	Endrin Aldehyde	3.3	U
53494-70-5	Endrin Ketone	3.3	U
58-89-9	Gamma-BHC (Lindane)	1.7	U
5103-74-2	Gamma-Chlordane	1.7	U
76-44-8	Heptachlor	1.7	U
1024-57-3	Heptachlor Epoxide	1.7	U
72-43-5	Methoxychlor	17	U
12674-11-2	PCB-1016	33	U
11104-28-2	PCB-1221	67	U
11141-16-5	PCB-1232	33	U
53469-21-9	PCB-1242	33	U
12672-29-6	PCB-1248	33	U
11097-69-1	PCB-1254	33	U
11096-82-5	PCB-1260	33	U
8001-35-2	Toxaphene	170	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
25-IS02-0-1-07CMS

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-011-051-1/1MS
Sample Volume :	30.01	Lab File ID :	V023290.D
% Moisture:	18.16	Date Received	07/27/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	08/02/2007
Extract Volume:	5 mL	Date Analyzed	08/14/2007
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
72-54-8	4,4-DDD	1.7	J
72-55-9	4,4-DDE	6.4	
50-29-3	4,4-DDT	36	
309-00-2	Aldrin	26	
319-84-6	Alpha-BHC	2.0	U
5103-71-9	Alpha-Chlordane	2.0	U
319-85-7	Beta-BHC	2.0	U
319-86-8	Delta-BHC	2.0	U
60-57-1	Dieldrin	32	
959-98-8	Endosulfan I	2.0	U
33213-65-9	Endosulfan II	4.1	U
1031-07-8	Endosulfan Sulfate	4.1	U
72-20-8	Endrin	37	
7421-93-4	Endrin Aldehyde	5.4	
53494-70-5	Endrin Ketone	4.0	J
58-89-9	Gamma-BHC (Lindane)	15	
5103-74-2	Gamma-Chlordane	2.0	U
76-44-8	Heptachlor	20	
1024-57-3	Heptachlor Epoxide	2.0	U
72-43-5	Methoxychlor	20	U
12674-11-2	PCB-1016	41	U
11104-28-2	PCB-1221	81	U
11141-16-5	PCB-1232	41	U
53469-21-9	PCB-1242	41	U
12672-29-6	PCB-1248	41	U
11097-69-1	PCB-1254	41	U
11096-82-5	PCB-1260	41	U
8001-35-2	Toxaphene	200	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
25-IS02-0-1-07CMSD

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-011-051-1/1MSD
Sample Volume :	30.01	Lab File ID :	V023291.D
% Moisture:	18.16	Date Received	07/27/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	08/02/2007
Extract Volume:	5 mL	Date Analyzed	08/14/2007
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
72-54-8	4,4-DDD	1.4	J
72-55-9	4,4-DDE	4.2	
50-29-3	4,4-DDT	26	
309-00-2	Aldrin	20	
319-84-6	Alpha-BHC	2.0	U
5103-71-9	Alpha-Chlordane	2.0	U
319-85-7	Beta-BHC	2.0	U
319-86-8	Delta-BHC	2.0	U
60-57-1	Dieldrin	25	
959-98-8	Endosulfan I	2.0	U
33213-65-9	Endosulfan II	4.1	U
1031-07-8	Endosulfan Sulfate	4.1	U
72-20-8	Endrin	27	
7421-93-4	Endrin Aldehyde	4.6	
53494-70-5	Endrin Ketone	3.2	J
58-89-9	Gamma-BHC (Lindane)	11	
5103-74-2	Gamma-Chlordane	2.0	U
76-44-8	Heptachlor	16	
1024-57-3	Heptachlor Epoxide	2.0	U
72-43-5	Methoxychlor	20	U
12674-11-2	PCB-1016	41	U
11104-28-2	PCB-1221	81	U
11141-16-5	PCB-1232	41	U
53469-21-9	PCB-1242	41	U
12672-29-6	PCB-1248	41	U
11097-69-1	PCB-1254	41	U
11096-82-5	PCB-1260	41	U
8001-35-2	Toxaphene	200	U

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
BKS99582

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BKS99582
Sample Volume :	30	Lab File ID :	V023278.D
% Moisture:		Date Received	
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:		

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

CAS NO	COMPOUND		Q
72-54-8	4,4-DDD	1.4	J
72-55-9	4,4-DDE	2.8	J
50-29-3	4,4-DDT	26	
309-00-2	Aldrin	20	
319-84-6	Alpha-BHC	1.7	U
5103-71-9	Alpha-Chlordane	1.7	U
319-85-7	Beta-BHC	1.7	U
319-86-8	Delta-BHC	1.7	U
60-57-1	Dieldrin	26	
959-98-8	Endosulfan I	1.7	U
33213-65-9	Endosulfan II	3.3	U
1031-07-8	Endosulfan Sulfate	3.3	U
72-20-8	Endrin	30	
7421-93-4	Endrin Aldehyde	3.9	
53494-70-5	Endrin Ketone	3.7	
58-89-9	Gamma-BHC (Lindane)	12	
5103-74-2	Gamma-Chlordane	1.7	U
76-44-8	Heptachlor	16	
1024-57-3	Heptachlor Epoxide	1.7	U
72-43-5	Methoxychlor	17	U
12674-11-2	PCB-1016	33	U
11104-28-2	PCB-1221	67	U
11141-16-5	PCB-1232	33	U
53469-21-9	PCB-1242	33	U
12672-29-6	PCB-1248	33	U
11097-69-1	PCB-1254	33	U
11096-82-5	PCB-1260	33	U
8001-35-2	Toxaphene	170	U

Surrogate Recovery Summary

Matrix : SOIL **Analytical Method : CLP_OLM04.3_PEST/PC** **SDG No : 707172**

Surrogate	CL10BZ2	XYL2456CLM
Lower QC Limits	30	30
Upper QC Limits	150	150
Sample ID		
25-IS01-0-1-07C	85	104
	83	84
25-IS01-4-6-07C	92	92
	91	90
25-IS02-0-1-07C	91	96
	89	93
25-IS02-0-1-07CMS	97	103
	97	96
25-IS02-0-1-07CMSD	72	73
	72	77
25-IS02-5-7-07C	121	117
	120	116
25-IS03-0-1-07C	83	83
	82	85
25-IS03-8-10-07C	82	82
	80	82
25-IS04-0-1-07C	83	79
	83	79
25-IS04-10-12-07C	94	95
	95	97
BKS99582	85	84
	86	86
BLK99582	85	88
	87	88

* Value outside of QC Limts

CL10BZ2 = Decachlorobiphenyl XYL2456CLM = Tetrachloro-m-xylene

GPL Laboratories

MS/MSD RECOVERY

SAMPLE NO
25-IS02-0-1-07CMSD

Lab Name : GPL Laboratories SDG NO : 707172 Method : CLP OLM04.3 PEST/PCB

Lab Code : GPL Lab Sample ID : 707172-011-051-1/1MSD Matrix : SOIL Analysis Date : 08/14/2007

Compound	Spike Added (ug/kg)		CONCENTRATION (ug/kg)			%RECOVERY		% RPD	RPD Limit	QC Limits
	MS	MSD	Sample	MS	MSD	MS	MSD			
4,4-DDT	41	41	1.6	36	26	83	60	32	50	23-134
Aldrin	20	20	0.0	26	20	129	99	26	43	34-132
Dieldrin	41	41	0.0	32	25	79	60	27	38	31-134
Endrin	41	41	0.0	37	27	89	66	30	45	42-139
Gamma-BHC (Lindane)	20	20	0.0	15	11	75	57	27	50	46-127
Heptachlor	20	20	0.0	20	16	102	78	27	31	45-128

Column to be used to flag recovery and RPD Values with an asterisk.

* Values Outside of QC Limits.

RPD 0 Out of 6 Outside Limit
Spike Recovery : 0 Out of 12 outside limit

GPL Laboratories

LCS SUMMARY

SAMPLE NO
BKS99582

Lab Name : GPL Laboratories
Contract. : MILCON Area Investigations - CTO-169
Lab Code : GPL
SDG NO : 707172
Matrix : SOIL
Lab Sample ID : BKS99582
Method : CLP_OLM04.3_PEST/PCB
Analysis Date : 08/13/2007

COMPOUND	SPIKE ADDED (ug/kg)	BLANK CONCENTRATION (ug/kg)	LCS CONCENTRATION (ug/kg)	LCS % REC	QC LIMTS
4,4-DDT	33	0	26	80	31-162
Aldrin	17	0	20	115	46-163
Dieldrin	33	0	26	79	47-142
Endrin	33	0	30	90	53-145
Gamma-BHC (Lindane)	17	0	12	69	22-125
Heptachlor	17	0	16	92	45-128

* Values Outside of QC Limits.

Spike recovery : 0 out of 6 outside limits

GPL Laboratories

GPL
FORM 4
PESTICIDE METHOD BLANK SUMMARY

SAMPLE NO
BLK99582

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	99582
Lab File ID :	V023277.D	SDG NO :	707172
Date Extracted :	08/02/2007	Lab Sample ID :	BLK99582
Date Analyzed(1)	08/13/2007	Time Analyzed (1):	21:38
Date Analyzed (2)	08/13/2007	Time Analyzed(2)	21:38
GC Column(1)	RTx-CLP ID : _____ (mm)	GC Column(2) :	RTx-CLP2 ID : _____ (mm)
Matrix :(Soil/Water).	SOIL	Extraction:	SepF / Cont / Sonc
Sulfur Cleanup:(Y/N).	N		

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES,MS AND MSD :

Client Sample ID	Lab Sample ID	Date Analyzed 1	Date Analyzed 2
BKS99582	BKS99582	08/13/2007	08/13/2007
25-IS01-0-1-07C	707172-009-049-1/1	08/13/2007	08/13/2007
25-IS01-4-6-07C	707172-010-050-1/1	08/13/2007	08/13/2007
25-IS02-0-1-07C	707172-011-051-1/1	08/13/2007	08/13/2007
25-IS02-5-7-07C	707172-012-052-1/1	08/14/2007	08/14/2007
25-IS03-0-1-07C	707172-013-053-1/1	08/14/2007	08/14/2007
25-IS03-8-10-07C	707172-014-054-1/1	08/14/2007	08/14/2007
25-IS04-0-1-07C	707172-015-055-1/1	08/14/2007	08/14/2007
25-IS04-10-12-07C	707172-016-056-1/1	08/14/2007	08/14/2007
25-IS02-0-1-07CMS	707172-011-051-1/1MS	08/14/2007	08/14/2007
25-IS02-0-1-07CMSD	707172-011-051-1/1MSD	08/14/2007	08/14/2007

6D

PESTICIDE INITIAL CALIBRATION OF SINGLE COMPONENT ANALYTES

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: GC-V Level (x low): low 1.0 mid 4.0 high 16.0

GC Column: RTx-CLP ID: 0.32 (mm) Date(s) Analyzed: 08/13/07 08/13/07

COMPOUND	RT OF STANDARDS LOW	MED	HIGH	MEAN RT	RT WINDOW FROM	TO
alpha-BHC	8.12	8.12	8.12	8.12	8.07	8.17
gamma-BHC (Lindane)	9.11	9.11	9.11	9.11	9.06	9.16
Heptachlor	10.62	10.63	10.63	10.63	10.58	10.68
Aldrin	11.59	11.60	11.59	11.59	11.54	11.64
beta-BHC	9.37	9.38	9.36	9.37	9.32	9.42
delta-BHC	9.94	9.94	9.93	9.94	9.89	9.99
Heptachlor Epoxide	13.55	13.55	13.55	13.55	13.48	13.62
Endosulfan I	14.83	14.84	14.84	14.84	14.77	14.91
gamma-Chlordane	13.96	13.96	13.95	13.96	13.89	14.03
alpha-Chlordane	14.39	14.39	14.39	14.39	14.32	14.46
4,4-DDE	14.65	14.65	14.65	14.65	14.58	14.72
Dieldrin	15.62	15.62	15.62	15.62	15.55	15.69
Endrin	16.38	16.39	16.39	16.39	16.32	16.46
Endosulfan II	17.13	17.13	17.13	17.13	17.06	17.20
4,4-DDD	16.62	16.62	16.62	16.62	16.55	16.69
4,4-DDT	17.52	17.52	17.52	17.52	17.45	17.59
Endrin Aldehyde	18.30	18.30	18.30	18.30	18.23	18.37
Endosulfan Sulfate	19.29	19.29	19.29	19.29	19.22	19.36
Methoxychlor	18.75	18.75	18.75	18.75	18.68	18.82
Endrin Ketone	19.86	19.86	19.86	19.86	19.79	19.93
Tetrachloro-m-xylene	6.40	6.40	6.40	6.40	6.35	6.45
Decachlorobiphenyl	22.10	22.10	22.10	22.10	22.00	22.20

* Surrogate retention times are measured from Standard Mix A analyses. Retention time windows are +/- 0.05 minutes for all compounds that elute before Heptachlor epoxide, +/- 0.07 minutes for all other compounds, except +/- 0.10 minutes for Decachlorobiphenyl

6D

PESTICIDE INITIAL CALIBRATION OF SINGLE COMPONENT ANALYTES

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: GC-V Level (x low): low 1.0 mid 4.0 high 16.0

GC Column: RTx-CLP2 ID: 0.32 (mm) Date(s) Analyzed: 08/13/07 08/13/07

COMPOUND	RT OF STANDARDS			MEAN	RT WINDOW	
	LOW	MED	HIGH	RT	FROM	TO
alpha-BHC	7.70	7.70	7.70	7.70	7.65	7.75
gamma-BHC (Lindane)	8.78	8.78	8.78	8.78	8.73	8.83
Heptachlor	10.13	10.13	10.13	10.13	10.08	10.18
Aldrin	11.14	11.14	11.14	11.14	11.09	11.19
beta-BHC	9.05	9.06	9.04	9.05	9.00	9.10
delta-BHC	9.95	9.96	9.95	9.95	9.90	10.00
Heptachlor Epoxide	12.99	12.99	12.98	12.99	12.92	13.06
Endosulfan I	14.24	14.24	14.24	14.24	14.17	14.31
gamma-Chlordane	13.59	13.59	13.59	13.59	13.52	13.66
alpha-Chlordane	14.07	14.07	14.07	14.07	14.00	14.14
4,4-DDE	14.66	14.66	14.66	14.66	14.59	14.73
Dieldrin	15.13	15.14	15.14	15.14	15.07	15.21
Endrin	16.12	16.13	16.12	16.12	16.05	16.19
Endosulfan II	16.85	16.85	16.85	16.85	16.78	16.92
4,4-DDD	16.58	16.58	16.58	16.58	16.51	16.65
4,4-DDT	17.57	17.57	17.57	17.57	17.50	17.64
Endrin Aldehyde	17.88	17.88	17.88	17.88	17.81	17.95
Endosulfan Sulfate	18.58	18.58	18.58	18.58	18.51	18.65
Methoxychlor	19.24	19.24	19.24	19.24	19.17	19.31
Endrin Ketone	19.68	19.69	19.69	19.69	19.62	19.76
Tetrachloro-m-xylene	5.86	5.86	5.86	5.86	5.81	5.91
Decachlorobiphenyl	22.40	22.40	22.40	22.40	22.30	22.50

* Surrogate retention times are measured from Standard Mix A analyses. Retention time windows are +/- 0.05 minutes for all compounds that elute before Heptachlor epoxide, +/- 0.07 minutes for all other compounds, except +/- 0.10 minutes for Decachlorobiphenyl

6E

PESTICIDE INITIAL CALIBRATION OF SINGLE COMPONENT ANALYTES

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: GC-V Level (x low): low 1.0 mid 4.0 high 16.0

GC Column: RTx-CLP ID: 0.32 (mm) Date(s) Analyzed: 08/13/07 08/13/07

COMPOUND	CALIBRATION FACTORS LOW	MED	HIGH	MEAN	%RSD
alpha-BHC	3108052925	2919554743	2734531437	2920713035	6.4
gamma-BHC (Lindane)	3023311619	2820788288	2597556378	2813885428	7.6
Heptachlor	2711456638	2403064880	2069483451	2394668323	13.4
Aldrin	2596223590	2225120950	2033328645	2284891062	12.5
beta-BHC	1606204270	1361126063	1195835573	1387721969	14.9
delta-BHC	2915953982	2603406176	2579346113	2699568757	7.0
Heptachlor Epoxide	2572583185	2183633478	1936339170	2230851945	14.4
Endosulfan I	2427579031	2149811246	1824458647	2133949641	14.1
gamma-Chlordane	2559385421	2145719065	1857580245	2187561577	16.1
alpha-Chlordane	2467464213	2076635603	1866875637	2136991818	14.3
4,4-DDE	1997234009	1848257099	1743253346	1862914818	6.9
Dieldrin	2323335707	2087651292	1940227071	2117071356	9.1
Endrin	1900988305	1711861561	1569890956	1727580274	9.6
Endosulfan II	2126098925	1853007991	1679291908	1886132941	11.9
4,4-DDD	1840092452	1675768301	1535243805	1683701519	9.1
4,4-DDT	1626703568	1484324138	1393357458	1501461722	7.8
Endrin Aldehyde	739388064	640986809	560910282	647095052	13.8
Endosulfan Sulfate	1741325603	1544432125	1409926395	1565228041	10.6
Methoxychlor	776684528	716823673	662352367	718620190	8.0
Endrin Ketone	1880526235	1769700682	1661128599	1770451839	6.2
Tetrachloro-m-xylene	2333366679	2112050403	1852098650	2099171911	11.5
Decachlorobiphenyl	1314451073	1222528006	1004041700	1180340260	13.5

* Surrogate calibration factors are measured from Standard Mix A analyses.

%RSD must be less than or equal to 20.0 % for all compounds except the surrogates, where %RSD must be less than or equal to 30.0%. Up to two target compounds, but not surrogates, may have %RSD greater than 20.0% but less than or equal to 30.0%

3/90

6E

PESTICIDE INITIAL CALIBRATION OF SINGLE COMPONENT ANALYTES

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: GC-V Level (x low): low 1.0 mid 4.0 high 16.0

GC Column: RTx-CLP2 ID: 0.32 (mm) Date(s) Analyzed: 08/13/07 08/13/07

COMPOUND	CALIBRATION FACTORS LOW	MED	HIGH	MEAN	%RSD
alpha-BHC	4547132016	4343741599	4343920637	4411598084	2.7
gamma-BHC (Lindane)	4428732162	4209470122	4071955634	4236719306	4.2
Heptachlor	3943344048	3600532252	3286260298	3610045533	9.1
Aldrin	3890812034	3366439333	3313900404	3523717257	9.1
beta-BHC	2402089756	2013330827	1818397344	2077939309	14.3
delta-BHC	4328808397	3918896653	3974090571	4073931874	5.5
Heptachlor Epoxide	3809824889	3234102054	2990521852	3344816265	12.6
Endosulfan I	3575665157	3134181548	2836484011	3182110239	11.7
gamma-Chlordane	3734076324	3199465877	2962426479	3298656226	12.0
alpha-Chlordane	3728715485	3162136423	2915391964	3268747957	12.8
4,4-DDE	3039944897	2825759928	2886520162	2917408329	3.8
Dieldrin	3413327219	3198260050	3176484902	3262690724	4.0
Endrin	2692881082	2558487741	2516601901	2589323575	3.6
Endosulfan II	3189408045	2829096670	2724231627	2914245447	8.4
4,4-DDD	2775581947	2603341462	2515963219	2631628876	5.0
4,4-DDT	2111528789	2152702075	2228343396	2164191420	2.7
Endrin Aldehyde	1131231756	1001734901	875916978	1002961212	12.7
Endosulfan Sulfate	2628167164	2345091398	2211979143	2395079235	8.9
Methoxychlor	1129421808	1105202577	1070462975	1101695787	2.7
Endrin Ketone	2821220025	2607480851	2545336144	2658012340	5.4
Tetrachloro-m-xylene	3511309368	3169607277	2813731715	3164882787	11.0
Decachlorobiphenyl	2512763366	2144528360	1795505497	2150932408	16.7

* Surrogate calibration factors are measured from Standard Mix A analyses.

%RSD must be less than or equal to 20.0 % for all compounds except the surrogates, where %RSD must be less than or equal to 30.0%. Up to two target compounds, but not surrogates, may have %RSD greater than 20.0% but less than or equal to 30.0%

3/90

6F

PESTICIDE INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: GC-V Date(s) Analyzed: 08/13/07 08/13/07

GC Column: RTx-CLP ID: 0.32 (mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
AR1016	0.100	* 1	8.56	8.49	8.63	89183156
		* 2	10.41	10.34	10.48	79718207
		* 3	10.61	10.54	10.68	48767235
		4	11.68	11.61	11.75	57165362
		5	12.89	12.82	12.96	45457979
AR1221	0.200	* 1	6.92	6.85	6.99	25238022
		* 2	7.36	7.29	7.43	17278749
		* 3	7.49	7.42	7.56	69998960
AR1232	0.100	* 1	9.20	9.13	9.27	17919350
		* 2	10.00	9.93	10.07	47715861
		* 3	11.17	11.10	11.24	16003961
		4	11.96	11.89	12.03	15742855
		5	12.08	12.01	12.15	20894546
AR1242	0.100	* 1	9.20	9.13	9.27	29425302
		* 2	10.00	9.93	10.07	75900860
		* 3	11.06	10.99	11.13	27771900
		4	12.76	12.69	12.83	23578880
		5	13.12	13.05	13.19	48748933
AR1254	0.100	* 1	13.85	13.78	13.92	48277772
		* 2	14.62	14.55	14.69	70484585
		* 3	15.93	15.86	16.00	125611420
		4	16.85	16.78	16.92	84111574
		5	17.44	17.37	17.51	168775976
AR1260	0.100	* 1	15.61	15.54	15.68	112040377
		* 2	16.53	16.46	16.60	166907681
		* 3	17.76	17.69	17.83	74771805
		4	18.40	18.33	18.47	78342587
		5	19.10	19.03	19.17	148512342
Toxaphene	0.500	* 1	18.64	18.57	18.71	25334132
		* 2	19.08	19.01	19.15	72455036
		* 3	19.44	19.37	19.51	30929756
		4	20.14	20.07	20.21	32850736

* Denotes required peaks

6F

PESTICIDE INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: GC-V Date(s) Analyzed: 08/13/07 08/13/07

GC Column: RTx-CLP2 ID: 0.32 (mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
AR1016	0.100	* 1	8.46	8.39	8.53	147671746
		* 2	9.83	9.76	9.90	181878991
		* 3	10.23	10.16	10.30	126530539
		4	11.67	11.60	11.74	94666198
		5	12.05	11.98	12.12	90562821
AR1221	0.200	* 1	6.71	6.64	6.78	42037112
		* 2	7.11	7.04	7.18	29364047
		* 3	7.29	7.22	7.36	107043224
AR1232	0.100	* 1	9.08	9.01	9.15	19561840
		* 2	9.49	9.42	9.56	12246040
		* 3	10.97	10.90	11.04	28257280
		4	11.67	11.60	11.74	43120320
		5	12.53	12.46	12.60	14549480
AR1242	0.100	* 1	9.08	9.01	9.15	33114660
		* 2	10.23	10.16	10.30	95446620
		* 3	11.09	11.02	11.16	54870495
		4	12.66	12.59	12.73	46797720
		5	13.01	12.94	13.08	90979240
AR1254	0.100	* 1	12.99	12.92	13.06	119181740
		* 2	14.71	14.64	14.78	107976920
		* 3	16.41	16.34	16.48	116940220
		4	17.00	16.93	17.07	170545860
		5	18.48	18.41	18.55	60381180
AR1260	0.100	* 1	15.72	15.65	15.79	174828033
		* 2	16.41	16.34	16.48	217639977
		* 3	17.57	17.50	17.64	218456354
		4	18.56	18.49	18.63	124414550
		5	19.11	19.04	19.18	255866725
Toxaphene	0.500	* 1	17.90	17.83	17.97	78786476
		* 2	18.54	18.47	18.61	48027944
		* 3	19.49	19.42	19.56	42138740
		4	20.27	20.20	20.34	62170500

* Denotes required peaks

6G
PESTICIDE ANALYTE RESOLUTION SUMMARY

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

GC Column (1) : RTx-CLP ID: 0.32 (mm) Instrument ID (1): GC-V

EPA Sample No. (Standard 1) RESC-401 Lab Sample ID (1): RESC-401

Date Analyzed (1): 08/13/07 Time Analyzed (1): 10:39

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	6.41	100.0
02	gamma-Chlordane	13.96	100.0
03	4,4-DDE	14.65	100.0
04	Endosulfan I	14.84	100.0
05	Dieldrin	15.63	100.0
06	Methoxychlor	18.76	100.0
07	Endosulfan Sulfate	19.29	100.0
08	Endrin Ketone	19.87	100.0
09	Decachlorobiphenyl	22.11	

GC Column (2): RTx-CLP2 ID: 0.32 (mm) Instrument ID (2): GC-V

EPA Sample No (Standard 2) RESC-401 Lab Sample ID (2): RESC-401

Date Analyzed (2): 08/13/07 Time Analyzed (2): 10:39

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	5.87	100.0
02	gamma-Chlordane	13.59	100.0
03	Endosulfan I	14.24	100.0
04	4,4-DDE	14.67	100.0
05	Dieldrin	15.14	100.0
06	Endosulfan Sulfate	18.58	100.0
07	Methoxychlor	19.25	100.0
08	Endrin Ketone	19.69	100.0
09	Decachlorobiphenyl	22.41	

6H
PERFORMANCE EVALUATION MIXTURE (PEM)

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

GC Column (1) : RTx-CLP ID: 0.32 (mm) Instrument ID (1): GC-V

EPA Sample No. (Standard 1) PEM-401 Lab Sample ID (1): PEM-401

Date Analyzed (1): 08/13/07 Time Analyzed (1): 11:09

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	6.41	100.0
02	alpha-BHC	8.12	100.0
03	gamma-BHC (Lindane)	9.11	100.0
04	beta-BHC	9.37	100.0
05	Endrin	16.39	100.0
06	4,4-DDT	17.52	100.0
07	Methoxychlor	18.75	100.0
08	Decachlorobiphenyl	22.11	

GC Column (2): RTx-CLP2 ID: 0.32 (mm) Instrument ID (2): GC-V

EPA Sample No (Standard 2) PEM-401 Lab Sample ID (2): PEM-401

Date Analyzed (2): 08/13/07 Time Analyzed (2): 11:09

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	5.87	100.0
02	alpha-BHC	7.70	100.0
03	gamma-BHC (Lindane)	8.78	100.0
04	beta-BHC	9.05	100.0
05	Endrin	16.13	100.0
06	4,4-DDT	17.58	100.0
07	Methoxychlor	19.25	100.0
08	Decachlorobiphenyl	22.41	

6H

PERFORMANCE EVALUATION MIXTURE (PEM)

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

GC Column (1) : RTx-CLP ID: 0.32 (mm) Instrument ID (1): GC-V

EPA Sample No. (Standard 1) PEM-402 Lab Sample ID (1): PEM-402

Date Analyzed (1): 08/13/07 Time Analyzed (1): 18:38

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	6.40	100.0
02	alpha-BHC	8.12	100.0
03	gamma-BHC (Lindane)	9.10	100.0
04	beta-BHC	9.36	100.0
05	Endrin	16.39	100.0
06	4,4-DDT	17.52	100.0
07	Methoxychlor	18.75	100.0
08	Decachlorobiphenyl	22.10	

GC Column (2): RTx-CLP2 ID: 0.32 (mm) Instrument ID (2): GC-V

EPA Sample No (Standard 2) PEM-402 Lab Sample ID (2): PEM-402

Date Analyzed (2): 08/13/07 Time Analyzed (2): 18:38

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	5.87	100.0
02	alpha-BHC	7.69	100.0
03	gamma-BHC (Lindane)	8.78	100.0
04	beta-BHC	9.04	100.0
05	Endrin	16.12	100.0
06	4,4-DDT	17.57	100.0
07	Methoxychlor	19.24	100.0
08	Decachlorobiphenyl	22.41	

6H
PERFORMANCE EVALUATION MIXTURE (PEM)

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

GC Column (1) : RTx-CLP ID: 0.32 (mm) Instrument ID (1): GC-V

EPA Sample No. (Standard 1) PEM-403 Lab Sample ID (1): PEM-403

Date Analyzed (1): 08/14/07 Time Analyzed (1): 09:47

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	6.37	100.0
02	alpha-BHC	8.09	100.0
03	gamma-BHC (Lindane)	9.07	100.0
04	beta-BHC	9.33	100.0
05	Endrin	16.35	100.0
06	4,4-DDT	17.50	100.0
07	Methoxychlor	18.73	100.0
08	Decachlorobiphenyl	22.09	

GC Column (2): RTx-CLP2 ID: 0.32 (mm) Instrument ID (2): GC-V

EPA Sample No (Standard 2) PEM-403 Lab Sample ID (2): PEM-403

Date Analyzed (2): 08/14/07 Time Analyzed (2): 09:47

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	5.85	100.0
02	alpha-BHC	7.67	100.0
03	gamma-BHC (Lindane)	8.75	100.0
04	beta-BHC	9.02	100.0
05	Endrin	16.09	100.0
06	4,4-DDT	17.55	100.0
07	Methoxychlor	19.22	100.0
08	Decachlorobiphenyl	22.38	

6I
INDIVIDUAL STANDARD MIXTURE A

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

GC Column (1) : RTx-CLP ID: 0.32 (mm) Instrument ID (1): GC-V

EPA Sample No. (Standard 1) INDAM-401 Lab Sample ID (1): INDAM-401

Date Analyzed (1): 08/13/07 Time Analyzed (1): 16:08

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	6.40	100.0
02	alpha-BHC	8.12	100.0
03	gamma-BHC (Lindane)	9.11	100.0
04	Heptachlor	10.63	100.0
05	Endosulfan I	14.84	100.0
06	Dieldrin	15.62	100.0
07	Endrin	16.39	100.0
08	4,4-DDD	16.62	100.0
09	4,4-DDT	17.52	100.0
10	Methoxychlor	18.75	100.0
11	Decachlorobiphenyl	22.11	

GC Column (2): RTx-CLP2 ID: 0.32 (mm) Instrument ID (2): GC-V

EPA Sample No (Standard 2) INDAM-401 Lab Sample ID (2): INDAM-401

Date Analyzed (2): 08/13/07 Time Analyzed (2): 16:08

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	5.86	100.0
02	alpha-BHC	7.70	100.0
03	gamma-BHC (Lindane)	8.79	100.0
04	Heptachlor	10.13	100.0
05	Endosulfan I	14.24	100.0
06	Dieldrin	15.14	100.0
07	Endrin	16.13	100.0
08	4,4-DDD	16.58	100.0
09	4,4-DDT	17.57	100.0
10	Methoxychlor	19.24	100.0
11	Decachlorobiphenyl	22.41	

6I
INDIVIDUAL STANDARD MIXTURE A

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

GC Column (1) : RTx-CLP ID: 0.32 (mm) Instrument ID (1): GC-V

EPA Sample No. (Standard 1) INDAM-402 Lab Sample ID (1): INDAM-402

Date Analyzed (1): 08/14/07 Time Analyzed (1): 00:38

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	6.40	100.0
02	alpha-BHC	8.12	100.0
03	gamma-BHC (Lindane)	9.10	100.0
04	Heptachlor	10.62	100.0
05	Endosulfan I	14.83	100.0
06	Dieldrin	15.62	100.0
07	Endrin	16.38	100.0
08	4,4-DDD	16.61	100.0
09	4,4-DDT	17.52	100.0
10	Methoxychlor	18.75	100.0
11	Decachlorobiphenyl	22.10	

GC Column (2): RTx-CLP2 ID: 0.32 (mm) Instrument ID (2): GC-V

EPA Sample No (Standard 2) INDAM-402 Lab Sample ID (2): INDAM-402

Date Analyzed (2): 08/14/07 Time Analyzed (2): 00:38

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	5.86	100.0
02	alpha-BHC	7.69	100.0
03	gamma-BHC (Lindane)	8.77	100.0
04	Heptachlor	10.12	100.0
05	Endosulfan I	14.23	100.0
06	Dieldrin	15.13	100.0
07	Endrin	16.12	100.0
08	4,4-DDD	16.57	100.0
09	4,4-DDT	17.57	100.0
10	Methoxychlor	19.24	100.0
11	Decachlorobiphenyl	22.40	

6J
INDIVIDUAL STANDARD MIXTURE B

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

GC Column (1) : RTx-CLP ID: 0.32 (mm) Instrument ID (1): GC-V

EPA Sample No. (Standard 1) INDBM-401 Lab Sample ID (1): INDBM-401

Date Analyzed (1): 08/13/07 Time Analyzed (1): 16:38

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	6.41	100.0
02	beta-BHC	9.38	100.0
03	delta-BHC	9.94	100.0
04	Aldrin	11.60	100.0
05	Heptachlor Epoxide	13.55	100.0
06	gamma-Chlordane	13.96	100.0
07	alpha-Chlordane	14.39	100.0
08	4,4-DDE	14.65	100.0
09	Endosulfan II	17.14	100.0
10	Endrin Aldehyde	18.30	100.0
11	Endosulfan Sulfate	19.29	100.0
12	Endrin Ketone	19.86	100.0
13	Decachlorobiphenyl	22.10	

GC Column (2): RTx-CLP2 ID: 0.32 (mm) Instrument ID (2): GC-V

EPA Sample No (Standard 2) INDBM-401 Lab Sample ID (2): INDBM-401

Date Analyzed (2): 08/13/07 Time Analyzed (2): 16:38

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	5.88	100.0
02	beta-BHC	9.06	100.0
03	delta-BHC	9.96	100.0
04	Aldrin	11.14	100.0
05	Heptachlor Epoxide	12.99	100.0
06	gamma-Chlordane	13.59	100.0
07	alpha-Chlordane	14.07	100.0
08	4,4-DDE	14.67	100.0
09	Endosulfan II	16.85	100.0
10	Endrin Aldehyde	17.88	100.0
11	Endosulfan Sulfate	18.58	100.0
12	Endrin Ketone	19.69	100.0
13	Decachlorobiphenyl	22.41	

6J
INDIVIDUAL STANDARD MIXTURE B

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

GC Column (1) : RTx-CLP ID: 0.32 (mm) Instrument ID (1): GC-V

EPA Sample No. (Standard 1) INDBM-402 Lab Sample ID (1): INDBM-402

Date Analyzed (1): 08/14/07 Time Analyzed (1): 01:08

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	6.40	100.0
02	beta-BHC	9.36	100.0
03	delta-BHC	9.93	100.0
04	Aldrin	11.58	100.0
05	Heptachlor Epoxide	13.54	100.0
06	gamma-Chlordane	13.95	100.0
07	alpha-Chlordane	14.38	100.0
08	4,4-DDE	14.64	100.0
09	Endosulfan II	17.13	100.0
10	Endrin Aldehyde	18.30	100.0
11	Endosulfan Sulfate	19.29	100.0
12	Endrin Ketone	19.86	100.0
13	Decachlorobiphenyl	22.10	

GC Column (2): RTx-CLP2 ID: 0.32 (mm) Instrument ID (2): GC-V

EPA Sample No (Standard 2) INDBM-402 Lab Sample ID (2): INDBM-402

Date Analyzed (2): 08/14/07 Time Analyzed (2): 01:08

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	5.86	100.0
02	beta-BHC	9.04	100.0
03	delta-BHC	9.94	100.0
04	Aldrin	11.13	100.0
05	Heptachlor Epoxide	12.98	100.0
06	gamma-Chlordane	13.58	100.0
07	alpha-Chlordane	14.06	100.0
08	4,4-DDE	14.66	100.0
09	Endosulfan II	16.84	100.0
10	Endrin Aldehyde	17.88	100.0
11	Endosulfan Sulfate	18.57	100.0
12	Endrin Ketone	19.68	100.0
13	Decachlorobiphenyl	22.40	

7D
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

GC Column : RTx-CLP ID: 0.32 (mm) Init. Calib. Date(s): 08/13/07 08/13/07

EPA Sample No (PIBLK): Date Analyzed:

Lab Sample ID. (PIBLK): Time Analyzed:

EPA Sample No (PEM): PEM-401 Date Analyzed: 08/13/07

Lab Sample ID. (PEM): PEM-401 Time Analyzed: 11:09

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	RPD
Tetrachloro-m-xylene	6.41	6.36	6.46	0.019	0.020	5.3
alpha-BHC	8.12	8.07	8.17	0.009	0.010	11.1
beta-BHC	9.36	9.31	9.41	0.010	0.010	0.0
Endrin	16.39	16.32	16.46	0.047	0.050	6.4
4,4-DDT	17.52	17.45	17.59	0.080	0.100	25.0
Methoxychlor	18.75	18.68	18.82	0.213	0.250	17.4
Decachlorobiphenyl	22.10	22.00	22.20	0.018	0.020	11.1

4,4'-DDT % breakdown (1): 13.6 Endrin % breakdown (1): 14.4

Combined % breakdown (1): 28.1

QC LIMITS:

RPD of amounts in PEM must be less than or equal to 25.0%
4,4'-DDT breakdown must be less than or equal to 20.0%
Endrin breakdown must be less than or equal to 20.0%
Combined breakdown must be less than or equal to 30.0%

7D
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

GC Column : RTx-CLP2 ID: 0.32 (mm) Init. Calib. Date(s): 08/13/07 08/13/07

EPA Sample No (PIBLK): Date Analyzed:

Lab Sample ID. (PIBLK): Time Analyzed:

EPA Sample No (PEM): PEM-401 Date Analyzed: 08/13/07

Lab Sample ID. (PEM): PEM-401 Time Analyzed: 11:09

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	RPD
Tetrachloro-m-xylene	5.87	5.82	5.92	0.019	0.020	5.3
alpha-BHC	7.70	7.65	7.75	0.009	0.010	11.1
beta-BHC	9.05	9.00	9.10	0.010	0.010	0.0
Endrin	16.13	16.06	16.20	0.047	0.050	6.4
4,4-DDT	17.58	17.51	17.65	0.084	0.100	19.0
Methoxychlor	19.24	19.17	19.31	0.208	0.250	20.2
Decachlorobiphenyl	22.41	22.31	22.51	0.019	0.020	5.3

4,4'-DDT % breakdown (1): 15.2 Endrin % breakdown (1): 16.5

Combined % breakdown (1): 31.7

QC LIMITS:

RPD of amounts in PEM must be less than or equal to 25.0%
4,4'-DDT breakdown must be less than or equal to 20.0%
Endrin breakdown must be less than or equal to 20.0%
Combined breakdown must be less than or equal to 30.0%

7D
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

GC Column : RTx-CLP ID: 0.32 (mm) Init. Calib. Date(s): 08/13/07 08/13/07

EPA Sample No (PIBLK): PIBLK-401 Date Analyzed: 08/13/07

Lab Sample ID. (PIBLK): PIBLK-401 Time Analyzed: 18:08

EPA Sample No (PEM): PEM-402 Date Analyzed: 08/13/07

Lab Sample ID. (PEM): PEM-402 Time Analyzed: 18:38

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	RPD
Tetrachloro-m-xylene	6.40	6.35	6.45	0.018	0.020	11.1
alpha-BHC	8.12	8.07	8.17	0.009	0.010	11.1
beta-BHC	9.36	9.31	9.41	0.010	0.010	0.0
Endrin	16.39	16.32	16.46	0.043	0.050	16.3
4,4-DDT	17.52	17.45	17.59	0.076	0.100	31.6
Methoxychlor	18.75	18.68	18.82	0.205	0.250	22.0
Decachlorobiphenyl	22.10	22.00	22.20	0.017	0.020	17.6

4,4'-DDT % breakdown (1): 16.5 Endrin % breakdown (1): 27.2

Combined % breakdown (1): 43.7

QC LIMITS:

RPD of amounts in PEM must be less than or equal to 25.0%
4,4'-DDT breakdown must be less than or equal to 20.0%
Endrin breakdown must be less than or equal to 20.0%
Combined breakdown must be less than or equal to 30.0%

7D
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

GC Column : RTx-CLP2 ID: 0.32 (mm) Init. Calib. Date(s): 08/13/07 08/13/07

EPA Sample No (PIBLK): PIBLK-401 Date Analyzed: 08/13/07

Lab Sample ID. (PIBLK): PIBLK-401 Time Analyzed: 18:08

EPA Sample No (PEM): PEM-402 Date Analyzed: 08/13/07

Lab Sample ID. (PEM): PEM-402 Time Analyzed: 18:38

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	RPD
Tetrachloro-m-xylene	5.87	5.82	5.92	0.019	0.020	5.3
alpha-BHC	7.69	7.64	7.74	0.009	0.010	11.1
beta-BHC	9.04	8.99	9.09	0.010	0.010	0.0
Endrin	16.12	16.05	16.19	0.043	0.050	16.3
4,4-DDT	17.57	17.50	17.64	0.082	0.100	22.0
Methoxychlor	19.24	19.17	19.31	0.214	0.250	16.8
Decachlorobiphenyl	22.40	22.30	22.50	0.018	0.020	11.1

4,4'-DDT % breakdown (1): 18.4 Endrin % breakdown (1): 29.1

Combined % breakdown (1): 47.5

QC LIMITS:

RPD of amounts in PEM must be less than or equal to 25.0%
4,4'-DDT breakdown must be less than or equal to 20.0%
Endrin breakdown must be less than or equal to 20.0%
Combined breakdown must be less than or equal to 30.0%

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

GC Column : RTx-CLP ID: 0.32 (mm) Init. Calib. Date(s): 08/13/07 08/13/07

EPA Sample No (PIBLK): PIBLK-403 Date Analyzed: 08/14/07

Lab Sample ID. (PIBLK): PIBLK-403 Time Analyzed: 06:38

EPA Sample No (PEM): PEM-403 Date Analyzed: 08/14/07

Lab Sample ID. (PEM): PEM-403 Time Analyzed: 09:47

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	RPD
Tetrachloro-m-xylene	6.37	6.32	6.42	0.019	0.020	5.3
alpha-BHC	8.09	8.04	8.14	0.009	0.010	11.1
beta-BHC	9.33	9.28	9.38	0.010	0.010	0.0
Endrin	16.35	16.28	16.42	0.039	0.050	28.2
4,4-DDT	17.49	17.42	17.56	0.075	0.100	33.3
Methoxychlor	18.73	18.66	18.80	0.196	0.250	27.6
Decachlorobiphenyl	22.09	21.99	22.19	0.020	0.020	0.0

4,4'-DDT % breakdown (1): 6.8 Endrin % breakdown (1): 20.6

Combined % breakdown (1): 27.3

QC LIMITS:

RPD of amounts in PEM must be less than or equal to 25.0%

4,4'-DDT breakdown must be less than or equal to 20.0%

Endrin breakdown must be less than or equal to 20.0%

Combined breakdown must be less than or equal to 30.0%

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

GC Column : RTx-CLP2 ID: 0.32 (mm) Init. Calib. Date(s): 08/13/07 08/13/07

EPA Sample No (PIBLK): PIBLK-403 Date Analyzed: 08/14/07

Lab Sample ID. (PIBLK): PIBLK-403 Time Analyzed: 06:38

EPA Sample No (PEM): PEM-403 Date Analyzed: 08/14/07

Lab Sample ID. (PEM): PEM-403 Time Analyzed: 09:47

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	RPD
Tetrachloro-m-xylene	5.84	5.79	5.89	0.019	0.020	5.3
alpha-BHC	7.67	7.62	7.72	0.009	0.010	11.1
beta-BHC	9.02	8.97	9.07	0.010	0.010	0.0
Endrin	16.09	16.02	16.16	0.042	0.050	19.0
4,4-DDT	17.55	17.48	17.62	0.088	0.100	13.6
Methoxychlor	19.22	19.15	19.29	0.209	0.250	19.6
Decachlorobiphenyl	22.38	22.28	22.48	0.021	0.020	5.0

4,4'-DDT % breakdown (1): 11.3 Endrin % breakdown (1): 22.8

Combined % breakdown (1): 34.1

QC LIMITS:

RPD of amounts in PEM must be less than or equal to 25.0%

4,4'-DDT breakdown must be less than or equal to 20.0%

Endrin breakdown must be less than or equal to 20.0%

Combined breakdown must be less than or equal to 30.0%

7E

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

GC Column: RTx-CLP ID: 0.32 (mm) Init. Calib. Date(s): 08/13/07 08/13/07

EPA Sample No (PIBLK): Date Analyzed:

Lab Sample ID. (PIBLK): Time Analyzed:

EPA Sample No (INDA): INDAM-401 Date Analyzed: 08/13/07

Lab Sample ID. (INDA): INDAM-401 Time Analyzed: 16:08

INDIVIDUAL MIX A COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	RPD
alpha-BHC	8.12	8.07	8.17	0.020	0.020	0.0
gamma-BHC (Lindane)	9.11	9.06	9.16	0.020	0.020	0.0
Heptachlor	10.63	10.58	10.68	0.020	0.020	0.0
Endosulfan I	14.84	14.77	14.91	0.020	0.020	0.0
Dieldrin	15.62	15.55	15.69	0.040	0.040	0.0
Endrin	16.39	16.32	16.46	0.040	0.040	0.0
4,4-DDD	16.62	16.55	16.69	0.040	0.040	0.0
4,4-DDT	17.52	17.45	17.59	0.040	0.040	0.0
Methoxychlor	18.75	18.68	18.82	0.200	0.200	0.0
Tetrachloro-m-xylene	6.40	6.35	6.45	0.020	0.020	0.0
Decachlorobiphenyl	22.10	22	22.2	0.040	0.040	0.0

EPA Sample No. (INDB): INDBM-401 Date Analyzed: 08/13/07

Lab Sample ID. (INDB): INDBM-401 Time Analyzed: 16:38

INDIVIDUAL MIX B COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	RPD
Aldrin	11.60	11.55	11.65	0.020	0.020	0.0
beta-BHC	9.38	9.33	9.43	0.020	0.020	0.0
delta-BHC	9.94	9.89	9.99	0.020	0.020	0.0
Heptachlor Epoxide	13.55	13.48	13.62	0.020	0.020	0.0
gamma-Chlordane	13.96	13.89	14.03	0.020	0.020	0.0
alpha-Chlordane	14.39	14.32	14.46	0.020	0.020	0.0
4,4-DDE	14.65	14.58	14.72	0.041	0.040	2.5
Endosulfan II	17.13	17.06	17.2	0.040	0.040	0.0
Endrin Aldehyde	18.30	18.23	18.37	0.040	0.040	0.0
Endosulfan Sulfate	19.29	19.22	19.36	0.040	0.040	0.0
Endrin Ketone	19.86	19.79	19.93	0.041	0.040	2.5
Tetrachloro-m-xylene	6.41	6.36	6.46	0.019	0.020	5.3
Decachlorobiphenyl	22.10	22	22.2	0.038	0.040	5.3

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

GC Column: RTx-CLP2 ID: 0.32 (mm) Init. Calib. Date(s): 08/13/07 08/13/07

EPA Sample No (PIBLK): Date Analyzed:

Lab Sample ID. (PIBLK): Time Analyzed:

EPA Sample No (INDA): INDAM-401 Date Analyzed: 08/13/07

Lab Sample ID. (INDA): INDAM-401 Time Analyzed: 16:08

INDIVIDUAL MIX A COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	RPD
alpha-BHC	7.70	7.65	7.75	0.020	0.020	0.0
gamma-BHC (Lindane)	8.78	8.73	8.83	0.020	0.020	0.0
Heptachlor	10.13	10.08	10.18	0.021	0.020	5.0
Endosulfan I	14.24	14.17	14.31	0.020	0.020	0.0
Dieldrin	15.14	15.07	15.21	0.040	0.040	0.0
Endrin	16.13	16.06	16.2	0.040	0.040	0.0
4,4-DDD	16.58	16.51	16.65	0.040	0.040	0.0
4,4-DDT	17.57	17.5	17.64	0.040	0.040	0.0
Methoxychlor	19.24	19.17	19.31	0.200	0.200	0.0
Tetrachloro-m-xylene	5.86	5.81	5.91	0.020	0.020	0.0
Decachlorobiphenyl	22.40	22.3	22.5	0.040	0.040	0.0

EPA Sample No. (INDB): INDBM-401 Date Analyzed: 08/13/07

Lab Sample ID. (INDB): INDBM-401 Time Analyzed: 16:38

INDIVIDUAL MIX B COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	RPD
Aldrin	11.14	11.09	11.19	0.020	0.020	0.0
beta-BHC	9.06	9.01	9.11	0.020	0.020	0.0
delta-BHC	9.96	9.91	10.01	0.020	0.020	0.0
Heptachlor Epoxide	12.99	12.92	13.06	0.020	0.020	0.0
gamma-Chlordane	13.59	13.52	13.66	0.020	0.020	0.0
alpha-Chlordane	14.07	14	14.14	0.020	0.020	0.0
4,4-DDE	14.66	14.59	14.73	0.040	0.040	0.0
Endosulfan II	16.85	16.78	16.92	0.040	0.040	0.0
Endrin Aldehyde	17.88	17.81	17.95	0.041	0.040	2.5
Endosulfan Sulfate	18.58	18.51	18.65	0.040	0.040	0.0
Endrin Ketone	19.69	19.62	19.76	0.040	0.040	0.0
Tetrachloro-m-xylene	5.88	5.83	5.93	0.019	0.020	5.3
Decachlorobiphenyl	22.40	22.3	22.5	0.039	0.040	2.6

7E

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

GC Column: RTx-CLP ID: 0.32 (mm) Init. Calib. Date(s): 08/13/07 08/13/07

EPA Sample No (PIBLK): PIBLK-402 Date Analyzed: 08/14/07

Lab Sample ID. (PIBLK): PIBLK-402 Time Analyzed: 00:08

EPA Sample No (INDA): INDAM-402 Date Analyzed: 08/14/07

Lab Sample ID. (INDA): INDAM-402 Time Analyzed: 00:38

INDIVIDUAL MIX A COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	RPD
alpha-BHC	8.11	8.06	8.16	0.019	0.020	5.3
gamma-BHC (Lindane)	9.10	9.05	9.15	0.019	0.020	5.3
Heptachlor	10.62	10.57	10.67	0.019	0.020	5.3
Endosulfan I	14.83	14.76	14.9	0.019	0.020	5.3
Dieldrin	15.62	15.55	15.69	0.040	0.040	0.0
Endrin	16.38	16.31	16.45	0.037	0.040	8.1
4,4-DDD	16.61	16.54	16.68	0.040	0.040	0.0
4,4-DDT	17.52	17.45	17.59	0.037	0.040	8.1
Methoxychlor	18.75	18.68	18.82	0.178	0.200	12.4
Tetrachloro-m-xylene	6.40	6.35	6.45	0.019	0.020	5.3
Decachlorobiphenyl	22.10	22	22.2	0.037	0.040	8.1

EPA Sample No. (INDB): INDBM-402 Date Analyzed: 08/14/07

Lab Sample ID. (INDB): INDBM-402 Time Analyzed: 01:08

INDIVIDUAL MIX B COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	RPD
Aldrin	11.59	11.54	11.64	0.020	0.020	0.0
beta-BHC	9.36	9.31	9.41	0.020	0.020	0.0
delta-BHC	9.92	9.87	9.97	0.020	0.020	0.0
Heptachlor Epoxide	13.54	13.47	13.61	0.020	0.020	0.0
gamma-Chlordane	13.95	13.88	14.02	0.020	0.020	0.0
alpha-Chlordane	14.38	14.31	14.45	0.020	0.020	0.0
4,4-DDE	14.64	14.57	14.71	0.040	0.040	0.0
Endosulfan II	17.13	17.06	17.2	0.040	0.040	0.0
Endrin Aldehyde	18.30	18.23	18.37	0.040	0.040	0.0
Endosulfan Sulfate	19.29	19.22	19.36	0.040	0.040	0.0
Endrin Ketone	19.86	19.79	19.93	0.039	0.040	2.6
Tetrachloro-m-xylene	6.40	6.35	6.45	0.019	0.020	5.3
Decachlorobiphenyl	22.10	22	22.2	0.037	0.040	8.1

7E

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

GC Column: RTx-CLP2 ID: 0.32 (mm) Init. Calib. Date(s): 08/13/07 08/13/07

EPA Sample No (PIBLK): PIBLK-402 Date Analyzed: 08/14/07

Lab Sample ID. (PIBLK): PIBLK-402 Time Analyzed: 00:08

EPA Sample No (INDA): INDAM-402 Date Analyzed: 08/14/07

Lab Sample ID. (INDA): INDAM-402 Time Analyzed: 00:38

INDIVIDUAL MIX A COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	RPD
alpha-BHC	7.69	7.64	7.74	0.019	0.020	5.3
gamma-BHC (Lindane)	8.77	8.72	8.82	0.020	0.020	0.0
Heptachlor	10.12	10.07	10.17	0.019	0.020	5.3
Endosulfan I	14.23	14.16	14.3	0.020	0.020	0.0
Dieldrin	15.13	15.06	15.2	0.039	0.040	2.6
Endrin	16.12	16.05	16.19	0.037	0.040	8.1
4,4-DDD	16.57	16.5	16.64	0.039	0.040	2.6
4,4-DDT	17.57	17.5	17.64	0.036	0.040	11.1
Methoxychlor	19.24	19.17	19.31	0.179	0.200	11.7
Tetrachloro-m-xylene	5.86	5.81	5.91	0.019	0.020	5.3
Decachlorobiphenyl	22.40	22.3	22.5	0.037	0.040	8.1

EPA Sample No. (INDB): INDBM-402 Date Analyzed: 08/14/07

Lab Sample ID. (INDB): INDBM-402 Time Analyzed: 01:08

INDIVIDUAL MIX B COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	RPD
Aldrin	11.13	11.08	11.18	0.020	0.020	0.0
beta-BHC	9.04	8.99	9.09	0.020	0.020	0.0
delta-BHC	9.94	9.89	9.99	0.020	0.020	0.0
Heptachlor Epoxide	12.98	12.91	13.05	0.020	0.020	0.0
gamma-Chlordane	13.58	13.51	13.65	0.020	0.020	0.0
alpha-Chlordane	14.06	13.99	14.13	0.020	0.020	0.0
4,4-DDE	14.65	14.58	14.72	0.040	0.040	0.0
Endosulfan II	16.84	16.77	16.91	0.040	0.040	0.0
Endrin Aldehyde	17.87	17.8	17.94	0.039	0.040	2.6
Endosulfan Sulfate	18.57	18.5	18.64	0.040	0.040	0.0
Endrin Ketone	19.68	19.61	19.75	0.040	0.040	0.0
Tetrachloro-m-xylene	5.86	5.81	5.91	0.030	0.020	50.0
Decachlorobiphenyl	22.40	22.3	22.5	0.037	0.040	8.1

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GPL LABORATORIES, LLLP Contract: CH2M HILL

Lab Code: GPL Work Order: 707172 SAS No: N/A SDG No: N/A

GC Column: RTx-CLP ID: 0.32 (mm) Init.Calib Date: 08/13/07

Instrument ID: GC-V

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITAL CALIBRATION
TCX: 6.40 DCB: 22.10

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED | TIME ANALYZED	TCX RT #	DCB RT #
RESC-401	RESC-401	8/13/2007 10:39	6.41	22.11
PEM-401	PEM-401	8/13/2007 11:09	6.41	22.10
AR1660-401	AR1660-401	8/13/2007 11:39	6.41	22.11
AR1221-401	AR1221-401	8/13/2007 12:09	6.41	22.10
AR1232-401	AR1232-401	8/13/2007 12:39	6.40	22.10
AR1242-401	AR1242-401	8/13/2007 13:09	6.40	22.10
AR1248-401	AR1248-401	8/13/2007 13:38	6.41	22.10
AR1254-401	AR1254-401	8/13/2007 14:09	6.40	22.10
TOX-401	TOX-401	8/13/2007 14:38	6.40	22.10
INDAL-401	INDAL-401	8/13/2007 15:09	6.40	22.10
INDBL-401	INDBL-401	8/13/2007 15:38	6.40	22.10
INDAM-401	INDAM-401	8/13/2007 16:08	6.40	22.10
INDBM-401	INDBM-401	8/13/2007 16:38	6.41	22.10
INDAH-401	INDAH-401	8/13/2007 17:08	6.40	22.10
INDBH-401	INDBH-401	8/13/2007 17:38	6.41	22.10
PIBLK-401	PIBLK-401	8/13/2007 18:08	6.40	22.10
PEM-402	PEM-402	8/13/2007 18:38	6.40	22.10
	GPC PEST BLK 7/27/07	8/13/2007 19:08	0.00	0.00
ZZZZZZZ	GPC PEST CHK 7/27/07	8/13/2007 19:38	0.00	0.00
ZZZZZZZ	GPC PCB CHK 7/27/07	8/13/2007 20:08	6.44	22.12
ZZZZZZZ	GPC PEST BLK	8/13/2007 20:38	0.00	0.00
ZZZZZZZ	GPC PEST CHK	8/13/2007 21:08	0.00	0.00
BLK99582	BLK99582	8/13/2007 21:38	6.40	22.10
BKS99582	BKS99582	8/13/2007 22:08	6.41	22.10
25-IS01-0-1-07C	707172-009-049-1/1	8/13/2007 22:38	6.40	22.10
25-IS01-4-6-07C	707172-010-050-1/1	8/13/2007 23:08	6.40	22.10

QC LIMITS

TCX = Tetrachloro - m- xylene (+/- 0.05 minutes)
DCB = Decachlorobiphenyl (+/- 0.10 minutes)
# Column used to flag retention time values with an asterisk.
* Values outside of QC Limits.

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GPL LABORATORIES, LLLP Contract: CH2M HILL

Lab Code: GPL Work Order: 707172 SAS No: N/A SDG No: N/A

GC Column: RTx-CLP ID: 0.32 (mm) Init.Calib Date: 08/13/07

Instrument ID: GC-V

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITAL CALIBRATION
TCX: 6.40 DCB: 22.10

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED | TIME ANALYZED	TCX RT #	DCB RT #
25-IS02-0-1-07C	707172-011-051-1/1	8/13/2007 23:38	6.40	22.10
PIBLK-402	PIBLK-402	8/14/2007 0:08	6.40	22.10
INDAM-402	INDAM-402	8/14/2007 0:38	6.40	22.10
INDBM-402	INDBM-402	8/14/2007 1:08	6.40	22.10
25-IS02-5-7-07C	707172-012-052-1/1	8/14/2007 1:38	6.40	22.10
25-IS03-0-1-07C	707172-013-053-1/1	8/14/2007 2:08	6.40	22.10
25-IS03-8-10-07C	707172-014-054-1/1	8/14/2007 2:38	6.40	22.10
25-IS04-0-1-07C	707172-015-055-1/1	8/14/2007 3:08	6.40	22.10
25-IS04-10-12-07C	707172-016-056-1/1	8/14/2007 3:38	6.40	22.10
25-IS02-0-1-07CMS	707172-011-051-1/1MS	8/14/2007 4:08	6.40	22.10
25-IS02-0-1-07CMSD	707172-011-051-1/1MSD	8/14/2007 4:38	6.40	22.10
ZZZZZZZ	BLK99528	8/14/2007 5:08	6.40	22.10
ZZZZZZZ	BKS99528	8/14/2007 5:38	6.40	22.10
ZZZZZZZ	BKSD99528	8/14/2007 6:08	6.40	22.10
PIBLK-403	PIBLK-403	8/14/2007 6:38	6.40	22.10
PEM-403	PEM-403	8/14/2007 9:47	6.37	22.09
ZZZZZZZ	0	1/0/1900 0:00	0.00	0.00
ZZZZZZZ	0	1/0/1900 0:00	0.00	0.00
ZZZZZZZ	0	1/0/1900 0:00	0.00	0.00
ZZZZZZZ	0	1/0/1900 0:00	0.00	0.00
ZZZZZZZ	0	1/0/1900 0:00	0.00	0.00
ZZZZZZZ	0	1/0/1900 0:00	0.00	0.00
ZZZZZZZ	0	1/0/1900 0:00	0.00	0.00
ZZZZZZZ	0	1/0/1900 0:00	0.00	0.00
ZZZZZZZ	0	1/0/1900 0:00	0.00	0.00
ZZZZZZZ	0	1/0/1900 0:00	0.00	0.00

QC LIMITS

TCX = Tetrachloro - m- xylene (+/- 0.05 minutes)
DCB = Decachlorobiphenyl (+/- 0.10 minutes)
# Column used to flag retention time values with an asterisk.
* Values outside of QC Limits.

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GPL LABORATORIES, LLLP Contract: CH2M HILL

Lab Code: GPL Work Order: 707172 SAS No: N/A SDG No: N/A

GC Column: RTx-CLP2 ID: 0.32 (mm) Init.Calib Date: 08/13/07

Instrument ID: GC-V

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITAL CALIBRATION
TCX: 5.86 DCB: 22.40

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED | TIME ANALYZED	TCX RT #	DCB RT #
RESC-401	RESC-401	8/13/2007 10:39	5.87	22.41
PEM-401	PEM-401	8/13/2007 11:09	5.87	22.41
AR1660-401	AR1660-401	8/13/2007 11:39	5.87	22.41
AR1221-401	AR1221-401	8/13/2007 12:09	5.87	22.41
AR1232-401	AR1232-401	8/13/2007 12:39	5.87	22.41
AR1242-401	AR1242-401	8/13/2007 13:09	5.87	22.41
AR1248-401	AR1248-401	8/13/2007 13:38	5.87	22.40
AR1254-401	AR1254-401	8/13/2007 14:09	5.86	22.40
TOX-401	TOX-401	8/13/2007 14:38	5.86	22.40
INDAL-401	INDAL-401	8/13/2007 15:09	5.86	22.40
INDBL-401	INDBL-401	8/13/2007 15:38	5.86	22.40
INDAM-401	INDAM-401	8/13/2007 16:08	5.86	22.40
INDBM-401	INDBM-401	8/13/2007 16:38	5.88	22.40
INDAH-401	INDAH-401	8/13/2007 17:08	5.86	22.40
INDBH-401	INDBH-401	8/13/2007 17:38	5.87	22.40
PIBLK-401	PIBLK-401	8/13/2007 18:08	5.87	22.40
PEM-402	PEM-402	8/13/2007 18:38	5.87	22.40
	GPC PEST BLK 7/27/07	8/13/2007 19:08	0.00	0.00
ZZZZZZZ	GPC PEST CHK 7/27/07	8/13/2007 19:38	0.00	0.00
ZZZZZZZ	GPC PCB CHK 7/27/07	8/13/2007 20:08	0.00	22.40
ZZZZZZZ	GPC PEST BLK	8/13/2007 20:38	0.00	0.00
ZZZZZZZ	GPC PEST CHK	8/13/2007 21:08	0.00	0.00
BLK99582	BLK99582	8/13/2007 21:38	5.86	22.40
BKS99582	BKS99582	8/13/2007 22:08	5.87	22.40
25-IS01-0-1-07C	707172-009-049-1/1	8/13/2007 22:38	5.87	22.40
25-IS01-4-6-07C	707172-010-050-1/1	8/13/2007 23:08	5.86	22.40

QC LIMITS

TCX = Tetrachloro - m- xylene (+/- 0.05 minutes)
DCB = Decachlorobiphenyl (+/- 0.10 minutes)
# Column used to flag retention time values with an asterisk.
* Values outside of QC Limits.

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GPL LABORATORIES, LLLP Contract: CH2M HILL

Lab Code: GPL Work Order: 707172 SAS No: N/A SDG No: N/A

GC Column: RTx-CLP2 ID: 0.32 (mm) Init.Calib Date: 08/13/07

Instrument ID: GC-V

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITAL CALIBRATION TCX: 5.86 DCB: 22.40					
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
25-IS02-0-1-07C	707172-011-051-1/1	8/13/2007	23:38	5.86	22.40
PIBLK-402	PIBLK-402	8/14/2007	0:08	5.86	22.40
INDAM-402	INDAM-402	8/14/2007	0:38	5.86	22.40
INDBM-402	INDBM-402	8/14/2007	1:08	5.86	22.40
25-IS02-5-7-07C	707172-012-052-1/1	8/14/2007	1:38	5.86	22.40
25-IS03-0-1-07C	707172-013-053-1/1	8/14/2007	2:08	5.86	22.40
25-IS03-8-10-07C	707172-014-054-1/1	8/14/2007	2:38	5.86	22.40
25-IS04-0-1-07C	707172-015-055-1/1	8/14/2007	3:08	5.86	22.40
25-IS04-10-12-07C	707172-016-056-1/1	8/14/2007	3:38	5.86	22.40
25-IS02-0-1-07CMS	707172-011-051-1/1MS	8/14/2007	4:08	5.86	22.40
25-IS02-0-1-07CMSD	707172-011-051-1/1MSD	8/14/2007	4:38	5.86	22.39
ZZZZZZZ	BLK99528	8/14/2007	5:08	5.86	22.40
ZZZZZZZ	BKS99528	8/14/2007	5:38	5.86	22.39
ZZZZZZZ	BKSD99528	8/14/2007	6:08	5.86	22.40
PIBLK-403	PIBLK-403	8/14/2007	6:38	5.86	22.39
PEM-403	PEM-403	8/14/2007	9:47	5.84	22.38
ZZZZZZZ	0	1/0/1900	0:00	0.00	0.00
ZZZZZZZ	0	1/0/1900	0:00	0.00	0.00
ZZZZZZZ	0	1/0/1900	0:00	0.00	0.00
ZZZZZZZ	0	1/0/1900	0:00	0.00	0.00
ZZZZZZZ	0	1/0/1900	0:00	0.00	0.00
ZZZZZZZ	0	1/0/1900	0:00	0.00	0.00
ZZZZZZZ	0	1/0/1900	0:00	0.00	0.00
ZZZZZZZ	0	1/0/1900	0:00	0.00	0.00
ZZZZZZZ	0	1/0/1900	0:00	0.00	0.00
QC LIMITS					

TCX = Tetrachloro - m- xylene (+/- 0.05 minutes)
DCB = Decachlorobiphenyl (+/- 0.10 minutes)
# Column used to flag retention time values with an asterisk.
* Values outside of QC Limits.

9A

PESTICIDE FLORISIL CARTRIDGE CHECK

EPA SAMPLE NO.

RSIL LOT CHK 30

Lab Name: GPL LABORATORY Contract: CH2M HILL

Lab Code: GPL LAB Case No.: 707172 SAS No.: N/A SDG No.: N/A

Florisil Cartridge Lot Number: Date of Analysis: 01/16/07

GC Column (1) : RTx-CLP2 ID: 0.32 (mm) GC Column (2) : RTx-CLP ID: 0.32 (mm)

COMPOUND	SPIKE ADDED (ng)	SPIKE RECOVERED (ng)	% REC #	QC. LIMITS REC.
Tetrachloro-m-xylene	10	8	84	80 - 120
alpha-BHC	10	8	83	80 - 120
gamma-BHC (Lindane)	10	9	87	80 - 120
Heptachlor	10	9	93	80 - 120
Endosulfan I	10	9	87	80 - 120
Dieldrin	20	17	87	80 - 120
Endrin	20	17	87	80 - 120
4,4-DDD	20	17	87	80 - 120
4,4-DDT	20	21	105	80 - 120
Methoxychlor	100	99	99	80 - 120
Decachlorobiphenyl	20	18	91	80 - 120

Column to be used to flag recovery with an asterisk.

* Values outside of QC limits.

THIS CARTRIDGE LOT APPLIES TO THE FOLLOWING SAMPLES, BLANKS, MS AND MSD:

	EPA Client Number	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	25-IS01-0-1-07C	707172-009-049-1/1	08/13/07	08/13/07
02	25-IS01-4-6-07C	707172-010-050-1/1	08/13/07	08/13/07
03	BLK99582	BLK99582	08/13/07	08/13/07
04	BKS99582	BKS99582	08/13/07	08/13/07
05	25-IS02-0-1-07C	707172-011-051-1/1	08/13/07	08/13/07
06	25-IS02-5-7-07C	707172-012-052-1/1	08/14/07	08/14/07
07	25-IS03-0-1-07C	707172-013-053-1/1	08/14/07	08/14/07
08	25-IS03-8-10-07C	707172-014-054-1/1	08/14/07	08/14/07
09	25-IS04-0-1-1-07C	707172-015-055-1/1	08/14/07	08/14/07
10	25-IS04-10-12-07C	707172-016-056-1/1	08/14/07	08/14/07
11	25-IS02-0-1-07CMS	707172-011-051-1/1MS	08/14/07	08/14/07
12	25-IS02-0-1-07CMSD	707172-011-051-1/1MS	08/14/07	08/14/07

9B

PESTICIDE GPC CALIBRATION

EPA SAMPLE NO.

GPC PEST CHK

Lab Name: GPL LABORATORY Contract: CH2M HILL

Lab Code: GPL LAB Case No.: 707172 SAS No.: N/A SDG No.: N/A

GPC Column: Date of Analysis: 08/13/07

GC Column (1) : RTx-CLP ID: 0.32 (mm) GC Column (2) : RTx-CLP ID: 0.32 (mm)

COMPOUND	SPIKE ADDED (ng)	SPIKE RECOVERED (ng)	% REC #	QC. LIMITS REC.
gamma-BHC (Lindane)	50	55	110	80 - 110
Heptachlor	50	54	109	80 - 110
Aldrin	50	76	153 *	80 - 110
Dieldrin	100	73	73 *	80 - 110
Endrin	100	86	86	80 - 110
4,4-DDT	100	89	89	80 - 110

Column to be used to flag recovery with an asterisk.

* Values outside of QC limits.

THIS GPC CALIBRATION APPLIES TO THE FOLLOWING SAMPLES, BLANKS, MS AND MSD

	EPA Client Number	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	25-IS01-0-1-07C	707172-009-049-1/1	08/13/07	08/13/07
02	25-IS01-4-6-07C	707172-010-050-1/1	08/13/07	08/13/07
03	BLK99582	BLK99582	08/13/07	08/13/07
04	BKS99582	BKS99582	08/13/07	08/13/07
05	25-IS02-0-1-07C	707172-011-051-1/1	08/13/07	08/13/07
06	25-IS02-5-7-07C	707172-012-052-1/1	08/14/07	08/14/07
07	25-IS03-0-1-07C	707172-013-053-1/1	08/14/07	08/14/07
08	25-IS03-8-10-07C	707172-014-054-1/1	08/14/07	08/14/07
09	25-IS04-0-1-1-07C	707172-015-055-1/1	08/14/07	08/14/07
10	25-IS04-10-12-07C	707172-016-056-1/1	08/14/07	08/14/07
11	25-IS02-0-1-07CMS	707172-011-051-1/1MS	08/14/07	08/14/07
12	25-IS02-0-1-07CMSD	707172-011-051-1/1MS	08/14/07	08/14/07

10A

PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

EPA SAMPLE NO.

25-IS01-0-1-07C

Lab Name: GPL LABORATORY Contract: CH2M HILL

Lab Code: GPL LAB Case No.: 707172 SAS No.: N/A SDG No.: N/A

Lab Sample ID: 707172-009-049-1/1 Date(s) Analyzed: 08/13/07 08/13/07

Instrument ID (1): GC-V Instrument ID (2): GC-V

GC Column (1): RTx-CLP ID: 0.32 (mm) GC Column (2): RTx-CL ID: 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%D
4,4-DDE	1	14.65	14.58	14.72	3.7	8.8
	2	14.66	14.59	14.73	3.4	
4,4-DDT	1	17.52	17.45	17.59	1.6	6.2
	2	17.57	17.50	17.64	1.7	

10A

PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

EPA SAMPLE NO.

25-IS01-4-6-07C

Lab Name: GPL LABORATORY Contract: CH2M HILL

Lab Code: GPL LAB Case No.: 707172 SAS No.: N/A SDG No.: N/A

Lab Sample ID: 707172-010-050-1/1 Date(s) Analyzed: 08/13/07 08/13/07

Instrument ID (1): GC-V Instrument ID (2): GC-V

GC Column (1): RTx-CLP ID: 0.32 (mm) GC Column (2): RTx-CL ID: 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%D
4,4-DDE	1	14.64	14.58	14.72	1.5	7.1
	2	14.66	14.59	14.73	1.4	

10A

PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

EPA SAMPLE NO.

25-IS02-0-1-07C

Lab Name: GPL LABORATORY Contract: CH2M HILL

Lab Code: GPL LAB Case No.: 707172 SAS No.: N/A SDG No.: N/A

Lab Sample ID: 707172-011-051-1/1 Date(s) Analyzed: 08/13/07 08/13/07

Instrument ID (1): GC-V Instrument ID (2): GC-V

GC Column (1): RTx-CLP ID: 0.32 (mm) GC Column (2): RTx-CL ID: 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%D
4,4-DDE	1	14.64	14.58	14.72	3.5	9.4
	2	14.65	14.59	14.73	3.2	
4,4-DDD	1	16.61	16.55	16.69	0.24	129.2
	2	16.59	16.51	16.65	0.55	
4,4-DDT	1	17.52	17.45	17.59	1.6	6.2
	2	17.56	17.50	17.64	1.7	

10A

PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

EPA SAMPLE NO.

25-IS02-5-7-07C

Lab Name: GPL LABORATORY Contract: CH2M HILL

Lab Code: GPL LAB Case No.: 707172 SAS No.: N/A SDG No.: N/A

Lab Sample ID: 707172-012-052-1/1 Date(s) Analyzed: 08/14/07 08/14/07

Instrument ID (1): GC-V Instrument ID (2): GC-V

GC Column (1): RTx-CLP ID: 0.32 (mm) GC Column (2): RTx-CL ID: 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%D
4,4-DDE	1	14.64	14.58	14.72	0.25	8.0
	2	14.65	14.59	14.73	0.27	

10A

PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

EPA SAMPLE NO.

25-IS03-0-1-07C

Lab Name: GPL LABORATORY Contract: CH2M HILL

Lab Code: GPL LAB Case No.: 707172 SAS No.: N/A SDG No.: N/A

Lab Sample ID: 707172-013-053-1/1 Date(s) Analyzed: 08/14/07 08/14/07

Instrument ID (1): GC-V Instrument ID (2): GC-V

GC Column (1): RTx-CLP ID: 0.32 (mm) GC Column (2): RTx-CL ID: 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%D
4,4-DDE	1	14.64	14.58	14.72	3.8	5.6
	2	14.65	14.59	14.73	3.6	
Dieldrin	1	15.61	15.55	15.69	1.5	0.0
	2	15.13	15.07	15.21	1.5	
4,4-DDD	1	16.61	16.55	16.69	2.2	15.8
	2	16.57	16.51	16.65	1.9	
4,4-DDT	1	17.52	17.45	17.59	10	10.0
	2	17.56	17.50	17.64	11	

10A

PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

EPA SAMPLE NO.
25-IS04-10-12-07C

Lab Name: GPL LABORATORY Contract: CH2M HILL

Lab Code: GPL LAB Case No.: 707172 SAS No.: N/A SDG No.: N/A

Lab Sample ID: 707172-016-056-1/1 Date(s) Analyzed: 08/14/07 08/14/07

Instrument ID (1): GC-V Instrument ID (2): GC-V

GC Column (1): RTx-CLP ID: 0.32 (mm) GC Column (2): RTx-CL ID: 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%D
4,4-DDE	1	14.64	14.58	14.72	2.0	0.0
	2	14.65	14.59	14.73	2.0	
4,4-DDT	1	17.51	17.45	17.59	1.5	0.0
	2	17.56	17.50	17.64	1.5	

10A

PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

EPA SAMPLE NO.

25-IS02-0-1-07CMS

Lab Name: GPL LABORATORY Contract: CH2M HILL

Lab Code: GPL LAB Case No.: 707172 SAS No.: N/A SDG No.: N/A

Lab Sample ID: 707172-011-051-1/1MS Date(s) Analyzed: 08/14/07 08/14/07

Instrument ID (1): GC-V Instrument ID (2): GC-V

GC Column (1): RTx-CLP ID: 0.32 (mm) GC Column (2): RTx-CL ID: 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%D
gamma-BHC (Lindane)	1	9.10	9.06	9.16	15	0.0
	2	8.77	8.73	8.83	15	
Heptachlor	1	10.62	10.58	10.68	20	5.0
	2	10.12	10.08	10.18	21	
Aldrin	1	11.58	11.55	11.65	26	3.8
	2	11.13	11.09	11.19	27	
4,4-DDE	1	14.64	14.58	14.72	6.8	6.2
	2	14.65	14.59	14.73	6.4	
Dieldrin	1	15.62	15.55	15.69	32	3.1
	2	15.12	15.07	15.21	33	
Endrin	1	16.38	16.32	16.46	38	2.7
	2	16.11	16.06	16.20	37	
4,4-DDD	1	16.63	16.55	16.69	1.8	5.9
	2	16.58	16.51	16.65	1.7	
4,4-DDT	1	17.52	17.45	17.59	36	5.6
	2	17.56	17.50	17.64	38	
Endrin Aldehyde	1	18.30	18.23	18.37	6.2	14.8
	2	17.88	17.81	17.95	5.4	
Endrin Ketone	1	19.86	19.79	19.93	4.0	2.5
	2	19.68	19.62	19.76	4.1	

10A

PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

EPA SAMPLE NO.
5-IS02-0-1-07CMS

Lab Name: GPL LABORATORY Contract: CH2M HILL

Lab Code: GPL LAB Case No.: 707172 SAS No.: N/A SDG No.: N/A

Lab Sample ID: 707172-011-051-1/1MSD Date(s) Analyzed: 08/14/07 08/14/07

Instrument ID (1): GC-V Instrument ID (2): GC-V

GC Column (1): RTx-CLP ID: 0.32 (mm) GC Column (2): RTx-CL ID: 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%D
gamma-BHC (Lindane)	1	9.10	9.06	9.16	11	9.1
	2	8.77	8.73	8.83	12	
Heptachlor	1	10.61	10.58	10.68	16	0.0
	2	10.12	10.08	10.18	16	
Aldrin	1	11.58	11.55	11.65	20	0.0
	2	11.12	11.09	11.19	20	
4,4-DDE	1	14.64	14.58	14.72	4.3	4.7
	2	14.65	14.59	14.73	4.5	
Dieldrin	1	15.61	15.55	15.69	25	0.0
	2	15.12	15.07	15.21	25	
Endrin	1	16.38	16.32	16.46	28	3.7
	2	16.11	16.06	16.20	27	
4,4-DDD	1	16.63	16.55	16.69	1.5	7.1
	2	16.58	16.51	16.65	1.4	
4,4-DDT	1	17.51	17.45	17.59	26	7.7
	2	17.56	17.50	17.64	28	
Endrin Aldehyde	1	18.30	18.23	18.37	4.6	0.0
	2	17.88	17.81	17.95	4.6	
Endrin Ketone	1	19.86	19.79	19.93	3.2	0.0
	2	19.68	19.62	19.76	3.2	

10A

PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

EPA SAMPLE NO.

BKS99582

Lab Name: GPL LABORATORY Contract: CH2M HILL

Lab Code: GPL LAB Case No.: 707172 SAS No.: N/A SDG No.: N/A

Lab Sample ID: BKS99582 Date(s) Analyzed: 08/13/07 08/13/07

Instrument ID (1): GC-V Instrument ID (2): GC-V

GC Column (1): RTx-CLP ID: 0.32 (mm) GC Column (2): RTx-CL ID: 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%D
gamma-BHC (Lindane)	1	9.11	9.06	9.16	12	0.0
	2	8.78	8.73	8.83	12	
Heptachlor	1	10.62	10.58	10.68	16	0.0
	2	10.13	10.08	10.18	16	
Aldrin	1	11.59	11.55	11.65	20	5.0
	2	11.13	11.09	11.19	21	
4,4-DDE	1	14.65	14.58	14.72	2.9	3.6
	2	14.66	14.59	14.73	2.8	
Dieldrin	1	15.62	15.55	15.69	26	3.8
	2	15.13	15.07	15.21	27	
Endrin	1	16.38	16.32	16.46	30	6.7
	2	16.12	16.06	16.20	32	
4,4-DDD	1	16.64	16.55	16.69	1.5	7.1
	2	16.59	16.51	16.65	1.4	
4,4-DDT	1	17.52	17.45	17.59	26	11.5
	2	17.57	17.50	17.64	29	
Endrin Aldehyde	1	18.31	18.23	18.37	3.9	7.7
	2	17.88	17.81	17.95	4.2	
Endrin Ketone	1	19.86	19.79	19.93	3.7	2.7
	2	19.68	19.62	19.76	3.8	

LOW IMPACT EXPLOSIVES AND PROPELLANTS

GPL Laboratories

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

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

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-001-001-1/1
Sample Volume :	2	Lab File ID :	LCD37892.D
% Moisture:		Date Received	07/27/2007
Extraction:	EXT_SW8330	Date Extracted:	07/30/2007
Extract Volume:	20 mL	Date Analyzed	08/03/2007
Injection Volume :	100 µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	100	U
99-65-0	1,3-Dinitrobenzene	100	U
118-96-7	2,4,6-Trinitrotoluene	100	U
121-14-2	2,4-Dinitrotoluene	100	U
606-20-2	2,6-Dinitrotoluene	100	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	100	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	100	U
2691-41-0	HMX	200	U
98-95-3	Nitrobenzene	100	U
121-82-4	RDX	200	U
479-45-8	Tetryl	200	U
99-08-1	m-Nitrotoluene	200	U
88-72-2	o-Nitrotoluene	200	U
99-99-0	p-Nitrotoluene	200	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GR-IS01-4-6-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-002-002-1/1
Sample Volume :	2	Lab File ID :	LCD37893.D
% Moisture:		Date Received	07/27/2007
Extraction:	EXT_SW8330	Date Extracted:	07/30/2007
Extract Volume:	20 mL	Date Analyzed	08/03/2007
Injection Volume :	100 µ L	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	100	U
99-65-0	1,3-Dinitrobenzene	100	U
118-96-7	2,4,6-Trinitrotoluene	100	U
121-14-2	2,4-Dinitrotoluene	100	U
606-20-2	2,6-Dinitrotoluene	100	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	100	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	100	U
2691-41-0	HMX	200	U
98-95-3	Nitrobenzene	100	U
121-82-4	RDX	200	U
479-45-8	Tetryl	200	U
99-08-1	m-Nitrotoluene	200	U
88-72-2	o-Nitrotoluene	200	U
99-99-0	p-Nitrotoluene	200	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

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

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-003-003-1/1
Sample Volume :	2.01	Lab File ID :	LCD37894.D
% Moisture:		Date Received	07/27/2007
Extraction:	EXT_SW8330	Date Extracted:	07/30/2007
Extract Volume:	20 mL	Date Analyzed	08/03/2007
Injection Volume :	100 µ L	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	100	U
99-65-0	1,3-Dinitrobenzene	100	U
118-96-7	2,4,6-Trinitrotoluene	100	U
121-14-2	2,4-Dinitrotoluene	100	U
606-20-2	2,6-Dinitrotoluene	100	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	100	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	100	U
2691-41-0	HMX	200	U
98-95-3	Nitrobenzene	100	U
121-82-4	RDX	200	U
479-45-8	Tetryl	200	U
99-08-1	m-Nitrotoluene	200	U
88-72-2	o-Nitrotoluene	200	U
99-99-0	p-Nitrotoluene	200	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GR-IS02-6-8-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-004-004-1/1
Sample Volume :	2	Lab File ID :	LCD37895.D
% Moisture:		Date Received	07/27/2007
Extraction:	EXT_SW8330	Date Extracted:	07/30/2007
Extract Volume:	20 mL	Date Analyzed	08/03/2007
Injection Volume :	100 µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	100	U
99-65-0	1,3-Dinitrobenzene	100	U
118-96-7	2,4,6-Trinitrotoluene	100	U
121-14-2	2,4-Dinitrotoluene	100	U
606-20-2	2,6-Dinitrotoluene	100	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	100	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	100	U
2691-41-0	HMX	200	U
98-95-3	Nitrobenzene	100	U
121-82-4	RDX	200	U
479-45-8	Tetryl	200	U
99-08-1	m-Nitrotoluene	200	U
88-72-2	o-Nitrotoluene	200	U
99-99-0	p-Nitrotoluene	200	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GR-IS03-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-005-005-1/1
Sample Volume :	2.02	Lab File ID :	LCD37896.D
% Moisture:		Date Received	07/27/2007
Extraction:	EXT_SW8330	Date Extracted:	07/30/2007
Extract Volume:	20 mL	Date Analyzed	08/03/2007
Injection Volume :	100 µ L	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	99	U
99-65-0	1,3-Dinitrobenzene	99	U
118-96-7	2,4,6-Trinitrotoluene	99	U
121-14-2	2,4-Dinitrotoluene	99	U
606-20-2	2,6-Dinitrotoluene	99	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	99	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	99	U
2691-41-0	HMX	200	U
98-95-3	Nitrobenzene	99	U
121-82-4	RDX	200	U
479-45-8	Tetryl	200	U
99-08-1	m-Nitrotoluene	200	U
88-72-2	o-Nitrotoluene	200	U
99-99-0	p-Nitrotoluene	200	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GR-IS03-4-6-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-006-006-1/1
Sample Volume :	2	Lab File ID :	LCD37897.D
% Moisture:		Date Received	07/27/2007
Extraction:	EXT_SW8330	Date Extracted:	07/30/2007
Extract Volume:	20 mL	Date Analyzed	08/03/2007
Injection Volume :	100 µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	100	U
99-65-0	1,3-Dinitrobenzene	100	U
118-96-7	2,4,6-Trinitrotoluene	100	U
121-14-2	2,4-Dinitrotoluene	100	U
606-20-2	2,6-Dinitrotoluene	100	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	100	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	100	U
2691-41-0	HMX	200	U
98-95-3	Nitrobenzene	100	U
121-82-4	RDX	200	U
479-45-8	Tetryl	200	U
99-08-1	m-Nitrotoluene	200	U
88-72-2	o-Nitrotoluene	200	U
99-99-0	p-Nitrotoluene	200	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GR-IS04-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-007-007-1/1
Sample Volume :	2	Lab File ID :	LCD37898.D
% Moisture:		Date Received	07/27/2007
Extraction:	EXT_SW8330	Date Extracted:	07/30/2007
Extract Volume:	20 mL	Date Analyzed	08/03/2007
Injection Volume :	100 µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	100	U
99-65-0	1,3-Dinitrobenzene	100	U
118-96-7	2,4,6-Trinitrotoluene	100	U
121-14-2	2,4-Dinitrotoluene	100	U
606-20-2	2,6-Dinitrotoluene	100	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	100	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	100	U
2691-41-0	HMX	200	U
98-95-3	Nitrobenzene	100	U
121-82-4	RDX	200	U
479-45-8	Tetryl	200	U
99-08-1	m-Nitrotoluene	200	U
88-72-2	o-Nitrotoluene	200	U
99-99-0	p-Nitrotoluene	200	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GR-IS04-4-6-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707172-008-008-1/1
Sample Volume :	2	Lab File ID :	LCD37899.D
% Moisture:		Date Received	07/27/2007
Extraction:	EXT_SW8330	Date Extracted:	07/30/2007
Extract Volume:	20 mL	Date Analyzed	08/03/2007
Injection Volume :	100 µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	100	U
99-65-0	1,3-Dinitrobenzene	100	U
118-96-7	2,4,6-Trinitrotoluene	100	U
121-14-2	2,4-Dinitrotoluene	100	U
606-20-2	2,6-Dinitrotoluene	100	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	100	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	100	U
2691-41-0	HMX	200	U
98-95-3	Nitrobenzene	100	U
121-82-4	RDX	200	U
479-45-8	Tetryl	200	U
99-08-1	m-Nitrotoluene	200	U
88-72-2	o-Nitrotoluene	200	U
99-99-0	p-Nitrotoluene	200	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BLK99393

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BLK99393
Sample Volume :	2	Lab File ID :	LCD37880.D
% Moisture:		Date Received	
Extraction:	EXT_SW8330	Date Extracted:	07/30/2007
Extract Volume:	20 mL	Date Analyzed	08/02/2007
Injection Volume :	100 µ L	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	100	U
99-65-0	1,3-Dinitrobenzene	100	U
118-96-7	2,4,6-Trinitrotoluene	100	U
121-14-2	2,4-Dinitrotoluene	100	U
606-20-2	2,6-Dinitrotoluene	100	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	100	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	100	U
2691-41-0	HMX	200	U
98-95-3	Nitrobenzene	100	U
121-82-4	RDX	200	U
479-45-8	Tetryl	200	U
99-08-1	m-Nitrotoluene	200	U
88-72-2	o-Nitrotoluene	200	U
99-99-0	p-Nitrotoluene	200	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
AGMA-17IDW-RO2(072607)MS

Lab Name :	GPL Laboratories	Client. :	Arcadis
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707175
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707175-002-018-1/1MS
Sample Volume :	2.01	Lab File ID :	LCD37882.D
% Moisture:		Date Received	07/27/2007
Extraction:	EXT_SW8330	Date Extracted:	07/30/2007
Extract Volume:	20 mL	Date Analyzed	08/02/2007
Injection Volume :	100 µ L	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	2700	
99-65-0	1,3-Dinitrobenzene	2700	
118-96-7	2,4,6-Trinitrotoluene	3000	
121-14-2	2,4-Dinitrotoluene	2600	
606-20-2	2,6-Dinitrotoluene	2600	
35572-78-2	2-Amino-4,6-Dinitrotoluene	2600	
19406-51-0	4-Amino-2,6-Dinitrotoluene	2600	
2691-41-0	HMX	2800	
98-95-3	Nitrobenzene	2600	
121-82-4	RDX	2400	
479-45-8	Tetryl	2300	
99-08-1	m-Nitrotoluene	2700	
88-72-2	o-Nitrotoluene	2700	
99-99-0	p-Nitrotoluene	2700	

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
AGMA-17IDW-RO2(072607)MSD

Lab Name :	GPL Laboratories	Client. :	Arcadis
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707175
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707175-002-018-1/1MSD
Sample Volume :	2.02	Lab File ID :	LCD37883.D
% Moisture:		Date Received	07/27/2007
Extraction:	EXT_SW8330	Date Extracted:	07/30/2007
Extract Volume:	20 mL	Date Analyzed	08/02/2007
Injection Volume :	100 µ L	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	2700	
99-65-0	1,3-Dinitrobenzene	2700	
118-96-7	2,4,6-Trinitrotoluene	3100	
121-14-2	2,4-Dinitrotoluene	2600	
606-20-2	2,6-Dinitrotoluene	2600	
35572-78-2	2-Amino-4,6-Dinitrotoluene	2700	
19406-51-0	4-Amino-2,6-Dinitrotoluene	2700	
2691-41-0	HMX	2600	
98-95-3	Nitrobenzene	2900	
121-82-4	RDX	2400	
479-45-8	Tetryl	2200	
99-08-1	m-Nitrotoluene	2600	
88-72-2	o-Nitrotoluene	2700	
99-99-0	p-Nitrotoluene	2600	

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BKS99393

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707172
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BKS99393
Sample Volume :	2	Lab File ID :	LCD37881.D
% Moisture:		Date Received	
Extraction:	EXT_SW8330	Date Extracted:	07/30/2007
Extract Volume:	20 mL	Date Analyzed	08/02/2007
Injection Volume :	100 µ L	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
99-35-4	1,3,5-Trinitrobenzene	2700	
99-65-0	1,3-Dinitrobenzene	2700	
118-96-7	2,4,6-Trinitrotoluene	2900	
121-14-2	2,4-Dinitrotoluene	2600	
606-20-2	2,6-Dinitrotoluene	2600	
35572-78-2	2-Amino-4,6-Dinitrotoluene	2600	
19406-51-0	4-Amino-2,6-Dinitrotoluene	2700	
2691-41-0	HMX	2800	
98-95-3	Nitrobenzene	2600	
121-82-4	RDX	2500	
479-45-8	Tetryl	1800	
99-08-1	m-Nitrotoluene	2800	
88-72-2	o-Nitrotoluene	2700	
99-99-0	p-Nitrotoluene	2700	

Surrogate Recovery Summary

Matrix : SOIL **Analytical Method : SW8330** **SDG No : 707172**

Surrogate	NO2ANIL4
Lower QC Limits	31
Upper QC Limits	129
Sample ID	
BKS99393	121
BLK99393	120
GR-IS01-0-1-07C	103
GR-IS01-4-6-07C	99
GR-IS02-0-1-07C	114
GR-IS02-6-8-07C	102
GR-IS03-0-1-07C	88
GR-IS03-4-6-07C	92
GR-IS04-0-1-07C	88
GR-IS04-4-6-07C	104

* Value outside of QC Limts

NO2ANIL4 = 4-Nitroaniline

GPL Laboratories

MS/MSD RECOVERY

SAMPLE NO
AGMA-17IDW-RO2(072607)

Lab Name : GPL Laboratories SDG NO : 707175 Method : SW8330

Lab Code : GPL Lab Sample ID : 707175-002-018-1/1MSD Matrix : SOIL Analysis Date : 08/02/2007

Compound	Spike Added (ug/kg)		CONCENTRATION (ug/kg)			%RECOVERY		% RPD	RPD Limit	QC Limits
	MS	MSD	Sample	MS	MSD	MS	MSD			
1,3,5-Trinitrobenzene	2500	2500	0.0	2700	2700	108	108	0	25	75-125
1,3-Dinitrobenzene	2500	2500	0.0	2700	2700	108	108	0	25	80-125
2,4,6-Trinitrotoluene	2500	2500	0.0	3000	3100	120	124	3	25	55-140
2,4-Dinitrotoluene	2500	2500	0.0	2600	2600	104	104	0	25	80-125
2,6-Dinitrotoluene	2500	2500	0.0	2600	2600	104	104	0	25	80-120
2-Amino-4,6-Dinitrotoluene	2500	2500	0.0	2600	2700	104	108	4	25	80-125
4-Amino-2,6-Dinitrotoluene	2500	2500	0.0	2600	2700	104	108	4	25	80-125
HMX	2500	2500	0.0	2800	2600	112	104	7	25	75-125
Nitrobenzene	2500	2500	0.0	2600	2900	104	116	11	25	75-125
RDX	2500	2500	0.0	2500	2400	100	100	0	25	70-135
Tetryl	2500	2500	0.0	2300	2200	92	88	4	25	10-150
m-Nitrotoluene	2500	2500	0.0	2700	2600	108	104	4	25	75-120
o-Nitrotoluene	2500	2500	0.0	2700	2700	108	108	0	25	80-125
p-Nitrotoluene	2500	2500	0.0	2700	2600	108	104	4	25	75-125

Column to be used to flag recovery and RPD Values with an asterisk.

* Values Outside of QC Limits.

RPD 0 Out of 14 Outside Limit
Spike Recovery : 0 Out of 28 outside limit

GPL Laboratories

LCS SUMMARY

SAMPLE NO
BKS99393

Lab Name : GPL Laboratories
Contract. : MILCON Area Investigations - CTO-169
Lab Code : GPL
SDG NO : 707172
Matrix : SOIL
Lab Sample ID : BKS99393
Method : SW8330
Analysis Date : 08/02/2007

COMPOUND	SPIKE ADDED (ug/kg)	BLANK CONCENTRATION (ug/kg)	LCS CONCENTRATION (ug/kg)	LCS % REC	QC LIMTS
1,3,5-Trinitrobenzene	2500	0	2700	108	75-125
1,3-Dinitrobenzene	2500	0	2700	108	80-125
2,4,6-Trinitrotoluene	2500	0	2900	116	55-140
2,4-Dinitrotoluene	2500	0	2600	104	80-125
2,6-Dinitrotoluene	2500	0	2600	104	80-120
2-Amino-4,6-Dinitrotoluene	2500	0	2600	104	80-125
4-Amino-2,6-Dinitrotoluene	2500	0	2700	108	80-125
HMX	2500	0	2800	112	75-125
Nitrobenzene	2500	0	2600	104	75-125
RDX	2500	0	2500	100	70-135
Tetryl	2500	0	1800	72	10-150
m-Nitrotoluene	2500	0	2800	112	75-120
o-Nitrotoluene	2500	0	2700	108	80-125
p-Nitrotoluene	2500	0	2700	108	75-125

* Values Outside of QC Limits.

Spike recovery : 0 out of 14 outside limits

GPL Laboratories

GPL
FORM 4
EXPLOSIVE METHOD BLANK SUMMARY

SAMPLE NO
BLK99393

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	99393
Lab File ID :	LCD37880.D	SDG NO :	707172
Date Analyzed	08/02/2007	Lab Sample ID :	BLK99393
Date Extracted :	07/30/2007	Time Analyzed :	13:20
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
BKS99393	BKS99393	LCD37881.D	08/02/2007
GR-IS01-0-1-07C	707172-001-001-1/1	LCD37892.D	08/03/2007
GR-IS01-4-6-07C	707172-002-002-1/1	LCD37893.D	08/03/2007
GR-IS02-0-1-07C	707172-003-003-1/1	LCD37894.D	08/03/2007
GR-IS02-6-8-07C	707172-004-004-1/1	LCD37895.D	08/03/2007
GR-IS03-0-1-07C	707172-005-005-1/1	LCD37896.D	08/03/2007
GR-IS03-4-6-07C	707172-006-006-1/1	LCD37897.D	08/03/2007
GR-IS04-0-1-07C	707172-007-007-1/1	LCD37898.D	08/03/2007
GR-IS04-4-6-07C	707172-008-008-1/1	LCD37899.D	08/03/2007

Response Factor Report LCD

Method : H:\LCDATA\LCD\METHODS\74108330.M (Chemstation Integrator)
Title : 8330 Explosives
Last Update : Wed Apr 11 13:56:36 2007

Calibration Files
LEV1 =LCD36223.D LEV2 =LCD36224.D LEV3 =LCD36225.D
LEV4 =LCD36226.D LEV5 =LCD36227.D LEV6 =LCD36228.D

		Compound	LEV1	LEV2	LEV3	LEV4	LEV5	LEV6	Avg		%RSD
1)	T	HMX	1.315	1.368	1.278	1.420	1.421	1.433	1.379	E5	4.45
2)	S	4-Nitroaniline	1.239	1.199	1.201	1.295	1.330	1.374	1.295	E5	6.80
3)	T	1,3,5-Trinitrobenze	3.623	3.551	3.490	3.777	3.847	3.914	3.733	E5	4.76
4)	T	Tetryl	2.620	2.497	2.596	2.810	2.871	2.883	2.743	E5	6.16
5)	T	2,4,6-Trinitrotolue	3.716	3.384	3.229	3.491	3.559	3.620	3.518	E5	4.73
6)	T	4-Amino-2,6-Dinitro	2.640	2.796	2.326	2.493	2.555	2.610	2.576	E5	5.61
7)	T	2,6-Dinitrotoluene	2.454	2.468	2.258	2.437	2.501	2.529	2.452	E5	3.74
8)	T	4-Nitrotoluene	1.533	1.662	1.637	1.797	1.789	1.842	1.731	E5	7.00
9)	M	RDX	2.467	2.074	1.769	1.774	1.730	1.718	1.897	E5	14.75
10)	M	1,3-Dinitrobenzene	5.043	4.712	4.751	5.140	5.234	5.324	5.077	E5	5.07
11)	M	Nitrobenzene	3.040	3.033	3.109	3.368	3.386	3.473	3.270	E5	6.18
12)	M	2-Amino-4,6-Dinitro	3.645	3.531	3.318	3.540	3.654	3.706	3.584	E5	3.79
13)	M	2,4-Dinitrotoluene	4.821	4.731	4.501	4.913	5.036	5.146	4.897	E5	4.76
14)	M	2-Nitrotoluene	1.998	1.991	1.969	2.126	2.152	2.199	2.092	E5	4.95
15)	M	3-Nitrotoluene	2.062	1.941	2.091	2.289	2.285	2.343	2.195	E5	7.39

(#) = Out of Range ### Number of calibration levels exceeded format ###

Response Factor Report LCD

Method : I:\LCDATA\LCD\METHODS\7125CON.M (Chemstation Integrator)
Title : 8330 Explosives Confirmation
Last Update : Thu Jan 25 16:45:30 2007

Calibration Files
LEV1 =LCD35040.D LEV2 =LCD35041.D LEV3 =LCD35042.D
LEV4 =LCD35043.D LEV5 =LCD35044.D LEV6 =LCD35045.D

		Compound	LEV1	LEV2	LEV3	LEV4	LEV5	LEV6	Avg		%RSD
1)	T	HMX	1.311	1.274	1.220	1.290	1.302	1.297	1.282	E5	2.57
2)	S	4-Nitroaniline	1.094	1.021	1.124	1.186	1.216	1.222	1.144	E5	6.89
3)	T	1,3,5-Trinitrobenze	3.223	3.242	3.282	3.477	3.521	3.542	3.381	E5	4.36
4)	T	Tetryl	2.262	2.378	2.439	2.591	2.625	2.637	2.489	E5	6.16
5)	T	2,4,6-Trinitrotolue	3.051	3.047	3.075	3.249	3.291	3.318	3.172	E5	4.01
6)	T	4-Amino-2,6-Dinitro	5.206	4.939	5.196	5.493	5.601	5.633	5.345	E5	5.14
7)	T	2,6-Dinitrotoluene	2.301	2.167	2.226	2.332	2.381	2.396	2.301	E5	3.89
8)	T	4-Nitrotoluene	1.939	1.917	1.973	2.095	2.132	2.148	2.034	E5	5.05
9)	M	RDX	1.520	1.483	1.525	1.613	1.635	1.639	1.569	E5	4.31
10)	M	1,3-Dinitrobenzene	4.589	4.398	4.553	4.820	4.922	4.934	4.703	E5	4.70
11)	M	Nitrobenzene	2.845	2.824	2.902	3.082	3.125	3.135	2.985	E5	4.82
12)	M	2-Amino-4,6-Dinitro	5.206	4.939	5.196	5.493	5.601	5.633	5.345	E5	5.14
13)	M	2,4-Dinitrotoluene	4.239	4.072	4.229	4.471	4.560	4.588	4.360	E5	4.80
14)	M	2-Nitrotoluene	1.912	1.816	1.874	1.990	2.024	2.032	1.941	E5	4.53
15)	M	3-Nitrotoluene	1.645	1.524	1.577	1.672	1.699	1.705	1.637	E5	4.42

(#) = Out of Range

Continuing Calibration Report LCD

Method : I:\LCDATA\LCD\METHODS\7125CON.M (Chemstation Integrator)
Title : 8330 Explosives Confirmation
Last Update : Thu Aug 09 09:31:27 2007
Response via : Initial Calibration

Continuing Calibration File: LCD37971.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF		%Dev	Area%
1	T	HMX	128.231	132.033	E3	-3.0	108
2	S	4-Nitroaniline	114.391	111.030	E3	2.9	99
3	T	1,3,5-Trinitrobenzene	338.122	363.935	E3	-7.6	111
4	T	Tetryl	248.854	213.739	E3	14.1	88
5	T	2,4,6-Trinitrotoluene	317.167	338.065	E3	-6.6	110
6	T	4-Amino-2,6-Dinitrotoluene	534.477	548.198	E3	-2.6	106
7	T	2,6-Dinitrotoluene	230.053	244.797	E3	-6.4	110
8	T	4-Nitrotoluene	203.404	212.672	E3	-4.6	108
9	M	RDX	156.916	166.239	E3	-5.9	109
10	M	1,3-Dinitrobenzene	470.277	504.112	E3	-7.2	111
11	M	Nitrobenzene	298.549	322.984	E3	-8.2	111
12	M	2-Amino-4,6-Dinitrotoluene	534.477	548.198	E3	-2.6	106
13	M	2,4-Dinitrotoluene	436.000	462.785	E3	-6.1	109
14	M	2-Nitrotoluene	194.145	197.175	E3	-1.6	105
15	M	3-Nitrotoluene	163.705	170.360	E3	-4.1	108

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Continuing Calibration Report LCD

Method : I:\LCDATA\LCD\METHODS\7125CON.M (Chemstation Integrator)
Title : 8330 Explosives Confirmation
Last Update : Thu Aug 09 09:31:39 2007
Response via : Initial Calibration

Continuing Calibration File: LCD37983.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF		%Dev	Area%
1	T	HMX	128.231	137.442	E3	-7.2	113
2	S	4-Nitroaniline	114.391	112.654	E3	1.5	100
3	T	1,3,5-Trinitrobenzene	338.122	363.611	E3	-7.5	111
4	T	Tetryl	248.854	214.984	E3	13.6	88
5	T	2,4,6-Trinitrotoluene	317.167	340.830	E3	-7.5	111
6	T	4-Amino-2,6-Dinitrotoluene	534.477	556.638	E3	-4.1	107
7	T	2,6-Dinitrotoluene	230.053	251.569	E3	-9.4	113
8	T	4-Nitrotoluene	203.404	214.862	E3	-5.6	109
9	M	RDX	156.916	169.163	E3	-7.8	111
10	M	1,3-Dinitrobenzene	470.277	506.442	E3	-7.7	111
11	M	Nitrobenzene	298.549	324.933	E3	-8.8	112
12	M	2-Amino-4,6-Dinitrotoluene	534.477	556.638	E3	-4.1	107
13	M	2,4-Dinitrotoluene	436.000	466.618	E3	-7.0	110
14	M	2-Nitrotoluene	194.145	195.593	E3	-0.7	104
15	M	3-Nitrotoluene	163.705	172.818	E3	-5.6	110

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Continuing Calibration Report LCD

Method : H:\LCDATA\LCD\METHODS\74108330.M (Chemstation Integrator)
Title : 8330 Explosives
Last Update : Thu Aug 09 09:32:24 2007
Response via : Initial Calibration

Continuing Calibration File: LCD37879.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF		%Dev	Area%
1	T	HMX	137.939	141.792	E3	-2.8	100
2	S	4-Nitroaniline	129.526	137.765	E3	-6.4	106
3	T	1,3,5-Trinitrobenzene	373.283	391.433	E3	-4.9	104
4	T	Tetryl	274.340	285.086	E3	-3.9	101
5	T	2,4,6-Trinitrotoluene	351.836	362.072	E3	-2.9	104
6	T	4-Amino-2,6-Dinitrotoluene	257.572	263.856	E3	-2.4	106
7	T	2,6-Dinitrotoluene	245.206	251.246	E3	-2.5	103
8	T	4-Nitrotoluene	173.060	181.578	E3	-4.9	101
9	M	RDX	189.730	177.164	E3	6.6	100
10	M	1,3-Dinitrobenzene	507.701	528.608	E3	-4.1	103
11	M	Nitrobenzene	327.030	342.285	E3	-4.7	102
12	M	2-Amino-4,6-Dinitrotoluene	358.392	372.413	E3	-3.9	105
13	M	2,4-Dinitrotoluene	489.655	513.228	E3	-4.8	104
14	M	2-Nitrotoluene	209.229	217.939	E3	-4.2	103
15	M	3-Nitrotoluene	219.518	228.611	E3	-4.1	100

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Continuing Calibration Report LCD

Method : H:\LCDATA\LCD\METHODS\74108330.M (Chemstation Integrator)
Title : 8330 Explosives
Last Update : Thu Aug 09 09:32:33 2007
Response via : Initial Calibration

Continuing Calibration File: LCD37891.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF		%Dev	Area%
1	T	HMX	137.939	147.698	E3	-7.1	104
2	S	4-Nitroaniline	129.526	123.171	E3	4.9	95
3	T	1,3,5-Trinitrobenzene	373.283	391.964	E3	-5.0	104
4	T	Tetryl	274.340	250.320	E3	8.8	89
5	T	2,4,6-Trinitrotoluene	351.836	360.390	E3	-2.4	103
6	T	4-Amino-2,6-Dinitrotoluene	257.572	267.337	E3	-3.8	107
7	T	2,6-Dinitrotoluene	245.206	246.598	E3	-0.6	101
8	T	4-Nitrotoluene	173.060	184.649	E3	-6.7	103
9	M	RDX	189.730	178.200	E3	6.1	100
10	M	1,3-Dinitrobenzene	507.701	553.162	E3	-9.0	108
11	M	Nitrobenzene	327.030	351.839	E3	-7.6	104
12	M	2-Amino-4,6-Dinitrotoluene	358.392	361.402	E3	-0.8	102
13	M	2,4-Dinitrotoluene	489.655	513.910	E3	-5.0	105
14	M	2-Nitrotoluene	209.229	218.387	E3	-4.4	103
15	M	3-Nitrotoluene	219.518	231.893	E3	-5.6	101

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Continuing Calibration Report LCD

Method : H:\LCDATA\LCD\METHODS\74108330.M (Chemstation Integrator)
Title : 8330 Explosives
Last Update : Thu Aug 09 09:32:41 2007
Response via : Initial Calibration

Continuing Calibration File: LCD37901.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF		%Dev	Area%
1	T	HMX	137.939	142.655	E3	-3.4	100
2	S	4-Nitroaniline	129.526	133.844	E3	-3.3	103
3	T	1,3,5-Trinitrobenzene	373.283	391.622	E3	-4.9	104
4	T	Tetryl	274.340	289.028	E3	-5.4	103
5	T	2,4,6-Trinitrotoluene	351.836	361.900	E3	-2.9	104
6	T	4-Amino-2,6-Dinitrotoluene	257.572	256.310	E3	0.5	103
7	T	2,6-Dinitrotoluene	245.206	248.912	E3	-1.5	102
8	T	4-Nitrotoluene	173.060	182.006	E3	-5.2	101
9	M	RDX	189.730	178.099	E3	6.1	100
10	M	1,3-Dinitrobenzene	507.701	536.939	E3	-5.8	104
11	M	Nitrobenzene	327.030	347.833	E3	-6.4	103
12	M	2-Amino-4,6-Dinitrotoluene	358.392	366.867	E3	-2.4	104
13	M	2,4-Dinitrotoluene	489.655	515.275	E3	-5.2	105
14	M	2-Nitrotoluene	209.229	219.833	E3	-5.1	103
15	M	3-Nitrotoluene	219.518	233.107	E3	-6.2	102

(#) = 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.: 707172

SOW No.: ILM05.3

EPA Sample No.	Lab Sample ID
25-IS01-0-1-07C	S 707172-009-057-1/1
25-IS01-4-6-07C	S 707172-010-058-1/1
25-IS02-0-1-07C	S 707172-011-059-1/1
25-IS02-5-7-07C	S 707172-012-060-1/1
25-IS03-0-1-07C	S 707172-013-061-1/1
25-IS03-8-10-07C	S 707172-014-062-1/1
25-IS04-0-1-07C	S 707172-015-063-1/1
25-IS04-10-12-07C	S 707172-016-064-1/1
GR-IS01-0-1-07C	S 707172-001-009-1/1
GR-IS01-0-1-07C MD	D 707172-001-009-1/1
GR-IS01-0-1-07C MS	SP707172-001-009-1/1
GR-IS01-4-6-07C	S 707172-002-010-1/1
GR-IS02-0-1-07C	S 707172-003-011-1/1
GR-IS02-6-8-07C	S 707172-004-012-1/1
GR-IS02-6-8-07C MD	D 707172-004-012-1/1
GR-IS02-6-8-07C MS	SP707172-004-012-1/1
GR-IS03-0-1-07C	S 707172-005-013-1/1
GR-IS03-4-6-07C	S 707172-006-014-1/1
GR-IS04-0-1-07C	S 707172-007-015-1/1
GR-IS04-4-6-07C	S 707172-008-016-1/1

		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: 8/9/2007 Title: Metals Reporting

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

GR-IS01-0-1-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707172

Matrix: (soil/water) SOIL Lab Sample ID: S 707172-001-009-1/1

Level: (low/med) Date Recieved: 07/27/2007

% Solids: 83.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3470			P
7440-36-0	Antimony	0.35	J	N	P
7440-38-2	Arsenic	0.30	J		P
7440-39-3	Barium	11.7	J		P
7441-41-7	Beryllium	0.072	J		P
7440-43-9	Cadmium	0.45	U		P
7440-70-2	Calcium	130	J		P
7440-47-3	Chromium	2.8			P
7440-48-4	Cobalt	4.5	U		P
7440-50-8	Copper	0.54	J		P
7439-89-6	Iron	1880			P
7439-92-1	Lead	9.3		N	P
7439-95-4	Magnesium	118	J		P
7439-96-5	Manganese	9.4			P
7439-97-6	Mercury	0.051			AV
7440-02-0	Nickel	0.51	J		P
7440-09-7	Potassium	102	J		P
7782-49-2	Selenium	3.2	U		P
7440-22-4	Silver	0.90	U		P
7440-23-5	Sodium	87.6	J		P
7440-28-0	Thallium	2.3	U		P
7440-62-2	Vanadium	5.3			P
7440-66-6	Zinc	3.2	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.

GR-IS01-4-6-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707172

Matrix: (soil/water) SOIL Lab Sample ID: S 707172-002-010-1/1

Level: (low/med) Date Recieved: 07/27/2007

% Solids: 87.4

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	5.2	U	N	P
7440-38-2	Arsenic	1.5			P
7440-39-3	Barium	10.7	J		P
7441-41-7	Beryllium	0.078	J		P
7440-43-9	Cadmium	0.43	U		P
7440-70-2	Calcium	94.3	J		P
7440-47-3	Chromium	9.8			P
7440-48-4	Cobalt	0.14	J		P
7440-50-8	Copper	1.0	J		P
7439-89-6	Iron	5400			P
7439-92-1	Lead	4.0		N	P
7439-95-4	Magnesium	273	J		P
7439-96-5	Manganese	5.1			P
7439-97-6	Mercury	0.025	J		AV
7440-02-0	Nickel	0.81	J		P
7440-09-7	Potassium	284	J		P
7782-49-2	Selenium	3.0	U		P
7440-22-4	Silver	0.87	U		P
7440-23-5	Sodium	88.0	J		P
7440-28-0	Thallium	2.2	U		P
7440-62-2	Vanadium	13.5			P
7440-66-6	Zinc	3.7	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.

GR-IS02-0-1-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707172

Matrix: (soil/water) SOIL Lab Sample ID: S 707172-003-011-1/1

Level: (low/med) Date Recieved: 07/27/2007

% Solids: 84.5

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2580			P
7440-36-0	Antimony	5.3	U	N	P
7440-38-2	Arsenic	0.88	U		P
7440-39-3	Barium	10.2	J		P
7441-41-7	Beryllium	0.065	J		P
7440-43-9	Cadmium	0.023	J		P
7440-70-2	Calcium	180	J		P
7440-47-3	Chromium	1.7			P
7440-48-4	Cobalt	4.4	U		P
7440-50-8	Copper	0.39	J		P
7439-89-6	Iron	930			P
7439-92-1	Lead	4.1		N	P
7439-95-4	Magnesium	91.9	J		P
7439-96-5	Manganese	12.4			P
7439-97-6	Mercury	0.047			AV
7440-02-0	Nickel	0.54	J		P
7440-09-7	Potassium	57.1	J		P
7782-49-2	Selenium	3.1	U		P
7440-22-4	Silver	0.88	U		P
7440-23-5	Sodium	76.1	J		P
7440-28-0	Thallium	2.2	U		P
7440-62-2	Vanadium	2.7	J		P
7440-66-6	Zinc	4.3	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.

GR-IS02-6-8-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707172

Matrix: (soil/water) SOIL Lab Sample ID: S 707172-004-012-1/1

Level: (low/med) Date Recieved: 07/27/2007

% Solids: 86.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5770			P
7440-36-0	Antimony	0.34	J	N	P
7440-38-2	Arsenic	2.3			P
7440-39-3	Barium	8.7	J		P
7441-41-7	Beryllium	0.090	J		P
7440-43-9	Cadmium	0.43	U		P
7440-70-2	Calcium	94.5	J		P
7440-47-3	Chromium	9.6			P
7440-48-4	Cobalt	0.10	J		P
7440-50-8	Copper	1.1	J		P
7439-89-6	Iron	6020			P
7439-92-1	Lead	4.2		N	P
7439-95-4	Magnesium	309	J		P
7439-96-5	Manganese	5.4			P
7439-97-6	Mercury	0.018	J		AV
7440-02-0	Nickel	0.62	J		P
7440-09-7	Potassium	380	J		P
7782-49-2	Selenium	3.0	U		P
7440-22-4	Silver	0.85	U		P
7440-23-5	Sodium	84.4	J		P
7440-28-0	Thallium	2.1	U		P
7440-62-2	Vanadium	14.7			P
7440-66-6	Zinc	3.7	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.

GR-IS03-0-1-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707172

Matrix: (soil/water) SOIL Lab Sample ID: S 707172-005-013-1/1

Level: (low/med) Date Recieved: 07/27/2007

% Solids: 83.2

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2940			P
7440-36-0	Antimony	5.2	U	N	P
7440-38-2	Arsenic	0.51	J		P
7440-39-3	Barium	23.5			P
7441-41-7	Beryllium	0.040	J		P
7440-43-9	Cadmium	0.43	U		P
7440-70-2	Calcium	86.8	J		P
7440-47-3	Chromium	2.9			P
7440-48-4	Cobalt	4.3	U		P
7440-50-8	Copper	0.32	J		P
7439-89-6	Iron	1390			P
7439-92-1	Lead	5.9		N	P
7439-95-4	Magnesium	61.3	J		P
7439-96-5	Manganese	3.8			P
7439-97-6	Mercury	0.037	U		AV
7440-02-0	Nickel	0.13	J		P
7440-09-7	Potassium	61.5	J		P
7782-49-2	Selenium	3.0	U		P
7440-22-4	Silver	0.86	U		P
7440-23-5	Sodium	80.4	J		P
7440-28-0	Thallium	2.1	U		P
7440-62-2	Vanadium	4.4			P
7440-66-6	Zinc	1.8	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.

GR-IS03-4-6-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707172

Matrix: (soil/water) SOIL Lab Sample ID: S 707172-006-014-1/1

Level: (low/med) Date Recieved: 07/27/2007

% Solids: 84.5

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6650			P
7440-36-0	Antimony	5.1	U	N	P
7440-38-2	Arsenic	2.2			P
7440-39-3	Barium	8.7	J		P
7441-41-7	Beryllium	0.073	J		P
7440-43-9	Cadmium	0.43	U		P
7440-70-2	Calcium	37.3	J		P
7440-47-3	Chromium	8.5			P
7440-48-4	Cobalt	0.077	J		P
7440-50-8	Copper	0.31	J		P
7439-89-6	Iron	5820			P
7439-92-1	Lead	4.5		N	P
7439-95-4	Magnesium	209	J		P
7439-96-5	Manganese	4.3			P
7439-97-6	Mercury	0.022	J		AV
7440-02-0	Nickel	0.58	J		P
7440-09-7	Potassium	217	J		P
7782-49-2	Selenium	3.0	U		P
7440-22-4	Silver	0.86	U		P
7440-23-5	Sodium	82.4	J		P
7440-28-0	Thallium	2.1	U		P
7440-62-2	Vanadium	13.8			P
7440-66-6	Zinc	2.9	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.

GR-IS04-0-1-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707172

Matrix: (soil/water) SOIL Lab Sample ID: S 707172-007-015-1/1

Level: (low/med) Date Recieved: 07/27/2007

% Solids: 80.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	916			P
7440-36-0	Antimony	0.48	J	N	P
7440-38-2	Arsenic	0.25	J		P
7440-39-3	Barium	14.2	J		P
7441-41-7	Beryllium	0.036	J		P
7440-43-9	Cadmium	0.031	J		P
7440-70-2	Calcium	289	J		P
7440-47-3	Chromium	1.1			P
7440-48-4	Cobalt	4.5	U		P
7440-50-8	Copper	0.97	J		P
7439-89-6	Iron	464			P
7439-92-1	Lead	6.1		N	P
7439-95-4	Magnesium	85.5	J		P
7439-96-5	Manganese	116			P
7439-97-6	Mercury	0.061			AV
7440-02-0	Nickel	0.20	J		P
7440-09-7	Potassium	84.9	J		P
7782-49-2	Selenium	3.2	U		P
7440-22-4	Silver	0.90	U		P
7440-23-5	Sodium	85.8	J		P
7440-28-0	Thallium	2.3	U		P
7440-62-2	Vanadium	2.6	J		P
7440-66-6	Zinc	4.8	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.

GR-IS04-4-6-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707172

Matrix: (soil/water) SOIL Lab Sample ID: S 707172-008-016-1/1

Level: (low/med) Date Recieved: 07/27/2007

% Solids: 89.2

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5240			P
7440-36-0	Antimony	0.52	J	N	P
7440-38-2	Arsenic	2.9			P
7440-39-3	Barium	6.7	J		P
7441-41-7	Beryllium	0.067	J		P
7440-43-9	Cadmium	0.42	U		P
7440-70-2	Calcium	46.2	J		P
7440-47-3	Chromium	8.1			P
7440-48-4	Cobalt	0.048	J		P
7440-50-8	Copper	0.74	J		P
7439-89-6	Iron	5870			P
7439-92-1	Lead	2.9		N	P
7439-95-4	Magnesium	208	J		P
7439-96-5	Manganese	4.3			P
7439-97-6	Mercury	0.021	J		AV
7440-02-0	Nickel	0.59	J		P
7440-09-7	Potassium	229	J		P
7782-49-2	Selenium	3.0	U		P
7440-22-4	Silver	0.84	U		P
7440-23-5	Sodium	85.3	J		P
7440-28-0	Thallium	2.1	U		P
7440-62-2	Vanadium	12.0			P
7440-66-6	Zinc	3.8	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.

25-IS01-0-1-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707172

Matrix: (soil/water) SOIL Lab Sample ID: S 707172-009-057-1/1

Level: (low/med) Date Recieved: 07/27/2007

% Solids: 92.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3140			P
7440-36-0	Antimony	0.38	J	N	P
7440-38-2	Arsenic	0.25	J		P
7440-39-3	Barium	13.0	J		P
7441-41-7	Beryllium	0.077	J		P
7440-43-9	Cadmium	0.39	U		P
7440-70-2	Calcium	146	J		P
7440-47-3	Chromium	2.2			P
7440-48-4	Cobalt	3.9	U		P
7440-50-8	Copper	0.49	J		P
7439-89-6	Iron	962			P
7439-92-1	Lead	7.4		N	P
7439-95-4	Magnesium	102	J		P
7439-96-5	Manganese	9.9			P
7439-97-6	Mercury	0.044			AV
7440-02-0	Nickel	0.69	J		P
7440-09-7	Potassium	76.7	J		P
7782-49-2	Selenium	2.7	U		P
7440-22-4	Silver	0.78	U		P
7440-23-5	Sodium	74.6	J		P
7440-28-0	Thallium	1.9	U		P
7440-62-2	Vanadium	3.6	J		P
7440-66-6	Zinc	3.8	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.

25-IS01-4-6-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707172

Matrix: (soil/water) SOIL Lab Sample ID: S 707172-010-058-1/1

Level: (low/med) Date Recieved: 07/27/2007

% Solids: 90.1

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8890			P
7440-36-0	Antimony	0.34	J	N	P
7440-38-2	Arsenic	2.1			P
7440-39-3	Barium	13.5	J		P
7441-41-7	Beryllium	0.094	J		P
7440-43-9	Cadmium	0.41	U		P
7440-70-2	Calcium	115	J		P
7440-47-3	Chromium	11.7			P
7440-48-4	Cobalt	0.25	J		P
7440-50-8	Copper	0.99	J		P
7439-89-6	Iron	4550			P
7439-92-1	Lead	5.4		N	P
7439-95-4	Magnesium	402	J		P
7439-96-5	Manganese	6.7			P
7439-97-6	Mercury	0.036			AV
7440-02-0	Nickel	1.1	J		P
7440-09-7	Potassium	380	J		P
7782-49-2	Selenium	2.9	U		P
7440-22-4	Silver	0.82	U		P
7440-23-5	Sodium	87.2	J		P
7440-28-0	Thallium	2.0	U		P
7440-62-2	Vanadium	15.5			P
7440-66-6	Zinc	4.1	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.

25-IS02-0-1-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707172

Matrix: (soil/water) SOIL Lab Sample ID: S 707172-011-059-1/1

Level: (low/med) Date Recieved: 07/27/2007

% Solids: 81.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3050			P
7440-36-0	Antimony	0.33	J	N	P
7440-38-2	Arsenic	0.34	J		P
7440-39-3	Barium	17.7			P
7441-41-7	Beryllium	0.075	J		P
7440-43-9	Cadmium	0.059	J		P
7440-70-2	Calcium	1560			P
7440-47-3	Chromium	3.0			P
7440-48-4	Cobalt	4.3	U		P
7440-50-8	Copper	1.2	J		P
7439-89-6	Iron	1310			P
7439-92-1	Lead	10.5		N	P
7439-95-4	Magnesium	142	J		P
7439-96-5	Manganese	12.8			P
7439-97-6	Mercury	0.065			AV
7440-02-0	Nickel	0.60	J		P
7440-09-7	Potassium	100	J		P
7782-49-2	Selenium	3.0	U		P
7440-22-4	Silver	0.87	U		P
7440-23-5	Sodium	73.4	J		P
7440-28-0	Thallium	2.2	U		P
7440-62-2	Vanadium	4.3	J		P
7440-66-6	Zinc	7.0			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.

25-IS02-5-7-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707172

Matrix: (soil/water) SOIL Lab Sample ID: S 707172-012-060-1/1

Level: (low/med) Date Recieved: 07/27/2007

% Solids: 82.7

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	12000			P
7440-36-0	Antimony	0.32	J	N	P
7440-38-2	Arsenic	6.8			P
7440-39-3	Barium	18.9			P
7441-41-7	Beryllium	0.15	J		P
7440-43-9	Cadmium	0.44	U		P
7440-70-2	Calcium	685			P
7440-47-3	Chromium	22.1			P
7440-48-4	Cobalt	0.36	J		P
7440-50-8	Copper	2.7			P
7439-89-6	Iron	9450			P
7439-92-1	Lead	6.9		N	P
7439-95-4	Magnesium	599			P
7439-96-5	Manganese	10.5			P
7439-97-6	Mercury	0.031	J		AV
7440-02-0	Nickel	1.4	J		P
7440-09-7	Potassium	714			P
7782-49-2	Selenium	3.1	U		P
7440-22-4	Silver	0.89	U		P
7440-23-5	Sodium	94.8	J		P
7440-28-0	Thallium	2.2	U		P
7440-62-2	Vanadium	32.9			P
7440-66-6	Zinc	5.9			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.

25-IS03-0-1-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707172

Matrix: (soil/water) SOIL Lab Sample ID: S 707172-013-061-1/1

Level: (low/med) Date Recieved: 07/27/2007

% 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	3190			P
7440-36-0	Antimony	0.36	J	N	P
7440-38-2	Arsenic	0.80			P
7440-39-3	Barium	9.6	J		P
7441-41-7	Beryllium	0.053	J		P
7440-43-9	Cadmium	0.065	J		P
7440-70-2	Calcium	3420			P
7440-47-3	Chromium	4.9			P
7440-48-4	Cobalt	0.21	J		P
7440-50-8	Copper	5.6			P
7439-89-6	Iron	3090			P
7439-92-1	Lead	14.5		N	P
7439-95-4	Magnesium	191	J		P
7439-96-5	Manganese	13.9			P
7439-97-6	Mercury	0.037			AV
7440-02-0	Nickel	1.6	J		P
7440-09-7	Potassium	128	J		P
7782-49-2	Selenium	2.6	U		P
7440-22-4	Silver	0.089	J		P
7440-23-5	Sodium	65.2	J		P
7440-28-0	Thallium	1.9	U		P
7440-62-2	Vanadium	5.6			P
7440-66-6	Zinc	35.5			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.

25-IS03-8-10-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707172

Matrix: (soil/water) SOIL Lab Sample ID: S 707172-014-062-1/1

Level: (low/med) Date Recieved: 07/27/2007

% Solids: 78.5

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	10700			P
7440-36-0	Antimony	5.4	U	N	P
7440-38-2	Arsenic	4.1			P
7440-39-3	Barium	16.2	J		P
7441-41-7	Beryllium	0.13	J		P
7440-43-9	Cadmium	0.45	U		P
7440-70-2	Calcium	1010			P
7440-47-3	Chromium	17.2			P
7440-48-4	Cobalt	0.26	J		P
7440-50-8	Copper	1.7	J		P
7439-89-6	Iron	7730			P
7439-92-1	Lead	5.8		N	P
7439-95-4	Magnesium	430	J		P
7439-96-5	Manganese	8.5			P
7439-97-6	Mercury	0.033	J		AV
7440-02-0	Nickel	1.2	J		P
7440-09-7	Potassium	620			P
7782-49-2	Selenium	0.38	J		P
7440-22-4	Silver	0.90	U		P
7440-23-5	Sodium	88.7	J		P
7440-28-0	Thallium	2.2	U		P
7440-62-2	Vanadium	23.7			P
7440-66-6	Zinc	5.3	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.

25-IS04-0-1-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707172

Matrix: (soil/water) SOIL Lab Sample ID: S 707172-015-063-1/1

Level: (low/med) Date Recieved: 07/27/2007

% Solids: 89.7

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3800			P
7440-36-0	Antimony	0.31	J	N	P
7440-38-2	Arsenic	0.43	J		P
7440-39-3	Barium	14.1	J		P
7441-41-7	Beryllium	0.071	J		P
7440-43-9	Cadmium	0.027	J		P
7440-70-2	Calcium	702			P
7440-47-3	Chromium	3.0			P
7440-48-4	Cobalt	4.1	U		P
7440-50-8	Copper	2.6			P
7439-89-6	Iron	1220			P
7439-92-1	Lead	9.1		N	P
7439-95-4	Magnesium	110	J		P
7439-96-5	Manganese	13.3			P
7439-97-6	Mercury	0.043			AV
7440-02-0	Nickel	0.63	J		P
7440-09-7	Potassium	77.2	J		P
7782-49-2	Selenium	2.9	U		P
7440-22-4	Silver	0.83	U		P
7440-23-5	Sodium	79.8	J		P
7440-28-0	Thallium	2.1	U		P
7440-62-2	Vanadium	4.3			P
7440-66-6	Zinc	5.1			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.

25-IS04-10-12-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707172

Matrix: (soil/water) SOIL Lab Sample ID: S 707172-016-064-1/1

Level: (low/med) Date Recieved: 07/27/2007

% Solids: 78.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	18000			P
7440-36-0	Antimony	0.36	J	N	P
7440-38-2	Arsenic	7.4			P
7440-39-3	Barium	26.2			P
7441-41-7	Beryllium	0.22	J		P
7440-43-9	Cadmium	0.48	U		P
7440-70-2	Calcium	69.0	J		P
7440-47-3	Chromium	27.3			P
7440-48-4	Cobalt	0.53	J		P
7440-50-8	Copper	4.5			P
7439-89-6	Iron	11600			P
7439-92-1	Lead	12.7		N	P
7439-95-4	Magnesium	864			P
7439-96-5	Manganese	9.5			P
7439-97-6	Mercury	0.039			AV
7440-02-0	Nickel	2.0	J		P
7440-09-7	Potassium	980			P
7782-49-2	Selenium	3.4	U		P
7440-22-4	Silver	0.96	U		P
7440-23-5	Sodium	128	J		P
7440-28-0	Thallium	2.4	U		P
7440-62-2	Vanadium	29.4			P
7440-66-6	Zinc	9.4			P

Color Before: Grey Clarity Before: NA Texture: Medium

Color After: Yellow Clarity After: Clear Artifacts: NA

Comments:

USEPA - CLP

2A - IN

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707172

Initial Calibration Verification Source: AB,ST./CPI

Continuing Calibration Verification Source: H.P./ AB.ST.

Concentration Units: UG/L

	Initial Calibration Verification			Continuing Calibration Verification					
Analyte	True	Found	%R (1)	True	Found	%R (1)	Found	%R (2)	M
Aluminum	5000.0	4998.04	100	50000.0	50215.50	100	50865.93	102	P
Antimony	400.0	400.39	100	500.0	501.12	100	510.84	102	P
Arsenic	400.0	420.49	105	500.0	495.73	99	499.64	100	P
Barium	400.0	411.92	103	500.0	494.33	99	503.57	101	P
Beryllium	40.0	41.40	103	50.0	49.07	98	49.14	98	P
Cadmium	40.0	41.28	103	500.0	488.46	98	490.25	98	P
Calcium	5000.0	4951.73	99	100000.0	97212.64	97	97108.67	97	P
Chromium	400.0	401.57	100	500.0	490.49	98	496.16	99	P
Cobalt	400.0	427.62	107	500.0	486.49	97	488.53	98	P
Copper	400.0	396.42	99	500.0	495.52	99	503.26	101	P
Iron	5000.0	5005.27	100	50000.0	48747.73	97	49014.47	98	P
Lead	400.0	412.05	103	500.0	494.01	99	496.73	99	P
Magnesium	5000.0	5058.57	101	100000.0	97904.30	98	98361.63	98	P
Manganese	400.0	408.84	102	500.0	491.04	98	494.22	99	P
Mercury	3.0	2.90	97	5.0	5.15	103	5.42	108	AV
Nickel	400.0	413.18	103	500.0	486.46	97	490.48	98	P
Potassium	5000.0	4791.32	96	25000.0	23987.00	96	24379.17	98	P
Selenium	400.0	411.81	103	500.0	499.64	100	502.10	100	P
Silver	400.0	405.35	101	500.0	504.23	101	507.69	102	P
Sodium	10000.0	9850.78	99	100000.0	98476.83	98	100028.74	100	P
Thallium	400.0	395.67	99	500.0	489.66	98	496.81	99	P
Vanadium	400.0	408.75	102	500.0	494.52	99	497.16	99	P
Zinc	400.0	421.39	105	500.0	500.10	100	501.13	100	P

(1) Control Limits : Mercury 80-120; Other Metals 90-110; Cyanide 85-115

USEPA - CLP

2A - IN

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707172

Initial Calibration Verification Source:

Continuing Calibration Verification Source: H.P./ AB.ST.

Concentration Units: UG/L

	Initial Calibration Verification			Continuing Calibration Verification					
Analyte	True	Found	%R (1)	True	Found	%R (1)	Found	%R (2)	M
Aluminum				50000.0	50964.49	102	51591.30	103	P
Antimony				500.0	507.78	102	510.24	102	P
Arsenic				500.0	493.47	99	499.75	100	P
Barium				500.0	505.72	101	508.20	102	P
Beryllium				50.0	47.43	95	48.49	97	P
Cadmium				500.0	476.40	95	483.74	97	P
Calcium				100000.0	93983.39	94	95408.48	95	P
Chromium				500.0	483.27	97	488.36	98	P
Cobalt				500.0	473.43	95	480.84	96	P
Copper				500.0	500.19	100	507.56	102	P
Iron				50000.0	47527.71	95	48374.30	97	P
Lead				500.0	481.56	96	488.87	98	P
Magnesium				100000.0	95340.91	95	97591.19	98	P
Manganese				500.0	478.63	96	486.23	97	P
Mercury				5.0	5.22	104	5.24	105	AV
Nickel				500.0	477.86	96	485.41	97	P
Potassium				25000.0	24747.88	99	25036.81	100	P
Selenium				500.0	493.16	99	498.58	100	P
Silver				500.0	498.91	100	505.98	101	P
Sodium				100000.0	101369.75	101	102086.93	102	P
Thallium				500.0	491.29	98	501.76	100	P
Vanadium				500.0	483.51	97	491.78	98	P
Zinc				500.0	489.25	98	496.50	99	P

(1) Control Limits : Mercury 80-120; Other Metals 90-110; Cyanide 85-115

USEPA - CLP

2A - IN

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707172

Initial Calibration Verification Source:

Continuing Calibration Verification Source: H.P./ AB.ST.

Concentration Units: UG/L

	Initial Calibration Verification			Continuing Calibration Verification					
Analyte	True	Found	%R (1)	True	Found	%R (1)	Found	%R (2)	M
Aluminum				50000.0	51080.64	102	51718.80	103	P
Antimony				500.0	501.13	100	507.89	102	P
Arsenic				500.0	494.02	99	500.24	100	P
Barium				500.0	506.76	101	507.77	102	P
Beryllium				50.0	47.12	94	48.42	97	P
Cadmium				500.0	470.94	94	478.22	96	P
Calcium				100000.0	93431.25	93	95438.64	95	P
Chromium				500.0	475.17	95	482.34	96	P
Cobalt				500.0	470.73	94	482.08	96	P
Copper				500.0	506.41	101	515.90	103	P
Iron				50000.0	46996.63	94	48128.43	96	P
Lead				500.0	478.73	96	488.15	98	P
Magnesium				100000.0	96331.11	96	99222.02	99	P
Manganese				500.0	474.24	95	486.55	97	P
Nickel				500.0	472.51	95	479.81	96	P
Potassium				25000.0	25182.12	101	25484.83	102	P
Selenium				500.0	497.82	100	506.91	101	P
Silver				500.0	499.24	100	511.25	102	P
Sodium				100000.0	103860.80	104	104742.93	105	P
Thallium				500.0	490.03	98	497.39	99	P
Vanadium				500.0	481.37	96	493.66	99	P
Zinc				500.0	485.94	97	497.60	100	P

(1) Control Limits : Mercury 80-120; Other Metals 90-110; Cyanide 85-115

USEPA - CLP

2B - IN

CRQL CHECK STANDARD

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707172

CRQL Check Standard Source: H.P./ AB.ST.

Concentration Units: UG/L

Analyte	CRQL Check Standard				
	Initial			Final	
	True	Found	%R (1)	Found	%R (1)
Aluminum	200.0	208.87	104	210.30	105
Antimony	60.0	62.52	104	63.07	105
Arsenic	10.0	8.14	81	8.24	82
Barium	200.0	200.90	100	202.61	101
Beryllium	5.0	5.07	101	4.96	99
Cadmium	5.0	5.15	103	4.92	98
Calcium	5000.0	4889.30	98	4667.24	93
Chromium	10.0	10.02	100	9.78	98
Cobalt	50.0	50.98	102	48.72	97
Copper	25.0	23.68	95	23.27	93
Iron	100.0	99.66	100	91.76	92
Lead	10.0	10.53	105	9.76	98
Magnesium	5000.0	4957.32	99	4785.35	96
Manganese	15.0	15.16	101	14.70	98
Mercury	0.2	0.25	123	0.24	122
Nickel	40.0	39.88	100	38.75	97
Potassium	5000.0	4764.00	95	4956.47	99
Selenium	35.0	36.06	103	33.10	95
Silver	10.0	10.14	101	10.03	100
Sodium	5000.0	4921.58	98	5068.79	101
Thallium	25.0	29.50	118	27.27	109
Vanadium	50.0	51.32	103	50.22	100
Zinc	60.0	61.29	102	59.69	99

(1) Control Limits: 70-130 with the following exceptions:

ICP-AES - Antimony, Lead, and Thallium: 51-150

ICP-MS - Cobalt, Manganese, and Zinc: 51-150

* If applicable, enter the concentration qualifier 'J' or 'U' after the concentration in these columns (e.g., 0.20U for Mercury).

USEPA - CLP

2B - IN

CRQL CHECK STANDARD

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707172

CRQL Check Standard Source: H.P./ AB.ST.

Concentration Units: UG/L

Analyte	CRQL Check Standard				
	Initial			Final	
	True	Found	%R (1)	Found	%R (1)
Aluminum	200.0	212.78	106		
Antimony	60.0	63.25	105		
Arsenic	10.0	9.58	96		
Barium	200.0	205.41	103		
Beryllium	5.0	4.99	100		
Cadmium	5.0	5.00	100		
Calcium	5000.0	4705.39	94		
Chromium	10.0	10.05	101		
Cobalt	50.0	49.48	99		
Copper	25.0	24.06	96		
Iron	100.0	93.89	94		
Lead	10.0	10.23	102		
Magnesium	5000.0	4856.32	97		
Manganese	15.0	14.88	99		
Mercury	0.2	0.26	128		
Nickel	40.0	39.03	98		
Potassium	5000.0	5081.11	102		
Selenium	35.0	33.26	95		
Silver	10.0	10.36	104		
Sodium	5000.0	4986.01	100		
Thallium	25.0	24.79	99		
Vanadium	50.0	50.72	101		
Zinc	60.0	60.39	101		

(1) Control Limits: 70-130 with the following exceptions:

ICP-AES - Antimony, Lead, and Thallium: 51-150

ICP-MS - Cobalt, Manganese, and Zinc: 51-150

* If applicable, enter the concentration qualifier 'J' or 'U' after the concentration in these columns (e.g., 0.20U for Mercury).

USEPA - CLP

3 - IN

BLANKS

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707172

Preparation Blank Matrix (soil/water): Soil

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		
		C	1	C	2	C	3	C		C	M
Aluminum	200.000	U	24.621	J	23.432	J	27.692	J	5.773	J	P
Antimony	60.000	U	60.000	U	60.000	U	60.000	U	6.000	U	P
Arsenic	10.000	U	10.000	U	-3.923	J	10.000	U	1.000	U	P
Barium	200.000	U	200.000	U	0.324	J	200.000	U	0.214	J	P
Beryllium	5.000	U	5.000	U	5.000	U	0.214	J	0.026	J	P
Cadmium	5.000	U	5.000	U	0.327	J	5.000	U	0.027	J	P
Calcium	5000.000	U	5000.000	U	5000.000	U	5000.000	U	12.299	J	P
Chromium	10.000	U	10.000	U	10.000	U	10.000	U	0.056	J	P
Cobalt	50.000	U	50.000	U	0.671	J	50.000	U	-0.155	J	P
Copper	25.000	U	25.000	U	25.000	U	-1.012	J	-0.142	J	P
Iron	100.000	U	100.000	U	28.425	J	27.510	J	10.000	U	P
Lead	10.000	U	10.000	U	10.000	U	10.000	U	0.345	J	P
Magnesium	20.056	J	47.772	J	42.621	J	46.124	J	1.277	J	P
Manganese	15.000	U	0.248	J	0.292	J	0.253	J	0.059	J	P
Mercury	0.078	J	-0.020	J	-0.080	J	0.066	J	0.014	J	AV
Nickel	40.000	U	40.000	U	40.000	U	40.000	U	-0.360	J	P
Potassium	5000.000	U	5000.000	U	5000.000	U	5000.000	U	500.000	U	P
Selenium	35.000	U	35.000	U	35.000	U	35.000	U	3.500	U	P
Silver	10.000	U	10.000	U	10.000	U	10.000	U	1.000	U	P
Sodium	5000.000	U	5000.000	U	5000.000	U	-127.312	J	65.125	J	P
Thallium	25.000	U	25.000	U	25.000	U	25.000	U	2.500	U	P
Vanadium	50.000	U	50.000	U	50.000	U	50.000	U	5.000	U	P
Zinc	60.000	U	60.000	U	60.000	U	60.000	U	6.000	U	P

USEPA - CLP

3 - IN

BLANKS

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707172

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or mg/kg):

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		
		C	1	C	2	C	3	C		C	M
Aluminum			89.445	J	200.000	U	71.632	J			P
Antimony			60.000	U	60.000	U	5.277	J			P
Arsenic			-2.797	J	-2.977	J	10.000	U			P
Barium			200.000	U	0.307	J	0.354	J			P
Beryllium			0.243	J	5.000	U	0.233	J			P
Cadmium			5.000	U	5.000	U	0.527	J			P
Calcium			63.506	J	5000.000	U	69.024	J			P
Chromium			10.000	U	10.000	U	0.876	J			P
Cobalt			0.593	J	0.569	J	1.450	J			P
Copper			-0.926	J	-0.740	J	25.000	U			P
Iron			41.753	J	22.754	J	44.712	J			P
Lead			10.000	U	10.000	U	10.000	U			P
Magnesium			105.446	J	49.194	J	108.788	J			P
Manganese			0.203	J	0.249	J	0.337	J			P
Mercury			0.200	U							AV
Nickel			40.000	U	40.000	U	40.000	U			P
Potassium			5000.000	U	18.819	J	5000.000	U			P
Selenium			35.000	U	35.000	U	35.000	U			P
Silver			10.000	U	10.000	U	0.460	J			P
Sodium			5000.000	U	183.385	J	5000.000	U			P
Thallium			25.000	U	25.000	U	25.000	U			P
Vanadium			50.000	U	50.000	U	50.000	U			P
Zinc			60.000	U	60.000	U	60.000	U			P

USEPA - CLP

4A - IN

ICP-AES INTERFERENCE CHECK SAMPLE

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707172

ICP-AES Instrument ID: S5.3V ICS Source: H.P. /AB, ST

Concentration Units: ug/L

Analyte	True		Initial Found				Final Found			
	Sol. A	Sol. B	Sol. A	%R	Sol. AB	%R	Sol. A	%R	Sol. AB	%R
Aluminum		500000	486000	97	488000	98	490000	98	492000	98
Antimony		600	1.2		616	103	4.8		621	104
Arsenic		100	-3.2		99.4	99	1.3		96.8	97
Barium		500	0.88		511	102	0.98		520	104
Beryllium		500	-0.012		478	96	0.062		469	94
Cadmium		1000	-0.12		937	94	0.21		923	92
Calcium		500000	493000	99	497000	99	477000	95	481000	96
Chromium		500	2.1		481	96	1.4		475	95
Cobalt		500	1.8		471	94	2.0		466	93
Copper		500	2.2		522	104	2.0		535	107
Iron		200000	188000	94	190000	95	185000	92	187000	94
Lead		50	1.3		49.1	98	1.8		48.2	96
Magnesium		500000	477000	95	483000	97	469000	94	476000	95
Manganese		500	14.3		501	100	13.7		494	99
Nickel		1000	2.4		936	94	2.1		924	92
Potassium		5000	-3.1		5290	106	-4.1		5580	112
Selenium		50	0.046		48.5	97	-0.87		49.2	98
Silver		200	-0.48		211	105	-0.37		211	106
Sodium		10000	-300		10500	105	-270		10700	107
Thallium		100	6.3		103	103	0.084		102	102
Vanadium		500	0.00030		491	98	0.23		488	98
Zinc		1000	26.0		1020	102	26.0		1010	101

USEPA - CLP

4A - IN

ICP-AES INTERFERENCE CHECK SAMPLE

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707172

ICP-AES Instrument ID: S5.3V ICS Source: H.P. / AB, ST

Concentration Units: ug/L

Analyte	True		Initial Found				Final Found			
	Sol. A	Sol. B	Sol. A	%R	Sol. AB	%R	Sol. A	%R	Sol. AB	%R
Aluminum		500000	487000	97	485000	97				
Antimony		600	-1.6		613	102				
Arsenic		100	-3.3		98.4	98				
Barium		500	1.0		516	103				
Beryllium		500	-0.067		459	92				
Cadmium		1000	1.5		903	90				
Calcium		500000	470000	94	467000	93				
Chromium		500	1.5		463	93				
Cobalt		500	2.1		456	91				
Copper		500	3.0		529	106				
Iron		200000	184000	92	183000	92				
Lead		50	2.5		48.8	98				
Magnesium		500000	470000	94	466000	93				
Manganese		500	11.5		483	97				
Nickel		1000	2.5		906	91				
Potassium		5000	-4.6		5610	112				
Selenium		50	-0.16		50.7	101				
Silver		200	-0.43		208	104				
Sodium		10000	-240		10700	107				
Thallium		100	3.0		100	100				
Vanadium		500	0.15		478	96				
Zinc		1000	27.0		994	99				

USEPA - CLP

5A - IN

MATRIX SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

GR-IS01-0-1-07C MS

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707172

Matrix: (soil/water) Soil Level: (low/med)

% Solids for Sample: 83.8

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Antimony	75 - 125	12.0461		0.3527	J	17.1680	68	N	P
Arsenic	75 - 125	6.3393		0.3001	J	6.8672	88		P
Barium	75 - 125	364.4813		11.7119	J	343.3597	103		P
Beryllium	75 - 125	8.3423		0.0719	J	8.5840	96		P
Cadmium	75 - 125	8.2731		0.4520	U	8.5840	96		P
Chromium	75 - 125	38.8585		2.8413		34.3360	105		P
Cobalt	75 - 125	83.2101		4.5196	U	85.8399	97		P
Copper	75 - 125	44.9192		0.5368	J	42.9200	103		P
Lead	75 - 125	11.2057		9.2564		3.4336	57	N	P
Manganese	75 - 125	96.9335		9.3648		85.8399	102		P
Nickel	75 - 125	85.4043		0.5060	J	85.8399	99		P
Selenium	75 - 125	6.9643		3.1637	U	8.5840	81		P
Silver	75 - 125	8.4252		0.9039	U	8.5840	98		P
Thallium	75 - 125	7.9801		2.2598	U	8.5840	93		P
Vanadium	75 - 125	93.0568		5.2595		85.8399	102		P
Zinc	75 - 125	87.5385		3.2350	J	85.8399	98		P

Comments:

USEPA - CLP

5A - IN

MATRIX SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

GR-IS02-6-8-07C MS

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707172

Matrix: (soil/water) Soil Level: (low/med)

% Solids for Sample: 86.4

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Mercury	75 - 125	0.5663		0.0179	J	0.5480	100		AV

Comments:

USEPA - CLP

5B - IN

MATRIX SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

GR-IS01-0-1-07C

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707172

Matrix: (soil/water) Water Level: (low/med)

% Solids for Sample: 83.8

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Antimony	75 - 125	88.6400		3.9018	J	80	106		P
Lead	75 - 125	184.5147		102.4032		80	103		P

Comments:

USEPA - CLP

6 - IN

DUPLICATES

EPA SAMPLE NO.

GR-IS01-0-1-07C MD

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707172

Matrix: (soil/water) Soil Level: (low/med)

% Solids for Sample: 83.8 % Solids for Duplicate: 83.8

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum	20	3471.6775		3461.5851		0		P
Antimony	20	0.3527	J	5.3030	U		N	P
Arsenic	20	0.3001	J	0.5334	J			P
Barium	20	11.7119	J	12.1694	J			P
Beryllium	20	0.0719	J	0.0804	J			P
Cadmium	20	0.4520	U	0.4419	U			P
Calcium	20	130.4181	J	120.0573	J			P
Chromium	20	2.8413		2.8921		2		P
Cobalt	20	4.5196	U	4.4192	U			P
Copper	20	0.5368	J	0.5156	J			P
Iron	20	1883.2595		1934.7333		3		P
Lead	20	9.2564		9.3221		1	N	P
Magnesium	20	118.2810	J	120.0748	J			P
Manganese	20	9.3648		8.6213		8		P
Nickel	20	0.5060	J	0.7223	J			P
Potassium	20	102.2196	J	104.2127	J			P
Selenium	20	3.1637	U	3.0934	U			P
Silver	20	0.9039	U	0.8838	U			P
Sodium	20	87.5959	J	74.7334	J			P
Thallium	20	2.2598	U	2.2096	U			P
Vanadium	20	5.2595		5.3971		3		P
Zinc	20	3.2350	J	3.3133	J			P

Comments:

USEPA - CLP

6 - IN

DUPLICATES

EPA SAMPLE NO.

GR-IS02-6-8-07C MD

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707172

Matrix: (soil/water) Soil Level: (low/med)

% Solids for Sample: 86.4 % Solids for Duplicate: 86.4

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Mercury	20	0.0179	J	0.0294	J			AV

Comments:

USEPA - CLP

7 - IN

LABORATORY CONTROL SAMPLE

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707172

Solid LCS Source: H.P./ AB.ST.

Aqueous LCS Source:

Analyte	Aqueous (ug/L)			Solid (mg/kg)					
	True	Found	%R	True	Found	C	Limits		%R
Aluminum				1000.0	1032.41		80	120	103
Antimony				10.0	10.25		80	120	102
Arsenic				10.0	9.48		80	120	95
Barium				100.0	105.91		80	120	106
Beryllium				5.0	4.95		80	120	99
Cadmium				10.0	9.97		80	120	100
Calcium				1000.0	972.06		80	120	97
Chromium				50.0	51.23		80	120	102
Cobalt				50.0	49.30		80	120	99
Copper				50.0	52.73		80	120	105
Iron				1000.0	990.60		80	120	99
Lead				100.0	98.42		80	120	98
Magnesium				1000.0	957.17		80	120	96
Manganese				100.0	100.94		80	120	101
Mercury				0.5	0.47		80	120	94
Nickel				50.0	50.21		80	120	100
Potassium				1000.0	967.72		80	120	97
Selenium				10.0	8.99		80	120	90
Silver				10.0	10.15		80	120	102
Sodium				1000.0	1070.37		80	120	107
Thallium				10.0	9.48		80	120	95
Vanadium				50.0	51.47		80	120	103
Zinc				100.0	100.87		80	120	101

USEPA - CLP

8 - IN

ICP-AES and ICP-MS SERIAL DILUTIONS

EPA SAMPLE NO.

GR-IS01-0-1-07C

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707172

Matrix: (soil/water) Water Level: (low/med)

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	38406.8906		40028.2178		4		P
Antimony	3.9018	J	300.0000	U	100		P
Arsenic	3.3197	J	50.0000	U	100		P
Barium	129.5684	J	132.4991	J	2		P
Beryllium	0.7954	J	1.8733	J	136		P
Cadmium	5.0000	U	25.0000	U			P
Calcium	1442.8046	J	1315.5571	J	9		P
Chromium	31.4334		30.4250	J	3		P
Cobalt	50.0000	U	250.0000	U			P
Copper	5.9390	J	125.0000	U	100		P
Iron	20834.3496		21283.7231		2		P
Lead	102.4032		106.8607		4		P
Magnesium	1308.5334	J	1397.3538	J	7		P
Manganese	103.6016		103.9280		0		P
Nickel	5.5976	J	200.0000	U	100		P
Potassium	1130.8469	J	1087.9816	J	4		P
Selenium	35.0000	U	175.0000	U			P
Silver	10.0000	U	50.0000	U			P
Sodium	969.0660	J	962.1555	J	1		P
Thallium	25.0000	U	125.0000	U			P
Vanadium	58.1859		58.2062	J	0		P
Zinc	35.7881	J	43.1397	J	21		P

USEPA - CLP

9 - IN

METHOD DETECTION LIMITS (ANNUALLY)

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707172

Instrument Type: P Instrument ID: S5.3V Date: 12/22/2006

Preparation Method: ILMO5.2_HS

Concentration Units (ug/L or mg/kg): ug/L

Analyte	Wavelength /Mass	CRQL	MDL
Aluminum	308.215	200	22.6
Antimony	206.838	60	3.1
Arsenic	189.042	10	2.4
Barium	493.409	200	0.29
Beryllium	313.042	5	0.2
Cadmium	226.502	5	0.24
Calcium	317.933	5000	51.8
Chromium	267.716	10	0.45
Cobalt	228.616	50	0.43
Copper	324.753	25	0.68
Iron	271.441	100	19.3
Lead	220.353	10	1.6
Magnesium	279.078	5000	5
Manganese	344.199	15	0.15
Mercury	253.7		
Nickel	231.604	40	1.2
Potassium	766.491	5000	15.4
Selenium	196.026	35	3.4
Silver	328.068	10	0.44
Sodium	330.232	5000	116
Thallium	190.864	25	6.7
Vanadium	292.402	50	0.44
Zinc	213.856	60	8

Comments:

USEPA - CLP

9 - IN

METHOD DETECTION LIMITS (ANNUALLY)

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707172

Instrument Type: AV Instrument ID: 5.3HS Date: 02/23/2007

Preparation Method: CS1

Concentration Units (ug/L or mg/kg): ug/L

Analyte	Wavelength /Mass	CRQL	MDL
Aluminum	308.215		
Antimony	206.838		
Arsenic	189.042		
Barium	493.409		
Beryllium	313.042		
Cadmium	226.502		
Calcium	317.933		
Chromium	267.716		
Cobalt	228.616		
Copper	324.753		
Iron	271.441		
Lead	220.353		
Magnesium	279.078		
Manganese	257.61		
Mercury	253.7	0.2	0.019
Nickel	231.604		
Potassium	766.491		
Selenium	196.026		
Silver	328.068		
Sodium	330.232		
Thallium	190.864		
Vanadium	292.402		
Zinc	213.856		

Comments:

GPL - Maryland Laboratory

Metals Data Reporting Form

Inter-Element Correction Factors VACUUM **SDG:** T07172

Instrument: ICPST **Date of IEC's:** 7/27/2007

Interfering Element	Wavelength /Mass	Correction Factor(s)
Aluminum	308.215	Cd(0.000003), Mn(0.000003), Pb(0.000329), Sn(-0.000012), Pb2(-0.000225)
Barium	493.409	Co(0.000079)
Chromium	267.716	As(-0.006931), Co(-0.000172), Sb(0.008954), Ti(0.000219)
Cobalt	228.616	B(0.00924), Fe(0.072657), Tl(0.003155)
Copper	324.753	Zn(0.000602)
Iron	271.441	Al(-0.000069), B(-0.000074), Ba(0.000004), Cd(0.000112), Cr(-0.00002), Cu(-0.000003), Mg(0.000187), Mn(-0.000107), Mo(-0.000008), Na(-0.001083), Pb(0.000072), Sb(0.000017), Se(0.00001), Sn(0.000011), Tl(-0.00004), V(0.000027), Zn(0.000083), Pb2(0.000051), Se2(-0.000247)
Magnesium	279.078	Fe(-0.000217)
Manganese	257.61	Ag(0.00003), Al(0.000222), Cr(0.000158), Mg(-0.000743), Mo(-0.00006), Pb(0.000075), Se(0.000306), Sn(-0.000093), Tl(-0.004333), Pb2(0.000090), Se2(0.000242
Molybdenum	202.03	Al(0.010738), Cu(0.000355), Mn(-0.000276), Pb(-0.00048), Sb(-0.014276), V(-0.000815), Pb2(-0.000668)
Titanium	334.941	Be(-0.000161), Co(0.001989), Cr(-0.000018), Na(-0.011855), Pb(0.0002), Sn(0.000202), V(0.000692), Pb2(-0.000475)
Vanadium	292.402	Al(0.020047), Be(0.000416), Fe(0.007412), Tl(0.001774)
Zinc	206.2	Na(0.024688)

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11 - IN

ICP-AES and ICP-MS LINEAR DYNAMIC RANGES (QUARTERLY)

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707172

Instrument ID: S5.3V Date: 06/20/2007

Analyte	Integ. Time (sec.)	Concentration (ug/L)	M
Aluminum		525000	P
Antimony		5250	P
Arsenic		2100	P
Barium		10500	P
Beryllium		525	P
Cadmium		2100	P
Calcium		525000	P
Chromium		10500	P
Cobalt		10500	P
Copper		10500	P
Iron		525000	P
Lead		21000	P
Magnesium		525000	P
Manganese		10500	P
Nickel		7875	P
Potassium		52500	P
Selenium		2100	P
Silver		1050	P
Sodium		525000	P
Thallium		2100	P
Vanadium		10500	P
Zinc		3150	P

Comments:

USEPA - CLP

12 - IN

PREPARATION LOG

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707172

Preparation Method: ILMO5.2_HS2

EPA Sample No.	Preparation Date	Weight (grams)	Volume (mL)
BLK99625	08/08/2007	1	100
BKS99625	08/08/2007	1	100
25-IS01-0-1-07C	08/08/2007	1.39	100
25-IS01-4-6-07C	08/08/2007	1.36	100
25-IS02-0-1-07C	08/08/2007	1.41	100
25-IS02-5-7-07C	08/08/2007	1.36	100
25-IS03-0-1-07C	08/08/2007	1.47	100
25-IS03-8-10-07C	08/08/2007	1.42	100
25-IS04-0-1-07C	08/08/2007	1.35	100
25-IS04-10-12-07C	08/08/2007	1.34	100
GR-IS01-0-1-07C	08/08/2007	1.32	100
GR-IS01-0-1-07C MD	08/08/2007	1.35	100
GR-IS01-0-1-07C MS	08/08/2007	1.39	100
GR-IS01-4-6-07C	08/08/2007	1.32	100
GR-IS02-0-1-07C	08/08/2007	1.35	100
GR-IS02-6-8-07C	08/08/2007	1.36	100
GR-IS03-0-1-07C	08/08/2007	1.4	100
GR-IS03-4-6-07C	08/08/2007	1.38	100
GR-IS04-0-1-07C	08/08/2007	1.37	100
GR-IS04-4-6-07C	08/08/2007	1.33	100

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PREPARATION LOG

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707172

Preparation Method: CS1

EPA Sample No.	Preparation Date	Weight (grams)	Volume (mL)
BLK99592	08/07/2007	0.6	100
BKS99592	08/07/2007	0.6	100
25-IS01-0-1-07C	08/07/2007	0.67	100
25-IS01-4-6-07C	08/07/2007	0.635	100
25-IS02-0-1-07C	08/07/2007	0.64	100
25-IS02-5-7-07C	08/07/2007	0.693	100
25-IS03-0-1-07C	08/07/2007	0.654	100
25-IS03-8-10-07C	08/07/2007	0.68	100
25-IS04-0-1-07C	08/07/2007	0.635	100
25-IS04-10-12-07C	08/07/2007	0.681	100
GR-IS01-0-1-07C	08/07/2007	0.646	100
GR-IS01-4-6-07C	08/07/2007	0.66	100
GR-IS02-0-1-07C	08/07/2007	0.664	100
GR-IS02-6-8-07C	08/07/2007	0.629	100
GR-IS02-6-8-07C MD	08/07/2007	0.63	100
GR-IS02-6-8-07C MS	08/07/2007	0.634	100
GR-IS03-0-1-07C	08/07/2007	0.646	100
GR-IS03-4-6-07C	08/07/2007	0.665	100
GR-IS04-0-1-07C	08/07/2007	0.651	100
GR-IS04-4-6-07C	08/07/2007	0.68	100

USEPA - CLP

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ANALYSIS RUN LOG

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707172

ICP-MS Instrument ID: S5.3V Analysis Method: CLP-5.3

Start Date: 08/08/2007 End Date: 08/09/2007

EPA Sample No.	DF	Time	Analytes																									
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN		
STD0	1	14:14	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
STD1	1	14:22	X	X	X	X	X	X		X	X	X	X	X		X		X		X	X		X	X	X		
STD2	1	14:31	X	X	X	X	X	X		X	X	X	X	X		X		X		X	X		X	X	X		
STD3	1	14:39							X						X				X			X					
IVICV	1	14:46	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
BIICB	1	14:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
CVCCV1	1	15:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
BCCCB1	1	15:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
ZZZZZ	1	15:23																									
CRCRI	1	15:32	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
IAICSA	1	15:40	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
IBICSAB	1	15:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
ZZZZZ	1	15:57																									
CVCCV2	1	16:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
BCCCB2	1	16:22	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
ZZZZZ	100	16:38																									
ZZZZZ	20	16:46																									
BLK99625	1	16:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
BKS99625	1	17:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
S 707172-001-009-1/1	1	17:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
D 707172-001-009-1/1	1	17:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
SP707172-001-009-1/1	1	17:28		X	X	X	X	X		X	X	X		X		X		X		X	X		X	X	X		
PS707172-001-009-1/1	1	17:36		X										X													
SE707172-001-009-1/1	5	17:46	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
S 707172-002-010-1/1	1	17:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
CVCCV3	1	18:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
BCCCB3	1	18:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
S 707172-003-011-1/1	1	18:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
S 707172-004-012-1/1	1	18:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
S 707172-005-013-1/1	1	18:37	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
S 707172-006-014-1/1	1	18:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
S 707172-007-015-1/1	1	18:53	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
S 707172-008-016-1/1	1	19:02	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
S 707172-009-057-1/1	1	19:10	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		

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ANALYSIS RUN LOG

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707172

ICP-MS Instrument ID: S5.3V Analysis Method: CLP-5.3

Start Date: 08/08/2007 End Date: 08/09/2007

EPA Sample No.	DF	Time	Analytes																									
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN		
CRCRI	1	19:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
IAICSA	1	19:32	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
IBICSAB	1	19:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
CVCCV4	1	19:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
BCCCB4	1	19:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
S 707172-010-058-1/1	1	20:06	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
S 707172-011-059-1/1	1	20:14	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
S 707172-012-060-1/1	1	20:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
S 707172-013-061-1/1	1	20:31	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
S 707172-014-062-1/1	1	20:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
S 707172-015-063-1/1	1	20:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
S 707172-016-064-1/1	1	20:56	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
ZZZZZ	1	21:07																									
ZZZZZ	1	21:16																									
ZZZZZ	1	21:24																									
CVCCV5	1	21:32	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
BCCCB5	1	21:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
ZZZZZ	1	21:49																									
ZZZZZ	1	21:57																									
ZZZZZ	1	22:06																									
ZZZZZ	1	22:14																									
ZZZZZ	5	22:22																									
ZZZZZ	1	22:31																									
ZZZZZ	1	22:42																									
CRCRI	1	22:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
IAICSA	1	22:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
IBICSAB	1	23:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
CVCCV6	1	23:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
BCCCB6	1	23:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
ZZZZZ	1	23:32																									
ZZZZZ	1	23:41																									
ZZZZZ	1	23:49																									
ZZZZZ	1	23:57																									
ZZZZZ	1	0:06																									

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ANALYSIS RUN LOG

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707172

ICP-MS Instrument ID: 5.3HS Analysis Method: Mercury

Start Date: 08/08/2007 End Date: 08/08/2007

EPA Sample No.	DF	Time	Analytes																										
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN		
Std01Rep1	1	10:02															X										
Std01Rep2	1	10:06															X										
Std01Rep3	1	10:09															X										
Std02Rep1	1	10:12															X										
Std02Rep2	1	10:16															X										
Std02Rep3	1	10:19															X										
ZZZZZ	1	10:23																									
Std03Rep2	1	10:26															X										
Std03Rep3	1	10:30															X										
ZZZZZ	1	10:33																									
ZZZZZ	1	10:36																									
ZZZZZ	1	10:40																									
ZZZZZ	1	10:43																									
ZZZZZ	1	10:46																									
ZZZZZ	1	10:50																									
ZZZZZ	1	10:54																									
ZZZZZ	1	10:57																									
ZZZZZ	1	11:00																									
Std04Rep3	1	11:04															X										
Std03Rep1	1	11:08															X										
ZZZZZ	1	11:12																									
ZZZZZ	1	11:16																									
ZZZZZ	1	11:20																									
ZZZZZ	1	11:35																									
ZZZZZ	1	11:41																									
ZZZZZ	1	11:47																									
Std04Rep1	1	11:50															X										
Std04Rep2	1	11:54															X										
ZZZZZ	1	11:57																									
ZZZZZ	1	12:10																									
ZZZZZ	1	12:15																									
Std05Rep1	1	12:27															X										
Std06Rep1	1	12:31															X										
Std05Rep2	1	12:35															X										

USEPA - CLP

13 - IN

ANALYSIS RUN LOG

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707172

ICP-MS Instrument ID: 5.3HS Analysis Method: Mercury

Start Date: 08/08/2007 End Date: 08/08/2007

EPA Sample No.	DF	Time	Analytes																									
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN		
Std05Rep3	1	12:38															X										
Std06Rep2	1	12:42															X										
Std06Rep3	1	12:46															X										
Ck2 ICV	1	12:50															X										
ZZZZZ	1	12:53																									
Ck3 ICB	1	12:57															X										
Ck4 CRA	1	13:00															X										
Ck5 CCV1	1	13:04															X										
Ck6 CCB1	1	13:08															X										
BLK99592	1	13:11															X										
BKS99592	1	13:15															X										
ZZZZZ	1	13:18																									
ZZZZZ	1	13:22																									
ZZZZZ	1	13:26																									
ZZZZZ	1	13:29																									
S 707172-001-009-1/1	1	13:32															X										
S 707172-002-010-1/1	1	13:36															X										
S 707172-003-011-1/1	1	13:39															X										
Ck5 CCV2	1	13:42															X										
Ck6 CCB2	1	13:46															X										
S 707172-004-012-1/1	1	13:49															X										
D 707172-004-012-1/1	1	13:52															X										
SP707172-004-012-1/1	1	13:55															X										
S 707172-005-013-1/1	1	13:59															X										
S 707172-006-014-1/1	1	14:02															X										
S 707172-007-015-1/1	1	14:05															X										
S 707172-008-016-1/1	1	14:09															X										
S 707172-009-057-1/1	1	14:12															X										
Ck4 CRA	1	14:15															X										
Ck5 CCV3	1	14:18															X										
Ck6 CCB3	1	14:24															X										
S 707172-010-058-1/1	1	14:31															X										
S 707172-011-059-1/1	1	14:34															X										
S 707172-012-060-1/1	1	14:37															X										

USEPA - CLP

13 - IN

ANALYSIS RUN LOG

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707172

ICP-MS Instrument ID: 5.3HS Analysis Method: Mercury

Start Date: 08/08/2007 End Date: 08/08/2007

EPA Sample No.	DF	Time	Analytes																									
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN		
S 707172-013-061-1/1	1	14:40															X										
S 707172-014-062-1/1	1	14:44															X										
S 707172-015-063-1/1	1	14:47															X										
S 707172-016-064-1/1	1	14:50															X										
ZZZZZ	1	14:53																									
ZZZZZ	1	14:57																									
Ck4 CRA	1	15:00															X										
Ck5 CCV4	1	15:04															X										
Ck6 CCB4	1	15:07															X										

SUBCONTRACT DATA

GPL Laboratories

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S076Z03N

Date Printed.....: 14-AUG-07 11:42

Client Name.....: GPL Laboratories
Client Ref Number....: MILCON Area Investigation-CTO-169
Sampling Site.....: 707172
Release Number.....: MILCON Area Investiga

Date Received.....: 31-JUL-07 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 12-AUG-07 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: 707172001017|GRISO10107C
DCL Sample Name...: 07E03944
DCL Report Group..: 07E-0669-01

Matrix.....: SOIL
Date Sampled.....: 26-JUL-07 07:50
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 84.3

DCL Analysis Group: G077800J
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: RP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	13-AUG-07 07:24	1.33	ND		U	1	2.37

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S076Z03P

Date Printed.....: 14-AUG-07 11:42

Client Name.....: GPL Laboratories
Client Ref Number....: MILCON Area Investigation-CTO-169
Sampling Site.....: 707172
Release Number.....: MILCON Area Investiga

Date Received.....: 31-JUL-07 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 12-AUG-07 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: 707172002018|GRIS014607C
DCL Sample Name...: 07E03945
DCL Report Group..: 07E-0669-01

Matrix.....: SOIL
Date Sampled.....: 26-JUL-07 08:05
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 82.5

DCL Analysis Group: G077800J
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: RP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	13-AUG-07 07:44	1.36	ND		U	1	2.42

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S076Z03Q

Date Printed.....: 14-AUG-07 11:42

Client Name.....: GPL Laboratories
Client Ref Number....: MILCON Area Investigation-CTO-169
Sampling Site.....: 707172
Release Number.....: MILCON Area Investiga

Date Received.....: 31-JUL-07 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 12-AUG-07 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: 707172003019|GRIS020107C
DCL Sample Name...: 07E03946
DCL Report Group..: 07E-0669-01

Matrix.....: SOIL
Date Sampled.....: 26-JUL-07 08:40
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 89.9

DCL Analysis Group: G077800J
Analysis Method...: 6850
Instrument Type....: LC/MS
Instrument ID.....: LCMS02
Column Type.....: RP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	13-AUG-07 08:04	1.25	ND		U	1	2.22

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S076Z03R

Date Printed.....: 14-AUG-07 11:42

Client Name.....: GPL Laboratories
Client Ref Number....: MILCON Area Investigation-CTO-169
Sampling Site.....: 707172
Release Number.....: MILCON Area Investiga

Date Received.....: 31-JUL-07 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 12-AUG-07 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: 707172004020|GRIS026807C
DCL Sample Name...: 07E03947
DCL Report Group..: 07E-0669-01

Matrix.....: SOIL
Date Sampled.....: 26-JUL-07 09:00
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 87.4

DCL Analysis Group: G077800J
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	13-AUG-07 08:23	1.28	ND		U	1	2.29

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S076Z03S

Date Printed.....: 14-AUG-07 11:42

Client Name.....: GPL Laboratories
Client Ref Number....: MILCON Area Investigation-CTO-169
Sampling Site.....: 707172
Release Number.....: MILCON Area Investiga

Date Received.....: 31-JUL-07 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 12-AUG-07 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: 707172005021|GRIS030107C
DCL Sample Name...: 07E03948
DCL Report Group..: 07E-0669-01

Matrix.....: SOIL
Date Sampled.....: 26-JUL-07 09:40
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 83.0

DCL Analysis Group: G077800J
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: RP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	13-AUG-07 08:43	1.35	ND		U	1	2.41

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S076Z03T

Date Printed.....: 14-AUG-07 11:42

Client Name.....: GPL Laboratories
Client Ref Number....: MILCON Area Investigation-CTO-169
Sampling Site.....: 707172
Release Number.....: MILCON Area Investiga

Date Received.....: 31-JUL-07 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 12-AUG-07 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: 707172006022|GRIS034607C
DCL Sample Name...: 07E03949
DCL Report Group..: 07E-0669-01

Matrix.....: SOIL
Date Sampled.....: 26-JUL-07 09:50
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 86.3

DCL Analysis Group: G077800J
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	13-AUG-07 09:03	1.30	ND		U	1	2.32

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

Form RLIMS63A-V1.4
08140711420770
Page 9

S076Z03V

Date Printed.....: 14-AUG-07 11:42

Client Name.....: GPL Laboratories
Client Ref Number....: MILCON Area Investigation-CTO-169
Sampling Site.....: 707172
Release Number.....: MILCON Area Investiga

Date Received.....: 31-JUL-07 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 12-AUG-07 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: 707172007023|GRIS040107C
DCL Sample Name...: 07E03950
DCL Report Group..: 07E-0669-01

Matrix.....: SOIL
Date Sampled.....: 26-JUL-07 10:35
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 78.9

DCL Analysis Group: G077800J
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: RP-RPFX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	13-AUG-07 09:22	1.42	ND		U	1	2.53

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S076Z03W

Date Printed.....: 14-AUG-07 11:42

Client Name.....: GPL Laboratories
Client Ref Number....: MILCON Area Investigation-CTO-169
Sampling Site.....: 707172
Release Number.....: MILCON Area Investiga

Date Received.....: 31-JUL-07 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 12-AUG-07 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: 1.00g
Net Weight/Volume....: Not Required

Client Sample Name: 707172008024|GRIS044607C
DCL Sample Name...: 07E03951
DCL Report Group..: 07E-0669-01

Matrix.....: SOIL
Date Sampled.....: 26-JUL-07 10:45
Reporting Units...: ug/kg
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids....: 88.0

DCL Analysis Group: G077800J
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: XP-RPPX250
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	13-AUG-07 09:42	1.27	ND		U	1	2.27

960 West LeVoy Drive / Salt Lake City, Utah 84123-2547
Phone (801) 266-7700 Web Page: www.datachem.com
FAX (801) 268-9992 E-mail: lab@datachem.com

Client Name.....: GPL Laboratories
Release Number.....: MILCON Area Investiga

Matrix.....: SOIL
Reporting Units.....: ug/kg

DCL Preparation Group: Not Applicable
Date Prepared.....: 12-AUG-07 00:00
Preparation Method...: 6850

DCL Sample Name...: QC-258932-1
Date Printed.....: 14-AUG-07 11:42

DCL Analysis Group: G077800J
Analysis Method...: CLO4-LC/MS
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
[X] Primary
[ ] Confirmation

QC Limit Type.....: Method

Analytical Results

Analyte	Date Analyzed	Target	Result	Percent Recovery	QC Limits	QC Flag
Perchlorate	13-AUG-07 02:29	10.0	10.4	104.	85.0/115.	

DATA CHEM LABORATORIES
A Sorenson Company

FORM C (TYPE I)
SINGLE METHOD ANALYSES

QUALITY CONTROL DATA SHEET
BLANK SAMPLE

S0778020

Client Name.....: GPL Laboratories
Release Number.....: MILCON Area Investiga

Matrix.....: SOIL
Reporting Units.....: ug/kg

DCL Preparation Group: Not Applicable
Date Prepared.....: 12-AUG-07 00:00
Preparation Method...: 6850

DCL Sample Name...: BL-258932-1
Date Printed.....: 14-AUG-07 11:42

DCL Analysis Group: G077800J
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: XP-RPPX250
☒ Primary
☐ Confirmation

QC Limit Type.....: Method

Analytical Results

Analyte	Date Analyzed	Result	MDL	CRDL
Perchlorate	13-AUG-07 02:09	ND	1.12	2.00

960 West LeVoy Drive / Salt Lake City, Utah 84123-2547
Phone (801) 266-7700 Web Page: www.datachem.com
FAX (801) 268-9992 E-mail: lab@datachem.com

DATA CHEM LABORATORIES
A Sorenson Company

FORM F (TYPE I)
SINGLE METHOD ANALYSES

QUALITY CONTROL DATA SHEET
MATRIX SPIKE SAMPLE
MATRIX SPIKE DUPLICATE SAMPLE

S076T05D

Client Name.....: GPL Laboratories
Release Number.....: MILCON Area Investiga

Matrix.....: SOIL
Reporting Units.....: ug/kg

DCL Preparation Group: Not Applicable
Date Prepared.....: 12-AUG-07 00:00
Preparation Method...: 6850

DCL Sample Name...: 07E03845MS
Date Printed.....: 14-AUG-07 11:42

DCL Analysis Group: G077800J
Analysis Method...: CLO4-LC/MS
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: RP-RPPX250
[X] Primary
[ ] Confirmation

QC Limit Type.....: Method

Analytical Results

Analyte	Date Analyzed	Sample Result	Spiked Result	Spike Added	Percent Recovery	QC Limits	QC Flag
Perchlorate	13-AUG-07 15:50	1870	2400	500.	106.	80.0/120.	

S076T05F

DCL Sample Name...: 07E03845MSD

Analytical Results

Analyte	Date Analyzed	Duplicate Result	Percent Recovery	Mean	Range	RPD	QC Limits	QC Flag
Perchlorate	13-AUG-07 16:10	2420	110.	2410	23.0	0.95	0.00/20.0	

GPL LABORATORIES, LLLP

7210A Corporate Court
Frederick, MD 21703
(301) 694-5310
Fax (301) 620-0731

Contract #/Billing Reference:

1 of 2 Pgs.

Project: 356057
Client: CH2M HILL
Send Results To: Ryan VanOosten
Address: 5700 Cleveland Street, Suite 101
Virginia Beach, VA 23462
Phone: (757) 671-8311 ext. 456

Turnaround Time:

Sample ID#	Date Sampled	Time Sampled	Sample Matrix	Sampler's Initials	# of Containers	Container Type	Preservative Used	Type of Analysis: SVOCs (8270) Metals (6010) Explosives (8330) Perchlorate Pesticides, PCBs VOCs (8260)	Lab Cooler No.	CLIENT COMMENTS
GR-I501-01-07C	7-26-07	0750	S	LS, MW	1	8oz AG	—	X X X		
GR-I501-46-07C		0805	S	LS, MW	1	8oz AG	—	X X X		
GR-I502-01-07C		0840	S	LS, MW	1	8oz	—	X X X		
GR-I502-46-07C		0900	S	LS, MW	1	8oz	—	X X X		
GR-I503-01-07C		0940	S	LS, MW	1	8oz	—	X X X		
GR-I503-46-07C		0950	S	LS, MW	1	8oz	—	X X X		
GR-I504-01-07C		1035	S	LS, MW	1	8oz	—	X X X		
GR-I504-46-07C		1045	S	LS, MW	1	8oz	—	X X X		
IS-I501-01-07C		1230	S	LS, MW	3	Encore	—	X X X		
IS-I501-46-07C		1240	S	LS, MW				X X X		
IS-I502-01-07C		1330	S	LS, MW				X X X		
IS-I502-57-07C	↓	1340	S	LS, MW				X X X		

Relinquished By:	Date/Time	Received By:	Relinquished By:	Received for Laboratory By:	Date/Time
	7-26-07 1630				7/27/07 9:25
Relinquished By:	Date/Time	Received By:	Date/Time / Shipper:	Airbill No.:	
Relinquished By:	Date/Time	Received By:	Lab Comments	Temp: 2.0	

G.P. W.O. 707172

GPL Laboratories, LLLP

Chain of Custody

CH2M Hill Inc

SDG: 707172

GPL LABORATORIES, LLLP

7210A Corporate Court
Frederick, MD 21703
(301) 694-5310
Fax (301) 620-0731

Contract/Billing Reference

2 of 2 Pgs.

Project: 356052

Client: CH2M Hill

Send Results To: Ryan Van Oosten

Address: 5700 Cleveland Street, Suite 101
Virginia Beach, VA 23462

Phone: (757) 671-8311 ext. 456

Turnaround Time									
# of Containers					1	1	3		
Container Type					8oz AG	8oz	Encore		
Preservative Used					–	–	–		
Type of Analysis					SVOCs (TCL)	Metals (TAL)	Pesticides PCBs	VOCs (TCL)	Lab Cooler No.
Sample ID#	**Date Sampled**	**Time Sampled**	**Sample Matrix**	**Sampler's Initials**					**CLIENT COMMENTS**
25-I303-0-1-07C	7-26-07	1415	S	LS, MW	X	X	X		
25-I303-8-10-07C	↓	1430	S	LS, MW	X	X	X		
25-I304-0-1-07C	↓	1500	S	LS, MW	X	X	X		
25-I304-10-12-07C	↓	1510	S	LS, MW	X	X	X		
Trip Blank							X		
Temp Blank									

Relinquished By:	Date/Time	Received By:	Relinquished By:	Received for Laboratory By:	Date/Time
[signature]	7-26-07 1620			[signature]	7/27/07 9:25

Relinquished By:	Date/Time	Received By:	Date/Time	Shipper:	Airbill No.:

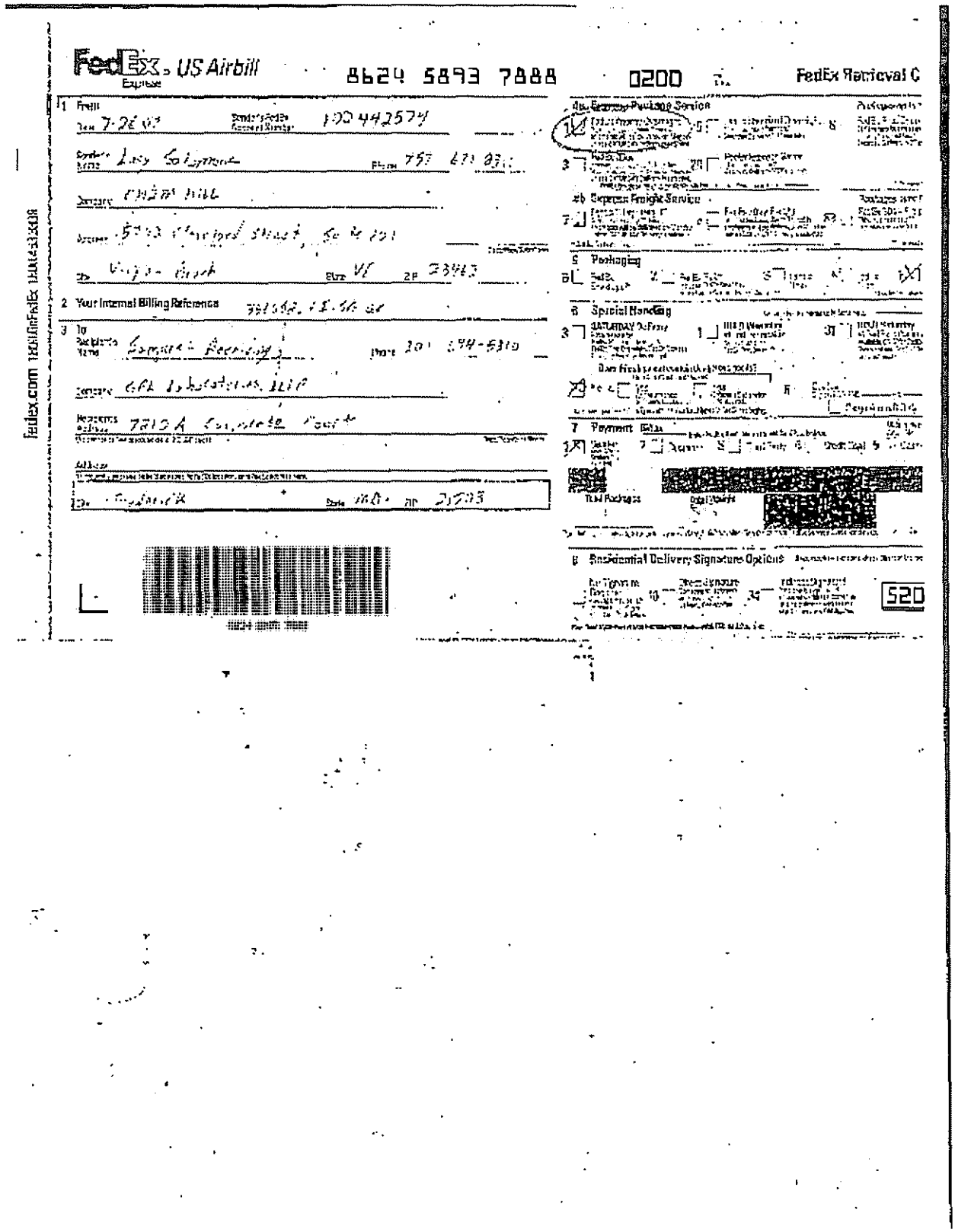
Relinquished By:	Date/Time	Received By:	Lab Comments:	Temp:
				2.0

G.P. W.O. 707172

Chain of Custody

CH2M Hill Inc

SDG: 707172



GPL Laboratories, LLLP

Figure 1
SAMPLE RECEIPT CHECKLIST

W.O. No: 707172
Client Name: CH2M Hill
Date Received: 7/27/07
Time Received: 9:25
Received By: [signature]

Carrier Name: Fed Ex
Prepared (Logged In) By: [signature] 7/27/07
(Initials) (Date)
Project:
Site:
VOA Holding Blank LD. No:

	YES	NO
Air Bill/Manifest Present?	✓	
No.		
Shipping Container in Good Condition?	✓	
Custody Seals Present on Shipping Container?	✓	
Condition: Broken		
Intact-not dated or signed		
Intact-dated and signed	✓	
Usage of Temper Evident Type	✓	
Chain-of-Custody Present?	✓	
Chain-of-Custody Agrees with Sample Labels?	✓	
Chain-of-Custody Signed?	✓	
Packing Present in Shipping Container?	✓	
Type of Packing: Bubble wrap		
Custody seals on Sample Bottles?		✓
Condition: Good ____ Broken ____		
Total Number of Sample Bottles ____		
Total Number of Samples 17		
Samples Intact?	✓	
Sufficient Sample Volume for Indicated Test?		

	YES	NO
Trip Blanks: No. of Sets ____		
Field Blanks: No. of Sets ____		
Equip. Blank No. of Sets ____		
Field Duplicates: No. of Sets ____		
MS/MSD: No of Sets ____		
VOA Vials Have Zero Headspace?		
If no, smaller or greater than a Green Pea (see comments)		
Preservatives Added to Sample?		
pH Check Required?		
Performed By? ____		
Ice Present in Shipping Container?	✓	

Container #	Temp.	Container #	Temp.
1	2.0		

Project Manager Contacted?
Name: Virginia
Date Contacted: 7/27/07

Any NO response must be detailed in the comments section below. If items are not applicable to particular samples or contracts, they should be marked "N/A"

COMMENTS:

Checklist Completed By: [signature]
Date: 7/27/07

SOP No: FS-V16

Analytical Report For 707187

for

CH2M Hill Inc

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

Nine water and four soil samples were received on 07/28/2007. 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

Nine soil and four water samples were analyzed for volatile organic compounds by CLP OLM04.3 methodology.

The samples were analyzed within the holding time.

Water samples 25-TW01-07C, 25-TW02-07C, 25-TW03-07C, and the Trip Blank and Holding Blank had some surrogate recoverie slightly above the QC limits. The samples were re-analyzed, within holding time, with similar or slightly better surrogate recoveries. Results are reported from the renalyses, and initial run data is included in the package as a reference.

All internal standard responses were within QC limits.

Duplicate laboratory control samples were analyzed along with one of the batches, and a single LCS standard with the other. All recoveries were within the QC limits.

TIC's were performed on the laboratory blanks and samples. Library serach results are included in the 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 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 below QC limits in sample 25-TW02-07C. This sample was re-extracted, past extraction holding time, and reanalyzed. All surrogate recovery for the re-ectracted sample were within QC limits and target analyte results were similar to the initial extract. Results are reported from the original analysis and the re-analysis data is included in the package as a reference.

Matrix spike analysis could not be performed with the water samples due to insufficient sample volumes. Instead, duplicate laboratory control samples were extracted and analyzed along with the water batch. One spike recovery and two %RPD's were slighlty outside the QC limits. For the re-extracted sample batch, BKS/BKSD99566, only the two additional compounds were spiked during the extraction. Spike recoveries for these two compounds were within the QC limits.

Matrix spike and matrix spike duplicate analyses for soil were shared with GPL work order 707147. Percent recovery of two compounds in the MS and one in the MSD were slightly above the QC limits. A laboratory control samples was extracted and analyzed along with the soil batch. All recoveries were within 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.

Pesticides

Four soil and three water samples were extracted and analyzed for Pesticide and PCB compounds by CLP OLM04.3 methodology.

Extraction and analysis holding times were met.

All surrogate recoveries were within QC limits.

Matrix spike analysis could not be performed with the water samples due to insufficient sample volume. Instead, Duplicate laboratory control samples were extracted and analyzed along with the water batch. All recoveries were within QC limits.

Matrix spike and matrix spike duplicate analyses for soil were performed on sample 25-IS06-0-1-07C. All recoveries were within QC limits. A laboratory control sample was extracted and analyzed along with the soil batch. All recoveries were within QC limits.

Combined % breakdown for PEM-401 on RTxCLP2 was slightly above QC limits. Endrin breakdown for both columns on PEM-402 was outside QC limits. Endrin breakdown for PEM-403 on both columns was slightly above QC limits.
4,4-DDT recovery for PEM-402,403 on RTxCLP were slightly above QC limits. Endrin recovery for PEM-403 on RTxCLP was slightly above QC limits.

GPC Check Aldrin Heptachlor and GAMMA-BHC recoveries were slightly above QC limits.

Some GC quantitation reports in this package required manual integration of the peak areas. When such integration is required, the quantitation reports were flagged with an "m" next to the concentration. The need for manual integration is due to software failure to integrate peak of interest or the failure to correctly integrate the peak area.
The following GC columns were used:

GC column RTx-CLP (RESTEK)
ID 0.32mm
Length□30m
Coating 5% diphenyl-95%dimethyl polysiloxane
Film thickness 0.50um

GC column RTx-CLP2 (RESTEK)
ID 0.32mm
Length 30m
Coating 14% cyanopropylphenyl-86% dimethyl polysiloxane

Explosives/Propellants

One water sample was extracted and analyzed for explosive compounds using SW846 method 8330.

Extraction and analysis holding times were met.

All surrogate recoveries were within the QC limits.

Matrix spike analysis could not be performed due to insufficient sample volume. Instead, duplicate laboratory control samples were extracted and analyzed along with the batch. All percent recoveries wer within QC limits. The %RPD for HMX was slighity above the QC limit.

Manual integration was performed on some data files, when automatic integration provided by the software was inappropriate.

Metals

Eight 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 shared on the water sample with GPL work order 707158-005 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 25-TW03-07C FIL for mercury. They were within the control limits.

A matrix spike, duplicate, and serial dilution were shared on the soil sample with GPL work order 707158-001 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 707147-002 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.

Subcontract Analysis

One water sample was subcontracted for Perchlorate analysis by SW846 method 6850.
See subcontractor case narrative for details of this analysis.

Reviewed By,
Project Manager

Approved By,
Laboratory Director

GPL Laboratories, LLLP

Sample Summary Report

CH2M Hill Inc

Work Order: 707187

Client Sample ID	Lab Sample ID	Analytical Method	Matrix	Date Sampled	Date Recieved
25-TW01-07C	707187-005-021-1/3	CLP_OLM04.3_VOA	WATER	07/27/2007	07/28/2007
	707187-005-034-1/2	CLP_OLM04.3_BNA			
	707187-005-040-1/2	CLP_OLM04.3_PEST			
	707187-005-046-1/1	CLP_ILM05.3			
	707187-005-046-1/1	CLP_ILM05.3HG			
25-TW01-07C FIL	707187-006-047-1/1 FIL	CLP_ILM05.3	WATER	07/27/2007	07/28/2007
	707187-006-047-1/1 FIL	CLP_ILM05.3HG			
25-TW01-07CRE	707187-005-022-2/3RE	CLP_OLM04.3_VOA	WATER	07/27/2007	07/28/2007
25-TW02-07C	707187-007-024-1/3	CLP_OLM04.3_VOA	WATER	07/27/2007	07/28/2007
	707187-007-036-1/2	CLP_OLM04.3_BNA			
	707187-007-042-1/2	CLP_OLM04.3_PEST			
	707187-007-048-1/1	CLP_ILM05.3			
	707187-007-048-1/1	CLP_ILM05.3HG			
25-TW02-07C FIL	707187-008-049-1/1 FIL	CLP_ILM05.3	WATER	07/27/2007	07/28/2007
	707187-008-049-1/1 FIL	CLP_ILM05.3HG			
25-TW02-07CRE	707187-007-036-1/2RE	CLP_OLM04.3_VOA	WATER	07/27/2007	07/28/2007
	707187-007-036-1/2RE	CLP_OLM04.3_BNA			
25-TW03-07C	707187-009-027-1/3	CLP_OLM04.3_VOA	WATER	07/27/2007	07/28/2007
	707187-009-038-1/2	CLP_OLM04.3_BNA			
	707187-009-044-1/2	CLP_OLM04.3_PEST			
	707187-009-050-1/1	CLP_ILM05.3			
	707187-009-050-1/1	CLP_ILM05.3HG			
25-TW03-07C FIL	707187-010-051-1/1 FIL	CLP_ILM05.3	WATER	07/27/2007	07/28/2007
	707187-010-051-1/1 FIL	CLP_ILM05.3HG			
25-TW03-07CRE	707187-009-028-2/3RE	CLP_OLM04.3_VOA	WATER	07/27/2007	07/28/2007
GR-TW03-07C	707187-011-054-1/1	SW8330	WATER	07/27/2007	07/28/2007
	707187-011-052-1/1	CLP_ILM05.3			
	707187-011-052-1/1	CLP_ILM05.3HG			
GR-TW03-07C FIL	707187-012-053-1/1 FIL	CLP_ILM05.3	WATER	07/27/2007	07/28/2007
	707187-012-053-1/1 FIL	CLP_ILM05.3HG			

Sample Summary Report

CH2M Hill Inc

Work Order: 707187

Client Sample ID	Lab Sample ID	Analytical Method	Matrix	Date Sampled	Date Recieved
HOLDING BLANK	707187-014-032-1/2	CLP_OLM04.3_VOA	WATER	07/30/2007	07/28/2007
HOLDING BLANKRE	707187-014-033-2/2RE	CLP_OLM04.3_VOA	WATER	07/30/2007	07/28/2007
TRIP BLANK	707187-013-030-1/2	CLP_OLM04.3_VOA	WATER	07/27/2007	07/28/2007
TRIP BLANKRE	707187-013-031-2/2RE	CLP_OLM04.3_VOA	WATER	07/27/2007	07/28/2007
25-IS05-0-1-07C	707187-001-001-1/3	CLP_OLM04.3_VOA	SOIL	07/27/2007	07/28/2007
	707187-001-013-1/1	CLP_OLM04.3_BNA			
	707187-001-013-1/1	CLP_OLM04.3_PEST			
	707187-001-017-1/1	CLP_ILM05.3			
	707187-001-017-1/1	CLP_ILM05.3HG			
	707187-001-017-1/1	CLP_SOLIDS			
25-IS05-9-11-07C	707187-002-004-1/3	CLP_OLM04.3_VOA	SOIL	07/27/2007	07/28/2007
	707187-002-014-1/1	CLP_OLM04.3_BNA			
	707187-002-014-1/1	CLP_OLM04.3_PEST			
	707187-002-018-1/1	CLP_ILM05.3			
	707187-002-018-1/1	CLP_ILM05.3HG			
	707187-002-018-1/1	CLP_SOLIDS			
25-IS06-0-1-07C	707187-003-007-1/3	CLP_OLM04.3_VOA	SOIL	07/27/2007	07/28/2007
	707187-003-015-1/1	CLP_OLM04.3_BNA			
	707187-003-015-1/1	CLP_OLM04.3_PEST			
	707187-003-019-1/1	CLP_ILM05.3			
	707187-003-019-1/1	CLP_ILM05.3HG			
	707187-003-019-1/1	CLP_SOLIDS			
25-IS06-8-10-07C	707187-004-010-1/3	CLP_OLM04.3_VOA	SOIL	07/27/2007	07/28/2007
	707187-004-016-1/1	CLP_OLM04.3_BNA			
	707187-004-016-1/1	CLP_OLM04.3_PEST			
	707187-004-020-1/1	CLP_ILM05.3			
	707187-004-020-1/1	CLP_ILM05.3HG			
	707187-004-020-1/1	CLP_SOLIDS			

Qualifier Definitions

CH2M Hill Inc

Work Order: 707187

All Departments

U	Indicates that the compound was analyzed for but not detected
BQL	Below Quantitation Limit

Organics

B	Indicates that the analyte was found in the associated blank as well as in the sample
D	Indicates that the analyte was reported from a diluted analysis
E	Indicates that the concentration detected exceeded the calibration range of the instrument
J	Value is less than the reporting limit but greater than the MDL
P	Indicates that there is greater than 25% difference for detected pesticide/Arochlor results between the two GC columns

Metals

J	Indicates that the reported value was less than the reporting limit but greater than or equal to the IDL/MDL
E	Indicates that the reported value is estimated because of the possible presence of interference (i.e. the serial dilution not within control limits)
H	Indicates that the element was found in the associated blank as well as in the sample and the value is greater than or equal to the reporting limit
D	Indicates that the analyte was reported from a diluted analysis
N	Spiked sample recovery not within control limits
*	Duplicate analysis not within control limits

GPL LABORATORIES

Client: CH2M HILL
SDG: 707147
Sample ID: 25-IS05-0-1-07C

Retention Time	CAS Number	Alkane Compound	Est. Conc. (ug/KG)
10.45		Alkane Type 4	200

*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

Client: CH2M HILL
SDG: 707147
Sample ID: 25-IS05-9-11-07C

Retention Time	CAS Number	Alkane Compound	Est. Conc. (ug/KG)
10.45		Alkane Type 4	210

*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

Client: CH2M HILL
SDG: 707147
Sample ID: 25-IS06-0-1-07C

Retention Time	CAS Number	Alkane Compound	Est. Conc. (ug/KG)
10.45		Alkane Type 4	180

*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

Client: CH2M HILL
SDG: 707147
Sample ID: 25-IS06-8-10-07C

Retention Time	CAS Number	Alkane Compound	Est. Conc. (ug/KG)
10.45		Alkane Type 4	220

*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

DATA CHEM LABORATORIES
A Sorenson Company

AUG 0 9 2007

Case Narrative

Method(s): 6850
Analysis: Perchlorate
Analysis SOP: LC-MS-CL04
DCL Set ID(s): 07E-0673-01

Client: GPL Laboratories
Account: 08001
Matrix: Water
Group: G077500T

General Set Information: There was one field sample in this set. The sample was analyzed for perchlorate.

Method Summary: Each sample was prepared as noted below and analyzed using an Agilent 1100 LC/MSD system in select ion monitoring (SIM) mode at m/z 83 and 85, which corresponds to the loss of one oxygen atom from the perchlorate molecule. ChemStation software was used for instrument control and data analysis. The ion ratio of m/z 83 to 85 was used to positively identify the response peak as perchlorate. Quantitation was performed using the m/z 83 peak area. An internal standard of ^{18}O labeled perchlorate was added to each sample to establish the perchlorate peak retention time and used in quantitation.

Sample Preparation: A 9.95mL aliquot of each sample, including standards, was transferred into a 15-mL centrifuge tube. 50µL of an ^{18}O labeled perchlorate solution was added to each sample as an internal standard. The samples were then capped, vortexed, and filtered into autosampler vial using Pall 0.45µm Ion Chromatography Acrodiscs.

Holding Times: Holding times were met for all analyses.

Dilutions: No dilutions were necessary.

Method QC data: The method blank (BL-258879-1) was less than 1/2 the CRDL. The recovery for QC-258879-1 was within method parameters.

MS/MSD Analysis: Matrix spikes and matrix spike duplicates were performed on samples 07E03742 and 07E03877, which were other clients' samples analyzed in the same batch. The recoveries and RPDs were within acceptable parameters.

This report contains 10 pages

Instrument QC: Instrument initial and continuing calibrations were performed in accordance with published procedures.

NC/CAR(s): None were required for this group.

Sample Calculation: Samples were reported in µg/L. Results were calculated in µg/L by the equation (A)x(B),

where: A = Analyte concentration from the standard curve (µg/L)
B = Dilution performed at time of analysis

Miscellaneous Comments: None.

Thomas T. McKay — August 08, 2007
Date

QC SUMMARY PACKAGE

GPL Laboratories

VOLATILE ORGANICS

GPL Laboratories

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
25-IS05-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707187
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707187-001-001-1/3
Sample Volume :	5.39	Lab File ID :	B025930.D
Level :	Low	Date Received	07/28/2007
% Moisture: not dec	20.3	Date Analyzed	08/01/2007
GC Column :	RTX_502.2 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	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 1
ANALYSIS DATA SHEET

SAMPLE NO
25-IS05-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707187
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707187-001-001-1/3
Sample Volume :	5.39	Lab File ID :	B025930.D
Level :	Low	Date Received	07/28/2007
% Moisture: not dec	20.3	Date Analyzed	08/01/2007
GC Column :	RTX_502.2 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	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.
25-IS05-0-1-07C

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707187

Matrix (soil/water): SOIL Lab Sample ID: 707187-001-001-1/3

Sample wt/vol: 5.39 (g/ml) g Lab File ID: B025930.D

Level (low/med): LOW Date Recieved 07/28/2007

% Moisture: 20.3 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
25-IS05-9-11-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707187
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707187-002-004-1/3
Sample Volume :	6.22	Lab File ID :	B025931.D
Level :	Low	Date Received	07/28/2007
% Moisture: not dec	29	Date Analyzed	08/01/2007
GC Column :	RTX_502.2 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	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
25-IS05-9-11-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707187
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707187-002-004-1/3
Sample Volume :	6.22	Lab File ID :	B025931.D
Level :	Low	Date Received	07/28/2007
% Moisture: not dec	29	Date Analyzed	08/01/2007
GC Column :	RTX_502.2 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	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.
25-IS05-9-11-07C

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707187

Matrix (soil/water): SOIL Lab Sample ID: 707187-002-004-1/3

Sample wt/vol: 6.22 (g/ml) g Lab File ID: B025931.D

Level (low/med): LOW Date Recieved 07/28/2007

% Moisture: 29 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
25-IS06-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707187
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707187-003-007-1/3
Sample Volume :	5.64	Lab File ID :	B025932.D
Level :	Low	Date Received	07/28/2007
% Moisture: not dec	15.08	Date Analyzed	08/01/2007
GC Column :	RTX_502.2 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	6.9	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 1
ANALYSIS DATA SHEET

SAMPLE NO
25-IS06-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707187
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707187-003-007-1/3
Sample Volume :	5.64	Lab File ID :	B025932.D
Level :	Low	Date Received	07/28/2007
% Moisture: not dec	15.08	Date Analyzed	08/01/2007
GC Column :	RTX_502.2 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.
25-IS06-0-1-07C

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707187

Matrix (soil/water): SOIL Lab Sample ID: 707187-003-007-1/3

Sample wt/vol: 5.64 (g/ml) g Lab File ID: B025932.D

Level (low/med): LOW Date Recieved 07/28/2007

% Moisture: 15.08 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
25-IS06-8-10-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707187
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707187-004-010-1/3
Sample Volume :	5.75	Lab File ID :	B025933.D
Level :	Low	Date Received	07/28/2007
% Moisture: not dec	12.91	Date Analyzed	08/01/2007
GC Column :	RTX_502.2 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
25-IS06-8-10-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707187
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707187-004-010-1/3
Sample Volume :	5.75	Lab File ID :	B025933.D
Level :	Low	Date Received	07/28/2007
% Moisture: not dec	12.91	Date Analyzed	08/01/2007
GC Column :	RTX_502.2 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.
25-IS06-8-10-07C

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707187

Matrix (soil/water): SOIL Lab Sample ID: 707187-004-010-1/3

Sample wt/vol: 5.75 (g/ml) g Lab File ID: B025933.D

Level (low/med): LOW Date Recieved 07/28/2007

% Moisture: 12.91 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
25-TW01-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707187
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707187-005-022-2/3RE
Sample Volume :	5	Lab File ID :	F46757.D
Level :	Low	Date Received	07/28/2007
% Moisture: not dec		Date Analyzed	08/06/2007
GC Column :	RTX_502.2 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
25-TW01-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707187
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707187-005-022-2/3RE
Sample Volume :	5	Lab File ID :	F46757.D
Level :	Low	Date Received	07/28/2007
% Moisture: not dec		Date Analyzed	08/06/2007
GC Column :	RTX_502.2 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.
25-TW01-07CRE

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707187

Matrix (soil/water): WATER Lab Sample ID: 707187-005-022-2/3RE

Sample wt/vol: 5 (g/ml) ml Lab File ID: F46757.D

Level (low/med): LOW Date Recieved 07/28/2007

% 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	20.28	6.22	J
2		unknown	23.55	3.87	J

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

for QA/QC

SAMPLE NO
25-TW01-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707187
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707187-005-021-1/3
Sample Volume :	5	Lab File ID :	F46749.D
Level :	Low	Date Received	07/28/2007
% Moisture: not dec		Date Analyzed	08/06/2007
GC Column :	RTX_502.2 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
25-TW01-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707187
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707187-005-021-1/3
Sample Volume :	5	Lab File ID :	F46749.D
Level :	Low	Date Received	07/28/2007
% Moisture: not dec		Date Analyzed	08/06/2007
GC Column :	RTX_502.2 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.
25-TW01-07C

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707187

Matrix (soil/water): WATER Lab Sample ID: 707187-005-021-1/3

Sample wt/vol: 5 (g/ml) ml Lab File ID: F46749.D

Level (low/med): LOW Date Recieved 07/28/2007

% 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: 1 Concentration Units (ug/L or ug/kg): ug/L

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q
1		unknown	8.74	7.48	J

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
25-TW02-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707187
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707187-007-025-2/3RE
Sample Volume :	5	Lab File ID :	F46758.D
Level :	Low	Date Received	07/28/2007
% Moisture: not dec		Date Analyzed	08/06/2007
GC Column :	RTX_502.2 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
25-TW02-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707187
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707187-007-025-2/3RE
Sample Volume :	5	Lab File ID :	F46758.D
Level :	Low	Date Received	07/28/2007
% Moisture: not dec		Date Analyzed	08/06/2007
GC Column :	RTX_502.2 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	5.0	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	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.
25-TW02-07CRE

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707187

Matrix (soil/water): WATER Lab Sample ID: 707187-007-025-2/3RE

Sample wt/vol: 5 (g/ml) ml Lab File ID: F46758.D

Level (low/med): LOW Date Recieved 07/28/2007

% 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	20.28	6.19	J
2		unknown	8.75	8.34	J

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

for QA/QC

SAMPLE NO
25-TW02-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707187
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707187-007-024-1/3
Sample Volume :	5	Lab File ID :	F46750.D
Level :	Low	Date Received	07/28/2007
% Moisture: not dec		Date Analyzed	08/06/2007
GC Column :	RTX_502.2 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
25-TW02-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707187
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707187-007-024-1/3
Sample Volume :	5	Lab File ID :	F46750.D
Level :	Low	Date Received	07/28/2007
% Moisture: not dec		Date Analyzed	08/06/2007
GC Column :	RTX_502.2 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	13	
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.
25-TW02-07C

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707187

Matrix (soil/water): WATER Lab Sample ID: 707187-007-024-1/3

Sample wt/vol: 5 (g/ml) ml Lab File ID: F46750.D

Level (low/med): LOW Date Recieved 07/28/2007

% 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	23.54	5.74	J
2		unknown	8.75	7.68	J

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
25-TW03-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707187
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707187-009-028-2/3RE
Sample Volume :	5	Lab File ID :	F46759.D
Level :	Low	Date Received	07/28/2007
% Moisture: not dec		Date Analyzed	08/06/2007
GC Column :	RTX_502.2 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
25-TW03-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707187
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707187-009-028-2/3RE
Sample Volume :	5	Lab File ID :	F46759.D
Level :	Low	Date Received	07/28/2007
% Moisture: not dec		Date Analyzed	08/06/2007
GC Column :	RTX_502.2 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

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
25-TW03-07CRE

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707187

Matrix (soil/water): WATER Lab Sample ID: 707187-009-028-2/3RE

Sample wt/vol: 5 (g/ml) ml Lab File ID: F46759.D

Level (low/med): LOW Date Recieved 07/28/2007

% 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	20.28	3.45	J
2		unknown	8.75	6.18	J

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

for QA/QC

SAMPLE NO
25-TW03-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707187
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707187-009-027-1/3
Sample Volume :	5	Lab File ID :	F46751.D
Level :	Low	Date Received	07/28/2007
% Moisture: not dec		Date Analyzed	08/06/2007
GC Column :	RTX_502.2 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
25-TW03-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707187
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707187-009-027-1/3
Sample Volume :	5	Lab File ID :	F46751.D
Level :	Low	Date Received	07/28/2007
% Moisture: not dec		Date Analyzed	08/06/2007
GC Column :	RTX_502.2 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.
25-TW03-07C

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707187

Matrix (soil/water): WATER Lab Sample ID: 707187-009-027-1/3

Sample wt/vol: 5 (g/ml) ml Lab File ID: F46751.D

Level (low/med): LOW Date Recieved 07/28/2007

% 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: 1 Concentration Units (ug/L or ug/kg): ug/L

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q
1		unknown	23.57	3.68	J

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. :	707187
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707187-013-031-2/2RE
Sample Volume :	5	Lab File ID :	F46760.D
Level :	Low	Date Received	07/28/2007
% Moisture: not dec		Date Analyzed	08/06/2007
GC Column :	RTX_502.2 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
TRIP BLANKRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707187
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707187-013-031-2/2RE
Sample Volume :	5	Lab File ID :	F46760.D
Level :	Low	Date Received	07/28/2007
% Moisture: not dec		Date Analyzed	08/06/2007
GC Column :	RTX_502.2 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 BLANKRE

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707187

Matrix (soil/water): WATER Lab Sample ID: 707187-013-031-2/2RE

Sample wt/vol: 5 (g/ml) ml Lab File ID: F46760.D

Level (low/med): LOW Date Recieved 07/28/2007

% 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	000556-67-2	Cyclotetrasiloxane,	20.28	7.17	JN
2		unknown	8.74	5.28	J

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

for QAPP

SAMPLE NO
TRIP BLANK

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707187
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707187-013-030-1/2
Sample Volume :	5	Lab File ID :	F46752.D
Level :	Low	Date Received	07/28/2007
% Moisture: not dec		Date Analyzed	08/06/2007
GC Column :	RTX_502.2 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
TRIP BLANK

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707187
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707187-013-030-1/2
Sample Volume :	5	Lab File ID :	F46752.D
Level :	Low	Date Received	07/28/2007
% Moisture: not dec		Date Analyzed	08/06/2007
GC Column :	RTX_502.2 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.: 707187

Matrix (soil/water): WATER Lab Sample ID: 707187-013-030-1/2

Sample wt/vol: 5 (g/ml) ml Lab File ID: F46752.D

Level (low/med): LOW Date Recieved 07/28/2007

% 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: 1 Concentration Units (ug/L or ug/kg): ug/L

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q
1		unknown	23.52	4.41	J

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. :	707187
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707187-014-033-2/2RE
Sample Volume :	5	Lab File ID :	F46761.D
Level :	Low	Date Received	07/28/2007
% Moisture: not dec		Date Analyzed	08/06/2007
GC Column :	RTX_502.2 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
HOLDING BLANKRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707187
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707187-014-033-2/2RE
Sample Volume :	5	Lab File ID :	F46761.D
Level :	Low	Date Received	07/28/2007
% Moisture: not dec		Date Analyzed	08/06/2007
GC Column :	RTX_502.2 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.: 707187

Matrix (soil/water): WATER Lab Sample ID: 707187-014-033-2/2RE

Sample wt/vol: 5 (g/ml) ml Lab File ID: F46761.D

Level (low/med): LOW Date Recieved 07/28/2007

% 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	000556-67-2	Cyclotetrasiloxane,	20.28	9.020	JN
2		unknown	8.75	6.12	J

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

for QA/QC

SAMPLE NO
HOLDING BLANK

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707187
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707187-014-032-1/2
Sample Volume :	5	Lab File ID :	F46753.D
Level :	Low	Date Received	07/28/2007
% Moisture: not dec		Date Analyzed	08/06/2007
GC Column :	RTX_502.2 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
HOLDING BLANK

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707187
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707187-014-032-1/2
Sample Volume :	5	Lab File ID :	F46753.D
Level :	Low	Date Received	07/28/2007
% Moisture: not dec		Date Analyzed	08/06/2007
GC Column :	RTX_502.2 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

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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.: 707187

Matrix (soil/water): WATER Lab Sample ID: 707187-014-032-1/2

Sample wt/vol: 5 (g/ml) ml Lab File ID: F46753.D

Level (low/med): LOW Date Recieved 07/28/2007

% 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: 1 Concentration Units (ug/L or ug/kg): ug/L

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q
1		unknown	20.28	7.96	J

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BLK99700

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707187
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BLK99700
Sample Volume :	5	Lab File ID :	B025928.D
Level :	Low	Date Received	
% Moisture: not dec		Date Analyzed	08/01/2007
GC Column :	RTX_502.2 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
BLK99700

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707187
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BLK99700
Sample Volume :	5	Lab File ID :	B025928.D
Level :	Low	Date Received	
% Moisture: not dec		Date Analyzed	08/01/2007
GC Column :	RTX_502.2 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.
BLK99700

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707187

Matrix (soil/water): SOIL Lab Sample ID: BLK99700

Sample wt/vol: 5 (g/ml) g Lab File ID: B025928.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 1
ANALYSIS DATA SHEET

SAMPLE NO
BLK99714

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707187
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BLK99714
Sample Volume :	5	Lab File ID :	F46747.D
Level :	Low	Date Received	
% Moisture: not dec		Date Analyzed	08/06/2007
GC Column :	RTX_502.2 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
BLK99714

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707187
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BLK99714
Sample Volume :	5	Lab File ID :	F46747.D
Level :	Low	Date Received	
% Moisture: not dec		Date Analyzed	08/06/2007
GC Column :	RTX_502.2 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.
BLK99714

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707187

Matrix (soil/water): WATER Lab Sample ID: BLK99714

Sample wt/vol: 5 (g/ml) ml Lab File ID: F46747.D

Level (low/med): LOW Date Recieved

% 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: 1 Concentration Units (ug/L or ug/kg): ug/L

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q
1	003789-85-3	Benzoic acid, 2-	23.52	9.81	JN

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BKS99700

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707187
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BKS99700
Sample Volume :	5	Lab File ID :	B025929.D
Level :	Low	Date Received	
% Moisture: not dec		Date Analyzed	08/01/2007
GC Column :	RTX_502.2 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	48	
79-34-5	1,1,2,2-Tetrachloroethane	43	
79-00-5	1,1,2-Trichloroethane	44	
75-34-3	1,1-Dichloroethane	46	
75-35-4	1,1-Dichloroethene	49	
120-82-1	1,2,4-Trichlorobenzene	45	
96-12-8	1,2-Dibromo-3-Chloropropane	41	
95-50-1	1,2-Dichlorobenzene	46	
107-06-2	1,2-Dichloroethane	46	
78-87-5	1,2-Dichloropropane	46	
541-73-1	1,3-Dichlorobenzene	46	
106-46-7	1,4-Dichlorobenzene	46	
78-93-3	2-Butanone	41	
591-78-6	2-Hexanone	41	
108-10-1	4-Methyl-2-Pentanone	40	
67-64-1	Acetone	41	
71-43-2	Benzene	47	
75-27-4	Bromodichloromethane	46	
75-25-2	Bromoform	43	
74-83-9	Bromomethane	47	
75-15-0	Carbon Disulfide	48	
56-23-5	Carbon Tetrachloride	47	
108-90-7	Chlorobenzene	47	
75-00-3	Chloroethane	47	
67-66-3	Chloroform	47	
74-87-3	Chloromethane	47	
110-82-7	Cyclohexane	47	
124-48-1	Dibromochloromethane	45	
75-71-8	Dichlorodifluoromethane	46	

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
BKS99700

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707187
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BKS99700
Sample Volume :	5	Lab File ID :	B025929.D
Level :	Low	Date Received	
% Moisture: not dec		Date Analyzed	08/01/2007
GC Column :	RTX_502.2 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	48	
106-93-4	Ethylene Dibromide	44	
76-13-1	Freon 113	48	
98-82-8	Isopropylbenzene	48	
79-20-9	Methyl Acetate	41	
108-87-2	Methylcyclohexane	48	
75-09-2	Methylene Chloride	47	
100-42-5	Styrene	47	
127-18-4	Tetrachloroethylene	48	
108-88-3	Toluene	47	
79-01-6	Trichloroethene	47	
75-69-4	Trichlorofluoromethane	47	
75-01-4	Vinyl Chloride	52	
1330-20-7	Xylenes, Total	140	
156-59-2	cis-1,2-Dichloroethene	47	
10061-01-5	cis-1,3-Dichloropropene	46	
1634-04-4	tert-butyl methyl ether	42	
156-60-5	trans-1,2-dichloroethene	48	
10061-02-6	trans-1,3-dichloropropene	44	

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BKS99714

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707187
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BKS99714
Sample Volume :	5	Lab File ID :	F46748.D
Level :	Low	Date Received	
% Moisture: not dec		Date Analyzed	08/06/2007
GC Column :	RTX_502.2 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	54	
79-34-5	1,1,2,2-Tetrachloroethane	57	
79-00-5	1,1,2-Trichloroethane	54	
75-34-3	1,1-Dichloroethane	53	
75-35-4	1,1-Dichloroethene	51	
120-82-1	1,2,4-Trichlorobenzene	63	
96-12-8	1,2-Dibromo-3-Chloropropane	57	
95-50-1	1,2-Dichlorobenzene	53	
107-06-2	1,2-Dichloroethane	51	
78-87-5	1,2-Dichloropropane	52	
541-73-1	1,3-Dichlorobenzene	55	
106-46-7	1,4-Dichlorobenzene	55	
78-93-3	2-Butanone	43	
591-78-6	2-Hexanone	53	
108-10-1	4-Methyl-2-Pentanone	56	
67-64-1	Acetone	29	
71-43-2	Benzene	53	
75-27-4	Bromodichloromethane	52	
75-25-2	Bromoform	57	
74-83-9	Bromomethane	25	
75-15-0	Carbon Disulfide	53	
56-23-5	Carbon Tetrachloride	52	
108-90-7	Chlorobenzene	53	
75-00-3	Chloroethane	31	
67-66-3	Chloroform	51	
74-87-3	Chloromethane	32	
110-82-7	Cyclohexane	53	
124-48-1	Dibromochloromethane	55	
75-71-8	Dichlorodifluoromethane	38	

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
BKS99714

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707187
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BKS99714
Sample Volume :	5	Lab File ID :	F46748.D
Level :	Low	Date Received	
% Moisture: not dec		Date Analyzed	08/06/2007
GC Column :	RTX_502.2 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	53	
106-93-4	Ethylene Dibromide	56	
76-13-1	Freon 113	54	
98-82-8	Isopropylbenzene	54	
79-20-9	Methyl Acetate	53	
108-87-2	Methylcyclohexane	58	
75-09-2	Methylene Chloride	52	
100-42-5	Styrene	53	
127-18-4	Tetrachloroethylene	55	
108-88-3	Toluene	68	
79-01-6	Trichloroethene	53	
75-69-4	Trichlorofluoromethane	44	
75-01-4	Vinyl Chloride	40	
1330-20-7	Xylenes, Total	160	
156-59-2	cis-1,2-Dichloroethene	52	
10061-01-5	cis-1,3-Dichloropropene	54	
1634-04-4	tert-butyl methyl ether	300	E
156-60-5	trans-1,2-dichloroethene	52	
10061-02-6	trans-1,3-dichloropropene	52	

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BKSD99700

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707187
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BKSD99700
Sample Volume :	5	Lab File ID :	B025934.D
Level :	Low	Date Received	
% Moisture: not dec		Date Analyzed	08/01/2007
GC Column :	RTX_502.2 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	51	
79-34-5	1,1,2,2-Tetrachloroethane	47	
79-00-5	1,1,2-Trichloroethane	46	
75-34-3	1,1-Dichloroethane	46	
75-35-4	1,1-Dichloroethene	49	
120-82-1	1,2,4-Trichlorobenzene	48	
96-12-8	1,2-Dibromo-3-Chloropropane	44	
95-50-1	1,2-Dichlorobenzene	49	
107-06-2	1,2-Dichloroethane	47	
78-87-5	1,2-Dichloropropane	48	
541-73-1	1,3-Dichlorobenzene	49	
106-46-7	1,4-Dichlorobenzene	49	
78-93-3	2-Butanone	41	
591-78-6	2-Hexanone	41	
108-10-1	4-Methyl-2-Pentanone	43	
67-64-1	Acetone	38	
71-43-2	Benzene	48	
75-27-4	Bromodichloromethane	46	
75-25-2	Bromoform	45	
74-83-9	Bromomethane	46	
75-15-0	Carbon Disulfide	46	
56-23-5	Carbon Tetrachloride	46	
108-90-7	Chlorobenzene	48	
75-00-3	Chloroethane	48	
67-66-3	Chloroform	48	
74-87-3	Chloromethane	47	
110-82-7	Cyclohexane	46	
124-48-1	Dibromochloromethane	47	
75-71-8	Dichlorodifluoromethane	44	

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BKSD99700

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707187
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BKSD99700
Sample Volume :	5	Lab File ID :	B025934.D
Level :	Low	Date Received	
% Moisture: not dec		Date Analyzed	08/01/2007
GC Column :	RTX_502.2 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	48	
106-93-4	Ethylene Dibromide	46	
76-13-1	Freon 113	48	
98-82-8	Isopropylbenzene	48	
79-20-9	Methyl Acetate	42	
108-87-2	Methylcyclohexane	47	
75-09-2	Methylene Chloride	48	
100-42-5	Styrene	47	
127-18-4	Tetrachloroethylene	48	
108-88-3	Toluene	48	
79-01-6	Trichloroethene	47	
75-69-4	Trichlorofluoromethane	47	
75-01-4	Vinyl Chloride	53	
1330-20-7	Xylenes, Total	140	
156-59-2	cis-1,2-Dichloroethene	48	
10061-01-5	cis-1,3-Dichloropropene	46	
1634-04-4	tert-butyl methyl ether	41	
156-60-5	trans-1,2-dichloroethene	48	
10061-02-6	trans-1,3-dichloropropene	44	

Surrogate Recovery Summary

Matrix : SOIL Analytical Method : CLP_OLM04.3_VO/ SDG No : 707187

Surrogate	BR4FBZ	BZMED8	DCA12D4
Lower QC Limits	59	84	70
Upper QC Limits	113	138	121
Sample ID			
25-IS05-0-1-07C	101	112	109
25-IS05-9-11-07C	106	110	113
25-IS06-0-1-07C	104	110	110
25-IS06-8-10-07C	106	110	109
BKS99700	96	98	94
BKSD99700	103	103	102
BLK99700	100	104	105

* 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 : 707187**

Surrogate	BR4FBZ	BZMED8	DCA12D4
Lower QC Limits	86	88	76
Upper QC Limits	115	110	114
Sample ID			
25-TW01-07C	122 *	131 *	134 *
25-TW01-07CRE	106	115 *	117 *
25-TW02-07C	113	122 *	127 *
25-TW02-07CRE	106	115 *	117 *
25-TW03-07C	114	122 *	122 *
25-TW03-07CRE	100	106	119 *
BKS99714	90	94	93
BLK99714	101	109	106
HOLDING BLANK	104	113 *	117 *
HOLDING BLANKRE	95	100	107
TRIP BLANK	109	120 *	112
TRIP BLANKRE	93	100	107

* Value outside of QC Limts

BR4FBZ = 4-Bromofluorobenzene BZMED8 = Toluene-D8 DCA12D4 = 1,2-Dichloroethane-d4

GPL Laboratories

BKS/BSD RECOVERY

SAMPLE NO
BKSD99700

Lab Name : GPL Laboratories SDG NO : 707187 Method : CLP_OLM04.3_VOA

Lab Code : GPL Lab Sample ID : BKSD99700 Matrix : SOIL Analysis Date : 08/01/2007

Compound	Spike Added (ug/kg)	CONCENTRATION (ug/kg) BLANK	BSD	%RECOVERY BKS	BSD	% RPD	RPD Limit	QC Limits
1,1,1-Trichloroethane	50	0.0	48	51	96	102	6	20	65-130
1,1-Dichloroethene	50	0.0	49	50	98	98	0	22	36-170
1,2-Dichloroethane	50	0.0	46	47	92	94	2	20	60-138
Benzene	50	0.0	47	48	94	96	2	21	58-128
Bromodichloromethane	50	0.0	46	46	92	92	0	20	57-126
Bromoform	50	0.0	43	45	86	90	5	20	65-142
Carbon Tetrachloride	50	0.0	47	46	94	92	2	20	61-133
Chloroform	50	0.0	48	48	94	96	2	20	64-129
Dibromochloromethane	50	0.0	45	47	90	94	4	24	69-118
Trichloroethene	50	0.0	47	47	94	94	0	24	16-189
Vinyl Chloride	50	0.0	52	53	104	106	2	20	31-154

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 : 0 Out of 22 outside limit

GPL Laboratories

LCS SUMMARY

SAMPLE NO
BKS99714

Lab Name : GPL Laboratories
Contract. : MILCON Area Investigations - CTO-169
Lab Code : GPL
SDG NO : 707187
Matrix : WATER
Lab Sample ID : BKS99714
Method : CLP_OLM04.3_VOA
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
BLK99700

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707187
Lab File ID :	B025928.D	SDG NO :	707187
Date Analyzed	08/01/2007	Lab Sample ID :	BLK99700
GC Column :	RTX_502.2 ID. 0.25	Time Analyzed :	08:43

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES,MS AND MSD :

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
25-IS05-0-1-07C	707187-001-001-1/3	B025930.D	10:15
25-IS05-9-11-07C	707187-002-004-1/3	B025931.D	10:53
25-IS06-0-1-07C	707187-003-007-1/3	B025932.D	11:31
25-IS06-8-10-07C	707187-004-010-1/3	B025933.D	12:09
BKS99700	BKS99700	B025929.D	09:36
BKSD99700	BKSD99700	B025934.D	13:03

GPL Laboratories

GPL
FORM 4
VOLATILE METHOD BLANK SUMMARY

SAMPLE NO
BLK99714

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	707187
Lab File ID :	F46747.D	SDG NO :	707187
Date Analyzed	08/06/2007	Lab Sample ID :	BLK99714
GC Column :	RTX_502.2 ID. 0.25	Time Analyzed :	12:06

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES,MS AND MSD :

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
25-TW01-07C	707187-005-021-1/3	F46749.D	13:28
25-TW01-07CRE	707187-005-022-2/3RE	F46757.D	18:19
25-TW02-07C	707187-007-024-1/3	F46750.D	14:04
25-TW02-07CRE	707187-007-025-2/3RE	F46758.D	19:07
25-TW03-07C	707187-009-027-1/3	F46751.D	14:41
25-TW03-07CRE	707187-009-028-2/3RE	F46759.D	19:43
BKS99714	BKS99714	F46748.D	12:52
HOLDING BLANK	707187-014-032-1/2	F46753.D	15:54
HOLDING BLANKRE	707187-014-033-2/2RE	F46761.D	20:55
TRIP BLANK	707187-013-030-1/2	F46752.D	15:17
TRIP BLANKRE	707187-013-031-2/2RE	F46760.D	20:19

5A-8260

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: GPL LABORATORIES Contract: N/A

Lab Code: GPL Case No.: N/A SAS No.: N/A SDG No.: N/A

Lab File ID: F46626.D BFB Injection Date: 07/30/07

Instrument ID: HP#F BFB Injection Time: 16:38

GC Column: RTX_502.2 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.9
75	30.0 - 60.0% of mass 95	44.7
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.0
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	>50% of mass 95	77.5
175	5.0 - 9.0% of mass 174	5.6 (7.3)1
176	95.0 - 101.0% of mass 174	76.0 (98.0)1
177	5.0 - 9.0% of mass 176	5.2 (6.9)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	ICV050	ICV050	F46627.D	07/30/07	17:21
02	ICV010	ICV010	F46628.D	07/30/07	17:57
03	ICV200	ICV200	F46632.D	07/30/07	20:22
04	ICV020	ICV020	F46633.D	07/30/07	20:58
05	ICV100	ICV100	F46634.D	07/30/07	21:34
06	ICVREF	ICVREF	F46637.D	07/30/07	23:22

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: GPLL Case No.: SAS No.: SDG No.:

Lab File ID: B025917.D BFB Injection Date: 07/31/07

Instrument ID: HP#B BFB Injection Time: 09:23

GC Column: RTX_502.2 ID: 0.25 (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	17.6
75	30.0 - 66.0% of mass 95	49.3
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	87.3
175	4.0 - 9.0% of mass 174	6.1 (7.0)1
176	93.0 - 101.0% of mass 174	84.6 (96.9)1
177	5.0 - 9.0% of mass 176	5.5 (6.6)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CAL050	CAL050	B025918.D	07/31/07	10:03
02	CAL020	CAL020	B025920.D	07/31/07	11:20
03	CAL100	CAL100	B025921.D	07/31/07	11:58
04	CAL200	CAL200	B025922.D	07/31/07	12:53
05	CAL010	CAL010	B025923.D	07/31/07	13:59
06	ICV050	ICV050	B025925.D	07/31/07	15:46

GPL
Form 5

OLATILE INSTRUMENT PERFORMANCE CHECK BROMOFLUROBENZENE(BFE

Lab Name: GPL LABORATORIES Contract : CH2M Hill Inc

Lab Code: GPL Case No: N/A SAS No:N/A SDG No : 707187

Lab File ID: B025926.D BFB Injection Date : 08/01/2007 BFB Injection Time : 07:31

GC Column: RTX_502.2 ID: 0.25

m/e	ION ABUNDANCE CRITERIA	%Relative Abundance	
50	8.0 - 40.0% of mass 95	16.4	
75	30.0 - 66.0%of mass 95	48.2	
95	Base peak, 100% relative abundance	100.0	
96	5.0 - 9.0% of mass 95	6.8	
173	Less than 2.0% of mass 174	0.1	(.1)1
174	50.0 - 120.0% of mass 95	86.0	
175	4.0 - 9.0% of mass 174	6.1	(7.1)1
176	93.0 - 101.0% of mass 174	83.5	(97.1)1
177	5.0 - 9.0% of mass 176	5.4	(6.5)2

1-Value is % mass 174 2-Value is % mass 176

	Client Sample	Lab Sample NO	Lab File ID	Date Analyzed	Time Analyzed
1	CCV050-01	CCV050-01	B025927.D	08/01/2007	08:04
2	BLK99700	BLK99700	B025928.D	08/01/2007	08:43
3	BKS99700	BKS99700	B025929.D	08/01/2007	09:36
4	25-IS05-0-1-07C	707187-001-001-1/3	B025930.D	08/01/2007	10:15
5	25-IS05-9-11-07C	707187-002-004-1/3	B025931.D	08/01/2007	10:53
6	25-IS06-0-1-07C	707187-003-007-1/3	B025932.D	08/01/2007	11:31
7	25-IS06-8-10-07C	707187-004-010-1/3	B025933.D	08/01/2007	12:09
8	BKSD99700	BKSD99700	B025934.D	08/01/2007	13:03

GPL
Form 5

'OLATILE INSTRUMENT PERFORMANCE CHECK BROMOFLUROBENZENE(BFE

Lab Name: GPL LABORATORIES Contract : CH2M Hill Inc

Lab Code: GPL Case No: N/A SAS No:N/A SDG No : 707187

Lab File ID: F46743.D BFB Injection Date : 08/06/2007 BFB Injection Time : 09:37

GC Column: RTX 502.2 ID: 0.25

m/e	ION ABUNDANCE CRITERIA	%Relative Abundance	
50	8.0 - 40.0% of mass 95	17.3	
75	30.0 - 66.0%of mass 95	44.9	
95	Base oeak. 100% relative abundance	100.0	
96	5.0 - 9.0% of mass 95	6.9	
173	Less than 2.0% of mass 174	0.4	(.5)1
174	50.0 - 120.0% of mass 95	70.7	
175	4.0 - 9.0% of mass 174	5.1	(7.2)1
176	93.0 - 101.0% of mass 174	68.9	(97.4)1
177	5.0 - 9.0% of mass 176	4.8	(7.0)2

1-Value is % mass 174 2-Value is % mass 176

	Client Sample	Lab Sample NO	Lab File ID	Date Analyzed	Time Analyzed
1	CCV050-02	CCV050-02	F46745.D	08/06/2007	10:53
2	BLK99714	BLK99714	F46747.D	08/06/2007	12:06
3	BKS99714	BKS99714	F46748.D	08/06/2007	12:52
4	25-TW01-07C	707187-005-021-1/3	F46749.D	08/06/2007	13:28
5	25-TW02-07C	707187-007-024-1/3	F46750.D	08/06/2007	14:04
6	25-TW03-07C	707187-009-027-1/3	F46751.D	08/06/2007	14:41
7	TRIP BLANK	707187-013-030-1/2	F46752.D	08/06/2007	15:17
8	HOLDING BLANK	707187-014-032-1/2	F46753.D	08/06/2007	15:54
9	25-TW01-07CRE	707187-005-022-2/3RE	F46757.D	08/06/2007	18:19
10	25-TW02-07CRE	707187-007-025-2/3RE	F46758.D	08/06/2007	19:07
11	25-TW03-07CRE	707187-009-028-2/3RE	F46759.D	08/06/2007	19:43
12	TRIP BLANKRE	707187-013-031-2/2RE	F46760.D	08/06/2007	20:19
13	HOLDING BLANKRE	707187-014-033-2/2RE	F46761.D	08/06/2007	20:55

GPL
Form 8 1 of 1

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GPL LABORATORIES Contract : CH2M Hill Inc

Lab Code: GPL Case No: N/A SAS No:N/A SDG No : 707187

Lab File ID: B025927.D Date Analyzed: 08/01/2007 Time Analyzed: 08:04

	14DFBZ		BRCLME		CLBZD5	
	Area #	RT #	Area #	RT #	Area #	RT #
12 HOUR STD	1223014	15.21	167872	13.31	991665	22.12
UPPER LIMIT	2446028	15.71	335744	13.81	1983330	22.62
LOWER LIMIT	611507	14.71	83936	12.81	495833	21.62
Client Sample						
25-IS05-0-1-07C	1142957	15.21	158723	13.31	897150	22.12
25-IS05-9-11-07C	824486	15.21	114157	13.31	682386	22.11
25-IS06-0-1-07C	955429	15.21	141421	13.31	787007	22.11
25-IS06-8-10-07C	987425	15.21	141005	13.31	813889	22.11
BKS99700	1193805	15.21	160259	13.32	964666	22.12
BKSD99700	1070335	15.21	142852	13.31	868988	22.12
BLK99700	1240557	15.21	168108	13.31	997791	22.11

14DFBZ = 1,4-Difluorobenzene
BRCLME = Bromochloromethane
CLBZD5 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard are
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +.50 minutes of internal standard RT
RT LOWER LIMIT = -.50 minutes of internal standard RT
Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

GPL
Form 8 1 of 1

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GPL LABORATORIES Contract : CH2M Hill Inc

Lab Code: GPL Case No: N/A SAS No:N/A SDG No : 707187

Lab File ID: F46745.D Date Analyzed: 08/06/2007 Time Analyzed: 10:53

	14DFBZ		BRCLME		CLBZD5	
	Area #	RT #	Area #	RT #	Area #	RT #
12 HOUR STD	600158	13.60	106879	11.90	510452	19.37
UPPER LIMIT	1200316	14.10	213758	12.40	1020904	19.87
LOWER LIMIT	300079	13.10	53440	11.40	255226	18.87
Client Sample						
25-TW01-07C	510634	13.60	83150	11.90	434244	19.37
25-TW01-07CRE	486995	13.62	80503	11.90	411718	19.39
25-TW02-07C	512197	13.61	79645	11.90	439246	19.37
25-TW02-07CRE	486123	13.61	76830	11.90	403669	19.38
25-TW03-07C	526520	13.62	89325	11.91	446355	19.39
25-TW03-07CRE	507404	13.61	81492	11.90	430170	19.38
BKS99714	612131	13.59	110761	11.90	517646	19.37
BLK99714	559988	13.59	99616	11.89	465243	19.36
HOLDING BLANK	549525	13.61	87322	11.90	456932	19.37
HOLDING BLANKRE	501472	13.61	83612	11.90	438553	19.38
TRIP BLANK	545196	13.59	96589	11.90	457885	19.37
TRIP BLANKRE	525657	13.60	83902	11.90	446313	19.37

14DFBZ = 1,4-Difluorobenzene
BRCLME = Bromochloromethane
CLBZD5 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard are
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +.50 minutes of internal standard RT
RT LOWER LIMIT = -.50 minutes of internal standard RT
Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: GPL LABORATORIES Contract: N/A

Lab Code: GPL Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: HP#F Calibration Date(s): 07/30/07 07/30/07

Heated Purge (Y/N): Y Calibration Times: 17:21 21:34

GC Column: RTX_502.2 ID: 0.25 (mm)

LAB FILE ID: RRF10 = F46628.D RRF20 = F46633.D

RRF50 = F46627.D RRF100 = F46634.D RRF200 = F46632.D

COMPOUND		RRF10	RRF20	RRF50	RRF100	RRF200	$\overline{RRF}$	% RSD	
Chloromethane		2.652	2.699	1.897	1.529	1.958	2.147	23.7	
Bromomethane	*	0.987	1.643	1.333	1.309	1.701	1.395	20.7	*
Vinyl Chloride	*	0.989	0.806	0.578	0.394	0.436	0.641	39.5	*
Chloroethane		1.308	1.521	1.153	1.018	1.259	1.252	15.0	
Methylene Chloride		2.230	2.284	1.919	1.737	2.046	2.043	11.0	
Acetone		1.287	1.050	0.969	0.782	0.886	0.995	19.2	
Carbon Disulfide		3.549	3.980	4.119	4.291	5.363	4.261	15.8	
1,1-Dichloroethene	*	1.696	1.619	1.626	1.457	1.744	1.628	6.7	*
1,1-Dichloroethane	*	2.795	3.211	3.091	3.032	3.616	3.149	9.6	*
Chloroform	*	3.880	3.881	3.576	3.253	3.912	3.700	7.7	*
1,2-Dichloroethane	*	3.018	3.174	2.768	2.557	3.057	2.915	8.5	*
2-Butanone		0.723	0.851	0.817	0.673	0.823	0.777	9.7	
1,1,1-Trichloroethane	*	0.250	0.275	0.277	0.235	0.288	0.265	8.3	*
Carbon Tetrachloride	*	0.308	0.385	0.427	0.387	0.485	0.398	16.2	*
Bromodichloromethane	*	0.329	0.394	0.427	0.400	0.503	0.411	15.3	*
1,2-Dichloropropane		0.292	0.329	0.295	0.281	0.337	0.307	8.0	
cis-1,3-Dichloropropene	*	0.298	0.378	0.421	0.394	0.504	0.399	18.8	*
Trichloroethene	*	0.369	0.376	0.370	0.324	0.379	0.363	6.1	*
Benzene	*	1.142	1.226	1.164	1.059	1.264	1.171	6.8	*
Dibromochloromethane	*	0.219	0.260	0.316	0.291	0.339	0.285	16.6	*
trans-1,3-Dichloropropene	*	0.344	0.435	0.468	0.439	0.544	0.446	16.1	*
1,1,2-Trichloroethane	*	0.250	0.275	0.277	0.235	0.288	0.265	8.3	*
Bromoform	*	0.119	0.132	0.190	0.183	0.151	0.155	20.0	*
4-Methyl-2-Pentanone		0.277	0.266	0.288	0.257	0.311	0.280	7.5	
2-Hexanone		0.230	0.021	0.256	0.218	0.265	0.198	50.9	
Tetrachloroethene	*	0.381	0.373	0.375	0.309	0.359	0.359	8.2	*
1,1,2,2-Tetrachloroethane	*	0.344	0.397	0.421	0.359	0.445	0.393	10.7	*
Toluene	*	0.873	0.909	0.859	0.753	0.887	0.856	7.1	*
Chlorobenzene	*	1.088	1.056	1.046	0.893	1.038	1.024	7.4	*
Ethylbenzene	*	0.489	0.507	0.503	0.431	0.502	0.486	6.6	*
Dichlorodifluoromethane		2.872	2.721	2.295	1.679	2.188	2.351	20.1	
Freon 113		2.448	2.377	2.136	1.947	2.334	2.248	9.1	
Styrene	*	0.896	0.971	1.009	0.897	1.059	0.966	7.3	*
Trichlorofluoromethane		3.752	3.918	3.222	2.538	3.219	3.330	16.3	
Xylene (total)	*	0.611	0.629	0.612	0.529	0.605	0.597	6.6	*
Trans-1,2-Dichloroethene		1.975	2.040	1.894	1.718	2.045	1.934	7.0	
MTBE		0.261	0.571	0.450	0.322	0.273	0.376	35.3	
Methyl Acetate		1.290	1.207	1.045	0.933	1.143	1.124	12.4	
Cis-1,2-Dichloroethene		2.074	2.144	1.951	1.771	2.086	2.005	7.4	

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: GPL LABORATORIES Contract: N/A

Lab Code: GPL Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: HP#F Calibration Date(s): 07/30/07 07/30/07

Heated Purge (Y/N): Y Calibration Times: 17:21 21:34

GC Column: RTX_502.2 ID: 0.25 (mm)

LAB FILE ID: RRF10 = F46628.D RRF20 = F46633.D

RRF50 = F46627.D RRF100 = F46634.D RRF200 = F46632.D

COMPOUND		RRF10	RRF20	RRF50	RRF100	RRF200	$\overline{RRF}$	% RSD	
Cyclohexane		0.526	0.547	0.500	0.467	0.554	0.519	6.9	
Methylcyclohexane		0.516	0.540	0.508	0.459	0.554	0.516	7.1	
1,2-Dibromoethane		0.341	0.368	0.379	0.328	0.405	0.364	8.4	
Isopropylbenzene		1.615	1.674	1.694	1.446	1.696	1.625	6.5	
1,2-Dichlorobenzene	*	0.789	0.797	0.825	0.671	0.800	0.776	7.8	*
1,3-Dichlorobenzene	*	0.861	0.863	0.881	0.720	0.858	0.837	7.8	*
1,4-Dichlorobenzene	*	0.894	0.875	0.890	0.738	0.871	0.853	7.7	*
1,2-Dichloroethane-d4		2.091	3.323	2.887	2.350	2.724	2.675	17.9	
Toluene-d8		1.072	1.631	1.544	1.220	1.364	1.366	16.8	
4-Bromofluorobenzene	*	0.553	0.792	0.794	0.618	0.693	0.690	15.4	*

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: GPLL Case No.: SAS No.: SDG No.:

Instrument ID: HP#B Calibration Date(s): 07/31/07 07/31/07

Heated Purge (Y/N): Y Calibration Times: 10:03 13:59

GC Column: RTX_502.2 ID: 0.25 (mm)

LAB FILE ID: RRF10 = B025923.D RRF20 = B025920.D

RRF50 = B025918.D RRF100 = B025921.D RRF200 = B025922.D

COMPOUND		RRF10	RRF20	RRF50	RRF100	RRF200	$\overline{RRF}$	% RSD	
Chloromethane		2.369	2.595	2.017	2.462	2.082	2.305	10.7	
Bromomethane	*	0.866	1.209	1.031	1.516	1.559	1.236	24.3	*
Vinyl Chloride	*	2.166	2.598	1.332	1.486	1.110	1.738	35.8	*
Chloroethane		1.425	1.672	1.305	1.771	1.626	1.560	12.2	
Methylene Chloride		2.305	2.349	2.119	2.383	2.179	2.267	5.0	
Acetone		0.871	0.834	0.832	0.849	0.807	0.839	2.8	
Carbon Disulfide		5.409	6.668	5.087	7.018	6.398	6.116	13.6	
1,1-Dichloroethene	*	1.952	2.243	1.710	2.313	2.128	2.069	11.7	*
1,1-Dichloroethane	*	2.563	3.146	2.913	4.088	3.887	3.319	19.5	*
Chloroform	*	3.327	3.819	3.369	4.076	3.780	3.674	8.7	*
1,2-Dichloroethane	*	1.958	2.311	2.348	2.471	2.231	2.264	8.5	*
2-Butanone		0.735	0.685	0.833	0.735	0.762	0.750	7.2	
1,1,1-Trichloroethane	*	0.102	0.103	0.105	0.104	0.109	0.105	2.6	*
Carbon Tetrachloride	*	0.312	0.381	0.332	0.422	0.418	0.373	13.3	*
Bromodichloromethane	*	0.268	0.328	0.363	0.360	0.351	0.334	11.8	*
1,2-Dichloropropane		0.236	0.285	0.297	0.303	0.293	0.283	9.5	
cis-1,3-Dichloropropene	*	0.290	0.361	0.421	0.426	0.420	0.384	15.3	*
Trichloroethene	*	0.276	0.327	0.305	0.356	0.346	0.322	9.9	*
Benzene	*	1.047	1.244	1.202	1.341	1.299	1.227	9.3	*
Dibromochloromethane	*	0.180	0.223	0.270	0.260	0.258	0.238	15.6	*
trans-1,3-Dichloropropene	*	0.223	0.281	0.346	0.346	0.341	0.307	17.7	*
1,1,2-Trichloroethane	*	0.178	0.202	0.243	0.226	0.216	0.213	11.5	*
Bromoform	*	0.106	0.127	0.171	0.163	0.167	0.147	19.6	*
4-Methyl-2-Pentanone		0.195	0.183	0.232	0.221	0.215	0.209	9.7	
2-Hexanone		0.163	0.156	0.190	0.183	0.180	0.174	8.1	
Tetrachloroethene	*	0.276	0.321	0.269	0.343	0.337	0.309	11.3	*
1,1,2,2-Tetrachloroethane	*	0.266	0.295	0.345	0.323	0.316	0.309	9.6	*
Toluene	*	0.799	1.168	0.867	1.038	1.011	0.977	14.9	*
Chlorobenzene	*	0.880	1.031	0.972	1.117	1.082	1.016	9.2	*
Ethylbenzene	*	0.474	0.571	0.508	0.629	0.619	0.560	12.2	*
Dichlorodifluoromethane		2.242	2.532	1.797	2.408	2.085	2.213	13.0	
Freon 113		2.262	2.573	1.943	2.713	2.563	2.411	12.8	
Styrene	*	0.856	1.028	1.025	1.219	1.200	1.066	14.0	*
Trichlorofluoromethane		3.348	3.977	2.971	4.153	3.772	3.644	13.2	
Xylene (total)	*	0.584	0.703	0.649	0.806	0.811	0.711	13.9	*
Trans-1,2-Dichloroethene		2.066	2.436	1.981	2.624	2.476	2.316	12.0	
MTBE		1.987	2.385	2.593	2.088	1.717	2.154	15.9	
Methyl Acetate		0.940	0.943	0.977	1.058	1.018	0.987	5.1	
Cis-1,2-Dichloroethene		2.055	2.424	2.142	2.582	2.402	2.321	9.3	

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: GPLL Case No.: SAS No.: SDG No.:

Instrument ID: HP#B Calibration Date(s): 07/31/07 07/31/07

Heated Purge (Y/N): Y Calibration Times: 10:03 13:59

GC Column: RTX_502.2 ID: 0.25 (mm)

LAB FILE ID: RRF10 = B025923.D RRF20 = B025920.D

RRF50 = B025918.D RRF100 = B025921.D RRF200 = B025922.D

COMPOUND		RRF10	RRF20	RRF50	RRF100	RRF200	$\overline{RRF}$	% RSD	
Cyclohexane		0.459	0.558	0.473	0.593	0.571	0.531	11.4	
Methylcyclohexane		0.494	0.605	0.513	0.644	0.621	0.575	11.7	
1,2-Dibromoethane		0.213	0.243	0.280	0.263	0.249	0.249	10.0	
Isopropylbenzene		1.452	1.743	1.527	1.994	1.982	1.740	14.4	
1,2-Dichlorobenzene	*	0.567	0.625	0.647	0.701	0.703	0.649	8.7	*
1,3-Dichlorobenzene	*	0.645	0.731	0.713	0.816	0.823	0.745	10.0	*
1,4-Dichlorobenzene	*	0.663	0.731	0.736	0.830	0.837	0.759	9.7	*
1,2-Dibromo-3-chloropropane		0.050	0.043	0.055	0.055	0.054	0.051	10.3	
1,2,4-Trichlorobenzene		0.527	0.475	0.487	0.531	0.545	0.513	5.9	
1,2-Dichloroethane-d4		1.961	1.962	1.997	1.945	1.936	1.960	1.2	
Toluene-d8		1.271	1.293	1.201	1.302	1.375	1.288	4.9	
4-Bromofluorobenzene	*	0.483	0.472	0.485	0.483	0.513	0.487	3.1	*

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

REF 7A

VOLATILE ~~CONTINUING~~ CALIBRATION CHECK

Lab Name: GPL LABORATORIES Contract: N/A

Lab Code: GPL Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: HP#F Calibration Date: 07/30/07 Time: 23:22

Lab File ID: F46637.D Init. Calib. Date(s): 07/30/07 07/30/07

Heated Purge: (Y/N) Y Init. Calib. Times: 17:21 21:34

GC Column: RTX_502.2 ID: 0.25 (mm)

COMPOUND	RRF	RRF50	MIN RRF	% D	MAX % D
Chloromethane	2.147	2.808		-30.8	
Bromomethane	1.395	1.900	0.100	-36.3	25.0
Vinyl Chloride	0.641	0.510	0.100	20.3	25.0
Chloroethane	1.252	1.606		-28.3	
Methylene Chloride	2.043	2.821		-38.1	
Acetone	0.995	1.278		-28.5	
Carbon Disulfide	4.261	6.434		-51.0	
1,1-Dichloroethene	1.628	2.266	0.100	-39.2	25.0
1,1-Dichloroethane	3.149	4.587	0.200	-45.7	25.0
Chloroform	3.700	5.112	0.200	-38.1	25.0
1,2-Dichloroethane	2.915	4.117	0.100	-41.2	25.0
2-Butanone	0.777	1.069		-37.4	
1,1,1-Trichloroethane	0.265	0.367	0.100	-38.3	25.0
Carbon Tetrachloride	0.398	0.558	0.100	-40.0	25.0
Bromodichloromethane	0.411	0.593	0.200	-44.4	25.0
1,2-Dichloropropane	0.307	0.443		-44.4	
cis-1,3-Dichloropropene	0.399	0.584	0.200	-46.5	25.0
Trichloroethene	0.363	0.512	0.300	-40.9	25.0
Benzene	1.171	1.659	0.500	-41.7	25.0
Dibromochloromethane	0.285	0.414	0.100	-45.4	25.0
trans-1,3-Dichloropropene	0.446	0.665	0.100	-49.1	25.0
1,1,2-Trichloroethane	0.265	0.367	0.100	-38.3	25.0
Bromoform	0.155	0.237	0.100	-53.1	25.0
4-Methyl-2-Pentanone	0.280	0.386		-37.9	
2-Hexanone	0.198	0.291		-47.1	
Tetrachloroethene	0.359	0.485	0.200	-35.0	25.0
1,1,2,2-Tetrachloroethane	0.393	0.514	0.300	-30.6	25.0
Toluene	0.856	1.185	0.400	-38.4	25.0
Chlorobenzene	1.024	1.405	0.500	-37.2	25.0
Ethylbenzene	0.486	0.683	0.100	-40.4	25.0
Dichlorodifluoromethane	2.351	2.792		-18.8	
Freon 113	2.248	3.055		-35.9	
Styrene	0.966	1.348	0.300	-39.5	25.0
Trichlorofluoromethane	3.330	3.942		-18.4	
Xylene (total)	0.597	0.820	0.300	-37.3	25.0
Trans-1,2-Dichloroethene	1.934	2.695		-39.3	
MTBE	0.376	0.538		-43.2	
Methyl Acetate	1.124	1.460		-29.9	
Cis-1,2-Dichloroethene	2.005	2.781		-38.7	

All other compounds must meet a minimum RRF of 0.010.

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GPL LABORATORIES Contract: N/A

Lab Code: GPL Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: HP#F Calibration Date: 07/30/07 Time: 23:22

Lab File ID: F46637.D Init. Calib. Date(s): 07/30/07 07/30/07

Heated Purge: (Y/N) Y Init. Calib. Times: 17:21 21:34

GC Column: RTX_502.2 ID: 0.25 (mm)

COMPOUND	RRF	RRF50	MIN RRF	% D	MAX % D
Cyclohexane	0.519	0.747		-44.0	
Methylcyclohexane	0.516	0.739		-43.3	
1,2-Dibromoethane	0.364	0.506		-38.9	
Isopropylbenzene	1.625	2.210		-36.0	
1,2-Dichlorobenzene	0.776	1.031	0.400	-32.7	25.0
1,3-Dichlorobenzene	0.837	1.101	0.600	-31.6	25.0
1,4-Dichlorobenzene	0.853	1.118	0.500	-31.0	25.0
1,2-Dichloroethane-d4	2.675	3.291		-23.0	
Toluene-d8	1.366	1.678		-22.8	
4-Bromofluorobenzene	0.690	0.833	0.200	-20.6	25.0

All other compounds must meet a minimum RRF of 0.010.

7A

VOLATILE ~~CONTINUING CALIBRATION~~ REFERENCE CHECK

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: GPLL Case No.: SAS No.: SDG No.:

Instrument ID: HP#B Calibration Date: 07/31/07 Time: 15:46

Lab File ID: B025925.D Init. Calib. Date(s): 07/31/07 07/31/07

Heated Purge: (Y/N) Y Init. Calib. Times: 10:03 13:59

GC Column: RTX_502.2 ID: 0.25 (mm)

COMPOUND	RRF	RRF50	MIN RRF	% D	MAX % D
Chloromethane	2.305	2.356		-2.2	
Bromomethane	1.236	1.260	0.100	-1.9	25.0
Vinyl Chloride	1.738	1.514	0.100	12.9	25.0
Chloroethane	1.560	1.605		-2.9	
Methylene Chloride	2.267	2.200		3.0	
Acetone	0.839	0.849		-1.2	
Carbon Disulfide	6.116	6.025		1.5	
1,1-Dichloroethene	2.069	2.164	0.100	-4.6	25.0
1,1-Dichloroethane	3.319	3.479	0.200	-4.8	25.0
Chloroform	3.674	3.625	0.200	1.3	25.0
1,2-Dichloroethane	2.264	2.237	0.100	1.2	25.0
2-Butanone	0.750	0.786		-4.7	
1,1,1-Trichloroethane	0.105	0.103	0.100	1.9	25.0
Carbon Tetrachloride	0.373	0.367	0.100	1.6	25.0
Bromodichloromethane	0.334	0.324	0.200	3.1	25.0
1,2-Dichloropropane	0.283	0.275		2.9	
cis-1,3-Dichloropropene	0.384	0.379	0.200	1.3	25.0
Trichloroethene	0.322	0.320	0.300	0.7	25.0
Benzene	1.227	1.195	0.500	2.6	25.0
Dibromochloromethane	0.238	0.233	0.100	2.0	25.0
trans-1,3-Dichloropropene	0.307	0.306	0.100	0.5	25.0
1,1,2-Trichloroethane	0.213	0.209	0.100	2.1	25.0
Bromoform	0.147	0.146	0.100	1.0	25.0
4-Methyl-2-Pentanone	0.209	0.217		-3.9	
2-Hexanone	0.174	0.181		-3.8	
Tetrachloroethene	0.309	0.307	0.200	0.7	25.0
1,1,2,2-Tetrachloroethane	0.309	0.312	0.300	-1.1	25.0
Toluene	0.977	0.925	0.400	5.3	25.0
Chlorobenzene	1.016	1.005	0.500	1.1	25.0
Ethylbenzene	0.560	0.560	0.100	0.1	25.0
Dichlorodifluoromethane	2.213	2.268		-2.5	
Freon 113	2.411	2.465		-2.2	
Styrene	1.066	1.071	0.300	-0.5	25.0
Trichlorofluoromethane	3.644	3.730		-2.4	
Xylene (total)	0.711	0.704	0.300	0.9	25.0
Trans-1,2-Dichloroethene	2.316	2.338		-0.9	
MTBE	2.154	1.956		9.2	
Methyl Acetate	0.987	0.940		4.8	
Cis-1,2-Dichloroethene	2.321	2.309		0.5	

All other compounds must meet a minimum RRF of 0.010.

7A

VOLATILE ~~CONTINUING CALIBRATION~~ CHECK
REFERENCE

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: GPLL Case No.: SAS No.: SDG No.:

Instrument ID: HP#B Calibration Date: 07/31/07 Time: 15:46

Lab File ID: B025925.D Init. Calib. Date(s): 07/31/07 07/31/07

Heated Purge: (Y/N) Y Init. Calib. Times: 10:03 13:59

GC Column: RTX_502.2 ID: 0.25 (mm)

COMPOUND	RRF	RRF50	MIN RRF	% D	MAX % D
Cyclohexane	0.531	0.522		1.7	
Methylcyclohexane	0.575	0.573		0.4	
1,2-Dibromoethane	0.249	0.249		0.0	
Isopropylbenzene	1.740	1.745		-0.3	
1,2-Dichlorobenzene	0.649	0.625	0.400	3.7	25.0
1,3-Dichlorobenzene	0.745	0.723	0.600	3.1	25.0
1,4-Dichlorobenzene	0.759	0.730	0.500	3.9	25.0
1,2-Dibromo-3-chloropropane	0.051	0.054		-5.4	
1,2,4-Trichlorobenzene	0.513	0.486		5.2	
1,2-Dichloroethane-d4	1.960	1.905		2.8	
Toluene-d8	1.288	1.278		0.8	
4-Bromofluorobenzene	0.487	0.483	0.200	0.8	25.0

All other compounds must meet a minimum RRF of 0.010.

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: GPLL Case No.: SAS No.: SDG No.:

Instrument ID: HP#B Calibration Date: 08/01/07 Time: 08:04

Lab File ID: B025927.D Init. Calib. Date(s): 07/31/07 07/31/07

Heated Purge: (Y/N) Y Init. Calib. Times: 10:03 13:59

GC Column: RTX_502.2 ID: 0.25 (mm)

COMPOUND	RRF	RRF50	MIN RRF	% D	MAX % D
Chloromethane	2.305	2.466		-7.0	
Bromomethane	1.236	1.367	0.100	-10.6	25.0
Vinyl Chloride	1.738	1.579	0.100	9.2	25.0
Chloroethane	1.560	1.664		-6.7	
Methylene Chloride	2.267	2.368		-4.5	
Acetone	0.839	0.901		-7.4	
Carbon Disulfide	6.116	6.374		-4.2	
1,1-Dichloroethene	2.069	2.241	0.100	-8.3	25.0
1,1-Dichloroethane	3.319	3.723	0.200	-12.2	25.0
Chloroform	3.674	3.894	0.200	-6.0	25.0
1,2-Dichloroethane	2.264	2.410	0.100	-6.4	25.0
2-Butanone	0.750	0.818		-9.0	
1,1,1-Trichloroethane	0.105	0.098	0.100	6.0	25.0
Carbon Tetrachloride	0.373	0.399	0.100	-6.9	25.0
Bromodichloromethane	0.334	0.359	0.200	-7.3	25.0
1,2-Dichloropropane	0.283	0.301		-6.2	
cis-1,3-Dichloropropene	0.384	0.419	0.200	-9.2	25.0
Trichloroethene	0.322	0.346	0.300	-7.4	25.0
Benzene	1.227	1.300	0.500	-5.9	25.0
Dibromochloromethane	0.238	0.254	0.100	-6.7	25.0
trans-1,3-Dichloropropene	0.307	0.338	0.100	-10.0	25.0
1,1,2-Trichloroethane	0.213	0.230	0.100	-8.1	25.0
Bromoform	0.147	0.162	0.100	-9.9	25.0
4-Methyl-2-Pentanone	0.209	0.233		-11.4	
2-Hexanone	0.174	0.192		-10.2	
Tetrachloroethene	0.309	0.332	0.200	-7.2	25.0
1,1,2,2-Tetrachloroethane	0.309	0.337	0.300	-9.1	25.0
Toluene	0.977	0.995	0.400	-1.9	25.0
Chlorobenzene	1.016	1.092	0.500	-7.4	25.0
Ethylbenzene	0.560	0.605	0.100	-8.0	25.0
Dichlorodifluoromethane	2.213	2.511		-13.5	
Freon 113	2.411	2.612		-8.4	
Styrene	1.066	1.161	0.300	-8.9	25.0
Trichlorofluoromethane	3.644	3.959		-8.6	
Xylene (total)	0.711	0.762	0.300	-7.2	25.0
Trans-1,2-Dichloroethene	2.316	2.470		-6.6	
MTBE	2.154	2.351		-9.1	
Methyl Acetate	0.987	1.027		-4.1	
Cis-1,2-Dichloroethene	2.321	2.486		-7.1	

All other compounds must meet a minimum RRF of 0.010.

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: GPLL Case No.: SAS No.: SDG No.:

Instrument ID: HP#B Calibration Date: 08/01/07 Time: 08:04

Lab File ID: B025927.D Init. Calib. Date(s): 07/31/07 07/31/07

Heated Purge: (Y/N) Y Init. Calib. Times: 10:03 13:59

GC Column: RTX_502.2 ID: 0.25 (mm)

COMPOUND	RRF	RRF50	MIN RRF	% D	MAX % D
Cyclohexane	0.531	0.563		-6.0	
Methylcyclohexane	0.575	0.613		-6.6	
1,2-Dibromoethane	0.249	0.272		-9.1	
Isopropylbenzene	1.740	1.869		-7.4	
1,2-Dichlorobenzene	0.649	0.675	0.400	-4.1	25.0
1,3-Dichlorobenzene	0.745	0.787	0.600	-5.5	25.0
1,4-Dichlorobenzene	0.759	0.797	0.500	-4.9	25.0
1,2-Dibromo-3-chloropropane	0.051	0.055		-8.1	
1,2,4-Trichlorobenzene	0.513	0.517		-0.7	
1,2-Dichloroethane-d4	1.960	1.796		8.4	
Toluene-d8	1.288	1.199		7.0	
4-Bromofluorobenzene	0.487	0.450	0.200	7.7	25.0

All other compounds must meet a minimum RRF of 0.010.

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GPL LABORATORIES Contract: N/A

Lab Code: GPL Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: HP#F Calibration Date: 08/06/07 Time: 10:53

Lab File ID: F46745.D Init. Calib. Date(s): 07/30/07 07/30/07

Heated Purge: (Y/N) Y Init. Calib. Times: 17:21 21:34

GC Column: RTX_502.2 ID: 0.25 (mm)

COMPOUND	RRF	RRF50	MIN RRF	% D	MAX % D
Chloromethane	2.147	1.587		26.1	
Bromomethane	1.395	1.002	0.100	28.1	25.0
Vinyl Chloride	0.641	0.419	0.100	34.6	25.0
Chloroethane	1.252	0.996		20.5	
Methylene Chloride	2.043	2.243		-9.8	
Acetone	0.995	0.809		18.6	
Carbon Disulfide	4.261	2.023		52.5	
1,1-Dichloroethene	1.628	1.244	0.100	23.6	25.0
1,1-Dichloroethane	3.149	3.305	0.200	-5.0	25.0
Chloroform	3.700	3.910	0.200	-5.7	25.0
1,2-Dichloroethane	2.915	3.043	0.100	-4.4	25.0
2-Butanone	0.777	0.832		-7.0	
1,1,1-Trichloroethane	0.265	0.284	0.100	-7.0	25.0
Carbon Tetrachloride	0.398	0.406	0.100	-2.0	25.0
Bromodichloromethane	0.411	0.425	0.200	-3.6	25.0
1,2-Dichloropropane	0.307	0.335		-9.1	
cis-1,3-Dichloropropene	0.399	0.425	0.200	-6.6	25.0
Trichloroethene	0.363	0.349	0.300	3.9	25.0
Benzene	1.171	1.192	0.500	-1.8	25.0
Dibromochloromethane	0.285	0.296	0.100	-3.9	25.0
trans-1,3-Dichloropropene	0.446	0.472	0.100	-5.8	25.0
1,1,2-Trichloroethane	0.265	0.284	0.100	-7.0	25.0
Bromoform	0.155	0.168	0.100	-8.7	25.0
4-Methyl-2-Pentanone	0.280	0.308		-10.0	
2-Hexanone	0.198	0.229		-15.6	
Tetrachloroethene	0.359	0.328	0.200	8.7	25.0
1,1,2,2-Tetrachloroethane	0.393	0.450	0.300	-14.4	25.0
Toluene	0.856	0.890	0.400	-3.9	25.0
Chlorobenzene	1.024	1.058	0.500	-3.3	25.0
Ethylbenzene	0.486	0.501	0.100	-3.0	25.0
Dichlorodifluoromethane	2.351	1.713		27.1	
Freon 113	2.248	1.747		22.3	
Styrene	0.966	1.009	0.300	-4.4	25.0
Trichlorofluoromethane	3.330	2.738		17.8	
Xylene (total)	0.597	0.615	0.300	-3.0	25.0
Trans-1,2-Dichloroethene	1.934	1.801		6.9	
MTBE	0.376	0.411		-9.3	
Methyl Acetate	1.124	1.183		-5.3	
Cis-1,2-Dichloroethene	2.005	2.014		-0.5	

All other compounds must meet a minimum RRF of 0.010.

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GPL LABORATORIES Contract: N/A

Lab Code: GPL Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: HP#F Calibration Date: 08/06/07 Time: 10:53

Lab File ID: F46745.D Init. Calib. Date(s): 07/30/07 07/30/07

Heated Purge: (Y/N) Y Init. Calib. Times: 17:21 21:34

GC Column: RTX_502.2 ID: 0.25 (mm)

COMPOUND	RRF	RRF50	MIN RRF	% D	MAX % D
Cyclohexane	0.519	0.448		13.6	
Methylcyclohexane	0.516	0.429		16.9	
1,2-Dibromoethane	0.364	0.389		-6.9	
Isopropylbenzene	1.625	1.623		0.1	
1,2-Dichlorobenzene	0.776	0.781	0.400	-0.6	25.0
1,3-Dichlorobenzene	0.837	0.805	0.600	3.8	25.0
1,4-Dichlorobenzene	0.853	0.817	0.500	4.2	25.0
1,2-Dichloroethane-d4	2.675	2.241		16.2	
Toluene-d8	1.366	1.110		18.7	
4-Bromofluorobenzene	0.690	0.596	0.200	13.7	25.0

All other compounds must meet a minimum RRF of 0.010.

SEMIVOLATILE ORGANICS

GPL Laboratories

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
25-IS05-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707187-001-013-1/1
Sample Volume :	30	Lab File ID :	D43527.D
% Moisture:	20.3	Date Received	07/28/2007
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:		

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
25-IS05-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707187-001-013-1/1
Sample Volume :	30	Lab File ID :	D43527.D
% Moisture:	20.3	Date Received	07/28/2007
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:		

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	42	J
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	64	J
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
25-IS05-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707187-001-013-1/1
Sample Volume :	30	Lab File ID :	D43527.D
% Moisture:	20.3	Date Received	07/28/2007
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:		

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	50	J
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	420	U
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

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
25-IS05-0-1-07C

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707187

Matrix (soil/water): SOIL Lab Sample ID: 707187-001-013-1/1

Sample wt/vol: 30 (g/ml) g Lab File ID: D43527.D

Level (low/med): LOW Date Recieved 07/28/2007

% Moisture: 20.3 Decanted: (Y/N) N Date Analyzed: 08/14/2007

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	400	JN
2	000084-64-0	1,2-	20.51	90	JN
3	000111-77-3	Ethanol, 2-(2-	10.22	480	JN
4	000134-62-3	Diethyltoluamide	17.97	110	JN
5	002091-29-4	9-Hexadecenoic acid	21.23	120	JN
6	004291-79-6	Cyclohexane, 1-methyl-	10.52	180	JN
7		unknown	10.01	290	J
8		unknown	10.71	110	J
9		unknown	11.01	170	J
10		unknown	16.71	810	J
11		unknown	21.28	130	J
12		unknown	30.69	110	J

GPL LABORATORIES

Client: CH2M HILL
SDG: 707147
Sample ID: 25-IS05-0-1-07C

Retention Time	CAS Number	Alkane Compound	Est. Conc. (ug/KG)
10.45		Alkane Type 4	200

*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
25-IS05-9-11-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707187-002-014-1/1
Sample Volume :	30.01	Lab File ID :	D43509.D
% Moisture:	29	Date Received	07/28/2007
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:		

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

CAS NO	COMPOUND		Q
92-52-4	1,1- Biphenyl	470	U
108-60-1	2,2-Oxybis(1-chloropropane)	470	U
95-95-4	2,4,5-Trichlorophenol	1200	U
88-06-2	2,4,6-Trichlorophenol	470	U
120-83-2	2,4-Dichlorophenol	470	U
105-67-9	2,4-Dimethylphenol	470	U
51-28-5	2,4-Dinitrophenol	1200	U
121-14-2	2,4-Dinitrotoluene	470	U
606-20-2	2,6-Dinitrotoluene	470	U
532-27-4	2-Chloroacetophenone - CN	470	U
2698-41-1	2-Chlorobenzalmalononitrile	470	U
91-58-7	2-Chloronaphthalene	470	U
95-57-8	2-Chlorophenol	470	U
91-57-6	2-Methylnaphthalene	470	U
88-74-4	2-Nitroaniline	1200	U
88-75-5	2-Nitrophenol	470	U
95-48-7	2-methylphenol	470	U
91-94-1	3,3-Dichlorobenzidine	470	U
99-09-2	3-Nitroaniline	1200	U
534-52-1	4,6-dinitro-2-methyl phenol	1200	U
101-55-3	4-Bromophenyl-phenylether	470	U
106-47-8	4-Chloroaniline	470	U
7005-72-3	4-Chlorophenyl Phenyl Ether	470	U
100-01-6	4-Nitroaniline	1200	U
100-02-7	4-Nitrophenol	1200	U
59-50-7	4-chloro-3-methylphenol	470	U
106-44-5	4-methylphenol	470	U
83-32-9	Acenaphthene	470	U
208-96-8	Acenaphthylene	470	U

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
25-IS05-9-11-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707187-002-014-1/1
Sample Volume :	30.01	Lab File ID :	D43509.D
% Moisture:	29	Date Received	07/28/2007
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:		

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

CAS NO	COMPOUND		Q
98-86-2	Acetophenone	470	U
120-12-7	Anthracene	470	U
1912-24-9	Atrazine	470	U
100-52-7	Benzaldehyde	470	U
56-55-3	Benzo(a)anthracene	470	U
50-32-8	Benzo(a)pyrene	470	U
205-99-2	Benzo(b)fluoranthene	470	U
191-24-2	Benzo(g,h,i)perylene	470	U
207-08-9	Benzo(k)fluoranthene	470	U
85-68-7	Benzyl Butyl Phthalate	470	U
105-60-2	Caprolactam	470	U
86-74-8	Carbazole	470	U
218-01-9	Chrysene	470	U
53-70-3	Dibenz(a,h)Anthracene	470	U
132-64-9	Dibenzofuran	470	U
84-66-2	Diethyl Phthalate	470	U
131-11-3	Dimethyl Phthalate	470	U
206-44-0	Fluoranthene	470	U
86-73-7	Fluorene	470	U
118-74-1	Hexachlorobenzene	470	U
87-68-3	Hexachlorobutadiene	470	U
77-47-4	Hexachlorocyclopentadiene	470	U
67-72-1	Hexachloroethane	470	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	470	U
78-59-1	Isophorone	470	U
91-20-3	Naphthalene	470	U
98-95-3	Nitrobenzene	470	U
87-86-5	Pentachlorophenol	1200	U
85-01-8	Phenanthrene	470	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
25-IS05-9-11-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707187-002-014-1/1
Sample Volume :	30.01	Lab File ID :	D43509.D
% Moisture:	29	Date Received	07/28/2007
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:		

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

CAS NO	COMPOUND		Q
108-95-2	Phenol	470	U
129-00-0	Pyrene	470	U
111-91-1	bis(2-chloroethoxy) methane	470	U
111-44-4	bis(2-chloroethyl) ether	470	U
117-81-7	bis(2-ethylhexyl) phthalate	470	U
84-74-2	di-n-Butyl Phthalate	470	U
117-84-0	di-n-Octyl Phthalate	470	U
621-64-7	n-Nitrosodi-n-Propylamine	470	U
86-30-6	n-Nitrosodiphenylamine	470	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
25-IS05-9-11-07C

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707187

Matrix (soil/water): SOIL Lab Sample ID: 707187-002-014-1/1

Sample wt/vol: 30.01 (g/ml) g Lab File ID: D43509.D

Level (low/med): LOW Date Recieved 07/28/2007

% Moisture: 29 Decanted: (Y/N) N Date Analyzed: 08/14/2007

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-	10.22	1000	JN
2	000112-70-9	1-Tridecanol	16.71	1000	JN
3	000629-96-9	1-Eicosanol	22.82	190	JN
4	004291-79-6	Cyclohexane, 1-methyl-	10.51	160	JN
5		unknown	10.01	420	J
6		unknown	22.29	95	J

GPL LABORATORIES

Client: CH2M HILL
SDG: 707147
Sample ID: 25-IS05-9-11-07C

Retention Time	CAS Number	Alkane Compound	Est. Conc. (ug/KG)
10.45		Alkane Type 4	210

*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
25-IS06-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707187-003-015-1/1
Sample Volume :	30	Lab File ID :	D43510.D
% Moisture:	15.08	Date Received	07/28/2007
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:		

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
25-IS06-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707187-003-015-1/1
Sample Volume :	30	Lab File ID :	D43510.D
% Moisture:	15.08	Date Received	07/28/2007
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
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
25-IS06-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707187-003-015-1/1
Sample Volume :	30	Lab File ID :	D43510.D
% Moisture:	15.08	Date Received	07/28/2007
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	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

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
25-IS06-0-1-07C

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707187

Matrix (soil/water): SOIL Lab Sample ID: 707187-003-015-1/1

Sample wt/vol: 30 (g/ml) g Lab File ID: D43510.D

Level (low/med): LOW Date Recieved 07/28/2007

% Moisture: 15.08 Decanted: (Y/N) N Date Analyzed: 08/14/2007

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	000122-62-3	Decanedioic acid, bis(2-	24.87	300	JN
2	000301-02-0	9-Octadecenamide, (Z)-	22.29	680	JN
3	004291-79-6	Cyclohexane, 1-methyl-	10.51	130	JN
4		unknown	10.01	330	J
5		unknown	10.22	530	J
6		unknown	22.82	82	J

GPL LABORATORIES

Client: CH2M HILL
SDG: 707147
Sample ID: 25-IS06-0-1-07C

Retention Time	CAS Number	Alkane Compound	Est. Conc. (ug/KG)
10.45		Alkane Type 4	180

*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
25-IS06-8-10-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707187-004-016-1/1
Sample Volume :	30.02	Lab File ID :	D43511.D
% Moisture:	12.91	Date Received	07/28/2007
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:		

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
25-IS06-8-10-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707187-004-016-1/1
Sample Volume :	30.02	Lab File ID :	D43511.D
% Moisture:	12.91	Date Received	07/28/2007
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:		

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	960	U
85-01-8	Phenanthrene	380	U

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
25-IS06-8-10-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707187-004-016-1/1
Sample Volume :	30.02	Lab File ID :	D43511.D
% Moisture:	12.91	Date Received	07/28/2007
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:		

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

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
25-IS06-8-10-07C

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707187

Matrix (soil/water): SOIL Lab Sample ID: 707187-004-016-1/1

Sample wt/vol: 30.02 (g/ml) g Lab File ID: D43511.D

Level (low/med): LOW Date Recieved 07/28/2007

% Moisture: 12.91 Decanted: (Y/N) N Date Analyzed: 08/14/2007

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: 5 Concentration Units (ug/L or ug/kg): ug/kg

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q
1	004291-79-6	Cyclohexane, 1-methyl-	10.52	150	JN
2	031035-07-1	9-Nonadecene	22.82	190	JN
3		unknown	10.01	220	J
4		unknown	10.23	1100	J
5		unknown	24.87	320	J

GPL LABORATORIES

Client: CH2M HILL
SDG: 707147
Sample ID: 25-IS06-8-10-07C

Retention Time	CAS Number	Alkane Compound	Est. Conc. (ug/KG)
10.45		Alkane Type 4	220

*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
25-TW01-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707187-005-034-1/2
Sample Volume :	950	Lab File ID :	H38059.D
% Moisture:		Date Received	07/28/2007
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:		

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	26	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	26	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	26	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	26	U
534-52-1	4,6-dinitro-2-methyl phenol	26	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	26	U
100-02-7	4-Nitrophenol	26	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
25-TW01-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707187-005-034-1/2
Sample Volume :	950	Lab File ID :	H38059.D
% Moisture:		Date Received	07/28/2007
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:		

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	26	U
85-01-8	Phenanthrene	11	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
25-TW01-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707187-005-034-1/2
Sample Volume :	950	Lab File ID :	H38059.D
% Moisture:		Date Received	07/28/2007
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:		

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	2.0	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.
25-TW01-07C

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707187

Matrix (soil/water): WATER Lab Sample ID: 707187-005-034-1/2

Sample wt/vol: 950 (g/ml) ml Lab File ID: H38059.D

Level (low/med): LOW Date Recieved 07/28/2007

% 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	2.97	J

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
25-TW02-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707187-007-036-1/2
Sample Volume :	950	Lab File ID :	H38060.D
% Moisture:		Date Received	07/28/2007
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:		

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	26	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	26	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	26	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	26	U
534-52-1	4,6-dinitro-2-methyl phenol	26	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	26	U
100-02-7	4-Nitrophenol	26	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
25-TW02-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707187-007-036-1/2
Sample Volume :	950	Lab File ID :	H38060.D
% Moisture:		Date Received	07/28/2007
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:		

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	26	U
85-01-8	Phenanthrene	11	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
25-TW02-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707187-007-036-1/2
Sample Volume :	950	Lab File ID :	H38060.D
% Moisture:		Date Received	07/28/2007
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:		

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	11	U
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.
25-TW02-07C

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707187

Matrix (soil/water): WATER Lab Sample ID: 707187-007-036-1/2

Sample wt/vol: 950 (g/ml) ml Lab File ID: H38060.D

Level (low/med): LOW Date Recieved 07/28/2007

% 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: 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
25-TW02-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707187-007-036-1/2
Sample Volume :	950	Lab File ID :	D43534.D
% Moisture:		Date Received	07/28/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	08/06/2007
Extract Volume:	1 mL	Date Analyzed	08/15/2007
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
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	26	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	26	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	26	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	26	U
534-52-1	4,6-dinitro-2-methyl phenol	26	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	26	U
100-02-7	4-Nitrophenol	26	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
25-TW02-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707187-007-036-1/2
Sample Volume :	950	Lab File ID :	D43534.D
% Moisture:		Date Received	07/28/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	08/06/2007
Extract Volume:	1 mL	Date Analyzed	08/15/2007
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	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	26	U
85-01-8	Phenanthrene	11	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
25-TW02-07CRE

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707187-007-036-1/2
Sample Volume :	950	Lab File ID :	D43534.D
% Moisture:		Date Received	07/28/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	08/06/2007
Extract Volume:	1 mL	Date Analyzed	08/15/2007
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	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	11	U
84-74-2	di-n-Butyl Phthalate	2.9	J
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

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
25-TW02-07CRE

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707187

Matrix (soil/water): WATER Lab Sample ID: 707187-007-036-1/2RE

Sample wt/vol: 950 (g/ml) ml Lab File ID: D43534.D

Level (low/med): LOW Date Recieved 07/28/2007

% Moisture: Decanted: (Y/N) N Date Analyzed: 08/15/2007

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: 11 Concentration Units (ug/L or ug/kg): ug/L

#	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q
1	000057-10-3	n-Hexadecanoic acid	20.34	4.66	JN
2	000057-11-4	Octadecanoic acid	21.3	5.53	JN
3	000080-48-8	Benzenesulfonic acid, 4-	17.15	2.33	JN
4	000640-61-9	Benzenesulfonamide,	18.87	8.00	JN
5	001599-67-3	1-Docosene	22.81	15	JN
6	004291-79-6	Cyclohexane, 1-methyl-	10.52	2.37	JN
7		unknown	10.01	3.78	J
8		unknown	10.22	22	J
9		unknown	11.09	11	J
10		unknown	13.55	4.060	J
11		unknown	13.77	8.20	J

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
25-TW03-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707187-009-038-1/2
Sample Volume :	850	Lab File ID :	H38061.D
% Moisture:		Date Received	07/28/2007
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:		

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
25-TW03-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707187-009-038-1/2
Sample Volume :	850	Lab File ID :	H38061.D
% Moisture:		Date Received	07/28/2007
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:		

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
25-TW03-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707187-009-038-1/2
Sample Volume :	850	Lab File ID :	H38061.D
% Moisture:		Date Received	07/28/2007
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:		

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	3.9	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.
25-TW03-07C

Lab Name: GPL Laboratories, LLLP Contract: CH2M Hill Inc

Lab Code: GPL Case No.: NA SAS No.: NA SDG No.: 707187

Matrix (soil/water): WATER Lab Sample ID: 707187-009-038-1/2

Sample wt/vol: 850 (g/ml) ml Lab File ID: H38061.D

Level (low/med): LOW Date Recieved 07/28/2007

% 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	2.94	J

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 :	707187
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
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 :	707187
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 :	707187
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

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BLK99566

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BLK99566
Sample Volume :	1000	Lab File ID :	D43531.D
% Moisture:		Date Received	
Extraction:	CLP_EXTRACTION	Date Extracted:	08/06/2007
Extract Volume:	1 mL	Date Analyzed	08/15/2007
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
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
BLK99566

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BLK99566
Sample Volume :	1000	Lab File ID :	D43531.D
% Moisture:		Date Received	
Extraction:	CLP_EXTRACTION	Date Extracted:	08/06/2007
Extract Volume:	1 mL	Date Analyzed	08/15/2007
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
BLK99566

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BLK99566
Sample Volume :	1000	Lab File ID :	D43531.D
% Moisture:		Date Received	
Extraction:	CLP_EXTRACTION	Date Extracted:	08/06/2007
Extract Volume:	1 mL	Date Analyzed	08/15/2007
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

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 :	707187
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 :	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
BLK99526

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
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 :	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	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 :	707187
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 :	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	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 :	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	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 :	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	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 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
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 :	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	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
BKS99406

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
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 :	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
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

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 :	707187
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
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	42	
85-01-8	Phenanthrene	10	U

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
BKS99406

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
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 :	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	53	
129-00-0	Pyrene	32	
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	34	
86-30-6	n-Nitrosodiphenylamine	10	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BKSD99406

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BKSD99406
Sample Volume :	1000	Lab File ID :	H38055.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	39	
606-20-2	2,6-Dinitrotoluene	10	U
532-27-4	2-Chloroacetophenone - CN	27	
2698-41-1	2-Chlorobenzalmalononitrile	18	
91-58-7	2-Chloronaphthalene	10	U
95-57-8	2-Chlorophenol	32	
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	47	
59-50-7	4-chloro-3-methylphenol	41	
106-44-5	4-methylphenol	10	U
83-32-9	Acenaphthene	43	
208-96-8	Acenaphthylene	10	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BKSD99406

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BKSD99406
Sample Volume :	1000	Lab File ID :	H38055.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	53	
85-01-8	Phenanthrene	10	U

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
BKSD99406

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BKSD99406
Sample Volume :	1000	Lab File ID :	H38055.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	39	
129-00-0	Pyrene	40	
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	26	
86-30-6	n-Nitrosodiphenylamine	10	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BKS99566

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BKS99566
Sample Volume :	1000	Lab File ID :	D43532.D
% Moisture:		Date Received	
Extraction:	CLP_EXTRACTION	Date Extracted:	08/06/2007
Extract Volume:	1 mL	Date Analyzed	08/15/2007
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
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	52	
2698-41-1	2-Chlorobenzalmalononitrile	42	
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 I
ANALYSIS DATA SHEET

SAMPLE NO
BKS99566

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BKS99566
Sample Volume :	1000	Lab File ID :	D43532.D
% Moisture:		Date Received	
Extraction:	CLP_EXTRACTION	Date Extracted:	08/06/2007
Extract Volume:	1 mL	Date Analyzed	08/15/2007
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
BKS99566

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BKS99566
Sample Volume :	1000	Lab File ID :	D43532.D
% Moisture:		Date Received	
Extraction:	CLP_EXTRACTION	Date Extracted:	08/06/2007
Extract Volume:	1 mL	Date Analyzed	08/15/2007
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

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BKSD99566

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BKSD99566
Sample Volume :	1000	Lab File ID :	D43533.D
% Moisture:		Date Received	
Extraction:	CLP_EXTRACTION	Date Extracted:	08/06/2007
Extract Volume:	1 mL	Date Analyzed	08/15/2007
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
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	52	
2698-41-1	2-Chlorobenzalmalononitrile	42	
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
BKSD99566

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BKSD99566
Sample Volume :	1000	Lab File ID :	D43533.D
% Moisture:		Date Received	
Extraction:	CLP_EXTRACTION	Date Extracted:	08/06/2007
Extract Volume:	1 mL	Date Analyzed	08/15/2007
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
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
BKSD99566

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BKSD99566
Sample Volume :	1000	Lab File ID :	D43533.D
% Moisture:		Date Received	
Extraction:	CLP_EXTRACTION	Date Extracted:	08/06/2007
Extract Volume:	1 mL	Date Analyzed	08/15/2007
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

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 :	707187
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
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 :	707187
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
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 :	707187
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
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 : WATER **Analytical Method : CLP_OLM04.3_BN** **SDG No : 707187**

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								
25-TW01-07C	56	52	69	80	29	18	67	45
25-TW02-07C	26 *	25	32 *	34	15 *	9 *	31 *	23 *
25-TW03-07C	66	58	77	91	39	28	76	50
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

* 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 : WATER **Analytical Method : CLP_OLM04.3_BN** **SDG No : 707187**

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								
25-TW02-07CRE	100	77	101	116	89	101	104	115
BKS99566	112 *	89	111	114	100	113 *	112	129
BKSD99566	103	84	101	111	92	105	103	119
BLK99566	103	83	102	115	98	106	108	119

* 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 : 707187**

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								
25-IS05-9-11-07C	84	70	86	75	72	87	86	105
25-IS06-0-1-07C	98	78	98	104	93	101	101	117
25-IS06-8-10-07C	98	82	100	95	87	103	104	127
BKS99526	87	69	88	92	83	92	91	107
BLK99526	83	67	84	92	79	88	89	104

* 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 : 707187**

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								
25-IS05-0-1-07C	101	81	103	97	93	105	103	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

BKS/BSD RECOVERY

SAMPLE NO
BKSD99406

Lab Name : GPL Laboratories SDG NO : 707187 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) BLANK	BKS	BSD	%RECOVERY BKS	BSD	% RPD	RPD Limit	QC Limits
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	50	50-150
2-Chlorobenzalmalononitrile	50	0.0	25	18	50	36 *	33	50	50-150
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 : 1 Out of 22 outside limit

GPL Laboratories

BKS/BSD RECOVERY

SAMPLE NO
BKSD99566

Lab Name : GPL Laboratories SDG NO : 707187 Method : CLP_OLM04.3_BNA

Lab Code : GPL Lab Sample ID : BKSD99566 Matrix : WATER Analysis Date : 08/15/2007

Compound	Spike Added (ug/L)	CONCENTRATION (ug/L) BLANK	BKS	BSD	%RECOVERY BKS	BSD	% RPD	RPD Limit	QC Limits
2,4-Dinitrotoluene	50	0.0	0.0	0.0	0 *	0 *	0	38	17-132
2-Chloroacetophenone - CN	50	0.0	52	52	104	104	0	50	50-150
2-Chlorobenzalmalononitrile	50	0.0	42	42	84	84	0	50	50-150
2-Chlorophenol	75	0.0	0.0	0.0	0 *	0 *	0	40	21-110
4-Nitrophenol	75	0.0	0.0	0.0	0 *	0 *	0	50	10-207
4-chloro-3-methylphenol	75	0.0	0.0	0.0	0 *	0 *	0	42	19-108
Acenaphthene	50	0.0	0.0	0.0	0 *	0 *	0	31	18-118
Pentachlorophenol	75	0.0	0.0	0.0	0 *	0 *	0	50	10-213
Phenol	75	0.0	0.0	0.0	0 *	0 *	0	42	18-109
Pyrene	50	0.0	0.0	0.0	0 *	0 *	0	31	23-136
n-Nitrosodi-n-Propylamine	50	0.0	0.0	0.0	0 *	0 *	0	38	15-132

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 : 18 Out of 22 outside limit

GPL Laboratories

LCS SUMMARY

SAMPLE NO
BKS99526

Lab Name : GPL Laboratories
Contract. : MILCON Area Investigations - CTO-169
Lab Code : GPL
SDG NO : 707187
Matrix : SOIL
Lab Sample ID : BKS99526
Method : CLP_OLM04.3_BNA
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
BLK99406

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	99406
Lab File ID :	H38053.D	SDG NO :	707187
Date Analyzed	08/02/2007	Lab Sample ID :	BLK99406
Date Extracted :	07/30/2007	Time Analyzed :	14:08
Matrix :(Soil/Water).	WATER	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
BKS99406	BKS99406	H38054.D	08/02/2007
BKSD99406	BKSD99406	H38055.D	08/02/2007
25-TW01-07C	707187-005-034-1/2	H38059.D	08/02/2007
25-TW02-07C	707187-007-036-1/2	H38060.D	08/02/2007
25-TW03-07C	707187-009-038-1/2	H38061.D	08/02/2007

GPL Laboratories

GPL
FORM 4
SEMI-VOLATILE METHOD BLANK SUMMARY

SAMPLE NO
BLK99566

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	99566
Lab File ID :	D43531.D	SDG NO :	707187
Date Analyzed	08/15/2007	Lab Sample ID :	BLK99566
Date Extracted :	08/06/2007	Time Analyzed :	08:10
Matrix :(Soil/Water).	WATER	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
BKS99566	BKS99566	D43532.D	08/15/2007
BKSD99566	BKSD99566	D43533.D	08/15/2007
25-TW02-07CRE	707187-007-036-1/2RE	D43534.D	08/15/2007

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 :	707187
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
25-IS05-9-11-07C	707187-002-014-1/1	D43509.D	08/14/2007
25-IS06-0-1-07C	707187-003-015-1/1	D43510.D	08/14/2007
25-IS06-8-10-07C	707187-004-016-1/1	D43511.D	08/14/2007
25-IS05-0-1-07C	707187-001-013-1/1	D43527.D	08/14/2007

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: GPL LABORATORIES Contract: N/A

Lab Code: GPL Case No.: N/A SAS No.: N/A SDG No.: N/A

Lab File ID: D43125.D DFTPP Injection Date: 07/11/07

Instrument ID: HP#D DFTPP Injection Time: 10:08

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 80.0% of mass 198	55.8	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 Relative abundance	62.8	
70	Less than 2.0% of mass 69	0.2	(0.4)1
127	25.0 - 75.0% of mass 198	44.9	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0 - 30.0% of mass 198	23.6	
365	Greater than 0.75% of mass 198	2.3	
441	Present, but less than mass 443	11.1	
442	40.0 - 110.0% of mass 198	69.8	
443	15.0 - 24.0% of mass 442	13.6	(19.5)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD025	SSTD025	D43126.D	07/11/07	10:32
02	SSTD080	SSTD080	D43127.D	07/11/07	11:19
03	SSTD010	SSTD010	D43128.D	07/11/07	12:06
04	SSTD060	SSTD060	D43129.D	07/11/07	12:53
05	SSTD040	SSTD040	D43130.D	07/11/07	13:40

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: GPL LABORATORIES Contract: N/A

Lab Code: GPL Case No.: N/A SAS No.: N/A SDG No.: N/A

Lab File ID: D43465.D DFTPP Injection Date: 08/10/07

Instrument ID: HP#D DFTPP Injection Time: 08:27

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	70.9
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 Relative abundance	79.8
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	25.0 - 75.0% of mass 198	51.0
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 30.0% of mass 198	24.3
365	Greater than 0.75% of mass 198	2.3
441	Present, but less than mass 443	10.1
442	40.0 - 110.0% of mass 198	61.0
443	15.0 - 24.0% of mass 442	12.3 (20.2)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD080 CS&CN	SSTD080 CS&CN	D43468.D	08/10/07	09:59
02	SSTD025 CS&CN	SSTD025 CS&CN	D43469.D	08/10/07	10:39
03	SSTD060 CS&CN	SSTD060 CS&CN	D43471.D	08/10/07	11:53
04	SSTD010 CS&CN	SSTD010 CS&CN	D43472.D	08/10/07	12:31
05	SSTD040 CS&CN	SSTD040 CS&CN	D43473.D	08/10/07	13:08

GPL
Form 5

SEMI-VOLATILE INSTRUMENT PERFORMANCE CHECK DECAFLUOROTRIPHENYLPHOSPHINE(DFTPP)

Lab Name: GPL LABORATORIES Contract : CH2M Hill Inc

Lab Code: GPL Case No: N/A SAS No:N/A SDG No : 707187

Lab File ID: D43497.D DFTPP Injection Date : 08/13/2007 DFTPP Injection Time : 16:47

GC Column: _ ID: DB-5

m/e	ION ABUNDANCE CRITERIA	%Relative Abundance	
51	30.0 - 80.0% of mass 198	65.0	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	77.2	
70	Less than 2.0% of mass-69	0.2	(0.2)1
127	25.0 - 75.0% of mass 198	46.6	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak. 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0 - 30.0% of mass 198	26.3	
365	Greater than 0.75% of mass 198	2.8	
441	Present. but less than mass 443	7.2	
442	40.0 - 110.0% of mass 198	78.1	
443	15.0 - 24.0% of mass 442	14.6	(18.6)2

1-Value is % mass 69

2-Value is % mass 442

	Client Sample	Lab Sample NO	Lab File ID	Date Analyzed	Time Analyzed
1	SSTD025	SSTD025	D43498.D	08/13/2007	17:06
2	SSTD025 CS&CN	SSTD025 CS&CN	D43499.D	08/13/2007	17:50
3	BLK99526	BLK99526	D43501.D	08/13/2007	19:15
4	BKS99526	BKS99526	D43502.D	08/13/2007	20:03
5	25-IS05-9-11-07C	707187-002-014-1/1	D43509.D	08/14/2007	01:35
6	25-IS06-0-1-07C	707187-003-015-1/1	D43510.D	08/14/2007	02:22
7	25-IS06-8-10-07C	707187-004-016-1/1	D43511.D	08/14/2007	03:10

GPL
Form 5

SEMI-VOLATILE INSTRUMENT PERFORMANCE CHECK DECAFLUOROTRIPHENYLPHOSPHINE(DFTPP)

Lab Name: GPL LABORATORIES Contract : CH2M Hill Inc

Lab Code: GPL Case No: N/A SAS No:N/A SDG No : 707187

Lab File ID: D43512.D DFTPP Injection Date : 08/14/2007 DFTPP Injection Time : 06:25

GC Column: _ ID: DB-5

m/e	ION ABUNDANCE CRITERIA	%Relative Abundance	
51	30.0 - 80.0% of mass 198	70.4	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	77.8	
70	Less than 2.0% of mass-69	0.5	(0.6)1
127	25.0 - 75.0% of mass 198	49.1	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak. 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.5	
275	10.0 - 30.0% of mass 198	23.7	
365	Greater than 0.75% of mass 198	1.8	
441	Present. but less than mass 443	6.5	
442	40.0 - 110.0% of mass 198	68.4	
443	15.0 - 24.0% of mass 442	12.6	(18.4)2

1-Value is % mass 69 2-Value is % mass 442

	Client Sample	Lab Sample NO	Lab File ID	Date Analyzed	Time Analyzed
1	SSTD025	SSTD025	D43513.D	08/14/2007	06:43
2	SSTD025 CS&CN	SSTD025 CS&CN	D43514.D	08/14/2007	07:27
3	25-IS05-0-1-07C	707187-001-013-1/1	D43527.D	08/14/2007	17:34

GPL
Form 5

SEMI-VOLATILE INSTRUMENT PERFORMANCE CHECK DECAFLUOROTRIPHENYLPHOSPHINE(DFTPP)

Lab Name: GPL LABORATORIES Contract : CH2M Hill Inc

Lab Code: GPL Case No: N/A SAS No:N/A SDG No : 707187

Lab File ID: D43528.D DFTPP Injection Date : 08/15/2007 DFTPP Injection Time : 06:30

GC Column: _ ID: DB-5

m/e	ION ABUNDANCE CRITERIA	%Relative Abundance	
51	30.0 - 80.0% of mass 198	66.8	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	76.1	
70	Less than 2.0% of mass-69	0.5	(0.6)1
127	25.0 - 75.0% of mass 198	49.3	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak. 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.6	
275	10.0 - 30.0% of mass 198	24.3	
365	Greater than 0.75% of mass 198	2.4	
441	Present. but less than mass 443	9.0	
442	40.0 - 110.0% of mass 198	71.8	
443	15.0 - 24.0% of mass 442	14.1	(19.6)2

1-Value is % mass 69 2-Value is % mass 442

	Client Sample	Lab Sample NO	Lab File ID	Date Analyzed	Time Analyzed
1	BKSD99566	SSTD025	D43529.D	08/15/2007	06:48
2	SSTD025 CS&CN	SSTD025 CS&CN	D43530.D	08/15/2007	07:32
3	BLK99566	BLK99566	D43531.D	08/15/2007	08:10
4	BKS99566	BKS99566	D43532.D	08/15/2007	08:57
5	BKSD99566	BKSD99566	D43533.D	08/15/2007	09:44
6	25-TW02-07CRE	707187-007-036-1/2RE	D43534.D	08/15/2007	10:32

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: GPL LABORATORIES Contract: N/A

Lab Code: GPL Case No.: N/A SAS No.: N/A SDG No.: N/A

Lab File ID: H38003.D DFTPP Injection Date: 07/30/07

Instrument ID: HP#H DFTPP Injection Time: 11:20

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 80.0% of mass 198	57.4	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 Relative abundance	63.5	
70	Less than 2.0% of mass 69	0.0	(0.0)1
127	25.0 - 75.0% of mass 198	46.6	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	7.2	
275	10.0 - 30.0% of mass 198	28.9	
365	Greater than 0.75% of mass 198	4.6	
441	Present, but less than mass 443	11.4	
442	40.0 - 110.0% of mass 198	74.6	
443	15.0 - 24.0% of mass 442	14.5	(19.4)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD025 CS&CN	SSTD025 CS&CN	H38008.D	07/30/07	14:21
02	SSTD080 CS&CN	SSTD080 CS&CN	H38009.D	07/30/07	15:01
03	SSTD060 CS&CN	SSTD060 CS&CN	H38011.D	07/30/07	16:20
04	SSTD010 CS&CN	SSTD010 CS&CN	H38012.D	07/30/07	17:00
05	SSTD040 CS&CN	SSTD040 CS&CN	H38013.D	07/30/07	17:40

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: GPL LABORATORIES Contract: N/A

Lab Code: GPL Case No.: N/A SAS No.: N/A SDG No.: N/A

Lab File ID: H38044.D DFTPP Injection Date: 08/02/07

Instrument ID: HP#H DFTPP Injection Time: 06:47

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	51.8
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 Relative abundance	57.0
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	25.0 - 75.0% of mass 198	44.5
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 30.0% of mass 198	29.1
365	Greater than 0.75% of mass 198	5.4
441	Present, but less than mass 443	12.2
442	40.0 - 110.0% of mass 198	78.9
443	15.0 - 24.0% of mass 442	15.4 (19.6)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD025	SSTD025	H38045.D	08/02/07	07:07
02	SSTD080	SSTD080	H38046.D	08/02/07	08:18
03	SSTD010	SSTD010	H38047.D	08/02/07	09:02
04	SSTD060	SSTD060	H38048.D	08/02/07	09:45
05	SSTD040	SSTD040	H38049.D	08/02/07	10:29

GPL
Form 5

SEMI-VOLATILE INSTRUMENT PERFORMANCE CHECK DECAFLUOROTRIPHENYLPHOSPHINE(DFTPP)

Lab Name: GPL LABORATORIES Contract : CH2M Hill Inc

Lab Code: GPL Case No: N/A SAS No:N/A SDG No : 707187

Lab File ID: H38050.D DFTPP Injection Date : 08/02/2007 DFTPP Injection Time : 12:25

GC Column: _ ID: DB-5

m/e	ION ABUNDANCE CRITERIA	%Relative Abundance	
51	30.0 - 80.0% of mass 198	53.4	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	60.9	
70	Less than 2.0% of mass-69	0.0	(0.0)1
127	25.0 - 75.0% of mass 198	43.4	
197	Less than 1.0% of mass 198	0.4	
198	Base Peak. 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	7.4	
275	10.0 - 30.0% of mass 198	28.8	
365	Greater than 0.75% of mass 198	4.8	
441	Present. but less than mass 443	11.9	
442	40.0 - 110.0% of mass 198	79.4	
443	15.0 - 24.0% of mass 442	15.5	(19.5)2

1-Value is % mass 69

2-Value is % mass 442

	Client Sample	Lab Sample NO	Lab File ID	Date Analyzed	Time Analyzed
1	SSTD025	SSTD025	H38051.D	08/02/2007	12:47
2	SSTD025 CS&CN	SSTD025 CS&CN	H38052.D	08/02/2007	13:30
3	BLK99406	BLK99406	H38053.D	08/02/2007	14:08
4	BKS99406	BKS99406	H38054.D	08/02/2007	14:54
5	BKSD99406	BKSD99406	H38055.D	08/02/2007	15:39
6	25-TW01-07C	707187-005-034-1/2	H38059.D	08/02/2007	18:41
7	25-TW02-07C	707187-007-036-1/2	H38060.D	08/02/2007	19:26
8	25-TW03-07C	707187-009-038-1/2	H38061.D	08/02/2007	20:10

GPL

Form 8 1 of 2

SEMI-VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GPL LABORATORIES Contract : CH2M Hill Inc

Lab Code: GPL Case No: N/A SAS No:N/A SDG No : 707187

Lab File ID: H38051.D Date Analyzed: 08/02/2007 Time Analyzed: 12:47

	ACNPD10		CHRYSENED12		DCBZ14D4	
	Area #	RT #	Area #	RT #	Area #	RT #
12 HOUR STD	243825	16.44	412254	22.69	136551	10.68
UPPER LIMIT	487650	16.94	824508	23.19	273102	11.18
LOWER LIMIT	121913	15.94	206127	22.19	68276	10.18
Client Sample						
25-TW01-07C	213339	16.43	302679	22.69	115081	10.68
25-TW02-07C	196584	16.43	334778	22.67	108508	10.66
25-TW03-07C	250760	16.43	402701	22.67	129835	10.66
BKS99406	298639	16.44	531552	22.69	155632	10.68
BKSD99406	258213	16.44	470963	22.69	131908	10.68
BLK99406	212529	16.44	379620	22.69	120882	10.68

ACNPD10 = acenaphthene-d1(
CHRYSENED12 = Chrysene-d12
DCBZ14D4 = 1,4-Dichlorobenzene-d
NAPHD8 = Naphthalene-d8
PERYD12 = Perylene-d12
PHAND10 = phenanthrene-d1(

AREA UPPER LIMIT = +100% of internal standard are
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +.50 minutes of internal standard RT
RT LOWER LIMIT = -.50 minutes of internal standard RT
Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

GPL
Form 8 2 of 2
SEMI-VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GPL LABORATORIES Contract : CH2M Hill Inc

Lab Code: GPL Case No: N/A SAS No:N/A SDG No : 707187

Lab File ID: H38051.D Date Analyzed: 08/02/2007 Time Analyzed: 12:47

	NAPHD8		PERYD12		PHAND10	
	Area #	RT #	Area #	RT #	Area #	RT #
12 HOUR STD	458403	13.07	337019	25.71	446707	19.15
UPPER LIMIT	916806	13.57	674038	26.21	893414	19.65
LOWER LIMIT	229202	12.57	168510	25.21	223354	18.65
Client Sample						
25-TW01-07C	397847	13.05	227727	25.70	376797	19.13
25-TW02-07C	377652	13.05	231819	25.69	377460	19.13
25-TW03-07C	462163	13.04	317470	25.69	492852	19.13
BKS99406	541950	13.06	366838	25.71	564809	19.15
BKSD99406	462717	13.06	341353	25.71	478315	19.14
BLK99406	403992	13.06	245869	25.70	396215	19.15

ACNPD10 = acenaphthene-d1(
CHRYSENED12 = Chrysene-d12
DCBZ14D4 = 1,4-Dichlorobenzene-d·
NAPHD8 = Naphthalene-d8
PERYD12 = Perylene-d12
PHAND10 = phenanthrene-d1(

AREA UPPER LIMIT = +100% of internal standard are
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +.50 minutes of internal standard RT
RT LOWER LIMIT = -.50 minutes of internal standard RT
Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

GPL

Form 8 1 of 2

SEMI-VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GPL LABORATORIES Contract : CH2M Hill Inc

Lab Code: GPL Case No: N/A SAS No:N/A SDG No : 707187

Lab File ID: D43529.D Date Analyzed: 08/15/2007 Time Analyzed: 06:48

	ACNPD10		CHRYSENED12		DCBZ14D4	
	Area #	RT #	Area #	RT #	Area #	RT #
12 HOUR STD	1196003	17.26	2746379	23.52	657518	11.54
UPPER LIMIT	2392006	17.76	5492758	24.02	1315036	12.04
LOWER LIMIT	598002	16.76	1373190	23.02	328759	11.04
Client Sample						
25-TW02-07CRE	877018	17.26	1989310	23.52	527885	11.55
BKS99566	754586	17.26	1822001	23.52	411595	11.55
BKSD99566	740377	17.26	1860889	23.52	380623	11.54
BLK99566	878247	17.26	1963036	23.52	542873	11.54

ACNPD10 = acenaphthene-d1(
CHRYSENED12 = Chrysene-d12
DCBZ14D4 = 1,4-Dichlorobenzene-d
NAPHD8 = Naphthalene-d8
PERYD12 = Perylene-d12
PHAND10 = phenanthrene-d1(

AREA UPPER LIMIT = +100% of internal standard are
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +.50 minutes of internal standard RT
RT LOWER LIMIT = -.50 minutes of internal standard RT
Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

GPL
Form 8 2 of 2
SEMI-VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GPL LABORATORIES Contract : CH2M Hill Inc

Lab Code: GPL Case No: N/A SAS No:N/A SDG No : 707187

Lab File ID: D43529.D Date Analyzed: 08/15/2007 Time Analyzed: 06:48

	NAPHD8		PERYD12		PHAND10	
	Area #	RT #	Area #	RT #	Area #	RT #
12 HOUR STD	2233388	13.90	1628163	27.36	2375472	19.80
UPPER LIMIT	4466776	14.40	3256326	27.86	4750944	20.30
LOWER LIMIT	1116694	13.40	814082	26.86	1187736	19.30
Client Sample						
25-TW02-07CRE	1768345	13.90	1155457	27.36	1799608	19.80
BKS99566	1409055	13.90	906804	27.36	1649238	19.80
BKSD99566	1317275	13.91	848096	27.35	1653758	19.80
BLK99566	1816342	13.90	1102211	27.36	1808307	19.80

ACNPD10 = acenaphthene-d1(
CHRYSENED12 = Chrysene-d12
DCBZ14D4 = 1,4-Dichlorobenzene-d
NAPHD8 = Naphthalene-d8
PERYD12 = Perylene-d12
PHAND10 = phenanthrene-d1(

AREA UPPER LIMIT = +100% of internal standard are
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +.50 minutes of internal standard RT
RT LOWER LIMIT = -.50 minutes of internal standard RT
Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

GPL

Form 8 1 of 2

SEMI-VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GPL LABORATORIES Contract : CH2M Hill Inc

Lab Code: GPL Case No: N/A SAS No:N/A SDG No : 707187

Lab File ID: D43498.D Date Analyzed: 08/13/2007 Time Analyzed: 17:06

	ACNPD10		CHRYSENED12		DCBZ14D4	
	Area #	RT #	Area #	RT #	Area #	RT #
12 HOUR STD	1123876	17.27	2532500	23.53	666601	11.56
UPPER LIMIT	2247752	17.77	5065000	24.03	1333202	12.06
LOWER LIMIT	561938	16.77	1266250	23.03	333301	11.06
Client Sample						
25-IS05-9-11-07C	886026	17.27	2178540	23.52	487981	11.55
25-IS06-0-1-07C	822206	17.27	1901403	23.52	514059	11.55
25-IS06-8-10-07C	840559	17.26	1929454	23.52	498792	11.54
BKS99526	966242	17.27	2214407	23.53	602997	11.55
BLK99526	972378	17.27	2283653	23.53	584814	11.55

ACNPD10 = acenaphthene-d1(
CHRYSENED12 = Chrysene-d12
DCBZ14D4 = 1,4-Dichlorobenzene-d
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GPL
Form 8 2 of 2

SEMI-VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GPL LABORATORIES Contract : CH2M Hill Inc

Lab Code: GPL Case No: N/A SAS No:N/A SDG No : 707187

Lab File ID: D43498.D Date Analyzed: 08/13/2007 Time Analyzed: 17:06

	NAPHD8		PERYD12		PHAND10	
	Area #	RT #	Area #	RT #	Area #	RT #
12 HOUR STD	2210620	13.91	1598969	27.38	2191225	19.80
UPPER LIMIT	4421240	14.41	3197938	27.88	4382450	20.30
LOWER LIMIT	1105310	13.41	799485	26.88	1095613	19.30
Client Sample						
25-IS05-9-11-07C	1667422	13.91	1105954	27.37	1918979	19.80
25-IS06-0-1-07C	1682782	13.91	981736	27.37	1719514	19.80
25-IS06-8-10-07C	1692946	13.91	1006551	27.36	1735685	19.80
BKS99526	1956044	13.91	1131124	27.38	1957859	19.81
BLK99526	1939217	13.91	1171607	27.37	2037581	19.81

ACNPD10 = acenaphthene-d1(
CHRYSENED12 = Chrysene-d12
DCBZ14D4 = 1,4-Dichlorobenzene-d
NAPHD8 = Naphthalene-d8
PERYD12 = Perylene-d12
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GPL

Form 8 1 of 2

SEMI-VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GPL LABORATORIES Contract : CH2M Hill Inc

Lab Code: GPL Case No: N/A SAS No:N/A SDG No : 707187

Lab File ID: D43513.D Date Analyzed: 08/14/2007 Time Analyzed: 06:43

	ACNPD10		CHRYSENED12		DCBZ14D4	
	Area #	RT #	Area #	RT #	Area #	RT #
12 HOUR STD	1275539	17.26	0	00.00	705172	11.55
UPPER LIMIT	2551078	17.76	0	00.50	1410344	12.05
LOWER LIMIT	637770	16.76	0	-00.50	352586	11.05
Client Sample						
25-IS05-0-1-07C	1241053	17.27	2598141	23.53	677097	11.55

ACNPD10 = acenaphthene-d1(

CHRYSENED12 = Chrysene-d12

DCBZ14D4 = 1,4-Dichlorobenzene-d

NAPHD8 = Naphthalene-d8

PERYD12 = Perylene-d12

PHAND10 = phenanthrene-d1(

AREA UPPER LIMIT = +100% of internal standard are

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +.50 minutes of internal standard RT

RT LOWER LIMIT = -.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk

* Values outside of contract required QC limits

GPL
Form 8 2 of 2
SEMI-VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GPL LABORATORIES Contract : CH2M Hill Inc

Lab Code: GPL Case No: N/A SAS No:N/A SDG No : 707187

Lab File ID: D43513.D Date Analyzed: 08/14/2007 Time Analyzed: 06:43

	NAPHD8		PERYD12		PHAND10	
	Area #	RT #	Area #	RT #	Area #	RT #
12 HOUR STD	2402266	13.90	0	00.00	2510014	19.80
UPPER LIMIT	4804532	14.40	0	00.50	5020028	20.30
LOWER LIMIT	1201133	13.40	0	-00.50	1255007	19.30
Client Sample						
25-IS05-0-1-07C	2365735	13.91	1600797	27.37	2469608	19.80

ACNPD10 = acenaphthene-d1(
CHRYSENED12 = Chrysene-d12
DCBZ14D4 = 1,4-Dichlorobenzene-d
NAPHD8 = Naphthalene-d8
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6B

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: GPL LABORATORIES Contract: N/A

Lab Code: GPL Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: HP#D Calibration Date(s): 07/11/07 07/11/07

Calibration Times: 10:32 13:40

LAB FILE ID: RRF10 = D43128.D RRF25 = D43126.D

RRF40 = D43130.D RRF60 = D43129.D RRF80 = D43127.D

COMPOUND		RRF10	RRF25	RRF40	RRF60	RRF80	RRF	% RSD	
Benzaldehyde		0.459	0.750	1.019	0.771	0.556	0.711	30.5	
bis(2-Chloroethyl)ether	*	1.433	1.506	1.523	1.585	1.471	1.504	3.8	*
Phenol	*	1.989	1.803	1.819	2.022	1.827	1.892	5.5	*
2-Chlorophenol	*	1.487	1.333	1.345	1.467	1.339	1.394	5.5	*
2,2-oxybis(1-chloropropane)		4.374	3.871	3.887	4.180	3.779	4.018	6.2	
2-Methylphenol	*	1.262	1.122	1.152	1.275	1.184	1.199	5.6	*
Acetophenone		1.629	1.436	1.495	1.660	1.514	1.547	6.1	
Hexachloroethane	*	0.720	0.630	0.653	0.697	0.640	0.668	5.8	*
N-Nitroso-di-n-propylamine	*	1.080	0.951	0.958	1.081	0.980	1.010	6.5	*
4-Methylphenol	*	1.241	1.102	1.131	1.268	1.152	1.179	6.1	*
Nitrobenzene	*	0.497	0.444	0.452	0.484	0.448	0.465	5.1	*
Isophorone	*	0.852	0.768	0.785	0.875	0.810	0.818	5.5	*
2-Nitrophenol	*	0.221	0.207	0.210	0.228	0.216	0.216	3.8	*
2,4-Dimethylphenol	*	0.378	0.339	0.345	0.376	0.348	0.357	5.2	*
bis(2-Chloroethoxy)methane	*	0.512	0.479	0.477	0.523	0.479	0.494	4.4	*
2,4-Dichlorophenol	*	0.286	0.259	0.270	0.295	0.271	0.276	5.1	*
Naphthalene	*	1.003	0.935	0.933	1.015	0.935	0.964	4.2	*
4-Chloroaniline		0.337	0.339	0.358	0.409	0.375	0.363	8.2	
Hexachlorobutadiene		0.268	0.235	0.243	0.257	0.240	0.249	5.5	
Caprolactam		0.066	0.072	0.079	0.098	0.092	0.081	16.3	
4-Chloro-3-methylphenol	*	0.223	0.217	0.230	0.268	0.246	0.237	8.6	*
2-Methylnaphthalene	*	0.571	0.520	0.525	0.589	0.545	0.550	5.4	*
Hexachlorocyclopentadiene		0.695	0.600	0.597	0.623	0.592	0.621	6.9	
2,4,6-Trichlorophenol	*	0.459	0.424	0.423	0.466	0.437	0.442	4.5	*
2,4,5-Trichlorophenol	*	0.468	0.438	0.450	0.492	0.459	0.461	4.4	*
1,1-Biphenyl		1.620	1.423	1.439	1.496	1.401	1.476	6.0	
2-Chloronaphthalene	*	1.328	1.179	1.174	1.257	1.174	1.223	5.6	*
2-Nitroaniline		0.373	0.373	0.387	0.429	0.401	0.392	6.0	
Acenaphthylene	*	0.484	0.443	0.439	0.462	0.430	0.452	4.7	*
Dimethylphthalate		1.114	1.077	1.121	1.239	1.180	1.146	5.6	
2,6-Dinitrotoluene	*	0.260	0.269	0.279	0.320	0.305	0.287	8.9	*
Acenaphthene	*	1.008	0.938	0.948	1.019	0.945	0.971	4.0	*
3-Nitroaniline		0.240	0.253	0.266	0.317	0.302	0.276	11.9	
2,4-Dinitrophenol		0.102	0.145	0.184	0.226	0.222	0.176	30.0	
Dibenzofuran	*	1.514	1.392	1.424	1.544	1.430	1.461	4.4	*
2,4-Dinitrotoluene	*	0.286	0.326	0.348	0.393	0.388	0.348	12.9	*
4-Nitrophenol		0.089	0.104	0.119	0.140	0.134	0.117	18.1	
Fluorene	*	0.997	0.947	0.968	1.074	1.019	1.001	4.9	*
4-Chlorophenyl-phenylether	*	0.572	0.549	0.571	0.635	0.598	0.585	5.6	*

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: GPL LABORATORIES Contract: N/A

Lab Code: GPL Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: HP#D Calibration Date(s): 07/11/07 07/11/07

Calibration Times: 10:32 13:40

LAB FILE ID: RRF10 = D43128.D RRF25 = D43126.D

RRF40 = D43130.D RRF60 = D43129.D RRF80 = D43127.D

	COMPOUND	RRF10	RRF25	RRF40	RRF60	RRF80	$\overline{RRF}$	% RSD	
	Diethylphthalate	1.163	1.146	1.063	1.154	1.105	1.126	3.7	
	4-Nitroaniline	0.165	0.209	0.226	0.236	0.241	0.216	14.2	
	4,6-Dinitro-2-methylphenol	0.122	0.143	0.160	0.185	0.179	0.158	16.5	
	n-Nitrosodiphenylamine	0.494	0.451	0.456	0.497	0.450	0.470	5.1	
*	4-Bromophenyl-phenylether	0.261	0.233	0.233	0.253	0.234	0.243	5.5	*
*	Hexachlorobenzene	0.383	0.361	0.368	0.391	0.358	0.372	3.8	*
	Atrazine	0.197	0.183	0.186	0.198	0.190	0.191	3.5	
*	Pentachlorophenol	0.183	0.203	0.229	0.258	0.246	0.224	13.7	*
*	Phenanthrene	0.933	0.861	0.882	0.920	0.882	0.896	3.3	*
*	Anthracene	0.940	0.900	0.913	0.981	0.929	0.933	3.3	*
	Carbazole	0.822	0.704	0.709	0.744	0.725	0.741	6.4	
	Di-n-butylphthalate	1.130	1.101	1.195	1.210	1.193	1.166	4.1	
*	Fluoranthene	1.056	1.007	1.105	1.126	1.105	1.080	4.5	*
*	Pyrene	0.999	0.880	0.900	1.020	0.932	0.946	6.5	*
	Butylbenzylphthalate	0.502	0.449	0.475	0.518	0.481	0.485	5.5	
	3,3-Dichlorobenzidine	0.411	0.303	0.343	0.319	0.296	0.334	13.8	
*	Benzo[a]anthracene	1.022	0.918	0.948	1.025	0.969	0.976	4.8	*
*	Chrysene	0.991	0.882	0.917	0.986	0.929	0.941	5.0	*
	bis(2-Ethylhexyl)phthalate	0.697	0.622	0.669	0.718	0.680	0.677	5.3	
	Di-n-octylphthalate	1.010	0.938	1.019	1.147	1.072	1.037	7.5	
*	Benzo[b]fluoranthene	1.087	0.950	1.059	1.153	1.145	1.079	7.6	*
*	Benzo[k]fluoranthene	1.078	0.958	0.968	1.052	0.920	0.995	6.7	*
*	Benzo[a]pyrene	1.017	0.920	0.962	1.068	1.006	0.995	5.6	*
*	Indeno[1,2,3-cd]pyrene	1.117	1.050	1.041	1.154	1.051	1.082	4.7	*
*	Dibenz[a,h]anthracene	0.938	0.887	0.875	0.968	0.878	0.909	4.6	*
*	Benzo[g,h,i]perylene	0.962	0.918	0.885	0.977	0.888	0.926	4.6	*
*	2-Fluorophenol	1.925	1.709	1.746	1.869	1.727	1.795	5.3	*
*	Phenol-d5	1.909	1.723	1.752	1.936	1.773	1.819	5.3	*
*	2-Chlorophenol-d4	1.437	1.300	1.336	1.459	1.324	1.371	5.2	*
*	1,2-Dichlorobenzene-d4	0.909	0.816	0.827	0.891	0.817	0.852	5.2	*
*	Nitrobenzene-d5	0.472	0.436	0.443	0.475	0.441	0.453	4.1	*
*	2-Fluorobiphenyl	1.558	1.346	1.389	1.428	1.347	1.414	6.2	*
	2,4,6-Tribromophenol	0.203	0.192	0.204	0.223	0.206	0.206	5.4	
*	Terphenyl-d14	0.799	0.694	0.729	0.814	0.770	0.761	6.5	*

(1) Cannot be separated from Diphenylamine

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

7B
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GPL LABORATORIES Contract: N/A

Lab Code: GPL Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: HP#D Calibration Date: 08/13/07 Time: 17:06

Lab File ID: D43498.D Init. Calib. Date(s): 07/11/07 07/11/07

Init. Calib. Times: 10:32 13:40

COMPOUND	RRF	RRFCC	MIN RRF	% D	MAX % D
Benzaldehyde	0.711	1.152		-62.1	
bis(2-Chloroethyl)ether	1.504	1.529	0.700	-1.7	25.0
Phenol	1.892	1.833	0.800	3.1	25.0
2-Chlorophenol	1.394	1.380	0.800	1.0	25.0
2,2-oxybis(1-chloropropane)	4.018	4.027		-0.2	
2-Methylphenol	1.199	1.284	0.700	-7.1	25.0
Acetophenone	1.547	1.668		-7.8	
Hexachloroethane	0.668	0.642	0.300	4.0	25.0
N-Nitroso-di-n-propylamine	1.010	1.162	0.500	-15.0	25.0
4-Methylphenol	1.179	1.273	0.600	-8.0	25.0
Nitrobenzene	0.465	0.464	0.200	0.1	25.0
Isophorone	0.818	0.837	0.400	-2.4	25.0
2-Nitrophenol	0.216	0.207	0.100	4.2	25.0
2,4-Dimethylphenol	0.357	0.366	0.200	-2.6	25.0
bis(2-Chloroethoxy)methane	0.494	0.471	0.200	4.7	25.0
2,4-Dichlorophenol	0.276	0.285	0.200	-3.2	25.0
Naphthalene	0.964	0.934	0.700	3.2	25.0
4-Chloroaniline	0.363	0.405		-11.5	
Hexachlorobutadiene	0.249	0.215		13.6	
Caprolactam	0.081	0.107		-32.0	
4-Chloro-3-methylphenol	0.237	0.296	0.200	-25.2	25.0
2-Methylnaphthalene	0.550	0.586	0.400	-6.6	25.0
Hexachlorocyclopentadiene	0.621	0.392		36.8	
2,4,6-Trichlorophenol	0.442	0.391	0.200	11.6	25.0
2,4,5-Trichlorophenol	0.461	0.457	0.200	1.0	25.0
1,1-Biphenyl	1.476	1.247		15.5	
2-Chloronaphthalene	1.223	1.039	0.800	15.0	25.0
2-Nitroaniline	0.392	0.448		-14.0	
Acenaphthylene	0.452	0.431	0.900	4.5	25.0
Dimethylphthalate	1.146	1.141		0.5	
2,6-Dinitrotoluene	0.287	0.304	0.200	-6.0	25.0
Acenaphthene	0.971	0.940	0.900	3.2	25.0
3-Nitroaniline	0.276	0.350		-27.0	
2,4-Dinitrophenol	0.176	0.253		-44.0	
Dibenzofuran	1.461	1.448	0.800	0.9	25.0
2,4-Dinitrotoluene	0.348	0.413	0.200	-18.6	25.0
4-Nitrophenol	0.117	0.166		-41.4	
Fluorene	1.001	1.085	0.900	-8.4	25.0
4-Chlorophenyl-phenylether	0.585	0.599	0.400	-2.3	25.0

All other compounds must meet a minimum RRF of 0.010.

7C
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GPL LABORATORIES Contract: N/A

Lab Code: GPL Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: HP#D Calibration Date: 08/13/07 Time: 17:06

Lab File ID: D43498.D Init. Calib. Date(s): 07/11/07 07/11/07

Init. Calib. Times: 10:32 13:40

COMPOUND	RRF	RRFCC	MIN RRF	% D	MAX % D
Diethylphthalate	1.126	1.129		-0.3	
4-Nitroaniline	0.216	0.359		-66.8	
4,6-Dinitro-2-methylphenol	0.158	0.174		-10.2	
n-Nitrosodiphenylamine	0.470	0.437		6.9	
4-Bromophenyl-phenylether	0.243	0.199	0.100	17.9	25.0
Hexachlorobenzene	0.372	0.308	0.100	17.1	25.0
Atrazine	0.191	0.173		9.0	
Pentachlorophenol	0.224	0.234	0.050	-4.7	25.0
Phenanthrene	0.896	0.846	0.700	5.5	25.0
Anthracene	0.933	0.910	0.700	2.5	25.0
Carbazole	0.741	0.887		-19.7	
Di-n-butylphthalate	1.166	1.099		5.8	
Fluoranthene	1.080	1.076	0.600	0.3	25.0
Pyrene	0.946	0.958	0.600	-1.3	25.0
Butylbenzylphthalate	0.485	0.495		-2.1	
3,3-Dichlorobenzidine	0.334	0.334		0.1	
Benzo[a]anthracene	0.976	0.935	0.800	4.2	25.0
Chrysene	0.941	0.893	0.700	5.1	25.0
bis(2-Ethylhexyl)phthalate	0.677	0.625		7.6	
Di-n-octylphthalate	1.037	1.518		-46.4	
Benzo[b]fluoranthene	1.079	1.154	0.700	-6.9	25.0
Benzo[k]fluoranthene	0.995	1.114	0.700	-12.0	25.0
Benzo[a]pyrene	0.995	0.984	0.700	1.0	25.0
Indeno[1,2,3-cd]pyrene	1.082	0.872	0.500	19.5	25.0
Dibenz[a,h]anthracene	0.909		0.400		25.0
Benzo[g,h,i]perylene	0.926		0.500		25.0
2-Fluorophenol	1.795	1.533	0.600	14.6	25.0
Phenol-d5	1.819	1.771	0.800	2.6	25.0
2-Chlorophenol-d4	1.371	1.349	0.800	1.6	25.0
1,2-Dichlorobenzene-d4	0.852	0.813	0.400	4.6	25.0
Nitrobenzene-d5	0.453	0.442	0.200	2.6	25.0
2-Fluorobiphenyl	1.414	1.173	0.700	17.0	25.0
2,4,6-Tribromophenol	0.206	0.182		11.6	
Terphenyl-d14	0.761	0.760	0.500	0.2	25.0

(1) Cannot be separated from Diphenylamine

All other compounds must meet a minimum RRF of 0.010.

7B
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GPL LABORATORIES Contract: N/A

Lab Code: GPL Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: HP#D Calibration Date: 08/14/07 Time: 06:43

Lab File ID: D43513.D Init. Calib. Date(s): 07/11/07 07/11/07

Init. Calib. Times: 10:32 13:40

COMPOUND	RRF	RRFCC	MIN RRF	% D	MAX % D
Benzaldehyde	0.711	1.044		-46.8	
bis(2-Chloroethyl)ether	1.504	1.453	0.700	3.3	25.0
Phenol	1.892	1.764	0.800	6.8	25.0
2-Chlorophenol	1.394	1.348	0.800	3.3	25.0
2,2-oxybis(1-chloropropane)	4.018	3.909		2.7	
2-Methylphenol	1.199	1.210	0.700	-1.0	25.0
Acetophenone	1.547	1.594		-3.1	
Hexachloroethane	0.668	0.619	0.300	7.4	25.0
N-Nitroso-di-n-propylamine	1.010	1.106	0.500	-9.5	25.0
4-Methylphenol	1.179	1.230	0.600	-4.4	25.0
Nitrobenzene	0.465	0.431	0.200	7.2	25.0
Isophorone	0.818	0.787	0.400	3.8	25.0
2-Nitrophenol	0.216	0.188	0.100	13.1	25.0
2,4-Dimethylphenol	0.357	0.347	0.200	2.8	25.0
bis(2-Chloroethoxy)methane	0.494	0.444	0.200	10.2	25.0
2,4-Dichlorophenol	0.276	0.264	0.200	4.4	25.0
Naphthalene	0.964	0.868	0.700	9.9	25.0
4-Chloroaniline	0.363	0.387		-6.4	
Hexachlorobutadiene	0.249	0.201		19.3	
Caprolactam	0.081	0.106		-29.9	
4-Chloro-3-methylphenol	0.237	0.288	0.200	-21.7	25.0
2-Methylnaphthalene	0.550	0.558	0.400	-1.5	25.0
Hexachlorocyclopentadiene	0.621	0.361		41.9	
2,4,6-Trichlorophenol	0.442	0.365	0.200	17.5	25.0
2,4,5-Trichlorophenol	0.461	0.430	0.200	6.9	25.0
1,1-Biphenyl	1.476	1.172		20.6	
2-Chloronaphthalene	1.223	0.976	0.800	20.1	25.0
2-Nitroaniline	0.392	0.427		-8.8	
Acenaphthylene	0.452	0.416	0.900	7.9	25.0
Dimethylphthalate	1.146	1.076		6.1	
2,6-Dinitrotoluene	0.287	0.288	0.200	-0.4	25.0
Acenaphthene	0.971	0.900	0.900	7.4	25.0
3-Nitroaniline	0.276	0.346		-25.5	
2,4-Dinitrophenol	0.176	0.235		-33.9	
Dibenzofuran	1.461	1.393	0.800	4.6	25.0
2,4-Dinitrotoluene	0.348	0.383	0.200	-9.9	25.0
4-Nitrophenol	0.117	0.160		-36.3	
Fluorene	1.001	1.018	0.900	-1.7	25.0
4-Chlorophenyl-phenylether	0.585	0.563	0.400	3.7	25.0

All other compounds must meet a minimum RRF of 0.010.

7C
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GPL LABORATORIES Contract: N/A

Lab Code: GPL Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: HP#D Calibration Date: 08/14/07 Time: 06:43

Lab File ID: D43513.D Init. Calib. Date(s): 07/11/07 07/11/07

Init. Calib. Times: 10:32 13:40

COMPOUND	RRF	RRFCC	MIN RRF	% D	MAX % D
Diethylphthalate	1.126	1.066		5.4	
4-Nitroaniline	0.216	0.354		-64.3	
4,6-Dinitro-2-methylphenol	0.158	0.159		-0.9	
n-Nitrosodiphenylamine	0.470	0.411		12.6	
4-Bromophenyl-phenylether	0.243	0.185	0.100	23.8	25.0
Hexachlorobenzene	0.372	0.289	0.100	22.4	25.0
Atrazine	0.191	0.163		14.4	
Pentachlorophenol	0.224	0.222	0.050	0.8	25.0
Phenanthrene	0.896	0.807	0.700	9.9	25.0
Anthracene	0.933	0.847	0.700	9.2	25.0
Carbazole	0.741	0.825		-11.3	
Di-n-butylphthalate	1.166	1.035		11.2	
Fluoranthene	1.080	1.006	0.600	6.9	25.0
Pyrene	0.946	0.896	0.600	5.3	25.0
Butylbenzylphthalate	0.485	0.458		5.7	
3,3-Dichlorobenzidine	0.334	0.301		9.9	
Benzo[a]anthracene	0.976	0.878	0.800	10.1	25.0
Chrysene	0.941	0.843	0.700	10.4	25.0
bis(2-Ethylhexyl)phthalate	0.677	0.593		12.4	
Di-n-octylphthalate	1.037	1.376		-32.6	
Benzo[b]fluoranthene	1.079	1.119	0.700	-3.7	25.0
Benzo[k]fluoranthene	0.995	1.015	0.700	-2.0	25.0
Benzo[a]pyrene	0.995	0.909	0.700	8.6	25.0
Indeno[1,2,3-cd]pyrene	1.082	0.860	0.500	20.6	25.0
Dibenz[a,h]anthracene	0.909	0.737	0.400	19.0	25.0
Benzo[g,h,i]perylene	0.926	0.718	0.500	22.5	25.0
2-Fluorophenol	1.795	1.479	0.600	17.6	25.0
Phenol-d5	1.819	1.716	0.800	5.6	25.0
2-Chlorophenol-d4	1.371	1.281	0.800	6.6	25.0
1,2-Dichlorobenzene-d4	0.852	0.783	0.400	8.1	25.0
Nitrobenzene-d5	0.453	0.417	0.200	8.0	25.0
2-Fluorobiphenyl	1.414	1.083	0.700	23.4	25.0
2,4,6-Tribromophenol	0.206	0.164		20.0	
Terphenyl-d14	0.761	0.712	0.500	6.5	25.0

(1) Cannot be separated from Diphenylamine

All other compounds must meet a minimum RRF of 0.010.

7B
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GPL LABORATORIES Contract: N/A

Lab Code: GPL Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: HP#D Calibration Date: 08/15/07 Time: 06:48

Lab File ID: D43529.D Init. Calib. Date(s): 07/11/07 07/11/07

Init. Calib. Times: 10:32 13:40

COMPOUND	RRF	RRFCC	MIN RRF	% D	MAX % D
Benzaldehyde	0.711	1.086		-52.7	
bis(2-Chloroethyl)ether	1.504	1.464	0.700	2.6	25.0
Phenol	1.892	1.763	0.800	6.8	25.0
2-Chlorophenol	1.394	1.322	0.800	5.2	25.0
2,2-oxybis(1-chloropropane)	4.018	3.958		1.5	
2-Methylphenol	1.199	1.198	0.700	0.1	25.0
Acetophenone	1.547	1.591		-2.8	
Hexachloroethane	0.668	0.610	0.300	8.7	25.0
N-Nitroso-di-n-propylamine	1.010	1.118	0.500	-10.6	25.0
4-Methylphenol	1.179	1.204	0.600	-2.2	25.0
Nitrobenzene	0.465	0.425	0.200	8.6	25.0
Isophorone	0.818	0.789	0.400	3.5	25.0
2-Nitrophenol	0.216	0.187	0.100	13.7	25.0
2,4-Dimethylphenol	0.357	0.344	0.200	3.7	25.0
bis(2-Chloroethoxy)methane	0.494	0.444	0.200	10.2	25.0
2,4-Dichlorophenol	0.276	0.262	0.200	4.9	25.0
Naphthalene	0.964	0.878	0.700	8.9	25.0
4-Chloroaniline	0.363	0.386		-6.2	
Hexachlorobutadiene	0.249	0.198		20.5	
Caprolactam	0.081	0.110		-35.6	
4-Chloro-3-methylphenol	0.237	0.293	0.200	-23.9	25.0
2-Methylnaphthalene	0.550	0.564	0.400	-2.5	25.0
Hexachlorocyclopentadiene	0.621	0.324		47.8	
2,4,6-Trichlorophenol	0.442	0.356	0.200	19.4	25.0
2,4,5-Trichlorophenol	0.461	0.423	0.200	8.3	25.0
1,1-Biphenyl	1.476	1.170		20.7	
2-Chloronaphthalene	1.223	0.952	0.800	22.2	25.0
2-Nitroaniline	0.392	0.437		-11.2	
Acenaphthylene	0.452	0.407	0.900	9.8	25.0
Dimethylphthalate	1.146	1.059		7.6	
2,6-Dinitrotoluene	0.287	0.283	0.200	1.3	25.0
Acenaphthene	0.971	0.884	0.900	9.0	25.0
3-Nitroaniline	0.276	0.350		-26.8	
2,4-Dinitrophenol	0.176	0.192		-9.1	
Dibenzofuran	1.461	1.369	0.800	6.3	25.0
2,4-Dinitrotoluene	0.348	0.386	0.200	-10.9	25.0
4-Nitrophenol	0.117	0.160		-36.9	
Fluorene	1.001	1.033	0.900	-3.2	25.0
4-Chlorophenyl-phenylether	0.585	0.557	0.400	4.7	25.0

All other compounds must meet a minimum RRF of 0.010.

7C
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GPL LABORATORIES Contract: N/A

Lab Code: GPL Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: HP#D Calibration Date: 08/15/07 Time: 06:48

Lab File ID: D43529.D Init. Calib. Date(s): 07/11/07 07/11/07

Init. Calib. Times: 10:32 13:40

COMPOUND	RRF	RRFCC	MIN RRF	% D	MAX % D
Diethylphthalate	1.126	1.051		6.7	
4-Nitroaniline	0.216	0.351		-62.6	
4,6-Dinitro-2-methylphenol	0.158	0.154		2.0	
n-Nitrosodiphenylamine	0.470	0.407		13.4	
4-Bromophenyl-phenylether	0.243	0.181	0.100	25.7	25.0
Hexachlorobenzene	0.372	0.281	0.100	24.5	25.0
Atrazine	0.191	0.157		17.4	
Pentachlorophenol	0.224	0.217	0.050	3.3	25.0
Phenanthrene	0.896	0.815	0.700	9.0	25.0
Anthracene	0.933	0.869	0.700	6.8	25.0
Carbazole	0.741	0.853		-15.1	
Di-n-butylphthalate	1.166	1.066		8.5	
Fluoranthene	1.080	0.996	0.600	7.8	25.0
Pyrene	0.946	0.904	0.600	4.5	25.0
Butylbenzylphthalate	0.485	0.479		1.2	
3,3-Dichlorobenzidine	0.334	0.319		4.7	
Benzo[a]anthracene	0.976	0.888	0.800	9.0	25.0
Chrysene	0.941	0.854	0.700	9.2	25.0
bis(2-Ethylhexyl)phthalate	0.677	0.619		8.6	
Di-n-octylphthalate	1.037	1.599		-54.1	
Benzo[b]fluoranthene	1.079	1.156	0.700	-7.2	25.0
Benzo[k]fluoranthene	0.995	1.015	0.700	-2.0	25.0
Benzo[a]pyrene	0.995	0.933	0.700	6.2	25.0
Indeno[1,2,3-cd]pyrene	1.082	0.831	0.500	23.2	25.0
Dibenz[a,h]anthracene	0.909		0.400		25.0
Benzo[g,h,i]perylene	0.926		0.500		25.0
2-Fluorophenol	1.795	1.522	0.600	15.2	25.0
Phenol-d5	1.819	1.719	0.800	5.5	25.0
2-Chlorophenol-d4	1.371	1.264	0.800	7.8	25.0
1,2-Dichlorobenzene-d4	0.852	0.771	0.400	9.5	25.0
Nitrobenzene-d5	0.453	0.410	0.200	9.7	25.0
2-Fluorobiphenyl	1.414	1.078	0.700	23.7	25.0
2,4,6-Tribromophenol	0.206	0.158		23.2	
Terphenyl-d14	0.761	0.709	0.500	6.8	25.0

(1) Cannot be separated from Diphenylamine

All other compounds must meet a minimum RRF of 0.010.

Response Factor Report GC/MS-D

Method : C:\HPCHEM\1\METHODS\SOM_CSCN.M (RTE Integrator)
Title : SW-846 Method 8270
Last Update : Fri Aug 10 13:40:55 2007
Response via : Initial Calibration

Calibration Files
25 =D43469.D 80 =D43468.D 10 =D43472.D
40 =D43473.D 60 =D43471.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	0.517	0.552	0.447	0.555	0.529	0.520	8.40
5)	I	Acenaphthene-d10	ISTD						
6)	T	2-Chlorobenzalmalonon	0.563	0.620	0.465	0.651	0.615	0.583	12.48
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\D\081307\D43499.D Vial: 3
Acq On : 13 Aug 2007 17:50 Operator: PY
Sample : SSTD025 Inst : GC/MS-D
Misc : SSTD025 CS&CN HP#D PY Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\SOM_CSCN.M (RTE Integrator)
Title : SW-846 Method 8270
Last Update : Fri Aug 10 13:40:55 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	77	0.00
2	I	Naphthalene-d8	1.000	1.000	0.0	86	0.00
3	S	Nitrobenzene-d5	0.000	0.000#	0.0	0#	-12.62#
4	T	2-Chloroacetophenone - CN	0.520	0.593	-14.0	99	0.00
5	I	Acenaphthene-d10	1.000	1.000	0.0	105	0.00
6	T	2-Chlorobenzalmalononitrile	0.583	0.694	-19.0	130	0.00
7	S	2-Fluorobiphenyl	0.000	0.000#	0.0	0#	-15.98#
8	I	Phenanthrene-d10	1.000	1.000	0.0	0#	-20.02#
9	I	Chrysene-d12	1.000	1.000	0.0	146	0.00
10	S	Terphenyl-d14	0.000	0.000#	0.0	0#	-22.13#
11	I	Perylene-d12	1.000	1.000	0.0	128	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data File : H:\GCMSDATA\D\081407\D43514.D Vial: 3
Acq On : 14 Aug 2007 7:27 Operator: PY
Sample : SSTD025 Inst : GC/MS-D
Misc : SSTD025 CS&CN HP#D PY Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\SOM_CSCN.M (RTE Integrator)
Title : SW-846 Method 8270
Last Update : Fri Aug 10 13:40:55 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	64	0.00
2	I	Naphthalene-d8	1.000	1.000	0.0	74	0.00
3	S	Nitrobenzene-d5	0.000	0.000#	0.0	0#	-12.62#
4	T	2-Chloroacetophenone - CN	0.520	0.580	-11.5	83	0.00
5	I	Acenaphthene-d10	1.000	1.000	0.0	93	0.00
6	T	2-Chlorobenzalmalononitrile	0.583	0.715	-22.6	118	0.00
7	S	2-Fluorobiphenyl	0.000	0.000#	0.0	0#	-15.98#
8	I	Phenanthrene-d10	1.000	1.000	0.0	0#	-20.02#
9	I	Chrysene-d12	1.000	1.000	0.0	140	0.00
10	S	Terphenyl-d14	0.000	0.000#	0.0	0#	-22.13#
11	I	Perylene-d12	1.000	1.000	0.0	107	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

6B

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: GPL LABORATORIES Contract: N/A

Lab Code: GPL Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: HP#H Calibration Date(s): 08/02/07 08/02/07

Calibration Times: 07:07 10:29

LAB FILE ID: RRF10 = H38047.D RRF25 = H38045.D

RRF40 = H38049.D RRF60 = H38048.D RRF80 = H38046.D

	COMPOUND	RRF10	RRF25	RRF40	RRF60	RRF80	RRF	% RSD	
	Benzaldehyde	0.365	0.626	0.685	0.447	0.181	0.461	44.2	
*	bis(2-Chloroethyl)ether	1.122	1.032	1.117	1.181	0.927	1.076	9.2	*
*	Phenol	1.332	1.239	1.367	1.489	1.341	1.354	6.6	*
*	2-Chlorophenol	1.299	1.245	1.336	1.477	1.345	1.340	6.4	*
	2,2-oxybis(1-chloropropane)	1.423	1.281	1.430	1.559	1.409	1.420	6.9	
*	2-Methylphenol	1.081	0.992	1.041	1.188	0.905	1.041	10.1	*
	Acetophenone	1.515	1.427	1.622	1.791	1.591	1.589	8.5	
*	Hexachloroethane	0.770	0.728	0.780	0.857	0.797	0.786	5.9	*
*	N-Nitroso-di-n-propylamine	0.812	0.774	0.864	0.979	0.863	0.858	9.0	*
*	4-Methylphenol	1.090	0.996	1.077	1.185	0.970	1.063	8.0	*
*	Nitrobenzene	0.409	0.373	0.403	0.441	0.412	0.408	5.9	*
*	Isophorone	0.704	0.651	0.661	0.733	0.683	0.686	4.8	*
*	2-Nitrophenol	0.224	0.212	0.225	0.259	0.250	0.234	8.3	*
*	2,4-Dimethylphenol	0.382	0.370	0.394	0.447	0.423	0.403	7.7	*
*	bis(2-Chloroethoxy)methane	0.362	0.336	0.360	0.409	0.378	0.369	7.3	*
*	2,4-Dichlorophenol	0.318	0.301	0.314	0.361	0.339	0.327	7.2	*
*	Naphthalene	0.937	0.876	0.924	1.067	1.035	0.968	8.2	*
	4-Chloroaniline	0.378	0.308	0.342	0.387	0.329	0.349	9.4	
	Hexachlorobutadiene	0.361	0.344	0.366	0.417	0.418	0.381	9.0	
	Caprolactam	0.092	0.088	0.091	0.095	0.077	0.088	7.8	
*	4-Chloro-3-methylphenol	0.307	0.290	0.305	0.347	0.313	0.312	6.7	*
*	2-Methylnaphthalene	0.630	0.599	0.628	0.727	0.701	0.657	8.2	*
	Hexachlorocyclopentadiene	0.469	0.545	0.649	0.782	0.848	0.659	24.0	
*	2,4,6-Trichlorophenol	0.428	0.403	0.453	0.560	0.553	0.479	15.1	*
*	2,4,5-Trichlorophenol	0.473	0.465	0.493	0.528	0.512	0.494	5.3	*
	1,1-Biphenyl	1.341	1.237	1.355	1.545	1.548	1.405	9.7	
*	2-Chloronaphthalene	1.143	1.042	1.142	1.278	1.294	1.180	8.9	*
	2-Nitroaniline	0.401	0.360	0.396	0.431	0.354	0.389	8.1	
*	Acenaphthylene	1.651	1.490	1.600	1.793	1.741	1.655	7.2	*
	Dimethylphthalate	1.370	1.242	1.331	1.445	1.195	1.317	7.6	
*	2,6-Dinitrotoluene	0.334	0.313	0.342	0.374	0.314	0.335	7.5	*
*	Acenaphthene	0.977	0.918	1.016	1.143	1.108	1.032	9.0	*
	3-Nitroaniline	0.247	0.168	0.211	0.220	0.172	0.203	16.5	
	2,4-Dinitrophenol	0.153	0.209	0.253	0.302	0.244	0.232	23.9	
*	Dibenzofuran	1.583	1.455	1.622	1.824	1.755	1.648	8.8	*
*	2,4-Dinitrotoluene	0.451	0.416	0.465	0.507	0.454	0.459	7.1	*
	4-Nitrophenol	0.249	0.235	0.264	0.296	0.234	0.255	10.1	
*	Fluorene	1.110	1.061	1.169	1.321	1.243	1.181	8.8	*
*	4-Chlorophenyl-phenylether	0.674	0.638	0.705	0.816	0.776	0.722	10.1	*

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

6C
SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: GPL LABORATORIES Contract: N/A

Lab Code: GPL Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: HP#H Calibration Date(s): 08/02/07 08/02/07

Calibration Times: 07:07 10:29

LAB FILE ID: RRF10 = H38047.D RRF25 = H38045.D
RRF40 = H38049.D RRF60 = H38048.D RRF80 = H38046.D

COMPOUND		RRF10	RRF25	RRF40	RRF60	RRF80	RRF	% RSD	
Diethylphthalate		1.440	1.295	1.410	1.546	1.235	1.385	8.9	
4-Nitroaniline		0.272	0.202	0.231	0.221	0.155	0.216	19.8	
4,6-Dinitro-2-methylphenol		0.137	0.156	0.172	0.211	0.183	0.172	16.2	
n-Nitrosodiphenylamine		0.414	0.385	0.402	0.474	0.447	0.424	8.5	
4-Bromophenyl-phenylether	*	0.252	0.239	0.255	0.297	0.292	0.267	9.6	*
Hexachlorobenzene	*	0.481	0.462	0.486	0.559	0.541	0.506	8.3	*
Atrazine		0.217	0.193	0.192	0.220	0.213	0.207	6.6	
Pentachlorophenol	*	0.192	0.236	0.275	0.342	0.316	0.272	22.2	*
Phenanthrene	*	0.880	0.843	0.936	1.129	1.076	0.973	12.8	*
Anthracene	*	0.902	0.853	0.915	1.061	0.968	0.940	8.4	*
Carbazole		0.786	0.533	0.464	0.575	0.463	0.564	23.5	
Di-n-butylphthalate		1.205	1.094	1.175	1.376	1.230	1.216	8.5	
Fluoranthene	*	1.064	0.999	1.105	1.303	1.132	1.121	10.2	*
Pyrene	*	1.056	1.122	1.192	1.293	1.346	1.201	9.9	*
Butylbenzylphthalate		0.574	0.549	0.579	0.638	0.628	0.594	6.4	
3,3-Dichlorobenzidine		0.313	0.172	0.213	0.233	0.153	0.217	28.8	
Benzo[a]anthracene	*	0.929	0.897	1.000	1.141	1.100	1.013	10.4	*
Chrysene	*	0.840	0.860	0.941	1.104	1.067	0.963	12.4	*
bis(2-Ethylhexyl)phthalate		0.694	0.644	0.701	0.769	0.753	0.712	7.0	
Di-n-octylphthalate		1.172	1.180	1.361	1.458	1.462	1.326	10.8	
Benzo[b]fluoranthene	*	1.090	1.045	1.286	1.351	1.326	1.219	11.6	*
Benzo[k]fluoranthene	*	1.089	1.122	1.200	1.483	1.404	1.260	13.9	*
Benzo[a]pyrene	*	1.003	0.973	1.065	1.237	1.162	1.088	10.1	*
Indeno[1,2,3-cd]pyrene	*	1.032	1.038	1.102	1.387	1.212	1.154	12.9	*
2-Fluorophenol	*	1.202	1.120	1.253	1.329	1.208	1.222	6.3	*
Phenol-d5	*	1.365	1.256	1.388	1.491	1.329	1.366	6.3	*
2-Chlorophenol-d4	*	1.322	1.260	1.362	1.478	1.346	1.354	5.9	*
1,2-Dichlorobenzene-d4	*	0.893	0.818	0.893	1.016	0.945	0.913	8.0	*
Nitrobenzene-d5	*	0.414	0.377	0.402	0.438	0.413	0.409	5.5	*
2-Fluorobiphenyl	*	1.258	1.168	1.299	1.476	1.496	1.339	10.6	*
2,4,6-Tribromophenol		0.307	0.301	0.310	0.360	0.358	0.327	9.0	
Terphenyl-d14	*	0.910	0.968	1.027	1.134	1.184	1.045	10.9	*

(1) Cannot be separated from Diphenylamine

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GPL LABORATORIES Contract: N/A

Lab Code: GPL Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: HP#H Calibration Date: 08/02/07 Time: 12:47

Lab File ID: H38051.D Init. Calib. Date(s): 08/02/07 08/02/07

Init. Calib. Times: 07:07 10:29

COMPOUND	RRF	RRFCC	MIN RRF	% D	MAX % D
Benzaldehyde	0.461	0.711		-54.3	
bis(2-Chloroethyl)ether	1.076	1.024	0.700	4.8	25.0
Phenol	1.354	1.265	0.800	6.6	25.0
2-Chlorophenol	1.340	1.259	0.800	6.1	25.0
2,2-oxybis(1-chloropropane)	1.420	1.309		7.9	
2-Methylphenol	1.041	0.986	0.700	5.4	25.0
Acetophenone	1.589	1.438		9.5	
Hexachloroethane	0.786	0.732	0.300	6.9	25.0
N-Nitroso-di-n-propylamine	0.858	0.791	0.500	7.9	25.0
4-Methylphenol	1.063	1.004	0.600	5.6	25.0
Nitrobenzene	0.408	0.382	0.200	6.4	25.0
Isophorone	0.686	0.633	0.400	7.8	25.0
2-Nitrophenol	0.234	0.209	0.100	10.7	25.0
2,4-Dimethylphenol	0.403	0.365	0.200	9.4	25.0
bis(2-Chloroethoxy)methane	0.369	0.339	0.200	8.1	25.0
2,4-Dichlorophenol	0.327	0.294	0.200	10.0	25.0
Naphthalene	0.968	0.863	0.700	10.8	25.0
4-Chloroaniline	0.349	0.325		7.0	
Hexachlorobutadiene	0.381	0.341		10.7	
Caprolactam	0.088	0.085		4.0	
4-Chloro-3-methylphenol	0.312	0.279	0.200	10.7	25.0
2-Methylnaphthalene	0.657	0.579	0.400	11.9	25.0
Hexachlorocyclopentadiene	0.659	0.538		18.3	
2,4,6-Trichlorophenol	0.479	0.417	0.200	13.1	25.0
2,4,5-Trichlorophenol	0.494	0.476	0.200	3.8	25.0
1,1-Biphenyl	1.405	1.265		9.9	
2-Chloronaphthalene	1.180	1.070	0.800	9.3	25.0
2-Nitroaniline	0.389	0.363		6.5	
Acenaphthylene	1.655	1.524	0.900	7.9	25.0
Dimethylphthalate	1.317	1.255		4.7	
2,6-Dinitrotoluene	0.335	0.316	0.200	5.7	25.0
Acenaphthene	1.032	0.932	0.900	9.7	25.0
3-Nitroaniline	0.203	0.218		-7.1	
2,4-Dinitrophenol	0.232	0.194		16.6	
Dibenzofuran	1.648	1.460	0.800	11.4	25.0
2,4-Dinitrotoluene	0.459	0.415	0.200	9.6	25.0
4-Nitrophenol	0.255	0.235		8.1	
Fluorene	1.181	1.059	0.900	10.3	25.0
4-Chlorophenyl-phenylether	0.722	0.627	0.400	13.1	25.0

All other compounds must meet a minimum RRF of 0.010.

7C
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GPL LABORATORIES Contract: N/A

Lab Code: GPL Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: HP#H Calibration Date: 08/02/07 Time: 12:47

Lab File ID: H38051.D Init. Calib. Date(s): 08/02/07 08/02/07

Init. Calib. Times: 07:07 10:29

COMPOUND	RRF	RRFCC	MIN RRF	% D	MAX % D
Diethylphthalate	1.385	1.285		7.3	
4-Nitroaniline	0.216	0.232		-7.4	
4,6-Dinitro-2-methylphenol	0.172	0.151		12.3	
n-Nitrosodiphenylamine	0.424	0.397		6.5	
4-Bromophenyl-phenylether	0.267	0.247	0.100	7.4	25.0
Hexachlorobenzene	0.506	0.473	0.100	6.4	25.0
Atrazine	0.207	0.199		3.8	
Pentachlorophenol	0.272	0.238	0.050	12.5	25.0
Phenanthrene	0.973	0.859	0.700	11.7	25.0
Anthracene	0.940	0.860	0.700	8.5	25.0
Carbazole	0.564	0.513		9.1	
Di-n-butylphthalate	1.216	1.117		8.1	
Fluoranthene	1.121	1.004	0.600	10.4	25.0
Pyrene	1.201	1.117	0.600	7.0	25.0
Butylbenzylphthalate	0.594	0.564		5.0	
3,3-Dichlorobenzidine	0.217	0.235		-8.3	
Benzo[a]anthracene	1.013	0.936	0.800	7.7	25.0
Chrysene	0.963	0.849	0.700	11.8	25.0
bis(2-Ethylhexyl)phthalate	0.712	0.671		5.8	
Di-n-octylphthalate	1.326	1.198		9.7	
Benzo[b]fluoranthene	1.219	1.150	0.700	5.7	25.0
Benzo[k]fluoranthene	1.260	1.018	0.700	19.2	25.0
Benzo[a]pyrene	1.088	0.975	0.700	10.4	25.0
Indeno[1,2,3-cd]pyrene	1.154	0.918	0.500	20.5	25.0
2-Fluorophenol	1.222	1.224	0.600	-0.1	25.0
Phenol-d5	1.366	1.290	0.800	5.5	25.0
2-Chlorophenol-d4	1.354	1.284	0.800	5.2	25.0
1,2-Dichlorobenzene-d4	0.913	0.848	0.400	7.1	25.0
Nitrobenzene-d5	0.409	0.382	0.200	6.6	25.0
2-Fluorobiphenyl	1.339	1.248	0.700	6.9	25.0
2,4,6-Tribromophenol	0.327	0.299		8.5	
Terphenyl-d14	1.045	0.955	0.500	8.6	25.0

(1) Cannot be separated from Diphenylamine

All other compounds must meet a minimum RRF of 0.010.

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 Vial: 3
Acq On : 2 Aug 2007 13:30 Operator: PY
Sample : SSTD025 CS&CN Inst : GC/MS- H
Misc : SSTD025 CS&CN HP#H PY Multiplr: 1.00
MS Integration Params: rteint.p

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

ORGANOPHOSPHORUS PESTICIDES

GPL Laboratories

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
25-IS05-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707187-001-013-1/1
Sample Volume :	30	Lab File ID :	V023317.D
% Moisture:	20.3	Date Received	07/28/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	08/02/2007
Extract Volume:	5 mL	Date Analyzed	08/14/2007
Injection Volume :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
72-54-8	4,4-DDD	3.4	JP
72-55-9	4,4-DDE	4.7	
50-29-3	4,4-DDT	10	P
309-00-2	Aldrin	2.1	U
319-84-6	Alpha-BHC	2.1	U
5103-71-9	Alpha-Chlordane	2.1	U
319-85-7	Beta-BHC	2.1	U
319-86-8	Delta-BHC	2.1	U
60-57-1	Dieldrin	2.5	JP
959-98-8	Endosulfan I	2.1	U
33213-65-9	Endosulfan II	4.2	U
1031-07-8	Endosulfan Sulfate	4.2	U
72-20-8	Endrin	4.2	U
7421-93-4	Endrin Aldehyde	4.2	U
53494-70-5	Endrin Ketone	4.2	U
58-89-9	Gamma-BHC (Lindane)	2.1	U
5103-74-2	Gamma-Chlordane	2.1	U
76-44-8	Heptachlor	2.1	U
1024-57-3	Heptachlor Epoxide	2.1	U
72-43-5	Methoxychlor	21	U
12674-11-2	PCB-1016	42	U
11104-28-2	PCB-1221	84	U
11141-16-5	PCB-1232	42	U
53469-21-9	PCB-1242	42	U
12672-29-6	PCB-1248	42	U
11097-69-1	PCB-1254	42	U
11096-82-5	PCB-1260	120	
8001-35-2	Toxaphene	210	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
25-IS05-9-11-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707187-002-014-1/1
Sample Volume :	30	Lab File ID :	V023304.D
% Moisture:	29	Date Received	07/28/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	08/02/2007
Extract Volume:	5 mL	Date Analyzed	08/14/2007
Injection Volume :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
72-54-8	4,4-DDD	4.7	U
72-55-9	4,4-DDE	4.7	U
50-29-3	4,4-DDT	4.7	U
309-00-2	Aldrin	2.4	U
319-84-6	Alpha-BHC	2.4	U
5103-71-9	Alpha-Chlordane	2.4	U
319-85-7	Beta-BHC	2.4	U
319-86-8	Delta-BHC	2.4	U
60-57-1	Dieldrin	4.7	U
959-98-8	Endosulfan I	2.4	U
33213-65-9	Endosulfan II	4.7	U
1031-07-8	Endosulfan Sulfate	4.7	U
72-20-8	Endrin	4.7	U
7421-93-4	Endrin Aldehyde	4.7	U
53494-70-5	Endrin Ketone	4.7	U
58-89-9	Gamma-BHC (Lindane)	2.4	U
5103-74-2	Gamma-Chlordane	2.4	U
76-44-8	Heptachlor	2.4	U
1024-57-3	Heptachlor Epoxide	2.4	U
72-43-5	Methoxychlor	24	U
12674-11-2	PCB-1016	47	U
11104-28-2	PCB-1221	94	U
11141-16-5	PCB-1232	47	U
53469-21-9	PCB-1242	47	U
12672-29-6	PCB-1248	47	U
11097-69-1	PCB-1254	47	U
11096-82-5	PCB-1260	47	U
8001-35-2	Toxaphene	240	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
25-IS06-0-1-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707187-003-015-1/1
Sample Volume :	30.02	Lab File ID :	V023313.D
% Moisture:	15.08	Date Received	07/28/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	08/02/2007
Extract Volume:	5 mL	Date Analyzed	08/14/2007
Injection Volume :	µ L	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
72-54-8	4,4-DDD	3.9	U
72-55-9	4,4-DDE	3.9	U
50-29-3	4,4-DDT	3.9	U
309-00-2	Aldrin	2.0	U
319-84-6	Alpha-BHC	2.0	U
5103-71-9	Alpha-Chlordane	2.0	U
319-85-7	Beta-BHC	2.0	U
319-86-8	Delta-BHC	2.0	U
60-57-1	Dieldrin	3.9	U
959-98-8	Endosulfan I	2.0	U
33213-65-9	Endosulfan II	3.9	U
1031-07-8	Endosulfan Sulfate	3.9	U
72-20-8	Endrin	3.9	U
7421-93-4	Endrin Aldehyde	3.9	U
53494-70-5	Endrin Ketone	3.9	U
58-89-9	Gamma-BHC (Lindane)	2.0	U
5103-74-2	Gamma-Chlordane	2.0	U
76-44-8	Heptachlor	2.0	U
1024-57-3	Heptachlor Epoxide	2.0	U
72-43-5	Methoxychlor	20	U
12674-11-2	PCB-1016	39	U
11104-28-2	PCB-1221	79	U
11141-16-5	PCB-1232	39	U
53469-21-9	PCB-1242	39	U
12672-29-6	PCB-1248	39	U
11097-69-1	PCB-1254	39	U
11096-82-5	PCB-1260	39	U
8001-35-2	Toxaphene	200	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
25-IS06-8-10-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707187-004-016-1/1
Sample Volume :	30.02	Lab File ID :	V023314.D
% Moisture:	12.91	Date Received	07/28/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	08/02/2007
Extract Volume:	5 mL	Date Analyzed	08/14/2007
Injection Volume :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
72-54-8	4,4-DDD	3.8	U
72-55-9	4,4-DDE	3.8	U
50-29-3	4,4-DDT	3.8	U
309-00-2	Aldrin	1.9	U
319-84-6	Alpha-BHC	1.9	U
5103-71-9	Alpha-Chlordane	1.9	U
319-85-7	Beta-BHC	1.9	U
319-86-8	Delta-BHC	1.9	U
60-57-1	Dieldrin	3.8	U
959-98-8	Endosulfan I	1.9	U
33213-65-9	Endosulfan II	3.8	U
1031-07-8	Endosulfan Sulfate	3.8	U
72-20-8	Endrin	3.8	U
7421-93-4	Endrin Aldehyde	3.8	U
53494-70-5	Endrin Ketone	3.8	U
58-89-9	Gamma-BHC (Lindane)	1.9	U
5103-74-2	Gamma-Chlordane	1.9	U
76-44-8	Heptachlor	1.9	U
1024-57-3	Heptachlor Epoxide	1.9	U
72-43-5	Methoxychlor	19	U
12674-11-2	PCB-1016	38	U
11104-28-2	PCB-1221	77	U
11141-16-5	PCB-1232	38	U
53469-21-9	PCB-1242	38	U
12672-29-6	PCB-1248	38	U
11097-69-1	PCB-1254	38	U
11096-82-5	PCB-1260	38	U
8001-35-2	Toxaphene	190	U

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
25-TW01-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707187-005-040-1/2
Sample Volume :	950	Lab File ID :	V023297.D
% Moisture:		Date Received	07/28/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	10 mL	Date Analyzed	08/14/2007
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
72-54-8	4,4-DDD	0.11	U
72-55-9	4,4-DDE	0.11	U
50-29-3	4,4-DDT	0.11	U
309-00-2	Aldrin	0.050	U
319-84-6	Alpha-BHC	0.050	U
5103-71-9	Alpha-Chlordane	0.050	U
319-85-7	Beta-BHC	0.050	U
319-86-8	Delta-BHC	0.050	U
60-57-1	Dieldrin	0.11	U
959-98-8	Endosulfan I	0.050	U
33213-65-9	Endosulfan II	0.11	U
1031-07-8	Endosulfan Sulfate	0.11	U
72-20-8	Endrin	0.11	U
7421-93-4	Endrin Aldehyde	0.11	U
53494-70-5	Endrin Ketone	0.11	U
58-89-9	Gamma-BHC (Lindane)	0.050	U
5103-74-2	Gamma-Chlordane	0.050	U
76-44-8	Heptachlor	0.050	U
1024-57-3	Heptachlor Epoxide	0.050	U
72-43-5	Methoxychlor	0.53	U
12674-11-2	PCB-1016	1.1	U
11104-28-2	PCB-1221	2.1	U
11141-16-5	PCB-1232	1.1	U
53469-21-9	PCB-1242	1.1	U
12672-29-6	PCB-1248	1.1	U
11097-69-1	PCB-1254	1.1	U
11096-82-5	PCB-1260	1.1	U
8001-35-2	Toxaphene	5.3	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
25-TW02-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707187-007-042-1/2
Sample Volume :	970	Lab File ID :	V023298.D
% Moisture:		Date Received	07/28/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	10 mL	Date Analyzed	08/14/2007
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
72-54-8	4,4-DDD	0.10	U
72-55-9	4,4-DDE	0.10	U
50-29-3	4,4-DDT	0.10	U
309-00-2	Aldrin	0.050	U
319-84-6	Alpha-BHC	0.050	U
5103-71-9	Alpha-Chlordane	0.050	U
319-85-7	Beta-BHC	0.050	U
319-86-8	Delta-BHC	0.050	U
60-57-1	Dieldrin	0.10	U
959-98-8	Endosulfan I	0.050	U
33213-65-9	Endosulfan II	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
72-20-8	Endrin	0.10	U
7421-93-4	Endrin Aldehyde	0.10	U
53494-70-5	Endrin Ketone	0.10	U
58-89-9	Gamma-BHC (Lindane)	0.050	U
5103-74-2	Gamma-Chlordane	0.050	U
76-44-8	Heptachlor	0.050	U
1024-57-3	Heptachlor Epoxide	0.050	U
72-43-5	Methoxychlor	0.52	U
12674-11-2	PCB-1016	1.0	U
11104-28-2	PCB-1221	2.1	U
11141-16-5	PCB-1232	1.0	U
53469-21-9	PCB-1242	1.0	U
12672-29-6	PCB-1248	1.0	U
11097-69-1	PCB-1254	1.0	U
11096-82-5	PCB-1260	1.0	U
8001-35-2	Toxaphene	5.2	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
25-TW03-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707187-009-044-1/2
Sample Volume :	950	Lab File ID :	V023299.D
% Moisture:		Date Received	07/28/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	10 mL	Date Analyzed	08/14/2007
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
72-54-8	4,4-DDD	0.11	U
72-55-9	4,4-DDE	0.11	U
50-29-3	4,4-DDT	0.11	U
309-00-2	Aldrin	0.050	U
319-84-6	Alpha-BHC	0.050	U
5103-71-9	Alpha-Chlordane	0.050	U
319-85-7	Beta-BHC	0.050	U
319-86-8	Delta-BHC	0.050	U
60-57-1	Dieldrin	0.11	U
959-98-8	Endosulfan I	0.050	U
33213-65-9	Endosulfan II	0.11	U
1031-07-8	Endosulfan Sulfate	0.11	U
72-20-8	Endrin	0.11	U
7421-93-4	Endrin Aldehyde	0.11	U
53494-70-5	Endrin Ketone	0.11	U
58-89-9	Gamma-BHC (Lindane)	0.050	U
5103-74-2	Gamma-Chlordane	0.050	U
76-44-8	Heptachlor	0.050	U
1024-57-3	Heptachlor Epoxide	0.050	U
72-43-5	Methoxychlor	0.53	U
12674-11-2	PCB-1016	1.1	U
11104-28-2	PCB-1221	2.1	U
11141-16-5	PCB-1232	1.1	U
53469-21-9	PCB-1242	1.1	U
12672-29-6	PCB-1248	1.1	U
11097-69-1	PCB-1254	1.1	U
11096-82-5	PCB-1260	1.1	U
8001-35-2	Toxaphene	5.3	U

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
BLK99528

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BLK99528
Sample Volume :	1000	Lab File ID :	V023292.D
% Moisture:		Date Received	
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	10 mL	Date Analyzed	08/14/2007
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
72-54-8	4,4-DDD	0.10	U
72-55-9	4,4-DDE	0.10	U
50-29-3	4,4-DDT	0.10	U
309-00-2	Aldrin	0.050	U
319-84-6	Alpha-BHC	0.050	U
5103-71-9	Alpha-Chlordane	0.050	U
319-85-7	Beta-BHC	0.050	U
319-86-8	Delta-BHC	0.050	U
60-57-1	Dieldrin	0.10	U
959-98-8	Endosulfan I	0.050	U
33213-65-9	Endosulfan II	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
72-20-8	Endrin	0.10	U
7421-93-4	Endrin Aldehyde	0.10	U
53494-70-5	Endrin Ketone	0.10	U
58-89-9	Gamma-BHC (Lindane)	0.050	U
5103-74-2	Gamma-Chlordane	0.050	U
76-44-8	Heptachlor	0.050	U
1024-57-3	Heptachlor Epoxide	0.050	U
72-43-5	Methoxychlor	0.50	U
12674-11-2	PCB-1016	1.0	U
11104-28-2	PCB-1221	2.0	U
11141-16-5	PCB-1232	1.0	U
53469-21-9	PCB-1242	1.0	U
12672-29-6	PCB-1248	1.0	U
11097-69-1	PCB-1254	1.0	U
11096-82-5	PCB-1260	1.0	U
8001-35-2	Toxaphene	5.0	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BLK99531

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BLK99531
Sample Volume :	30	Lab File ID :	V023302.D
% Moisture:		Date Received	
Extraction:	CLP_EXTRACTION	Date Extracted:	08/02/2007
Extract Volume:	5 mL	Date Analyzed	08/14/2007
Injection Volume :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
72-54-8	4,4-DDD	3.3	U
72-55-9	4,4-DDE	3.3	U
50-29-3	4,4-DDT	3.3	U
309-00-2	Aldrin	1.7	U
319-84-6	Alpha-BHC	1.7	U
5103-71-9	Alpha-Chlordane	1.7	U
319-85-7	Beta-BHC	1.7	U
319-86-8	Delta-BHC	1.7	U
60-57-1	Dieldrin	3.3	U
959-98-8	Endosulfan I	1.7	U
33213-65-9	Endosulfan II	3.3	U
1031-07-8	Endosulfan Sulfate	3.3	U
72-20-8	Endrin	3.3	U
7421-93-4	Endrin Aldehyde	3.3	U
53494-70-5	Endrin Ketone	3.3	U
58-89-9	Gamma-BHC (Lindane)	1.7	U
5103-74-2	Gamma-Chlordane	1.7	U
76-44-8	Heptachlor	1.7	U
1024-57-3	Heptachlor Epoxide	1.7	U
72-43-5	Methoxychlor	17	U
12674-11-2	PCB-1016	33	U
11104-28-2	PCB-1221	67	U
11141-16-5	PCB-1232	33	U
53469-21-9	PCB-1242	33	U
12672-29-6	PCB-1248	33	U
11097-69-1	PCB-1254	33	U
11096-82-5	PCB-1260	33	U
8001-35-2	Toxaphene	170	U

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
25-IS06-0-1-07CMS

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707187-003-015-1/1MS
Sample Volume :	30.01	Lab File ID :	V023315.D
% Moisture:	15.08	Date Received	07/28/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	08/02/2007
Extract Volume:	5 mL	Date Analyzed	08/14/2007
Injection Volume :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
72-54-8	4,4-DDD	0.71	J
72-55-9	4,4-DDE	3.0	J
50-29-3	4,4-DDT	28	
309-00-2	Aldrin	21	
319-84-6	Alpha-BHC	2.0	U
5103-71-9	Alpha-Chlordane	2.0	U
319-85-7	Beta-BHC	2.0	U
319-86-8	Delta-BHC	2.0	U
60-57-1	Dieldrin	25	
959-98-8	Endosulfan I	2.0	U
33213-65-9	Endosulfan II	3.9	U
1031-07-8	Endosulfan Sulfate	3.9	U
72-20-8	Endrin	28	
7421-93-4	Endrin Aldehyde	2.2	J
53494-70-5	Endrin Ketone	2.5	J
58-89-9	Gamma-BHC (Lindane)	12	
5103-74-2	Gamma-Chlordane	2.0	U
76-44-8	Heptachlor	16	
1024-57-3	Heptachlor Epoxide	2.0	U
72-43-5	Methoxychlor	20	U
12674-11-2	PCB-1016	39	U
11104-28-2	PCB-1221	79	U
11141-16-5	PCB-1232	39	U
53469-21-9	PCB-1242	39	U
12672-29-6	PCB-1248	39	U
11097-69-1	PCB-1254	39	U
11096-82-5	PCB-1260	39	U
8001-35-2	Toxaphene	200	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
25-IS06-0-1-07CMSD

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	707187-003-015-1/1MSD
Sample Volume :	30	Lab File ID :	V023316.D
% Moisture:	15.08	Date Received	07/28/2007
Extraction:	CLP_EXTRACTION	Date Extracted:	08/02/2007
Extract Volume:	5 mL	Date Analyzed	08/14/2007
Injection Volume :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
72-54-8	4,4-DDD	0.63	JP
72-55-9	4,4-DDE	2.9	J
50-29-3	4,4-DDT	28	
309-00-2	Aldrin	22	
319-84-6	Alpha-BHC	2.0	U
5103-71-9	Alpha-Chlordane	2.0	U
319-85-7	Beta-BHC	2.0	U
319-86-8	Delta-BHC	2.0	U
60-57-1	Dieldrin	26	
959-98-8	Endosulfan I	2.0	U
33213-65-9	Endosulfan II	3.9	U
1031-07-8	Endosulfan Sulfate	3.9	U
72-20-8	Endrin	29	
7421-93-4	Endrin Aldehyde	2.6	J
53494-70-5	Endrin Ketone	2.8	J
58-89-9	Gamma-BHC (Lindane)	12	
5103-74-2	Gamma-Chlordane	2.0	U
76-44-8	Heptachlor	16	
1024-57-3	Heptachlor Epoxide	2.0	U
72-43-5	Methoxychlor	20	U
12674-11-2	PCB-1016	39	U
11104-28-2	PCB-1221	79	U
11141-16-5	PCB-1232	39	U
53469-21-9	PCB-1242	39	U
12672-29-6	PCB-1248	39	U
11097-69-1	PCB-1254	39	U
11096-82-5	PCB-1260	39	U
8001-35-2	Toxaphene	200	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BKS99528

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BKS99528
Sample Volume :	1000	Lab File ID :	V023293.D
% Moisture:		Date Received	
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	10 mL	Date Analyzed	08/14/2007
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
72-54-8	4,4-DDD	0.10	U
72-55-9	4,4-DDE	0.070	J
50-29-3	4,4-DDT	0.68	
309-00-2	Aldrin	0.49	
319-84-6	Alpha-BHC	0.050	U
5103-71-9	Alpha-Chlordane	0.050	U
319-85-7	Beta-BHC	0.050	U
319-86-8	Delta-BHC	0.050	U
60-57-1	Dieldrin	0.71	
959-98-8	Endosulfan I	0.050	U
33213-65-9	Endosulfan II	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
72-20-8	Endrin	0.78	
7421-93-4	Endrin Aldehyde	0.12	
53494-70-5	Endrin Ketone	0.11	
58-89-9	Gamma-BHC (Lindane)	0.30	
5103-74-2	Gamma-Chlordane	0.050	U
76-44-8	Heptachlor	0.40	
1024-57-3	Heptachlor Epoxide	0.050	U
72-43-5	Methoxychlor	0.50	U
12674-11-2	PCB-1016	1.0	U
11104-28-2	PCB-1221	2.0	U
11141-16-5	PCB-1232	1.0	U
53469-21-9	PCB-1242	1.0	U
12672-29-6	PCB-1248	1.0	U
11097-69-1	PCB-1254	1.0	U
11096-82-5	PCB-1260	1.0	U
8001-35-2	Toxaphene	5.0	U

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
BKS99531

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BKS99531
Sample Volume :	30	Lab File ID :	V023303.D
% Moisture:		Date Received	
Extraction:	CLP_EXTRACTION	Date Extracted:	08/02/2007
Extract Volume:	5 mL	Date Analyzed	08/14/2007
Injection Volume :	µL	Dilution Factor :	1
GPC Clean up (Y/N):	N pH:		

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

CAS NO	COMPOUND		Q
72-54-8	4,4-DDD	0.88	JP
72-55-9	4,4-DDE	2.5	J
50-29-3	4,4-DDT	22	
309-00-2	Aldrin	17	
319-84-6	Alpha-BHC	1.7	U
5103-71-9	Alpha-Chlordane	1.7	U
319-85-7	Beta-BHC	1.7	U
319-86-8	Delta-BHC	1.7	U
60-57-1	Dieldrin	22	
959-98-8	Endosulfan I	1.7	U
33213-65-9	Endosulfan II	3.3	U
1031-07-8	Endosulfan Sulfate	3.3	U
72-20-8	Endrin	23	
7421-93-4	Endrin Aldehyde	2.3	J
53494-70-5	Endrin Ketone	2.5	J
58-89-9	Gamma-BHC (Lindane)	9.7	
5103-74-2	Gamma-Chlordane	1.7	U
76-44-8	Heptachlor	12	
1024-57-3	Heptachlor Epoxide	1.7	U
72-43-5	Methoxychlor	17	U
12674-11-2	PCB-1016	33	U
11104-28-2	PCB-1221	67	U
11141-16-5	PCB-1232	33	U
53469-21-9	PCB-1242	33	U
12672-29-6	PCB-1248	33	U
11097-69-1	PCB-1254	33	U
11096-82-5	PCB-1260	33	U
8001-35-2	Toxaphene	170	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BKSD99528

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BKSD99528
Sample Volume :	1000	Lab File ID :	V023294.D
% Moisture:		Date Received	
Extraction:	CLP_EXTRACTION	Date Extracted:	07/31/2007
Extract Volume:	10 mL	Date Analyzed	08/14/2007
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
72-54-8	4,4-DDD	0.10	U
72-55-9	4,4-DDE	0.070	J
50-29-3	4,4-DDT	0.60	
309-00-2	Aldrin	0.50	
319-84-6	Alpha-BHC	0.050	U
5103-71-9	Alpha-Chlordane	0.050	U
319-85-7	Beta-BHC	0.050	U
319-86-8	Delta-BHC	0.050	U
60-57-1	Dieldrin	0.72	
959-98-8	Endosulfan I	0.050	U
33213-65-9	Endosulfan II	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
72-20-8	Endrin	0.67	
7421-93-4	Endrin Aldehyde	0.15	
53494-70-5	Endrin Ketone	0.13	
58-89-9	Gamma-BHC (Lindane)	0.30	
5103-74-2	Gamma-Chlordane	0.050	U
76-44-8	Heptachlor	0.39	
1024-57-3	Heptachlor Epoxide	0.050	U
72-43-5	Methoxychlor	0.50	U
12674-11-2	PCB-1016	1.0	U
11104-28-2	PCB-1221	2.0	U
11141-16-5	PCB-1232	1.0	U
53469-21-9	PCB-1242	1.0	U
12672-29-6	PCB-1248	1.0	U
11097-69-1	PCB-1254	1.0	U
11096-82-5	PCB-1260	1.0	U
8001-35-2	Toxaphene	5.0	U

Surrogate Recovery Summary

Matrix : WATER **Analytical Method : CLP_OLM04.3_PEST/PC** **SDG No : 707187**

Surrogate	CL10BZ2	XYL2456CLM
Lower QC Limits	30	30
Upper QC Limits	150	150
Sample ID		
25-TW01-07C	84	99
	88	87
25-TW02-07C	73	86
	77	99
25-TW03-07C	101	119
	98	100
BKS99528	91	88
	87	87
BKSD99528	81	82
	84	84
BLK99528	88	85
	86	86

* Value outside of QC Limts

CL10BZ2 = Decachlorobiphenyl XYL2456CLM = Tetrachloro-m-xylene

Surrogate Recovery Summary

Matrix : SOIL **Analytical Method : CLP_OLM04.3_PEST/PC** **SDG No : 707187**

Surrogate	CL10BZ2	XYL2456CLM
Lower QC Limits	30	30
Upper QC Limits	150	150
Sample ID		
25-IS05-0-1-07C	96	103
	98	96
25-IS05-9-11-07C	86	82
	88	83
25-IS06-0-1-07C	117	109
	114	107
25-IS06-0-1-07CMS	96	89
	94	91
25-IS06-0-1-07CMSD	92	87
	94	88
25-IS06-8-10-07C	94	81
	90	82
BKS99531	87	85
	86	82
BLK99531	84	80
	82	79

* Value outside of QC Limts

CL10BZ2 = Decachlorobiphenyl XYL2456CLM = Tetrachloro-m-xylene

GPL Laboratories

MS/MSD RECOVERY

SAMPLE NO
25-IS06-0-1-07CMSD

Lab Name : GPL Laboratories SDG NO : 707187 Method : CLP_OLM04.3_PEST/PCB

Lab Code : GPL Lab Sample ID : 707187-003-015-1/1MSD Matrix : SOIL Analysis Date : 08/14/2007

Compound	Spike Added (ug/kg)		CONCENTRATION (ug/kg)			%RECOVERY		% RPD	RPD Limit	QC Limits
	MS	MSD	Sample	MS	MSD	MS	MSD			
4,4-DDT	39	39	0.0	28	28	72	73	1	50	23-134
Aldrin	20	20	0.0	21	22	106	109	3	43	34-132
Dieldrin	39	39	0.0	25	26	64	67	5	38	31-134
Endrin	39	39	0.0	28	29	72	75	4	45	42-139
Gamma-BHC (Lindane)	20	20	0.0	12	12	59	62	5	50	46-127
Heptachlor	20	20	0.0	16	16	78	81	4	31	45-128

Column to be used to flag recovery and RPD Values with an asterisk.

* Values Outside of QC Limits.

RPD 0 Out of 6 Outside Limit
Spike Recovery : 0 Out of 12 outside limit

GPL Laboratories

BKS/BSD RECOVERY

SAMPLE NO
BKSD99528

Lab Name : GPL Laboratories SDG NO : 707187 Method : CLP_OLM04.3_PEST/PCB

Lab Code : GPL Lab Sample ID : BKSD99528 Matrix : WATER Analysis Date : 08/14/2007

Compound	Spike Added (ug/L)	CONCENTRATION (ug/L) BLANK	BKS	BSD	%RECOVERY BKS	BSD	% RPD	RPD Limit	QC Limits
4,4-DDT	1	0.0	0.68	0.60	68	60	13	27	44-134
Aldrin	.5	0.0	0.49	0.50	98	100	2	22	37-151
Dieldrin	1	0.0	0.71	0.72	71	72	1	18	51-134
Endrin	1	0.0	0.78	0.67	78	67	15	21	48-157
Gamma-BHC (Lindane)	.5	0.0	0.30	0.30	60	60	0	15	38-124
Heptachlor	.5	0.0	0.40	0.39	80	78	3	20	36-138

Column to be used to flag recovery and RPD Values with an asterisk.

* Values Outside of QC Limits.

RPD 0 Out of 6 Outside Limit
Spike Recovery : 0 Out of 12 outside limit

GPL Laboratories

LCS SUMMARY

SAMPLE NO
BKS99531

Lab Name : GPL Laboratories
Lab Code : GPL
Matrix : SOIL
Method : CLP_OLM04.3_PEST/PCB

Contract. : MILCON Area Investigations - CTO-169
SDG NO : 707187
Lab Sample ID : BKS99531
Analysis Date : 08/14/2007

COMPOUND	SPIKE ADDED (ug/kg)	BLANK CONCENTRATION (ug/kg)	LCS CONCENTRATION (ug/kg)	LCS % REC	QC LIMTS
4,4-DDT	33	0	22	65	31-162
Aldrin	17	0	17	100	46-163
Dieldrin	33	0	22	65	47-142
Endrin	33	0	23	71	53-145
Gamma-BHC (Lindane)	17	0	9.7	57	22-125
Heptachlor	17	0	12	74	45-128

* Values Outside of QC Limits.

Spike recovery : 0 out of 6 outside limits

GPL Laboratories

GPL
FORM 4
PESTICIDE METHOD BLANK SUMMARY

SAMPLE NO
BLK99528

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	99528
Lab File ID :	V023292.D	SDG NO :	707187
Date Extracted :	07/31/2007	Lab Sample ID :	BLK99528
Date Analyzed(1)	08/14/2007	Time Analyzed (1):	05:08
Date Analyzed (2)	08/14/2007	Time Analyzed(2)	05:08
GC Column(1)	RTx-CLP ID : _____ (mm)	GC Column(2) :	RTx-CLP2 ID : _____ (mm)
Matrix :(Soil/Water).	WATER	Extraction:	SepF / Cont / Sonc
Sulfur Cleanup:(Y/N).	N		

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES,MS AND MSD :

Client Sample ID	Lab Sample ID	Date Analyzed 1	Date Analyzed 2
BKS99528	BKS99528	08/14/2007	08/14/2007
BKSD99528	BKSD99528	08/14/2007	08/14/2007
25-TW01-07C	707187-005-040-1/2	08/14/2007	08/14/2007
25-TW02-07C	707187-007-042-1/2	08/14/2007	08/14/2007
25-TW03-07C	707187-009-044-1/2	08/14/2007	08/14/2007

GPL Laboratories

GPL
FORM 4
PESTICIDE METHOD BLANK SUMMARY

SAMPLE NO
BLK99531

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	99531
Lab File ID :	V023302.D	SDG NO :	707187
Date Extracted :	08/02/2007	Lab Sample ID :	BLK99531
Date Analyzed(1)	08/14/2007	Time Analyzed (1):	00:55
Date Analyzed (2)	08/14/2007	Time Analyzed(2)	00:55
GC Column(1)	RTx-CLP ID : _____ (mm)	GC Column(2) :	RTx-CLP2 ID : _____ (mm)
Matrix :(Soil/Water).	SOIL	Extraction:	SepF / Cont / Sonc
Sulfur Cleanup:(Y/N).	N		

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES,MS AND MSD :

Client Sample ID	Lab Sample ID	Date Analyzed 1	Date Analyzed 2
BKS99531	BKS99531	08/14/2007	08/14/2007
25-IS05-9-11-07C	707187-002-014-1/1	08/14/2007	08/14/2007
25-IS06-0-1-07C	707187-003-015-1/1	08/14/2007	08/14/2007
25-IS06-8-10-07C	707187-004-016-1/1	08/14/2007	08/14/2007
25-IS06-0-1-07CMS	707187-003-015-1/1MS	08/14/2007	08/14/2007
25-IS06-0-1-07CMSD	707187-003-015-1/1MSD	08/14/2007	08/14/2007
25-IS05-0-1-07C	707187-001-013-1/1	08/14/2007	08/14/2007

6D

PESTICIDE INITIAL CALIBRATION OF SINGLE COMPONENT ANALYTES

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: GC-V Level (x low): low 1.0 mid 4.0 high 16.0

GC Column: RTx-CLP ID: 0.32 (mm) Date(s) Analyzed: 08/13/07 08/13/07

COMPOUND	RT OF STANDARDS			MEAN	RT WINDOW	
	LOW	MED	HIGH	RT	FROM	TO
alpha-BHC	8.12	8.12	8.12	8.12	8.07	8.17
gamma-BHC (Lindane)	9.11	9.11	9.11	9.11	9.06	9.16
Heptachlor	10.62	10.63	10.63	10.63	10.58	10.68
Aldrin	11.59	11.60	11.59	11.59	11.54	11.64
beta-BHC	9.37	9.38	9.36	9.37	9.32	9.42
delta-BHC	9.94	9.94	9.93	9.94	9.89	9.99
Heptachlor Epoxide	13.55	13.55	13.55	13.55	13.48	13.62
Endosulfan I	14.83	14.84	14.84	14.84	14.77	14.91
gamma-Chlordane	13.96	13.96	13.95	13.96	13.89	14.03
alpha-Chlordane	14.39	14.39	14.39	14.39	14.32	14.46
4,4-DDE	14.65	14.65	14.65	14.65	14.58	14.72
Dieldrin	15.62	15.62	15.62	15.62	15.55	15.69
Endrin	16.38	16.39	16.39	16.39	16.32	16.46
Endosulfan II	17.13	17.13	17.13	17.13	17.06	17.20
4,4-DDD	16.62	16.62	16.62	16.62	16.55	16.69
4,4-DDT	17.52	17.52	17.52	17.52	17.45	17.59
Endrin Aldehyde	18.30	18.30	18.30	18.30	18.23	18.37
Endosulfan Sulfate	19.29	19.29	19.29	19.29	19.22	19.36
Methoxychlor	18.75	18.75	18.75	18.75	18.68	18.82
Endrin Ketone	19.86	19.86	19.86	19.86	19.79	19.93
Tetrachloro-m-xylene	6.40	6.40	6.40	6.40	6.35	6.45
Decachlorobiphenyl	22.10	22.10	22.10	22.10	22.00	22.20

* Surrogate retention times are measured from Standard Mix A analyses. Retention time windows are +/- 0.05 minutes for all compounds that elute before Heptachlor epoxide, +/- 0.07 minutes for all other compounds, except +/- 0.10 minutes for Decachlorobiphenyl

6D

PESTICIDE INITIAL CALIBRATION OF SINGLE COMPONENT ANALYTES

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: GC-V Level (x low): low 1.0 mid 4.0 high 16.0

GC Column: RTx-CLP2 ID: 0.32 (mm) Date(s) Analyzed: 08/13/07 08/13/07

COMPOUND	RT OF STANDARDS LOW	MED	HIGH	MEAN RT	RT WINDOW FROM	TO
alpha-BHC	7.70	7.70	7.70	7.70	7.65	7.75
gamma-BHC (Lindane)	8.78	8.78	8.78	8.78	8.73	8.83
Heptachlor	10.13	10.13	10.13	10.13	10.08	10.18
Aldrin	11.14	11.14	11.14	11.14	11.09	11.19
beta-BHC	9.05	9.06	9.04	9.05	9.00	9.10
delta-BHC	9.95	9.96	9.95	9.95	9.90	10.00
Heptachlor Epoxide	12.99	12.99	12.98	12.99	12.92	13.06
Endosulfan I	14.24	14.24	14.24	14.24	14.17	14.31
gamma-Chlordane	13.59	13.59	13.59	13.59	13.52	13.66
alpha-Chlordane	14.07	14.07	14.07	14.07	14.00	14.14
4,4-DDE	14.66	14.66	14.66	14.66	14.59	14.73
Dieldrin	15.13	15.14	15.14	15.14	15.07	15.21
Endrin	16.12	16.13	16.12	16.12	16.05	16.19
Endosulfan II	16.85	16.85	16.85	16.85	16.78	16.92
4,4-DDD	16.58	16.58	16.58	16.58	16.51	16.65
4,4-DDT	17.57	17.57	17.57	17.57	17.50	17.64
Endrin Aldehyde	17.88	17.88	17.88	17.88	17.81	17.95
Endosulfan Sulfate	18.58	18.58	18.58	18.58	18.51	18.65
Methoxychlor	19.24	19.24	19.24	19.24	19.17	19.31
Endrin Ketone	19.68	19.69	19.69	19.69	19.62	19.76
Tetrachloro-m-xylene	5.86	5.86	5.86	5.86	5.81	5.91
Decachlorobiphenyl	22.40	22.40	22.40	22.40	22.30	22.50

* Surrogate retention times are measured from Standard Mix A analyses. Retention time windows are +/- 0.05 minutes for all compounds that elute before Heptachlor epoxide, +/- 0.07 minutes for all other compounds, except +/- 0.10 minutes for Decachlorobiphenyl

6E
PESTICIDE INITIAL CALIBRATION OF SINGLE COMPONENT ANALYTES

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: GC-V Level (x low): low 1.0 mid 4.0 high 16.0

GC Column: RTx-CLP ID: 0.32 (mm) Date(s) Analyzed: 08/13/07 08/13/07

COMPOUND	CALIBRATION FACTORS LOW	MED	HIGH	MEAN	%RSD
alpha-BHC	3108052925	2919554743	2734531437	2920713035	6.4
gamma-BHC (Lindane)	3023311619	2820788288	2597556378	2813885428	7.6
Heptachlor	2711456638	2403064880	2069483451	2394668323	13.4
Aldrin	2596223590	2225120950	2033328645	2284891062	12.5
beta-BHC	1606204270	1361126063	1195835573	1387721969	14.9
delta-BHC	2915953982	2603406176	2579346113	2699568757	7.0
Heptachlor Epoxide	2572583185	2183633478	1936339170	2230851945	14.4
Endosulfan I	2427579031	2149811246	1824458647	2133949641	14.1
gamma-Chlordane	2559385421	2145719065	1857580245	2187561577	16.1
alpha-Chlordane	2467464213	2076635603	1866875637	2136991818	14.3
4,4-DDE	1997234009	1848257099	1743253346	1862914818	6.9
Dieldrin	2323335707	2087651292	1940227071	2117071356	9.1
Endrin	1900988305	1711861561	1569890956	1727580274	9.6
Endosulfan II	2126098925	1853007991	1679291908	1886132941	11.9
4,4-DDD	1840092452	1675768301	1535243805	1683701519	9.1
4,4-DDT	1626703568	1484324138	1393357458	1501461722	7.8
Endrin Aldehyde	739388064	640986809	560910282	647095052	13.8
Endosulfan Sulfate	1741325603	1544432125	1409926395	1565228041	10.6
Methoxychlor	776684528	716823673	662352367	718620190	8.0
Endrin Ketone	1880526235	1769700682	1661128599	1770451839	6.2
Tetrachloro-m-xylene	2333366679	2112050403	1852098650	2099171911	11.5
Decachlorobiphenyl	1314451073	1222528006	1004041700	1180340260	13.5

* Surrogate calibration factors are measured from Standard Mix A analyses.

%RSD must be less than or equal to 20.0 % for all compounds except the surrogates, where %RSD must be less than or equal to 30.0%. Up to two target compounds, but not surrogates, may have %RSD greater than 20.0% but less than or equal to 30.0%

3/90

6E

PESTICIDE INITIAL CALIBRATION OF SINGLE COMPONENT ANALYTES

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: GC-V Level (x low): low 1.0 mid 4.0 high 16.0

GC Column: RTx-CLP2 ID: 0.32 (mm) Date(s) Analyzed: 08/13/07 08/13/07

COMPOUND	CALIBRATION FACTORS LOW	MED	HIGH	MEAN	%RSD
alpha-BHC	4547132016	4343741599	4343920637	4411598084	2.7
gamma-BHC (Lindane)	4428732162	4209470122	4071955634	4236719306	4.2
Heptachlor	3943344048	3600532252	3286260298	3610045533	9.1
Aldrin	3890812034	3366439333	3313900404	3523717257	9.1
beta-BHC	2402089756	2013330827	1818397344	2077939309	14.3
delta-BHC	4328808397	3918896653	3974090571	4073931874	5.5
Heptachlor Epoxide	3809824889	3234102054	2990521852	3344816265	12.6
Endosulfan I	3575665157	3134181548	2836484011	3182110239	11.7
gamma-Chlordane	3734076324	3199465877	2962426479	3298656226	12.0
alpha-Chlordane	3728715485	3162136423	2915391964	3268747957	12.8
4,4-DDE	3039944897	2825759928	2886520162	2917408329	3.8
Dieldrin	3413327219	3198260050	3176484902	3262690724	4.0
Endrin	2692881082	2558487741	2516601901	2589323575	3.6
Endosulfan II	3189408045	2829096670	2724231627	2914245447	8.4
4,4-DDD	2775581947	2603341462	2515963219	2631628876	5.0
4,4-DDT	2111528789	2152702075	2228343396	2164191420	2.7
Endrin Aldehyde	1131231756	1001734901	875916978	1002961212	12.7
Endosulfan Sulfate	2628167164	2345091398	2211979143	2395079235	8.9
Methoxychlor	1129421808	1105202577	1070462975	1101695787	2.7
Endrin Ketone	2821220025	2607480851	2545336144	2658012340	5.4
Tetrachloro-m-xylene	3511309368	3169607277	2813731715	3164882787	11.0
Decachlorobiphenyl	2512763366	2144528360	1795505497	2150932408	16.7

* Surrogate calibration factors are measured from Standard Mix A analyses.

%RSD must be less than or equal to 20.0 % for all compounds except the surrogates, where %RSD must be less than or equal to 30.0%. Up to two target compounds, but not surrogates, may have %RSD greater than 20.0% but less than or equal to 30.0%

3/90

6F

PESTICIDE INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: GC-V Date(s) Analyzed: 08/13/07 08/13/07

GC Column: RTx-CLP ID: 0.32 (mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
AR1016	0.100	* 1	8.56	8.49	8.63	89183156
		* 2	10.41	10.34	10.48	79718207
		* 3	10.61	10.54	10.68	48767235
		4	11.68	11.61	11.75	57165362
		5	12.89	12.82	12.96	45457979
AR1221	0.200	* 1	6.92	6.85	6.99	25238022
		* 2	7.36	7.29	7.43	17278749
		* 3	7.49	7.42	7.56	69998960
AR1232	0.100	* 1	9.20	9.13	9.27	17919350
		* 2	10.00	9.93	10.07	47715861
		* 3	11.17	11.10	11.24	16003961
		4	11.96	11.89	12.03	15742855
		5	12.08	12.01	12.15	20894546
AR1242	0.100	* 1	9.20	9.13	9.27	29425302
		* 2	10.00	9.93	10.07	75900860
		* 3	11.06	10.99	11.13	27771900
		4	12.76	12.69	12.83	23578880
		5	13.12	13.05	13.19	48748933
AR1254	0.100	* 1	13.85	13.78	13.92	48277772
		* 2	14.62	14.55	14.69	70484585
		* 3	15.93	15.86	16.00	125611420
		4	16.85	16.78	16.92	84111574
		5	17.44	17.37	17.51	168775976
AR1260	0.100	* 1	15.61	15.54	15.68	112040377
		* 2	16.53	16.46	16.60	166907681
		* 3	17.76	17.69	17.83	74771805
		4	18.40	18.33	18.47	78342587
		5	19.10	19.03	19.17	148512342
Toxaphene	0.500	* 1	18.64	18.57	18.71	25334132
		* 2	19.08	19.01	19.15	72455036
		* 3	19.44	19.37	19.51	30929756
		4	20.14	20.07	20.21	32850736

* Denotes required peaks

6F

PESTICIDE INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: GC-V Date(s) Analyzed: 08/13/07 08/13/07

GC Column: RTx-CLP2 ID: 0.32 (mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
AR1016	0.100	* 1	8.46	8.39	8.53	147671746
		* 2	9.83	9.76	9.90	181878991
		* 3	10.23	10.16	10.30	126530539
		4	11.67	11.60	11.74	94666198
		5	12.05	11.98	12.12	90562821
AR1221	0.200	* 1	6.71	6.64	6.78	42037112
		* 2	7.11	7.04	7.18	29364047
		* 3	7.29	7.22	7.36	107043224
AR1232	0.100	* 1	9.08	9.01	9.15	19561840
		* 2	9.49	9.42	9.56	12246040
		* 3	10.97	10.90	11.04	28257280
		4	11.67	11.60	11.74	43120320
		5	12.53	12.46	12.60	14549480
AR1242	0.100	* 1	9.08	9.01	9.15	33114660
		* 2	10.23	10.16	10.30	95446620
		* 3	11.09	11.02	11.16	54870495
		4	12.66	12.59	12.73	46797720
		5	13.01	12.94	13.08	90979240
AR1254	0.100	* 1	12.99	12.92	13.06	119181740
		* 2	14.71	14.64	14.78	107976920
		* 3	16.41	16.34	16.48	116940220
		4	17.00	16.93	17.07	170545860
		5	18.48	18.41	18.55	60381180
AR1260	0.100	* 1	15.72	15.65	15.79	174828033
		* 2	16.41	16.34	16.48	217639977
		* 3	17.57	17.50	17.64	218456354
		4	18.56	18.49	18.63	124414550
		5	19.11	19.04	19.18	255866725
Toxaphene	0.500	* 1	17.90	17.83	17.97	78786476
		* 2	18.54	18.47	18.61	48027944
		* 3	19.49	19.42	19.56	42138740
		4	20.27	20.20	20.34	62170500

* Denotes required peaks

6G
PESTICIDE ANALYTE RESOLUTION SUMMARY

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

GC Column (1) : RTx-CLP ID: 0.32 (mm) Instrument ID (1): GC-V

EPA Sample No. (Standard 1) RESC-401 Lab Sample ID (1): RESC-401

Date Analyzed (1): 08/13/07 Time Analyzed (1): 10:39

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	6.41	100.0
02	gamma-Chlordane	13.96	100.0
03	4,4-DDE	14.65	100.0
04	Endosulfan I	14.84	100.0
05	Dieldrin	15.63	100.0
06	Methoxychlor	18.76	100.0
07	Endosulfan Sulfate	19.29	100.0
08	Endrin Ketone	19.87	100.0
09	Decachlorobiphenyl	22.11	

GC Column (2): RTx-CLP2 ID: 0.32 (mm) Instrument ID (2): GC-V

EPA Sample No (Standard 2) RESC-401 Lab Sample ID (2): RESC-401

Date Analyzed (2): 08/13/07 Time Analyzed (2): 10:39

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	5.87	100.0
02	gamma-Chlordane	13.59	100.0
03	Endosulfan I	14.24	100.0
04	4,4-DDE	14.67	100.0
05	Dieldrin	15.14	100.0
06	Endosulfan Sulfate	18.58	100.0
07	Methoxychlor	19.25	100.0
08	Endrin Ketone	19.69	100.0
09	Decachlorobiphenyl	22.41	

6H
PERFORMANCE EVALUATION MIXTURE (PEM)

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

GC Column (1) : RTx-CLP ID: 0.32 (mm) Instrument ID (1): GC-V

EPA Sample No. (Standard 1) PEM-401 Lab Sample ID (1): PEM-401

Date Analyzed (1): 08/13/07 Time Analyzed (1): 11:09

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	6.41	100.0
02	alpha-BHC	8.12	100.0
03	gamma-BHC (Lindane)	9.11	100.0
04	beta-BHC	9.37	100.0
05	Endrin	16.39	100.0
06	4,4-DDT	17.52	100.0
07	Methoxychlor	18.75	100.0
08	Decachlorobiphenyl	22.11	

GC Column (2): RTx-CLP2 ID: 0.32 (mm) Instrument ID (2): GC-V

EPA Sample No (Standard 2) PEM-401 Lab Sample ID (2): PEM-401

Date Analyzed (2): 08/13/07 Time Analyzed (2): 11:09

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	5.87	100.0
02	alpha-BHC	7.70	100.0
03	gamma-BHC (Lindane)	8.78	100.0
04	beta-BHC	9.05	100.0
05	Endrin	16.13	100.0
06	4,4-DDT	17.58	100.0
07	Methoxychlor	19.25	100.0
08	Decachlorobiphenyl	22.41	

6H
PERFORMANCE EVALUATION MIXTURE (PEM)

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

GC Column (1) : RTx-CLP ID: 0.32 (mm) Instrument ID (1): GC-V

EPA Sample No. (Standard 1) PEM-402 Lab Sample ID (1): PEM-402

Date Analyzed (1): 08/13/07 Time Analyzed (1): 18:38

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	6.40	100.0
02	alpha-BHC	8.12	100.0
03	gamma-BHC (Lindane)	9.10	100.0
04	beta-BHC	9.36	100.0
05	Endrin	16.39	100.0
06	4,4-DDT	17.52	100.0
07	Methoxychlor	18.75	100.0
08	Decachlorobiphenyl	22.10	

GC Column (2): RTx-CLP2 ID: 0.32 (mm) Instrument ID (2): GC-V

EPA Sample No (Standard 2) PEM-402 Lab Sample ID (2): PEM-402

Date Analyzed (2): 08/13/07 Time Analyzed (2): 18:38

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	5.87	100.0
02	alpha-BHC	7.69	100.0
03	gamma-BHC (Lindane)	8.78	100.0
04	beta-BHC	9.04	100.0
05	Endrin	16.12	100.0
06	4,4-DDT	17.57	100.0
07	Methoxychlor	19.24	100.0
08	Decachlorobiphenyl	22.41	

6H
PERFORMANCE EVALUATION MIXTURE (PEM)

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

GC Column (1) : RTx-CLP ID: 0.32 (mm) Instrument ID (1): GC-V

EPA Sample No. (Standard 1) PEM-403 Lab Sample ID (1): PEM-403

Date Analyzed (1): 08/14/07 Time Analyzed (1): 09:47

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	6.37	100.0
02	alpha-BHC	8.09	100.0
03	gamma-BHC (Lindane)	9.07	100.0
04	beta-BHC	9.33	100.0
05	Endrin	16.35	100.0
06	4,4-DDT	17.50	100.0
07	Methoxychlor	18.73	100.0
08	Decachlorobiphenyl	22.09	

GC Column (2): RTx-CLP2 ID: 0.32 (mm) Instrument ID (2): GC-V

EPA Sample No (Standard 2) PEM-403 Lab Sample ID (2): PEM-403

Date Analyzed (2): 08/14/07 Time Analyzed (2): 09:47

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	5.85	100.0
02	alpha-BHC	7.67	100.0
03	gamma-BHC (Lindane)	8.75	100.0
04	beta-BHC	9.02	100.0
05	Endrin	16.09	100.0
06	4,4-DDT	17.55	100.0
07	Methoxychlor	19.22	100.0
08	Decachlorobiphenyl	22.38	

6H
PERFORMANCE EVALUATION MIXTURE (PEM)

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

GC Column (1) : RTx-CLP ID: 0.32 (mm) Instrument ID (1): GC-V

EPA Sample No. (Standard 1) PEM-404 Lab Sample ID (1): PEM-404

Date Analyzed (1): 08/14/07 Time Analyzed (1): 22:55

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	6.37	100.0
02	alpha-BHC	8.08	100.0
03	gamma-BHC (Lindane)	9.07	100.0
04	beta-BHC	9.33	100.0
05	Endrin	16.35	100.0
06	4,4-DDT	17.49	100.0
07	Methoxychlor	18.73	100.0
08	Decachlorobiphenyl	22.08	

GC Column (2): RTx-CLP2 ID: 0.32 (mm) Instrument ID (2): GC-V

EPA Sample No (Standard 2) PEM-404 Lab Sample ID (2): PEM-404

Date Analyzed (2): 08/14/07 Time Analyzed (2): 22:55

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	5.83	100.0
02	alpha-BHC	7.66	100.0
03	gamma-BHC (Lindane)	8.74	100.0
04	beta-BHC	9.01	100.0
05	Endrin	16.08	100.0
06	4,4-DDT	17.54	100.0
07	Methoxychlor	19.22	100.0
08	Decachlorobiphenyl	22.37	

INDIVIDUAL STANDARD MIXTURE A

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

GC Column (1) : RTx-CLP ID: 0.32 (mm) Instrument ID (1): GC-V

EPA Sample No. (Standard 1) INDAM-401 Lab Sample ID (1): INDAM-401

Date Analyzed (1): 08/13/07 Time Analyzed (1): 16:08

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	6.40	100.0
02	alpha-BHC	8.12	100.0
03	gamma-BHC (Lindane)	9.11	100.0
04	Heptachlor	10.63	100.0
05	Endosulfan I	14.84	100.0
06	Dieldrin	15.62	100.0
07	Endrin	16.39	100.0
08	4,4-DDD	16.62	100.0
09	4,4-DDT	17.52	100.0
10	Methoxychlor	18.75	100.0
11	Decachlorobiphenyl	22.11	

GC Column (2): RTx-CLP2 ID: 0.32 (mm) Instrument ID (2): GC-V

EPA Sample No (Standard 2) INDAM-401 Lab Sample ID (2): INDAM-401

Date Analyzed (2): 08/13/07 Time Analyzed (2): 16:08

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	5.86	100.0
02	alpha-BHC	7.70	100.0
03	gamma-BHC (Lindane)	8.79	100.0
04	Heptachlor	10.13	100.0
05	Endosulfan I	14.24	100.0
06	Dieldrin	15.14	100.0
07	Endrin	16.13	100.0
08	4,4-DDD	16.58	100.0
09	4,4-DDT	17.57	100.0
10	Methoxychlor	19.24	100.0
11	Decachlorobiphenyl	22.41	

6I
INDIVIDUAL STANDARD MIXTURE A

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

GC Column (1) : RTx-CLP ID: 0.32 (mm) Instrument ID (1): GC-V

EPA Sample No. (Standard 1) INDAM-402 Lab Sample ID (1): INDAM-402

Date Analyzed (1): 08/14/07 Time Analyzed (1): 00:38

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	6.40	100.0
02	alpha-BHC	8.12	100.0
03	gamma-BHC (Lindane)	9.10	100.0
04	Heptachlor	10.62	100.0
05	Endosulfan I	14.83	100.0
06	Dieldrin	15.62	100.0
07	Endrin	16.38	100.0
08	4,4-DDD	16.61	100.0
09	4,4-DDT	17.52	100.0
10	Methoxychlor	18.75	100.0
11	Decachlorobiphenyl	22.10	

GC Column (2): RTx-CLP2 ID: 0.32 (mm) Instrument ID (2): GC-V

EPA Sample No (Standard 2) INDAM-402 Lab Sample ID (2): INDAM-402

Date Analyzed (2): 08/14/07 Time Analyzed (2): 00:38

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	5.86	100.0
02	alpha-BHC	7.69	100.0
03	gamma-BHC (Lindane)	8.77	100.0
04	Heptachlor	10.12	100.0
05	Endosulfan I	14.23	100.0
06	Dieldrin	15.13	100.0
07	Endrin	16.12	100.0
08	4,4-DDD	16.57	100.0
09	4,4-DDT	17.57	100.0
10	Methoxychlor	19.24	100.0
11	Decachlorobiphenyl	22.40	

6I
INDIVIDUAL STANDARD MIXTURE A

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

GC Column (1) : RTx-CLP ID: 0.32 (mm) Instrument ID (1): GC-V

EPA Sample No. (Standard 1) INDAM-403 Lab Sample ID (1): INDAM-403

Date Analyzed (1): 08/14/07 Time Analyzed (1): 16:25

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	6.37	100.0
02	alpha-BHC	8.09	100.0
03	gamma-BHC (Lindane)	9.07	100.0
04	Heptachlor	10.59	100.0
05	Endosulfan I	14.80	100.0
06	Dieldrin	15.59	100.0
07	Endrin	16.35	100.0
08	4,4-DDD	16.59	100.0
09	4,4-DDT	17.49	100.0
10	Methoxychlor	18.73	100.0
11	Decachlorobiphenyl	22.09	

GC Column (2): RTx-CLP2 ID: 0.32 (mm) Instrument ID (2): GC-V

EPA Sample No (Standard 2) INDAM-403 Lab Sample ID (2): INDAM-403

Date Analyzed (2): 08/14/07 Time Analyzed (2): 16:25

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	5.83	100.0
02	alpha-BHC	7.66	100.0
03	gamma-BHC (Lindane)	8.74	100.0
04	Heptachlor	10.09	100.0
05	Endosulfan I	14.20	100.0
06	Dieldrin	15.10	100.0
07	Endrin	16.08	100.0
08	4,4-DDD	16.54	100.0
09	4,4-DDT	17.54	100.0
10	Methoxychlor	19.22	100.0
11	Decachlorobiphenyl	22.38	

6J
INDIVIDUAL STANDARD MIXTURE B

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

GC Column (1) : RTx-CLP ID: 0.32 (mm) Instrument ID (1): GC-V

EPA Sample No. (Standard 1) INDBM-401 Lab Sample ID (1): INDBM-401

Date Analyzed (1): 08/13/07 Time Analyzed (1): 16:38

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	6.41	100.0
02	beta-BHC	9.38	100.0
03	delta-BHC	9.94	100.0
04	Aldrin	11.60	100.0
05	Heptachlor Epoxide	13.55	100.0
06	gamma-Chlordane	13.96	100.0
07	alpha-Chlordane	14.39	100.0
08	4,4-DDE	14.65	100.0
09	Endosulfan II	17.14	100.0
10	Endrin Aldehyde	18.30	100.0
11	Endosulfan Sulfate	19.29	100.0
12	Endrin Ketone	19.86	100.0
13	Decachlorobiphenyl	22.10	

GC Column (2): RTx-CLP2 ID: 0.32 (mm) Instrument ID (2): GC-V

EPA Sample No (Standard 2) INDBM-401 Lab Sample ID (2): INDBM-401

Date Analyzed (2): 08/13/07 Time Analyzed (2): 16:38

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	5.88	100.0
02	beta-BHC	9.06	100.0
03	delta-BHC	9.96	100.0
04	Aldrin	11.14	100.0
05	Heptachlor Epoxide	12.99	100.0
06	gamma-Chlordane	13.59	100.0
07	alpha-Chlordane	14.07	100.0
08	4,4-DDE	14.67	100.0
09	Endosulfan II	16.85	100.0
10	Endrin Aldehyde	17.88	100.0
11	Endosulfan Sulfate	18.58	100.0
12	Endrin Ketone	19.69	100.0
13	Decachlorobiphenyl	22.41	

6J
INDIVIDUAL STANDARD MIXTURE B

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

GC Column (1) : RTx-CLP ID: 0.32 (mm) Instrument ID (1): GC-V

EPA Sample No. (Standard 1) INDBM-402 Lab Sample ID (1): INDBM-402

Date Analyzed (1): 08/14/07 Time Analyzed (1): 01:08

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	6.40	100.0
02	beta-BHC	9.36	100.0
03	delta-BHC	9.93	100.0
04	Aldrin	11.58	100.0
05	Heptachlor Epoxide	13.54	100.0
06	gamma-Chlordane	13.95	100.0
07	alpha-Chlordane	14.38	100.0
08	4,4-DDE	14.64	100.0
09	Endosulfan II	17.13	100.0
10	Endrin Aldehyde	18.30	100.0
11	Endosulfan Sulfate	19.29	100.0
12	Endrin Ketone	19.86	100.0
13	Decachlorobiphenyl	22.10	

GC Column (2): RTx-CLP2 ID: 0.32 (mm) Instrument ID (2): GC-V

EPA Sample No (Standard 2) INDBM-402 Lab Sample ID (2): INDBM-402

Date Analyzed (2): 08/14/07 Time Analyzed (2): 01:08

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	5.86	100.0
02	beta-BHC	9.04	100.0
03	delta-BHC	9.94	100.0
04	Aldrin	11.13	100.0
05	Heptachlor Epoxide	12.98	100.0
06	gamma-Chlordane	13.58	100.0
07	alpha-Chlordane	14.06	100.0
08	4,4-DDE	14.66	100.0
09	Endosulfan II	16.84	100.0
10	Endrin Aldehyde	17.88	100.0
11	Endosulfan Sulfate	18.57	100.0
12	Endrin Ketone	19.68	100.0
13	Decachlorobiphenyl	22.40	

6J
INDIVIDUAL STANDARD MIXTURE B

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

GC Column (1) : RTx-CLP ID: 0.32 (mm) Instrument ID (1): GC-V

EPA Sample No. (Standard 1) INDBM-403 Lab Sample ID (1): INDBM-403

Date Analyzed (1): 08/14/07 Time Analyzed (1): 16:55

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	6.37	100.0
02	beta-BHC	9.33	100.0
03	delta-BHC	9.90	100.0
04	Aldrin	11.56	100.0
05	Heptachlor Epoxide	13.52	100.0
06	gamma-Chlordane	13.92	100.0
07	alpha-Chlordane	14.36	100.0
08	4,4-DDE	14.62	100.0
09	Endosulfan II	17.10	100.0
10	Endrin Aldehyde	18.28	100.0
11	Endosulfan Sulfate	19.27	100.0
12	Endrin Ketone	19.84	100.0
13	Decachlorobiphenyl	22.09	

GC Column (2): RTx-CLP2 ID: 0.32 (mm) Instrument ID (2): GC-V

EPA Sample No (Standard 2) INDBM-403 Lab Sample ID (2): INDBM-403

Date Analyzed (2): 08/14/07 Time Analyzed (2): 16:55

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	5.83	100.0
02	beta-BHC	9.01	100.0
03	delta-BHC	9.91	100.0
04	Aldrin	11.10	100.0
05	Heptachlor Epoxide	12.95	100.0
06	gamma-Chlordane	13.55	100.0
07	alpha-Chlordane	14.03	100.0
08	4,4-DDE	14.63	100.0
09	Endosulfan II	16.81	100.0
10	Endrin Aldehyde	17.85	100.0
11	Endosulfan Sulfate	18.55	100.0
12	Endrin Ketone	19.66	100.0
13	Decachlorobiphenyl	22.38	

7D
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

GC Column : RTx-CLP ID: 0.32 (mm) Init. Calib. Date(s): 08/13/07 08/13/07

EPA Sample No (PIBLK): Date Analyzed:

Lab Sample ID. (PIBLK): Time Analyzed:

EPA Sample No (PEM): PEM-401 Date Analyzed: 08/13/07

Lab Sample ID. (PEM): PEM-401 Time Analyzed: 11:09

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	RPD
Tetrachloro-m-xylene	6.41	6.36	6.46	0.019	0.020	5.3
alpha-BHC	8.12	8.07	8.17	0.009	0.010	11.1
beta-BHC	9.36	9.31	9.41	0.010	0.010	0.0
Endrin	16.39	16.32	16.46	0.047	0.050	6.4
4,4-DDT	17.52	17.45	17.59	0.080	0.100	25.0
Methoxychlor	18.75	18.68	18.82	0.213	0.250	17.4
Decachlorobiphenyl	22.10	22.00	22.20	0.018	0.020	11.1

4,4'-DDT % breakdown (1): 13.6 Endrin % breakdown (1): 14.4

Combined % breakdown (1): 28.1

QC LIMITS:

RPD of amounts in PEM must be less than or equal to 25.0%
4,4'-DDT breakdown must be less than or equal to 20.0%
Endrin breakdown must be less than or equal to 20.0%
Combined breakdown must be less than or equal to 30.0%

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

GC Column : RTx-CLP2 ID: 0.32 (mm) Init. Calib. Date(s): 08/13/07 08/13/07

EPA Sample No (PIBLK): Date Analyzed:

Lab Sample ID. (PIBLK): Time Analyzed:

EPA Sample No (PEM): PEM-401 Date Analyzed: 08/13/07

Lab Sample ID. (PEM): PEM-401 Time Analyzed: 11:09

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	RPD
Tetrachloro-m-xylene	5.87	5.82	5.92	0.019	0.020	5.3
alpha-BHC	7.70	7.65	7.75	0.009	0.010	11.1
beta-BHC	9.05	9.00	9.10	0.010	0.010	0.0
Endrin	16.13	16.06	16.20	0.047	0.050	6.4
4,4-DDT	17.58	17.51	17.65	0.084	0.100	19.0
Methoxychlor	19.24	19.17	19.31	0.208	0.250	20.2
Decachlorobiphenyl	22.41	22.31	22.51	0.019	0.020	5.3

4,4'-DDT % breakdown (1): 15.2 Endrin % breakdown (1): 16.5

Combined % breakdown (1): 31.7

QC LIMITS:

RPD of amounts in PEM must be less than or equal to 25.0%

4,4'-DDT breakdown must be less than or equal to 20.0%

Endrin breakdown must be less than or equal to 20.0%

Combined breakdown must be less than or equal to 30.0%

7D
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

GC Column : RTx-CLP ID: 0.32 (mm) Init. Calib. Date(s): 08/13/07 08/13/07

EPA Sample No (PIBLK): PIBLK-401 Date Analyzed: 08/13/07

Lab Sample ID. (PIBLK): PIBLK-401 Time Analyzed: 18:08

EPA Sample No (PEM): PEM-402 Date Analyzed: 08/13/07

Lab Sample ID. (PEM): PEM-402 Time Analyzed: 18:38

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	RPD
Tetrachloro-m-xylene	6.40	6.35	6.45	0.018	0.020	11.1
alpha-BHC	8.12	8.07	8.17	0.009	0.010	11.1
beta-BHC	9.36	9.31	9.41	0.010	0.010	0.0
Endrin	16.39	16.32	16.46	0.043	0.050	16.3
4,4-DDT	17.52	17.45	17.59	0.076	0.100	31.6
Methoxychlor	18.75	18.68	18.82	0.205	0.250	22.0
Decachlorobiphenyl	22.10	22.00	22.20	0.017	0.020	17.6

4,4'-DDT % breakdown (1): 16.5 Endrin % breakdown (1): 27.2

Combined % breakdown (1): 43.7

QC LIMITS:

RPD of amounts in PEM must be less than or equal to 25.0%
4,4'-DDT breakdown must be less than or equal to 20.0%
Endrin breakdown must be less than or equal to 20.0%
Combined breakdown must be less than or equal to 30.0%

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

GC Column : RTx-CLP2 ID: 0.32 (mm) Init. Calib. Date(s): 08/13/07 08/13/07

EPA Sample No (PIBLK): PIBLK-401 Date Analyzed: 08/13/07

Lab Sample ID. (PIBLK): PIBLK-401 Time Analyzed: 18:08

EPA Sample No (PEM): PEM-402 Date Analyzed: 08/13/07

Lab Sample ID. (PEM): PEM-402 Time Analyzed: 18:38

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	RPD
Tetrachloro-m-xylene	5.87	5.82	5.92	0.019	0.020	5.3
alpha-BHC	7.69	7.64	7.74	0.009	0.010	11.1
beta-BHC	9.04	8.99	9.09	0.010	0.010	0.0
Endrin	16.12	16.05	16.19	0.043	0.050	16.3
4,4-DDT	17.57	17.50	17.64	0.082	0.100	22.0
Methoxychlor	19.24	19.17	19.31	0.214	0.250	16.8
Decachlorobiphenyl	22.40	22.30	22.50	0.018	0.020	11.1

4,4'-DDT % breakdown (1): 18.4 Endrin % breakdown (1): 29.1

Combined % breakdown (1): 47.5

QC LIMITS:

RPD of amounts in PEM must be less than or equal to 25.0%

4,4'-DDT breakdown must be less than or equal to 20.0%

Endrin breakdown must be less than or equal to 20.0%

Combined breakdown must be less than or equal to 30.0%

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

GC Column : RTx-CLP ID: 0.32 (mm) Init. Calib. Date(s): 08/13/07 08/13/07

EPA Sample No (PIBLK): PIBLK-403 Date Analyzed: 08/14/07

Lab Sample ID. (PIBLK): PIBLK-403 Time Analyzed: 06:38

EPA Sample No (PEM): PEM-403 Date Analyzed: 08/14/07

Lab Sample ID. (PEM): PEM-403 Time Analyzed: 09:47

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	RPD
Tetrachloro-m-xylene	6.37	6.32	6.42	0.019	0.020	5.3
alpha-BHC	8.09	8.04	8.14	0.009	0.010	11.1
beta-BHC	9.33	9.28	9.38	0.010	0.010	0.0
Endrin	16.35	16.28	16.42	0.039	0.050	28.2
4,4-DDT	17.49	17.42	17.56	0.075	0.100	33.3
Methoxychlor	18.73	18.66	18.80	0.196	0.250	27.6
Decachlorobiphenyl	22.09	21.99	22.19	0.020	0.020	0.0

4,4'-DDT % breakdown (1): 6.8 Endrin % breakdown (1): 20.6

Combined % breakdown (1): 27.3

QC LIMITS:

RPD of amounts in PEM must be less than or equal to 25.0%

4,4'-DDT breakdown must be less than or equal to 20.0%

Endrin breakdown must be less than or equal to 20.0%

Combined breakdown must be less than or equal to 30.0%

7D
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

GC Column : RTx-CLP2 ID: 0.32 (mm) Init. Calib. Date(s): 08/13/07 08/13/07

EPA Sample No (PIBLK): PIBLK-403 Date Analyzed: 08/14/07

Lab Sample ID. (PIBLK): PIBLK-403 Time Analyzed: 06:38

EPA Sample No (PEM): PEM-403 Date Analyzed: 08/14/07

Lab Sample ID. (PEM): PEM-403 Time Analyzed: 09:47

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	RPD
Tetrachloro-m-xylene	5.84	5.79	5.89	0.019	0.020	5.3
alpha-BHC	7.67	7.62	7.72	0.009	0.010	11.1
beta-BHC	9.02	8.97	9.07	0.010	0.010	0.0
Endrin	16.09	16.02	16.16	0.042	0.050	19.0
4,4-DDT	17.55	17.48	17.62	0.088	0.100	13.6
Methoxychlor	19.22	19.15	19.29	0.209	0.250	19.6
Decachlorobiphenyl	22.38	22.28	22.48	0.021	0.020	5.0

4,4'-DDT % breakdown (1): 11.3 Endrin % breakdown (1): 22.8

Combined % breakdown (1): 34.1

QC LIMITS:

RPD of amounts in PEM must be less than or equal to 25.0%
4,4'-DDT breakdown must be less than or equal to 20.0%
Endrin breakdown must be less than or equal to 20.0%
Combined breakdown must be less than or equal to 30.0%

7D
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

GC Column : RTx-CLP ID: 0.32 (mm) Init. Calib. Date(s): 08/13/07 08/13/07

EPA Sample No (PIBLK): PIBLK-405 Date Analyzed: 08/14/07

Lab Sample ID. (PIBLK): PIBLK-405 Time Analyzed: 22:25

EPA Sample No (PEM): PEM-404 Date Analyzed: 08/14/07

Lab Sample ID. (PEM): PEM-404 Time Analyzed: 22:55

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	RPD
Tetrachloro-m-xylene	6.37	6.32	6.42	0.020	0.020	0.0
alpha-BHC	8.08	8.03	8.13	0.010	0.010	0.0
beta-BHC	9.33	9.28	9.38	0.011	0.010	10.0
Endrin	16.35	16.28	16.42	0.045	0.050	11.1
4,4-DDT	17.49	17.42	17.56	0.094	0.100	6.4
Methoxychlor	18.73	18.66	18.80	0.251	0.250	0.4
Decachlorobiphenyl	22.08	21.98	22.18	0.021	0.020	5.0

4,4'-DDT % breakdown (1): 6.8 Endrin % breakdown (1): 14.1

Combined % breakdown (1): 20.8

QC LIMITS:

RPD of amounts in PEM must be less than or equal to 25.0%
4,4'-DDT breakdown must be less than or equal to 20.0%
Endrin breakdown must be less than or equal to 20.0%
Combined breakdown must be less than or equal to 30.0%

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

GC Column : RTx-CLP2 ID: 0.32 (mm) Init. Calib. Date(s): 08/13/07 08/13/07

EPA Sample No (PIBLK): PIBLK-405 Date Analyzed: 08/14/07

Lab Sample ID. (PIBLK): PIBLK-405 Time Analyzed: 22:25

EPA Sample No (PEM): PEM-404 Date Analyzed: 08/14/07

Lab Sample ID. (PEM): PEM-404 Time Analyzed: 22:55

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	RPD
Tetrachloro-m-xylene	5.83	5.78	5.88	0.021	0.020	5.0
alpha-BHC	7.66	7.61	7.71	0.010	0.010	0.0
beta-BHC	9.00	8.95	9.05	0.011	0.010	10.0
Endrin	16.08	16.01	16.15	0.047	0.050	6.4
4,4-DDT	17.53	17.46	17.60	0.100	0.100	0.0
Methoxychlor	19.21	19.14	19.28	0.259	0.250	3.6
Decachlorobiphenyl	22.37	22.27	22.47	0.021	0.020	5.0

4,4'-DDT % breakdown (1): 11.5 Endrin % breakdown (1): 17.3

Combined % breakdown (1): 28.7

QC LIMITS:

RPD of amounts in PEM must be less than or equal to 25.0%

4,4'-DDT breakdown must be less than or equal to 20.0%

Endrin breakdown must be less than or equal to 20.0%

Combined breakdown must be less than or equal to 30.0%

7E

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

GC Column: RTx-CLP ID: 0.32 (mm) Init. Calib. Date(s): 08/13/07 08/13/07

EPA Sample No (PIBLK): Date Analyzed:

Lab Sample ID. (PIBLK): Time Analyzed:

EPA Sample No (INDA): INDAM-401 Date Analyzed: 08/13/07

Lab Sample ID. (INDA): INDAM-401 Time Analyzed: 16:08

INDIVIDUAL MIX A COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	RPD
alpha-BHC	8.12	8.07	8.17	0.020	0.020	0.0
gamma-BHC (Lindane)	9.11	9.06	9.16	0.020	0.020	0.0
Heptachlor	10.63	10.58	10.68	0.020	0.020	0.0
Endosulfan I	14.84	14.77	14.91	0.020	0.020	0.0
Dieldrin	15.62	15.55	15.69	0.040	0.040	0.0
Endrin	16.39	16.32	16.46	0.040	0.040	0.0
4,4-DDD	16.62	16.55	16.69	0.040	0.040	0.0
4,4-DDT	17.52	17.45	17.59	0.040	0.040	0.0
Methoxychlor	18.75	18.68	18.82	0.200	0.200	0.0
Tetrachloro-m-xylene	6.40	6.35	6.45	0.020	0.020	0.0
Decachlorobiphenyl	22.10	22	22.2	0.040	0.040	0.0

EPA Sample No. (INDB): INDBM-401 Date Analyzed: 08/13/07

Lab Sample ID. (INDB): INDBM-401 Time Analyzed: 16:38

INDIVIDUAL MIX B COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	RPD
Aldrin	11.60	11.55	11.65	0.020	0.020	0.0
beta-BHC	9.38	9.33	9.43	0.020	0.020	0.0
delta-BHC	9.94	9.89	9.99	0.020	0.020	0.0
Heptachlor Epoxide	13.55	13.48	13.62	0.020	0.020	0.0
gamma-Chlordane	13.96	13.89	14.03	0.020	0.020	0.0
alpha-Chlordane	14.39	14.32	14.46	0.020	0.020	0.0
4,4-DDE	14.65	14.58	14.72	0.041	0.040	2.5
Endosulfan II	17.13	17.06	17.2	0.040	0.040	0.0
Endrin Aldehyde	18.30	18.23	18.37	0.040	0.040	0.0
Endosulfan Sulfate	19.29	19.22	19.36	0.040	0.040	0.0
Endrin Ketone	19.86	19.79	19.93	0.041	0.040	2.5
Tetrachloro-m-xylene	6.41	6.36	6.46	0.019	0.020	5.3
Decachlorobiphenyl	22.10	22	22.2	0.038	0.040	5.3

7E

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

GC Column: RTx-CLP2 ID: 0.32 (mm) Init. Calib. Date(s): 08/13/07 08/13/07

EPA Sample No (PIBLK): Date Analyzed:

Lab Sample ID. (PIBLK): Time Analyzed:

EPA Sample No (INDA): INDAM-401 Date Analyzed: 08/13/07

Lab Sample ID. (INDA): INDAM-401 Time Analyzed: 16:08

INDIVIDUAL MIX A COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	RPD
alpha-BHC	7.70	7.65	7.75	0.020	0.020	0.0
gamma-BHC (Lindane)	8.78	8.73	8.83	0.020	0.020	0.0
Heptachlor	10.13	10.08	10.18	0.021	0.020	5.0
Endosulfan I	14.24	14.17	14.31	0.020	0.020	0.0
Dieldrin	15.14	15.07	15.21	0.040	0.040	0.0
Endrin	16.13	16.06	16.2	0.040	0.040	0.0
4,4-DDD	16.58	16.51	16.65	0.040	0.040	0.0
4,4-DDT	17.57	17.5	17.64	0.040	0.040	0.0
Methoxychlor	19.24	19.17	19.31	0.200	0.200	0.0
Tetrachloro-m-xylene	5.86	5.81	5.91	0.020	0.020	0.0
Decachlorobiphenyl	22.40	22.3	22.5	0.040	0.040	0.0

EPA Sample No. (INDB): INDBM-401 Date Analyzed: 08/13/07

Lab Sample ID. (INDB): INDBM-401 Time Analyzed: 16:38

INDIVIDUAL MIX B COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	RPD
Aldrin	11.14	11.09	11.19	0.020	0.020	0.0
beta-BHC	9.06	9.01	9.11	0.020	0.020	0.0
delta-BHC	9.96	9.91	10.01	0.020	0.020	0.0
Heptachlor Epoxide	12.99	12.92	13.06	0.020	0.020	0.0
gamma-Chlordane	13.59	13.52	13.66	0.020	0.020	0.0
alpha-Chlordane	14.07	14	14.14	0.020	0.020	0.0
4,4-DDE	14.66	14.59	14.73	0.040	0.040	0.0
Endosulfan II	16.85	16.78	16.92	0.040	0.040	0.0
Endrin Aldehyde	17.88	17.81	17.95	0.041	0.040	2.5
Endosulfan Sulfate	18.58	18.51	18.65	0.040	0.040	0.0
Endrin Ketone	19.69	19.62	19.76	0.040	0.040	0.0
Tetrachloro-m-xylene	5.88	5.83	5.93	0.019	0.020	5.3
Decachlorobiphenyl	22.40	22.3	22.5	0.039	0.040	2.6

7E
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

GC Column: RTx-CLP ID: 0.32 (mm) Init. Calib. Date(s): 08/13/07 08/13/07

EPA Sample No (PIBLK): PIBLK-402 Date Analyzed: 08/14/07

Lab Sample ID. (PIBLK): PIBLK-402 Time Analyzed: 00:08

EPA Sample No (INDA): INDAM-402 Date Analyzed: 08/14/07

Lab Sample ID. (INDA): INDAM-402 Time Analyzed: 00:38

INDIVIDUAL MIX A COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	RPD
alpha-BHC	8.11	8.06	8.16	0.019	0.020	5.3
gamma-BHC (Lindane)	9.10	9.05	9.15	0.019	0.020	5.3
Heptachlor	10.62	10.57	10.67	0.019	0.020	5.3
Endosulfan I	14.83	14.76	14.9	0.019	0.020	5.3
Dieldrin	15.62	15.55	15.69	0.040	0.040	0.0
Endrin	16.38	16.31	16.45	0.037	0.040	8.1
4,4-DDD	16.61	16.54	16.68	0.040	0.040	0.0
4,4-DDT	17.52	17.45	17.59	0.037	0.040	8.1
Methoxychlor	18.75	18.68	18.82	0.178	0.200	12.4
Tetrachloro-m-xylene	6.40	6.35	6.45	0.019	0.020	5.3
Decachlorobiphenyl	22.10	22	22.2	0.037	0.040	8.1

EPA Sample No. (INDB): INDBM-402 Date Analyzed: 08/14/07

Lab Sample ID. (INDB): INDBM-402 Time Analyzed: 01:08

INDIVIDUAL MIX B COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	RPD
Aldrin	11.59	11.54	11.64	0.020	0.020	0.0
beta-BHC	9.36	9.31	9.41	0.020	0.020	0.0
delta-BHC	9.92	9.87	9.97	0.020	0.020	0.0
Heptachlor Epoxide	13.54	13.47	13.61	0.020	0.020	0.0
gamma-Chlordane	13.95	13.88	14.02	0.020	0.020	0.0
alpha-Chlordane	14.38	14.31	14.45	0.020	0.020	0.0
4,4-DDE	14.64	14.57	14.71	0.040	0.040	0.0
Endosulfan II	17.13	17.06	17.2	0.040	0.040	0.0
Endrin Aldehyde	18.30	18.23	18.37	0.040	0.040	0.0
Endosulfan Sulfate	19.29	19.22	19.36	0.040	0.040	0.0
Endrin Ketone	19.86	19.79	19.93	0.039	0.040	2.6
Tetrachloro-m-xylene	6.40	6.35	6.45	0.019	0.020	5.3
Decachlorobiphenyl	22.10	22	22.2	0.037	0.040	8.1

7E
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

GC Column: RTx-CLP2 ID: 0.32 (mm) Init. Calib. Date(s): 08/13/07 08/13/07

EPA Sample No (PIBLK): PIBLK-402 Date Analyzed: 08/14/07

Lab Sample ID. (PIBLK): PIBLK-402 Time Analyzed: 00:08

EPA Sample No (INDA): INDAM-402 Date Analyzed: 08/14/07

Lab Sample ID. (INDA): INDAM-402 Time Analyzed: 00:38

INDIVIDUAL MIX A COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	RPD
alpha-BHC	7.69	7.64	7.74	0.019	0.020	5.3
gamma-BHC (Lindane)	8.77	8.72	8.82	0.020	0.020	0.0
Heptachlor	10.12	10.07	10.17	0.019	0.020	5.3
Endosulfan I	14.23	14.16	14.3	0.020	0.020	0.0
Dieldrin	15.13	15.06	15.2	0.039	0.040	2.6
Endrin	16.12	16.05	16.19	0.037	0.040	8.1
4,4-DDD	16.57	16.5	16.64	0.039	0.040	2.6
4,4-DDT	17.57	17.5	17.64	0.036	0.040	11.1
Methoxychlor	19.24	19.17	19.31	0.179	0.200	11.7
Tetrachloro-m-xylene	5.86	5.81	5.91	0.019	0.020	5.3
Decachlorobiphenyl	22.40	22.3	22.5	0.037	0.040	8.1

EPA Sample No. (INDB): INDBM-402 Date Analyzed: 08/14/07

Lab Sample ID. (INDB): INDBM-402 Time Analyzed: 01:08

INDIVIDUAL MIX B COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	RPD
Aldrin	11.13	11.08	11.18	0.020	0.020	0.0
beta-BHC	9.04	8.99	9.09	0.020	0.020	0.0
delta-BHC	9.94	9.89	9.99	0.020	0.020	0.0
Heptachlor Epoxide	12.98	12.91	13.05	0.020	0.020	0.0
gamma-Chlordane	13.58	13.51	13.65	0.020	0.020	0.0
alpha-Chlordane	14.06	13.99	14.13	0.020	0.020	0.0
4,4-DDE	14.65	14.58	14.72	0.040	0.040	0.0
Endosulfan II	16.84	16.77	16.91	0.040	0.040	0.0
Endrin Aldehyde	17.87	17.8	17.94	0.039	0.040	2.6
Endosulfan Sulfate	18.57	18.5	18.64	0.040	0.040	0.0
Endrin Ketone	19.68	19.61	19.75	0.040	0.040	0.0
Tetrachloro-m-xylene	5.86	5.81	5.91	0.030	0.020	50.0
Decachlorobiphenyl	22.40	22.3	22.5	0.037	0.040	8.1

7E

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

GC Column: RTx-CLP ID: 0.32 (mm) Init. Calib. Date(s): 08/13/07 08/13/07

EPA Sample No (PIBLK): PIBLK-404 Date Analyzed: 08/14/07

Lab Sample ID. (PIBLK): PIBLK-404 Time Analyzed: 15:55

EPA Sample No (INDA): INDAM-403 Date Analyzed: 08/14/07

Lab Sample ID. (INDA): INDAM-403 Time Analyzed: 16:25

INDIVIDUAL MIX A COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	RPD
alpha-BHC	8.09	8.04	8.14	0.019	0.020	5.3
gamma-BHC (Lindane)	9.07	9.02	9.12	0.019	0.020	5.3
Heptachlor	10.59	10.54	10.64	0.017	0.020	17.6
Endosulfan I	14.80	14.73	14.87	0.019	0.020	5.3
Dieldrin	15.59	15.52	15.66	0.038	0.040	5.3
Endrin	16.35	16.28	16.42	0.035	0.040	14.3
4,4-DDD	16.59	16.52	16.66	0.038	0.040	5.3
4,4-DDT	17.49	17.42	17.56	0.039	0.040	2.6
Methoxychlor	18.73	18.66	18.8	0.187	0.200	7.0
Tetrachloro-m-xylene	6.37	6.32	6.42	0.019	0.020	5.3
Decachlorobiphenyl	22.09	21.99	22.19	0.040	0.040	0.0

EPA Sample No. (INDB): INDBM-403 Date Analyzed: 08/14/07

Lab Sample ID. (INDB): INDBM-403 Time Analyzed: 16:55

INDIVIDUAL MIX B COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	RPD
Aldrin	11.56	11.51	11.61	0.020	0.020	0.0
beta-BHC	9.33	9.28	9.38	0.019	0.020	5.3
delta-BHC	9.90	9.85	9.95	0.020	0.020	0.0
Heptachlor Epoxide	13.52	13.45	13.59	0.020	0.020	0.0
gamma-Chlordane	13.92	13.85	13.99	0.019	0.020	5.3
alpha-Chlordane	14.36	14.29	14.43	0.019	0.020	5.3
4,4-DDE	14.62	14.55	14.69	0.038	0.040	5.3
Endosulfan II	17.10	17.03	17.17	0.038	0.040	5.3
Endrin Aldehyde	18.28	18.21	18.35	0.039	0.040	2.6
Endosulfan Sulfate	19.27	19.2	19.34	0.038	0.040	5.3
Endrin Ketone	19.84	19.77	19.91	0.038	0.040	5.3
Tetrachloro-m-xylene	6.37	6.32	6.42	0.019	0.020	5.3
Decachlorobiphenyl	22.09	21.99	22.19	0.039	0.040	2.6

7E

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GPL LABORATORY Contract: GPL

Lab Code: GPL LAB Case No.: N/A SAS No.: N/A SDG No.: N/A

GC Column: RTx-CLP2 ID: 0.32 (mm) Init. Calib. Date(s): 08/13/07 08/13/07

EPA Sample No (PIBLK): PIBLK-404 Date Analyzed: 08/14/07

Lab Sample ID. (PIBLK): PIBLK-404 Time Analyzed: 15:55

EPA Sample No (INDA): INDAM-403 Date Analyzed: 08/14/07

Lab Sample ID. (INDA): INDAM-403 Time Analyzed: 16:25

INDIVIDUAL MIX A COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	RPD
alpha-BHC	7.66	7.61	7.71	0.019	0.020	5.3
gamma-BHC (Lindane)	8.74	8.69	8.79	0.020	0.020	0.0
Heptachlor	10.09	10.04	10.14	0.019	0.020	5.3
Endosulfan I	14.20	14.13	14.27	0.020	0.020	0.0
Dieldrin	15.10	15.03	15.17	0.039	0.040	2.6
Endrin	16.08	16.01	16.15	0.038	0.040	5.3
4,4-DDD	16.54	16.47	16.61	0.039	0.040	2.6
4,4-DDT	17.54	17.47	17.61	0.042	0.040	5.0
Methoxychlor	19.22	19.15	19.29	0.201	0.200	0.5
Tetrachloro-m-xylene	5.83	5.78	5.88	0.020	0.020	0.0
Decachlorobiphenyl	22.38	22.28	22.48	0.041	0.040	2.5

EPA Sample No. (INDB): INDBM-403 Date Analyzed: 08/14/07

Lab Sample ID. (INDB): INDBM-403 Time Analyzed: 16:55

INDIVIDUAL MIX B COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	RPD
Aldrin	11.10	11.05	11.15	0.020	0.020	0.0
beta-BHC	9.01	8.96	9.06	0.020	0.020	0.0
delta-BHC	9.91	9.86	9.96	0.019	0.020	5.3
Heptachlor Epoxide	12.95	12.88	13.02	0.020	0.020	0.0
gamma-Chlordane	13.55	13.48	13.62	0.020	0.020	0.0
alpha-Chlordane	14.03	13.96	14.1	0.019	0.020	5.3
4,4-DDE	14.62	14.55	14.69	0.040	0.040	0.0
Endosulfan II	16.81	16.74	16.88	0.039	0.040	2.6
Endrin Aldehyde	17.85	17.78	17.92	0.039	0.040	2.6
Endosulfan Sulfate	18.55	18.48	18.62	0.039	0.040	2.6
Endrin Ketone	19.66	19.59	19.73	0.039	0.040	2.6
Tetrachloro-m-xylene	5.83	5.78	5.88	0.020	0.020	0.0
Decachlorobiphenyl	22.38	22.28	22.48	0.040	0.040	0.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GPL LABORATORIES, LLLP Contract: CH2M HILL

Lab Code: GPL Work Order: 707187 SAS No: N/A SDG No: N/A

GC Column: RTx-CLP ID: 0.32 (mm) Init.Calib Date: 0813/07

Instrument ID: GC-V

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITAL CALIBRATION
TCX: 6.40 DCB: 22.10

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED | TIME ANALYZED	TCX RT #	DCB RT #
RESC-401	RESC-401	8/13/2007 10:39	6.41	22.11
PEM-401	PEM-401	8/13/2007 11:09	6.41	22.10
AR1660-401	AR1660-401	8/13/2007 11:39	6.41	22.11
AR1221-401	AR1221-401	8/13/2007 12:09	6.41	22.10
AR1232-401	AR1232-401	8/13/2007 12:39	6.40	22.10
AR1242-401	AR1242-401	8/13/2007 13:09	6.40	22.10
AR1248-401	AR1248-401	8/13/2007 13:38	6.41	22.10
AR1254-401	AR1254-401	8/13/2007 14:09	6.40	22.10
TOX-401	TOX-401	8/13/2007 14:38	6.40	22.10
INDAL-401	INDAL-401	8/13/2007 15:09	6.40	22.10
INDBL-401	INDBL-401	8/13/2007 15:38	6.40	22.10
INDAM-401	INDAM-401	8/13/2007 16:08	6.40	22.10
INDBM-401	INDBM-401	8/13/2007 16:38	6.41	22.10
INDAH-401	INDAH-401	8/13/2007 17:08	6.40	22.10
INDBH-401	INDBH-401	8/13/2007 17:38	6.41	22.10
PIBLK-401	PIBLK-401	8/13/2007 18:08	6.40	22.10
PEM-402	PEM-402	8/13/2007 18:38	6.40	22.10
	GPC PEST BLK 7/27/07	8/13/2007 19:08	0.00	0.00
ZZZZZZZ	GPC PEST CHK 7/27/07	8/13/2007 19:38	0.00	0.00
ZZZZZZZ	GPC PCB CHK 7/27/07	8/13/2007 20:08	6.44	22.12
ZZZZZZZ	GPC PEST BLK	8/13/2007 20:38	0.00	0.00
ZZZZZZZ	GPC PEST CHK	8/13/2007 21:08	0.00	0.00
ZZZZZZZ	BLK99582	8/13/2007 21:38	6.40	22.10
ZZZZZZZ	BKS99582	8/13/2007 22:08	6.41	22.10
ZZZZZZZ	707172-009-049-1/1	8/13/2007 22:38	6.40	22.10
ZZZZZZZ	707172-010-050-1/1	8/13/2007 23:08	6.40	22.10

QC LIMITS

TCX = Tetrachloro - m- xylene (+/- 0.05 minutes)
DCB = Decachlorobiphenyl (+/- 0.10 minutes)
# Column used to flag retention time values with an asterisk.
* Values outside of QC Limits.

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GPL LABORATORIES, LLLP Contract: CH2M HILL

Lab Code: GPL Work Order: 707187 SAS No: N/A SDG No: N/A

GC Column: RTx-CLP ID: 0.32 (mm) Init.Calib Date: 0813/07

Instrument ID: GC-V

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITAL CALIBRATION
TCX: 6.40 DCB: 22.10

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
ZZZZZZZ	707172-011-051-1/1	8/13/2007	23:38	6.40	22.10
PIBLK-402	PIBLK-402	8/14/2007	0:08	6.40	22.10
INDAM-402	INDAM-402	8/14/2007	0:38	6.40	22.10
INDBM-402	INDBM-402	8/14/2007	1:08	6.40	22.10
ZZZZZZZ	707172-012-052-1/1	8/14/2007	1:38	6.40	22.10
ZZZZZZZ	707172-013-053-1/1	8/14/2007	2:08	6.40	22.10
ZZZZZZZ	707172-014-054-1/1	8/14/2007	2:38	6.40	22.10
ZZZZZZZ	707172-015-055-1/1	8/14/2007	3:08	6.40	22.10
ZZZZZZZ	707172-016-056-1/1	8/14/2007	3:38	6.40	22.10
ZZZZZZZ	707172-011-051-1/1MS	8/14/2007	4:08	6.40	22.10
ZZZZZZZ	707172-011-051-1/1MSD	8/14/2007	4:38	6.40	22.10
BLK99528	BLK99528	8/14/2007	5:08	6.40	22.10
BKS99528	BKS99528	8/14/2007	5:38	6.40	22.10
BKSD99528	BKSD99528	8/14/2007	6:08	6.40	22.10
PIBLK-403	PIBLK-403	8/14/2007	6:38	6.40	22.10
PEM-403	PEM-403	8/14/2007	9:47	6.37	22.09
25-TW01-07C	707187-005-040-1/2	8/14/2007	10:25	6.39	22.09
25-TW02-07C	707187-007-042-1/2	8/14/2007	10:55	6.38	22.09
25-TW03-07C	707187-009-044-1/2	8/14/2007	11:25	6.38	22.09
ZZZZZZZ	GPC PEST BLK	8/14/2007	11:55	0.00	0.00
	GPC PEST CHK	8/14/2007	12:25	0.00	0.00
BLK99531	BLK99531	8/14/2007	12:55	6.37	22.09
BKS99531	BKS99531	8/14/2007	13:25	6.38	22.09
25-IS05-9-11-07C	707187-002-014-1/1	8/14/2007	13:55	6.37	22.09
ZZZZZZZ	708075-013-015-1/1	8/14/2007	14:25	6.37	22.09
ZZZZZZZ	708075-008-010-1/1	8/14/2007	14:55	6.37	22.09

QC LIMITS

TCX = Tetrachloro - m- xylene (+/- 0.05 minutes)
DCB = Decachlorobiphenyl (+/- 0.10 minutes)
# Column used to flag retention time values with an asterisk.
* Values outside of QC Limits.

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GPL LABORATORIES, LLLP Contract: CH2M HILL

Lab Code: GPL Work Order: 707187 SAS No: N/A SDG No: N/A

GC Column: RTx-CLP ID: 0.32 (mm) Init.Calib Date: 0813/07

Instrument ID: GC-V

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITAL CALIBRATION
TCX: 6.40 DCB: 22.10

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED | TIME ANALYZED	TCX RT #	DCB RT #
ZZZZZZZ	708075-007-009-1/1	8/14/2007 15:25	6.37	22.09
PIBLK-404	PIBLK-404	8/14/2007 15:55	6.37	22.09
INDAM-403	INDAM-403	8/14/2007 16:25	6.37	22.09
INDBM-403	INDBM-403	8/14/2007 16:55	6.37	22.09
ZZZZZZZ	708075-014-016-1/1	8/14/2007 17:25	6.37	22.09
ZZZZZZZ	708075-019-021-1/1	8/14/2007 17:55	6.37	22.09
25-IS06-0-1-07C	707187-003-015-1/1	8/14/2007 18:25	6.37	22.09
25-IS06-8-10-07C	707187-004-016-1/1	8/14/2007 18:55	6.37	22.09
25-IS06-0-1-07CMS	707187-003-015-1/1MS	8/14/2007 19:25	6.37	22.09
25-IS06-0-1-07CMSD	707187-003-015-1/1MSD	8/14/2007 19:55	6.37	22.09
25-IS05-0-1-07C	707187-001-013-1/1	8/14/2007 20:25	6.37	22.09
ZZZZZZZ	708075-019-021-1/1MS	8/14/2007 20:55	6.37	22.09
ZZZZZZZ	708075-019-021-1/1MSD	8/14/2007 21:25	6.37	22.09
ZZZZZZZ	HEXANE	8/14/2007 21:55	0.00	22.06
PIBLK-405	PIBLK-405	8/14/2007 22:25	6.37	22.08
PEM-404	PEM-404	8/14/2007 22:55	6.37	22.08
ZZZZZZZ	0	1/0/1900 0:00	0.00	0.00
ZZZZZZZ	0	1/0/1900 0:00	0.00	0.00
ZZZZZZZ	0	1/0/1900 0:00	0.00	0.00
ZZZZZZZ	0	1/0/1900 0:00	0.00	0.00
ZZZZZZZ	0	1/0/1900 0:00	0.00	0.00
ZZZZZZZ	0	1/0/1900 0:00	0.00	0.00
ZZZZZZZ	0	1/0/1900 0:00	0.00	0.00
ZZZZZZZ	0	1/0/1900 0:00	0.00	0.00
ZZZZZZZ	0	1/0/1900 0:00	0.00	0.00
ZZZZZZZ	0	1/0/1900 0:00	0.00	0.00

QC LIMITS

TCX = Tetrachloro - m- xylene (+/- 0.05 minutes)
DCB = Decachlorobiphenyl (+/- 0.10 minutes)
# Column used to flag retention time values with an asterisk.
* Values outside of QC Limits.

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GPL LABORATORIES, LLLP Contract: CH2M HILL

Lab Code: GPL Work Order: 707187 SAS No: N/A SDG No: N/A

GC Column: RTx-CLP2 ID: 0.32 (mm) Init.Calib Date: 0813/07

Instrument ID: GC-V

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITAL CALIBRATION TCX: 5.86 DCB: 22.40				
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED | TIME ANALYZED	TCX RT #	DCB RT #
RESC-401	RESC-401	8/13/2007 10:39	5.87	22.41
PEM-401	PEM-401	8/13/2007 11:09	5.87	22.41
AR1660-401	AR1660-401	8/13/2007 11:39	5.87	22.41
AR1221-401	AR1221-401	8/13/2007 12:09	5.87	22.41
AR1232-401	AR1232-401	8/13/2007 12:39	5.87	22.41
AR1242-401	AR1242-401	8/13/2007 13:09	5.87	22.41
AR1248-401	AR1248-401	8/13/2007 13:38	5.87	22.40
AR1254-401	AR1254-401	8/13/2007 14:09	5.86	22.40
TOX-401	TOX-401	8/13/2007 14:38	5.86	22.40
INDAL-401	INDAL-401	8/13/2007 15:09	5.86	22.40
INDBL-401	INDBL-401	8/13/2007 15:38	5.86	22.40
INDAM-401	INDAM-401	8/13/2007 16:08	5.86	22.40
INDBM-401	INDBM-401	8/13/2007 16:38	5.88	22.40
INDAH-401	INDAH-401	8/13/2007 17:08	5.86	22.40
INDBH-401	INDBH-401	8/13/2007 17:38	5.87	22.40
PIBLK-401	PIBLK-401	8/13/2007 18:08	5.87	22.40
PEM-402	PEM-402	8/13/2007 18:38	5.87	22.40
	GPC PEST BLK 7/27/07	8/13/2007 19:08	0.00	0.00
ZZZZZZZ	GPC PEST CHK 7/27/07	8/13/2007 19:38	0.00	0.00
ZZZZZZZ	GPC PCB CHK 7/27/07	8/13/2007 20:08	0.00	22.40
ZZZZZZZ	GPC PEST BLK	8/13/2007 20:38	0.00	0.00
ZZZZZZZ	GPC PEST CHK	8/13/2007 21:08	0.00	0.00
ZZZZZZZ	BLK99582	8/13/2007 21:38	5.86	22.40
ZZZZZZZ	BKS99582	8/13/2007 22:08	5.87	22.40
ZZZZZZZ	707172-009-049-1/1	8/13/2007 22:38	5.87	22.40
ZZZZZZZ	707172-010-050-1/1	8/13/2007 23:08	5.86	22.40
	QC LIMITS			

TCX = Tetrachloro - m- xylene (+/- 0.05 minutes)
DCB = Decachlorobiphenyl (+/- 0.10 minutes)
# Column used to flag retention time values with an asterisk.
* Values outside of QC Limits.

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GPL LABORATORIES, LLLP Contract: CH2M HILL

Lab Code: GPL Work Order: 707187 SAS No: N/A SDG No: N/A

GC Column: RTx-CLP2 ID: 0.32 (mm) Init.Calib Date: 0813/07

Instrument ID: GC-V

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITAL CALIBRATION
TCX: 5.86 DCB: 22.40

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED | TIME ANALYZED	TCX RT #	DCB RT #
ZZZZZZZ	707172-011-051-1/1	8/13/2007 23:38	5.86	22.40
PIBLK-402	PIBLK-402	8/14/2007 0:08	5.86	22.40
INDAM-402	INDAM-402	8/14/2007 0:38	5.86	22.40
INDBM-402	INDBM-402	8/14/2007 1:08	5.86	22.40
ZZZZZZZ	707172-012-052-1/1	8/14/2007 1:38	5.86	22.40
ZZZZZZZ	707172-013-053-1/1	8/14/2007 2:08	5.86	22.40
ZZZZZZZ	707172-014-054-1/1	8/14/2007 2:38	5.86	22.40
ZZZZZZZ	707172-015-055-1/1	8/14/2007 3:08	5.86	22.40
ZZZZZZZ	707172-016-056-1/1	8/14/2007 3:38	5.86	22.40
ZZZZZZZ	707172-011-051-1/1MS	8/14/2007 4:08	5.86	22.40
ZZZZZZZ	707172-011-051-1/1MSD	8/14/2007 4:38	5.86	22.39
BLK99528	BLK99528	8/14/2007 5:08	5.86	22.40
BKS99528	BKS99528	8/14/2007 5:38	5.86	22.39
BKSD99528	BKSD99528	8/14/2007 6:08	5.86	22.40
PIBLK-403	PIBLK-403	8/14/2007 6:38	5.86	22.39
PEM-403	PEM-403	8/14/2007 9:47	5.84	22.38
25-TW01-07C	707187-005-040-1/2	8/14/2007 10:25	5.84	22.38
25-TW02-07C	707187-007-042-1/2	8/14/2007 10:55	5.84	22.38
25-TW03-07C	707187-009-044-1/2	8/14/2007 11:25	5.84	22.38
ZZZZZZZ	GPC PEST BLK	8/14/2007 11:55	0.00	0.00
	GPC PEST CHK	8/14/2007 12:25	0.00	0.00
BLK99531	BLK99531	8/14/2007 12:55	5.84	22.38
BKS99531	BKS99531	8/14/2007 13:25	5.84	22.38
25-IS05-9-11-07C	707187-002-014-1/1	8/14/2007 13:55	5.84	22.38
ZZZZZZZ	708075-013-015-1/1	8/14/2007 14:25	5.84	22.38
ZZZZZZZ	708075-008-010-1/1	8/14/2007 14:55	5.84	22.37

QC LIMITS

TCX = Tetrachloro - m- xylene (+/- 0.05 minutes)
DCB = Decachlorobiphenyl (+/- 0.10 minutes)
# Column used to flag retention time values with an asterisk.
* Values outside of QC Limits.

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GPL LABORATORIES, LLLP Contract: CH2M HILL

Lab Code: GPL Work Order: 707187 SAS No: N/A SDG No: N/A

GC Column: RTx-CLP2 ID: 0.32 (mm) Init.Calib Date: 0813/07

Instrument ID: GC-V

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITAL CALIBRATION
TCX: 5.86 DCB: 22.40

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED | TIME ANALYZED	TCX RT #	DCB RT #
ZZZZZZZ	708075-007-009-1/1	8/14/2007 15:25	5.84	22.38
PIBLK-404	PIBLK-404	8/14/2007 15:55	5.83	22.38
INDAM-403	INDAM-403	8/14/2007 16:25	5.83	22.38
INDBM-403	INDBM-403	8/14/2007 16:55	5.83	22.38
ZZZZZZZ	708075-014-016-1/1	8/14/2007 17:25	5.83	22.38
ZZZZZZZ	708075-019-021-1/1	8/14/2007 17:55	5.83	22.38
25-IS06-0-1-07C	707187-003-015-1/1	8/14/2007 18:25	5.83	22.38
25-IS06-8-10-07C	707187-004-016-1/1	8/14/2007 18:55	5.83	22.38
25-IS06-0-1-07CMS	707187-003-015-1/1MS	8/14/2007 19:25	5.83	22.37
25-IS06-0-1-07CMSD	707187-003-015-1/1MSD	8/14/2007 19:55	5.83	22.37
25-IS05-0-1-07C	707187-001-013-1/1	8/14/2007 20:25	5.83	22.37
ZZZZZZZ	708075-019-021-1/1MS	8/14/2007 20:55	5.83	22.37
ZZZZZZZ	708075-019-021-1/1MSD	8/14/2007 21:25	5.83	22.37
ZZZZZZZ	HEXANE	8/14/2007 21:55	5.88	0.00
PIBLK-405	PIBLK-405	8/14/2007 22:25	5.83	22.37
PEM-404	PEM-404	8/14/2007 22:55	5.83	22.37
ZZZZZZZ	0	1/0/1900 0:00	0.00	0.00
ZZZZZZZ	0	1/0/1900 0:00	0.00	0.00
ZZZZZZZ	0	1/0/1900 0:00	0.00	0.00
ZZZZZZZ	0	1/0/1900 0:00	0.00	0.00
ZZZZZZZ	0	1/0/1900 0:00	0.00	0.00
ZZZZZZZ	0	1/0/1900 0:00	0.00	0.00
ZZZZZZZ	0	1/0/1900 0:00	0.00	0.00
ZZZZZZZ	0	1/0/1900 0:00	0.00	0.00
ZZZZZZZ	0	1/0/1900 0:00	0.00	0.00
ZZZZZZZ	0	1/0/1900 0:00	0.00	0.00

QC LIMITS

TCX = Tetrachloro - m- xylene (+/- 0.05 minutes)
DCB = Decachlorobiphenyl (+/- 0.10 minutes)
# Column used to flag retention time values with an asterisk.
* Values outside of QC Limits.

9A

PESTICIDE FLORISIL CARTRIDGE CHECK

EPA SAMPLE NO.

RSIL LOT CHK 30

Lab Name: GPL LABORATORY Contract: CH2M HILL

Lab Code: GPL LAB Case No.: 707187 SAS No.: N/A SDG No.: N/A

Florisil Cartridge Lot Number: Date of Analysis: 01/16/07

GC Column (1) : RTx-CLP2 ID: 0.32 (mm) GC Column (2) : RTx-CLP ID: 0.32 (mm)

COMPOUND	SPIKE ADDED (ng)	SPIKE RECOVERED (ng)	% REC #	QC. LIMITS REC.
Tetrachloro-m-xylene	10	8	84	80 - 120
alpha-BHC	10	8	83	80 - 120
gamma-BHC (Lindane)	10	9	87	80 - 120
Heptachlor	10	9	93	80 - 120
Endosulfan I	10	9	87	80 - 120
Dieldrin	20	17	87	80 - 120
Endrin	20	17	87	80 - 120
4,4-DDD	20	17	87	80 - 120
4,4-DDT	20	21	105	80 - 120
Methoxychlor	100	99	99	80 - 120
Decachlorobiphenyl	20	18	91	80 - 120

Column to be used to flag recovery with an asterisk.

* Values outside of QC limits.

THIS CARTRIDGE LOT APPLIES TO THE FOLLOWING SAMPLES, BLANKS, MS AND MSD:

	EPA Client Number	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	BLK99528	BLK99528	08/14/07	08/14/07
02	BKS99528	BKS99528	08/14/07	08/14/07
03	BKSD99528	BKSD99528	08/14/07	08/14/07
04	25-IS01-07C	707187-005-040-1/2	08/14/07	08/14/07
05	25-IS02-07C	707187-007-042-1/2	08/14/07	08/14/07
06	25-TW03-07C	707187-009-044-1/2	08/14/07	08/14/07

9A

PESTICIDE FLORISIL CARTRIDGE CHECK

EPA SAMPLE NO.

RSIL LOT CHK 30

Lab Name: GPL LABORATORY Contract: CH2M HILL

Lab Code: GPL LAB Case No.: 707187 SAS No.: N/A SDG No.: N/A

Florisil Cartridge Lot Number: Date of Analysis: 01/16/07

GC Column (1) : RTx-CLP2 ID: 0.32 (mm) GC Column (2) : RTx-CLP ID: 0.32 (mm)

COMPOUND	SPIKE ADDED (ng)	SPIKE RECOVERED (ng)	% REC #	QC. LIMITS REC.
Tetrachloro-m-xylene	10	8	84	80 - 120
alpha-BHC	10	8	83	80 - 120
gamma-BHC (Lindane)	10	9	87	80 - 120
Heptachlor	10	9	93	80 - 120
Endosulfan I	10	9	87	80 - 120
Dieldrin	20	17	87	80 - 120
Endrin	20	17	87	80 - 120
4,4-DDD	20	17	87	80 - 120
4,4-DDT	20	21	105	80 - 120
Methoxychlor	100	99	99	80 - 120
Decachlorobiphenyl	20	18	91	80 - 120

Column to be used to flag recovery with an asterisk.

* Values outside of QC limits.

THIS CARTRIDGE LOT APPLIES TO THE FOLLOWING SAMPLES, BLANKS, MS AND MSD:

	EPA Client Number	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	BLK99531	BLK99531	08/14/07	08/14/07
02	BKS99531	BKS99531	08/14/07	08/14/07
03	25-IS05-0-1-07C	707187-001-013-1/1	08/14/07	08/14/07
04	25-IS05-9-11-07C	707187-002-014-1/1	08/14/07	08/14/07
05	25-IS06-0-1-07C	707187-003-015-1/1	08/14/07	08/14/07
06	25-IS06-8-10-07C	707187-004-016-1/1	08/14/07	08/14/07
07	25-IS06-1-07CMS	707187-003-015-1/1MS	08/14/07	08/14/07
08	25-IS06-0-1-07CMSD	707187-003-015-1/1MS	08/14/07	08/14/07

9B

PESTICIDE GPC CALIBRATION

EPA SAMPLE NO.

C PEST CHK 7/27

Lab Name: GPL LABORATORY Contract: CH2M HILL

Lab Code: GPL LAB Case No.: 707187 SAS No.: N/A SDG No.: N/A

GPC Column: Date of Analysis: 08/13/07

GC Column (1) : RTx-CLP ID: 0.32 (mm) GC Column (2) : RTx-CLP ID: 0.32 (mm)

COMPOUND	SPIKE ADDED (ng)	SPIKE RECOVERED (ng)	% REC #	QC. LIMITS REC.
gamma-BHC (Lindane)	50	60	120 *	80 - 110
Heptachlor	50	58	117 *	80 - 110
Aldrin	50	82	164 *	80 - 110
Dieldrin	100	83	83	80 - 110
Endrin	100	90	90	80 - 110
4,4-DDT	100	92	92	80 - 110

Column to be used to flag recovery with an asterisk.

* Values outside of QC limits.

THIS GPC CALIBRATION APPLIES TO THE FOLLOWING SAMPLES, BLANKS, MS AND MSD

	EPA Client Number	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	BLK99531	BLK99531	08/14/07	08/14/07
02	BKS99531	BKS99531	08/14/07	08/14/07
03	25-IS05-0-1-07C	707187-001-013-1/1	08/14/07	08/14/07
04	25-IS05-9-11-07C	707187-002-014-1/1	08/14/07	08/14/07
05	25-IS06-0-1-07C	707187-003-015-1/1	08/14/07	08/14/07
06	25-IS06-8-10-07C	707187-004-016-1/1	08/14/07	08/14/07
07	25-IS06-1-07CMS	707187-003-015-1/1MS	08/14/07	08/14/07
08	25-IS06-0-1-07CMSD	707187-003-015-1/1MS	08/14/07	08/14/07

10A

PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

EPA SAMPLE NO.

25-IS05-0-1-07C

Lab Name: GPL LABORATORY Contract: CH2M HILL

Lab Code: GPL LAB Case No.: 707187 SAS No.: N/A SDG No.: N/A

Lab Sample ID: 707187-001-013-1/1 Date(s) Analyzed: 08/14/07 08/14/07

Instrument ID (1): GC-V Instrument ID (2): GC-V

GC Column (1): RTx-CLP ID: 0.32 (mm) GC Column (2): RTx-CL ID: 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%D
4,4-DDE	1	14.61	14.58	14.72	5.6	19.1
	2	14.62	14.59	14.73	4.7	
Dieldrin	1	15.58	15.55	15.69	6.4	156.0
	2	15.16	15.07	15.21	2.5	
4,4-DDD	1	16.58	16.55	16.69	4.9	44.1
	2	16.53	16.51	16.65	3.4	
4,4-DDT	1	17.49	17.45	17.59	10	100.0
	2	17.53	17.50	17.64	20	

10B

PESTICIDE IDENTIFICATION SUMMARY

FOR MULTI-COMPONENT ANALYTES

EPA SAMPLE NO.

25-IS05-0-1-07C

Lab Name: GPL LABORATORY Contract: GENERAL

Lab Code: GPL Case No.: 707187 SAS No.: N/A SDG No.: 707187

Lab Sample ID: 707187-001-013-1/1 Date(s) Analyzed: 08/14/07

Instrument ID (1): GC-V Instrument ID (2): GC-V

GC Column (1): RTx-CLP ID: 0.32 (mm) GC Column (2): RTx-CLP ID: 0.32 (mm)

ANALYTE	PEAK	RT	RT Window From	RT Window To	CONCENTRATION	MEAN CONCENTRATION	%D
PCB-1260	1	15.58	15.54	15.68	120		
Column 1	2	16.49	16.46	16.60	130		
	3	17.73	17.69	17.83	100		
	4	18.37	18.33	18.47	110		
	5	19.08	19.03	19.17	140	120	
	1	15.68	15.65	15.79	110		
Column 2	2	16.37	16.34	16.48	120		
	3	17.53	17.50	17.64	190		
	4	18.52	18.49	18.63	110		
	5	19.08	19.04	19.18	140	130	-8.3

At least 3 peaks are required for identification of multicomponent analytes

10A

PESTICIDE IDENTIFICATION SUMMARY

FOR SINGLE COMPONENT ANALYTES

EPA SAMPLE NO.

25-IS06-0-1-07CMS

Lab Name: GPL LABORATORY Contract: GENERAL

Lab Code: GPL Case No.: 707187 SAS No.: N/A SDG No.: 707187

Lab Sample ID: 707187-003-015-1/1MS Date(s) Analyzed: 08/14/07

Instrument ID (1): GC-V Instrument ID (2): GC-V

GC Column (1): RTx-CLP ID: 0.32 (mm) GC Column (2): RTx-CLP ID: 0.32 (mm)

ANALYTE	COL	RT	RT Window From	RT Window To	CONCENTRATION	%D
4,4-DDD	1	16.59	16.55	16.69	0.71	
	2	16.54	16.51	16.65	0.89	-25.4
4,4-DDE	1	14.62	14.58	14.72	3.0	
	2	14.62	14.59	14.73	3.0	0.0
4,4-DDT	1	17.49	17.45	17.59	28	
	2	17.54	17.50	17.64	30	-7.1
Aldrin	1	11.56	11.54	11.64	21	
	2	11.10	11.09	11.19	23	-9.5
Dieldrin	1	15.59	15.55	15.69	25	
	2	15.09	15.07	15.21	26	-4.0
Endrin	1	16.35	16.32	16.46	28	
	2	16.08	16.05	16.19	31	-10.7
Endrin Aldehyde	1	18.28	18.23	18.37	2.2	
	2	17.85	17.81	17.95	2.6	-18.2
Endrin Ketone	1	19.84	19.79	19.93	2.6	
	2	19.66	19.62	19.76	2.5	4.0
Gamma-BHC (Lindane)	1	9.07	9.06	9.16	12	
	2	8.74	8.73	8.83	12	0.0
Heptachlor	1	10.59	10.58	10.68	16	
	2	10.09	10.08	10.18	17	-6.3

10A

PESTICIDE IDENTIFICATION SUMMARY

FOR SINGLE COMPONENT ANALYTES

EPA SAMPLE NO.

25-IS06-0-1-07CMSD

Lab Name: GPL LABORATORY Contract: GENERAL

Lab Code: GPL Case No.: 707187 SAS No.: N/A SDG No.: 707187

Lab Sample ID: 707187-003-015-1/1MSD Date(s) Analyzed: 08/14/07

Instrument ID (1): GC-V Instrument ID (2): GC-V

GC Column (1): RTx-CLP ID: 0.32 (mm) GC Column (2): RTx-CLP ID: 0.32 (mm)

ANALYTE	COL	RT	RT Window From	RT Window To	CONCENTRATION	%D
4,4-DDD	1	16.59	16.55	16.69	0.63	
	2	16.53	16.51	16.65	0.92	-46.0
4,4-DDE	1	14.61	14.58	14.72	3.0	
	2	14.62	14.59	14.73	2.9	3.4
4,4-DDT	1	17.49	17.45	17.59	28	
	2	17.54	17.50	17.64	32	-14.3
Aldrin	1	11.56	11.54	11.64	22	
	2	11.10	11.09	11.19	23	-4.5
Dieldrin	1	15.59	15.55	15.69	26	
	2	15.09	15.07	15.21	27	-3.8
Endrin	1	16.35	16.32	16.46	29	
	2	16.08	16.05	16.19	33	-13.8
Endrin Aldehyde	1	18.28	18.23	18.37	2.6	
	2	17.85	17.81	17.95	2.6	0.0
Endrin Ketone	1	19.84	19.79	19.93	2.8	
	2	19.66	19.62	19.76	2.9	-3.6
Gamma-BHC (Lindane)	1	9.07	9.06	9.16	12	
	2	8.74	8.73	8.83	13	-8.3
Heptachlor	1	10.59	10.58	10.68	16	
	2	10.09	10.08	10.18	18	-12.5

10A

PESTICIDE IDENTIFICATION SUMMARY

FOR SINGLE COMPONENT ANALYTES

EPA SAMPLE NO.

BKS99531

Lab Name: GPL LABORATORY Contract: GENERAL

Lab Code: GPL Case No.: 0 SAS No.: N/A SDG No.: N/A

Lab Sample ID: BKS99531 Date(s) Analyzed: 08/14/07

Instrument ID (1): GC-V Instrument ID (2): GC-V

GC Column (1): RTx-CLP ID: 0.32 (mm) GC Column (2): RTx-CLP ID: 0.32 (mm)

ANALYTE	COL	RT	RT Window From	RT Window To	CONCENTRATION	%D
4,4-DDD	1	16.59	16.55	16.69	0.88	
	2	16.54	16.51	16.65	1.1	-25.0
4,4-DDE	1	14.62	14.58	14.72	2.5	
	2	14.63	14.59	14.73	2.5	0.0
4,4-DDT	1	17.50	17.45	17.59	22	
	2	17.54	17.50	17.64	23	-4.5
Aldrin	1	11.56	11.54	11.64	17	
	2	11.10	11.09	11.19	18	-5.9
Dieldrin	1	15.59	15.55	15.69	22	
	2	15.10	15.07	15.21	23	-4.5
Endrin	1	16.36	16.32	16.46	23	
	2	16.09	16.05	16.19	27	-17.4
Endrin Aldehyde	1	18.28	18.23	18.37	2.3	
	2	17.85	17.81	17.95	2.8	-21.7
Endrin Ketone	1	19.84	19.79	19.93	2.5	
	2	19.66	19.62	19.76	2.7	-8.0
Gamma-BHC (Lindane)	1	9.08	9.06	9.16	9.7	
	2	8.75	8.73	8.83	10	-3.1
Heptachlor	1	10.59	10.58	10.68	13	
	2	10.10	10.08	10.18	14	-7.7

10A

PESTICIDE IDENTIFICATION SUMMARY

FOR SINGLE COMPONENT ANALYTES

EPA SAMPLE NO.

BKS99528

Lab Name: GPL LABORATORY Contract: GENERAL

Lab Code: GPL Case No.: 0 SAS No.: N/A SDG No.: N/A

Lab Sample ID: BKS99528 Date(s) Analyzed: 08/14/07

Instrument ID (1): GC-V Instrument ID (2): GC-V

GC Column (1): RTx-CLP ID: 0.32 (mm) GC Column (2): RTx-CLP ID: 0.32 (mm)

ANALYTE	COL	RT	RT Window From	RT Window To	CONCENTRATION	%D
4,4-DDE	1	14.64	14.58	14.72	0.070	
	2	14.65	14.59	14.73	0.070	0.0
4,4-DDT	1	17.51	17.45	17.59	0.68	
	2	17.56	17.50	17.64	0.72	-5.9
Aldrin	1	11.58	11.54	11.64	0.49	
	2	11.12	11.09	11.19	0.51	-4.1
Dieldrin	1	15.61	15.55	15.69	0.71	
	2	15.12	15.07	15.21	0.71	0.0
Endrin	1	16.38	16.32	16.46	0.80	
	2	16.11	16.05	16.19	0.78	2.6
Endrin Aldehyde	1	18.30	18.23	18.37	0.12	
	2	17.87	17.81	17.95	0.12	0.0
Endrin Ketone	1	19.86	19.79	19.93	0.11	
	2	19.68	19.62	19.76	0.12	-9.1
Gamma-BHC (Lindane)	1	9.10	9.06	9.16	0.30	
	2	8.77	8.73	8.83	0.30	0.0
Heptachlor	1	10.61	10.58	10.68	0.40	
	2	10.12	10.08	10.18	0.41	-2.5

10A

PESTICIDE IDENTIFICATION SUMMARY

FOR SINGLE COMPONENT ANALYTES

EPA SAMPLE NO.

BKSD99528

Lab Name: GPL LABORATORY Contract: GENERAL

Lab Code: GPL Case No.: 0 SAS No.: N/A SDG No.: N/A

Lab Sample ID: BKSD99528 Date(s) Analyzed: 08/14/07

Instrument ID (1): GC-V Instrument ID (2): GC-V

GC Column (1): RTx-CLP ID: 0.32 (mm) GC Column (2): RTx-CLP ID: 0.32 (mm)

ANALYTE	COL	RT	RT Window From	RT Window To	CONCENTRATION	%D
4,4-DDE	1	14.64	14.58	14.72	0.070	
	2	14.65	14.59	14.73	0.080	-14.3
4,4-DDT	1	17.52	17.45	17.59	0.60	
	2	17.56	17.50	17.64	0.71	-18.3
Aldrin	1	11.59	11.54	11.64	0.50	
	2	11.13	11.09	11.19	0.52	-4.0
Dieldrin	1	15.62	15.55	15.69	0.72	
	2	15.13	15.07	15.21	0.73	-1.4
Endrin	1	16.38	16.32	16.46	0.67	
	2	16.11	16.05	16.19	0.76	-13.4
Endrin Aldehyde	1	18.30	18.23	18.37	0.15	
	2	17.88	17.81	17.95	0.16	-6.7
Endrin Ketone	1	19.86	19.79	19.93	0.13	
	2	19.68	19.62	19.76	0.14	-7.7
Gamma-BHC (Lindane)	1	9.10	9.06	9.16	0.30	
	2	8.77	8.73	8.83	0.32	-6.7
Heptachlor	1	10.62	10.58	10.68	0.39	
	2	10.12	10.08	10.18	0.42	-7.7

LOW IMPACT EXPLOSIVES AND PROPELLANTS

GPL Laboratories

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GR-TW03-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707187-011-054-1/1
Sample Volume :	770	Lab File ID :	LCD37936.D
% Moisture:		Date Received	07/28/2007
Extraction:	EXT_SW8330	Date Extracted:	08/02/2007
Extract Volume:	20 mL	Date Analyzed	08/06/2007
Injection Volume :	100 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
99-35-4	1,3,5-Trinitrobenzene	0.26	U
99-65-0	1,3-Dinitrobenzene	0.26	U
118-96-7	2,4,6-Trinitrotoluene	0.26	U
121-14-2	2,4-Dinitrotoluene	0.26	U
606-20-2	2,6-Dinitrotoluene	0.26	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.26	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.26	U
2691-41-0	HMX	0.52	U
98-95-3	Nitrobenzene	0.26	U
121-82-4	RDX	0.52	U
479-45-8	Tetryl	0.52	U
99-08-1	m-Nitrotoluene	0.52	U
88-72-2	o-Nitrotoluene	0.52	U
99-99-0	p-Nitrotoluene	0.52	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BLK99514

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BLK99514
Sample Volume :	770	Lab File ID :	LCD37966.D
% Moisture:		Date Received	
Extraction:	EXT_SW8330	Date Extracted:	08/02/2007
Extract Volume:	20 mL	Date Analyzed	08/07/2007
Injection Volume :	100 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
99-35-4	1,3,5-Trinitrobenzene	0.26	U
99-65-0	1,3-Dinitrobenzene	0.26	U
118-96-7	2,4,6-Trinitrotoluene	0.26	U
121-14-2	2,4-Dinitrotoluene	0.26	U
606-20-2	2,6-Dinitrotoluene	0.26	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.26	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.26	U
2691-41-0	HMX	0.52	U
98-95-3	Nitrobenzene	0.26	U
121-82-4	RDX	0.52	U
479-45-8	Tetryl	0.52	U
99-08-1	m-Nitrotoluene	0.52	U
88-72-2	o-Nitrotoluene	0.52	U
99-99-0	p-Nitrotoluene	0.52	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BKS99514

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BKS99514
Sample Volume :	770	Lab File ID :	LCD37934.D
% Moisture:		Date Received	
Extraction:	EXT_SW8330	Date Extracted:	08/02/2007
Extract Volume:	20 mL	Date Analyzed	08/06/2007
Injection Volume :	100 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
99-35-4	1,3,5-Trinitrobenzene	5.4	
99-65-0	1,3-Dinitrobenzene	5.4	
118-96-7	2,4,6-Trinitrotoluene	6.0	
121-14-2	2,4-Dinitrotoluene	5.1	
606-20-2	2,6-Dinitrotoluene	5.2	
35572-78-2	2-Amino-4,6-Dinitrotoluene	5.3	
19406-51-0	4-Amino-2,6-Dinitrotoluene	5.4	
2691-41-0	HMX	5.4	
98-95-3	Nitrobenzene	5.5	
121-82-4	RDX	5.1	
479-45-8	Tetryl	3.8	
99-08-1	m-Nitrotoluene	5.5	
88-72-2	o-Nitrotoluene	5.4	
99-99-0	p-Nitrotoluene	5.4	

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BKSD99514

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707187
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BKSD99514
Sample Volume :	770	Lab File ID :	LCD38009.D
% Moisture:		Date Received	
Extraction:	EXT_SW8330	Date Extracted:	08/02/2007
Extract Volume:	20 mL	Date Analyzed	08/10/2007
Injection Volume :	100 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
99-35-4	1,3,5-Trinitrobenzene	6.2	
99-65-0	1,3-Dinitrobenzene	6.2	
118-96-7	2,4,6-Trinitrotoluene	7.1	
121-14-2	2,4-Dinitrotoluene	6.0	
606-20-2	2,6-Dinitrotoluene	6.1	
35572-78-2	2-Amino-4,6-Dinitrotoluene	6.1	
19406-51-0	4-Amino-2,6-Dinitrotoluene	6.2	
2691-41-0	HMX	7.3	
98-95-3	Nitrobenzene	6.7	
121-82-4	RDX	5.8	
479-45-8	Tetryl	4.9	
99-08-1	m-Nitrotoluene	6.3	
88-72-2	o-Nitrotoluene	6.2	
99-99-0	p-Nitrotoluene	6.2	

Surrogate Recovery Summary

Matrix : WATER **Analytical Method : SW8330** **SDG No : 707187**

Surrogate	NO2ANIL4
Lower QC Limits	37
Upper QC Limits	149
Sample ID	
BKS99514	102
BKSD99514	121
BLK99514	99
GR-TW03-07C	43

* Value outside of QC Limts

NO2ANIL4 = 4-Nitroaniline

GPL Laboratories

BKS/BSD RECOVERY

SAMPLE NO
BKSD99514

Lab Name : GPL Laboratories SDG NO : 707187 Method : SW8330

Lab Code : GPL Lab Sample ID : BKSD99514 Matrix : WATER Analysis Date : 08/10/2007

Compound	Spike Added (ug/L)	CONCENTRATION (ug/L) BLANK	BKS	BSD	%RECOVERY BKS	BSD	% RPD	RPD Limit	QC Limits
1,3,5-Trinitrobenzene	6.5	0.0	5.4	6.3	83	95	13	25	65-140
1,3-Dinitrobenzene	6.5	0.0	5.4	6.2	83	95	13	25	45-160
2,4,6-Trinitrotoluene	6.5	0.0	6.1	7.1	92	109	17	25	50-145
2,4-Dinitrotoluene	6.5	0.0	5.1	6.0	79	92	15	25	60-135
2,6-Dinitrotoluene	6.5	0.0	5.2	6.1	80	94	16	25	60-135
2-Amino-4,6-Dinitrotoluene	6.5	0.0	5.3	6.1	82	94	14	25	50-155
4-Amino-2,6-Dinitrotoluene	6.5	0.0	5.4	6.2	83	95	13	25	55-155
HMX	6.5	0.0	5.5	7.3	83	112	30 *	25	80-115
Nitrobenzene	6.5	0.0	5.5	6.7	85	103	19	25	50-140
RDX	6.5	0.0	5.1	5.8	79	89	12	25	50-160
Tetryl	6.5	0.0	3.8	4.9	59	75	24	25	20-175
m-Nitrotoluene	6.5	0.0	5.5	6.3	85	97	13	25	50-130
o-Nitrotoluene	6.5	0.0	5.4	6.2	83	95	13	25	45-135
p-Nitrotoluene	6.5	0.0	5.4	6.2	83	95	13	25	50-130

Column to be used to flag recovery and RPD Values with an asterisk.

* Values Outside of QC Limits.

RPD 1 Out of 14 Outside Limit
Spike Recovery : 0 Out of 28 outside limit

GPL Laboratories

GPL
FORM 4
EXPLOSIVE METHOD BLANK SUMMARY

SAMPLE NO
BLK99514

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	99514
Lab File ID :	LCD37966.D	SDG NO :	707187
Date Analyzed	08/07/2007	Lab Sample ID :	BLK99514
Date Extracted :	08/02/2007	Time Analyzed :	17:23
Matrix :(Soil/Water).	WATER	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
BKS99514	BKS99514	LCD37934.D	08/06/2007
GR-TW03-07C	707187-011-054-1/1	LCD37936.D	08/06/2007
BKSD99514	BKSD99514	LCD38009.D	08/10/2007

Response Factor Report LCD

Method : H:\LCDATA\LCD\METHODS\74108330.M (Chemstation Integrator)
Title : 8330 Explosives
Last Update : Fri Aug 10 14:07:48 2007

Calibration Files
LEV1 =LCD36223.D LEV2 =LCD36224.D LEV3 =LCD36225.D
LEV4 =LCD36226.D LEV5 =LCD36227.D LEV6 =LCD36228.D

		Compound	LEV1	LEV2	LEV3	LEV4	LEV5	LEV6	Avg		%RSD
1)	T	HMX	1.315	1.368	1.278	1.420	1.421	1.433	1.379	E5	4.45
2)	S	4-Nitroaniline	1.239	1.199	1.201	1.295	1.330	1.374	1.295	E5	6.80
3)	T	1,3,5-Trinitrobenze	3.623	3.551	3.490	3.777	3.847	3.914	3.733	E5	4.76
4)	T	Tetryl	2.620	2.497	2.596	2.810	2.871	2.883	2.743	E5	6.16
5)	T	2,4,6-Trinitrotolue	3.716	3.384	3.229	3.491	3.559	3.620	3.518	E5	4.73
6)	T	4-Amino-2,6-Dinitro	2.640	2.796	2.326	2.493	2.555	2.610	2.576	E5	5.61
7)	T	2,6-Dinitrotoluene	2.454	2.468	2.258	2.437	2.501	2.529	2.452	E5	3.74
8)	T	4-Nitrotoluene	1.533	1.662	1.637	1.797	1.789	1.842	1.731	E5	7.00
9)	M	RDX	2.467	2.074	1.769	1.774	1.730	1.718	1.897	E5	14.75
10)	M	1,3-Dinitrobenzene	5.043	4.712	4.751	5.140	5.234	5.324	5.077	E5	5.07
11)	M	Nitrobenzene	3.040	3.033	3.109	3.368	3.386	3.473	3.270	E5	6.18
12)	M	2-Amino-4,6-Dinitro	3.645	3.531	3.318	3.540	3.654	3.706	3.584	E5	3.79
13)	M	2,4-Dinitrotoluene	4.821	4.731	4.501	4.913	5.036	5.146	4.897	E5	4.76
14)	M	2-Nitrotoluene	1.998	1.991	1.969	2.126	2.152	2.199	2.092	E5	4.95
15)	M	3-Nitrotoluene	2.062	1.941	2.091	2.289	2.285	2.343	2.195	E5	7.39

(#) = Out of Range ### Number of calibration levels exceeded format ###

Continuing Calibration Report LCD

Method : H:\LCDATA\LCD\METHODS\74108330.M (Chemstation Integrator)
Title : 8330 Explosives
Last Update : Fri Aug 10 14:07:04 2007
Response via : Initial Calibration

Continuing Calibration File: LCD37932.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF		%Dev	Area%
1	T	HMX	137.939	155.566	E3	-12.8	110
2	S	4-Nitroaniline	129.526	117.644	E3	9.2	91
3	T	1,3,5-Trinitrobenzene	373.283	386.787	E3	-3.6	102
4	T	Tetryl	274.340	236.955	E3	13.6	84
5	T	2,4,6-Trinitrotoluene	351.836	358.190	E3	-1.8	103
6	T	4-Amino-2,6-Dinitrotoluene	257.572	270.951	E3	-5.2	109
7	T	2,6-Dinitrotoluene	245.206	249.804	E3	-1.9	102
8	T	4-Nitrotoluene	173.060	178.657	E3	-3.2	99
9	M	RDX	189.730	175.305	E3	7.6	99
10	M	1,3-Dinitrobenzene	507.701	551.032	E3	-8.5	107
11	M	Nitrobenzene	327.030	359.557	E3	-9.9	107
12	M	2-Amino-4,6-Dinitrotoluene	358.392	360.766	E3	-0.7	102
13	M	2,4-Dinitrotoluene	489.655	504.966	E3	-3.1	103
14	M	2-Nitrotoluene	209.229	216.347	E3	-3.4	102
15	M	3-Nitrotoluene	219.518	226.732	E3	-3.3	99

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Continuing Calibration Report LCD

Method : H:\LCDATA\LCD\METHODS\74108330.M (Chemstation Integrator)
Title : 8330 Explosives
Last Update : Fri Aug 10 14:07:12 2007
Response via : Initial Calibration

Continuing Calibration File: LCD37944.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF		%Dev	Area%
1	T	HMX	137.939	147.645	E3	-7.0	104
2	S	4-Nitroaniline	129.526	117.201	E3	9.5	91
3	T	1,3,5-Trinitrobenzene	373.283	387.772	E3	-3.9	103
4	T	Tetryl	274.340	237.740	E3	13.3	85
5	T	2,4,6-Trinitrotoluene	351.836	358.590	E3	-1.9	103
6	T	4-Amino-2,6-Dinitrotoluene	257.572	271.243	E3	-5.3	109
7	T	2,6-Dinitrotoluene	245.206	253.500	E3	-3.4	104
8	T	4-Nitrotoluene	173.060	180.122	E3	-4.1	100
9	M	RDX	189.730	176.734	E3	6.8	100
10	M	1,3-Dinitrobenzene	507.701	550.022	E3	-8.3	107
11	M	Nitrobenzene	327.030	355.727	E3	-8.8	106
12	M	2-Amino-4,6-Dinitrotoluene	358.392	364.716	E3	-1.8	103
13	M	2,4-Dinitrotoluene	489.655	512.512	E3	-4.7	104
14	M	2-Nitrotoluene	209.229	216.053	E3	-3.3	102
15	M	3-Nitrotoluene	219.518	229.492	E3	-4.5	100

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Continuing Calibration Report LCD

Method : H:\LCDATA\LCD\METHODS\74108330.M (Chemstation Integrator)
Title : 8330 Explosives
Last Update : Fri Aug 10 14:07:20 2007
Response via : Initial Calibration

Continuing Calibration File: LCD37956.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF		%Dev	Area%
1	T	HMX	137.939	157.645	E3	-14.3	111
2	S	4-Nitroaniline	129.526	133.796	E3	-3.3	103
3	T	1,3,5-Trinitrobenzene	373.283	427.762	E3	-14.6	113
4	T	Tetryl	274.340	267.180	E3	2.6	95
5	T	2,4,6-Trinitrotoluene	351.836	403.819	E3	-14.8	116
6	T	4-Amino-2,6-Dinitrotoluene	257.572	293.951	E3	-14.1	118
7	T	2,6-Dinitrotoluene	245.206	281.073	E3	-14.6	115
8	T	4-Nitrotoluene	173.060	199.012	E3	-15.0	111
9	M	RDX	189.730	204.944	E3	-8.0	115
10	M	1,3-Dinitrobenzene	507.701	578.827	E3	-14.0	113
11	M	Nitrobenzene	327.030	350.573	E3	-7.2	104
12	M	2-Amino-4,6-Dinitrotoluene	358.392	408.710	E3	-14.0	115
13	M	2,4-Dinitrotoluene	489.655	559.847	E3	-14.3	114
14	M	2-Nitrotoluene	209.229	225.221	E3	-7.6	106
15	M	3-Nitrotoluene	219.518	245.414	E3	-11.8	107

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Continuing Calibration Report LCD

Method : H:\LCDATA\LCD\METHODS\74108330.M (Chemstation Integrator)
Title : 8330 Explosives
Last Update : Fri Aug 10 14:07:29 2007
Response via : Initial Calibration

Continuing Calibration File: LCD37969.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF		%Dev	Area%
1	T	HMX	137.939	143.945	E3	-4.4	101
2	S	4-Nitroaniline	129.526	118.615	E3	8.4	92
3	T	1,3,5-Trinitrobenzene	373.283	394.090	E3	-5.6	104
4	T	Tetryl	274.340	233.536	E3	14.9	83
5	T	2,4,6-Trinitrotoluene	351.836	363.215	E3	-3.2	104
6	T	4-Amino-2,6-Dinitrotoluene	257.572	273.764	E3	-6.3	110
7	T	2,6-Dinitrotoluene	245.206	256.743	E3	-4.7	105
8	T	4-Nitrotoluene	173.060	182.234	E3	-5.3	101
9	M	RDX	189.730	178.535	E3	5.9	101
10	M	1,3-Dinitrobenzene	507.701	558.557	E3	-10.0	109
11	M	Nitrobenzene	327.030	354.957	E3	-8.5	105
12	M	2-Amino-4,6-Dinitrotoluene	358.392	368.166	E3	-2.7	104
13	M	2,4-Dinitrotoluene	489.655	515.510	E3	-5.3	105
14	M	2-Nitrotoluene	209.229	218.549	E3	-4.5	103
15	M	3-Nitrotoluene	219.518	231.104	E3	-5.3	101

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Continuing Calibration Report LCD

Method : H:\LCDATA\LCD\METHODS\74108330.M (Chemstation Integrator)
Title : 8330 Explosives
Last Update : Fri Aug 10 14:07:40 2007
Response via : Initial Calibration

Continuing Calibration File: LCD38008.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF		%Dev	Area%
1	T	HMX	137.939	157.820	E3	-14.4	111
2	S	4-Nitroaniline	129.526	116.469	E3	10.1	90
3	T	1,3,5-Trinitrobenzene	373.283	393.710	E3	-5.5	104
4	T	Tetryl	274.340	236.308	E3	13.9	84
5	T	2,4,6-Trinitrotoluene	351.836	362.564	E3	-3.0	104
6	T	4-Amino-2,6-Dinitrotoluene	257.572	272.768	E3	-5.9	109
7	T	2,6-Dinitrotoluene	245.206	253.924	E3	-3.6	104
8	T	4-Nitrotoluene	173.060	183.195	E3	-5.9	102
9	M	RDX	189.730	182.968	E3	3.6	103
10	M	1,3-Dinitrobenzene	507.701	562.328	E3	-10.8	109
11	M	Nitrobenzene	327.030	358.167	E3	-9.5	106
12	M	2-Amino-4,6-Dinitrotoluene	358.392	363.668	E3	-1.5	103
13	M	2,4-Dinitrotoluene	489.655	514.643	E3	-5.1	105
14	M	2-Nitrotoluene	209.229	220.473	E3	-5.4	104
15	M	3-Nitrotoluene	219.518	229.415	E3	-4.5	100

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Continuing Calibration Report LCD

Method : H:\LCDATA\LCD\METHODS\74108330.M (Chemstation Integrator)
Title : 8330 Explosives
Last Update : Fri Aug 10 14:07:48 2007
Response via : Initial Calibration

Continuing Calibration File: LCD38010.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF		%Dev	Area%
1	T	HMX	137.939	154.762	E3	-12.2	109
2	S	4-Nitroaniline	129.526	116.300	E3	10.2	90
3	T	1,3,5-Trinitrobenzene	373.283	394.286	E3	-5.6	104
4	T	Tetryl	274.340	233.783	E3	14.8	83
5	T	2,4,6-Trinitrotoluene	351.836	362.008	E3	-2.9	104
6	T	4-Amino-2,6-Dinitrotoluene	257.572	271.325	E3	-5.3	109
7	T	2,6-Dinitrotoluene	245.206	249.760	E3	-1.9	102
8	T	4-Nitrotoluene	173.060	185.163	E3	-7.0	103
9	M	RDX	189.730	183.528	E3	3.3	103
10	M	1,3-Dinitrobenzene	507.701	564.796	E3	-11.2	110
11	M	Nitrobenzene	327.030	359.496	E3	-9.9	107
12	M	2-Amino-4,6-Dinitrotoluene	358.392	360.936	E3	-0.7	102
13	M	2,4-Dinitrotoluene	489.655	513.086	E3	-4.8	104
14	M	2-Nitrotoluene	209.229	220.271	E3	-5.3	104
15	M	3-Nitrotoluene	219.518	232.695	E3	-6.0	102

(#) = 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.: 707187W

SOW No.: ILM05.3

EPA Sample No.	Lab Sample ID
25-TW01-07C	S 707187-005-046-1/1
25-TW01-07C FIL	S 707187-006-047-1/1
25-TW02-07C	S 707187-007-048-1/1
25-TW02-07C FIL	S 707187-008-049-1/1
25-TW03-07C	S 707187-009-050-1/1
25-TW03-07C FIL	S 707187-010-051-1/1
25-TW03-07C FIL MD	D 707187-010-051-1/1
25-TW03-07C FIL MS	SP707187-010-051-1/1
GC-TW02-07C	S 707158-005-041-1/1
GC-TW02-07C MD	D 707158-005-041-1/1
GC-TW02-07C MS	SP707158-005-041-1/1
GR-TW03-07C	S 707187-011-052-1/1
GR-TW03-07C FIL	S 707187-012-053-1/1

		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: Name: RITA AMIN

Date: 8/16/2007 Title: Metals Reporting

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

25-TW01-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187W

Matrix: (soil/water) WATER Lab Sample ID: S 707187-005-046-1/1

Level: (low/med) Date Recieved: 07/28/2007

% 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	2540		N	P
7440-36-0	Antimony	60.0	U		P
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	56.3	J		P
7441-41-7	Beryllium	5.0	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	449	J		P
7440-47-3	Chromium	8.4	J		P
7440-48-4	Cobalt	1.0	J		P
7440-50-8	Copper	2.2	J		P
7439-89-6	Iron	1420			P
7439-92-1	Lead	2.3	J		P
7439-95-4	Magnesium	2430	J		P
7439-96-5	Manganese	6.2	J		P
7440-02-0	Nickel	40.0	U		P
7439-97-6	Mercury	0.032	J		CV
7440-09-7	Potassium	1840	J		P
7782-49-2	Selenium	35.0	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	44300			P
7440-28-0	Thallium	6.3	J		P
7440-62-2	Vanadium	4.7	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.

25-TW01-07C FIL

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187W

Matrix: (soil/water) WATER Lab Sample ID: S 707187-006-047-1/1

Level: (low/med) Date Recieved: 07/28/2007

% 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	115	J	N	P
7440-36-0	Antimony	60.0	U		P
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	34.5	J		P
7441-41-7	Beryllium	5.0	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	367	J		P
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	1.3	J		P
7440-50-8	Copper	2.2	J		P
7439-89-6	Iron	289			P
7439-92-1	Lead	10.0	U		P
7439-95-4	Magnesium	2250	J		P
7439-96-5	Manganese	3.5	J		P
7440-02-0	Nickel	40.0	U		P
7439-97-6	Mercury	0.20	U		CV
7440-09-7	Potassium	1630	J		P
7782-49-2	Selenium	35.0	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	43800			P
7440-28-0	Thallium	25.0	U		P
7440-62-2	Vanadium	50.0	U		P
7440-66-6	Zinc	9.3	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.

25-TW02-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187W

Matrix: (soil/water) WATER Lab Sample ID: S 707187-007-048-1/1

Level: (low/med) Date Recieved: 07/28/2007

% 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	158	J	N	P
7440-36-0	Antimony	60.0	U		P
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	13.5	J		P
7441-41-7	Beryllium	5.0	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	381	J		P
7440-47-3	Chromium	1.7	J		P
7440-48-4	Cobalt	0.70	J		P
7440-50-8	Copper	1.6	J		P
7439-89-6	Iron	676			P
7439-92-1	Lead	10.0	U		P
7439-95-4	Magnesium	806	J		P
7439-96-5	Manganese	6.3	J		P
7440-02-0	Nickel	2.4	J		P
7439-97-6	Mercury	0.39			CV
7440-09-7	Potassium	1250	J		P
7782-49-2	Selenium	35.0	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	8880			P
7440-28-0	Thallium	25.0	U		P
7440-62-2	Vanadium	0.64	J		P
7440-66-6	Zinc	8.2	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.

25-TW02-07C FIL

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187W

Matrix: (soil/water) WATER Lab Sample ID: S 707187-008-049-1/1

Level: (low/med) Date Recieved: 07/28/2007

% 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	200	U	N	P
7440-36-0	Antimony	60.0	U		P
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	12.7	J		P
7441-41-7	Beryllium	5.0	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	594	J		P
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	50.0	U		P
7440-50-8	Copper	3.4	J		P
7439-89-6	Iron	524			P
7439-92-1	Lead	10.0	U		P
7439-95-4	Magnesium	842	J		P
7439-96-5	Manganese	6.1	J		P
7440-02-0	Nickel	2.9	J		P
7439-97-6	Mercury	0.20	U		CV
7440-09-7	Potassium	1280	J		P
7782-49-2	Selenium	35.0	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	9210			P
7440-28-0	Thallium	25.0	U		P
7440-62-2	Vanadium	50.0	U		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.

25-TW03-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187W

Matrix: (soil/water) WATER Lab Sample ID: S 707187-009-050-1/1

Level: (low/med) Date Recieved: 07/28/2007

% 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	922		N	P
7440-36-0	Antimony	60.0	U		P
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	38.2	J		P
7441-41-7	Beryllium	5.0	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	578	J		P
7440-47-3	Chromium	1.9	J		P
7440-48-4	Cobalt	0.70	J		P
7440-50-8	Copper	2.2	J		P
7439-89-6	Iron	377			P
7439-92-1	Lead	10.0	U		P
7439-95-4	Magnesium	1510	J		P
7439-96-5	Manganese	4.2	J		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	1.8	J		P
7440-09-7	Potassium	1410	J		P
7782-49-2	Selenium	35.0	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	11500			P
7440-28-0	Thallium	25.0	U		P
7440-62-2	Vanadium	1.6	J		P
7440-66-6	Zinc	14.2	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.

25-TW03-07C FIL

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187W

Matrix: (soil/water) WATER Lab Sample ID: S 707187-010-051-1/1

Level: (low/med) Date Recieved: 07/28/2007

% 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	200	U	N	P
7440-36-0	Antimony	60.0	U		P
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	12.6	J		P
7441-41-7	Beryllium	5.0	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	552	J		P
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	50.0	U		P
7440-50-8	Copper	2.4	J		P
7439-89-6	Iron	204			P
7439-92-1	Lead	10.0	U		P
7439-95-4	Magnesium	1490	J		P
7439-96-5	Manganese	3.4	J		P
7440-02-0	Nickel	40.0	U		P
7439-97-6	Mercury	0.068	J		CV
7440-09-7	Potassium	1430	J		P
7782-49-2	Selenium	35.0	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	11800			P
7440-28-0	Thallium	25.0	U		P
7440-62-2	Vanadium	50.0	U		P
7440-66-6	Zinc	14.8	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.

GR-TW03-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187W

Matrix: (soil/water) WATER Lab Sample ID: S 707187-011-052-1/1

Level: (low/med) Date Recieved: 07/28/2007

% 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	1580		N	P
7440-36-0	Antimony	60.0	U		P
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	58.1	J		P
7441-41-7	Beryllium	5.0	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	8980			P
7440-47-3	Chromium	2.7	J		P
7440-48-4	Cobalt	0.66	J		P
7440-50-8	Copper	2.6	J		P
7439-89-6	Iron	7180			P
7439-92-1	Lead	10.0	U		P
7439-95-4	Magnesium	5530			P
7439-96-5	Manganese	89.3			P
7440-02-0	Nickel	40.0	U		P
7439-97-6	Mercury	0.20	U		CV
7440-09-7	Potassium	2390	J		P
7782-49-2	Selenium	35.0	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	12900			P
7440-28-0	Thallium	25.0	U		P
7440-62-2	Vanadium	3.8	J		P
7440-66-6	Zinc	19.2	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.

GR-TW03-07C FIL

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187W

Matrix: (soil/water) WATER Lab Sample ID: S 707187-012-053-1/1

Level: (low/med) Date Recieved: 07/28/2007

% 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	200	U	N	P
7440-36-0	Antimony	60.0	U		P
7440-38-2	Arsenic	2.9	J		P
7440-39-3	Barium	43.6	J		P
7441-41-7	Beryllium	5.0	U		P
7440-43-9	Cadmium	0.34	J		P
7440-70-2	Calcium	7850			P
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	50.0	U		P
7440-50-8	Copper	3.2	J		P
7439-89-6	Iron	4840			P
7439-92-1	Lead	10.0	U		P
7439-95-4	Magnesium	4570	J		P
7439-96-5	Manganese	65.8			P
7440-02-0	Nickel	1.7	J		P
7439-97-6	Mercury	0.029	J		CV
7440-09-7	Potassium	1930	J		P
7782-49-2	Selenium	35.0	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	11500			P
7440-28-0	Thallium	5.6	J		P
7440-62-2	Vanadium	50.0	U		P
7440-66-6	Zinc	27.6	J		P

Color Before: Colorless Clarity Before: Clear Texture: NA

Color After: Colorless Clarity After: Clear Artifacts: NA

Comments:

USEPA - CLP

2A - IN

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187W

Initial Calibration Verification Source: AB.ST. / CPT

Continuing Calibration Verification Source: H.P./ AB.ST.

Concentration Units: UG/L

	Initial Calibration Verification			Continuing Calibration Verification					
Analyte	True	Found	%R (1)	True	Found	%R (1)	Found	%R (2)	M
Aluminum	5000.0	5010.06	100	50000.0	50799.04	102	51284.61	103	P
Antimony	400.0	403.04	101	500.0	508.38	102	517.30	103	P
Arsenic	400.0	427.49	107	500.0	511.40	102	515.63	103	P
Barium	400.0	412.57	103	500.0	498.63	100	503.16	101	P
Beryllium	40.0	41.33	103	50.0	49.89	100	50.88	102	P
Cadmium	40.0	41.19	103	500.0	494.86	99	500.24	100	P
Calcium	5000.0	4946.89	99	100000.0	99521.13	100	100914.75	101	P
Chromium	400.0	401.22	100	500.0	496.41	99	506.39	101	P
Cobalt	400.0	426.52	107	500.0	494.75	99	502.26	100	P
Copper	400.0	396.14	99	500.0	502.01	100	512.26	102	P
Iron	5000.0	4989.07	100	50000.0	49423.54	99	50303.84	101	P
Lead	400.0	409.30	102	500.0	499.63	100	507.28	101	P
Magnesium	5000.0	5024.32	100	100000.0	101078.80	101	103021.80	103	P
Manganese	400.0	408.19	102	500.0	498.47	100	508.30	102	P
Mercury	3.0	3.05	102	5.0	5.24	105	5.43	109	CV
Nickel	400.0	413.64	103	500.0	491.42	98	500.22	100	P
Potassium	5000.0	4742.70	95	25000.0	24180.55	97	24490.33	98	P
Selenium	400.0	413.36	103	500.0	512.92	103	525.66	105	P
Silver	400.0	402.35	101	500.0	509.54	102	520.53	104	P
Sodium	10000.0	9776.73	98	100000.0	101399.20	101	102314.45	102	P
Thallium	400.0	399.78	100	500.0	505.79	101	510.28	102	P
Vanadium	400.0	407.84	102	500.0	501.73	100	512.90	103	P
Zinc	400.0	420.57	105	500.0	508.28	102	517.51	104	P

(1) Control Limits : Mercury 80-120; Other Metals 90-110; Cyanide 85-115

USEPA - CLP

2A - IN

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187W

Initial Calibration Verification Source:

Continuing Calibration Verification Source: H.P./ AB.ST.

Concentration Units: UG/L

	Initial Calibration Verification			Continuing Calibration Verification					
Analyte	True	Found	%R (1)	True	Found	%R (1)	Found	%R (2)	M
Aluminum				50000.0	50662.50	101	50629.17	101	P
Antimony				500.0	510.78	102	512.93	103	P
Arsenic				500.0	507.63	102	511.94	102	P
Barium				500.0	497.04	99	497.14	99	P
Beryllium				50.0	49.77	100	50.14	100	P
Cadmium				500.0	490.66	98	495.19	99	P
Calcium				100000.0	98998.17	99	99564.30	100	P
Chromium				500.0	496.82	99	499.05	100	P
Cobalt				500.0	492.04	98	493.47	99	P
Copper				500.0	501.68	100	496.75	99	P
Iron				50000.0	49201.38	98	49476.94	99	P
Lead				500.0	499.30	100	500.24	100	P
Magnesium				100000.0	100905.75	101	101541.96	102	P
Manganese				500.0	497.40	99	497.83	100	P
Mercury				5.0	5.45	109	5.29	106	CV
Nickel				500.0	489.39	98	493.54	99	P
Potassium				25000.0	24402.23	98	24122.84	96	P
Selenium				500.0	515.02	103	520.69	104	P
Silver				500.0	512.70	103	508.30	102	P
Sodium				100000.0	102013.10	102	100987.38	101	P
Thallium				500.0	502.81	101	511.28	102	P
Vanadium				500.0	501.34	100	502.05	100	P
Zinc				500.0	507.66	102	508.39	102	P

(1) Control Limits : Mercury 80-120; Other Metals 90-110; Cyanide 85-115

USEPA - CLP

2A - IN

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187W

Initial Calibration Verification Source:

Continuing Calibration Verification Source: H.P./ AB.ST.

Concentration Units: UG/L

	Initial Calibration Verification			Continuing Calibration Verification					
Analyte	True	Found	%R (1)	True	Found	%R (1)	Found	%R (2)	M
Aluminum				50000.0	51218.08	102	51465.29	103	P
Antimony				500.0	517.46	103	519.54	104	P
Arsenic				500.0	519.68	104	521.18	104	P
Barium				500.0	500.50	100	506.70	101	P
Beryllium				50.0	51.28	103	50.84	102	P
Cadmium				500.0	501.39	100	501.55	100	P
Calcium				100000.0	101881.21	102	100618.16	101	P
Chromium				500.0	507.69	102	501.99	100	P
Cobalt				500.0	504.72	101	503.77	101	P
Copper				500.0	508.46	102	509.45	102	P
Iron				50000.0	50376.83	101	50184.72	100	P
Lead				500.0	510.58	102	507.43	101	P
Magnesium				100000.0	103535.08	104	103452.42	103	P
Manganese				500.0	509.58	102	506.42	101	P
Mercury				5.0	5.40	108	5.40	108	CV
Nickel				500.0	498.50	100	498.18	100	P
Potassium				25000.0	24589.99	98	24846.86	99	P
Selenium				500.0	527.39	105	534.39	107	P
Silver				500.0	523.53	105	518.15	104	P
Sodium				100000.0	102989.66	103	103433.80	103	P
Thallium				500.0	513.93	103	515.55	103	P
Vanadium				500.0	513.75	103	510.73	102	P
Zinc				500.0	520.01	104	515.26	103	P

(1) Control Limits : Mercury 80-120; Other Metals 90-110; Cyanide 85-115

USEPA - CLP

2A - IN

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187W

Initial Calibration Verification Source:

Continuing Calibration Verification Source: H.P./ AB.ST.

Concentration Units: UG/L

	Initial Calibration Verification			Continuing Calibration Verification					
Analyte	True	Found	%R (1)	True	Found	%R (1)	Found	%R (2)	M
Aluminum				50000.0	51632.05	103	51551.05	103	P
Antimony				500.0	521.07	104	523.62	105	P
Arsenic				500.0	517.96	104	528.94	106	P
Barium				500.0	509.77	102	506.04	101	P
Beryllium				50.0	50.92	102	51.99	104	P
Cadmium				500.0	501.20	100	509.47	102	P
Calcium				100000.0	101253.12	101	102978.67	103	P
Chromium				500.0	504.13	101	509.73	102	P
Cobalt				500.0	504.00	101	512.98	103	P
Copper				500.0	509.49	102	507.35	101	P
Iron				50000.0	50228.11	100	51026.63	102	P
Lead				500.0	509.22	102	517.16	103	P
Magnesium				100000.0	103166.47	103	105223.02	105	P
Manganese				500.0	508.44	102	518.96	104	P
Mercury				5.0	5.18	104			CV
Nickel				500.0	499.24	100	506.18	101	P
Potassium				25000.0	24767.29	99	24511.61	98	P
Selenium				500.0	528.84	106	531.26	106	P
Silver				500.0	521.49	104	523.83	105	P
Sodium				100000.0	104259.72	104	103487.66	103	P
Thallium				500.0	514.12	103	521.23	104	P
Vanadium				500.0	511.22	102	517.61	104	P
Zinc				500.0	517.09	103	521.49	104	P

(1) Control Limits : Mercury 80-120; Other Metals 90-110; Cyanide 85-115

USEPA - CLP

2B - IN

CRQL CHECK STANDARD

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187W

CRQL Check Standard Source: H.P./ AB.ST.

Concentration Units: UG/L

Analyte	CRQL Check Standard				
	Initial			Final	
	True	Found	%R (1)	Found	%R (1)
Aluminum	200.0	210.34	105	221.18	111
Antimony	60.0	58.59	98	57.01	95
Arsenic	10.0	11.19	112	7.75	77
Barium	200.0	203.45	102	201.70	101
Beryllium	5.0	5.06	101	4.99	100
Cadmium	5.0	5.46	109	5.14	103
Calcium	5000.0	4991.51	100	4963.98	99
Chromium	10.0	10.04	100	9.44	94
Cobalt	50.0	51.97	104	51.41	103
Copper	25.0	25.25	101	25.01	100
Iron	100.0	111.73	112	106.02	106
Lead	10.0	11.08	111	9.98	100
Magnesium	5000.0	5088.20	102	5057.13	101
Manganese	15.0	15.46	103	15.47	103
Mercury	0.2	0.22	110	0.23	115
Nickel	40.0	41.19	103	40.67	102
Potassium	5000.0	4851.13	97	4839.45	97
Selenium	35.0	35.99	103	36.31	104
Silver	10.0	10.48	105	10.52	105
Sodium	5000.0	4987.44	100	4878.31	98
Thallium	25.0	27.95	112	33.66	135
Vanadium	50.0	52.99	106	52.06	104
Zinc	60.0	62.72	105	62.48	104

(1) Control Limits: 70-130 with the following exceptions:

ICP-AES - Antimony, Lead, and Thallium: 51-150

ICP-MS - Cobalt, Manganese, and Zinc: 51-150

* If applicable, enter the concentration qualifier 'J' or 'U' after the concentration in these columns (e.g., 0.20U for Mercury).

USEPA - CLP

2B - IN

CRQL CHECK STANDARD

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187W

CRQL Check Standard Source: H.P./ AB.ST.

Concentration Units: UG/L

Analyte	CRQL Check Standard				
	Initial			Final	
	True	Found	%R (1)	Found	%R (1)
Aluminum	200.0	231.22	116	328.54	164
Antimony	60.0	57.44	96	61.06	102
Arsenic	10.0	9.68	97	10.92	109
Barium	200.0	202.57	101	200.54	100
Beryllium	5.0	4.98	100	4.85	97
Cadmium	5.0	5.30	106	5.24	105
Calcium	5000.0	4932.07	99	4965.61	99
Chromium	10.0	9.19	92	10.20	102
Cobalt	50.0	50.21	100	51.94	104
Copper	25.0	24.21	97	24.43	98
Iron	100.0	110.41	110	200.04	200
Lead	10.0	8.82	88	10.01	100
Magnesium	5000.0	5003.47	100	5054.54	101
Manganese	15.0	15.24	102	17.22	115
Mercury	0.2	0.25	127	0.21	107
Nickel	40.0	41.17	103	39.87	100
Potassium	5000.0	4838.02	97	4831.52	97
Selenium	35.0	34.75	99	34.43	98
Silver	10.0	12.56	126	10.56	106
Sodium	5000.0	4762.05	95	5040.43	101
Thallium	25.0	28.87	115	26.98	108
Vanadium	50.0	51.28	103	52.41	105
Zinc	60.0	61.75	103	62.26	104

(1) Control Limits: 70-130 with the following exceptions:

ICP-AES - Antimony, Lead, and Thallium: 51-150

ICP-MS - Cobalt, Manganese, and Zinc: 51-150

* If applicable, enter the concentration qualifier 'J' or 'U' after the concentration in these columns (e.g., 0.20U for Mercury).

USEPA - CLP

3 - IN

BLANKS

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187W

Preparation Blank Matrix (soil/water): Water

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		
		C	1	C	2	C	3	C		C	M
Aluminum	200.000	U	200.000	U	200.000	U	200.000	U	200.000	U	P
Antimony	60.000	U	60.000	U	60.000	U	60.000	U	60.000	U	P
Arsenic	10.000	U	10.000	U	10.000	U	10.000	U	10.000	U	P
Barium	200.000	U	0.258	J	0.208	J	0.393	J	1.261	J	P
Beryllium	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	P
Cadmium	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	P
Calcium	5000.000	U	54.828	J	39.273	J	62.932	J	372.101	J	P
Chromium	10.000	U	10.000	U	10.000	U	10.000	U	10.000	U	P
Cobalt	0.701	J	0.683	J	0.931	J	0.637	J	50.000	U	P
Copper	0.982	J	1.377	J	1.105	J	25.000	U	2.081	J	P
Iron	100.000	U	22.662	J	100.000	U	32.246	J	100.000	U	P
Lead	10.000	U	10.000	U	10.000	U	10.000	U	10.000	U	P
Magnesium	5000.000	U	38.448	J	32.099	J	67.986	J	60.316	J	P
Manganese	0.206	J	15.000	U	15.000	U	0.318	J	0.378	J	P
Mercury	-0.079	J	0.046	J	-0.036	J	-0.077	J	0.200	U	CV
Nickel	40.000	U	40.000	U	40.000	U	40.000	U	40.000	U	P
Potassium	5000.000	U	5000.000	U	5000.000	U	5000.000	U	5000.000	U	P
Selenium	35.000	U	35.000	U	35.000	U	35.000	U	35.000	U	P
Silver	10.000	U	10.000	U	10.000	U	10.000	U	10.000	U	P
Sodium	5000.000	U	5000.000	U	5000.000	U	-151.789	J	223.291	J	P
Thallium	25.000	U	25.000	U	25.000	U	25.000	U	25.000	U	P
Vanadium	50.000	U	50.000	U	0.636	J	50.000	U	50.000	U	P
Zinc	60.000	U	60.000	U	60.000	U	60.000	U	16.538	J	P

USEPA - CLP

3 - IN

BLANKS

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187W

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or mg/kg):

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		
		C	1	C	2	C	3	C		C	M
Aluminum			84.826	J	200.000	U	68.389	J			P
Antimony			60.000	U	60.000	U	60.000	U			P
Arsenic			10.000	U	10.000	U	10.000	U			P
Barium			0.343	J	0.418	J	0.671	J			P
Beryllium			5.000	U	5.000	U	5.000	U			P
Cadmium			0.313	J	0.501	J	0.700	J			P
Calcium			100.239	J	72.557	J	78.496	J			P
Chromium			1.138	J	10.000	U	0.869	J			P
Cobalt			1.436	J	0.938	J	1.683	J			P
Copper			25.000	U	1.088	J	1.317	J			P
Iron			53.283	J	39.574	J	78.406	J			P
Lead			10.000	U	10.000	U	10.000	U			P
Magnesium			107.915	J	67.626	J	104.336	J			P
Manganese			0.321	J	0.350	J	0.572	J			P
Mercury			0.027	J	0.029	J	0.200	U			CV
Nickel			40.000	U	40.000	U	2.479	J			P
Potassium			5000.000	U	5000.000	U	23.060	J			P
Selenium			35.000	U	35.000	U	35.000	U			P
Silver			10.000	U	10.000	U	10.000	U			P
Sodium			5000.000	U	5000.000	U	236.187	J			P
Thallium			5.674	J	25.000	U	6.420	J			P
Vanadium			50.000	U	50.000	U	50.000	U			P
Zinc			60.000	U	60.000	U	60.000	U			P

USEPA - CLP

3 - IN

BLANKS

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187W

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or mg/kg):

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		
		C	1	C	2	C	3	C		C	M
Aluminum			200.000	U	68.641	J					P
Antimony			60.000	U	60.000	U					P
Arsenic			10.000	U	10.000	U					P
Barium			0.267	J	0.334	J					P
Beryllium			5.000	U	-0.217	J					P
Cadmium			5.000	U	0.406	J					P
Calcium			54.607	J	105.174	J					P
Chromium			10.000	U	10.000	U					P
Cobalt			0.834	J	1.054	J					P
Copper			25.000	U	1.307	J					P
Iron			18.944	J	43.324	J					P
Lead			10.000	U	10.000	U					P
Magnesium			39.696	J	86.232	J					P
Manganese			15.000	U	0.213	J					P
Mercury			0.055	J							CV
Nickel			40.000	U	40.000	U					P
Potassium			5000.000	U	5000.000	U					P
Selenium			35.000	U	35.000	U					P
Silver			10.000	U	10.000	U					P
Sodium			5000.000	U	5000.000	U					P
Thallium			25.000	U	25.000	U					P
Vanadium			50.000	U	50.000	U					P
Zinc			60.000	U	60.000	U					P

USEPA - CLP

4A - IN

ICP-AES INTERFERENCE CHECK SAMPLE

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187W

ICP-AES Instrument ID: W5.3V ICS Source: H.P. / AB. ST.

Concentration Units: ug/L

Analyte	True		Initial Found				Final Found			
	Sol. A	Sol. B	Sol. A	%R	Sol. AB	%R	Sol. A	%R	Sol. AB	%R
Aluminum	500000	500000	500000	100	500000	100	508000	102	497000	99
Antimony		600	-2.5		623	104	-0.69		630	105
Arsenic		100	-0.83		108	108	0.16		103	103
Barium		500	0.92		517	103	0.94		518	104
Beryllium		500	-0.27		492	98	-0.18		490	98
Cadmium		1000	0.97		959	96	0.41		959	96
Calcium	500000	500000	512000	102	513000	103	519000	104	509000	102
Chromium		500	1.5		490	98	1.9		491	98
Cobalt		500	2.8		482	96	2.3		481	96
Copper		500	3.7		530	106	3.0		525	105
Iron	200000	200000	195000	98	196000	98	198000	99	195000	97
Lead		50	0.56		51.4	103	-3.1		49.3	99
Magnesium	500000	500000	497000	99	498000	100	501000	100	494000	99
Manganese		500	11.9		511	102	13.4		509	102
Nickel		1000	2.1		955	95	2.3		955	95
Potassium		5000	-4		5430	109	2.1		5400	108
Selenium		50	-0.064		55.9	112	-0.062		50.7	101
Silver		200	-0.12		215	107	-0.58		212	106
Sodium		10000	-390		10800	108	-330		10600	106
Thallium		100	4.4		105	105	6.0		105	105
Vanadium		500	0.19		503	101	0.14		500	100
Zinc		1000	27.4		1050	105	27.4		1040	104

USEPA - CLP

4A - IN

ICP-AES INTERFERENCE CHECK SAMPLE

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187W

ICP-AES Instrument ID: W5.3V ICS Source: H.P. /AB.ST

Concentration Units: ug/L

Analyte	True		Initial Found				Final Found			
	Sol. A	Sol. B	Sol. A	%R	Sol. AB	%R	Sol. A	%R	Sol. AB	%R
Aluminum	500000	500000	494000	99	488000	98	512000	102	503000	101
Antimony		600	4.0		615	103	2.9		627	105
Arsenic		100	-0.12		109	109	4.5		105	105
Barium		500	0.94		505	101	1.1		521	104
Beryllium		500	-0.28		487	97	-0.38		506	101
Cadmium		1000	0.62		936	94	0.54		971	97
Calcium	500000	500000	502000	100	502000	100	537000	107	524000	105
Chromium		500	1.5		479	96	2.0		497	99
Cobalt		500	2.4		477	95	2.7		494	99
Copper		500	2.6		522	104	3.5		535	107
Iron	200000	200000	192000	96	192000	96	203000	102	199000	100
Lead		50	-0.88		47.6	95	-2.4		47.6	95
Magnesium	500000	500000	490000	98	492000	98	517000	103	509000	102
Manganese		500	12.3		505	101	13.3		526	105
Nickel		1000	2.8		932	93	2.9		967	97
Potassium		5000	-8.8		5410	108	-3.6		5460	109
Selenium		50	0.28		53.3	107	2.8		56.0	112
Silver		200	-0.29		213	107	-0.44		220	110
Sodium		10000	-190		10600	106	-350		10900	109
Thallium		100	5.0		104	104	7.0		108	108
Vanadium		500	0.19		496	99	0.089		514	103
Zinc		1000	26.6		1030	103	29.2		1070	107

USEPA - CLP

5A - IN

MATRIX SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

GC-TW02-07C MS

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187W

Matrix: (soil/water) Water Level: (low/med)

% Solids for Sample: 0.0

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum	75 - 125	9527.0176		5710.2007		2000.0000	191	N	P
Antimony	75 - 125	97.5205		60.0000	U	100.0000	98		P
Arsenic	75 - 125	45.0060		10.0000	U	40.0000	113		P
Barium	75 - 125	2013.2374		26.8283	J	2000.0000	99		P
Beryllium	75 - 125	49.8977		5.0000	U	50.0000	100		P
Cadmium	75 - 125	50.0425		5.0000	U	50.0000	100		P
Chromium	75 - 125	209.3352		10.2995		200.0000	100		P
Cobalt	75 - 125	498.8380		50.0000	U	500.0000	100		P
Copper	75 - 125	249.3149		2.1643	J	250.0000	99		P
Iron	-	6725.2471		5745.5098		1000.0000	98		P
Lead	75 - 125	20.8656		5.1206	J	20.0000	79		P
Manganese	75 - 125	508.5732		4.5040	J	500.0000	101		P
Nickel	75 - 125	504.8290		40.0000	U	500.0000	101		P
Selenium	75 - 125	51.9484		35.0000	U	50.0000	104		P
Silver	75 - 125	50.0062		10.0000	U	50.0000	100		P
Thallium	75 - 125	50.2480		5.6443	J	50.0000	89		P
Vanadium	75 - 125	510.8706		9.3586	J	500.0000	100		P
Zinc	75 - 125	527.3383		12.5586	J	500.0000	103		P

Comments:

USEPA - CLP

5A - IN

MATRIX SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

25-TW03-07C FIL MS

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187W

Matrix: (soil/water) Water Level: (low/med)

% Solids for Sample: 0.0

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Mercury	75 - 125	1.1300		0.0680	J	1.0000	106		CV

Comments:

USEPA - CLP

5B - IN

MATRIX SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

GC-TW02-07C

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187W

Matrix: (soil/water) Water Level: (low/med)

% Solids for Sample: 0.0

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

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Aluminum	75 - 125	6850.4243	5710.2007	1000	114		P

Comments:

USEPA - CLP

6 - IN

DUPLICATES

EPA SAMPLE NO.

GC-TW02-07C MD

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187W

Matrix: (soil/water) Water Level: (low/med)

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum	20	5710.2007		6272.5532		9	N	P
Antimony	20	60.0000	U	60.0000	U			P
Arsenic	20	10.0000	U	3.6933	J			P
Barium	20	26.8283	J	27.9587	J			P
Beryllium	20	5.0000	U	5.0000	U			P
Cadmium	20	5.0000	U	5.0000	U			P
Calcium	20	846.0880	J	788.3992	J			P
Chromium	20	10.2995		8.3052	J			P
Cobalt	20	50.0000	U	0.9839	J			P
Copper	20	2.1643	J	2.2141	J			P
Iron	20	5745.5098		5813.9873		1		P
Lead	20	5.1206	J	10.0000	U			P
Magnesium	20	1384.0922	J	1399.1837	J			P
Manganese	20	4.5040	J	4.6897	J			P
Nickel	20	40.0000	U	1.5540	J			P
Potassium	20	1211.0114	J	1283.0725	J			P
Selenium	20	35.0000	U	35.0000	U			P
Silver	20	10.0000	U	10.0000	U			P
Sodium	20	5707.0957		5713.0874		0		P
Thallium	20	5.6443	J	25.0000	U			P
Vanadium	20	9.3586	J	10.2573	J			P
Zinc	20	12.5586	J	12.5794	J			P

Comments:

USEPA - CLP

6 - IN

DUPLICATES

EPA SAMPLE NO.

25-TW03-07C FIL MD

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187W

Matrix: (soil/water) Water Level: (low/med)

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Mercury	20	0.0680	J	0.0330	J			CV

Comments:

USEPA - CLP

7 - IN

LABORATORY CONTROL SAMPLE

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187W

Solid LCS Source:

Aqueous LCS Source: H.P./ AB.ST.

Analyte	Aqueous (ug/L)			Solid (mg/kg)					
	True	Found	%R	True	Found	C	Limits		%R
Aluminum	5000.0	5055.65	101				80	120	
Antimony	50.0	50.61	101				80	120	
Arsenic	50.0	50.20	100				80	120	
Barium	500.0	501.39	100				80	120	
Beryllium	25.0	25.88	104				80	120	
Cadmium	50.0	52.37	105				80	120	
Calcium	5000.0	5217.63	104				80	120	
Chromium	250.0	258.68	103				80	120	
Cobalt	250.0	256.09	102				80	120	
Copper	250.0	251.12	100				80	120	
Iron	5000.0	5091.92	102				80	120	
Lead	500.0	514.49	103				80	120	
Magnesium	5000.0	5148.55	103				80	120	
Manganese	500.0	513.59	103				80	120	
Mercury	1.0	1.07	107				80	120	
Nickel	250.0	258.63	103				80	120	
Potassium	5000.0	4774.55	95				80	120	
Selenium	50.0	53.44	107				80	120	
Silver	50.0	51.57	103				80	120	
Sodium	5000.0	5181.85	104				80	120	
Thallium	50.0	54.56	109				80	120	
Vanadium	250.0	258.22	103				80	120	
Zinc	500.0	528.05	106				80	120	

USEPA - CLP

8 - IN

ICP-AES and ICP-MS SERIAL DILUTIONS

EPA SAMPLE NO.

GC-TW02-07C

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187W

Matrix: (soil/water) Water Level: (low/med)

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	5710.2007		5880.4120		3		P
Antimony	60.0000	U	300.0000	U			P
Arsenic	10.0000	U	50.0000	U			P
Barium	26.8283	J	28.1318	J	5		P
Beryllium	5.0000	U	25.0000	U			P
Cadmium	5.0000	U	25.0000	U			P
Calcium	846.0880	J	875.1360	J	3		P
Chromium	10.2995		9.9721	J	3		P
Cobalt	50.0000	U	3.2612	J			P
Copper	2.1643	J	125.0000	U	100		P
Iron	5745.5098		5707.4927		1		P
Lead	5.1206	J	50.0000	U	100		P
Magnesium	1384.0922	J	1396.5509	J	1		P
Manganese	4.5040	J	5.3444	J	19		P
Nickel	40.0000	U	200.0000	U			P
Potassium	1211.0114	J	1136.0275	J	6		P
Selenium	35.0000	U	175.0000	U			P
Silver	10.0000	U	50.0000	U			P
Sodium	5707.0957		5803.7500	J	2		P
Thallium	5.6443	J	125.0000	U	100		P
Vanadium	9.3586	J	9.2015	J	2		P
Zinc	12.5586	J	18.7157	J	49		P

USEPA - CLP

9 - IN

METHOD DETECTION LIMITS (ANNUALLY)

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187W

Instrument Type: P Instrument ID: W5.3V Date: 06/14/2007

Preparation Method: ILMO5.2_HW

Concentration Units (ug/L or mg/kg): ug/L

Analyte	Wavelength /Mass	CRQL	MDL
Aluminum	308.215	200	68.1
Antimony	206.838	60	4.7
Arsenic	189.042	10	2.3
Barium	493.409	200	0.19
Beryllium	313.042	5	0.2
Cadmium	226.502	5	0.3
Calcium	317.933	5000	29
Chromium	267.716	10	0.83
Cobalt	228.616	50	0.58
Copper	324.753	25	0.65
Iron	271.441	100	15.3
Lead	220.353	10	1.9
Magnesium	279.078	5000	18.1
Manganese	344.199	15	0.2
Mercury	253.7		
Nickel	231.604	40	1.2
Potassium	766.491	5000	20.6
Selenium	196.026	35	4
Silver	328.068	10	1.1
Sodium	330.232	5000	140
Thallium	190.864	25	5.4
Vanadium	292.402	50	0.54
Zinc	213.856	60	3.4

Comments:

USEPA - CLP

9 - IN

METHOD DETECTION LIMITS (ANNUALLY)

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187W

Instrument Type: CV Instrument ID: 7470 Date: 02/02/2007

Preparation Method: CS1

Concentration Units (ug/L or mg/kg): ug/L

Analyte	Wavelength /Mass	CRQL	MDL
Aluminum	308.215		
Antimony	206.838		
Arsenic	189.042		
Barium	493.409		
Beryllium	313.042		
Cadmium	226.502		
Calcium	317.933		
Chromium	267.716		
Cobalt	228.616		
Copper	324.753		
Iron	271.441		
Lead	220.353		
Magnesium	279.078		
Manganese	257.61		
Mercury	253.7	0.2	0.021
Nickel	231.604		
Potassium	766.491		
Selenium	196.026		
Silver	328.068		
Sodium	330.232		
Thallium	190.864		
Vanadium	292.402		
Zinc	213.856		

Comments:

GPL - Maryland Laboratory

Metals Data Reporting Form

Inter-Element Correction Factors VACUUM **SDG:** 7c7/87W

Instrument: ICPST **Date of IEC's:** 7/27/2007

Interfering Element	Wavelength /Mass	Correction Factor(s)
Aluminum	308.215	Cd(0.000003), Mn(0.000003), Pb(0.000329), Sn(-0.000012), Pb2(-0.000225)
Barium	493.409	Co(0.000079)
Chromium	267.716	As(-0.006931), Co(-0.000172), Sb(0.008954), Ti(0.000219)
Cobalt	228.616	B(0.00924), Fe(0.072657), Tl(0.003155)
Copper	324.753	Zn(0.000602)
Iron	271.441	Al(-0.000069), B(-0.000074), Ba(0.000004), Cd(0.000112), Cr(-0.00002), Cu(-0.000003), Mg(0.000187), Mn(-0.000107), Mo(-0.000008), Na(-0.001083), Pb(0.000072), Sb(0.000017), Se(0.00001), Sn(0.000011), Tl(-0.00004), V(0.000027), Zn(0.000083), Pb2(0.000051), Se2(-0.000247)
Magnesium	279.078	Fe(-0.000217)
Manganese	257.61	Ag(0.00003), Al(0.000222), Cr(0.000158), Mg(-0.000743), Mo(-0.00006), Pb(0.000075), Se(0.000306), Sn(-0.000093), Tl(-0.004333), Pb2(0.000070), Se2(0.000242
Molybdenum	202.03	Al(0.010738), Cu(0.000355), Mn(-0.000276), Pb(-0.00048), Sb(-0.014276), V(-0.000815), Pb2(-0.000668)
Titanium	334.941	Be(-0.000161), Co(0.001989), Cr(-0.000018), Na(-0.011855), Pb(0.0002), Sn(0.000202), V(0.000692), Pb2(-0.000475)
Vanadium	292.402	Al(0.020047), Be(0.000416), Fe(0.007412), Tl(0.001774)
Zinc	206.2	Na(0.024688)

USEPA - CLP

11 - IN

ICP-AES and ICP-MS LINEAR DYNAMIC RANGES (QUARTERLY)

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187W

Instrument ID: W5.3V Date: 06/20/2007

Analyte	Integ. Time (sec.)	Concentration (ug/L)	M
Aluminum		525000	P
Antimony		5250	P
Arsenic		2100	P
Barium		10500	P
Beryllium		525	P
Cadmium		2100	P
Calcium		525000	P
Chromium		10500	P
Cobalt		10500	P
Copper		10500	P
Iron		525000	P
Lead		21000	P
Magnesium		525000	P
Manganese		10500	P
Nickel		7875	P
Potassium		52500	P
Selenium		2100	P
Silver		1050	P
Sodium		525000	P
Thallium		2100	P
Vanadium		10500	P
Zinc		3150	P

Comments:

USEPA - CLP

12 - IN

PREPARATION LOG

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187W

Preparation Method: ILMO5.2_HW2

EPA Sample No.	Preparation Date	Weight (grams)	Volume (mL)
BLK99738	08/14/2007	100	100
BKS99738	08/14/2007	100	100
25-TW01-07C	08/14/2007	100	100
25-TW01-07C FIL	08/14/2007	100	100
25-TW02-07C	08/14/2007	100	100
25-TW02-07C FIL	08/14/2007	100	100
25-TW03-07C	08/14/2007	100	100
25-TW03-07C FIL	08/14/2007	100	100
GC-TW02-07C	08/14/2007	100	100
GC-TW02-07C MD	08/14/2007	100	100
GC-TW02-07C MS	08/14/2007	100	100
GR-TW03-07C	08/14/2007	100	100
GR-TW03-07C FIL	08/14/2007	100	100

USEPA - CLP

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PREPARATION LOG

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187W

Preparation Method: CS1

EPA Sample No.	Preparation Date	Weight (grams)	Volume (mL)
BLK99481	08/02/2007	100	100
BKS99481	08/02/2007	100	100
25-TW01-07C	08/02/2007	100	100
25-TW01-07C FIL	08/02/2007	100	100
25-TW02-07C	08/02/2007	100	100
25-TW02-07C FIL	08/02/2007	100	100
25-TW03-07C	08/02/2007	100	100
25-TW03-07C FIL	08/02/2007	100	100
25-TW03-07C FIL MD	08/02/2007	100	100
25-TW03-07C FIL MS	08/02/2007	100	100
GR-TW03-07C	08/02/2007	100	100
GR-TW03-07C FIL	08/02/2007	100	100

USEPA - CLP

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ANALYSIS RUN LOG

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187W

ICP-MS Instrument ID: W5.3V Analysis Method: CLP-5.3

Start Date: 08/15/2007 End Date: 08/16/2007

EPA Sample No.	DF	Time	Analytes																							
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN		
STD0	1	15:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
STD1	1	15:20	X	X	X	X	X	X		X	X	X	X	X		X		X		X	X		X	X	X		
STD2	1	15:28	X	X	X	X	X	X		X	X	X	X	X		X		X		X	X		X	X	X		
STD3	1	15:37							X						X				X			X					
IVICV	1	15:43	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
BIICB	1	15:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
CVCCV1	1	16:09	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
BCCCB1	1	16:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
ZZZZZ	1	16:29																									
CRCRI	1	16:37	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
IAICSA	1	16:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
IBICSAB	1	16:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
ZZZZZ	1	17:02																									
CVCCV2	1	17:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
BCCCB2	1	17:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
ZZZZZ	2	17:36																									
ZZZZZ	5	17:44																									
ZZZZZ	5	17:52																									
ZZZZZ	2	18:01																									
ZZZZZ	5	18:09																									
ZZZZZ	5	18:17																									
ZZZZZ	2	18:26																									
ZZZZZ	1	18:34																									
ZZZZZ	1	18:42																									
CVCCV3	1	18:51	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
BCCCB3	1	18:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
ZZZZZ	1	19:08																									
ZZZZZ	1	19:16																									
ZZZZZ	1	19:24																									
ZZZZZ	1	19:33																									
ZZZZZ	1	19:41																									
ZZZZZ	5	19:49																									
ZZZZZ	1	20:01																									
CRCRI	1	20:09	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		

USEPA - CLP

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ANALYSIS RUN LOG

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187W

ICP-MS Instrument ID: W5.3V Analysis Method: CLP-5.3

Start Date: 08/15/2007 End Date: 08/16/2007

EPA Sample No.	DF	Time	Analytes																							
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN		
IAICSA	1	20:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
IBICSAB	1	20:26	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
CVCCV4	1	20:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
BCCCB4	1	20:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
ZZZZZ	1	20:51																									
ZZZZZ	1	20:59																									
ZZZZZ	1	21:07																									
ZZZZZ	1	21:16																									
ZZZZZ	1	21:24																									
ZZZZZ	5	21:33																									
ZZZZZ	1	21:41																									
ZZZZZ	1	21:49																									
BLK99738	1	21:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
BKS99738	1	22:06	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
CVCCV5	1	22:14	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
BCCCB5	1	22:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
S 707158-005-041-1/1	1	22:31	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
D 707158-005-041-1/1	1	22:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
SP707158-005-041-1/1	1	22:48	X	X	X	X	X	X		X	X	X	X	X		X		X		X	X		X	X	X		
PS707158-005-041-1/1	1	22:56	X																								
SE707158-005-041-1/1	5	23:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
ZZZZZ	1	23:13																									
ZZZZZ	1	23:21																									
CRCRI	1	23:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
IAICSA	1	23:38	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
IBICSAB	1	23:46	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
CVCCV6	1	23:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
BCCCB6	1	0:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
ZZZZZ	1	0:11																									
ZZZZZ	1	0:20																									
ZZZZZ	1	0:28																									
S 707187-005-046-1/1	1	0:36	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
S 707187-006-047-1/1	1	0:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
S 707187-007-048-1/1	1	0:53	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		

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ANALYSIS RUN LOG

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187W

ICP-MS Instrument ID: W5.3V Analysis Method: CLP-5.3

Start Date: 08/15/2007 End Date: 08/16/2007

EPA Sample No.	DF	Time	Analytes																									
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN		
S 707187-008-049-1/1	1	1:02	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
S 707187-009-050-1/1	1	1:10	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
S 707187-010-051-1/1	1	1:18	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
S 707187-011-052-1/1	1	1:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
CVCCV7	1	1:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
BCCCB7	1	1:43	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
S 707187-012-053-1/1	1	1:52	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
ZZZZZ	1	2:00																									
ZZZZZ	1	2:08																									
ZZZZZ	1	2:17																									
ZZZZZ	1	2:25																									
ZZZZZ	1	2:34																									
ZZZZZ	1	2:42																									
CRCRII	1	2:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
IAICSAI	1	2:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
IBICSABI	1	3:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
CVCCV8	1	3:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
BCCCB8	1	3:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
ZZZZZ	5	3:32																									
ZZZZZ	1	3:41																									
ZZZZZ	1	3:49																									
ZZZZZ	1	3:57																									
ZZZZZ	1	4:06																									
ZZZZZ	1	4:14																									
ZZZZZ	1	4:22																									
ZZZZZ	1	4:31																									
ZZZZZ	1	4:39																									
ZZZZZ	1	4:47																									
ZZZZZ	1	4:56																									
ZZZZZ	1	5:04																									
ZZZZZ	1	5:13																									
ZZZZZ	1	5:21																									
ZZZZZ	1	5:29																									
ZZZZZ	1	5:38																									

USEPA - CLP

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ANALYSIS RUN LOG

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187W

ICP-MS Instrument ID: 7470 Analysis Method: Mercury

Start Date: 08/03/2007 End Date: 08/03/2007

EPA Sample No.	DF	Time	Analytes																									
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN		
Std01Rep1	1	9:03															X										
Std01Rep2	1	9:06															X										
Std01Rep3	1	9:09															X										
Std02Rep1	1	9:13															X										
Std02Rep2	1	9:17															X										
Std02Rep3	1	9:20															X										
Std03Rep1	1	9:23															X										
Std03Rep2	1	9:27															X										
Std03Rep3	1	9:30															X										
Std04Rep1	1	9:33															X										
Std04Rep2	1	9:37															X										
Std04Rep3	1	9:40															X										
Std05Rep1	1	9:44															X										
Std05Rep2	1	9:47															X										
ZZZZZ	1	9:50																									
Std06Rep1	1	9:53															X										
Std06Rep2	1	9:57															X										
Std06Rep3	1	10:00															X										
Std05Rep3	1	10:04															X										
Ck2 ICV	1	10:08															X										
Ck3 ICB	1	10:12															X										
Ck4 CRA	1	10:15															X										
Ck5 CCV1	1	10:18															X										
Ck6 CCB1	1	10:22															X										
ZZZZZ	1	10:26																									
ZZZZZ	1	10:29																									
ZZZZZ	1	10:33																									
ZZZZZ	1	10:40																									
ZZZZZ	10	10:49																									
ZZZZZ	1	10:52																									
ZZZZZ	1	10:58																									
ZZZZZ	1	11:02																									
Ck5 CCV2	1	11:05															X										
Ck6 CCB2	1	11:09															X										

USEPA - CLP

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ANALYSIS RUN LOG

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187W

ICP-MS Instrument ID: 7470 Analysis Method: Mercury

Start Date: 08/03/2007 End Date: 08/03/2007

EPA Sample No.	DF	Time	Analytes																									
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN		
ZZZZZ	1	11:12																										
ZZZZZ	1	11:15																										
ZZZZZ	1	11:18																										
ZZZZZ	1	11:22																										
ZZZZZ	1	11:25																										
ZZZZZ	1	11:29																										
ZZZZZ	1	11:32																										
ZZZZZ	1	11:36																										
Ck4 CRA	1	11:40															X											
Ck5 CCV3	1	11:43															X											
Ck6 CCB3	1	11:47															X											
ZZZZZ	1	11:50																										
ZZZZZ	1	11:54																										
ZZZZZ	1	11:57																										
ZZZZZ	1	12:00																										
ZZZZZ	1	12:03																										
ZZZZZ	1	12:07																										
ZZZZZ	1	12:10																										
ZZZZZ	1	12:14																										
ZZZZZ	1	12:17																										
BLK99481	1	12:20															X											
Ck5 CCV4	1	12:23															X											
Ck6 CCB4	1	12:28															X											
BKS99481	1	12:32															X											
S 707187-005-046-1/1	1	12:35															X											
S 707187-006-047-1/1	1	12:38															X											
S 707187-007-048-1/1	1	12:42															X											
S 707187-008-049-1/1	1	12:46															X											
S 707187-009-050-1/1	1	12:49															X											
S 707187-010-051-1/1	1	12:52															X											
D 707187-010-051-1/1	1	12:56															X											
Ck4 CRA	1	12:59															X											
Ck5 CCV5	1	13:02															X											
ZZZZZ	1	13:06																										

USEPA - CLP

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ANALYSIS RUN LOG

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187W

ICP-MS Instrument ID: 7470 Analysis Method: Mercury

Start Date: 08/03/2007 End Date: 08/03/2007

EPA Sample No.	DF	Time	Analytes																										
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN		
Ck6 CCB5	1	13:10															X										
SP707187-010-051-1/1	1	13:13															X										
S 707187-011-052-1/1	1	13:16															X										
S 707187-012-053-1/1	1	13:19															X										
ZZZZZ	1	13:23																									
ZZZZZ	1	13:26																									
ZZZZZ	1	13:29																									
ZZZZZ	1	13:33																									
ZZZZZ	1	13:36																									
Ck5 CCV6	1	13:39															X										
Ck6 CCB6	1	13:44															X										
ZZZZZ	1	13:47																									
ZZZZZ	1	13:50																									
ZZZZZ	1	13:54																									
ZZZZZ	1	13:58																									
ZZZZZ	1	14:01																									
Ck4 CRA	1	14:09															X										
ZZZZZ	1	14:18																									
ZZZZZ	1	14:22																									
Ck5 CCV7	1	14:25															X										
Ck6 CCB7	1	14:30															X										

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COVER PAGE

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187S

SOW No.: ILM05.3

EPA Sample No.	Lab Sample ID
25-IS05-0-1-07C	S 707187-001-017-1/1
25-IS05-9-11-07C	S 707187-002-018-1/1
25-IS06-0-1-07C	S 707187-003-019-1/1
25-IS06-8-10-07C	S 707187-004-020-1/1
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-ISO9-0-1-07C	S 707158-001-013-1/1
GC-ISO9-0-1-07C MD	D 707158-001-013-1/1
GC-ISO9-0-1-07C MS	SP707158-001-013-1/1

		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

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1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

25-IS05-0-1-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187S

Matrix: (soil/water) SOIL Lab Sample ID: S 707187-001-017-1/1

Level: (low/med) Date Recieved: 07/28/2007

% Solids: 79.7

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5370		*	P
7440-36-0	Antimony	2.6	J		P
7440-38-2	Arsenic	2.2			P
7440-39-3	Barium	93.6			P
7441-41-7	Beryllium	0.10	J		P
7440-43-9	Cadmium	0.36	J		P
7440-70-2	Calcium	71600		D	P
7440-47-3	Chromium	13.0			P
7440-48-4	Cobalt	0.55	J		P
7440-50-8	Copper	28.3			P
7439-89-6	Iron	4900		*	P
7439-92-1	Lead	171			P
7439-95-4	Magnesium	2160			P
7439-96-5	Manganese	61.4			P
7439-97-6	Mercury	0.070			AV
7440-02-0	Nickel	3.1	J		P
7440-09-7	Potassium	367	J		P
7782-49-2	Selenium	3.3	U		P
7440-22-4	Silver	1.0			P
7440-23-5	Sodium	271	J		P
7440-28-0	Thallium	2.4	U		P
7440-62-2	Vanadium	9.9			P
7440-66-6	Zinc	146			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.

25-IS05-9-11-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187S

Matrix: (soil/water) SOIL Lab Sample ID: S 707187-002-018-1/1

Level: (low/med) Date Recieved: 07/28/2007

% Solids: 71.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9190		*	P
7440-36-0	Antimony	6.3	U		P
7440-38-2	Arsenic	1.4			P
7440-39-3	Barium	14.0	J		P
7441-41-7	Beryllium	0.066	J		P
7440-43-9	Cadmium	0.52	U		P
7440-70-2	Calcium	895			P
7440-47-3	Chromium	11.7			P
7440-48-4	Cobalt	0.19	J		P
7440-50-8	Copper	0.76	J		P
7439-89-6	Iron	3860		*	P
7439-92-1	Lead	6.0			P
7439-95-4	Magnesium	388	J		P
7439-96-5	Manganese	7.3			P
7439-97-6	Mercury	0.074			AV
7440-02-0	Nickel	1.1	J		P
7440-09-7	Potassium	342	J		P
7782-49-2	Selenium	3.7	U		P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium	86.2	J		P
7440-28-0	Thallium	2.6	U		P
7440-62-2	Vanadium	16.5			P
7440-66-6	Zinc	5.6	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.

25-IS06-0-1-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187S

Matrix: (soil/water) SOIL Lab Sample ID: S 707187-003-019-1/1

Level: (low/med) Date Recieved: 07/28/2007

% 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	12500		*	P
7440-36-0	Antimony	5.2	U		P
7440-38-2	Arsenic	6.4			P
7440-39-3	Barium	20.5			P
7441-41-7	Beryllium	0.20	J		P
7440-43-9	Cadmium	0.43	U		P
7440-70-2	Calcium	2430			P
7440-47-3	Chromium	21.0			P
7440-48-4	Cobalt	0.58	J		P
7440-50-8	Copper	3.3			P
7439-89-6	Iron	11000		*	P
7439-92-1	Lead	10.4			P
7439-95-4	Magnesium	720			P
7439-96-5	Manganese	9.6			P
7439-97-6	Mercury	0.014	J		AV
7440-02-0	Nickel	1.5	J		P
7440-09-7	Potassium	641			P
7782-49-2	Selenium	0.32	J		P
7440-22-4	Silver	0.87	U		P
7440-23-5	Sodium	88.5	J		P
7440-28-0	Thallium	2.2	U		P
7440-62-2	Vanadium	27.6			P
7440-66-6	Zinc	8.7			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.

25-IS06-8-10-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187S

Matrix: (soil/water) SOIL Lab Sample ID: S 707187-004-020-1/1

Level: (low/med) Date Recieved: 07/28/2007

% Solids: 87.1

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	14000		*	P
7440-36-0	Antimony	0.34	J		P
7440-38-2	Arsenic	2.0			P
7440-39-3	Barium	36.6			P
7441-41-7	Beryllium	0.11	J		P
7440-43-9	Cadmium	0.43	U		P
7440-70-2	Calcium	627			P
7440-47-3	Chromium	11.9			P
7440-48-4	Cobalt	0.40	J		P
7440-50-8	Copper	1.4	J		P
7439-89-6	Iron	4640		*	P
7439-92-1	Lead	6.6			P
7439-95-4	Magnesium	521			P
7439-96-5	Manganese	7.0			P
7439-97-6	Mercury	0.057			AV
7440-02-0	Nickel	2.2	J		P
7440-09-7	Potassium	236	J		P
7782-49-2	Selenium	0.30	J		P
7440-22-4	Silver	0.86	U		P
7440-23-5	Sodium	81.2	J		P
7440-28-0	Thallium	2.1	U		P
7440-62-2	Vanadium	17.1			P
7440-66-6	Zinc	5.8			P

Color Before: Grey Clarity Before: NA Texture: Medium

Color After: Yellow Clarity After: Clear Artifacts: NA

Comments:

USEPA - CLP

2A - IN

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187S

Initial Calibration Verification Source: AB. ST / CPI

Continuing Calibration Verification Source: H.P./ AB.ST.

Concentration Units: UG/L

	Initial Calibration Verification			Continuing Calibration Verification					
Analyte	True	Found	%R (1)	True	Found	%R (1)	Found	%R (2)	M
Aluminum	5000.0	5027.24	101	50000.0	50790.46	102	52108.18	104	P
Antimony	400.0	403.57	101	500.0	509.21	102	521.11	104	P
Arsenic	400.0	421.67	105	500.0	500.87	100	515.94	103	P
Barium	400.0	413.10	103	500.0	496.85	99	509.96	102	P
Beryllium	40.0	41.55	104	50.0	49.96	100	50.98	102	P
Cadmium	40.0	41.40	103	500.0	492.25	98	502.59	101	P
Calcium	5000.0	4917.16	98	100000.0	98723.70	99	100613.91	101	P
Chromium	400.0	402.13	101	500.0	495.54	99	509.54	102	P
Cobalt	400.0	428.28	107	500.0	493.80	99	503.18	101	P
Copper	400.0	397.11	99	500.0	505.91	101	516.29	103	P
Iron	5000.0	4999.44	100	50000.0	49358.66	99	50441.08	101	P
Lead	400.0	410.42	103	500.0	499.09	100	513.97	103	P
Magnesium	5000.0	5003.04	100	100000.0	100702.72	101	102990.95	103	P
Manganese	400.0	410.62	103	500.0	498.84	100	510.26	102	P
Mercury	3.0	3.01	100	5.0	5.20	104	5.51	110	AV
Nickel	400.0	413.43	103	500.0	488.40	98	501.20	100	P
Potassium	5000.0	4736.99	95	25000.0	24174.97	97	24722.87	99	P
Selenium	400.0	417.37	104	500.0	510.87	102	526.75	105	P
Silver	400.0	403.91	101	500.0	514.04	103	522.89	105	P
Sodium	10000.0	9857.32	99	100000.0	101036.66	101	103668.44	104	P
Thallium	400.0	396.46	99	500.0	504.53	101	514.96	103	P
Vanadium	400.0	409.75	102	500.0	503.03	101	513.64	103	P
Zinc	400.0	420.47	105	500.0	507.50	101	521.08	104	P

(1) Control Limits : Mercury 80-120; Other Metals 90-110; Cyanide 85-115

USEPA - CLP

2A - IN

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187S

Initial Calibration Verification Source: AB.ST.

Continuing Calibration Verification Source: H.P./ AB.ST.

Concentration Units: UG/L

	Initial Calibration Verification			Continuing Calibration Verification					
Analyte	True	Found	%R (1)	True	Found	%R (1)	Found	%R (2)	M
Aluminum				50000.0	51476.45	103	52002.64	104	P
Antimony				500.0	521.14	104	523.37	105	P
Arsenic				500.0	517.14	103	512.98	103	P
Barium				500.0	503.93	101	511.89	102	P
Beryllium				50.0	50.87	102	50.69	101	P
Cadmium				500.0	504.89	101	506.93	101	P
Calcium	5000.0	4946.89	99	100000.0	101029.67	101	100618.70	101	P
Chromium				500.0	508.45	102	508.93	102	P
Cobalt				500.0	502.68	101	500.96	100	P
Copper				500.0	504.86	101	503.32	101	P
Iron				50000.0	50388.60	101	50265.48	101	P
Lead				500.0	510.93	102	508.24	102	P
Magnesium				100000.0	102406.09	102	102492.44	102	P
Manganese				500.0	507.10	101	504.54	101	P
Mercury				5.0	5.67	113	5.44	109	AV
Nickel				500.0	502.59	101	504.60	101	P
Potassium				25000.0	24234.69	97	24428.30	98	P
Selenium				500.0	528.10	106	527.15	105	P
Silver				500.0	516.15	103	511.75	102	P
Sodium				100000.0	102058.25	102	102792.03	103	P
Thallium				500.0	516.46	103	518.61	104	P
Vanadium				500.0	510.07	102	507.00	101	P
Zinc				500.0	518.23	104	516.17	103	P

(1) Control Limits : Mercury 80-120; Other Metals 90-110; Cyanide 85-115

USEPA - CLP

2A - IN

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187S

Initial Calibration Verification Source:

Continuing Calibration Verification Source: H.P./ ~~AB.ST.~~ KA 8-16

Concentration Units: UG/L

	Initial Calibration Verification			Continuing Calibration Verification					
Analyte	True	Found	%R (1)	True	Found	%R (1)	Found	%R (2)	M
Aluminum				50000.0	51177.00	102	51265.02	103	P
Antimony				500.0	522.37	104	522.97	105	P
Arsenic				500.0	512.37	102	511.46	102	P
Barium				500.0	505.81	101	505.94	101	P
Beryllium				50.0	50.69	101	50.69	101	P
Cadmium				500.0	502.99	101	500.73	100	P
Calcium				100000.0	100493.98	100	100174.72	100	P
Chromium				500.0	506.57	101	505.33	101	P
Cobalt				500.0	501.40	100	499.08	100	P
Copper				500.0	503.07	101	503.84	101	P
Iron				50000.0	50170.88	100	50056.29	100	P
Lead				500.0	509.44	102	506.84	101	P
Magnesium				100000.0	101918.95	102	102231.00	102	P
Manganese				500.0	505.12	101	504.22	101	P
Nickel				500.0	500.10	100	499.41	100	P
Potassium				25000.0	24156.18	97	24223.63	97	P
Selenium				500.0	527.44	105	524.98	105	P
Silver				500.0	514.47	103	515.74	103	P
Sodium				100000.0	101522.98	102	101969.03	102	P
Thallium				500.0	513.81	103	513.12	103	P
Vanadium				500.0	508.79	102	508.51	102	P
Zinc				500.0	512.60	103	512.41	102	P

(1) Control Limits : Mercury 80-120; Other Metals 90-110; Cyanide 85-115

USEPA - CLP

2A - IN

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187S

Initial Calibration Verification Source:

Continuing Calibration Verification Source: H.P./ ~~AB.ST.~~ RA 8-16

Concentration Units: UG/L

	Initial Calibration Verification			Continuing Calibration Verification					
Analyte	True	Found	%R (1)	True	Found	%R (1)	Found	%R (2)	M
Aluminum				50000.0	51540.73	103	51837.73	104	P
Antimony				500.0	520.95	104	527.02	105	P
Arsenic				500.0	511.39	102	520.63	104	P
Barium				500.0	508.33	102	511.67	102	P
Beryllium				50.0	50.61	101	51.45	103	P
Cadmium				500.0	499.77	100	506.78	101	P
Calcium				100000.0	100112.30	100	101312.89	101	P
Chromium				500.0	504.46	101	511.25	102	P
Cobalt				500.0	500.60	100	506.03	101	P
Copper				500.0	507.24	101	508.54	102	P
Iron				50000.0	50105.72	100	50887.45	102	P
Lead				500.0	506.14	101	512.81	103	P
Magnesium				100000.0	102149.27	102	103508.05	104	P
Manganese				500.0	505.19	101	510.00	102	P
Nickel				500.0	498.74	100	504.10	101	P
Potassium				25000.0	24588.33	98	24447.20	98	P
Selenium				500.0	527.55	106	532.76	107	P
Silver				500.0	518.43	104	523.15	105	P
Sodium				100000.0	102994.45	103	102519.47	103	P
Thallium				500.0	511.66	102	517.63	104	P
Vanadium				500.0	509.54	102	516.05	103	P
Zinc				500.0	514.15	103	518.60	104	P

(1) Control Limits : Mercury 80-120; Other Metals 90-110; Cyanide 85-115

USEPA - CLP

2A - IN

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187S

Initial Calibration Verification Source:

Continuing Calibration Verification Source: H.P./ ~~AB.ST.~~ [illegible]

Concentration Units: UG/L

	Initial Calibration Verification			Continuing Calibration Verification					
Analyte	True	Found	%R (1)	True	Found	%R (1)	Found	%R (2)	M
Calcium				100000.0	99521.13	100	100914.75	101	P

(1) Control Limits : Mercury 80-120; Other Metals 90-110; Cyanide 85-115

USEPA - CLP

2A - IN

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187S

Initial Calibration Verification Source:

Continuing Calibration Verification Source: H.P./ ~~AB.ST.~~ 18-1C

Concentration Units: UG/L

	Initial Calibration Verification			Continuing Calibration Verification					
Analyte	True	Found	%R (1)	True	Found	%R (1)	Found	%R (2)	M
Calcium				100000.0	98998.17	99	99564.30	100	P

(1) Control Limits : Mercury 80-120; Other Metals 90-110; Cyanide 85-115

USEPA - CLP

2B - IN

CRQL CHECK STANDARD

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187S

CRQL Check Standard Source: H.P./ AB.ST.

Concentration Units: UG/L

Analyte	CRQL Check Standard				
	Initial			Final	
	True	Found	%R (1)	Found	%R (1)
Aluminum	200.0	212.33	106	213.64	107
Antimony	60.0	60.61	101	61.19	102
Arsenic	10.0	11.19	112	10.60	106
Barium	200.0	201.45	101	202.21	101
Beryllium	5.0	4.98	100	5.11	102
Cadmium	5.0	5.15	103	5.36	107
Calcium	5000.0	4860.67	97	4914.43	98
Chromium	10.0	10.61	106	10.71	107
Cobalt	50.0	50.80	102	51.06	102
Copper	25.0	24.23	97	23.88	96
Iron	100.0	95.73	96	90.75	91
Lead	10.0	10.88	109	10.25	103
Magnesium	5000.0	4977.15	100	5011.99	100
Manganese	15.0	15.31	102	15.51	103
Mercury	0.2	0.21	105	0.22	111
Nickel	40.0	40.53	101	40.88	102
Potassium	5000.0	4805.51	96	4763.01	95
Selenium	35.0	38.02	109	36.31	104
Silver	10.0	10.52	105	10.54	105
Sodium	5000.0	5121.42	102	4958.25	99
Thallium	25.0	29.64	119	31.52	126
Vanadium	50.0	52.31	105	52.56	105
Zinc	60.0	61.52	103	61.77	103

(1) Control Limits: 70-130 with the following exceptions:

ICP-AES - Antimony, Lead, and Thallium: 51-150

ICP-MS - Cobalt, Manganese, and Zinc: 51-150

* If applicable, enter the concentration qualifier 'J' or 'U' after the concentration in these columns (e.g., 0.20U for Mercury).

USEPA - CLP

2B - IN

CRQL CHECK STANDARD

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187S

CRQL Check Standard Source: H.P./ AB.ST.

Concentration Units: UG/L

Analyte	CRQL Check Standard				
	Initial			Final	
	True	Found	%R (1)	Found	%R (1)
Aluminum	200.0	224.15	112	426.85	213
Antimony	60.0	62.84	105	62.82	105
Arsenic	10.0	11.37	114	9.80	98
Barium	200.0	204.55	102	207.39	104
Beryllium	5.0	5.10	102	5.11	102
Cadmium	5.0	5.24	105	5.06	101
Calcium	5000.0	4941.98	99	4972.54	99
Chromium	10.0	10.92	109	11.29	113
Cobalt	50.0	51.75	104	52.05	104
Copper	25.0	24.41	98	24.84	99
Iron	100.0	96.39	96	102.57	103
Lead	10.0	10.10	101	11.52	115
Magnesium	5000.0	5040.82	101	5088.56	102
Manganese	15.0	15.43	103	15.68	105
Mercury	0.2	0.20	100		
Nickel	40.0	41.41	104	41.59	104
Potassium	5000.0	4810.59	96	4924.11	98
Selenium	35.0	35.79	102	37.67	108
Silver	10.0	11.06	111	10.38	104
Sodium	5000.0	5006.63	100	4975.65	100
Thallium	25.0	30.40	122	31.34	125
Vanadium	50.0	52.67	105	53.28	107
Zinc	60.0	62.05	103	63.40	106

(1) Control Limits: 70-130 with the following exceptions:

ICP-AES - Antimony, Lead, and Thallium: 51-150

ICP-MS - Cobalt, Manganese, and Zinc: 51-150

* If applicable, enter the concentration qualifier 'J' or 'U' after the concentration in these columns (e.g., 0.20U for Mercury).

USEPA - CLP

2B - IN

CRQL CHECK STANDARD

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187S

CRQL Check Standard Source: H.P./ ~~AB~~.ST.-KJ-816

Concentration Units: UG/L

Analyte	CRQL Check Standard				
	Initial			Final	
	True	Found	%R (1)	Found	%R (1)
Aluminum					
Antimony					
Arsenic					
Barium					
Beryllium					
Cadmium					
Calcium	5000.0	4991.51	100	4963.98	99
Chromium					
Cobalt					
Copper					
Iron					
Lead					
Magnesium					
Manganese					
Mercury					
Nickel					
Potassium					
Selenium					
Silver					
Sodium					
Thallium					
Vanadium					
Zinc					

(1) Control Limits: 70-130 with the following exceptions:

ICP-AES - Antimony, Lead, and Thallium: 51-150

ICP-MS - Cobalt, Manganese, and Zinc: 51-150

* If applicable, enter the concentration qualifier 'J' or 'U' after the concentration in these columns (e.g., 0.20U for Mercury).

USEPA - CLP

3 - IN

BLANKS

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187S

Preparation Blank Matrix (soil/water): Soil

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		
		C	1	C	2	C	3	C		C	M
Aluminum	200.000	U	200.000	U	200.000	U	25.878	J	20.000	U	P
Antimony	60.000	U	60.000	U	60.000	U	60.000	U	6.000	U	P
Arsenic	10.000	U	10.000	U	10.000	U	10.000	U	1.000	U	P
Barium	200.000	U	200.000	U	0.297	J	200.000	U	0.068	J	P
Beryllium	5.000	U	5.000	U	5.000	U	5.000	U	0.500	U	P
Cadmium	5.000	U	5.000	U	5.000	U	5.000	U	0.500	U	P
Calcium	5000.000	U	5000.000	U	5000.000	U	5000.000	U	11.572	J	P
Chromium	10.000	U	10.000	U	10.000	U	10.000	U	0.122	J	P
Cobalt	0.459	J	50.000	U	50.000	U	0.719	J	-0.070	J	P
Copper	25.000	U	25.000	U	25.000	U	0.788	J	2.500	U	P
Iron	100.000	U	100.000	U	19.440	J	21.347	J	10.000	U	P
Lead	10.000	U	10.000	U	10.000	U	-1.641	J	0.274	J	P
Magnesium	5000.000	U	35.803	J	33.327	J	52.183	J	3.520	J	P
Manganese	15.000	U	0.246	J	0.309	J	0.280	J	0.039	J	P
Mercury	-0.050	J	-0.019	J	0.200	U	-0.025	J	0.033	U	AV
Nickel	40.000	U	40.000	U	40.000	U	40.000	U	-0.138	J	P
Potassium	5000.000	U	5000.000	U	5000.000	U	5000.000	U	2.614	J	P
Selenium	35.000	U	35.000	U	35.000	U	35.000	U	3.500	U	P
Silver	10.000	U	10.000	U	10.000	U	10.000	U	1.000	U	P
Sodium	5000.000	U	5000.000	U	5000.000	U	5000.000	U	59.665	J	P
Thallium	25.000	U	25.000	U	25.000	U	25.000	U	2.500	U	P
Vanadium	50.000	U	0.474	J	50.000	U	0.744	J	5.000	U	P
Zinc	60.000	U	60.000	U	60.000	U	60.000	U	6.000	U	P

USEPA - CLP

3 - IN

BLANKS

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187S

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or mg/kg):

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		
		C	1	C	2	C	3	C		C	M
Aluminum			73.616	J	37.868	J	53.772	J			P
Antimony			60.000	U	3.692	J	60.000	U			P
Arsenic			10.000	U	10.000	U	10.000	U			P
Barium			200.000	U	0.353	J	200.000	U			P
Beryllium			5.000	U	5.000	U	5.000	U			P
Cadmium			5.000	U	5.000	U	5.000	U			P
Calcium	5000.000	U	65.313	J	53.821	J	62.583	J			P
Chromium			10.000	U	0.650	J	10.000	U			P
Cobalt			0.521	J	1.487	J	0.702	J			P
Copper			25.000	U	25.000	U	25.000	U			P
Iron			30.514	J	34.657	J	37.839	J			P
Lead			10.000	U	10.000	U	10.000	U			P
Magnesium			80.971	J	72.928	J	80.485	J			P
Manganese			0.178	J	0.358	J	0.298	J			P
Mercury			-0.053	J							AV
Nickel			40.000	U	40.000	U	40.000	U			P
Potassium			5000.000	U	5000.000	U	17.039	J			P
Selenium			35.000	U	35.000	U	35.000	U			P
Silver			10.000	U	0.990	J	10.000	U			P
Sodium			-134.751	J	-153.212	J	5000.000	U			P
Thallium			25.000	U	25.000	U	7.587	J			P
Vanadium			50.000	U	0.647	J	0.671	J			P
Zinc			60.000	U	60.000	U	60.000	U			P

USEPA - CLP

3 - IN

BLANKS

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187S

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or mg/kg):

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		
		C	1	C	2	C	3	C		C	M
Aluminum			30.443	J	105.255	J					P
Antimony			-4.433	J	60.000	U					P
Arsenic			-3.382	J	10.000	U					P
Barium			200.000	U	0.405	J					P
Beryllium			5.000	U	5.000	U					P
Cadmium			-0.324	J	0.457	J					P
Calcium			5000.000	U	112.795	J	54.828	J			P
Chromium			-0.976	J	0.500	J					P
Cobalt			-0.666	J	0.906	J					P
Copper			-1.583	J	25.000	U					P
Iron			100.000	U	50.983	J					P
Lead			10.000	U	10.000	U					P
Magnesium			21.401	J	131.870	J					P
Manganese			15.000	U	0.392	J					P
Mercury											AV
Nickel			40.000	U	1.417	J					P
Potassium			-16.862	J	5000.000	U					P
Selenium			35.000	U	35.000	U					P
Silver			-1.734	J	1.063	J					P
Sodium			-471.347	J	5000.000	U					P
Thallium			25.000	U	25.000	U					P
Vanadium			-0.826	J	50.000	U					P
Zinc			60.000	U	60.000	U					P

USEPA - CLP

3 - IN

BLANKS

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187S

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or mg/kg):

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		
		C	1	C	2	C	3	C		C	M
Aluminum											P
Antimony											P
Arsenic											P
Barium											P
Beryllium											P
Cadmium											P
Calcium			5000.000	U	62.932	J	100.239	J			P
Chromium											P
Cobalt											P
Copper											P
Iron											P
Lead											P
Magnesium											P
Manganese											P
Mercury											AV
Nickel											P
Potassium											P
Selenium											P
Silver											P
Sodium											P
Thallium											P
Vanadium											P
Zinc											P

USEPA - CLP

4A - IN

ICP-AES INTERFERENCE CHECK SAMPLE

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187S

ICP-AES Instrument ID: S5.3V ICS Source: H.P. /AR, ST.

Concentration Units: ug/L

Analyte	True		Initial Found				Final Found			
	Sol. A	Sol. B	Sol. A	%R	Sol. AB	%R	Sol. A	%R	Sol. AB	%R
Aluminum		500000	498000	100	492000	98	499000	100	500000	100
Antimony		600	-0.22		624	104	5.5		631	105
Arsenic		100	-1.8		104	104	-3.8		99.9	100
Barium		500	0.92		513	103	0.87		522	104
Beryllium		500	-0.15		486	97	-0.15		492	98
Cadmium		1000	0.59		952	95	-0.093		966	97
Calcium		500000	503000	101	498000	100	508000	102	510000	102
Chromium		500	1.9		486	97	1.9		496	99
Cobalt		500	1.8		478	96	2.6		483	97
Copper		500	2.9		524	105	2.4		526	105
Iron		200000	193000	97	192000	96	195000	97	195000	98
Lead		50	-4.3		46.7	93	-2.6		47.3	95
Magnesium		500000	490000	98	487000	97	491000	98	493000	99
Manganese		500	12.2		505	101	12.7		512	102
Nickel		1000	2.7		947	95	2.1		964	96
Potassium		5000	0.61		5330	107	1.3		5320	106
Selenium		50	-0.76		49.7	99	1.7		54.5	109
Silver		200	0.22		211	106	0.032		213	107
Sodium		10000	-390		10500	105	-260		10400	104
Thallium		100	7.8		111	111	4.8		108	108
Vanadium		500	0.52		496	99	0.19		503	101
Zinc		1000	26.8		1030	103	26.2		1050	105

USEPA - CLP

4A - IN

ICP-AES INTERFERENCE CHECK SAMPLE

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187S

ICP-AES Instrument ID: S5.3V ICS Source: H.P./AB,ST

Concentration Units: ug/L

Analyte	True		Initial Found				Final Found			
	Sol. A	Sol. B	Sol. A	%R	Sol. AB	%R	Sol. A	%R	Sol. AB	%R
Aluminum		500000	498000	100	499000	100	497000	99	498000	100
Antimony		600	6.7		635	106	0.26		637	106
Arsenic		100	-0.69		106	106	-1.2		102	102
Barium		500	0.91		523	105	0.98		523	105
Beryllium		500	-0.15		491	98	-0.13		495	99
Cadmium		1000	-0.17		962	96	-0.57		959	96
Calcium		500000	504000	101	507000	101	508000	102	508000	102
Chromium		500	1.4		494	99	1.9		493	99
Cobalt		500	1.9		484	97	2.4		484	97
Copper		500	2.5		524	105	2.3		529	106
Iron		200000	193000	97	195000	97	194000	97	195000	97
Lead		50	-1.3		49.1	98	-1.4		48.8	98
Magnesium		500000	488000	98	492000	98	491000	98	494000	99
Manganese		500	12.2		511	102	12.9		513	103
Nickel		1000	3.2		961	96	3.0		956	96
Potassium		5000	2.4		5310	106	4.1		5340	107
Selenium		50	4.6		57.5	115	2.1		55.3	111
Silver		200	-0.31		212	106	0.18		216	108
Sodium		10000	-210		10500	105	-77		10600	106
Thallium		100	8.0		106	106	3.9		103	103
Vanadium		500	-0.018		502	100	0.17		506	101
Zinc		1000	26.3		1040	104	27.0		1050	105

USEPA - CLP

4A - IN

ICP-AES INTERFERENCE CHECK SAMPLE

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187S

ICP-AES Instrument ID: S5.3V ICS Source: H.P. / AB. ST

Concentration Units: ug/L

Analyte	True		Initial Found				Final Found			
	Sol. A	Sol. B	Sol. A	%R	Sol. AB	%R	Sol. A	%R	Sol. AB	%R
Calcium		500000			513000	103			509000	102

USEPA - CLP

5A - IN

MATRIX SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

GC-ISO9-0-1-07C MS

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187S

Matrix: (soil/water) Soil Level: (low/med)

% Solids for Sample: 83.6

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Antimony	75 - 125	16.0461		5.4760	U	16.8394	95		P
Arsenic	75 - 125	6.2479		0.9127	U	6.7358	93		P
Barium	75 - 125	341.8019		2.9141	J	336.7888	101		P
Beryllium	75 - 125	8.3233		0.4563	U	8.4197	99		P
Cadmium	75 - 125	8.2994		0.4563	U	8.4197	99		P
Chromium	75 - 125	35.2800		0.8115	J	33.6789	102		P
Cobalt	75 - 125	83.3244		4.5634	U	84.1972	99		P
Copper	75 - 125	42.7536		0.0976	J	42.0986	101		P
Lead	75 - 125	6.0183		3.0558		3.3679	88		P
Manganese	75 - 125	89.5697		3.9860		84.1972	102		P
Nickel	75 - 125	84.3941		3.6507	U	84.1972	100		P
Selenium	75 - 125	7.3320		3.1944	U	8.4197	87		P
Silver	75 - 125	8.3893		0.9127	U	8.4197	100		P
Thallium	75 - 125	8.2537		2.2817	U	8.4197	98		P
Vanadium	75 - 125	86.7811		1.3498	J	84.1972	101		P
Zinc	75 - 125	85.6574		3.0502	J	84.1972	98		P

Comments:

USEPA - CLP

5A - IN

EPA SAMPLE NO.

MATRIX SPIKE SAMPLE RECOVERY

GC-IS01-5-8-07C MS

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187S

Matrix: (soil/water) Soil Level: (low/med)

% Solids for Sample: 93.2

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Mercury	75 - 125	0.5611		0.0303	J	0.5055	105		AV

Comments:

USEPA - CLP

6 - IN

DUPLICATES

EPA SAMPLE NO.

GC-ISO9-0-1-07C MD

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187S

Matrix: (soil/water) Soil Level: (low/med)

% Solids for Sample: 83.6 % Solids for Duplicate: 83.6

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum	20	335.7852		425.9489		24	*	P
Antimony	20	5.4760	U	0.4743	J			P
Arsenic	20	0.9127	U	0.8727	U			P
Barium	20	2.9141	J	2.7545	J			P
Beryllium	20	0.4563	U	0.4364	U			P
Cadmium	20	0.4563	U	0.4364	U			P
Calcium	20	78.0709	J	63.7940	J			P
Chromium	20	0.8115	J	0.9481				P
Cobalt	20	4.5634	U	4.3635	U			P
Copper	20	0.0976	J	0.3807	J			P
Iron	20	226.1295		292.4864		26	*	P
Lead	20	3.0558		2.9083		5		P
Magnesium	20	20.1751	J	24.6408	J			P
Manganese	20	3.9860		4.5893		14		P
Nickel	20	3.6507	U	3.4908	U			P
Potassium	20	27.8438	J	28.4568	J			P
Selenium	20	3.1944	U	3.0545	U			P
Silver	20	0.9127	U	0.8727	U			P
Sodium	20	58.5764	J	76.8762	J			P
Thallium	20	2.2817	U	2.1818	U			P
Vanadium	20	1.3498	J	1.4947	J			P
Zinc	20	3.0502	J	2.0906	J			P

Comments:

USEPA - CLP

6 - IN

DUPLICATES

EPA SAMPLE NO.

GC-IS01-5-8-07C MD

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187S

Matrix: (soil/water) Soil Level: (low/med)

% Solids for Sample: 93.2 % Solids for Duplicate: 93.2

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Mercury	20	0.0303	J	0.0339	U			AV

Comments:

USEPA - CLP

7 - IN

LABORATORY CONTROL SAMPLE

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187S

Solid LCS Source: H.P./ AB.ST.

Aqueous LCS Source:

Analyte	Aqueous (ug/L)			Solid (mg/kg)					
	True	Found	%R	True	Found	C	Limits		%R
Aluminum				1000.0	984.18		80	120	98
Antimony				10.0	9.88		80	120	99
Arsenic				10.0	9.21		80	120	92
Barium				100.0	100.39		80	120	100
Beryllium				5.0	4.92		80	120	98
Cadmium				10.0	9.86		80	120	99
Calcium				1000.0	963.57		80	120	96
Chromium				50.0	50.29		80	120	101
Cobalt				50.0	48.68		80	120	97
Copper				50.0	49.99		80	120	100
Iron				1000.0	978.31		80	120	98
Lead				100.0	97.23		80	120	97
Magnesium				1000.0	956.85		80	120	96
Manganese				100.0	99.52		80	120	100
Mercury				0.5	0.51		80	120	102
Nickel				50.0	49.32		80	120	99
Potassium				1000.0	898.02		80	120	90
Selenium				10.0	9.21		80	120	92
Silver				10.0	9.94		80	120	99
Sodium				1000.0	1025.62		80	120	103
Thallium				10.0	9.67		80	120	97
Vanadium				50.0	50.41		80	120	101
Zinc				100.0	99.64		80	120	100

USEPA - CLP

8 - IN

ICP-AES and ICP-MS SERIAL DILUTIONS

EPA SAMPLE NO.

GC-ISO9-0-1-07C

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187S

Matrix: (soil/water) Water Level: (low/med)

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	3679.1445		3774.2361		3		P
Antimony	60.0000	U	300.0000	U			P
Arsenic	10.0000	U	50.0000	U			P
Barium	31.9291	J	31.5578	J	1		P
Beryllium	5.0000	U	25.0000	U			P
Cadmium	5.0000	U	25.0000	U			P
Calcium	855.4108	J	854.0100	J	0		P
Chromium	8.8913	J	11.5331	J	30		P
Cobalt	50.0000	U	250.0000	U			P
Copper	1.0692	J	125.0000	U	100		P
Iron	2477.6648		2514.1336		1		P
Lead	33.4822		29.9018	J	11		P
Magnesium	221.0551	J	244.0942	J	10		P
Manganese	43.6743		42.9455	J	2		P
Nickel	40.0000	U	200.0000	U			P
Potassium	305.0798	J	341.1585	J	12		P
Selenium	35.0000	U	175.0000	U			P
Silver	10.0000	U	50.0000	U			P
Sodium	641.8124	J	1593.5498	J	148		P
Thallium	25.0000	U	125.0000	U			P
Vanadium	14.7900	J	16.1919	J	9		P
Zinc	33.4203	J	45.5080	J	36		P

USEPA - CLP

9 - IN

METHOD DETECTION LIMITS (ANNUALLY)

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187S

Instrument Type: P Instrument ID: S5.3V Date: 12/22/2006

Preparation Method: ILMO5.2_HS

Concentration Units (ug/L or mg/kg): ug/L

Analyte	Wavelength /Mass	CRQL	MDL
Aluminum	308.215	200	22.6
Antimony	206.838	60	3.1
Arsenic	189.042	10	2.4
Barium	493.409	200	0.29
Beryllium	313.042	5	0.2
Cadmium	226.502	5	0.24
Calcium	317.933	5000	51.8
Chromium	267.716	10	0.45
Cobalt	228.616	50	0.43
Copper	324.753	25	0.68
Iron	271.441	100	19.3
Lead	220.353	10	1.6
Magnesium	279.078	5000	5
Manganese	344.199	15	0.15
Mercury	253.7		
Nickel	231.604	40	1.2
Potassium	766.491	5000	15.4
Selenium	196.026	35	3.4
Silver	328.068	10	0.44
Sodium	330.232	5000	116
Thallium	190.864	25	6.7
Vanadium	292.402	50	0.44
Zinc	213.856	60	8

Comments:

USEPA - CLP

9 - IN

METHOD DETECTION LIMITS (ANNUALLY)

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187S

Instrument Type: AV Instrument ID: 5.3HS Date: 02/23/2007

Preparation Method: CS1

Concentration Units (ug/L or mg/kg): ug/L

Analyte	Wavelength /Mass	CRQL	MDL
Aluminum	308.215		
Antimony	206.838		
Arsenic	189.042		
Barium	493.409		
Beryllium	313.042		
Cadmium	226.502		
Calcium	317.933		
Chromium	267.716		
Cobalt	228.616		
Copper	324.753		
Iron	271.441		
Lead	220.353		
Magnesium	279.078		
Manganese	257.61		
Mercury	253.7	0.2	0.019
Nickel	231.604		
Potassium	766.491		
Selenium	196.026		
Silver	328.068		
Sodium	330.232		
Thallium	190.864		
Vanadium	292.402		
Zinc	213.856		

Comments:

GPL - Maryland Laboratory

Metals Data Reporting Form

Inter-Element Correction Factors VACUUM SDG: 707875

Instrument: ICPST **Date of IEC's:** 7/27/2007

Interfering Element	Wavelength /Mass	Correction Factor(s)
Aluminum	308.215	Cd(0.000003), Mn(0.000003), Pb(0.000329), Sn(-0.000012), Pb2(-0.000225)
Barium	493.409	Co(0.000079)
Chromium	267.716	As(-0.006931), Co(-0.000172), Sb(0.008954), Ti(0.000219)
Cobalt	228.616	B(0.00924), Fe(0.072657), Tl(0.003155)
Copper	324.753	Zn(0.000602)
Iron	271.441	Al(-0.000069), B(-0.000074), Ba(0.000004), Cd(0.000112), Cr(-0.00002), Cu(-0.000003), Mg(0.000187), Mn(-0.000107), Mo(-0.000008), Na(-0.001083), Pb(0.000072), Sb(0.000017), Se(0.00001), Sn(0.000011), Tl(-0.00004), V(0.000027), Zn(0.000083), Pb2(0.000051), Se2(-0.000247)
Magnesium	279.078	Fe(-0.000217)
Manganese	257.61	Ag(0.00003), Al(0.000222), Cr(0.000158), Mg(-0.000743), Mo(-0.00006), Pb(0.000075), Se(0.000306), Sn(-0.000093), Tl(-0.004333), Pb2(0.000090), Se2(0.000242)
Molybdenum	202.03	Al(0.010738), Cu(0.000355), Mn(-0.000276), Pb(-0.00048), Sb(-0.014276), V(-0.000815), Pb2(-0.000668)
Titanium	334.941	Be(-0.000161), Co(0.001989), Cr(-0.000018), Na(-0.011855), Pb(0.0002), Sn(0.000202), V(0.000692), Pb2(-0.000475)
Vanadium	292.402	Al(0.020047), Be(0.000416), Fe(0.007412), Tl(0.001774)
Zinc	206.2	Na(0.024688)

USEPA - CLP

11 - IN

ICP-AES and ICP-MS LINEAR DYNAMIC RANGES (QUARTERLY)

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187S

Instrument ID: S5.3V Date: 06/20/2007

Analyte	Integ. Time (sec.)	Concentration (ug/L)	M
Aluminum		525000	P
Antimony		5250	P
Arsenic		2100	P
Barium		10500	P
Beryllium		525	P
Cadmium		2100	P
Calcium		525000	P
Chromium		10500	P
Cobalt		10500	P
Copper		10500	P
Iron		525000	P
Lead		21000	P
Magnesium		525000	P
Manganese		10500	P
Nickel		7875	P
Potassium		52500	P
Selenium		2100	P
Silver		1050	P
Sodium		525000	P
Thallium		2100	P
Vanadium		10500	P
Zinc		3150	P

Comments:

USEPA - CLP

12 - IN

PREPARATION LOG

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187S

Preparation Method: ILMO5.2_HS2

EPA Sample No.	Preparation Date	Weight (grams)	Volume (mL)
BLK99734	08/14/2007	1	100
BKS99734	08/14/2007	1	100
25-IS05-0-1-07C	08/14/2007	1.32	100
25-IS05-9-11-07C	08/14/2007	1.35	100
25-IS06-0-1-07C	08/14/2007	1.36	100
25-IS06-8-10-07C	08/14/2007	1.34	100
GC-ISO9-0-1-07C	08/14/2007	1.31	100
GC-ISO9-0-1-07C MD	08/14/2007	1.37	100
GC-ISO9-0-1-07C MS	08/14/2007	1.42	100

USEPA - CLP

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PREPARATION LOG

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187S

Preparation Method: CS1

EPA Sample No.	Preparation Date	Weight (grams)	Volume (mL)
BLK99684	08/13/2007	0.6	100
BKS99684	08/13/2007	0.6	100
25-IS05-0-1-07C	08/13/2007	0.688	100
25-IS05-9-11-07C	08/13/2007	0.632	100
25-IS06-0-1-07C	08/13/2007	0.666	100
25-IS06-8-10-07C	08/13/2007	0.646	100
GC-IS01-5-8-07C	08/13/2007	0.634	100
GC-IS01-5-8-07C MD	08/13/2007	0.633	100
GC-IS01-5-8-07C MS	08/13/2007	0.637	100

USEPA - CLP

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ANALYSIS RUN LOG

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187S

ICP-MS Instrument ID: S5.3V Analysis Method: CLP-5.3

Start Date: 08/14/2007 End Date: 08/15/2007

EPA Sample No.	DF	Time	Analytes																									
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN		
STD0	1	12:18	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
STD1	1	12:26	X	X	X	X	X	X		X	X	X	X	X		X		X		X	X		X	X	X		
STD2	1	12:35	X	X	X	X	X	X		X	X	X	X	X		X		X		X	X		X	X	X		
STD3	1	12:43							X						X				X			X					
IVICV	1	12:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
ZZZZZ	1	13:03																									
BIICB	1	13:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
CVCCV1	1	13:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
BCCCB1	1	13:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
ZZZZZ	1	13:39																									
CRCRI	1	13:47	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
IAICSA	1	13:56	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
IBICSAB	1	14:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
ZZZZZ	1	14:13																									
CVCCV2	1	14:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
BCCCB2	1	14:38	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
ZZZZZ	1	14:54																									
ZZZZZ	1	15:02																									
ZZZZZ	1	15:11																									
ZZZZZ	1	15:19																									
ZZZZZ	1	15:27																									
ZZZZZ	1	15:36																									
ZZZZZ	10	15:44																									
ZZZZZ	1	15:52																									
ZZZZZ	1	16:01																									
ZZZZZ	1	16:09																									
CVCCV3	1	16:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
BCCCB3	1	16:26	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
ZZZZZ	1	16:34																									
ZZZZZ	2	16:42																									
ZZZZZ	2	16:51																									
ZZZZZ	5	16:59																									
ZZZZZ	2	17:08																									
ZZZZZ	1	17:26																									

USEPA - CLP

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ANALYSIS RUN LOG

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187S

ICP-MS Instrument ID: S5.3V Analysis Method: CLP-5.3

Start Date: 08/14/2007 End Date: 08/15/2007

EPA Sample No.	DF	Time	Analytes																									
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN		
ZZZZZ	1	17:34																										
CRCRI	1	17:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
IAICSA	1	17:51	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
IBICSAB	1	17:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CVCCV4	1	18:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
BCCCB4	1	18:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ZZZZZ	1	18:24																										
ZZZZZ	1	18:33																										
ZZZZZ	1	18:41																										
ZZZZZ	1	18:56																										
ZZZZZ	5	19:04																										
ZZZZZ	1	19:13																										
ZZZZZ	1	19:21																										
ZZZZZ	1	19:29																										
ZZZZZ	1	19:38																										
ZZZZZ	1	19:46																										
CVCCV5	1	19:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
BCCCB5	1	20:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ZZZZZ	1	20:11																										
ZZZZZ	1	20:19																										
ZZZZZ	1	20:28																										
ZZZZZ	1	20:36																										
BLK99734	1	20:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
BKS99734	1	20:53	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
S 707158-001-013-1/1	1	21:01	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CRCRI	1	21:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
IAICSA	1	21:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
IBICSAB	1	21:32	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CVCCV6	1	21:40	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
BCCCB6	1	21:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
D 707158-001-013-1/1	1	21:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
SP707158-001-013-1/1	1	22:05		X	X	X	X	X		X	X	X		X		X		X		X	X		X	X	X			
ZZZZZ	1	22:14																										
SE707158-001-013-1/1	5	22:22	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			

USEPA - CLP

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ANALYSIS RUN LOG

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187S

ICP-MS Instrument ID: S5.3V Analysis Method: CLP-5.3

Start Date: 08/14/2007 End Date: 08/15/2007

EPA Sample No.	DF	Time	Analytes																								
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN		
ZZZZZ	1	22:31																									
ZZZZZ	1	22:39																									
ZZZZZ	1	22:47																									
S 707187-001-017-1/1	1	22:56	X	X	X	X	X	X		X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
S 707187-002-018-1/1	1	23:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
S 707187-003-019-1/1	1	23:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
CVCCV7	1	23:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
BCCCB7	1	23:29	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
S 707187-004-020-1/1	1	23:37	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
ZZZZZ	1	23:46																									
ZZZZZ	1	23:54																									
ZZZZZ	1	0:03																									
ZZZZZ	1	0:11																									
ZZZZZ	1	0:19																									
ZZZZZ	1	0:28																									
CRCRII	1	0:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
IAICSAI	1	0:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
IBICSABI	1	0:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
CVCCV8	1	1:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
BCCCB8	1	1:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
ZZZZZ	1	1:24																									
ZZZZZ	1	1:32																									
ZZZZZ	1	1:46																									
ZZZZZ	1	1:54																									
ZZZZZ	1	2:03																									
ZZZZZ	1	2:11																									
ZZZZZ	1	2:19																									
ZZZZZ	1	2:28																									
ZZZZZ	1	2:36																									
ZZZZZ	5	2:45																									
ZZZZZ	1	2:53																									
ZZZZZ	1	3:01																									
ZZZZZ	1	3:10																									
ZZZZZ	1	3:18																									

USEPA - CLP

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ANALYSIS RUN LOG

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187S

ICP-MS Instrument ID: S5.3V Analysis Method: CLP-5.3

Start Date: 08/15/2007 End Date: 08/16/2007

EPA Sample No.	DF	Time	Analytes																										
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN		
STD0	1	15:11							X																		
STD3	1	15:37							X																		
IVICV	1	15:43							X																		
BIICB	1	15:57							X																		
CVCCV1	1	16:09							X																		
BCCCB1	1	16:17							X																		
ZZZZZ	1	16:29																									
CRCRI	1	16:37							X																		
IAICSA	1	16:45							X																		
IBICSAB	1	16:54							X																		
ZZZZZ	1	17:02																									
CVCCV2	1	17:16							X																		
BCCCB2	1	17:27							X																		
ZZZZZ	2	17:36																									
S 707187-001-017-1/1	5	17:44							X																		
ZZZZZ	5	17:52																									
ZZZZZ	2	18:01																									
ZZZZZ	5	18:09																									
ZZZZZ	5	18:17																									
ZZZZZ	2	18:26																									
ZZZZZ	1	18:34																									
ZZZZZ	1	18:42																									
CVCCV3	1	18:51							X																		
BCCCB3	1	18:59							X																		
ZZZZZ	1	19:08																									
ZZZZZ	1	19:16																									
ZZZZZ	1	19:24																									
ZZZZZ	1	19:33																									
ZZZZZ	1	19:41																									
ZZZZZ	5	19:49																									
ZZZZZ	1	20:01																									
CRCRI	1	20:09							X																		
IAICSA	1	20:17							X																		
IBICSAB	1	20:26							X																		

USEPA - CLP

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ANALYSIS RUN LOG

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187S

ICP-MS Instrument ID: S5.3V Analysis Method: CLP-5.3

Start Date: 08/15/2007 End Date: 08/16/2007

EPA Sample No.	DF	Time	Analytes																										
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN		
CVCCV4	1	20:34							X																		
BCCCB4	1	20:42							X																		
ZZZZZ	1	20:51																									
ZZZZZ	1	20:59																									
ZZZZZ	1	21:07																									
ZZZZZ	1	21:16																									
ZZZZZ	1	21:24																									
ZZZZZ	5	21:33																									
ZZZZZ	1	21:41																									
ZZZZZ	1	21:49																									
ZZZZZ	1	21:58																									
ZZZZZ	1	22:06																									
ZZZZZ	1	22:14																									
ZZZZZ	1	22:23																									
ZZZZZ	1	22:31																									
ZZZZZ	1	22:39																									
ZZZZZ	1	22:48																									
ZZZZZ	1	22:56																									
ZZZZZ	5	23:04																									
ZZZZZ	1	23:13																									
ZZZZZ	1	23:21																									
ZZZZZ	1	23:30																									
ZZZZZ	1	23:38																									
ZZZZZ	1	23:46																									
ZZZZZ	1	23:55																									
ZZZZZ	1	0:03																									
ZZZZZ	1	0:11																									
ZZZZZ	1	0:20																									
ZZZZZ	1	0:28																									
ZZZZZ	1	0:36																									
ZZZZZ	1	0:45																									
ZZZZZ	1	0:53																									
ZZZZZ	1	1:02																									
ZZZZZ	1	1:10																									

USEPA - CLP

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ANALYSIS RUN LOG

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187S

ICP-MS Instrument ID: 5.3HS Analysis Method: Mercury

Start Date: 08/14/2007 End Date: 08/14/2007

EPA Sample No.	DF	Time	Analytes																									
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN		
Std01Rep1	1	13:29															X										
Std01Rep2	1	13:32															X										
Std01Rep3	1	13:35															X										
Std02Rep1	1	13:39															X										
Std02Rep2	1	13:42															X										
Std02Rep3	1	13:46															X										
Std03Rep1	1	13:49															X										
Std03Rep2	1	13:52															X										
Std03Rep3	1	13:55															X										
Std04Rep1	1	13:58															X										
Std04Rep2	1	14:02															X										
Std04Rep3	1	14:05															X										
Std05Rep1	1	14:08															X										
Std05Rep2	1	14:12															X										
Std05Rep3	1	14:15															X										
Std06Rep1	1	14:19															X										
Std06Rep2	1	14:22															X										
Std06Rep3	1	14:26															X										
Ck2 ICV	1	14:30															X										
Ck3 ICB	1	14:34															X										
Ck4 CRA	1	14:37															X										
Ck5 CCV1	1	14:41															X										
Ck6 CCB1	1	14:45															X										
BLK99684	1	14:48															X										
BKS99684	1	14:51															X										
ZZZZZ	1	14:55																									
S 707147-002-066-1/1	1	14:58															X										
D 707147-002-066-1/1	1	15:02															X										
SP707147-002-066-1/1	1	15:05															X										
ZZZZZ	1	15:10																									
ZZZZZ	1	15:13																									
Ck5 CCV2	1	15:16															X										
Ck6 CCB2	1	15:21															X										
ZZZZZ	1	15:25																									

USEPA - CLP

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ANALYSIS RUN LOG

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707187S

ICP-MS Instrument ID: 5.3HS Analysis Method: Mercury

Start Date: 08/14/2007 End Date: 08/14/2007

EPA Sample No.	DF	Time	Analytes																									
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN		
ZZZZZ	1	15:28																									
ZZZZZ	1	15:31																									
ZZZZZ	1	15:35																									
ZZZZZ	1	15:38																									
ZZZZZ	1	15:41																									
ZZZZZ	1	15:44																									
ZZZZZ	1	15:48																									
Ck4 CRA	1	15:52															X										
Ck5 CCV3	1	15:55															X										
Ck6 CCB3	1	16:00															X										
ZZZZZ	1	16:03																									
ZZZZZ	1	16:07																									
ZZZZZ	1	16:10																									
ZZZZZ	1	16:13																									
S 707187-001-017-1/1	1	16:17															X										
S 707187-002-018-1/1	1	16:20															X										
S 707187-003-019-1/1	1	16:23															X										
S 707187-004-020-1/1	1	16:27															X										
Ck4 CRA	1	16:30															X										
Ck5 CCV4	1	16:33															X										
Ck6 CCB4	1	16:38															X										

	Sample Id	Clas	Method	Q	Anal Date	Tech	SEQ No.	Multip	M	Prep	R	Client	A	B	C	Calculate	Meth	Col	Col	C	Perce	Last QC Sample	
54	707172-009-0	SMP	CLP_SOLIDS		08-01-07 10:3	1300-18	104497	00000	S		Y	25-ISO	1.28800	10.22100	9.57300	92.7460	1.0000			1	7.25		✓
55	707172-010-0	SMP	CLP_SOLIDS		08-01-07 10:3	1300-18	104497	00000	S		Y	25-ISO	1.31000	10.29600	9.40700	90.1068	1.0000			1	9.89		✓
56	707172-011-0	SMP	CLP_SOLIDS		08-01-07 10:3	1300-18	104497	00000	S		Y	25-ISO	1.31200	10.64800	8.95300	81.8445	1.0000			1	18.16		✓
57	707172-012-0	SMP	CLP_SOLIDS		08-01-07 10:3	1300-18	104497	00000	S		Y	25-ISO	1.31400	10.54900	8.95500	82.7396	1.0000			1	17.26		✓
58	707172-013-0	SMP	CLP_SOLIDS		08-01-07 10:3	1300-18	104497	00000	S		Y	25-ISO	1.30400	10.43500	9.60900	90.9539	1.0000			1	9.05		✓
59	707172-014-0	SMP	CLP_SOLIDS		08-01-07 10:3	1300-18	104497	00000	S		Y	25-ISO	1.31100	10.74200	8.71500	78.5071	1.0000			1	21.49		✓
60	707172-015-0	SMP	CLP_SOLIDS		08-01-07 10:3	1300-18	104497	00000	S		Y	25-ISO	1.30400	10.33100	9.40100	89.6976	1.0000			1	10.30		✓
61	707172-016-0	SMP	CLP_SOLIDS		08-01-07 10:3	1300-18	104497	00000	S		Y	25-ISO	1.32100	10.13000	8.18800	77.9544	1.0000			1	22.05		✓
62	707186-001-0	SMP	CLP_SOLIDS		08-01-07 10:3	1300-18	104497	00000	S		Y	M22A-	1.30100	10.11800	9.39000	91.7432	1.0000			1	8.26		✓
63	707186-002-0	SMP	CLP_SOLIDS		08-01-07 10:3	1300-18	104497	00000	S		Y	M22A-	1.29700	10.61700	9.14900	84.2489	1.0000			1	15.75		✓
64	707186-003-0	SMP	CLP_SOLIDS		08-01-07 10:3	1300-18	104497	00000	S		Y	M22A-	1.29600	10.38900	9.79700	93.4895	1.0000			1	6.51		✓
65	707186-004-0	SMP	CLP_SOLIDS		08-01-07 10:3	1300-18	104497	00000	S		Y	M22A-	1.27700	10.14600	8.98300	86.8869	1.0000			1	13.11		✓
66	707186-005-0	SMP	CLP_SOLIDS		08-01-07 10:3	1300-18	104497	00000	S		Y	M22A-	1.27100	10.23800	10.03300	97.7138	1.0000			1	2.29		✓
67	707191-001-0	SMP	CLP_SOLIDS		08-01-07 10:3	1300-18	104497	00000	S		Y	AGMA1	1.31000	10.49300	6.92500	61.1456	1.0000			1	38.85		✓
68	707191-003-0	SMP	CLP_SOLIDS		08-01-07 10:3	1300-18	104497	00000	S		Y	AGMA1	1.31100	10.62100	7.86000	70.3437	1.0000			1	29.66		✓
69	707187-001-0	SMP	CLP_SOLIDS		08-01-07 10:3	1300-18	104497	00000	S		Y	25-ISO	1.30900	10.86600	8.92600	79.7007	1.0000			1	20.30		✓
70	707187-002-0	SMP	CLP_SOLIDS		08-01-07 10:3	1300-18	104497	00000	S		Y	25-ISO	1.30100	10.26200	7.66300	70.9965	1.0000			1	29.00		✓
71	707187-003-0	SMP	CLP_SOLIDS		08-01-07 10:3	1300-18	104497	00000	S		Y	25-ISO	1.29000	10.24900	8.89800	84.9202	1.0000			1	15.08		✓
72	707187-004-0	SMP	CLP_SOLIDS		08-01-07 10:3	1300-18	104497	00000	S		Y	25-ISO	1.28500	10.35000	9.18000	87.0932	1.0000			1	12.91		✓

SUBCONTRACT DATA

GPL Laboratories

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S0770018

Date Printed.....: 08-AUG-07 15:57

Client Name.....: GPL Laboratories
Client Ref Number....: 707187
Sampling Site.....: MILCON Area-CTO-169
Release Number.....: 707187

Date Received.....: 31-JUL-07 00:00

Client Sample Name: 707187011056|GR-TW03-07C
DCL Sample Name...: 07E03960
DCL Report Group..: 07E-0673-01

Matrix.....: WATER
Date Sampled.....: 27-JUL-07 14:45
Reporting Units...: ug/L
Report Basis.....: [X] As Received [ ] Dried

DCL Preparation Group: Not Applicable
Date Prepared.....: 06-AUG-07 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: Not Applicable
Net Weight/Volume....: Not Required

DCL Analysis Group: G077500T
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
[X] Primary
[ ] Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	07-AUG-07 05:17	0.112	ND		U	1	0.200

960 West LeVoy Drive / Salt Lake City, Utah 84123-2547
Phone (801) 266-7700
FAX (801) 268-9992
Web Page: www.datachem.com
E-mail: lab@datachem.com

DATA CHEM LABORATORIES
A Sorenson Company

FORM B (TYPE I)
SINGLE METHOD ANALYSES

QUALITY CONTROL DATA SHEET
LABORATORY CONTROL SAMPLE (LCS)

Client Name.....: GPL Laboratories
Release Number.....: 707187

Matrix.....: WATER
Reporting Units.....: ug/L

DCL Preparation Group: Not Applicable
Date Prepared.....: 06-AUG-07 00:00
Preparation Method...: 6850

DCL Sample Name...: QC-258879-1
Date Printed.....: 08-AUG-07 15:57

DCL Analysis Group: G077500T
Analysis Method...: CLO4-LC/MS
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
[X] Primary
[ ] Confirmation

QC Limit Type.....: Method

Analytical Results

Analyte	Date Analyzed	Target	Result	Percent Recovery	QC Limits	QC Flag
Perchlorate	06-AUG-07 23:23	1.00	0.919	91.9	85.0/115.	

960 West LeVoy Drive / Salt Lake City, Utah 84123-2547
Phone (801) 266-7700 Web Page: www.datachem.com
FAX (801) 268-9992 E-mail: lab@datachem.com

07

DATA CHEM LABORATORIES
A Sorenson Company

FORM C (TYPE I)
SINGLE METHOD ANALYSES

QUALITY CONTROL DATA SHEET
BLANK SAMPLE

S0772015

Client Name.....: GPL Laboratories
Release Number.....: 707187

Matrix.....: WATER
Reporting Units.....: ug/L

DCL Preparation Group: Not Applicable
Date Prepared.....: 06-AUG-07 00:00
Preparation Method...: 6850

DCL Sample Name...: BL-258879-1
Date Printed.....: 08-AUG-07 15:57

DCL Analysis Group: G077500T
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
[X] Primary
[ ] Confirmation

QC Limit Type.....: Method

Analytical Results

Analyte	Date Analyzed	Result	MDL	CRDL
Perchlorate	06-AUG-07 23:04	ND	0.112	0.200

DATA CHEM LABORATORIES
A Sorenson Company

FORM F (TYPE I)
SINGLE METHOD ANALYSES

QUALITY CONTROL DATA SHEET
MATRIX SPIKE SAMPLE
MATRIX SPIKE DUPLICATE SAMPLE

S076Q00S

Client Name.....: GPL Laboratories
Release Number.....: 707187

Matrix.....: WATER
Reporting Units.....: ug/L

DCL Preparation Group: Not Applicable
Date Prepared.....: 06-AUG-07 00:00
Preparation Method...: 6850

DCL Sample Name...: 07E03742MS
Date Printed.....: 08-AUG-07 15:57

DCL Analysis Group: G077500T
Analysis Method...: CLO4-LC/MS
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: RP-RPPX250
☒ Primary
☐ Confirmation

QC Limit Type.....: Method

Analytical Results

Analyte	Date Analyzed	Sample Result	Spiked Result	Spike Added	Percent Recovery	QC Limits	QC Flag
Perchlorate	07-AUG-07 01:21	1.28	6.82	5.00	111.	80.0/120.	

S076Q00T

DCL Sample Name...: 07E03742MSD

Analytical Results

Analyte	Date Analyzed	Duplicate Result	Percent Recovery	Mean	Range	RPD	QC Limits	QC Flag
Perchlorate	07-AUG-07 01:41	6.97	114.	6.90	0.153	2.2	0.00/15.0	

DATA CHEM LABORATORIES
A Sorenson Company

FORM F (TYPE I)
SINGLE METHOD ANALYSES

QUALITY CONTROL DATA SHEET
MATRIX SPIKE SAMPLE
MATRIX SPIKE DUPLICATE SAMPLE

S076T07G

Client Name.....: GPL Laboratories
Release Number.....: 707187

Matrix.....: WATER
Reporting Units.....: ug/L

DCL Preparation Group: Not Applicable
Date Prepared.....: 06-AUG-07 00:00
Preparation Method...: 6850

DCL Sample Name...: 07E03877MS
Date Printed.....: 08-AUG-07 15:57

DCL Analysis Group: G077500T
Analysis Method...: CLO4-LC/MS
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
[X] Primary
[ ] Confirmation

QC Limit Type.....: Method

Analytical Results

Analyte	Date Analyzed	Sample Result	Spiked Result	Spike Added	Percent Recovery	QC Limits	QC Flag
Perchlorate	07-AUG-07 04:38	ND	4.75	5.00	94.9	80.0/120.	

S076T07H

DCL Sample Name...: 07E03877MSD

Analytical Results

Analyte	Date Analyzed	Duplicate Result	Percent Recovery	Mean	Range	RPD	QC Limits	QC Flag
Perchlorate	07-AUG-07 04:58	4.79	95.9	4.77	0.0475	1.0	0.00/15.0	

GPL LABORATORIES, LLLP

7210A Corporate Court
Frederick, MD 21703
(301) 694-5310
Fax (301) 620-0731

Contract #/Billing Reference

1 of 1 Pge.

Project: 356052

Client: CH2M HILL

Send Results To: Ryan VanOosten

Address: 5700 Cleveland Street, Suite 101
Virginia Beach VA 23462

Phone: 757-671-8311 ext. 456

Turnaround Time:

# of Containers: 3 | 1 | 1 | 1 | 3 | 2 | 2 | 2 | 3

Container Type: Encore | 8oz AG | 8oz | 8oz AG | 40mL | 1-L AG | 1L AG | 1-L | HDPE/AG

Preservative Used: — | — | — | — | HCl | — | — | HNO3 | ~

Lab Cooler No.

Sample ID#	Date Sampled	Time Sampled	Sample Matrix	Sampler's Initials	VOCs (TCL)	SVOCs (TCL)	Pesticides, PCBs	Total Metals	VOCs (TCL)	SVOCs (TCL)	Pesticides, PCBs	*Metals: Total + Dissolved (Lab)	Perchlorate	Explosives	CLIENT COMMENTS
25-IS05-0-1-07C	0800	7-27-07	S	LS, MW	X	X	X	X							
25-IS05-9-11-07C	0825	↓	S	LS, MW	X	X	X	X							
25-IS06-0-1-07C	0850		S	LS, MW	X	X	X	X							
25-IS06-8-10-07C	0920		S	LS, MW	X	X	X	X							
25-TW01-07C	1155		GW	LS, MW					X	X	X	X			
25-TW02-07C	1055		GW	LS, MW					X	X	X	X			
25-TW03-07C	1250		GW	LS, MW					X	X	X	X			
GR-TW03-07C	1445		GW	LS, MW								X	X		
Trip Blank															
Temp Blank		↓													

Relinquished By:	Date/Time	Received By:	Relinquished By:	Received for Laboratory By:	Date/Time
[signature]	7-27-07 1600			[signature]	07/28/07 11:55

Relinquished By:	Date/Time	Received By:	Date/Time	Shipper:	Airbill No.:

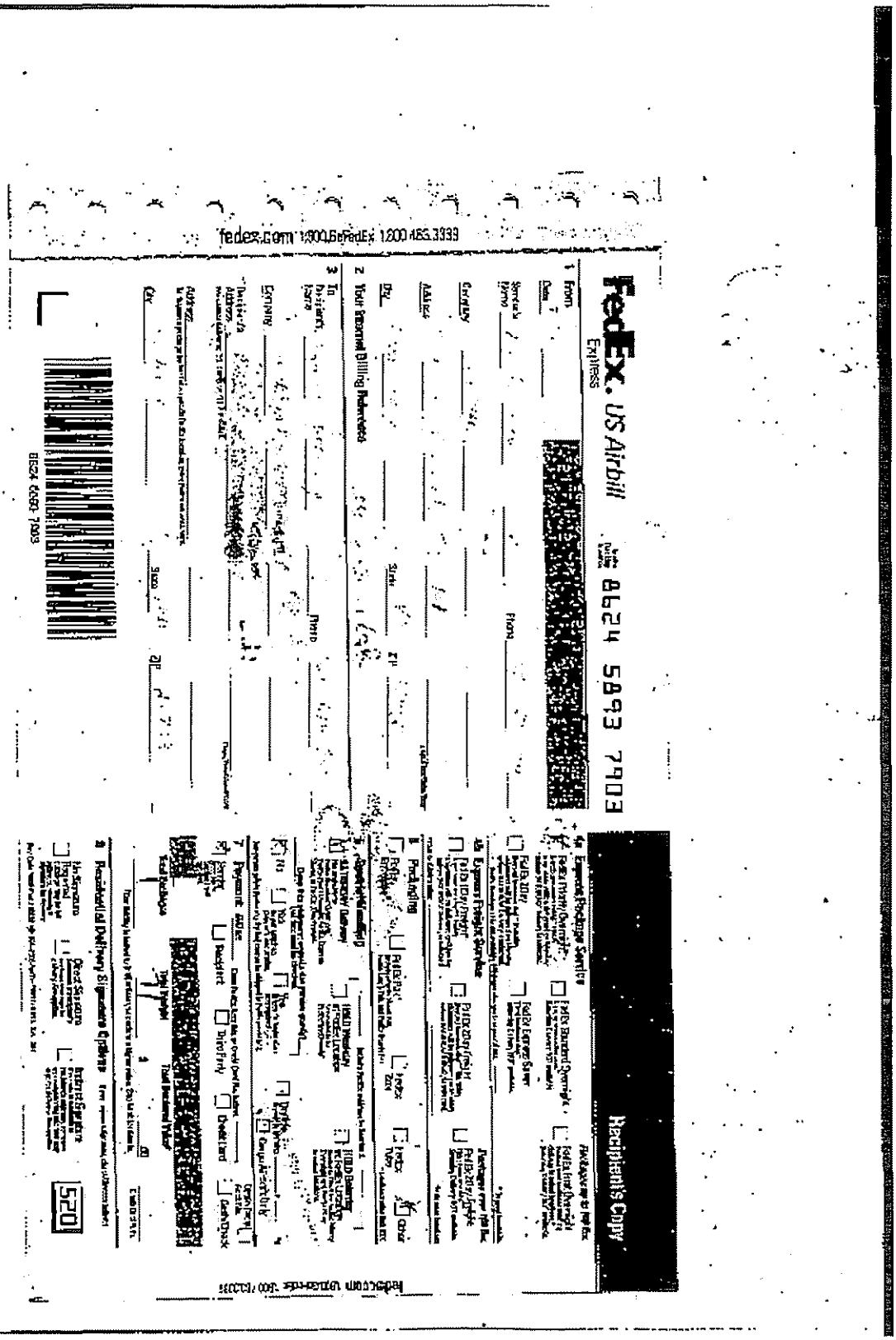
Relinquished By:	Date/Time	Received By:	Lab Comments:	Temp:
			*Metals - Total and Dissolved (Field Filtered)	4.0

G.P. W.O. 707187

Chain of Custody

CH2M Hill Inc

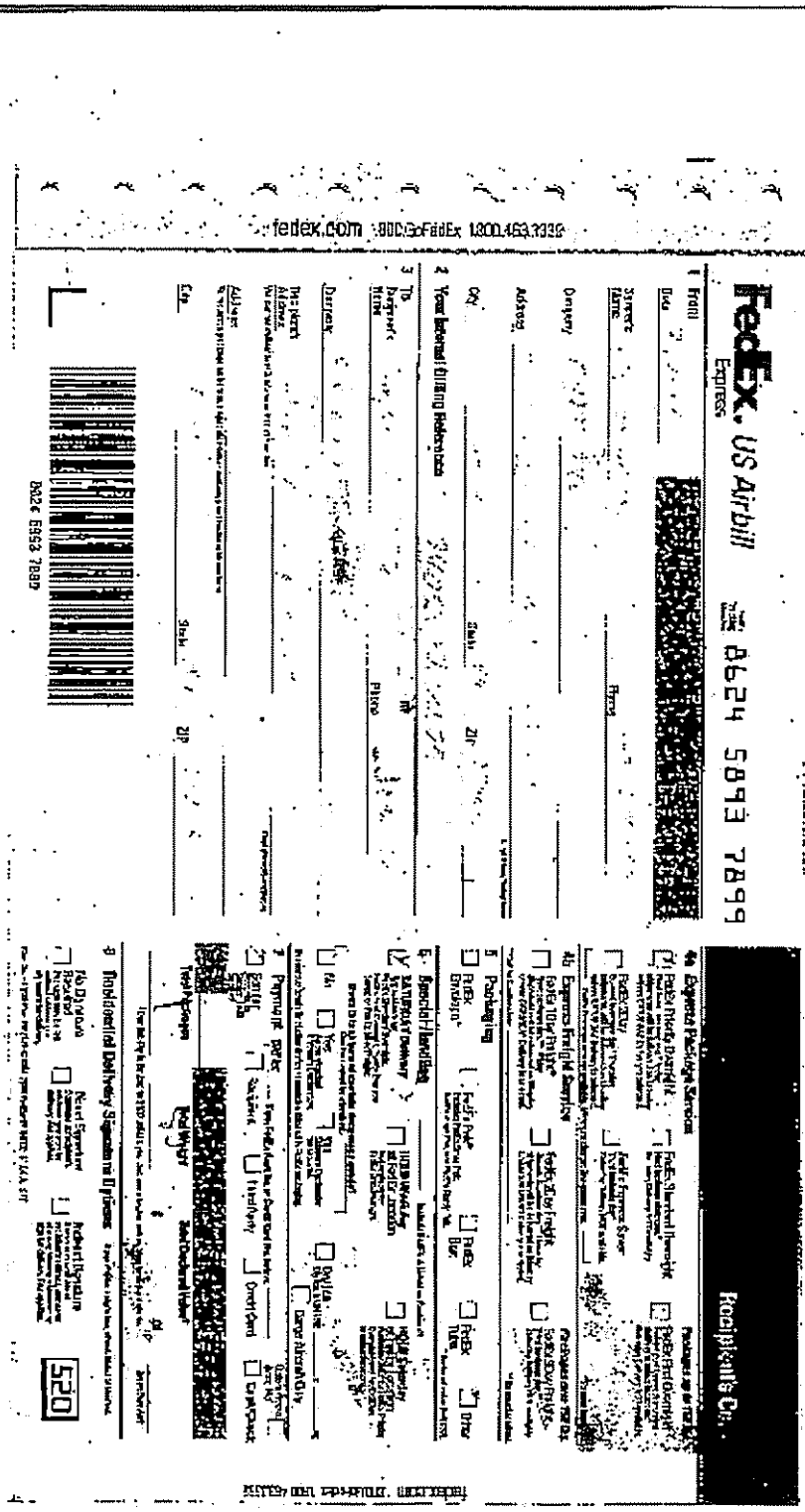
SDG: 707187



Chain of Custody

CH2M Hill Inc

SDG: 707187



GPL Laboratories, LLLP

Figure 1
SAMPLE RECEIPT CHECKLIST

W.O. No: 707187
Client Name: Chem hill
Date Received: 7-28-07
Time Received: 1155
Received By: walter

Carrier Name: Fed-ex
Prepared (Logged In) By: LJP 7-30-07 (Initial Date)
Project:
Site:
VOA Holding Blank I.D. No:

	YES	NO
Air Bill/Manifest Present?	✓	
No. 8624 5813 7899 / 8624 5813 7903		
Shipping Container in Good Condition?	✓	
Custody Seals Present on Shipping Container?	✓	
Condition: Broken		
Intact-not dated/or signed		
Intact-dated and signed	✓	
Usage of Tamper Evident Type		✓
Chain-of-Custody Present?	✓	
Chain-of-Custody Agrees with Sample Labels?	✓	
Chain-of-Custody Signed?	✓	
Packing Present in Shipping Container?	✓	
Type of Packing: Ice / Bubble wrap		
Custody seals on Sample Bottles?		✓
Condition: Good / Broken		
Total Number of Sample Bottles: 40		
Total Number of Samples: 15		
Samples Intact?	✓	
Sufficient Sample Volume for Indicated Test?	✓	

	YES	NO
Trip Blanks: No. of Sets		✓
Field Blanks: No. of Sets		✓
Equip. Blank: No. of Sets		✓
Field Duplicates: No. of Sets		✓
MS/MSD: No of Sets		
VOA Vials Have Zero Headspace?	✓	
If no, smaller or greater than a Green Pea, (see comments)		
Preservatives Added to Sample?	✓	
pH Check Required?	✓	
Performed By? LJP	✓	
Ice Present in Shipping Container?	✓	

Container #	Temp.	Container #	Temp.
1	4°		
	LJP		

Project Manager Contacted?
Name: Virginia
Date Contacted: 7-30-07

Any NO response must be detailed in the comments section below. If items are not applicable to particular samples or contracts, they should be marked N/A

COMMENTS: 2 32oz Amber Glass Did not have Bottle Stickers on it should be SUOA's ① 25-TW03-07C ② GR-TW03-07C

Checklist Completed By: L J. Pal Jr
Date: 7-30-07

SOP No: F-2V18

Analytical Report For 707194

for

CH2M Hill Inc

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

Ten water and eight soil samples were received on 07/31/2007. 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.

Explosives/Propellants

One water sample was extracted and analyzed for explosive compounds by SW846 method 8330.

Extraction and analysis holding times were met.

All surrogate recoveries were within QC limits.

Matrix spike analysis could not be performed due to insufficient sample volume. Instead, duplicate laboratory control samples were extracted and analyzed along with the batch. The %RPD for HMX was slightly above the QC limits. All percent recoveries were within QC limits.

Manual integration was performed on some data files, when automatic integration provided by the software was inappropriate.

Metals

Two water samples were analyzed for HSL metals; and eight water and eight soil samples were analyzed for lead by CLP ILM05.3 methodology.

The water and soil samples were reported on separate forms.

A matrix spike, duplicate, and serial dilution were performed on water sample GR-TW02-07C for all required ICP analytes. The matrix spike was outside of the control limits for iron; all associated data were flagged with an "N". A post digestion analytical spike was failed.

A matrix spike and matrix spike duplicate were shared on the water sample with GPL work order 707187-010 for mercury. They were within the control limits.

A matrix spike, duplicate, and serial dilution were shared on the soil sample with GPL work order 707158-001for lead. 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.

Subcontract Analysis

One water sample was subcontracted for Perchlorate analysis by SW846 method 6850.

See subcontractor case narrative for details of this analysis.

Reviewed By,
Project Manager

Approved By,
Laboratory Director

DATA CHEM LABORATORIES
A Sorenson Company

AUG 0 9 2007

Case Narrative

Method(s): 6850
Analysis: Perchlorate
Analysis SOP: LC-MS-CL04
DCL Set ID(s): 07E-0684-01

Client: GPL Laboratories
Account: 08001
Matrix: Water
Group: G077500T

General Set Information: There was one field sample in this set. The sample was analyzed for perchlorate.

Method Summary: Each sample was prepared as noted below and analyzed using an Agilent 1100 LC/MSD system in select ion monitoring (SIM) mode at m/z 83 and 85, which corresponds to the loss of one oxygen atom from the perchlorate molecule. ChemStation software was used for instrument control and data analysis. The ion ratio of m/z 83 to 85 was used to positively identify the response peak as perchlorate. Quantitation was performed using the m/z 83 peak area. An internal standard of ^{18}O labeled perchlorate was added to each sample to establish the perchlorate peak retention time and used in quantitation.

Sample Preparation: A 9.95mL aliquot of each sample, including standards, was transferred into a 15-mL centrifuge tube. 50µL of an ^{18}O labeled perchlorate solution was added to each sample as an internal standard. The samples were then capped, vortexed, and filtered into autosampler vial using Pall 0.45µm Ion Chromatography Acrodiscs.

Holding Times: Holding times were met for all analyses.

Dilutions: No dilutions were necessary.

Method QC data: The method blank (BL-258879-1) was less than 1/2 the CRDL. The recovery for QC-258879-1 was within method parameters.

MS/MSD Analysis: Matrix spikes and matrix spike duplicates were performed on samples 07E03742 and 07E03877, which were other clients' samples analyzed in the same batch. The recoveries and RPDs were within acceptable parameters.

This report contains
10 pages

Instrument QC: Instrument initial and continuing calibrations were performed in accordance with published procedures.

NC/CAR(s): None were required for this group.

Sample Calculation: Samples were reported in µg/L. Results were calculated in µg/L by the equation (A)x(B),

where: A = Analyte concentration from the standard curve (µg/L)
B = Dilution performed at time of analysis

Miscellaneous Comments: None.

Thomas T. McKay — August 08, 2007
Date

GPL Laboratories, LLLP

Sample Summary Report

CH2M Hill Inc

Work Order: 707194

Client Sample ID	Lab Sample ID	Analytical Method	Matrix	Date Sampled	Date Recieved
GR-TW02-07C	707194-001-001-1/2	SW8330	WATER	07/28/2007	07/31/2007
	707194-001-004-1/1	CLP_ILM05.3			
	707194-001-004-1/1	CLP_ILM05.3HG			
GR-TW02-07C FIL	707194-002-005-1/1 FIL	CLP_ILM05.3	WATER	07/28/2007	07/31/2007
	707194-002-005-1/1 FIL	CLP_ILM05.3HG			
SR-TW01-07C	707194-011-014-1/1	CLP_ILM05.3	WATER	07/29/2007	07/31/2007
SR-TW01-07C FIL	707194-012-015-1/1 FIL	CLP_ILM05.3	WATER	07/28/2007	07/31/2007
SR-TW02-07C	707194-013-016-1/1	CLP_ILM05.3	WATER	07/28/2007	07/31/2007
SR-TW02-07C FIL	707194-014-017-1/1 FIL	CLP_ILM05.3	WATER	07/29/2007	07/31/2007
SR-TW03-07C	707194-015-018-1/1	CLP_ILM05.3	WATER	07/29/2007	07/31/2007
SR-TW03-07C FIL	707194-016-019-1/1 FIL	CLP_ILM05.3	WATER	07/29/2007	07/31/2007
SR-TW04-07C	707194-017-020-1/1	CLP_ILM05.3	WATER	07/29/2007	07/31/2007
SR-TW04-07C FIL	707194-018-021-1/1 FIL	CLP_ILM05.3	WATER	07/29/2007	07/31/2007
SR-IS01-0-1-07C	707194-003-006-1/1	CLP_ILM05.3	SOIL	07/28/2007	07/31/2007
	707194-003-006-1/1	CLP_SOLIDS			
SR-IS01-17-18-07C	707194-004-007-1/1	CLP_ILM05.3	SOIL	07/28/2007	07/31/2007
	707194-004-007-1/1	CLP_SOLIDS			
SR-IS02-0-1-07C	707194-005-008-1/1	CLP_ILM05.3	SOIL	07/28/2007	07/31/2007
	707194-005-008-1/1	CLP_SOLIDS			
SR-IS02-15-17-07C	707194-006-009-1/1	CLP_ILM05.3	SOIL	07/28/2007	07/31/2007
	707194-006-009-1/1	CLP_SOLIDS			
SR-IS03-0-1-07C	707194-007-010-1/1	CLP_ILM05.3	SOIL	07/28/2007	07/31/2007
	707194-007-010-1/1	CLP_SOLIDS			
SR-IS03-15-16-07C	707194-008-011-1/1	CLP_ILM05.3	SOIL	07/28/2007	07/31/2007
	707194-008-011-1/1	CLP_SOLIDS			
SR-IS04-0-1-07C	707194-009-012-1/1	CLP_ILM05.3	SOIL	07/28/2007	07/31/2007
	707194-009-012-1/1	CLP_SOLIDS			

GPL Laboratories, LLLP

Sample Summary Report

CH2M Hill Inc

Work Order: 707194

Client Sample ID	Lab Sample ID	Analytical Method	Matrix	Date Sampled	Date Recieved
SR-IS04-14-15-07C	707194-010-013-1/1	CLP_ILM05.3	SOIL	07/29/2007	07/31/2007
	707194-010-013-1/1	CLP_SOLIDS			

QC SUMMARY PACKAGE

GPL Laboratories

LOW IMPACT EXPLOSIVES AND PROPELLANTS

GPL Laboratories

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
GR-TW02-07C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707194
Matrix : (Soil / Water)	WATER	Lab Sample ID :	707194-001-001-1/2
Sample Volume :	770	Lab File ID :	LCD37937.D
% Moisture:		Date Received	07/31/2007
Extraction:	EXT_SW8330	Date Extracted:	08/02/2007
Extract Volume:	20 mL	Date Analyzed	08/06/2007
Injection Volume :	100 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
99-35-4	1,3,5-Trinitrobenzene	0.26	U
99-65-0	1,3-Dinitrobenzene	0.26	U
118-96-7	2,4,6-Trinitrotoluene	0.26	U
121-14-2	2,4-Dinitrotoluene	0.26	U
606-20-2	2,6-Dinitrotoluene	0.26	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.26	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.26	U
2691-41-0	HMX	0.52	U
98-95-3	Nitrobenzene	0.26	U
121-82-4	RDX	0.52	U
479-45-8	Tetryl	0.52	U
99-08-1	m-Nitrotoluene	0.52	U
88-72-2	o-Nitrotoluene	0.52	U
99-99-0	p-Nitrotoluene	0.52	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BLK99514

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707194
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BLK99514
Sample Volume :	770	Lab File ID :	LCD37966.D
% Moisture:		Date Received	
Extraction:	EXT_SW8330	Date Extracted:	08/02/2007
Extract Volume:	20 mL	Date Analyzed	08/07/2007
Injection Volume :	100 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
99-35-4	1,3,5-Trinitrobenzene	0.26	U
99-65-0	1,3-Dinitrobenzene	0.26	U
118-96-7	2,4,6-Trinitrotoluene	0.26	U
121-14-2	2,4-Dinitrotoluene	0.26	U
606-20-2	2,6-Dinitrotoluene	0.26	U
35572-78-2	2-Amino-4,6-Dinitrotoluene	0.26	U
19406-51-0	4-Amino-2,6-Dinitrotoluene	0.26	U
2691-41-0	HMX	0.52	U
98-95-3	Nitrobenzene	0.26	U
121-82-4	RDX	0.52	U
479-45-8	Tetryl	0.52	U
99-08-1	m-Nitrotoluene	0.52	U
88-72-2	o-Nitrotoluene	0.52	U
99-99-0	p-Nitrotoluene	0.52	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BKS99514

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707194
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BKS99514
Sample Volume :	770	Lab File ID :	LCD37934.D
% Moisture:		Date Received	
Extraction:	EXT_SW8330	Date Extracted:	08/02/2007
Extract Volume:	20 mL	Date Analyzed	08/06/2007
Injection Volume :	100 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
99-35-4	1,3,5-Trinitrobenzene	5.4	
99-65-0	1,3-Dinitrobenzene	5.4	
118-96-7	2,4,6-Trinitrotoluene	6.0	
121-14-2	2,4-Dinitrotoluene	5.1	
606-20-2	2,6-Dinitrotoluene	5.2	
35572-78-2	2-Amino-4,6-Dinitrotoluene	5.3	
19406-51-0	4-Amino-2,6-Dinitrotoluene	5.4	
2691-41-0	HMX	5.4	
98-95-3	Nitrobenzene	5.5	
121-82-4	RDX	5.1	
479-45-8	Tetryl	3.8	
99-08-1	m-Nitrotoluene	5.5	
88-72-2	o-Nitrotoluene	5.4	
99-99-0	p-Nitrotoluene	5.4	

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BKSD99514

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	707194
Matrix : (Soil / Water)	WATER	Lab Sample ID :	BKSD99514
Sample Volume :	770	Lab File ID :	LCD38009.D
% Moisture:		Date Received	
Extraction:	EXT_SW8330	Date Extracted:	08/02/2007
Extract Volume:	20 mL	Date Analyzed	08/10/2007
Injection Volume :	100 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
99-35-4	1,3,5-Trinitrobenzene	6.2	
99-65-0	1,3-Dinitrobenzene	6.2	
118-96-7	2,4,6-Trinitrotoluene	7.1	
121-14-2	2,4-Dinitrotoluene	6.0	
606-20-2	2,6-Dinitrotoluene	6.1	
35572-78-2	2-Amino-4,6-Dinitrotoluene	6.1	
19406-51-0	4-Amino-2,6-Dinitrotoluene	6.2	
2691-41-0	HMX	7.3	
98-95-3	Nitrobenzene	6.7	
121-82-4	RDX	5.8	
479-45-8	Tetryl	4.9	
99-08-1	m-Nitrotoluene	6.3	
88-72-2	o-Nitrotoluene	6.2	
99-99-0	p-Nitrotoluene	6.2	

Surrogate Recovery Summary

Matrix : WATER **Analytical Method : SW8330** **SDG No : 707194**

Surrogate	NO2ANIL4
Lower QC Limits	37
Upper QC Limits	149
Sample ID	
BKS99514	102
BKSD99514	121
BLK99514	99
GR-TW02-07C	145

* Value outside of QC Limts

NO2ANIL4 = 4-Nitroaniline

GPL Laboratories

BKS/BSD RECOVERY

SAMPLE NO
BKSD99514

Lab Name : GPL Laboratories SDG NO : 707194 Method : SW8330

Lab Code : GPL Lab Sample ID : BKSD99514 Matrix : WATER Analysis Date : 08/10/2007

Compound	Spike Added (ug/L)	CONCENTRATION (ug/L) BLANK	BKS	BSD	%RECOVERY BKS	BSD	% RPD	RPD Limit	QC Limits
1,3,5-Trinitrobenzene	6.5	0.0	5.4	6.3	83	95	13	25	65-140
1,3-Dinitrobenzene	6.5	0.0	5.4	6.2	83	95	13	25	45-160
2,4,6-Trinitrotoluene	6.5	0.0	6.1	7.1	92	109	17	25	50-145
2,4-Dinitrotoluene	6.5	0.0	5.1	6.0	79	92	15	25	60-135
2,6-Dinitrotoluene	6.5	0.0	5.2	6.1	80	94	16	25	60-135
2-Amino-4,6-Dinitrotoluene	6.5	0.0	5.3	6.1	82	94	14	25	50-155
4-Amino-2,6-Dinitrotoluene	6.5	0.0	5.4	6.2	83	95	13	25	55-155
HMX	6.5	0.0	5.5	7.3	83	112	30 *	25	80-115
Nitrobenzene	6.5	0.0	5.5	6.7	85	103	19	25	50-140
RDX	6.5	0.0	5.1	5.8	79	89	12	25	50-160
Tetryl	6.5	0.0	3.8	4.9	59	75	24	25	20-175
m-Nitrotoluene	6.5	0.0	5.5	6.3	85	97	13	25	50-130
o-Nitrotoluene	6.5	0.0	5.4	6.2	83	95	13	25	45-135
p-Nitrotoluene	6.5	0.0	5.4	6.2	83	95	13	25	50-130

#Column to be used to flag recovery and RPD Values with an asterisk.

* Values Outside of QC Limits.

RPD 1 Out of 14 Outside Limit
Spike Recovery : 0 Out of 28 outside limit

GPL Laboratories

GPL
FORM 4
EXPLOSIVE METHOD BLANK SUMMARY

SAMPLE NO
BLK99514

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	99514
Lab File ID :	LCD37966.D	SDG NO :	707194
Date Analyzed	08/07/2007	Lab Sample ID :	BLK99514
Date Extracted :	08/02/2007	Time Analyzed :	17:23
Matrix :(Soil/Water).	WATER	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
BKS99514	BKS99514	LCD37934.D	08/06/2007
GR-TW02-07C	707194-001-001-1/2	LCD37937.D	08/06/2007
BKSD99514	BKSD99514	LCD38009.D	08/10/2007

Response Factor Report LCD

Method : H:\LCDATA\LCD\METHODS\74108330.M (Chemstation Integrator)
Title : 8330 Explosives
Last Update : Fri Aug 10 14:03:16 2007

Calibration Files
LEV1 =LCD36223.D LEV2 =LCD36224.D LEV3 =LCD36225.D
LEV4 =LCD36226.D LEV5 =LCD36227.D LEV6 =LCD36228.D

		Compound	LEV1	LEV2	LEV3	LEV4	LEV5	LEV6	Avg		%RSD
1)	T	HMX	1.315	1.368	1.278	1.420	1.421	1.433	1.379	E5	4.45
2)	S	4-Nitroaniline	1.239	1.199	1.201	1.295	1.330	1.374	1.295	E5	6.80
3)	T	1,3,5-Trinitrobenze	3.623	3.551	3.490	3.777	3.847	3.914	3.733	E5	4.76
4)	T	Tetryl	2.620	2.497	2.596	2.810	2.871	2.883	2.743	E5	6.16
5)	T	2,4,6-Trinitrotolue	3.716	3.384	3.229	3.491	3.559	3.620	3.518	E5	4.73
6)	T	4-Amino-2,6-Dinitro	2.640	2.796	2.326	2.493	2.555	2.610	2.576	E5	5.61
7)	T	2,6-Dinitrotoluene	2.454	2.468	2.258	2.437	2.501	2.529	2.452	E5	3.74
8)	T	4-Nitrotoluene	1.533	1.662	1.637	1.797	1.789	1.842	1.731	E5	7.00
9)	M	RDX	2.467	2.074	1.769	1.774	1.730	1.718	1.897	E5	14.75
10)	M	1,3-Dinitrobenzene	5.043	4.712	4.751	5.140	5.234	5.324	5.077	E5	5.07
11)	M	Nitrobenzene	3.040	3.033	3.109	3.368	3.386	3.473	3.270	E5	6.18
12)	M	2-Amino-4,6-Dinitro	3.645	3.531	3.318	3.540	3.654	3.706	3.584	E5	3.79
13)	M	2,4-Dinitrotoluene	4.821	4.731	4.501	4.913	5.036	5.146	4.897	E5	4.76
14)	M	2-Nitrotoluene	1.998	1.991	1.969	2.126	2.152	2.199	2.092	E5	4.95
15)	M	3-Nitrotoluene	2.062	1.941	2.091	2.289	2.285	2.343	2.195	E5	7.39

(#) = Out of Range ### Number of calibration levels exceeded format ###

Continuing Calibration Report LCD

Method : H:\LCDATA\LCD\METHODS\74108330.M (Chemstation Integrator)
Title : 8330 Explosives
Last Update : Fri Aug 10 14:02:48 2007
Response via : Initial Calibration

Continuing Calibration File: LCD37932.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF		%Dev	Area%
1	T	HMX	137.939	155.566	E3	-12.8	110
2	S	4-Nitroaniline	129.526	117.644	E3	9.2	91
3	T	1,3,5-Trinitrobenzene	373.283	386.787	E3	-3.6	102
4	T	Tetryl	274.340	236.955	E3	13.6	84
5	T	2,4,6-Trinitrotoluene	351.836	358.190	E3	-1.8	103
6	T	4-Amino-2,6-Dinitrotoluene	257.572	270.951	E3	-5.2	109
7	T	2,6-Dinitrotoluene	245.206	249.804	E3	-1.9	102
8	T	4-Nitrotoluene	173.060	178.657	E3	-3.2	99
9	M	RDX	189.730	175.305	E3	7.6	99
10	M	1,3-Dinitrobenzene	507.701	551.032	E3	-8.5	107
11	M	Nitrobenzene	327.030	359.557	E3	-9.9	107
12	M	2-Amino-4,6-Dinitrotoluene	358.392	360.766	E3	-0.7	102
13	M	2,4-Dinitrotoluene	489.655	504.966	E3	-3.1	103
14	M	2-Nitrotoluene	209.229	216.347	E3	-3.4	102
15	M	3-Nitrotoluene	219.518	226.732	E3	-3.3	99

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Continuing Calibration Report LCD

Method : H:\LCDATA\LCD\METHODS\74108330.M (Chemstation Integrator)
Title : 8330 Explosives
Last Update : Fri Aug 10 14:02:57 2007
Response via : Initial Calibration

Continuing Calibration File: LCD37944.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF		%Dev	Area%
1	T	HMX	137.939	147.645	E3	-7.0	104
2	S	4-Nitroaniline	129.526	117.201	E3	9.5	91
3	T	1,3,5-Trinitrobenzene	373.283	387.772	E3	-3.9	103
4	T	Tetryl	274.340	237.740	E3	13.3	85
5	T	2,4,6-Trinitrotoluene	351.836	358.590	E3	-1.9	103
6	T	4-Amino-2,6-Dinitrotoluene	257.572	271.243	E3	-5.3	109
7	T	2,6-Dinitrotoluene	245.206	253.500	E3	-3.4	104
8	T	4-Nitrotoluene	173.060	180.122	E3	-4.1	100
9	M	RDX	189.730	176.734	E3	6.8	100
10	M	1,3-Dinitrobenzene	507.701	550.022	E3	-8.3	107
11	M	Nitrobenzene	327.030	355.727	E3	-8.8	106
12	M	2-Amino-4,6-Dinitrotoluene	358.392	364.716	E3	-1.8	103
13	M	2,4-Dinitrotoluene	489.655	512.512	E3	-4.7	104
14	M	2-Nitrotoluene	209.229	216.053	E3	-3.3	102
15	M	3-Nitrotoluene	219.518	229.492	E3	-4.5	100

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Continuing Calibration Report LCD

Method : H:\LCDATA\LCD\METHODS\74108330.M (Chemstation Integrator)
Title : 8330 Explosives
Last Update : Fri Aug 10 14:03:08 2007
Response via : Initial Calibration

Continuing Calibration File: LCD37956.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF		%Dev	Area%
1	T	HMX	137.939	157.645	E3	-14.3	111
2	S	4-Nitroaniline	129.526	133.796	E3	-3.3	103
3	T	1,3,5-Trinitrobenzene	373.283	427.762	E3	-14.6	113
4	T	Tetryl	274.340	267.180	E3	2.6	95
5	T	2,4,6-Trinitrotoluene	351.836	403.819	E3	-14.8	116
6	T	4-Amino-2,6-Dinitrotoluene	257.572	293.951	E3	-14.1	118
7	T	2,6-Dinitrotoluene	245.206	281.073	E3	-14.6	115
8	T	4-Nitrotoluene	173.060	199.012	E3	-15.0	111
9	M	RDX	189.730	204.944	E3	-8.0	115
10	M	1,3-Dinitrobenzene	507.701	578.827	E3	-14.0	113
11	M	Nitrobenzene	327.030	350.573	E3	-7.2	104
12	M	2-Amino-4,6-Dinitrotoluene	358.392	408.710	E3	-14.0	115
13	M	2,4-Dinitrotoluene	489.655	559.847	E3	-14.3	114
14	M	2-Nitrotoluene	209.229	225.221	E3	-7.6	106
15	M	3-Nitrotoluene	219.518	245.414	E3	-11.8	107

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Continuing Calibration Report LCD

Method : H:\LCDATA\LCD\METHODS\74108330.M (Chemstation Integrator)
Title : 8330 Explosives
Last Update : Fri Aug 10 14:03:16 2007
Response via : Initial Calibration

Continuing Calibration File: LCD37969.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF		%Dev	Area%
1	T	HMX	137.939	143.945	E3	-4.4	101
2	S	4-Nitroaniline	129.526	118.615	E3	8.4	92
3	T	1,3,5-Trinitrobenzene	373.283	394.090	E3	-5.6	104
4	T	Tetryl	274.340	233.536	E3	14.9	83
5	T	2,4,6-Trinitrotoluene	351.836	363.215	E3	-3.2	104
6	T	4-Amino-2,6-Dinitrotoluene	257.572	273.764	E3	-6.3	110
7	T	2,6-Dinitrotoluene	245.206	256.743	E3	-4.7	105
8	T	4-Nitrotoluene	173.060	182.234	E3	-5.3	101
9	M	RDX	189.730	178.535	E3	5.9	101
10	M	1,3-Dinitrobenzene	507.701	558.557	E3	-10.0	109
11	M	Nitrobenzene	327.030	354.957	E3	-8.5	105
12	M	2-Amino-4,6-Dinitrotoluene	358.392	368.166	E3	-2.7	104
13	M	2,4-Dinitrotoluene	489.655	515.510	E3	-5.3	105
14	M	2-Nitrotoluene	209.229	218.549	E3	-4.5	103
15	M	3-Nitrotoluene	219.518	231.104	E3	-5.3	101

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Continuing Calibration Report LCD

Method : H:\LCDATA\LCD\METHODS\74108330.M (Chemstation Integrator)
Title : 8330 Explosives
Last Update : Fri Aug 10 14:04:21 2007
Response via : Initial Calibration

Continuing Calibration File: LCD38008.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF		%Dev	Area%
1	T	HMX	137.939	157.820	E3	-14.4	111
2	S	4-Nitroaniline	129.526	116.469	E3	10.1	90
3	T	1,3,5-Trinitrobenzene	373.283	393.710	E3	-5.5	104
4	T	Tetryl	274.340	236.308	E3	13.9	84
5	T	2,4,6-Trinitrotoluene	351.836	362.564	E3	-3.0	104
6	T	4-Amino-2,6-Dinitrotoluene	257.572	272.768	E3	-5.9	109
7	T	2,6-Dinitrotoluene	245.206	253.924	E3	-3.6	104
8	T	4-Nitrotoluene	173.060	183.195	E3	-5.9	102
9	M	RDX	189.730	182.968	E3	3.6	103
10	M	1,3-Dinitrobenzene	507.701	562.328	E3	-10.8	109
11	M	Nitrobenzene	327.030	358.167	E3	-9.5	106
12	M	2-Amino-4,6-Dinitrotoluene	358.392	363.668	E3	-1.5	103
13	M	2,4-Dinitrotoluene	489.655	514.643	E3	-5.1	105
14	M	2-Nitrotoluene	209.229	220.473	E3	-5.4	104
15	M	3-Nitrotoluene	219.518	229.415	E3	-4.5	100

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Continuing Calibration Report LCD

Method : H:\LCDATA\LCD\METHODS\74108330.M (Chemstation Integrator)
Title : 8330 Explosives
Last Update : Fri Aug 10 14:04:29 2007
Response via : Initial Calibration

Continuing Calibration File: LCD38010.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF		%Dev	Area%
1	T	HMX	137.939	154.762	E3	-12.2	109
2	S	4-Nitroaniline	129.526	116.300	E3	10.2	90
3	T	1,3,5-Trinitrobenzene	373.283	394.286	E3	-5.6	104
4	T	Tetryl	274.340	233.783	E3	14.8	83
5	T	2,4,6-Trinitrotoluene	351.836	362.008	E3	-2.9	104
6	T	4-Amino-2,6-Dinitrotoluene	257.572	271.325	E3	-5.3	109
7	T	2,6-Dinitrotoluene	245.206	249.760	E3	-1.9	102
8	T	4-Nitrotoluene	173.060	185.163	E3	-7.0	103
9	M	RDX	189.730	183.528	E3	3.3	103
10	M	1,3-Dinitrobenzene	507.701	564.796	E3	-11.2	110
11	M	Nitrobenzene	327.030	359.496	E3	-9.9	107
12	M	2-Amino-4,6-Dinitrotoluene	358.392	360.936	E3	-0.7	102
13	M	2,4-Dinitrotoluene	489.655	513.086	E3	-4.8	104
14	M	2-Nitrotoluene	209.229	220.271	E3	-5.3	104
15	M	3-Nitrotoluene	219.518	232.695	E3	-6.0	102

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Continuing Calibration Report LCD

Method : I:\LCDATA\LCD\METHODS\7125CON.M (Chemstation Integrator)
Title : 8330 Explosives Confirmation
Last Update : Fri Aug 10 14:03:49 2007
Response via : Initial Calibration

Continuing Calibration File: LCD37983.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF		%Dev	Area%
1	T	HMX	128.231	137.442	E3	-7.2	113
2	S	4-Nitroaniline	114.391	112.654	E3	1.5	100
3	T	1,3,5-Trinitrobenzene	338.122	363.611	E3	-7.5	111
4	T	Tetryl	248.854	214.984	E3	13.6	88
5	T	2,4,6-Trinitrotoluene	317.167	340.830	E3	-7.5	111
6	T	4-Amino-2,6-Dinitrotoluene	534.477	556.638	E3	-4.1	107
7	T	2,6-Dinitrotoluene	230.053	251.569	E3	-9.4	113
8	T	4-Nitrotoluene	203.404	214.862	E3	-5.6	109
9	M	RDX	156.916	169.163	E3	-7.8	111
10	M	1,3-Dinitrobenzene	470.277	506.442	E3	-7.7	111
11	M	Nitrobenzene	298.549	324.933	E3	-8.8	112
12	M	2-Amino-4,6-Dinitrotoluene	534.477	556.638	E3	-4.1	107
13	M	2,4-Dinitrotoluene	436.000	466.618	E3	-7.0	110
14	M	2-Nitrotoluene	194.145	195.593	E3	-0.7	104
15	M	3-Nitrotoluene	163.705	172.818	E3	-5.6	110

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Method : I:\LCDATA\LCD\METHODS\7125CON.M (Chemstation Integrator)
Title : 8330 Explosives Confirmation
Last Update : Fri Aug 10 14:04:03 2007
Response via : Initial Calibration

Continuing Calibration File: LCD37998.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF		%Dev	Area%
1	T	HMX	128.231	132.981	E3	-3.7	109
2	S	4-Nitroaniline	114.391	105.050	E3	8.2	93
3	T	1,3,5-Trinitrobenzene	338.122	349.456	E3	-3.4	106
4	T	Tetryl	248.854	212.241	E3	14.7	87
5	T	2,4,6-Trinitrotoluene	317.167	327.425	E3	-3.2	106
6	T	4-Amino-2,6-Dinitrotoluene	534.477	529.631	E3	0.9	102
7	T	2,6-Dinitrotoluene	230.053	247.707	E3	-7.7	111
8	T	4-Nitrotoluene	203.404	208.809	E3	-2.7	106
9	M	RDX	156.916	162.933	E3	-3.8	107
10	M	1,3-Dinitrobenzene	470.277	489.199	E3	-4.0	107
11	M	Nitrobenzene	298.549	323.654	E3	-8.4	112
12	M	2-Amino-4,6-Dinitrotoluene	534.477	537.852	E3	-0.6	104
13	M	2,4-Dinitrotoluene	436.000	456.394	E3	-4.7	108
14	M	2-Nitrotoluene	194.145	197.129	E3	-1.5	105
15	M	3-Nitrotoluene	163.705	167.583	E3	-2.4	106

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Response Factor Report LCD

Method : I:\LCDATA\LCD\METHODS\7125CON.M (Chemstation Integrator)
Title : 8330 Explosives Confirmation
Last Update : Fri Aug 10 14:04:03 2007

Calibration Files
LEV1 =LCD35040.D LEV2 =LCD35041.D LEV3 =LCD35042.D
LEV4 =LCD35043.D LEV5 =LCD35044.D LEV6 =LCD35045.D

		Compound	LEV1	LEV2	LEV3	LEV4	LEV5	LEV6	Avg		%RSD
1)	T	HMX	1.311	1.274	1.220	1.290	1.302	1.297	1.282	E5	2.57
2)	S	4-Nitroaniline	1.094	1.021	1.124	1.186	1.216	1.222	1.144	E5	6.89
3)	T	1,3,5-Trinitrobenze	3.223	3.242	3.282	3.477	3.521	3.542	3.381	E5	4.36
4)	T	Tetryl	2.262	2.378	2.439	2.591	2.625	2.637	2.489	E5	6.16
5)	T	2,4,6-Trinitrotolue	3.051	3.047	3.075	3.249	3.291	3.318	3.172	E5	4.01
6)	T	4-Amino-2,6-Dinitro	5.206	4.939	5.196	5.493	5.601	5.633	5.345	E5	5.14
7)	T	2,6-Dinitrotoluene	2.301	2.167	2.226	2.332	2.381	2.396	2.301	E5	3.89
8)	T	4-Nitrotoluene	1.939	1.917	1.973	2.095	2.132	2.148	2.034	E5	5.05
9)	M	RDX	1.520	1.483	1.525	1.613	1.635	1.639	1.569	E5	4.31
10)	M	1,3-Dinitrobenzene	4.589	4.398	4.553	4.820	4.922	4.934	4.703	E5	4.70
11)	M	Nitrobenzene	2.845	2.824	2.902	3.082	3.125	3.135	2.985	E5	4.82
12)	M	2-Amino-4,6-Dinitro	5.206	4.939	5.196	5.493	5.601	5.633	5.345	E5	5.14
13)	M	2,4-Dinitrotoluene	4.239	4.072	4.229	4.471	4.560	4.588	4.360	E5	4.80
14)	M	2-Nitrotoluene	1.912	1.816	1.874	1.990	2.024	2.032	1.941	E5	4.53
15)	M	3-Nitrotoluene	1.645	1.524	1.577	1.672	1.699	1.705	1.637	E5	4.42

(#) = Out of Range

TRACE METALS

GPL Laboratories

USEPA - CLP

COVER PAGE

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194W

SOW No.: ILM05.3

EPA Sample No.	Lab Sample ID
25-TW03-07C FIL	S 707187-010-051-1/1
25-TW03-07C FIL MD	D 707187-010-051-1/1
25-TW03-07C FIL MS	SP707187-010-051-1/1
GR-TW02-07C	S 707194-001-004-1/1
GR-TW02-07C FIL	S 707194-002-005-1/1
GR-TW02-07C MD	D 707194-001-004-1/1
GR-TW02-07C MS	SP707194-001-004-1/1
SR-TW01-07C	S 707194-011-014-1/1
SR-TW01-07C FIL	S 707194-012-015-1/1
SR-TW02-07C	S 707194-013-016-1/1
SR-TW02-07C FIL	S 707194-014-017-1/1
SR-TW03-07C	S 707194-015-018-1/1
SR-TW03-07C FIL	S 707194-016-019-1/1
SR-TW04-07C	S 707194-017-020-1/1
SR-TW04-07C FIL	S 707194-018-021-1/1

		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: 8/15/2007 Title: Metals Reporting

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

GR-TW02-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194W

Matrix: (soil/water) WATER Lab Sample ID: S 707194-001-004-1/1

Level: (low/med) Date Recieved: 07/31/2007

% 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	4790			P
7440-36-0	Antimony	60.0	U		P
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	20.4	J		P
7441-41-7	Beryllium	0.31	J		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	52000			P
7440-47-3	Chromium	13.0			P
7440-48-4	Cobalt	1.5	J		P
7440-50-8	Copper	2.5	J		P
7439-89-6	Iron	3670		N	P
7439-92-1	Lead	10.0	U		P
7439-95-4	Magnesium	2050	J		P
7439-96-5	Manganese	35.3			P
7439-97-6	Mercury	0.023	J		CV
7440-02-0	Nickel	5.6	J		P
7440-09-7	Potassium	1510	J		P
7782-49-2	Selenium	35.0	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	7590			P
7440-28-0	Thallium	7.7	J		P
7440-62-2	Vanadium	7.0	J		P
7440-66-6	Zinc	27.0	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.

GR-TW02-07C FIL

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194W

Matrix: (soil/water) WATER Lab Sample ID: S 707194-002-005-1/1

Level: (low/med) Date Recieved: 07/31/2007

% 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	200	U		P
7440-36-0	Antimony	60.0	U		P
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	9.1	J		P
7441-41-7	Beryllium	5.0	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	50400			P
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	50.0	U		P
7440-50-8	Copper	25.0	U		P
7439-89-6	Iron	349		N	P
7439-92-1	Lead	10.0	U		P
7439-95-4	Magnesium	1780	J		P
7439-96-5	Manganese	22.4			P
7439-97-6	Mercury	0.043	J		CV
7440-02-0	Nickel	40.0	U		P
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	8170			P
7440-28-0	Thallium	25.0	U		P
7440-62-2	Vanadium	50.0	U		P
7440-66-6	Zinc	8.5	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.

SR-TW01-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194W

Matrix: (soil/water) WATER Lab Sample ID: S 707194-011-014-1/1

Level: (low/med) Date Recieved: 07/31/2007

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	10.0	U		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.

SR-TW01-07C FIL

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194W

Matrix: (soil/water) WATER Lab Sample ID: S 707194-012-015-1/1

Level: (low/med) Date Recieved: 07/31/2007

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	10.0	U		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.

SR-TW02-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194W

Matrix: (soil/water) WATER Lab Sample ID: S 707194-013-016-1/1

Level: (low/med) Date Recieved: 07/31/2007

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	159			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.

SR-TW02-07C FIL

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194W

Matrix: (soil/water) WATER Lab Sample ID: S 707194-014-017-1/1

Level: (low/med) Date Recieved: 07/31/2007

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	8.5	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.

SR-TW03-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194W

Matrix: (soil/water) WATER Lab Sample ID: S 707194-015-018-1/1

Level: (low/med) Date Recieved: 07/31/2007

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	1050			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.

SR-TW03-07C FIL

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194W

Matrix: (soil/water) WATER Lab Sample ID: S 707194-016-019-1/1

Level: (low/med) Date Recieved: 07/31/2007

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	5.6	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.

SR-TW04-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194W

Matrix: (soil/water) WATER Lab Sample ID: S 707194-017-020-1/1

Level: (low/med) Date Recieved: 07/31/2007

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	10.0	U		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.

SR-TW04-07C FIL

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194W

Matrix: (soil/water) WATER Lab Sample ID: S 707194-018-021-1/1

Level: (low/med) Date Recieved: 07/31/2007

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	10.0	U		P

Color Before: Colorless Clarity Before: Clear Texture: NA

Color After: Colorless Clarity After: Clear Artifacts: NA

Comments:

USEPA - CLP

2A - IN

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194W

Initial Calibration Verification Source: AB.ST / CPT

Continuing Calibration Verification Source: H.P./ AB.ST.

Concentration Units: UG/L

	Initial Calibration Verification			Continuing Calibration Verification					
Analyte	True	Found	%R (1)	True	Found	%R (1)	Found	%R (2)	M
Aluminum	5000.0	5027.24	101	50000.0	50790.46	102	52108.18	104	P
Antimony	400.0	403.57	101	500.0	509.21	102	521.11	104	P
Arsenic	400.0	421.67	105	500.0	500.87	100	515.94	103	P
Barium	400.0	413.10	103	500.0	496.85	99	509.96	102	P
Beryllium	40.0	41.55	104	50.0	49.96	100	50.98	102	P
Cadmium	40.0	41.40	103	500.0	492.25	98	502.59	101	P
Calcium	5000.0	4917.16	98	100000.0	98723.70	99	100613.91	101	P
Chromium	400.0	402.13	101	500.0	495.54	99	509.54	102	P
Cobalt	400.0	428.28	107	500.0	493.80	99	503.18	101	P
Copper	400.0	397.11	99	500.0	505.91	101	516.29	103	P
Iron	5000.0	4999.44	100	50000.0	49358.66	99	50441.08	101	P
Lead	400.0	410.42	103	500.0	499.09	100	513.97	103	P
Magnesium	5000.0	5003.04	100	100000.0	100702.72	101	102990.95	103	P
Manganese	400.0	410.62	103	500.0	498.84	100	510.26	102	P
Mercury	3.0	3.05	102	5.0	5.24	105	5.43	109	CV
Nickel	400.0	413.43	103	500.0	488.40	98	501.20	100	P
Potassium	5000.0	4736.99	95	25000.0	24174.97	97	24722.87	99	P
Selenium	400.0	417.37	104	500.0	510.87	102	526.75	105	P
Silver	400.0	403.91	101	500.0	514.04	103	522.89	105	P
Sodium	10000.0	9857.32	99	100000.0	101036.66	101	103668.44	104	P
Thallium	400.0	396.46	99	500.0	504.53	101	514.96	103	P
Vanadium	400.0	409.75	102	500.0	503.03	101	513.64	103	P
Zinc	400.0	420.47	105	500.0	507.50	101	521.08	104	P

(1) Control Limits : Mercury 80-120; Other Metals 90-110; Cyanide 85-115

USEPA - CLP

2A - IN

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194W

Initial Calibration Verification Source:

Continuing Calibration Verification Source: H.P./ AB.ST.

Concentration Units: UG/L

	Initial Calibration Verification			Continuing Calibration Verification					
Analyte	True	Found	%R (1)	True	Found	%R (1)	Found	%R (2)	M
Aluminum				50000.0	51476.45	103	52002.64	104	P
Antimony				500.0	521.14	104	523.37	105	P
Arsenic				500.0	517.14	103	512.98	103	P
Barium				500.0	503.93	101	511.89	102	P
Beryllium				50.0	50.87	102	50.69	101	P
Cadmium				500.0	504.89	101	506.93	101	P
Calcium				100000.0	101029.67	101	100618.70	101	P
Chromium				500.0	508.45	102	508.93	102	P
Cobalt				500.0	502.68	101	500.96	100	P
Copper				500.0	504.86	101	503.32	101	P
Iron				50000.0	50388.60	101	50265.48	101	P
Lead				500.0	510.93	102	508.24	102	P
Magnesium				100000.0	102406.09	102	102492.44	102	P
Manganese				500.0	507.10	101	504.54	101	P
Mercury				5.0	5.45	109	5.29	106	CV
Nickel				500.0	502.59	101	504.60	101	P
Potassium				25000.0	24234.69	97	24428.30	98	P
Selenium				500.0	528.10	106	527.15	105	P
Silver				500.0	516.15	103	511.75	102	P
Sodium				100000.0	102058.25	102	102792.03	103	P
Thallium				500.0	516.46	103	518.61	104	P
Vanadium				500.0	510.07	102	507.00	101	P
Zinc				500.0	518.23	104	516.17	103	P

(1) Control Limits : Mercury 80-120; Other Metals 90-110; Cyanide 85-115

USEPA - CLP

2A - IN

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194W

Initial Calibration Verification Source:

Continuing Calibration Verification Source: H.P./ AB.ST.

Concentration Units: UG/L

	Initial Calibration Verification			Continuing Calibration Verification					
Analyte	True	Found	%R (1)	True	Found	%R (1)	Found	%R (2)	M
Aluminum				50000.0	51177.00	102	51265.02	103	P
Antimony				500.0	522.37	104	522.97	105	P
Arsenic				500.0	512.37	102	511.46	102	P
Barium				500.0	505.81	101	505.94	101	P
Beryllium				50.0	50.69	101	50.69	101	P
Cadmium				500.0	502.99	101	500.73	100	P
Calcium				100000.0	100493.98	100	100174.72	100	P
Chromium				500.0	506.57	101	505.33	101	P
Cobalt				500.0	501.40	100	499.08	100	P
Copper				500.0	503.07	101	503.84	101	P
Iron				50000.0	50170.88	100	50056.29	100	P
Lead				500.0	509.44	102	506.84	101	P
Magnesium				100000.0	101918.95	102	102231.00	102	P
Manganese				500.0	505.12	101	504.22	101	P
Mercury				5.0	5.40	108	5.40	108	CV
Nickel				500.0	500.10	100	499.41	100	P
Potassium				25000.0	24156.18	97	24223.63	97	P
Selenium				500.0	527.44	105	524.98	105	P
Silver				500.0	514.47	103	515.74	103	P
Sodium				100000.0	101522.98	102	101969.03	102	P
Thallium				500.0	513.81	103	513.12	103	P
Vanadium				500.0	508.79	102	508.51	102	P
Zinc				500.0	512.60	103	512.41	102	P

(1) Control Limits : Mercury 80-120; Other Metals 90-110; Cyanide 85-115

USEPA - CLP

2A - IN

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194W

Initial Calibration Verification Source:

Continuing Calibration Verification Source: ~~H.P.~~/ AB.ST.

Concentration Units: UG/L

	Initial Calibration Verification			Continuing Calibration Verification					
Analyte	True	Found	%R (1)	True	Found	%R (1)	Found	%R (2)	M
Mercury				5.0	5.18	104			CV

(1) Control Limits : Mercury 80-120; Other Metals 90-110; Cyanide 85-115

USEPA - CLP

2B - IN

CRQL CHECK STANDARD

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194W

CRQL Check Standard Source: H.P./ AB.ST.

Concentration Units: UG/L

Analyte	CRQL Check Standard				
	Initial			Final	
	True	Found	%R (1)	Found	%R (1)
Aluminum	200.0	212.33	106	213.64	107
Antimony	60.0	60.61	101	61.19	102
Arsenic	10.0	11.19	112	10.60	106
Barium	200.0	201.45	101	202.21	101
Beryllium	5.0	4.98	100	5.11	102
Cadmium	5.0	5.15	103	5.36	107
Calcium	5000.0	4860.67	97	4914.43	98
Chromium	10.0	10.61	106	10.71	107
Cobalt	50.0	50.80	102	51.06	102
Copper	25.0	24.23	97	23.88	96
Iron	100.0	95.73	96	90.75	91
Lead	10.0	10.88	109	10.25	103
Magnesium	5000.0	4977.15	100	5011.99	100
Manganese	15.0	15.31	102	15.51	103
Mercury	0.2	0.22	110	0.23	115
Nickel	40.0	40.53	101	40.88	102
Potassium	5000.0	4805.51	96	4763.01	95
Selenium	35.0	38.02	109	36.31	104
Silver	10.0	10.52	105	10.54	105
Sodium	5000.0	5121.42	102	4958.25	99
Thallium	25.0	29.64	119	31.52	126
Vanadium	50.0	52.31	105	52.56	105
Zinc	60.0	61.52	103	61.77	103

(1) Control Limits: 70-130 with the following exceptions:

ICP-AES - Antimony, Lead, and Thallium: 51-150

ICP-MS - Cobalt, Manganese, and Zinc: 51-150

* If applicable, enter the concentration qualifier 'J' or 'U' after the concentration in these columns (e.g., 0.20U for Mercury).

USEPA - CLP

2B - IN

CRQL CHECK STANDARD

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194W

CRQL Check Standard Source: H.P./ AB.ST.

Concentration Units: UG/L

Analyte	CRQL Check Standard				
	Initial			Final	
	True	Found	%R (1)	Found	%R (1)
Aluminum	200.0	224.15	112		
Antimony	60.0	62.84	105		
Arsenic	10.0	11.37	114		
Barium	200.0	204.55	102		
Beryllium	5.0	5.10	102		
Cadmium	5.0	5.24	105		
Calcium	5000.0	4941.98	99		
Chromium	10.0	10.92	109		
Cobalt	50.0	51.75	104		
Copper	25.0	24.41	98		
Iron	100.0	96.39	96		
Lead	10.0	10.10	101		
Magnesium	5000.0	5040.82	101		
Manganese	15.0	15.43	103		
Mercury	0.2	0.25	127	0.21	107
Nickel	40.0	41.41	104		
Potassium	5000.0	4810.59	96		
Selenium	35.0	35.79	102		
Silver	10.0	11.06	111		
Sodium	5000.0	5006.63	100		
Thallium	25.0	30.40	122		
Vanadium	50.0	52.67	105		
Zinc	60.0	62.05	103		

(1) Control Limits: 70-130 with the following exceptions:

ICP-AES - Antimony, Lead, and Thallium: 51-150

ICP-MS - Cobalt, Manganese, and Zinc: 51-150

* If applicable, enter the concentration qualifier 'J' or 'U' after the concentration in these columns (e.g., 0.20U for Mercury).

USEPA - CLP

3 - IN

BLANKS

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194W

Preparation Blank Matrix (soil/water): Water

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		
		C	1	C	2	C	3	C		C	M
Aluminum	200.000	U	200.000	U	200.000	U	200.000	U	200.000	U	P
Antimony	60.000	U	60.000	U	60.000	U	60.000	U	60.000	U	P
Arsenic	10.000	U	10.000	U	10.000	U	10.000	U	10.000	U	P
Barium	200.000	U	200.000	U	0.297	J	0.247	J	1.088	J	P
Beryllium	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	P
Cadmium	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	P
Calcium	5000.000	U	51.312	J	5000.000	U	48.349	J	227.241	J	P
Chromium	10.000	U	10.000	U	10.000	U	10.000	U	10.000	U	P
Cobalt	50.000	U	50.000	U	50.000	U	0.719	J	50.000	U	P
Copper	25.000	U	25.000	U	25.000	U	0.788	J	25.000	U	P
Iron	100.000	U	16.823	J	19.440	J	21.347	J	100.000	U	P
Lead	10.000	U	10.000	U	10.000	U	10.000	U	10.000	U	P
Magnesium	5000.000	U	35.803	J	33.327	J	52.183	J	56.477	J	P
Manganese	15.000	U	0.246	J	0.309	J	0.280	J	0.465	J	P
Mercury	-0.079	J	0.046	J	-0.036	J	-0.077	J	0.200	U	CV
Nickel	40.000	U	40.000	U	40.000	U	40.000	U	40.000	U	P
Potassium	5000.000	U	5000.000	U	5000.000	U	5000.000	U	5000.000	U	P
Selenium	35.000	U	35.000	U	35.000	U	35.000	U	35.000	U	P
Silver	10.000	U	10.000	U	10.000	U	10.000	U	10.000	U	P
Sodium	5000.000	U	5000.000	U	5000.000	U	5000.000	U	5000.000	U	P
Thallium	25.000	U	25.000	U	5.613	J	5.829	J	25.000	U	P
Vanadium	50.000	U	50.000	U	50.000	U	0.744	J	50.000	U	P
Zinc	60.000	U	60.000	U	60.000	U	60.000	U	6.510	J	P

USEPA - CLP

3 - IN

BLANKS

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194W

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or mg/kg):

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		
		C	1	C	2	C	3	C		C	M
Aluminum			73.616	J	200.000	U	200.000	U			P
Antimony			60.000	U	60.000	U	60.000	U			P
Arsenic			10.000	U	10.000	U	10.000	U			P
Barium			0.227	J	0.353	J	0.265	J			P
Beryllium			5.000	U	5.000	U	5.000	U			P
Cadmium			5.000	U	5.000	U	5.000	U			P
Calcium			65.313	J	53.821	J	62.583	J			P
Chromium			10.000	U	10.000	U	10.000	U			P
Cobalt			50.000	U	1.487	J	0.702	J			P
Copper			25.000	U	25.000	U	25.000	U			P
Iron			30.514	J	34.657	J	37.839	J			P
Lead			10.000	U	10.000	U	10.000	U			P
Magnesium			80.971	J	72.928	J	80.485	J			P
Manganese			15.000	U	0.358	J	0.298	J			P
Mercury			0.027	J	0.029	J	0.200	U			CV
Nickel			40.000	U	40.000	U	40.000	U			P
Potassium			5000.000	U	5000.000	U	5000.000	U			P
Selenium			35.000	U	35.000	U	35.000	U			P
Silver			10.000	U	10.000	U	10.000	U			P
Sodium			5000.000	U	-153.212	J	5000.000	U			P
Thallium			25.000	U	5.468	J	7.587	J			P
Vanadium			50.000	U	0.647	J	0.671	J			P
Zinc			60.000	U	60.000	U	60.000	U			P

USEPA - CLP

3 - IN

BLANKS

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194W

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or mg/kg):

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		
		C	1	C	2	C	3	C		C	M
Aluminum											P
Antimony											P
Arsenic											P
Barium											P
Beryllium											P
Cadmium											P
Calcium											P
Chromium											P
Cobalt											P
Copper											P
Iron											P
Lead											P
Magnesium											P
Manganese											P
Mercury			0.055	J							CV
Nickel											P
Potassium											P
Selenium											P
Silver											P
Sodium											P
Thallium											P
Vanadium											P
Zinc											P

USEPA - CLP

4A - IN

ICP-AES INTERFERENCE CHECK SAMPLE

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194W

ICP-AES Instrument ID: W5.3V ICS Source: H.P. /AB, ST

Concentration Units: ug/L

Analyte	True		Initial Found				Final Found			
	Sol. A	Sol. B	Sol. A	%R	Sol. AB	%R	Sol. A	%R	Sol. AB	%R
Aluminum		500000	498000	100	492000	98	499000	100	500000	100
Antimony		600	-0.22		624	104	5.5		631	105
Arsenic		100	-1.8		104	104	-3.8		99.9	100
Barium		500	0.92		513	103	0.87		522	104
Beryllium		500	-0.15		486	97	-0.15		492	98
Cadmium		1000	0.59		952	95	-0.093		966	97
Calcium		500000	503000	101	498000	100	508000	102	510000	102
Chromium		500	1.9		486	97	1.9		496	99
Cobalt		500	1.8		478	96	2.6		483	97
Copper		500	2.9		524	105	2.4		526	105
Iron		200000	193000	97	192000	96	195000	97	195000	98
Lead		50	-4.3		46.7	93	-2.6		47.3	95
Magnesium		500000	490000	98	487000	97	491000	98	493000	99
Manganese		500	12.2		505	101	12.7		512	102
Nickel		1000	2.7		947	95	2.1		964	96
Potassium		5000	0.61		5330	107	1.3		5320	106
Selenium		50	-0.76		49.7	99	1.7		54.5	109
Silver		200	0.22		211	106	0.032		213	107
Sodium		10000	-390		10500	105	-260		10400	104
Thallium		100	7.8		111	111	4.8		108	108
Vanadium		500	0.52		496	99	0.19		503	101
Zinc		1000	26.8		1030	103	26.2		1050	105

USEPA - CLP

4A - IN

ICP-AES INTERFERENCE CHECK SAMPLE

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194W

ICP-AES Instrument ID: W5.3V ICS Source: H.P. /AB, ST

Concentration Units: ug/L

Analyte	True		Initial Found				Final Found			
	Sol. A	Sol. B	Sol. A	%R	Sol. AB	%R	Sol. A	%R	Sol. AB	%R
Aluminum		500000	498000	100	499000	100				
Antimony		600	6.7		635	106				
Arsenic		100	-0.69		106	106				
Barium		500	0.91		523	105				
Beryllium		500	-0.15		491	98				
Cadmium		1000	-0.17		962	96				
Calcium		500000	504000	101	507000	101				
Chromium		500	1.4		494	99				
Cobalt		500	1.9		484	97				
Copper		500	2.5		524	105				
Iron		200000	193000	97	195000	97				
Lead		50	-1.3		49.1	98				
Magnesium		500000	488000	98	492000	98				
Manganese		500	12.2		511	102				
Nickel		1000	3.2		961	96				
Potassium		5000	2.4		5310	106				
Selenium		50	4.6		57.5	115				
Silver		200	-0.31		212	106				
Sodium		10000	-210		10500	105				
Thallium		100	8.0		106	106				
Vanadium		500	-0.018		502	100				
Zinc		1000	26.3		1040	104				

USEPA - CLP

5A - IN

MATRIX SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

GR-TW02-07C MS

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194W

Matrix: (soil/water) Water Level: (low/med)

% Solids for Sample: 0.0

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum	75 - 125	6345.9805		4794.4932		2000.0000	78		P
Antimony	75 - 125	101.8688		60.0000	U	100.0000	102		P
Arsenic	75 - 125	40.1841		10.0000	U	40.0000	100		P
Barium	75 - 125	2072.4075		20.4160	J	2000.0000	103		P
Beryllium	75 - 125	51.6909		0.3062	J	50.0000	103		P
Cadmium	75 - 125	51.5948		5.0000	U	50.0000	103		P
Chromium	75 - 125	216.4890		12.9971		200.0000	102		P
Cobalt	75 - 125	509.2472		1.5369	J	500.0000	102		P
Copper	75 - 125	256.5644		2.5460	J	250.0000	102		P
Iron	75 - 125	3514.9268		3669.3979		1000.0000	-15	N	P
Lead	75 - 125	22.4748		10.0000	U	20.0000	112		P
Manganese	75 - 125	544.3181		35.3276		500.0000	102		P
Nickel	75 - 125	521.4457		5.6352	J	500.0000	103		P
Selenium	75 - 125	51.6561		35.0000	U	50.0000	103		P
Silver	75 - 125	51.5906		10.0000	U	50.0000	103		P
Thallium	75 - 125	53.7206		7.7311	J	50.0000	92		P
Vanadium	75 - 125	520.9221		7.0195	J	500.0000	103		P
Zinc	75 - 125	557.5248		26.9956	J	500.0000	106		P

Comments:

USEPA - CLP

5A - IN

MATRIX SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

25-TW03-07C FIL MS

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194W

Matrix: (soil/water) Water Level: (low/med)

% Solids for Sample: 0.0

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Mercury	75 - 125	1.1300		0.0680	J	1.0000	106		CV

Comments:

USEPA - CLP

5B - IN

EPA SAMPLE NO.

MATRIX SPIKE SAMPLE RECOVERY

GR-TW02-07C

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194W

Matrix: (soil/water) Water Level: (low/med)

% Solids for Sample: 0.0

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

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Iron	75 - 125	6468.2798	3669.3979	2000	140	N	P

Comments:

USEPA - CLP

6 - IN

DUPLICATES

EPA SAMPLE NO.

GR-TW02-07C MD

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194W

Matrix: (soil/water) Water Level: (low/med)

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum	20	4794.4932		4371.5186		9		P
Antimony	20	60.0000	U	60.0000	U			P
Arsenic	20	10.0000	U	10.0000	U			P
Barium	20	20.4160	J	20.2682	J			P
Beryllium	20	0.3062	J	0.2850	J			P
Cadmium	20	5.0000	U	5.0000	U			P
Calcium	20	51988.0195		52608.0625		1		P
Chromium	20	12.9971		11.6461		11		P
Cobalt	20	1.5369	J	1.5467	J			P
Copper	20	2.5460	J	2.3183	J			P
Iron	20	3669.3979		3236.4995		13	N	P
Lead	20	10.0000	U	10.0000	U			P
Magnesium	20	2046.6329	J	2019.7256	J			P
Manganese	20	35.3276		33.7593		5		P
Nickel	20	5.6352	J	4.3664	J			P
Potassium	20	1513.4482	J	1499.6296	J			P
Selenium	20	35.0000	U	35.0000	U			P
Silver	20	10.0000	U	10.0000	U			P
Sodium	20	7591.4043		7775.0986		2		P
Thallium	20	7.7311	J	25.0000	U			P
Vanadium	20	7.0195	J	6.3416	J			P
Zinc	20	26.9956	J	19.9519	J			P

Comments:

USEPA - CLP

6 - IN

DUPLICATES

EPA SAMPLE NO.

25-TW03-07C FIL MD

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194W

Matrix: (soil/water) Water Level: (low/med)

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Mercury	20	0.0680	J	0.0330	J			CV

Comments:

USEPA - CLP

7 - IN

LABORATORY CONTROL SAMPLE

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194W

Solid LCS Source:

Aqueous LCS Source: H.P./ AB.ST.

Analyte	Aqueous (ug/L)			Solid (mg/kg)					
	True	Found	%R	True	Found	C	Limits		%R
Aluminum	5000.0	5140.49	103				80	120	
Antimony	50.0	53.27	107				80	120	
Arsenic	50.0	51.44	103				80	120	
Barium	500.0	510.59	102				80	120	
Beryllium	25.0	25.74	103				80	120	
Cadmium	50.0	51.90	104				80	120	
Calcium	5000.0	5267.42	105				80	120	
Chromium	250.0	258.84	104				80	120	
Cobalt	250.0	255.14	102				80	120	
Copper	250.0	253.24	101				80	120	
Iron	5000.0	5083.64	102				80	120	
Lead	500.0	512.98	103				80	120	
Magnesium	5000.0	5135.54	103				80	120	
Manganese	500.0	514.43	103				80	120	
Mercury	1.0	1.07	107				80	120	
Nickel	250.0	259.83	104				80	120	
Potassium	5000.0	4799.03	96				80	120	
Selenium	50.0	52.22	104				80	120	
Silver	50.0	51.82	104				80	120	
Sodium	5000.0	5162.27	103				80	120	
Thallium	50.0	52.56	105				80	120	
Vanadium	250.0	258.46	103				80	120	
Zinc	500.0	537.36	107				80	120	

USEPA - CLP

8 - IN

ICP-AES and ICP-MS SERIAL DILUTIONS

EPA SAMPLE NO.

GR-TW02-07C

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194W

Matrix: (soil/water) Water Level: (low/med)

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	4794.4932		4981.3538		4		P
Antimony	60.0000	U	300.0000	U			P
Arsenic	10.0000	U	50.0000	U			P
Barium	20.4160	J	20.3096	J	1		P
Beryllium	0.3062	J	25.0000	U	100		P
Cadmium	5.0000	U	25.0000	U			P
Calcium	51988.0195		51183.9648		2		P
Chromium	12.9971		12.7409	J	2		P
Cobalt	1.5369	J	3.0436	J	98		P
Copper	2.5460	J	125.0000	U	100		P
Iron	3669.3979		3593.2355		2		P
Lead	10.0000	U	50.0000	U			P
Magnesium	2046.6329	J	2029.7653	J	1		P
Manganese	35.3276		34.4937	J	2		P
Nickel	5.6352	J	9.4710	J	68		P
Potassium	1513.4482	J	1489.1583	J	2		P
Selenium	35.0000	U	175.0000	U			P
Silver	10.0000	U	50.0000	U			P
Sodium	7591.4043		8214.3170	J	8		P
Thallium	7.7311	J	125.0000	U	100		P
Vanadium	7.0195	J	7.7712	J	11		P
Zinc	26.9956	J	30.0529	J	11		P

USEPA - CLP

9 - IN

METHOD DETECTION LIMITS (ANNUALLY)

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194W

Instrument Type: P Instrument ID: W5.3V Date: 06/14/2007

Preparation Method: ILMO5.2_HW

Concentration Units (ug/L or mg/kg): ug/L

Analyte	Wavelength /Mass	CRQL	MDL
Aluminum	308.215	200	68.1
Antimony	206.838	60	4.7
Arsenic	189.042	10	2.3
Barium	493.409	200	0.19
Beryllium	313.042	5	0.2
Cadmium	226.502	5	0.3
Calcium	317.933	5000	29
Chromium	267.716	10	0.83
Cobalt	228.616	50	0.58
Copper	324.753	25	0.65
Iron	271.441	100	15.3
Lead	220.353	10	1.9
Magnesium	279.078	5000	18.1
Manganese	344.199	15	0.2
Mercury	253.7		
Nickel	231.604	40	1.2
Potassium	766.491	5000	20.6
Selenium	196.026	35	4
Silver	328.068	10	1.1
Sodium	330.232	5000	140
Thallium	190.864	25	5.4
Vanadium	292.402	50	0.54
Zinc	213.856	60	3.4

Comments:

USEPA - CLP

9 - IN

METHOD DETECTION LIMITS (ANNUALLY)

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194W

Instrument Type: CV Instrument ID: 7470 Date: 02/02/2007

Preparation Method: CS1

Concentration Units (ug/L or mg/kg): ug/L

Analyte	Wavelength /Mass	CRQL	MDL
Aluminum	308.215		
Antimony	206.838		
Arsenic	189.042		
Barium	493.409		
Beryllium	313.042		
Cadmium	226.502		
Calcium	317.933		
Chromium	267.716		
Cobalt	228.616		
Copper	324.753		
Iron	271.441		
Lead	220.353		
Magnesium	279.078		
Manganese	257.61		
Mercury	253.7	0.2	0.021
Nickel	231.604		
Potassium	766.491		
Selenium	196.026		
Silver	328.068		
Sodium	330.232		
Thallium	190.864		
Vanadium	292.402		
Zinc	213.856		

Comments:

GPL - Maryland Laboratory

Metals Data Reporting Form

Inter-Element Correction Factors VACUUM **SDG:** 7071940

Instrument: ICPST **Date of IEC's:** 7/27/2007

Interfering Element	Wavelength /Mass	Correction Factor(s)
Aluminum	308.215	Cd(0.000003), Mn(0.000003), Pb(0.000329), Sn(-0.000012), Pb2(-0.000225)
Barium	493.409	Co(0.000079)
Chromium	267.716	As(-0.006931), Co(-0.000172), Sb(0.008954), Ti(0.000219)
Cobalt	228.616	B(0.00924), Fe(0.072657), Tl(0.003155)
Copper	324.753	Zn(0.000602)
Iron	271.441	Al(-0.000069), B(-0.000074), Ba(0.000004), Cd(0.000112), Cr(-0.00002), Cu(-0.000003), Mg(0.000187), Mn(-0.000107), Mo(-0.000008), Na(-0.001083), Pb(0.000072), Sb(0.000017), Se(0.00001), Sn(0.000011), Tl(-0.00004), V(0.000027), Zn(0.000083), Pb2(0.000051), Se2(-0.000247)
Magnesium	279.078	Fe(-0.000217)
Manganese	257.61	Ag(0.00003), Al(0.000222), Cr(0.000158), Mg(-0.000743), Mo(-0.00006), Pb(0.000075), Se(0.000306), Sn(-0.000093), Tl(-0.004333), Pb2(0.000090), Se2(0.000242
Molybdenum	202.03	Al(0.010738), Cu(0.000355), Mn(-0.000276), Pb(-0.00048), Sb(-0.014276), V(-0.000815), Pb2(-0.000668)
Titanium	334.941	Be(-0.000161), Co(0.001989), Cr(-0.000018), Na(-0.011855), Pb(0.0002), Sn(0.000202), V(0.000692), Pb2(-0.000475)
Vanadium	292.402	Al(0.020047), Be(0.000416), Fe(0.007412), Tl(0.001774)
Zinc	206.2	Na(0.024688)

USEPA - CLP

11 - IN

ICP-AES and ICP-MS LINEAR DYNAMIC RANGES (QUARTERLY)

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194W

Instrument ID: W5.3V Date: 06/20/2007

Analyte	Integ. Time (sec.)	Concentration (ug/L)	M
Aluminum		525000	P
Antimony		5250	P
Arsenic		2100	P
Barium		10500	P
Beryllium		525	P
Cadmium		2100	P
Calcium		525000	P
Chromium		10500	P
Cobalt		10500	P
Copper		10500	P
Iron		525000	P
Lead		21000	P
Magnesium		525000	P
Manganese		10500	P
Nickel		7875	P
Potassium		52500	P
Selenium		2100	P
Silver		1050	P
Sodium		525000	P
Thallium		2100	P
Vanadium		10500	P
Zinc		3150	P

Comments:

USEPA - CLP

12 - IN

PREPARATION LOG

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194W

Preparation Method: RA ~~CS1~~ ILM05.2-HG_(W)
5-15

EPA Sample No.	Preparation Date	Weight (grams)	Volume (mL)
BLK99481	08/02/2007	100	100
BKS99481	08/02/2007	100	100
25-TW03-07C FIL	08/02/2007	100	100
25-TW03-07C FIL MD	08/02/2007	100	100
25-TW03-07C FIL MS	08/02/2007	100	100
GR-TW02-07C	08/02/2007	100	100
GR-TW02-07C FIL	08/02/2007	100	100

USEPA - CLP

13 - IN

ANALYSIS RUN LOG

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194W

ICP-MS Instrument ID: W5.3V Analysis Method: CLP-5.3

Start Date: 08/14/2007 End Date: 08/15/2007

EPA Sample No.	DF	Time	Analytes																								
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN		
STD0	1	12:18	X	X	X	X	X	X	X	X	X	X	X	√	X	X		X	X	√	X	X	X	X	X		
STD1	1	12:26	X	X	X	X	X	X		X	X	X	X	√		X		X		X	X		X	X	X		
STD2	1	12:35	X	X	X	X	X	X		X	X	X	X	√		X		X		√	X		X	X	X		
STD3	1	12:43							X						X				X			X					
IVICV	1	12:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
ZZZZZ	1	13:03																									
BIICB	1	13:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
CVCCV1	1	13:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
BCCCB1	1	13:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
ZZZZZ	1	13:39																									
CRCRI	1	13:47	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
IAICSA	1	13:56	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
IBICSAB	1	14:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
ZZZZZ	1	14:13																									
CVCCV2	1	14:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
BCCCB2	1	14:38	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
ZZZZZ	1	14:54																									
ZZZZZ	1	15:02																									
ZZZZZ	1	15:11																									
ZZZZZ	1	15:19																									
ZZZZZ	1	15:27																									
ZZZZZ	1	15:36																									
ZZZZZ	10	15:44																									
ZZZZZ	1	15:52																									
ZZZZZ	1	16:01																									
ZZZZZ	1	16:09																									
CVCCV3	1	16:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
BCCCB3	1	16:26	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
ZZZZZ	1	16:34																									
ZZZZZ	2	16:42																									
ZZZZZ	2	16:51																									
ZZZZZ	5	16:59																									
ZZZZZ	2	17:08																									
BLK99741	1	17:26	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		

USEPA - CLP

13 - IN

ANALYSIS RUN LOG

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194W

ICP-MS Instrument ID: W5.3V Analysis Method: CLP-5.3

Start Date: 08/14/2007 End Date: 08/15/2007

EPA Sample No.	DF	Time	Analytes																									
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN		
BKS99741	1	17:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
CRCRI	1	17:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
IAICSA	1	17:51	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
IBICSAB	1	17:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
CVCCV4	1	18:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
BCCCB4	1	18:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
S 707194-001-004-1/1	1	18:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
D 707194-001-004-1/1	1	18:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
SP707194-001-004-1/1	1	18:41	X	X	X	X	X	X		X	X	X	X	X		X		X		X	X		X	X	X		
PS707194-001-004-1/1	1	18:56											X														
SE707194-001-004-1/1	5	19:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
S 707194-002-005-1/1	1	19:13	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
S 707194-011-014-1/1	1	19:21												X													
S 707194-012-015-1/1	1	19:29												X													
S 707194-013-016-1/1	1	19:38												X													
S 707194-014-017-1/1	1	19:46												X													
CVCCV5	1	19:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
BCCCB5	1	20:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
S 707194-015-018-1/1	1	20:11												X													
S 707194-016-019-1/1	1	20:19												X													
S 707194-017-020-1/1	1	20:28												X													
S 707194-018-021-1/1	1	20:36												X													
ZZZZZ	1	20:45																									
ZZZZZ	1	20:53																									
ZZZZZ	1	21:01																									
CRCRI	1	21:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
IAICSA	1	21:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
IBICSAB	1	21:32	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
CVCCV6	1	21:40	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
BCCCB6	1	21:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
ZZZZZ	1	21:57																									
ZZZZZ	1	22:05																									
ZZZZZ	1	22:14																									
ZZZZZ	5	22:22																									

USEPA - CLP

13 - IN

ANALYSIS RUN LOG

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194W

ICP-MS Instrument ID: 7470 Analysis Method: Mercury

Start Date: 08/03/2007 End Date: 08/03/2007

EPA Sample No.	DF	Time	Analytes																										
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN		
Std01Rep1	1	9:03															X										
Std01Rep2	1	9:06															X										
Std01Rep3	1	9:09															X										
Std02Rep1	1	9:13															X										
Std02Rep2	1	9:17															X										
Std02Rep3	1	9:20															X										
Std03Rep1	1	9:23															X										
Std03Rep2	1	9:27															X										
Std03Rep3	1	9:30															X										
Std04Rep1	1	9:33															X										
Std04Rep2	1	9:37															X										
Std04Rep3	1	9:40															X										
Std05Rep1	1	9:44															X										
Std05Rep2	1	9:47															X										
ZZZZZ	1	9:50																									
Std06Rep1	1	9:53															X										
Std06Rep2	1	9:57															X										
Std06Rep3	1	10:00															X										
Std05Rep3	1	10:04															X										
Ck2 ICV	1	10:08															X										
Ck3 ICB	1	10:12															X										
Ck4 CRA	1	10:15															X										
Ck5 CCV1	1	10:18															X										
Ck6 CCB1	1	10:22															X										
ZZZZZ	1	10:26																									
ZZZZZ	1	10:29																									
ZZZZZ	1	10:33																									
ZZZZZ	1	10:40																									
ZZZZZ	10	10:49																									
ZZZZZ	1	10:52																									
ZZZZZ	1	10:58																									
ZZZZZ	1	11:02																									
Ck5 CCV2	1	11:05															X										
Ck6 CCB2	1	11:09															X										

USEPA - CLP

13 - IN

ANALYSIS RUN LOG

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194W

ICP-MS Instrument ID: 7470 Analysis Method: Mercury

Start Date: 08/03/2007 End Date: 08/03/2007

EPA Sample No.	DF	Time	Analytes																										
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN		
ZZZZZ	1	11:12																									
ZZZZZ	1	11:15																									
ZZZZZ	1	11:18																									
ZZZZZ	1	11:22																									
ZZZZZ	1	11:25																									
ZZZZZ	1	11:29																									
ZZZZZ	1	11:32																									
ZZZZZ	1	11:36																									
Ck4 CRA	1	11:40															X										
Ck5 CCV3	1	11:43															X										
Ck6 CCB3	1	11:47															X										
ZZZZZ	1	11:50																									
ZZZZZ	1	11:54																									
ZZZZZ	1	11:57																									
ZZZZZ	1	12:00																									
ZZZZZ	1	12:03																									
ZZZZZ	1	12:07																									
ZZZZZ	1	12:10																									
ZZZZZ	1	12:14																									
ZZZZZ	1	12:17																									
BLK99481	1	12:20															X										
Ck5 CCV4	1	12:23															X										
Ck6 CCB4	1	12:28															X										
BKS99481	1	12:32															X										
ZZZZZ	1	12:35																									
ZZZZZ	1	12:38																									
ZZZZZ	1	12:42																									
ZZZZZ	1	12:46																									
ZZZZZ	1	12:49																									
S 707187-010-051-1/1	1	12:52															X										
D 707187-010-051-1/1	1	12:56															X										
Ck4 CRA	1	12:59															X										
Ck5 CCV5	1	13:02															X										
ZZZZZ	1	13:06																									

USEPA - CLP

13 - IN

ANALYSIS RUN LOG

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194W

ICP-MS Instrument ID: 7470 Analysis Method: Mercury

Start Date: 08/03/2007 End Date: 08/03/2007

EPA Sample No.	DF	Time	Analytes																									
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN		
Ck6 CCB5	1	13:10															X										
SP707187-010-051-1/1	1	13:13															X										
ZZZZZ	1	13:16																									
ZZZZZ	1	13:19																									
S 707194-001-004-1/1	1	13:23															X										
S 707194-002-005-1/1	1	13:26															X										
ZZZZZ	1	13:29																									
ZZZZZ	1	13:33																									
ZZZZZ	1	13:36																									
Ck5 CCV6	1	13:39															X										
Ck6 CCB6	1	13:44															X										
ZZZZZ	1	13:47																									
ZZZZZ	1	13:50																									
ZZZZZ	1	13:54																									
ZZZZZ	1	13:58																									
ZZZZZ	1	14:01																									
Ck4 CRA	1	14:09															X										
ZZZZZ	1	14:18																									
ZZZZZ	1	14:22																									
Ck5 CCV7	1	14:25															X										
Ck6 CCB7	1	14:30															X										

COVER PAGE

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194S

SOW No.: ILM05.3

EPA Sample No.	Lab Sample ID
GC-ISO9-0-1-07C	S 707158-001-013-1/1
GC-ISO9-0-1-07C MD	D 707158-001-013-1/1
GC-ISO9-0-1-07C MS	SP707158-001-013-1/1
SR-IS01-0-1-07C	S 707194-003-006-1/1
SR-IS01-17-18-07C	S 707194-004-007-1/1
SR-IS02-0-1-07C	S 707194-005-008-1/1
SR-IS02-15-17-07C	S 707194-006-009-1/1
SR-IS03-0-1-07C	S 707194-007-010-1/1
SR-IS03-15-16-07C	S 707194-008-011-1/1
SR-IS04-0-1-07C	S 707194-009-012-1/1
SR-IS04-14-15-07C	S 707194-010-013-1/1

		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: 8/15/2007 Title: Metals Reporting

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SR-IS01-0-1-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194S

Matrix: (soil/water) SOIL Lab Sample ID: S 707194-003-006-1/1

Level: (low/med) Date Recieved: 07/31/2007

% Solids: 95.0

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

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	5.8			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.

SR-IS01-17-18-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194S

Matrix: (soil/water) SOIL Lab Sample ID: S 707194-004-007-1/1

Level: (low/med) Date Recieved: 07/31/2007

% Solids: 90.9

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

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	3.1			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.

SR-IS02-0-1-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194S

Matrix: (soil/water) SOIL Lab Sample ID: S 707194-005-008-1/1

Level: (low/med) Date Recieved: 07/31/2007

% Solids: 93.4

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

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	766			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.

SR-IS02-15-17-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194S

Matrix: (soil/water) SOIL Lab Sample ID: S 707194-006-009-1/1

Level: (low/med) Date Recieved: 07/31/2007

% Solids: 94.8

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

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	3.1			P

Color Before: Brown 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.

SR-IS03-0-1-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194S

Matrix: (soil/water) SOIL Lab Sample ID: S 707194-007-010-1/1

Level: (low/med) Date Recieved: 07/31/2007

% Solids: 95.8

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

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	1070			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.

SR-IS03-15-16-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194S

Matrix: (soil/water) SOIL Lab Sample ID: S 707194-008-011-1/1

Level: (low/med) Date Recieved: 07/31/2007

% Solids: 91.2

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

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	2.4			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.

SR-IS04-0-1-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194S

Matrix: (soil/water) SOIL Lab Sample ID: S 707194-009-012-1/1

Level: (low/med) Date Recieved: 07/31/2007

% Solids: 90.3

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

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	932			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.

SR-IS04-14-15-07C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194S

Matrix: (soil/water) SOIL Lab Sample ID: S 707194-010-013-1/1

Level: (low/med) Date Recieved: 07/31/2007

% Solids: 82.9

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

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	3.8			P

Color Before: Grey Clarity Before: NA Texture: Medium

Color After: Yellow Clarity After: Clear Artifacts: NA

Comments:

USEPA - CLP

2A - IN

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194S

Initial Calibration Verification Source: AR, ST.

Continuing Calibration Verification Source: H.P./ ~~AB.ST.~~ RA 8-15

Concentration Units: UG/L

	Initial Calibration Verification			Continuing Calibration Verification					
Analyte	True	Found	%R (1)	True	Found	%R (1)	Found	%R (2)	M
Lead	400.0	410.42	103	500.0	499.09	100	513.97	103	P

(1) Control Limits : Mercury 80-120; Other Metals 90-110; Cyanide 85-115

USEPA - CLP

2A - IN

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194S

Initial Calibration Verification Source:

Continuing Calibration Verification Source: H.P./ ~~AB ST~~ RA8-15

Concentration Units: UG/L

	Initial Calibration Verification			Continuing Calibration Verification					
Analyte	True	Found	%R (1)	True	Found	%R (1)	Found	%R (2)	M
Lead				500.0	510.93	102	508.24	102	P

(1) Control Limits : Mercury 80-120; Other Metals 90-110; Cyanide 85-115

USEPA - CLP

2A - IN

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194S

Initial Calibration Verification Source:

Continuing Calibration Verification Source: H.P./ AB ST: R3 8-15

Concentration Units: UG/L

	Initial Calibration Verification			Continuing Calibration Verification					
Analyte	True	Found	%R (1)	True	Found	%R (1)	Found	%R (2)	M
Lead				500.0	509.44	102	506.84	101	P

(1) Control Limits : Mercury 80-120; Other Metals 90-110; Cyanide 85-115

USEPA - CLP

2A - IN

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194S

Initial Calibration Verification Source:

Continuing Calibration Verification Source: H.P./ AB STD 8-15

Concentration Units: UG/L

	Initial Calibration Verification			Continuing Calibration Verification					
Analyte	True	Found	%R (1)	True	Found	%R (1)	Found	%R (2)	M
Lead				500.0	506.14	101	512.81	103	P

(1) Control Limits : Mercury 80-120; Other Metals 90-110; Cyanide 85-115

USEPA - CLP

2A - IN

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194S

Initial Calibration Verification Source:

Continuing Calibration Verification Source: H.P./ AB ST RA 8-15

Concentration Units: UG/L

	Initial Calibration Verification			Continuing Calibration Verification					
Analyte	True	Found	%R (1)	True	Found	%R (1)	Found	%R (2)	M
Lead				500.0	501.84	100	512.49	102	P

(1) Control Limits : Mercury 80-120; Other Metals 90-110; Cyanide 85-115

USEPA - CLP

2B - IN

CRQL CHECK STANDARD

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194S

CRQL Check Standard Source: H.P./ ~~AB-ST~~ 8-15

Concentration Units: UG/L

Analyte	CRQL Check Standard				
	Initial			Final	
	True	Found	%R (1)	Found	%R (1)
Lead	10.0	10.88	109	10.25	103

(1) Control Limits: 70-130 with the following exceptions:

ICP-AES - Antimony, Lead, and Thallium: 51-150

ICP-MS - Cobalt, Manganese, and Zinc: 51-150

* If applicable, enter the concentration qualifier 'J' or 'U' after the concentration in these columns (e.g., 0.20U for Mercury).

USEPA - CLP

2B - IN

CRQL CHECK STANDARD

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194S

CRQL Check Standard Source: H.P./ ~~AB-ST~~ RAS-L

Concentration Units: UG/L

Analyte	CRQL Check Standard				
	Initial			Final	
	True	Found	%R (1)	Found	%R (1)
Lead	10.0	10.10	101	11.52	115

(1) Control Limits: 70-130 with the following exceptions:

ICP-AES - Antimony, Lead, and Thallium: 51-150

ICP-MS - Cobalt, Manganese, and Zinc: 51-150

* If applicable, enter the concentration qualifier 'J' or 'U' after the concentration in these columns (e.g., 0.20U for Mercury).

USEPA - CLP

2B - IN

CRQL CHECK STANDARD

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194S

CRQL Check Standard Source: H.P./ AB ST RAS-15

Concentration Units: UG/L

Analyte	CRQL Check Standard				
	Initial			Final	
	True	Found	%R (1)	Found	%R (1)
Lead	10.0	10.27	103		

(1) Control Limits: 70-130 with the following exceptions:

ICP-AES - Antimony, Lead, and Thallium: 51-150

ICP-MS - Cobalt, Manganese, and Zinc: 51-150

* If applicable, enter the concentration qualifier 'J' or 'U' after the concentration in these columns (e.g., 0.20U for Mercury).

USEPA - CLP

3 - IN

BLANKS

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194S

Preparation Blank Matrix (soil/water): Soil

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		
		C	1	C	2	C	3	C		C	M
Lead	1.60	U	1.60	U	1.60	U	-1.64	J	0.27	J	P

USEPA - CLP

3 - IN

BLANKS

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194S

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or mg/kg):

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		
		C	1	C	2	C	3	C		C	M
Lead			1.60	U	1.60	U	1.60	U			P

USEPA - CLP

3 - IN

BLANKS

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194S

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or mg/kg):

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		
		C	1	C	2	C	3	C		C	M
Lead			1.60	U	1.60	U	1.60	U			P

USEPA - CLP

3 - IN

BLANKS

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194S

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or mg/kg):

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		
		C	1	C	2	C	3	C		C	M
Lead			1.60	U							P

USEPA - CLP

4A - IN

ICP-AES INTERFERENCE CHECK SAMPLE

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194S

ICP-AES Instrument ID: S5.3V ICS Source: H.P. / AB. ST.

Concentration Units: ug/L

Analyte	True		Initial Found				Final Found			
	Sol. A	Sol. B	Sol. A	%R	Sol. AB	%R	Sol. A	%R	Sol. AB	%R
Lead		50	-4.3		46.7	93	-2.6		47.3	95

USEPA - CLP

4A - IN

ICP-AES INTERFERENCE CHECK SAMPLE

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194S

ICP-AES Instrument ID: S5.3V ICS Source: H.P. /AB.ST.

Concentration Units: ug/L

Analyte	True		Initial Found				Final Found			
	Sol. A	Sol. B	Sol. A	%R	Sol. AB	%R	Sol. A	%R	Sol. AB	%R
Lead		50	-1.3		49.1	98	-1.4		48.8	98

USEPA - CLP

4A - IN

ICP-AES INTERFERENCE CHECK SAMPLE

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194S

ICP-AES Instrument ID: S5.3V ICS Source: H.P./AB, ST

Concentration Units: ug/L

Analyte	True		Initial Found				Final Found			
	Sol. A	Sol. B	Sol. A	%R	Sol. AB	%R	Sol. A	%R	Sol. AB	%R
Lead		50	-3.1		49.6	99				

USEPA - CLP

5A - IN

MATRIX SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

GC-ISO9-0-1-07C MS

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194S

Matrix: (soil/water) Soil Level: (low/med)

% Solids for Sample: 83.6

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

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Lead	75 - 125	6.02	3.06	3.37	88		P

Comments:

USEPA - CLP

6 - IN

DUPLICATES

EPA SAMPLE NO.

GC-ISO9-0-1-07C MD

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194S

Matrix: (soil/water) Soil Level: (low/med)

% Solids for Sample: 83.6 % Solids for Duplicate: 83.6

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Lead	20	3.06		2.91		5		P

Comments:

USEPA - CLP

7 - IN

LABORATORY CONTROL SAMPLE

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194S

Solid LCS Source: H.P./ ~~AB ST~~ 8-15

Aqueous LCS Source:

Analyte	Aqueous (ug/L)			Solid (mg/kg)					
	True	Found	%R	True	Found	C	Limits		%R
Lead				100.00	97.23		80	120	97

USEPA - CLP

8 - IN

ICP-AES and ICP-MS SERIAL DILUTIONS

EPA SAMPLE NO.

GC-ISO9-0-1-07C

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194S

Matrix: (soil/water) Water Level: (low/med)

Concentration Units: ug/L

Analyte	Initial Sample Result (I) C		Serial Dilution Result (S) C		% Difference	Q	M
Lead	33.48		29.90	J	11		P

USEPA - CLP

9 - IN

METHOD DETECTION LIMITS (ANNUALLY)

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194S

Instrument Type: P Instrument ID: S5.3V Date: 12/22/2006

Preparation Method: CS1

Concentration Units (ug/L or mg/kg): ug/L

Analyte	Wavelength /Mass	CRQL	MDL
Lead	220.353	10	1.6
~~Lead~~	~~220.353~~	~~10~~	~~1.6~~

RA 8-15

Comments:

GPL - Maryland Laboratory

Metals Data Reporting Form

Inter-Element Correction Factors VACUUM **SDG:** 7071145

Instrument: ICPST **Date of IEC's:** 7/27/2007

Interfering Element	Wavelength /Mass	Correction Factor(s)
Aluminum	308.215	Cd(0.000003), Mn(0.000003), Pb(0.000329), Sn(-0.000012), Pb2(-0.000235)
Barium	493.409	Co(0.000079)
Chromium	267.716	As(-0.006931), Co(-0.000172), Sb(0.008954), Ti(0.000219)
Cobalt	228.616	B(0.00924), Fe(0.072657), Tl(0.003155)
Copper	324.753	Zn(0.000602)
Iron	271.441	Al(-0.000069), B(-0.000074), Ba(0.000004), Cd(0.000112), Cr(-0.00002), Cu(-0.000003), Mg(0.000187), Mn(-0.000107), Mo(-0.000008), Na(-0.001083), Pb(0.000072), Sb(0.000017), Se(0.00001), Sn(0.000011), Tl(-0.00004), V(0.000027), Zn(0.000083), Pb2(0.000051), Se2(-0.000247)
Magnesium	279.078	Fe(-0.000217)
Manganese	257.61	Ag(0.00003), Al(0.000222), Cr(0.000158), Mg(-0.000743), Mo(-0.00006), Pb(0.000075), Se(0.000306), Sn(-0.000093), Tl(-0.004333), Pb2(0.000090), Se2(0.000292
Molybdenum	202.03	Al(0.010738), Cu(0.000355), Mn(-0.000276), Pb(-0.00048), Sb(-0.014276), V(-0.000815), Pb2(-0.000668)
Titanium	334.941	Be(-0.000161), Co(0.001989), Cr(-0.000018), Na(-0.011855), Pb(0.0002), Sn(0.000202), V(0.000692), Pb2(-0.000475)
Vanadium	292.402	Al(0.020047), Be(0.000416), Fe(0.007412), Tl(0.001774)
Zinc	206.2	Na(0.024688)

USEPA - CLP

11 - IN

ICP-AES and ICP-MS LINEAR DYNAMIC RANGES (QUARTERLY)

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194S

Instrument ID: S5.3V Date: 06/20/2007

Analyte	Integ. Time (sec.)	Concentration (ug/L)	M
Lead		21000	P
~~Lead~~	~~2~~	~~22000~~	~~P~~

Re IP/Aug/Rec

Comments:

USEPA - CLP

12 - IN

PREPARATION LOG

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194S

Preparation Method: ~~GS1~~ ILM05.2-HS2 5-15

EPA Sample No.	Preparation Date	Weight (grams)	Volume (mL)
BLK99734	08/14/2007	1	100
BKS99734	08/14/2007	1	100
GC-ISO9-0-1-07C	08/14/2007	1.31	100
GC-ISO9-0-1-07C MD	08/14/2007	1.37	100
GC-ISO9-0-1-07C MS	08/14/2007	1.42	100
SR-IS01-0-1-07C	08/14/2007	1.39	100
SR-IS01-17-18-07C	08/14/2007	1.33	100
SR-IS02-0-1-07C	08/14/2007	1.36	100
SR-IS02-15-17-07C	08/14/2007	1.48	100
SR-IS03-0-1-07C	08/14/2007	1.38	100
SR-IS03-15-16-07C	08/14/2007	1.37	100
SR-IS04-0-1-07C	08/14/2007	1.38	100
SR-IS04-14-15-07C	08/14/2007	1.41	100

USEPA - CLP

13 - IN

ANALYSIS RUN LOG

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194S

ICP-MS Instrument ID: S5.3V Analysis Method: CLP-5.3

Start Date: 08/14/2007 End Date: 08/15/2007

EPA Sample No.	DF	Time	Analytes		
			PB	1/PB	
STD0	1	12:18	√	X	RA
STD1	1	12:26	√	X	8-A
STD2	1	12:35	√	X	
IVICV	1	12:50	X		
ZZZZZ	1	13:03			
BIICB	1	13:11	X		
CVCCV1	1	13:19	X		
BCCCB1	1	13:28	X		
ZZZZZ	1	13:39			
CRCRI	1	13:47	X		
IAICSA	1	13:56	X		
IBICSAB	1	14:04	X		
ZZZZZ	1	14:13			
CVCCV2	1	14:27	X		
BCCCB2	1	14:38	X		
ZZZZZ	1	14:54			
ZZZZZ	1	15:02			
ZZZZZ	1	15:11			
ZZZZZ	1	15:19			
ZZZZZ	1	15:27			
ZZZZZ	1	15:36			
ZZZZZ	10	15:44			
ZZZZZ	1	15:52			
ZZZZZ	1	16:01			
ZZZZZ	1	16:09			
CVCCV3	1	16:17	X		
BCCCB3	1	16:26	X		
ZZZZZ	1	16:34			
ZZZZZ	2	16:42			
ZZZZZ	2	16:51			
ZZZZZ	5	16:59			
ZZZZZ	2	17:08			
ZZZZZ	1	17:26			
ZZZZZ	1	17:34			

USEPA - CLP

13 - IN

ANALYSIS RUN LOG

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194S

ICP-MS Instrument ID: S5.3V Analysis Method: CLP-5.3

Start Date: 08/14/2007 End Date: 08/15/2007

EPA Sample No.	DF	Time	Analytes	
			PB	1/PB
CRCRI	1	17:42	X	
IAICSA	1	17:51	X	
IBICSAB	1	17:59	X	
CVCCV4	1	18:07	X	
BCCCB4	1	18:16	X	
ZZZZZ	1	18:24		
ZZZZZ	1	18:33		
ZZZZZ	1	18:41		
ZZZZZ	1	18:56		
ZZZZZ	5	19:04		
ZZZZZ	1	19:13		
ZZZZZ	1	19:21		
ZZZZZ	1	19:29		
ZZZZZ	1	19:38		
ZZZZZ	1	19:46		
CVCCV5	1	19:54	X	
BCCCB5	1	20:03	X	
ZZZZZ	1	20:11		
ZZZZZ	1	20:19		
ZZZZZ	1	20:28		
ZZZZZ	1	20:36		
BLK99734	1	20:45	X	
BKS99734	1	20:53	X	
S 707158-001-013-1/1	1	21:01	X	
CRCRI	1	21:15	X	
IAICSA	1	21:24	X	
IBICSAB	1	21:32	X	
CVCCV6	1	21:40	X	
BCCCB6	1	21:49	X	
D 707158-001-013-1/1	1	21:57	X	
SP707158-001-013-1/1	1	22:05	X	
ZZZZZ	1	22:14		
SE707158-001-013-1/1	5	22:22	X	
ZZZZZ	1	22:31		

USEPA - CLP

13 - IN

ANALYSIS RUN LOG

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194S

ICP-MS Instrument ID: S5.3V Analysis Method: CLP-5.3

Start Date: 08/14/2007 End Date: 08/15/2007

EPA Sample No.	DF	Time	Analytes																													
			PB	1/PB																												
ZZZZZ	1	22:39																														
ZZZZZ	1	22:47																														
ZZZZZ	1	22:56																														
ZZZZZ	1	23:04																														
ZZZZZ	1	23:12																														
CVCCV7	1	23:21	X																													
BCCCB7	1	23:29	X																													
ZZZZZ	1	23:37																														
S 707194-003-006-1/1	1	23:46	X																													
S 707194-004-007-1/1	1	23:54	X																													
S 707194-005-008-1/1	1	0:03	X																													
S 707194-006-009-1/1	1	0:11	X																													
S 707194-007-010-1/1	1	0:19	X																													
S 707194-008-011-1/1	1	0:28	X																													
CRCRII	1	0:42	X																													
IAICSAI	1	0:50	X																													
IBICSABI	1	0:58	X																													
CVCCV8	1	1:07	X																													
BCCCB8	1	1:15	X																													
S 707194-009-012-1/1	1	1:24	X																													
S 707194-010-013-1/1	1	1:32	X																													
ZZZZZ	1	1:46																														
ZZZZZ	1	1:54																														
ZZZZZ	1	2:03																														
ZZZZZ	1	2:11																														
ZZZZZ	1	2:19																														
ZZZZZ	1	2:28																														
ZZZZZ	1	2:36																														
ZZZZZ	5	2:45																														
CVCCV9	1	2:53	X																													
BCCCB9	1	3:01	X																													
ZZZZZ	1	3:10																														
ZZZZZ	1	3:18																														
ZZZZZ	1	3:26																														

USEPA - CLP

13 - IN

ANALYSIS RUN LOG

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 707194S

ICP-MS Instrument ID: S5.3V Analysis Method: CLP-5.3

Start Date: 08/14/2007 End Date: 08/15/2007

EPA Sample No.	DF	Time	Analytes																												
			PB	1/PB																											
ZZZZZ	1	3:35																													
ZZZZZ	1	3:49																													
ZZZZZ	1	3:57																													
ZZZZZ	1	4:06																													
CRCRII	1	4:20	X																												
IAICSAI	1	4:28	X																												
IBICSABI	1	4:36	X																												
CVCCV10	1	4:45	X																												
BCCCB10	1	4:53	X																												
ZZZZZ	1	5:02																													
ZZZZZ	1	5:10																													
ZZZZZ	1	5:18																													
ZZZZZ	1	5:27																													
ZZZZZ	5	5:35																													
ZZZZZ	1	5:43																													
ZZZZZ	1	5:52																													
ZZZZZ	1	6:00																													
ZZZZZ	1	6:09																													
ZZZZZ	1	6:17																													
ZZZZZ	1	6:25																													
ZZZZZ	1	6:34																													
ZZZZZ	1	6:42																													
ZZZZZ	1	6:50																													
ZZZZZ	1	6:59																													
ZZZZZ	1	7:07																													
ZZZZZ	1	7:16																													
ZZZZZ	1	7:24																													
ZZZZZ	1	7:32																													
ZZZZZ	1	7:41																													
ZZZZZ	1	7:49																													
ZZZZZ	1	7:57																													
ZZZZZ	1	8:06																													
ZZZZZ	1	8:14																													
ZZZZZ	1	8:23																													

SUBCONTRACT DATA

GPL Laboratories

DATA CHEM LABORATORIES
A Sorenson Company

FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

S077200F

Date Printed.....: 08-AUG-07 15:57

Client Name.....: GPL Laboratories
Client Ref Number....: 707194
Sampling Site.....: MILCON Area CTO-169
Release Number.....: 707194

Date Received.....: 03-AUG-07 00:00

Client Sample Name: 707194001003|GR-TW02-07C
DCL Sample Name...: 07E03996
DCL Report Group..: 07E-0684-01

Matrix.....: WATER
Date Sampled.....: 28-JUL-07 18:00
Reporting Units...: ug/L
Report Basis.....: [X] As Received [ ] Dried

DCL Preparation Group: Not Applicable
Date Prepared.....: 06-AUG-07 00:00
Preparation Method...: 6850
Aliquot Weight/Volume: Not Applicable
Net Weight/Volume....: Not Required

DCL Analysis Group: G077500T
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
[X] Primary
[ ] Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	PQL
Perchlorate	07-AUG-07 05:37	0.112	ND		U	1	0.200

DATA CHEM LABORATORIES
A Sorenson Company

FORM B (TYPE I)
SINGLE METHOD ANALYSES

QUALITY CONTROL DATA SHEET
LABORATORY CONTROL SAMPLE (LCS)

S0772016

Client Name.....: GPL Laboratories
Release Number.....: 707194

Matrix.....: WATER
Reporting Units.....: ug/L

DCL Preparation Group: Not Applicable
Date Prepared.....: 06-AUG-07 00:00
Preparation Method...: 6850

DCL Sample Name...: QC-258879-1
Date Printed.....: 08-AUG-07 15:57

DCL Analysis Group: G077500T
Analysis Method...: CLO4-LC/MS
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: XP-RPPX250
☒ Primary
☐ Confirmation

QC Limit Type.....: Method

Analytical Results

Analyte	Date Analyzed	Target	Result	Percent Recovery	QC Limits	QC Flag
Perchlorate	06-AUG-07 23:23	1.00	0.919	91.9	85.0/115.	

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Phone (801) 266-7700 Web Page: www.datachem.com
FAX (801) 268-9992 E-mail: lab@datachem.com

07

DATA CHEM LABORATORIES
A Sorenson Company

FORM C (TYPE I)
SINGLE METHOD ANALYSES

QUALITY CONTROL DATA SHEET
BLANK SAMPLE

S0772015

Client Name.....: GPL Laboratories
Release Number.....: 707194

Matrix.....: WATER
Reporting Units.....: ug/L

DCL Preparation Group: Not Applicable
Date Prepared.....: 06-AUG-07 00:00
Preparation Method...: 6850

DCL Sample Name...: BL-258879-1
Date Printed.....: 08-AUG-07 15:57

DCL Analysis Group: G077500T
Analysis Method...: 6850
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
[X] Primary
[ ] Confirmation

QC Limit Type.....: Method

Analytical Results

Analyte	Date Analyzed	Result	MDL	CRDL
Perchlorate	06-AUG-07 23:04	ND	0.112	0.200

DATA CHEM LABORATORIES
A Sorenson Company

FORM F (TYPE I)
SINGLE METHOD ANALYSES

QUALITY CONTROL DATA SHEET
MATRIX SPIKE SAMPLE
MATRIX SPIKE DUPLICATE SAMPLE

S076Q00S

Client Name.....: GPL Laboratories
Release Number.....: 707194

Matrix.....: WATER
Reporting Units.....: ug/L

DCL Preparation Group: Not Applicable
Date Prepared.....: 06-AUG-07 00:00
Preparation Method...: 6850

DCL Sample Name...: 07E03742MS
Date Printed.....: 08-AUG-07 15:57

DCL Analysis Group: G077500T
Analysis Method...: CL04-LC/MS
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: RP-RPPX250
☒ Primary
☐ Confirmation

QC Limit Type.....: Method

Analytical Results

Analyte	Date Analyzed	Sample Result	Spiked Result	Spike Added	Percent Recovery	QC Limits	QC Flag
Perchlorate	07-AUG-07 01:21	1.28	6.82	5.00	111.	80.0/120.	

S076Q00T

DCL Sample Name...: 07E03742MSD

Analytical Results

Analyte	Date Analyzed	Duplicate Result	Percent Recovery	Mean	Range	RPD	QC Limits	QC Flag
Perchlorate	07-AUG-07 01:41	6.97	114.	6.90	0.153	2.2	0.00/15.0	

DATA CHEM LABORATORIES
A Sorenson Company

FORM F (TYPE I)
SINGLE METHOD ANALYSES

QUALITY CONTROL DATA SHEET
MATRIX SPIKE SAMPLE
MATRIX SPIKE DUPLICATE SAMPLE

S076T07G

Client Name.....: GPL Laboratories
Release Number.....: 707194

Matrix.....: WATER
Reporting Units.....: ug/L

DCL Preparation Group: Not Applicable
Date Prepared.....: 06-AUG-07 00:00
Preparation Method...: 6850

DCL Sample Name...: 07E03877MS
Date Printed.....: 08-AUG-07 15:57

DCL Analysis Group: G077500T
Analysis Method...: CL04-LC/MS
Instrument Type...: LC/MS
Instrument ID.....: LCMS02
Column Type.....: KP-RPPX250
[X] Primary
[ ] Confirmation

QC Limit Type.....: Method

Analytical Results

Analyte	Date Analyzed	Sample Result	Spiked Result	Spike Added	Percent Recovery	QC Limits	QC Flag
Percblorate	07-AUG-07 04:38	ND	4.75	5.00	94.9	80.0/120.	

S076T07H

DCL Sample Name...: 07E03877MSD

Analytical Results

Analyte	Date Analyzed	Duplicate Result	Percent Recovery	Mean	Range	RPD	QC Limits	QC Flag
Perchlorate	07-AUG-07 04:58	4.79	95.9	4.77	0.0475	1.0	0.00/15.0	

GPL LABORATORIES, LLLP

7210A Corporate Court
Frederick, MD 21703
(301) 694-5310
Fax (301) 620-0731

Contract #/Billing Reference

1 of 2 Pgs.

Project: 356052	Turnaround Time													
Client: CH2M HILL	# of Containers	2	2	1	1	2								
Send Results To: Ryan VanOosten	Container Type	HDPE	AG	HDPE	CG	HDPE								
Address: 5700 Cleveland Street, Suite 101	Preservative Used	HNO3	—	—	—	HNO3								
Virginia Beach VA 23462	Type of Analysis	Metals (Total + Dissolved) Explosives Residues	Perchlorates	Lead	Lead (TCLP + Dissolved)									
Phone: 757-671-8311 ext. 456														

Sample ID#	Date Sampled	Time Sampled	Sample Matrix	Sampler's Initials											Lab Cooler No.	CLIENT COMMENTS
SR-TW02-07C	7-28-07	1800	GW	GS, MW	X	X	X									
SR-I501-01-07C	7-28-07	1420	S	LS, MW				X								
SR-I501-17.5-07C	7-28-07	1450	S	LS, MW				X								
SR-I502-01-07C	7-28-07	1545	S	LS, MW				X								
SR-I502-15.5-07C	7-28-07	1905	S	LS, MW				X								
SR-I503-01-07C	7-28-07	1925	S	LS, MW				X								
SR-I503-15.5-07C	7-28-07	1950	S	LS, MW				X								
SR-I504-01-07C	7-28-07	2015	S	LS, MW				X								
SR-I504-14.5-07C	7-28-07	2040	S	LS, MW				X								
SR-TW01-07C	7-29-07	0840	GW						X							
SR-TW02-07C	7-28-07	2030	GW						X							
SR-TW03-07C	7-29-07	0655	GW						X							

Relinquished By:	Date/Time	Received By:	Relinquished By:	Received for Laboratory By:	Date/Time
	7-29-07 1100			J. Pelz	7-31-07 0845
Relinquished By:	Date/Time	Received By:	Date/Time / Shipper:	Airbill No.:	
Relinquished By:	Date/Time	Received By:	Lab Comments: # Dissolved Metals - Field Filtered	Temp: 3.5°	

G.P. W.O. 707194

Printed: 8/15/07
Version 2.5.0 (Build 0)

GPL Laboratories, LLLP
7210A Corporate CT, Frederick, MD 21703
Tel. (301)694-5310 Fax (301)620-0731
www.gplab.com

GPL LABORATORIES, LLLP

7210A Corporate Court
Frederick, MD 21703
(301) 694-5310
Fax (301) 620-0731

Contract #/Billing Reference

2 of 2 Pgs.

Project:	356 057
Client:	CH2MHill
Send Results To:	Ryan VanCosten
Address:	5700 Cleveland Street, Suite 101
	Virginia Beach, VA 23462
Phone:	757.671.8311 ext. 456

Turnaround Time

# of Containers: 2

Container Type: HDPE

Preservative Used: HNO3

Type of Analysis: Lead (Total & Dissolved)

Lab Cooler No.

Sample ID#	Date Sampled	Time Sampled	Sample Matrix	Sampler's Initials	CLIENT COMMENTS
SB-TW09-02L	7-29-07	0755	GW	LSmW	
Temp Blank			GW		

Relinquished By:	Date/Time	Received By:	Relinquished By:	Received for Laboratory By:	Date/Time
	7-29-07 1105				
Relinquished By:	Date/Time	Received By:	Date/Time / Shipper:	Airbill No.:	
Relinquished By:	Date/Time	Received By:	Lab Comments: *Dissolved - Field Filtered	Temp:	

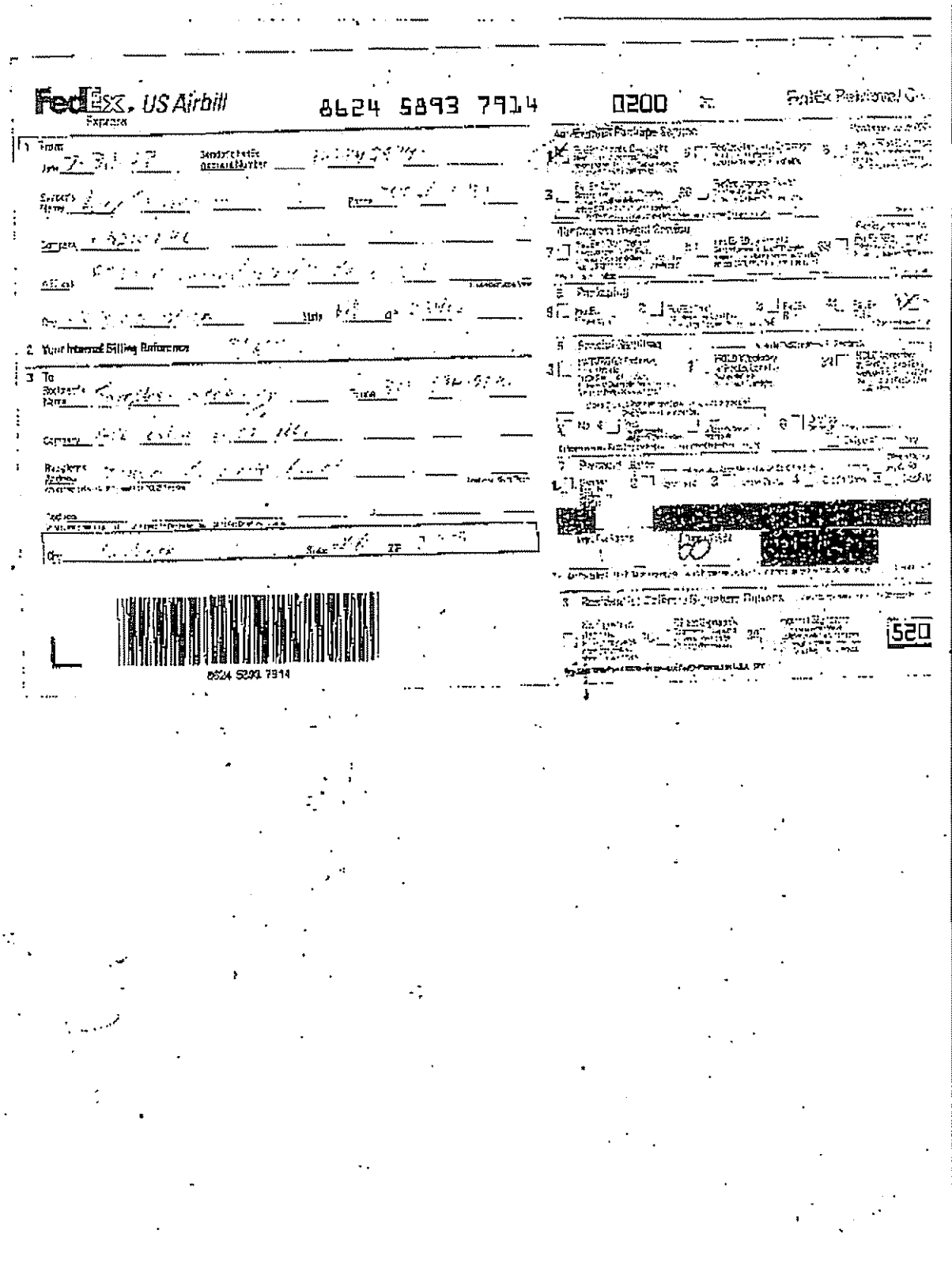
G.P. W.O. 707194

GPL Laboratories, LLLP
7210A Corporate CT, Frederick, MD 21703
Tel. (301)694-5310 Fax (301)620-0731

Chain of Custody

CH2M Hill Inc

SDG: 707194



GPL Laboratories, LLLP

Figure 3
Sample Preservation Check Documentation Form

Work Order: 707194

Parameter / Preservative / pH Value	Metals (*A) HNO3 <2	Phenol H2SO4 <2	TPH: O&G H2SO4 <2	Classical Parameters H2SO4 <2	Cyanide NaOH >12	Sulfide NaOH >9	Radiology (*B) HNO3 <2	Other Preservative Adjustment	Reagent Lot #	See checklist for comments
GPL ID										
GR-TW02-070	✓							Y / N		
SR-TW01-070	✓							Y / N		
SR-TW02-070	✓							Y / N		
SR-TW03-070	✓							Y / N		
								Y / N		
								Y / N		
								Y / N		
								Y / N		
								Y / N		
								Y / N		
								Y / N		
								Y / N		
								Y / N		
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								Y / N		
								Y / N		
								Y / N		
								Y / N		
								Y / N		
								Y / N		
								Y / N		
								Y / N		

(*A). If drinking water metals sample is acidified in the laboratory.
the TIME that the samples are acidified MUST be recorded in order to meet the 16 hour hold time requirement.
(*B). If Radiochemistry sample is acidified in the laboratory,
the TIME that the samples are acidified MUST be recorded in order to meet the 16 hour hold time requirement.
Tritium analysis should NOT be preserved.

Sample Preservation Check Performed By: L J. Pol 2 Date: 7-31-07

SOP F2V18

GPL Laboratories, LLLP

Figure 1
SAMPLE RECEIPT CHECKLIST

W.O. No: 707194
Client Name: Chem Hill
Date Received: 7-31-07
Time Received: 0945
Received By: Steve
Carrier Name: Fed-ex
Prepared (Logged In) By: [illegible] 7-31-07 (Initials, Date)
Project:
Site:
VOA Holding Blank I.D. No:

	YES	NO
Air Bill/Manifest Present?	✓	
No. 8624 5893 7914		
Shipping Container in Good Condition?	✓	
Custody Seals Present on Shipping Container?	✓	
Condition: Broken		
Intact-not dated or signed		
Intact-dated and signed	✓	
Usage of Tamper Evident Tape		✓
Chain-of-Custody Present?	✓	
Chain-of-Custody Agrees with Sample Labels?	✓	
Chain-of-Custody Signed?	✓	
Packing Present in Shipping Container?	✓	
Type of Packing: Bubble wrap/ice		
Custody seals on Sample Bottles?		✓
Condition: Good ____ Broken ____		
Total Number of Sample Bottles: 21		
Total Number of Samples: 5		
Samples Intact?	✓	
Sufficient Sample Volume for Indicated Test?	✓	

	YES	NO
Trip Blanks: No. of Sets		✓
Field Blanks: No. of Sets		✓
Equip. Blank: No. of Sets		✓
Field Duplicate: No. of Sets		✓
MS/MSD: No of Sets		✓
VOA Vials Have Zero Headspace?	✓	
If no, smaller or greater than a Green Pea (see comments)		
Preservatives Added to Sample?	✓	
pH Check Required?		✓
Performed By?		✓
Ice Present in Shipping Container?	✓	

Container #	Temp.	Container #	Temp.
1	3°		

Project Manager Contacted?
Name: Virginia
Date Contacted: 7-31-07

Any NO response must be detailed in the comments section below. If items are not applicable to particular samples or contracts, they should be marked N/A

COMMENTS:

Checklist Completed By: [signature] J. Pack
Date: 7-31-07

SOP No: R2V1a

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

Eight water samples were received on 07/16/2008. 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.

Explosives/Propellants

Four water samples were extracted and analyzed for explosive compounds by SW846 method 8330.

Extraction and analysis holding times were met.

All surrogate recoveries were within QC limits.

A second column confirmation was performed for all positive results.

Matrix spike and matrix spike duplicate analyses were performed on sample MR03-TW04-08C. Percent recovery of 4-nitrotoluen was above the QC limits in the MSD. The RPD was also above the QC limits for this compound.

A laboratory control sample was extracted and analyzed along with the batch. All recoveries were within QC limits.

Manual integration was performed on some data files, when automatic integration provided by the software was inappropriate.

Metals

Eight water samples were analyzed for TAL metals by ILMO5.3 methods.

Duplicate and matrix spike analyses were performed on samples MR03-TW04-08C and MW03-TW04-08C FIL for all required analytes. A serial dilution was also performed for all required ICP analytes. The matrix spike on sample MR03-TW04-08C was outside of the control limits for aluminum; all associated data were flagged with an "N". A post digestion analytical spike was performed on sample MR03-TW04-08C with recoveries within 5% of the true values for aluminum. The serial dilution performed o sample MR03-TW04-08C was outside of the control limits for magnesium, manganese, and sodium; all associated data were flagged with an "E".

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 exception of those mentioned above.

Subcontract Analysis

Four water samples were subcontracted for Perchlorate analysis by SW846 method 6850.
See the case narrative in the subcontractor section of this package for details of that analysis.

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-TW04-08C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807096

Matrix: (soil/water) WATER Lab Sample ID: S 807096-001-004-1/3

Level: (low/med) Date Recieved: 07/16/2008

% 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	1120		N	P
7440-36-0	Antimony	60.0	U		P
7440-38-2	Arsenic	3.3	J		P
7440-39-3	Barium	56.0	J		P
7441-41-7	Beryllium	0.16	J		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	2850	J		P
7440-47-3	Chromium	3.8	J		P
7440-48-4	Cobalt	1.7	J		P
7440-50-8	Copper	2.7	J		P
7439-89-6	Iron	5740			P
7439-92-1	Lead	10.0	U		P
7439-95-4	Magnesium	1820	J	E	P
7439-96-5	Manganese	166		E	P
7439-97-6	Mercury	1.1			CV
7440-02-0	Nickel	28.8	J		P
7440-09-7	Potassium	1630	J		P
7782-49-2	Selenium	35.0	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	11500		E	P
7440-28-0	Thallium	25.0	U		P
7440-62-2	Vanadium	50.0	U		P
7440-66-6	Zinc	33.1	J		P

Color Before: BLACK Clarity Before: NA Texture: FINE

Color After: YELLOW Clarity After: CLEAR Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-TW04-08C FIL

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807096

Matrix: (soil/water) WATER Lab Sample ID: S 807096-002-013-1/3

Level: (low/med) Date Recieved: 07/16/2008

% 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	122	J	N	P
7440-36-0	Antimony	60.0	U		P
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	64.0	J		P
7441-41-7	Beryllium	0.22	J		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	1490	J		P
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	50.0	U		P
7440-50-8	Copper	2.8	J		P
7439-89-6	Iron	5690			P
7439-92-1	Lead	10.0	U		P
7439-95-4	Magnesium	1740	J	E	P
7439-96-5	Manganese	88.2		E	P
7440-02-0	Nickel	12.4	J		P
7439-97-6	Mercury	0.18	J		CV
7440-09-7	Potassium	1450	J		P
7782-49-2	Selenium	35.0	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	10900		E	P
7440-28-0	Thallium	25.0	U		P
7440-62-2	Vanadium	50.0	U		P
7440-66-6	Zinc	13.8	J		P

Color Before: BLACK Clarity Before: NA Texture: FINE

Color After: YELLOW Clarity After: CLEAR Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-TW03-08C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807096

Matrix: (soil/water) WATER Lab Sample ID: S 807096-003-019-1/1

Level: (low/med) Date Recieved: 07/16/2008

% 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	630		N	P
7440-36-0	Antimony	60.0	U		P
7440-38-2	Arsenic	6.3	J		P
7440-39-3	Barium	50.2	J		P
7441-41-7	Beryllium	0.16	J		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	1950	J		P
7440-47-3	Chromium	2.3	J		P
7440-48-4	Cobalt	50.0	U		P
7440-50-8	Copper	3.7	J		P
7439-89-6	Iron	11300			P
7439-92-1	Lead	10.0	U		P
7439-95-4	Magnesium	4720	J	E	P
7439-96-5	Manganese	108		E	P
7440-02-0	Nickel	11.0	J		P
7439-97-6	Mercury	0.22			CV
7440-09-7	Potassium	1410	J		P
7782-49-2	Selenium	35.0	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	23300		E	P
7440-28-0	Thallium	25.0	U		P
7440-62-2	Vanadium	50.0	U		P
7440-66-6	Zinc	12.2	J		P

Color Before: BLACK Clarity Before: NA Texture: FINE

Color After: YELLOW Clarity After: CLEAR Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-TW03-08C FIL

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807096

Matrix: (soil/water) WATER Lab Sample ID: S 807096-004-028-1/1

Level: (low/med) Date Recieved: 07/16/2008

% 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	281		N	P
7440-36-0	Antimony	60.0	U		P
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	44.3	J		P
7441-41-7	Beryllium	0.10	J		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	2020	J		P
7440-47-3	Chromium	1.4	J		P
7440-48-4	Cobalt	50.0	U		P
7440-50-8	Copper	2.6	J		P
7439-89-6	Iron	11600			P
7439-92-1	Lead	10.0	U		P
7439-95-4	Magnesium	4290	J	E	P
7439-96-5	Manganese	123		E	P
7440-02-0	Nickel	10.3	J		P
7439-97-6	Mercury	0.15	J		CV
7440-09-7	Potassium	1440	J		P
7782-49-2	Selenium	35.0	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	22000		E	P
7440-28-0	Thallium	25.0	U		P
7440-62-2	Vanadium	50.0	U		P
7440-66-6	Zinc	12.3	J		P

Color Before: BLACK Clarity Before: NA Texture: FINE

Color After: YELLOW Clarity After: CLEAR Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-TW03D-08C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807096

Matrix: (soil/water) WATER Lab Sample ID: S 807096-005-020-1/1

Level: (low/med) Date Recieved: 07/16/2008

% 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	640		N	P
7440-36-0	Antimony	60.0	U		P
7440-38-2	Arsenic	2.6	J		P
7440-39-3	Barium	50.7	J		P
7441-41-7	Beryllium	0.098	J		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	1950	J		P
7440-47-3	Chromium	2.4	J		P
7440-48-4	Cobalt	50.0	U		P
7440-50-8	Copper	3.0	J		P
7439-89-6	Iron	11400			P
7439-92-1	Lead	10.0	U		P
7439-95-4	Magnesium	4720	J	E	P
7439-96-5	Manganese	109		E	P
7440-02-0	Nickel	9.1	J		P
7439-97-6	Mercury	0.16	J		CV
7440-09-7	Potassium	1390	J		P
7782-49-2	Selenium	35.0	U		P
7440-22-4	Silver	1.3	J		P
7440-23-5	Sodium	23200		E	P
7440-28-0	Thallium	25.0	U		P
7440-62-2	Vanadium	50.0	U		P
7440-66-6	Zinc	12.8	J		P

Color Before: BLACK Clarity Before: NA Texture: FINE

Color After: YELLOW Clarity After: CLEAR Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-TW03D-08C FIL

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807096

Matrix: (soil/water) WATER Lab Sample ID: S 807096-006-029-1/1

Level: (low/med) Date Recieved: 07/16/2008

% 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	210		N	P
7440-36-0	Antimony	60.0	U		P
7440-38-2	Arsenic	2.4	J		P
7440-39-3	Barium	52.1	J		P
7441-41-7	Beryllium	0.12	J		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	1900	J		P
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	50.0	U		P
7440-50-8	Copper	2.6	J		P
7439-89-6	Iron	11200			P
7439-92-1	Lead	10.0	U		P
7439-95-4	Magnesium	4750	J	E	P
7439-96-5	Manganese	107		E	P
7440-02-0	Nickel	10.8	J		P
7439-97-6	Mercury	0.11	J		CV
7440-09-7	Potassium	1300	J		P
7782-49-2	Selenium	35.0	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	23500		E	P
7440-28-0	Thallium	25.0	U		P
7440-62-2	Vanadium	50.0	U		P
7440-66-6	Zinc	11.2	J		P

Color Before: BLACK Clarity Before: NA Texture: FINE

Color After: YELLOW Clarity After: CLEAR Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-TW02-08C

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807096

Matrix: (soil/water) WATER Lab Sample ID: S 807096-007-021-1/1

Level: (low/med) Date Recieved: 07/16/2008

% 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	4880		N	P
7440-36-0	Antimony	60.0	U		P
7440-38-2	Arsenic	4.8	J		P
7440-39-3	Barium	37.4	J		P
7441-41-7	Beryllium	0.15	J		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	4510	J		P
7440-47-3	Chromium	18.8			P
7440-48-4	Cobalt	50.0	U		P
7440-50-8	Copper	6.3	J		P
7439-89-6	Iron	34500			P
7439-92-1	Lead	2.0	J		P
7439-95-4	Magnesium	2380	J	E	P
7439-96-5	Manganese	272		E	P
7439-97-6	Mercury	0.24			CV
7440-02-0	Nickel	6.4	J		P
7440-09-7	Potassium	1340	J		P
7782-49-2	Selenium	35.0	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	10900		E	P
7440-28-0	Thallium	25.0	U		P
7440-62-2	Vanadium	6.2	J		P
7440-66-6	Zinc	27.3	J		P

Color Before: BLACK Clarity Before: NA Texture: FINE

Color After: YELLOW Clarity After: CLEAR Artifacts: NA

Comments:

USEPA - CLP

1A - IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MR03-TW02-08C FIL

Lab Name: GPL LABORATORIES, LL Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807096

Matrix: (soil/water) WATER Lab Sample ID: S 807096-008-030-1/1

Level: (low/med) Date Recieved: 07/16/2008

% 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	121	J	N	P
7440-36-0	Antimony	60.0	U		P
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	21.3	J		P
7441-41-7	Beryllium	0.060	J		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	3160	J		P
7440-47-3	Chromium	1.1	J		P
7440-48-4	Cobalt	50.0	U		P
7440-50-8	Copper	2.0	J		P
7439-89-6	Iron	13500			P
7439-92-1	Lead	10.0	U		P
7439-95-4	Magnesium	1930	J	E	P
7439-96-5	Manganese	125		E	P
7439-97-6	Mercury	0.38			CV
7440-02-0	Nickel	40.0	U		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	10900		E	P
7440-28-0	Thallium	25.0	U		P
7440-62-2	Vanadium	50.0	U		P
7440-66-6	Zinc	4.7	J		P

Color Before: BLACK Clarity Before: NA Texture: FINE

Color After: YELLOW Clarity After: CLEAR Artifacts: NA

Comments:

USEPA - CLP

2A - IN

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807096

Initial Calibration Verification Source:

Continuing Calibration Verification Source: H.P./ AB.ST.

Concentration Units: UG/L

	Initial Calibration Verification			Continuing Calibration Verification					
Analyte	True	Found	%R (1)	True	Found	%R (1)	Found	%R (2)	M
Aluminum	5000.0	5052.99	101	50000.0	49479.84	99	48269.78	97	P
Antimony	400.0	396.26	99	500.0	495.69	99	486.80	97	P
Arsenic	400.0	417.24	104	500.0	500.92	100	486.20	97	P
Barium	400.0	413.52	103	500.0	488.10	98	478.75	96	P
Beryllium	40.0	40.23	101	50.0	49.14	98	47.84	96	P
Cadmium	40.0	39.60	99	500.0	485.28	97	457.95	92	P
Calcium	5000.0	5036.66	101	100000.0	101291.30	101	96542.95	97	P
Chromium	400.0	400.64	100	500.0	494.95	99	487.48	97	P
Cobalt	400.0	421.36	105	500.0	496.46	99	492.69	99	P
Copper	400.0	390.73	98	500.0	495.63	99	487.92	98	P
Iron	5000.0	5006.21	100	50000.0	49390.37	99	47520.75	95	P
Lead	400.0	405.35	101	500.0	490.14	98	486.05	97	P
Magnesium	5000.0	5000.79	100	100000.0	101832.59	102	97273.33	97	P
Manganese	400.0	405.90	101	500.0	499.24	100	496.44	99	P
Mercury	3.0	3.02	101	5.0	5.09	102	5.23	105	CV
Nickel	400.0	420.17	105	500.0	484.95	97	468.90	94	P
Potassium	5000.0	4991.62	100	25000.0	23567.94	94	23116.48	92	P
Selenium	400.0	410.64	103	500.0	499.41	100	490.90	98	P
Silver	400.0	396.49	99	500.0	502.52	101	497.80	100	P
Sodium	10000.0	9438.42	94	100000.0	97113.06	97	92601.17	93	P
Thallium	400.0	389.86	97	500.0	493.01	99	477.24	95	P
Vanadium	400.0	400.77	100	500.0	495.56	99	490.05	98	P
Zinc	400.0	418.99	105	500.0	500.92	100	492.16	98	P

(1) Control Limits : Mercury 80-120; Other Metals 90-110; Cyanide 85-115

USEPA - CLP

2A - IN

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807096

Initial Calibration Verification Source:

Continuing Calibration Verification Source: H.P./ AB.ST.

Concentration Units: UG/L

	Initial Calibration Verification			Continuing Calibration Verification					
Analyte	True	Found	%R (1)	True	Found	%R (1)	Found	%R (2)	M
Aluminum				50000.0	47715.21	95	48229.31	96	P
Antimony				500.0	491.66	98	479.82	96	P
Arsenic				500.0	487.19	97	489.31	98	P
Barium				500.0	477.95	96	470.46	94	P
Beryllium				50.0	47.93	96	48.21	96	P
Cadmium				500.0	458.75	92	456.13	91	P
Calcium				100000.0	96909.05	97	96936.19	97	P
Chromium				500.0	489.95	98	493.93	99	P
Cobalt				500.0	490.61	98	497.14	99	P
Copper				500.0	485.36	97	486.56	97	P
Iron				50000.0	47342.81	95	47953.31	96	P
Lead				500.0	484.46	97	489.71	98	P
Magnesium				100000.0	97089.69	97	98470.42	98	P
Manganese				500.0	493.59	99	499.99	100	P
Mercury				5.0	5.33	107	5.34	107	CV
Nickel				500.0	474.35	95	467.81	94	P
Potassium				25000.0	22713.70	91	22787.89	91	P
Selenium				500.0	482.77	97	493.75	99	P
Silver				500.0	495.71	99	499.01	100	P
Sodium				100000.0	92306.25	92	90979.79	91	P
Thallium				500.0	482.21	96	479.80	96	P
Vanadium				500.0	489.99	98	494.04	99	P
Zinc				500.0	489.47	98	493.52	99	P

(1) Control Limits : Mercury 80-120; Other Metals 90-110; Cyanide 85-115

USEPA - CLP

2A - IN

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807096

Initial Calibration Verification Source:

Continuing Calibration Verification Source: H.P./ AB.ST.

Concentration Units: UG/L

	Initial Calibration Verification			Continuing Calibration Verification					
Analyte	True	Found	%R (1)	True	Found	%R (1)	Found	%R (2)	M
Aluminum				50000.0	47859.13	96	47845.47	96	P
Antimony				500.0	486.51	97	501.42	100	P
Arsenic				500.0	496.57	99	501.14	100	P
Barium				500.0	474.71	95	494.86	99	P
Beryllium				50.0	48.69	97	49.69	99	P
Cadmium				500.0	454.51	91	475.14	95	P
Calcium				100000.0	96637.22	97	97753.44	98	P
Chromium				500.0	494.83	99	501.82	100	P
Cobalt				500.0	499.28	100	503.37	101	P
Copper				500.0	490.13	98	498.08	100	P
Iron				50000.0	47606.34	95	48188.76	96	P
Lead				500.0	486.01	97	495.84	99	P
Magnesium				100000.0	97732.15	98	99491.33	99	P
Manganese				500.0	502.56	101	504.72	101	P
Mercury				5.0	5.47	109	5.42	108	CV
Nickel				500.0	469.13	94	494.79	99	P
Potassium				25000.0	22521.17	90	22777.93	91	P
Selenium				500.0	498.51	100	505.03	101	P
Silver				500.0	503.07	101	504.74	101	P
Sodium				100000.0	90263.70	90	93743.58	94	P
Thallium				500.0	482.70	97	496.20	99	P
Vanadium				500.0	496.42	99	500.28	100	P
Zinc				500.0	498.90	100	507.22	101	P

(1) Control Limits : Mercury 80-120; Other Metals 90-110; Cyanide 85-115

USEPA - CLP

2A - IN

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807096

Initial Calibration Verification Source:

Continuing Calibration Verification Source: H.P./ AB.ST.

Concentration Units: UG/L

	Initial Calibration Verification			Continuing Calibration Verification					
Analyte	True	Found	%R (1)	True	Found	%R (1)	Found	%R (2)	M
Aluminum				50000.0	48472.54	97	50787.34	102	P
Antimony				500.0	476.76	95	496.29	99	P
Arsenic				500.0	499.43	100	502.27	100	P
Barium				500.0	469.01	94	479.45	96	P
Beryllium				50.0	48.72	97	49.78	100	P
Cadmium				500.0	450.90	90	479.95	96	P
Calcium				100000.0	97489.01	97	102680.67	103	P
Chromium				500.0	496.71	99	507.21	101	P
Cobalt				500.0	501.68	100	510.16	102	P
Copper				500.0	491.97	98	502.51	101	P
Iron				50000.0	48053.50	96	50645.31	101	P
Lead				500.0	489.24	98	492.96	99	P
Magnesium				100000.0	98494.43	98	104620.94	105	P
Manganese				500.0	505.84	101	512.11	102	P
Mercury				5.0	5.27	105			CV
Nickel				500.0	467.28	93	475.87	95	P
Potassium				25000.0	23052.95	92	23846.64	95	P
Selenium				500.0	497.97	100	503.43	101	P
Silver				500.0	503.46	101	514.34	103	P
Sodium				100000.0	89995.45	90	96088.31	96	P
Thallium				500.0	482.70	97	488.27	98	P
Vanadium				500.0	500.14	100	508.10	102	P
Zinc				500.0	500.29	100	506.97	101	P

(1) Control Limits : Mercury 80-120; Other Metals 90-110; Cyanide 85-115

USEPA - CLP

2B - IN

CRQL CHECK STANDARD

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807096

CRQL Check Standard Source: H.P.

Concentration Units: UG/L

Analyte	CRQL Check Standard				
	Initial			Final	
	True	Found	%R (1)	Found	%R (1)
Aluminum	200.0	195.94	98	241.17	121
Antimony	60.0	47.66	79	60.34	101
Arsenic	10.0	10.18	102	11.22	112
Barium	200.0	198.74	99	194.04	97
Beryllium	5.0	4.95	99	4.97	99
Cadmium	5.0	4.93	99	5.09	102
Calcium	5000.0	5031.37	101	5119.33	102
Chromium	10.0	7.85	78	10.03	100
Cobalt	50.0	46.75	94	50.20	100
Copper	25.0	24.07	96	26.22	105
Iron	100.0	106.38	106	122.70	123
Lead	10.0	10.07	101	9.99	100
Magnesium	5000.0	5057.83	101	5142.05	103
Manganese	15.0	15.14	101	15.50	103
Mercury	0.2	0.25	125	0.26	129
Nickel	40.0	37.80	94	37.22	93
Potassium	5000.0	4779.67	96	4868.73	97
Selenium	35.0	35.46	101	33.50	96
Silver	10.0	9.78	98	11.50	115
Sodium	5000.0	4044.38	81	4860.33	97
Thallium	25.0	22.65	91	20.90	84
Vanadium	50.0	49.71	99	50.78	102
Zinc	60.0	60.20	100	60.80	101

(1) Control Limits: 70-130 with the following exceptions:
ICP-AES - Antimony, Lead, and Thallium: 51-150
ICP-MS - Cobalt, Manganese, and Zinc: 51-150

* If applicable, enter the concentration qualifier 'J' or 'U' after the concentration in these columns (e.g., 0.20U for Mercury).

USEPA - CLP

2B - IN

CRQL CHECK STANDARD

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807096

CRQL Check Standard Source: H.P.

Concentration Units: UG/L

Analyte	CRQL Check Standard				
	Initial			Final	
	True	Found	%R (1)	Found	%R (1)
Aluminum	200.0	234.28	117	280.70	140
Antimony	60.0	55.43	92	59.89	100
Arsenic	10.0	10.45	105	11.66	117
Barium	200.0	193.52	97	194.87	97
Beryllium	5.0	4.90	98	5.01	100
Cadmium	5.0	4.90	98	4.99	100
Calcium	5000.0	5045.47	101	5114.07	102
Chromium	10.0	9.76	98	9.75	98
Cobalt	50.0	49.22	98	49.81	100
Copper	25.0	25.11	100	26.17	105
Iron	100.0	113.06	113	123.00	123
Lead	10.0	9.59	96	9.36	94
Magnesium	5000.0	5045.44	101	5163.84	103
Manganese	15.0	15.22	101	15.47	103
Mercury	0.2	0.19	94	0.24	118
Nickel	40.0	37.33	93	40.50	101
Potassium	5000.0	4775.70	96	4819.03	96
Selenium	35.0	35.99	103	37.69	108
Silver	10.0	11.00	110	12.45	125
Sodium	5000.0	4442.50	89	4681.85	94
Thallium	25.0	19.78	79	25.15	101
Vanadium	50.0	50.57	101	51.64	103
Zinc	60.0	60.17	100	61.99	103

(1) Control Limits: 70-130 with the following exceptions:
ICP-AES - Antimony, Lead, and Thallium: 51-150
ICP-MS - Cobalt, Manganese, and Zinc: 51-150

* If applicable, enter the concentration qualifier 'J' or 'U' after the concentration in these columns (e.g., 0.20U for Mercury).

USEPA - CLP

3 - IN

BLANKS

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807096

Preparation Blank Matrix (soil/water): Water

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		
		C	1	C	2	C	3	C		C	M
Aluminum	200.000	U	200.000	U	200.000	U	200.000	U	71.681	J	P
Antimony	-4.359	J	60.000	U	-7.879	J	-8.565	J	-6.082	J	P
Arsenic	10.000	U	2.562	J	3.730	J	10.000	U	10.000	U	P
Barium	200.000	U	200.000	U	200.000	U	-0.271	J	4.645	J	P
Beryllium	5.000	U	5.000	U	0.069	J	5.000	U	0.096	J	P
Cadmium	5.000	U	5.000	U	5.000	U	5.000	U	0.415	J	P
Calcium	-96.741	J	-76.452	J	-71.709	J	-86.480	J	73.085	J	P
Chromium	-1.271	J	10.000	U	-1.126	J	-2.055	J	-1.023	J	P
Cobalt	-1.296	J	50.000	U	50.000	U	-1.937	J	-1.276	J	P
Copper	25.000	U	1.487	J	1.721	J	25.000	U	2.957	J	P
Iron	18.030	J	21.463	J	25.200	J	100.000	U	48.729	J	P
Lead	10.000	U	10.000	U	10.000	U	10.000	U	1.647	J	P
Magnesium	45.105	J	49.554	J	52.357	J	44.320	J	84.384	J	P
Manganese	15.000	U	15.000	U	15.000	U	15.000	U	15.000	U	P
Mercury	-0.025	J	-0.025	J	0.035	J	0.200	U	0.066	J	CV
Nickel	40.000	U	40.000	U	40.000	U	40.000	U	40.000	U	P
Potassium	-25.986	J	5000.000	U	5000.000	U	5000.000	U	5000.000	U	P
Selenium	35.000	U	35.000	U	35.000	U	35.000	U	35.000	U	P
Silver	10.000	U	10.000	U	10.000	U	10.000	U	10.000	U	P
Sodium	-405.114	J	955.278	J	5000.000	U	5000.000	U	5000.000	U	P
Thallium	25.000	U	25.000	U	25.000	U	-5.075	J	7.012	J	P
Vanadium	50.000	U	50.000	U	50.000	U	50.000	U	50.000	U	P
Zinc	60.000	U	60.000	U	60.000	U	60.000	U	2.337	J	P

USEPA - CLP

3 - IN

BLANKS

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807096

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or mg/kg):

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		
		C	1	C	2	C	3	C		C	M
Aluminum			145.719	J	48.789	J	58.746	J			P
Antimony			-3.323	J	60.000	U	60.000	U			P
Arsenic			2.190	J	5.001	J	3.192	J			P
Barium			200.000	U	200.000	U	200.000	U			P
Beryllium			0.133	J	5.000	U	0.068	J			P
Cadmium			5.000	U	0.423	J	5.000	U			P
Calcium			5000.000	U	5000.000	U	5000.000	U			P
Chromium			1.163	J	10.000	U	10.000	U			P
Cobalt			50.000	U	50.000	U	50.000	U			P
Copper			1.636	J	1.613	J	1.654	J			P
Iron			78.700	J	33.334	J	47.948	J			P
Lead			10.000	U	10.000	U	10.000	U			P
Magnesium			163.778	J	71.491	J	88.274	J			P
Manganese			15.000	U	15.000	U	15.000	U			P
Mercury			0.200	U	0.089	J	0.056	J			CV
Nickel			40.000	U	40.000	U	40.000	U			P
Potassium			5000.000	U	5000.000	U	5000.000	U			P
Selenium			35.000	U	35.000	U	2.410	J			P
Silver			10.000	U	10.000	U	10.000	U			P
Sodium			612.986	J	594.615	J	412.194	J			P
Thallium			25.000	U	25.000	U	5.148	J			P
Vanadium			50.000	U	50.000	U	50.000	U			P
Zinc			60.000	U	60.000	U	60.000	U			P

USEPA - CLP

3 - IN

BLANKS

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807096

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or mg/kg):

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		
		C	1	C	2	C	3	C		C	M
Aluminum			69.413	J	200.000	U					P
Antimony			60.000	U	-7.465	J					P
Arsenic			10.000	U	10.000	U					P
Barium			-0.236	J	-0.608	J					P
Beryllium			0.065	J	5.000	U					P
Cadmium			5.000	U	-0.409	J					P
Calcium			5000.000	U	5000.000	U					P
Chromium			10.000	U	-2.280	J					P
Cobalt			50.000	U	-2.183	J					P
Copper			1.439	J	25.000	U					P
Iron			29.702	J	-19.853	J					P
Lead			10.000	U	10.000	U					P
Magnesium			87.811	J	28.505	J					P
Manganese			15.000	U	15.000	U					P
Mercury			-0.057	J							CV
Nickel			40.000	U	-1.488	J					P
Potassium			5000.000	U	5000.000	U					P
Selenium			35.000	U	35.000	U					P
Silver			10.000	U	-1.836	J					P
Sodium			5000.000	U	-405.122	J					P
Thallium			25.000	U	-8.678	J					P
Vanadium			50.000	U	50.000	U					P
Zinc			60.000	U	60.000	U					P

USEPA - CLP

4A - IN

ICP-AES INTERFERENCE CHECK SAMPLE

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807096

ICP-AES Instrument ID: W5.3V ICS Source: H.P.

Concentration Units: ug/L

Analyte	True		Initial Found				Final Found			
	Sol. A	Sol. B	Sol. A	%R	Sol. AB	%R	Sol. A	%R	Sol. AB	%R
Aluminum	500000	500000	484000	97	482000	96	483000	97	488000	98
Antimony		600	2.6		605	101	5.3		592	99
Arsenic		100	-0.64		103	103	4.9		98.1	98
Barium		500	1.6		499	100	1.3		491	98
Beryllium		500	-0.12		471	94	-0.11		478	96
Cadmium		1000	1.5		935	93	1.4		929	93
Calcium	500000	500000	513000	103	496000	99	516000	103	512000	102
Chromium		500	-1.3		476	95	-0.63		487	97
Cobalt		500	1.2		476	95	1.3		483	97
Copper		500	2.0		511	102	1.6		505	101
Iron	200000	200000	194000	97	192000	96	195000	98	195000	97
Lead		50	4.4		49.5	99	0.14		51.3	103
Magnesium	500000	500000	520000	104	512000	102	524000	105	521000	104
Manganese		500	15.0		502	100	15.2		512	102
Nickel		1000	4.0		939	94	3.0		930	93
Potassium		5000	19.2		5500	110	9.6		5340	107
Selenium		50	0.64		47.5	95	1.2		47.8	96
Silver		200	-0.45		205	103	0.50		206	103
Sodium		10000	299		9270	93	186		8900	89
Thallium		100	-5.3		91.1	91	-3.1		91.8	92
Vanadium		500	-1.5		484	97	-1.3		493	99
Zinc		1000	1.5		999	100	1.3		1000	100

USEPA - CLP

4A - IN

ICP-AES INTERFERENCE CHECK SAMPLE

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807096

ICP-AES Instrument ID: W5.3V ICS Source: H.P.

Concentration Units: ug/L

Analyte	True		Initial Found				Final Found			
	Sol. A	Sol. B	Sol. A	%R	Sol. AB	%R	Sol. A	%R	Sol. AB	%R
Aluminum	500000	500000	485000	97	480000	96	488000	98	483000	97
Antimony		600	2.3		598	100	-3.6		595	99
Arsenic		100	1.7		100	100	3.6		102	102
Barium		500	1.4		490	98	1.7		492	98
Beryllium		500	-0.12		479	96	-0.099		483	97
Cadmium		1000	1.8		938	94	1.8		934	93
Calcium	500000	500000	516000	103	509000	102	521000	104	510000	102
Chromium		500	-0.83		487	97	-0.73		488	98
Cobalt		500	1.2		483	97	0.71		482	96
Copper		500	0.68		504	101	2.7		512	102
Iron	200000	200000	196000	98	194000	97	197000	99	195000	97
Lead		50	2.6		49.5	99	3.7		51.3	103
Magnesium		500000			522000	104			521000	104
Manganese		500	14.9		510	102	15.6		510	102
Nickel		1000	2.7		940	94	4.4		937	94
Potassium		5000	4.6		5310	106	3.0		5230	105
Selenium		50	1.7		49.1	98	-1.8		50.2	100
Silver		200	0.93		206	103	0.57		207	104
Sodium		10000	14.4		9310	93	-140		9180	92
Thallium		100	-8		88.3	88	-2.4		92.9	93
Vanadium		500	-1.8		490	98	-1.1		493	99
Zinc		1000	1.7		1000	100	2.5		1010	101

USEPA - CLP

5A - IN

MATRIX SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MR03-TW04-08C FIL MS

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807096

Matrix: (soil/water) Water Level: (low/med)

% Solids for Sample: 0.0

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum	75 - 125	2380.4233		122.3651	J	2000.0000	113	N	P
Antimony	75 - 125	109.0651		60.0000	U	100.0000	109		P
Arsenic	75 - 125	43.1522		10.0000	U	40.0000	108		P
Barium	75 - 125	2099.3298		64.0303	J	2000.0000	102		P
Beryllium	75 - 125	51.9376		0.2159	J	50.0000	103		P
Cadmium	75 - 125	51.2417		5.0000	U	50.0000	102		P
Chromium	75 - 125	209.7167		10.0000	U	200.0000	105		P
Cobalt	75 - 125	521.9395		50.0000	U	500.0000	104		P
Copper	75 - 125	258.5670		2.7744	J	250.0000	102		P
Iron	-	6902.6421		5690.4893		1000.0000	121		P
Lead	75 - 125	21.4298		10.0000	U	20.0000	107		P
Manganese	75 - 125	613.9778		88.2243		500.0000	105	E	P
Mercury	75 - 125	1.0500		0.1770	J	1.0000	87		CV
Nickel	75 - 125	522.5082		12.3952	J	500.0000	102		P
Potassium	75 - 125	6517.9775		1448.1389	J	5000.0000	101		P
Selenium	75 - 125	50.5615		35.0000	U	50.0000	101		P
Silver	75 - 125	53.4314		10.0000	U	50.0000	107		P
Sodium	75 - 125	16276.7627		10940.8301		5000.0000	107	E	P
Thallium	75 - 125	49.8828		25.0000	U	50.0000	100		P
Vanadium	75 - 125	523.2104		50.0000	U	500.0000	105		P
Zinc	75 - 125	534.1990		13.7841	J	500.0000	104		P

Comments:

USEPA - CLP

5A - IN

EPA SAMPLE NO.

MATRIX SPIKE SAMPLE RECOVERY

MR03-TW04-08C MS

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807096

Matrix: (soil/water) Water Level: (low/med)

% Solids for Sample: 0.0

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum	75 - 125	4076.9653		1116.2987		2000.0000	148	N	P
Antimony	75 - 125	93.8129		60.0000	U	100.0000	94		P
Arsenic	75 - 125	42.5901		3.3353	J	40.0000	98		P
Barium	75 - 125	1999.8872		56.0341	J	2000.0000	97		P
Beryllium	75 - 125	50.3047		0.1587	J	50.0000	100		P
Cadmium	75 - 125	48.4138		5.0000	U	50.0000	97		P
Chromium	75 - 125	204.5423		3.7816	J	200.0000	100		P
Cobalt	75 - 125	508.1104		1.7022	J	500.0000	101		P
Copper	75 - 125	252.9446		2.6968	J	250.0000	100		P
Iron	-	6884.7041		5735.7612		1000.0000	115		P
Lead	75 - 125	20.0674		10.0000	U	20.0000	100		P
Manganese	75 - 125	678.9236		166.3495		500.0000	103	E	P
Mercury	75 - 125	1.1900		0.1840	J	1.0000	101		CV
Nickel	75 - 125	505.9346		28.8027	J	500.0000	95		P
Potassium	75 - 125	6490.4087		1631.5852	J	5000.0000	97		P
Selenium	75 - 125	51.1750		35.0000	U	50.0000	102		P
Silver	75 - 125	51.0662		10.0000	U	50.0000	102		P
Sodium	75 - 125	15400.9297		11477.4160		5000.0000	78	E	P
Thallium	75 - 125	46.0581		25.0000	U	50.0000	92		P
Vanadium	75 - 125	512.6667		50.0000	U	500.0000	103		P
Zinc	75 - 125	536.1709		33.1419	J	500.0000	101		P

Comments:

USEPA - CLP

5B - IN

MATRIX SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MR03-TW04-08C

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807096

Matrix: (soil/water) Water Level: (low/med)

% Solids for Sample: 0.0

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum	75 - 125	2099.6147		1116.2987		1000	98		P
Potassium	75 - 125	6383.9546		1631.5852	J	5000	95		P
Sodium	75 - 125	15969.0605		11477.4160		5000	90		P

Comments:

USEPA - CLP

6 - IN

DUPLICATES

EPA SAMPLE NO.

MR03-TW04-08C FIL MD

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807096

Matrix: (soil/water) Water Level: (low/med)

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		122.3651	J	76.6712	J	46	N	P
Antimony		60.0000	U	60.0000	U			P
Arsenic		10.0000	U	2.8764	J	200		P
Barium		64.0303	J	65.1716	J	2		P
Beryllium		0.2159	J	0.2109	J	- 2		P
Cadmium		5.0000	U	5.0000	U			P
Calcium		1490.4576	J	1443.6154	J	3		P
Chromium		10.0000	U	10.0000	U			P
Cobalt		50.0000	U	50.0000	U			P
Copper		2.7744	J	1.9186	J	36		P
Iron	20	5690.4893		5767.1221		1		P
Lead		10.0000	U	10.0000	U			P
Magnesium		1744.9778	J	1749.7927	J	0	E	P
Manganese	20	88.2243		90.1626		2	E	P
Mercury		0.1770	J	0.1960	J	10		CV
Nickel		12.3952	J	13.0805	J	5		P
Potassium		1448.1389	J	1502.8949	J	4		P
Selenium		35.0000	U	35.0000	U			P
Silver		10.0000	U	10.0000	U			P
Sodium	5000	10940.8301		11289.2109		3	E	P
Thallium		25.0000	U	25.0000	U			P
Vanadium		50.0000	U	50.0000	U			P
Zinc		13.7841	J	12.0104	J	14		P

Comments:

USEPA - CLP

6 - IN

DUPLICATES

EPA SAMPLE NO.

MR03-TW04-08C MD

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807096

Matrix: (soil/water) Water Level: (low/med)

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum	20	1116.2987		1015.6642		9	N	P
Antimony		60.0000	U	60.0000	U			P
Arsenic		3.3353	J	7.2207	J	74		P
Barium		56.0341	J	56.5396	J	1		P
Beryllium		0.1587	J	0.2288	J	36		P
Cadmium		5.0000	U	0.5314	J	200		P
Calcium		2848.9243	J	2817.8193	J	1		P
Chromium		3.7816	J	2.1389	J	55		P
Cobalt		1.7022	J	50.0000	U	200		P
Copper		2.6968	J	5.5343	J	69		P
Iron	20	5735.7612		5775.1094		1		P
Lead		10.0000	U	2.5647	J	200		P
Magnesium		1823.5969	J	1829.8660	J	0	E	P
Manganese	20	166.3495		166.5400		0	E	P
Mercury		0.1840	J	0.0850	J	74		CV
Nickel		28.8027	J	30.8233	J	7		P
Potassium		1631.5852	J	1623.0574	J	1		P
Selenium		35.0000	U	35.0000	U			P
Silver		10.0000	U	10.0000	U			P
Sodium	5000	11477.4160		11173.1895		3	E	P
Thallium		25.0000	U	6.9259	J	200		P
Vanadium		50.0000	U	3.3240	J	200		P
Zinc		33.1419	J	32.4590	J	2		P

Comments:

USEPA - CLP

7 - IN

LABORATORY CONTROL SAMPLE

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807096

Solid LCS Source:

Aqueous LCS Source: H.P./ AB.ST.

Analyte	Aqueous (ug/L)			Solid (mg/kg)					
	True	Found	%R	True	Found	C	Limits		%R
Aluminum	5000.0	5281.72	106				80	120	
Antimony	50.0	53.75	108				80	120	
Arsenic	50.0	52.03	104				80	120	
Barium	500.0	493.02	99				80	120	
Beryllium	25.0	25.36	101				80	120	
Cadmium	50.0	49.50	99				80	120	
Calcium	5000.0	5282.80	106				80	120	
Chromium	250.0	258.55	103				80	120	
Cobalt	250.0	257.09	103				80	120	
Copper	250.0	253.53	101				80	120	
Iron	5000.0	5180.06	104				80	120	
Lead	500.0	505.76	101				80	120	
Magnesium	5000.0	5291.49	106				80	120	
Manganese	500.0	519.23	104				80	120	
Mercury	1.0	1.19	119				80	120	
Nickel	250.0	245.48	98				80	120	
Potassium	5000.0	5025.23	101				80	120	
Selenium	50.0	52.62	105				80	120	
Silver	50.0	53.18	106				80	120	
Sodium	5000.0	4983.64	100				80	120	
Thallium	50.0	43.42	87				80	120	
Vanadium	250.0	260.45	104				80	120	
Zinc	500.0	514.07	103				80	120	

USEPA - CLP

8 - IN

EPA SAMPLE NO.

ICP-AES and ICP-MS SERIAL DILUTIONS

MR03-TW04-08C

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807096

Matrix: (soil/water) Water Level: (low/med)

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	1116.2987		1474.7293		32		P
Antimony	60.0000	U	300.0000	U			P
Arsenic	3.3353	J	15.1812	J	355		P
Barium	56.0341	J	60.9552	J	9		P
Beryllium	0.1587	J	0.2754	J	74		P
Cadmium	5.0000	U	25.0000	U			P
Calcium	2848.9243	J	3078.9810	J	8		P
Chromium	3.7816	J	5.1061	J	35		P
Cobalt	1.7022	J	250.0000	U	100		P
Copper	2.6968	J	8.7053	J	223		P
Iron	5735.7612		6096.3226		6		P
Lead	10.0000	U	50.0000	U			P
Magnesium	1823.5969	J	2117.1307	J	16	E	P
Manganese	166.3495		190.7825		15	E	P
Nickel	28.8027	J	32.4316	J	13		P
Potassium	1631.5852	J	1758.0347	J	8		P
Selenium	35.0000	U	175.0000	U			P
Silver	10.0000	U	5.8236	J			P
Sodium	11477.4160		13571.0815	J	18	E	P
Thallium	25.0000	U	125.0000	U			P
Vanadium	50.0000	U	250.0000	U			P
Zinc	33.1419	J	42.6475	J	29		P

USEPA - CLP

8 - IN

ICP-AES and ICP-MS SERIAL DILUTIONS

EPA SAMPLE NO.

MR03-TW04-08C FIL

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807096

Matrix: (soil/water) Water Level: (low/med)

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	122.3651	J	300.8089	J	146		P
Antimony	60.0000	U	300.0000	U			P
Arsenic	10.0000	U	50.0000	U			P
Barium	64.0303	J	66.9925	J	5		P
Beryllium	0.2159	J	0.4282	J	98		P
Cadmium	5.0000	U	25.0000	U			P
Calcium	1490.4576	J	1128.0398	J	24		P
Chromium	10.0000	U	50.0000	U			P
Cobalt	50.0000	U	250.0000	U			P
Copper	2.7744	J	9.3824	J	238		P
Iron	5690.4893		5819.6704		2		P
Lead	10.0000	U	50.0000	U			P
Magnesium	1744.9778	J	1888.3997	J	8		P
Manganese	88.2243		88.8131		1		P
Nickel	12.3952	J	9.5545	J	23		P
Potassium	1448.1389	J	1411.6869	J	3		P
Selenium	35.0000	U	175.0000	U			P
Silver	10.0000	U	50.0000	U			P
Sodium	10940.8301		11882.8369	J	9		P
Thallium	25.0000	U	125.0000	U			P
Vanadium	50.0000	U	250.0000	U			P
Zinc	13.7841	J	15.3502	J	11		P

USEPA - CLP

9 - IN

METHOD DETECTION LIMITS (ANNUALLY)

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807096

Instrument Type: P Instrument ID: W5.3V Date: 01/09/2008

Preparation Method: ILMO5.2_HW

Concentration Units (ug/L or mg/kg): ug/L

Analyte	Wavelength /Mass	CRQL	MDL
Aluminum	308.215	200	29
Antimony	206.838	60	3.3
Arsenic	189.042	10	2
Barium	493.409	200	0.2
Beryllium	313.042	5	0.055
Cadmium	226.502	5	0.35
Calcium	317.933	5000	54.7
Chromium	267.716	10	0.98
Cobalt	228.616	50	1.1
Copper	324.753	25	1.4
Iron	271.441	100	12.1
Lead	220.353	10	1.6
Magnesium	279.078	5000	9.2
Manganese	344.199	15	0.63
Mercury	253.7		
Nickel	231.604	40	1.4
Potassium	766.491	5000	23.2
Selenium	196.026	35	2
Silver	328.068	10	1.1
Sodium	330.232	5000	217
Thallium	190.864	25	4.5
Vanadium	292.402	50	2.8
Zinc	213.856	60	2.3

Comments:

USEPA - CLP

9 - IN

METHOD DETECTION LIMITS (ANNUALLY)

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807096

Instrument Type: CV Instrument ID: 7470 Date: 01/30/2008

Preparation Method: ILMO5.2_HG

Concentration Units (ug/L or mg/kg): ug/L

Analyte	Wavelength /Mass	CRQL	MDL
Aluminum	308.215		
Antimony	206.838		
Arsenic	189.042		
Barium	493.409		
Beryllium	313.042		
Cadmium	226.502		
Calcium	317.933		
Chromium	267.716		
Cobalt	228.616		
Copper	324.753		
Iron	271.441		
Lead	220.353		
Magnesium	279.078		
Manganese	257.61		
Mercury	253.7	0.2	0.019
Nickel	231.604		
Potassium	766.491		
Selenium	196.026		
Silver	328.068		
Sodium	330.232		
Thallium	190.864		
Vanadium	292.402		
Zinc	213.856		

Comments:

USEPA - CLP

11 - IN

ICP-AES and ICP-MS LINEAR DYNAMIC RANGES (QUARTERLY)

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807096

Instrument ID: W5.3V Date: 05/05/2008

Analyte	Integ. Time (sec.)	Concentration (ug/L)	M
Aluminum		525000	P
Antimony		5250	P
Arsenic		2100	P
Barium		10500	P
Beryllium		525	P
Cadmium		2100	P
Calcium		525000	P
Chromium		10500	P
Cobalt		10500	P
Copper		10500	P
Iron		525000	P
Lead		21000	P
Magnesium		525000	P
Manganese		10500	P
Nickel		7875	P
Potassium		52500	P
Selenium		2100	P
Silver		1050	P
Sodium		525000	P
Thallium		2100	P
Vanadium		10500	P
Zinc		3150	P

Comments:

USEPA - CLP

12 - IN

PREPARATION LOG

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807096

Preparation Method: ILMO5.2_HW2

EPA Sample No.	Preparation Date	Weight (grams)	Volume (mL)
BLK105120	08/01/2008	100	100
BKS105120	08/01/2008	100	100
MR03-TW02-08C	08/01/2008	100	100
MR03-TW02-08C FIL	08/01/2008	100	100
MR03-TW03-08C	08/01/2008	100	100
MR03-TW03-08C FIL	08/01/2008	100	100
MR03-TW03D-08C	08/01/2008	100	100
MR03-TW03D-08C FIL	08/01/2008	100	100
MR03-TW04-08C	08/01/2008	100	100
MR03-TW04-08C FIL	08/01/2008	100	100
MR03-TW04-08C FIL MD	08/01/2008	100	100
MR03-TW04-08C FIL MS	08/01/2008	100	100
MR03-TW04-08C MD	08/01/2008	100	100
MR03-TW04-08C MS	08/01/2008	100	100

USEPA - CLP

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PREPARATION LOG

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807096

Preparation Method: ILMO5.2_HG_CW1

EPA Sample No.	Preparation Date	Weight (grams)	Volume (mL)
BLK104689	07/23/2008	100	100
BKS104689	07/23/2008	100	100
MR03-TW02-08C	07/23/2008	100	100
MR03-TW02-08C FIL	07/23/2008	100	100
MR03-TW03-08C	07/23/2008	100	100
MR03-TW03-08C FIL	07/23/2008	100	100
MR03-TW03D-08C	07/23/2008	100	100
MR03-TW03D-08C FIL	07/23/2008	100	100
MR03-TW04-08C	07/23/2008	100	100
MR03-TW04-08C FIL	07/23/2008	100	100
MR03-TW04-08C FIL MD	07/23/2008	100	100
MR03-TW04-08C FIL MS	07/23/2008	100	100
MR03-TW04-08C MD	07/23/2008	100	100
MR03-TW04-08C MS	07/23/2008	100	100

USEPA - CLP

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ANALYSIS RUN LOG

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807096

ICP-MS Instrument ID: W5.3V Analysis Method: CLP-5.3

Start Date: 08/14/2008 End Date: 08/15/2008

EPA Sample No.	DF	Time	Analytes																									
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN		
ZZZZZ	1	13:43																										
ZZZZZ	1	13:58																										
STD0	1	14:15		X	X	X		X										X										
STD1	1	14:22	X	X	X	X	X	X		X	X	X	X			X		X			X		X	X	X			
STD2	1	14:30	X	X	X	X	X	X		X	X	X	X			X		X			X		X	X	X			
STD3	1	14:37							X						X				X			X						
ZZZZZ	1	14:49																										
ZZZZZ	1	14:56																										
ZZZZZ	1	15:04																										
ZZZZZ	1	15:11																										
ZZZZZ	1	15:35																										
ZZZZZ	1	15:41																										
IVICV	1	15:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
BIICB	1	16:01	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CVCCV1	1	16:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
BCCCB1	1	16:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ZZZZZ	1	16:25																										
ZZZZZ	1	16:35																										
CRI	1	16:44	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
IAICSA	1	16:51	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
IBICSAB	1	16:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ZZZZZ	1	17:06																										
ZZZZZ	1	17:17																										
ZZZZZ	1	17:55																										
ZZZZZ	1	19:18																										
ZZZZZ	1	19:39																										
CVCCV2	1	19:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
BCCCB2	1	19:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ZZZZZ	1	20:04																										
ZZZZZ	1	20:11																										
ZZZZZ	1	20:19																										
ZZZZZ	1	20:26																										
ZZZZZ	1	20:34																										
ZZZZZ	1	20:41																										

USEPA - CLP

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ANALYSIS RUN LOG

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807096

ICP-MS Instrument ID: W5.3V Analysis Method: CLP-5.3

Start Date: 08/14/2008 End Date: 08/15/2008

EPA Sample No.	DF	Time	Analytes																									
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN		
ZZZZZ	1	20:48																										
ZZZZZ	1	20:56																										
ZZZZZ	5	21:03																										
ZZZZZ	1	21:10																										
CVCCV3	1	21:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
BCCCB3	1	21:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ZZZZZ	1	21:34																										
ZZZZZ	1	21:41																										
ZZZZZ	1	21:49																										
ZZZZZ	5	21:56																										
ZZZZZ	1	22:03																										
ZZZZZ	1	22:11																										
ZZZZZ	1	22:18																										
CRI	1	22:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
IAICSA	1	22:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
IBICSAB	1	22:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CVCCV4	1	22:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
BCCCB4	1	22:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ZZZZZ	1	23:04																										
ZZZZZ	1	23:11																										
ZZZZZ	1	23:19																										
ZZZZZ	1	23:26																										
ZZZZZ	1	23:33																										
ZZZZZ	1	23:41																										
ZZZZZ	1	23:48																										
ZZZZZ	1	23:55																										
ZZZZZ	1	0:03																										
ZZZZZ	5	0:10																										
CVCCV5	1	0:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
BCCCB5	1	0:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
BLK105120	1	0:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
BKS105120	1	0:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
S 807096-001-004-1/3	1	0:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
D 807096-001-004-1/3	1	0:56	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			

USEPA - CLP

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ANALYSIS RUN LOG

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807096

ICP-MS Instrument ID: W5.3V Analysis Method: CLP-5.3

Start Date: 08/14/2008 End Date: 08/15/2008

EPA Sample No.	DF	Time	Analytes																								
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN		
SP807096-001-004-1/3	1	1:03	X	X	X	X	X	X		X	X	X	X	X		X		X	X	X	X	X	X	X	X		
PS807096-001-004-1/3	1	1:11	X																X			X					
SE807096-001-004-1/3	5	1:18	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
CRI	1	1:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
IAICSA	1	1:35	X	X	X	X	X	X	X	X	X	X	X	X		X		X	X	X	X	X	X	X	X		
IBICSAB	1	1:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
CVCCV6	1	1:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
BCCCB6	1	1:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
S 807096-002-013-1/3	1	2:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
D 807096-002-013-1/3	1	2:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
SP807096-002-013-1/3	1	2:19	X	X	X	X	X	X		X	X	X	X	X		X		X	X	X	X	X	X	X	X		
ZZZZZ	1	2:26																									
SE807096-002-013-1/3	5	2:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
S 807096-003-019-1/1	1	2:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
S 807096-004-028-1/1	1	2:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
S 807096-005-020-1/1	1	2:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
S 807096-006-029-1/1	1	3:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
S 807096-007-021-1/1	1	3:10	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
CVCCV7	1	3:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
BCCCB7	1	3:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
S 807096-008-030-1/1	1	3:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
ZZZZZ	1	3:41																									
ZZZZZ	5	3:49																									
ZZZZZ	5	3:56																									
ZZZZZ	5	4:03																									
ZZZZZ	5	4:11																									
ZZZZZ	25	4:18																									
CRI	1	4:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
IAICSAI	1	4:35	X	X	X	X	X	X	X	X	X	X	X	X		X		X	X	X	X	X	X	X	X		
IBICSABI	1	4:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
CVCCV8	1	4:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
BCCCB8	1	4:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
ZZZZZ	2	5:04																									
ZZZZZ	2	5:11																									

USEPA - CLP

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ANALYSIS RUN LOG

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807096

ICP-MS Instrument ID: 7470 Analysis Method: Mercury

Start Date: 07/24/2008 End Date: 07/24/2008

EPA Sample No.	DF	Time	Analytes																									
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN		
Std01Rep1	1	9:16															X										
Std01Rep1	1	9:20															X										
Std01Rep2	1	9:23															X										
Std01Rep3	1	9:27															X										
Std02Rep1	1	9:30															X										
Std02Rep2	1	9:34															X										
Std02Rep3	1	9:38															X										
Std03Rep1	1	9:42															X										
Std03Rep2	1	9:45															X										
Std03Rep3	1	9:49															X										
Std04Rep1	1	9:52															X										
Std04Rep2	1	9:56															X										
Std04Rep3	1	10:00															X										
Std05Rep1	1	10:03															X										
Std05Rep2	1	10:07															X										
Std05Rep3	1	10:10															X										
Std06Rep1	1	10:14															X										
Std06Rep2	1	10:18															X										
Std06Rep3	1	10:22															X										
Ck2 ICV	1	10:25															X										
Ck3 ICB	1	10:29															X										
Ck4 CRA	1	10:33															X										
Ck5 CCV1	1	10:36															X										
Ck6 CCB1	1	10:40															X										
ZZZZZ	1	10:44																									
ZZZZZ	1	10:48																									
ZZZZZ	1	10:51																									
ZZZZZ	1	10:55																									
ZZZZZ	1	10:59																									
ZZZZZ	1	11:02																									
ZZZZZ	1	11:06																									
ZZZZZ	1	11:09																									
Ck5 CCV2	1	11:14															X										
Ck6 CCB2	1	11:17															X										

USEPA - CLP

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ANALYSIS RUN LOG

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807096

ICP-MS Instrument ID: 7470 Analysis Method: Mercury

Start Date: 07/24/2008 End Date: 07/24/2008

EPA Sample No.	DF	Time	Analytes																								
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN		
ZZZZZ	1	11:21																									
ZZZZZ	1	11:24																									
ZZZZZ	1	11:28																									
ZZZZZ	1	11:32																									
ZZZZZ	1	11:35																									
ZZZZZ	1	11:39																									
ZZZZZ	1	11:42																									
ZZZZZ	1	11:46																									
Ck4 CRA	1	11:49															X										
Ck5 CCV3	1	11:53															X										
Ck6 CCB3	1	11:56															X										
ZZZZZ	1	12:00																									
ZZZZZ	1	12:04																									
ZZZZZ	1	12:07																									
ZZZZZ	1	12:11																									
ZZZZZ	1	12:15																									
ZZZZZ	1	12:19																									
ZZZZZ	1	12:22																									
ZZZZZ	1	12:26																									
Ck5 CCV4	1	12:29															X										
Ck6 CCB4	1	12:33															X										
BLK104689	1	12:36															X										
BKS104689	1	12:40															X										
ZZZZZ	1	12:44																									
ZZZZZ	1	12:47																									
ZZZZZ	1	12:51																									
ZZZZZ	1	12:55																									
ZZZZZ	1	12:59																									
ZZZZZ	1	13:02																									
ZZZZZ	1	13:06																									
ZZZZZ	1	13:10																									
ZZZZZ	1	13:13																									
Ck4 CRA	1	13:17															X										
Ck5 CCV5	1	13:21															X										

USEPA - CLP

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ANALYSIS RUN LOG

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 807096

ICP-MS Instrument ID: 7470 Analysis Method: Mercury

Start Date: 07/24/2008 End Date: 07/24/2008

EPA Sample No.	DF	Time	Analytes																									
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN		
Ck6 CCB5	1	13:24															X										
ZZZZZ	1	13:28																									
ZZZZZ	1	13:31																									
D 807096-001-004-1/3	1	13:35															X										
SP807096-001-004-1/3	1	13:38															X										
S 807096-002-013-1/3	1	13:45															X										
D 807096-002-013-1/3	1	13:48															X										
SP807096-002-013-1/3	1	13:52															X										
S 807096-003-019-1/1	1	13:57															X										
Ck5 CCV6	1	14:01															X										
Ck6 CCB6	1	14:04															X										
S 807096-004-028-1/1	1	14:08															X										
S 807096-005-020-1/1	1	14:12															X										
S 807096-006-029-1/1	1	14:15															X										
S 807096-007-021-1/1	1	14:19															X										
S 807096-008-030-1/1	1	14:22															X										
ZZZZZ	1	14:26																									
ZZZZZ	1	14:30																									
S 807096-001-004-1/3	1	14:33															X										
Ck4 CRA	1	14:37															X										
Ck5 CCV7	1	14:40															X										
Ck6 CCB7	1	14:44															X										
ZZZZZ	1	14:48																									
ZZZZZ	1	14:52																									

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
MR06-IS54-8-9-08C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	807165
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	807165-001-029-1/1
Sample Volume :	30.01	Lab File ID :	W005907.D
% Moisture:	20.23	Date Received	07/25/2008
Extraction:	CLP_EXTRACTION	Date Extracted:	07/25/2008
Extract Volume:	5 mL	Date Analyzed	08/04/2008
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
72-54-8	4,4-DDD	4.2	U
72-55-9	4,4-DDE	4.2	U
50-29-3	4,4-DDT	4.2	U
309-00-2	Aldrin	2.1	U
319-84-6	Alpha-BHC	2.1	U
5103-71-9	Alpha-Chlordane	2.1	U
319-85-7	Beta-BHC	2.1	U
319-86-8	Delta-BHC	2.1	U
60-57-1	Dieldrin	4.2	U
959-98-8	Endosulfan I	2.1	U
33213-65-9	Endosulfan II	4.2	U
1031-07-8	Endosulfan Sulfate	4.2	U
72-20-8	Endrin	4.2	U
7421-93-4	Endrin Aldehyde	4.2	U
53494-70-5	Endrin Ketone	4.2	U
58-89-9	Gamma-BHC (Lindane)	2.1	U
5103-74-2	Gamma-Chlordane	2.1	U
76-44-8	Heptachlor	2.1	U
1024-57-3	Heptachlor Epoxide	2.1	U
72-43-5	Methoxychlor	21	U
12674-11-2	PCB-1016	42	U
11104-28-2	PCB-1221	84	U
11141-16-5	PCB-1232	42	U
53469-21-9	PCB-1242	42	U
12672-29-6	PCB-1248	42	U
11097-69-1	PCB-1254	42	U
11096-82-5	PCB-1260	42	U
8001-35-2	Toxaphene	210	U

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
MR06-IS61-4-5-08C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	807165
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	807165-002-030-1/1
Sample Volume :	30	Lab File ID :	W005908.D
% Moisture:	10.15	Date Received	07/25/2008
Extraction:	CLP_EXTRACTION	Date Extracted:	07/25/2008
Extract Volume:	5 mL	Date Analyzed	08/04/2008
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
72-54-8	4,4-DDD	3.7	U
72-55-9	4,4-DDE	3.7	U
50-29-3	4,4-DDT	3.7	U
309-00-2	Aldrin	1.9	U
319-84-6	Alpha-BHC	1.9	U
5103-71-9	Alpha-Chlordane	1.9	U
319-85-7	Beta-BHC	1.9	U
319-86-8	Delta-BHC	1.9	U
60-57-1	Dieldrin	3.7	U
959-98-8	Endosulfan I	1.9	U
33213-65-9	Endosulfan II	3.7	U
1031-07-8	Endosulfan Sulfate	3.7	U
72-20-8	Endrin	3.7	U
7421-93-4	Endrin Aldehyde	3.7	U
53494-70-5	Endrin Ketone	3.7	U
58-89-9	Gamma-BHC (Lindane)	1.9	U
5103-74-2	Gamma-Chlordane	1.9	U
76-44-8	Heptachlor	1.9	U
1024-57-3	Heptachlor Epoxide	1.9	U
72-43-5	Methoxychlor	19	U
12674-11-2	PCB-1016	37	U
11104-28-2	PCB-1221	74	U
11141-16-5	PCB-1232	37	U
53469-21-9	PCB-1242	37	U
12672-29-6	PCB-1248	37	U
11097-69-1	PCB-1254	37	U
11096-82-5	PCB-1260	37	U
8001-35-2	Toxaphene	190	U

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
MR06-IS63-6-7-08C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	807165
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	807165-003-054-1/3
Sample Volume :	30	Lab File ID :	W005909.D
% Moisture:	26.48	Date Received	07/25/2008
Extraction:	CLP_EXTRACTION	Date Extracted:	07/25/2008
Extract Volume:	5 mL	Date Analyzed	08/04/2008
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
72-54-8	4,4-DDD	4.5	U
72-55-9	4,4-DDE	4.5	U
50-29-3	4,4-DDT	4.5	U
309-00-2	Aldrin	2.3	U
319-84-6	Alpha-BHC	2.3	U
5103-71-9	Alpha-Chlordane	2.3	U
319-85-7	Beta-BHC	2.3	U
319-86-8	Delta-BHC	2.3	U
60-57-1	Dieldrin	4.5	U
959-98-8	Endosulfan I	2.3	U
33213-65-9	Endosulfan II	4.5	U
1031-07-8	Endosulfan Sulfate	4.5	U
72-20-8	Endrin	4.5	U
7421-93-4	Endrin Aldehyde	4.5	U
53494-70-5	Endrin Ketone	4.5	U
58-89-9	Gamma-BHC (Lindane)	2.3	U
5103-74-2	Gamma-Chlordane	2.3	U
76-44-8	Heptachlor	2.3	U
1024-57-3	Heptachlor Epoxide	2.3	U
72-43-5	Methoxychlor	23	U
12674-11-2	PCB-1016	45	U
11104-28-2	PCB-1221	91	U
11141-16-5	PCB-1232	45	U
53469-21-9	PCB-1242	45	U
12672-29-6	PCB-1248	45	U
11097-69-1	PCB-1254	45	U
11096-82-5	PCB-1260	45	U
8001-35-2	Toxaphene	230	U

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
MR06-IS64-13-14-08C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	807165
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	807165-004-031-1/1
Sample Volume :	30	Lab File ID :	W005912.D
% Moisture:	21.35	Date Received	07/25/2008
Extraction:	CLP_EXTRACTION	Date Extracted:	07/25/2008
Extract Volume:	5 mL	Date Analyzed	08/04/2008
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
72-54-8	4,4-DDD	4.2	U
72-55-9	4,4-DDE	4.2	U
50-29-3	4,4-DDT	4.2	U
309-00-2	Aldrin	2.1	U
319-84-6	Alpha-BHC	2.1	U
5103-71-9	Alpha-Chlordane	2.1	U
319-85-7	Beta-BHC	2.1	U
319-86-8	Delta-BHC	2.1	U
60-57-1	Dieldrin	4.2	U
959-98-8	Endosulfan I	2.1	U
33213-65-9	Endosulfan II	4.2	U
1031-07-8	Endosulfan Sulfate	4.2	U
72-20-8	Endrin	4.2	U
7421-93-4	Endrin Aldehyde	4.2	U
53494-70-5	Endrin Ketone	4.2	U
58-89-9	Gamma-BHC (Lindane)	2.1	U
5103-74-2	Gamma-Chlordane	2.1	U
76-44-8	Heptachlor	2.1	U
1024-57-3	Heptachlor Epoxide	2.1	U
72-43-5	Methoxychlor	21	U
12674-11-2	PCB-1016	42	U
11104-28-2	PCB-1221	85	U
11141-16-5	PCB-1232	42	U
53469-21-9	PCB-1242	42	U
12672-29-6	PCB-1248	42	U
11097-69-1	PCB-1254	42	U
11096-82-5	PCB-1260	42	U
8001-35-2	Toxaphene	210	U

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
MR06-IS45-8-9-08C

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	807165
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	807165-005-032-1/1
Sample Volume :	30.01	Lab File ID :	W005913.D
% Moisture:	21.26	Date Received	07/25/2008
Extraction:	CLP_EXTRACTION	Date Extracted:	07/25/2008
Extract Volume:	5 mL	Date Analyzed	08/04/2008
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
72-54-8	4,4-DDD	4.2	U
72-55-9	4,4-DDE	4.2	U
50-29-3	4,4-DDT	4.2	U
309-00-2	Aldrin	2.1	U
319-84-6	Alpha-BHC	2.1	U
5103-71-9	Alpha-Chlordane	2.1	U
319-85-7	Beta-BHC	2.1	U
319-86-8	Delta-BHC	2.1	U
60-57-1	Dieldrin	4.2	U
959-98-8	Endosulfan I	2.1	U
33213-65-9	Endosulfan II	4.2	U
1031-07-8	Endosulfan Sulfate	4.2	U
72-20-8	Endrin	4.2	U
7421-93-4	Endrin Aldehyde	4.2	U
53494-70-5	Endrin Ketone	4.2	U
58-89-9	Gamma-BHC (Lindane)	2.1	U
5103-74-2	Gamma-Chlordane	2.1	U
76-44-8	Heptachlor	2.1	U
1024-57-3	Heptachlor Epoxide	2.1	U
72-43-5	Methoxychlor	21	U
12674-11-2	PCB-1016	42	U
11104-28-2	PCB-1221	85	U
11141-16-5	PCB-1232	42	U
53469-21-9	PCB-1242	42	U
12672-29-6	PCB-1248	42	U
11097-69-1	PCB-1254	42	U
11096-82-5	PCB-1260	42	U
8001-35-2	Toxaphene	210	U

GPL Laboratories

GPL
FORM 1
ANALYSIS DATA SHEET

SAMPLE NO
BLK104823

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	807165
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BLK104823
Sample Volume :	30	Lab File ID :	W005895.D
% Moisture:		Date Received	
Extraction:	CLP_EXTRACTION	Date Extracted:	07/25/2008
Extract Volume:	5 mL	Date Analyzed	08/04/2008
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
72-54-8	4,4-DDD	3.3	U
72-55-9	4,4-DDE	3.3	U
50-29-3	4,4-DDT	3.3	U
309-00-2	Aldrin	1.7	U
319-84-6	Alpha-BHC	1.7	U
5103-71-9	Alpha-Chlordane	1.7	U
319-85-7	Beta-BHC	1.7	U
319-86-8	Delta-BHC	1.7	U
60-57-1	Dieldrin	3.3	U
959-98-8	Endosulfan I	1.7	U
33213-65-9	Endosulfan II	3.3	U
1031-07-8	Endosulfan Sulfate	3.3	U
72-20-8	Endrin	3.3	U
7421-93-4	Endrin Aldehyde	3.3	U
53494-70-5	Endrin Ketone	3.3	U
58-89-9	Gamma-BHC (Lindane)	1.7	U
5103-74-2	Gamma-Chlordane	1.7	U
76-44-8	Heptachlor	1.7	U
1024-57-3	Heptachlor Epoxide	1.7	U
72-43-5	Methoxychlor	17	U
12674-11-2	PCB-1016	33	U
11104-28-2	PCB-1221	67	U
11141-16-5	PCB-1232	33	U
53469-21-9	PCB-1242	33	U
12672-29-6	PCB-1248	33	U
11097-69-1	PCB-1254	33	U
11096-82-5	PCB-1260	33	U
8001-35-2	Toxaphene	170	U

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
MR06-IS63-6-7-08CMS

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	807165
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	807165-003-054-1/3MS
Sample Volume :	30.01	Lab File ID :	W005918.D
% Moisture:	26.48	Date Received	07/25/2008
Extraction:	CLP_EXTRACTION	Date Extracted:	07/25/2008
Extract Volume:	5 mL	Date Analyzed	08/05/2008
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
72-54-8	4,4-DDD	4.5	U
72-55-9	4,4-DDE	0.75	J
50-29-3	4,4-DDT	39	
309-00-2	Aldrin	22	
319-84-6	Alpha-BHC	2.3	U
5103-71-9	Alpha-Chlordane	2.3	U
319-85-7	Beta-BHC	2.3	U
319-86-8	Delta-BHC	2.3	U
60-57-1	Dieldrin	34	
959-98-8	Endosulfan I	2.3	U
33213-65-9	Endosulfan II	4.5	U
1031-07-8	Endosulfan Sulfate	4.5	U
72-20-8	Endrin	41	
7421-93-4	Endrin Aldehyde	1.8	J
53494-70-5	Endrin Ketone	2.5	J
58-89-9	Gamma-BHC (Lindane)	18	
5103-74-2	Gamma-Chlordane	2.3	U
76-44-8	Heptachlor	21	
1024-57-3	Heptachlor Epoxide	2.3	U
72-43-5	Methoxychlor	23	U
12674-11-2	PCB-1016	45	U
11104-28-2	PCB-1221	91	U
11141-16-5	PCB-1232	45	U
53469-21-9	PCB-1242	45	U
12672-29-6	PCB-1248	45	U
11097-69-1	PCB-1254	45	U
11096-82-5	PCB-1260	45	U
8001-35-2	Toxaphene	230	U

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
MR06-IS63-6-7-08CMSD

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	807165
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	807165-003-054-1/3MSD
Sample Volume :	30	Lab File ID :	W005919.D
% Moisture:	26.48	Date Received	07/25/2008
Extraction:	CLP_EXTRACTION	Date Extracted:	07/25/2008
Extract Volume:	5 mL	Date Analyzed	08/05/2008
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
72-54-8	4,4-DDD	4.5	U
72-55-9	4,4-DDE	1.0	JP
50-29-3	4,4-DDT	51	
309-00-2	Aldrin	29	
319-84-6	Alpha-BHC	2.3	U
5103-71-9	Alpha-Chlordane	2.3	U
319-85-7	Beta-BHC	2.3	U
319-86-8	Delta-BHC	2.3	U
60-57-1	Dieldrin	45	
959-98-8	Endosulfan I	2.3	U
33213-65-9	Endosulfan II	4.5	U
1031-07-8	Endosulfan Sulfate	4.5	U
72-20-8	Endrin	55	
7421-93-4	Endrin Aldehyde	2.0	J
53494-70-5	Endrin Ketone	3.3	J
58-89-9	Gamma-BHC (Lindane)	24	
5103-74-2	Gamma-Chlordane	2.3	U
76-44-8	Heptachlor	27	
1024-57-3	Heptachlor Epoxide	2.3	U
72-43-5	Methoxychlor	23	U
12674-11-2	PCB-1016	45	U
11104-28-2	PCB-1221	91	U
11141-16-5	PCB-1232	45	U
53469-21-9	PCB-1242	45	U
12672-29-6	PCB-1248	45	U
11097-69-1	PCB-1254	45	U
11096-82-5	PCB-1260	45	U
8001-35-2	Toxaphene	230	U

GPL Laboratories

GPL
FORM I
ANALYSIS DATA SHEET

SAMPLE NO
BKS104823

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	
Case No. :		SDG NO :	807165
Matrix : (Soil / Water)	SOIL	Lab Sample ID :	BKS104823
Sample Volume :	30	Lab File ID :	W005896.D
% Moisture:		Date Received	
Extraction:	CLP_EXTRACTION	Date Extracted:	07/25/2008
Extract Volume:	5 mL	Date Analyzed	08/04/2008
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
72-54-8	4,4-DDD	3.3	U
72-55-9	4,4-DDE	0.57	JP
50-29-3	4,4-DDT	26	
309-00-2	Aldrin	16	
319-84-6	Alpha-BHC	1.7	U
5103-71-9	Alpha-Chlordane	1.7	U
319-85-7	Beta-BHC	1.7	U
319-86-8	Delta-BHC	1.7	U
60-57-1	Dieldrin	24	
959-98-8	Endosulfan I	1.7	U
33213-65-9	Endosulfan II	3.3	U
1031-07-8	Endosulfan Sulfate	3.3	U
72-20-8	Endrin	28	
7421-93-4	Endrin Aldehyde	1.9	J
53494-70-5	Endrin Ketone	2.2	J
58-89-9	Gamma-BHC (Lindane)	13	
5103-74-2	Gamma-Chlordane	1.7	U
76-44-8	Heptachlor	14	
1024-57-3	Heptachlor Epoxide	1.7	U
72-43-5	Methoxychlor	17	U
12674-11-2	PCB-1016	33	U
11104-28-2	PCB-1221	67	U
11141-16-5	PCB-1232	33	U
53469-21-9	PCB-1242	33	U
12672-29-6	PCB-1248	33	U
11097-69-1	PCB-1254	33	U
11096-82-5	PCB-1260	33	U
8001-35-2	Toxaphene	170	U

Surrogate Recovery Summary

Matrix : SOIL **Analytical Method : CLP_OLM04.3_PEST/PC** **SDG No : 807165**

Surrogate	CL10BZ2	XYL2456CLM
Lower QC Limits	**30**	**30**
Upper QC Limits	**150**	**150**
Sample ID		
BKS104823	77	95
	78	90
BLK104823	93	103
	94	105
MR06-IS45-8-9-08C	107	114
	107	118
MR06-IS54-8-9-08C	88	96
	87	95
MR06-IS61-4-5-08C	93	97
	93	98
MR06-IS63-6-7-08C	95	99
	96	103
MR06-IS63-6-7-08CMS	74	83
	76	88
MR06-IS63-6-7-08CMSD	87	97
	88	102
MR06-IS64-13-14-08C	94	99
	93	98

* Value outside of QC Limts

CL10BZ2 = Decachlorobiphenyl XYL2456CLM = Tetrachloro-m-xylene

GPL Laboratories

MS/MSD RECOVERY

SAMPLE NO
MR06-IS63-6-7-08CMSD

Lab Name : GPL Laboratories SDG NO : 807165 Method : CLP OLM04.3 PEST/PCB

Lab Code : GPL Lab Sample ID : 807165-003-054-1/3MSD Matrix : SOIL Analysis Date : 08/05/2008

Compound	Spike Added (ug/kg)		CONCENTRATION (ug/kg)			%RECOVERY		% RPD	RPD Limit	QC Limits
	MS	MSD	Sample	MS	MSD	MS	MSD			
4,4-DDT	45	45	0.0	39	51	87	114	27	50	23-134
Aldrin	23	23	0.0	22	29	94	124	28	43	34-132
Dieldrin	45	45	0.0	34	45	75	99	28	38	31-134
Endrin	45	45	0.0	41	55	91	122	29	45	42-139
Gamma-BHC (Lindane)	23	23	0.0	18	24	76	104	31	50	46-127
Heptachlor	23	23	0.0	21	27	90	117	26	31	45-128

Column to be used to flag recovery and RPD Values with an asterisk.

* Values Outside of QC Limits.

RPD 0 Out of 6 Outside Limit
Spike Recovery : 0 Out of 12 outside limit

GPL Laboratories

LCS SUMMARY

SAMPLE NO
BKS104823

Lab Name : GPL Laboratories
Lab Code : GPL
Matrix : SOIL
Method : CLP_OLM04.3_PEST/PCB

Contract. : Camp Lejeune UXO-06
SDG NO : 807165
Lab Sample ID : BKS104823
Analysis Date : 08/04/2008

COMPOUND	SPIKE ADDED (ug/kg)	BLANK CONCENTRATION (ug/kg)	LCS CONCENTRATION (ug/kg)	LCS % REC	QC LIMTS
4,4-DDT	33	0	26	78	31-162
Aldrin	17	0	16	95	46-163
Dieldrin	33	0	24	74	47-142
Endrin	33	0	28	85	53-145
Gamma-BHC (Lindane)	17	0	13	78	22-125
Heptachlor	17	0	14	85	45-128

* Values Outside of QC Limits.

Spike recovery : 0 out of 6 outside limits

GPL Laboratories

GPL
FORM 4
PESTICIDE METHOD BLANK SUMMARY

SAMPLE NO
BLK104823

Lab Name :	GPL Laboratories	Client. :	CH2M Hill Inc
Lab Code :	GPL	SAS NO. :	104823
Lab File ID :	W005895.D	SDG NO :	807165
Date Extracted :	07/25/2008	Lab Sample ID :	BLK104823
Date Analyzed(1)	08/04/2008	Time Analyzed (1):	13:46
Date Analyzed (2)	08/04/2008	Time Analyzed(2)	13:46
GC Column(1)	RTxCLP ID : _____ (mm)	GC Column(2) :	RTxCLP2 ID : _____ (mm)
Matrix :(Soil/Water).	SOIL	Extraction:	SepF / Cont / Sonc
Sulfur Cleanup:(Y/N).			

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES,MS AND MSD :

Client Sample ID	Lab Sample ID	Date Analyzed 1	Date Analyzed 2
BKS104823	BKS104823	08/04/2008	08/04/2008
MR06-IS54-8-9-08C	807165-001-029-1/1	08/04/2008	08/04/2008
MR06-IS61-4-5-08C	807165-002-030-1/1	08/04/2008	08/04/2008
MR06-IS63-6-7-08C	807165-003-054-1/3	08/04/2008	08/04/2008
MR06-IS64-13-14-08C	807165-004-031-1/1	08/04/2008	08/04/2008
MR06-IS45-8-9-08C	807165-005-032-1/1	08/04/2008	08/04/2008
MR06-IS63-6-7-08CMS	807165-003-054-1/3MS	08/05/2008	08/05/2008
MR06-IS63-6-7-08CMSD	807165-003-054-1/3MSD	08/05/2008	08/05/2008

Appendix J
MEC Intrusive Investigation Documents

APPENDIX J

DGM Intrusive Investigation Results

Site UXO-03 and the Northern Boundary

MCB CamLej, North Carolina

Generated by: David Seed Checked By: Erin Twamley

Anomaly ID	Grid	Amplitude	Dig Date	X1	Y1	Item Group	Class	Category	Quantity	Depth	Weight	Item Comment
E5H2I3-00006	E5H2I3	21.00712232	10/21/2009	284639.6	3839646.8	MD	Flare	M49, Flare, Trip	1	6	0.25	Bracket only
E5H2I3-00008	E5H2I3	10.19425583	10/21/2009	284637.9	3839642.5	MD	Flare	M49, Flare, Trip	1	6	0.25	Bracket only
E5H2J3-00013	E5H2J3	4.130000686	10/22/2009	284682.1	3839639.6	MD	Grenade	Other (See Comments)	1	4	0.1	Grenade spoon.
E5H2J4-00026	E5H2J4	3.671148239	10/20/2009	284681.4	3839653	MD	Flare	M127A1, Star Parachute	1	0	0.1	M127A1, star parachute (empty)
E5H2J5-00002	E5H2J5	25.90092782	10/20/2009	284692.2	3839721.4	MD	Grenade	Other (see comments)	1	3	1	Grenade spoon.
E5I2A3-00009	E5I2A3	13.11212778	10/22/2009	284723.3	3839648.3	MD	Grenade	MKI, Illuminating Hand Grenade	1	0	0.2	MKI Illuminating Hand Grenade, Expended
E5I2A3-00014	E5I2A3	10.37712419	10/22/2009	284717.6	3839642.4	MD	Flare	M127A1, Star Parachute	1	6	0.1	Flare body part. See photo.
E5I2A3-00017	E5I2A3	8.502236968	10/22/2009	284722.1	3839641.5	MD	Grenade	MKI, Illuminating Hand Grenade	1	4	0.1	MKI, Illuminating Hand Grenade, Expended
E5I2A3-00020	E5I2A3	7.869731494	10/21/2009	284720.5	3839634.8	MD	Grenade	Other (see comments)	1	6	0.1	Grenade spoon.
E5I2A3-00021	E5I2A3	7.283298288	10/22/2009	284722.6	3839649	MD	Grenade	MKI, Illuminating Hand Grenade	1	4	0.1	MKI, Illuminating Hand Grenade, Expended
E5I2A3-00023	E5I2A3	7.118400527	10/22/2009	284717.1	3839644.1	MD	Grenade	MKI, Illuminating Hand Grenade	1	4	0.2	MKI, Illuminating Hand Grenade, Expended
E5I2A3-00029	E5I2A3	3.547510386	10/22/2009	284709.3	3839645.3	MD	Flare	M49, Flare, Trip	1	4	0.1	M49 flare fuze, Expended
E5I2A4-00001	E5I2A4	290.8182343	10/20/2009	284704.5	3839676.3	MD	Other (see comments)	Other (See Comments)	1	3	5	M16A1 military rifle. Rifle was reported to CLMP
E5I2A4-00020	E5I2A4	23.17074048	10/20/2009	284721.7	3839660.5	MD	Flare	M127A1, Star Parachute	1	3	0.1	M127A1, star parachute (Empty) Shared hit with E5I2A4-42
E5I2A4-00042	E5I2A4	8.520516188	10/20/2009	284720.8	3839659.8	MD	Flare	M127A1, Star Parachute	1	3	0.2	M127A1, star parachute (empty)
E5I2A4-00050	E5I2A4	5.915478223	10/23/2009	284744	3839686.7	MD	Flare	M127A1, Star Parachute	1	2	0.25	Tail boom assembly.
E5I2A4-00052	E5I2A4	5.779397273	10/20/2009	284726.4	3839686.8	MD	Flare	M127A1, Star Parachute	1	3	0.1	
E5I2A4-00066	E5I2A4	3.927933326	10/20/2009	284729.3	3839691.5	MD	Fuze	Other (See Comments)	1	3	0.1	Grenade fuze expended (Empty)
E5I2A5-00008	E5I2A5	17.92743735	10/22/2009	284748.2	3839721	MD	Flare	M49, Flare, Trip	1	4	0.25	Bracket only
E5I2A4-00005	E5I2A4	93.42405718	10/20/2009	284739	3839679.4	MPPEH	Grenade	M20A1, Grenade, Rifle, Star, Cluster, Green	1	3	1	Rifle grenade M20A1, Signal, Star Cluster, Green, Item disposded by BIP
E5H2I4-00003	E5H2I4	45.7120117	10/21/2009	284631.4	3839683.4	No Contact	No Contact	N / A	0	0	0	Within Road Construction Footprint
E5H2I4-00004	E5H2I4	35.06662762	10/22/2009	284626	3839672.8	No Contact	No Contact	N / A	0	0	0	Within Road Construction Footprint
E5H2I4-00005	E5H2I4	23.06918793	10/21/2009	284626.5	3839693	No Contact	No Contact	N / A	0	0	0	Within Road Construction Footprint
E5H2I4-00007	E5H2I4	21.17935206	10/21/2009	284633.8	3839679.8	No Contact	No Contact	N / A	0	0	0	Within Road Construction Footprint
E5H2I4-00010	E5H2I4	13.25735842	10/21/2009	284626.1	3839663	No Contact	No Contact	N / A	0	0	0	Within Road Construction Footprint
E5H2I4-00013	E5H2I4	4.499583786	10/21/2009	284630.9	3839681	No Contact	No Contact	N / A	0	0	0	Within Road Construction Footprint
E5H2I5-00003	E5H2I5	72.96849173	10/21/2009	284626.1	3839703	No Contact	No Contact	N / A	0	0	0	Within Road Construction Footprint
E5H2I5-00005	E5H2I5	32.67755899	10/21/2009	284646.1	3839703.2	No Contact	No Contact	N / A	0	0	0	Within Road Construction Footprint
E5H2I5-00008	E5H2I5	18.69210846	10/22/2009	284646.4	3839713.5	No Contact	No Contact	N / A	0	0	0	Within Road Construction Footprint
E5H2I5-00010	E5H2I5	7.382268337	10/22/2009	284648.3	3839712.8	No Contact	No Contact	N / A	0	0	0	Within Road Construction Footprint
E5H2I5-00011	E5H2I5	5.192980857	10/22/2009	284649.1	3839713.5	No Contact	No Contact	N / A	0	0	0	Within Road Construction Footprint
E5H2I5-00012	E5H2I5	4.364634902	10/22/2009	284646.3	3839742.1	No Contact	No Contact	N / A	0	0	0	Within Road Construction Footprint
E5H2I5-00016	E5H2I5	3.259412962	10/21/2009	284626.6	3839722.5	No Contact	No Contact	N / A	0	0	0	
E5H2I5-00017	E5H2I5	3.19721129	10/22/2009	284649.3	3839746.4	No Contact	No Contact	N / A	0	0	0	Within Road Construction Footprint
E5H2I5-00018	E5H2I5	3.10708639	10/22/2009	284643.3	3839736.1	No Contact	No Contact	N / A	0	0	0	Within Road Construction Footprint
E5H2I6-00019	E5H2I6	8.049310624	10/21/2009	284631.3	3839764.6	No Contact	No Contact	N / A	0	0	0	
E5H2I6-00021	E5H2I6	5.679127935	10/21/2009	284638.8	3839784.5	No Contact	No Contact	N / A	0	0	0	
E5H2I6-00025	E5H2I6	4.214660506	10/20/2009	284637.3	3839752.2	No Contact	No Contact	N / A	0	0	0	
E5H2I6-00027	E5H2I6	3.70656188	10/21/2009	284641.8	3839776.7	No Contact	No Contact	N / A	0	0	0	
E5H2J3-00015	E5H2J3	3.648846615	10/20/2009	284676.2	3839650	No Contact	No Contact	N / A	0	0	0	Within Road Construction Footprint
E5H2J3-00016	E5H2J3	3.454911252	10/22/2009	284690.7	3839649.8	No Contact	No Contact	N / A	0	0	0	
E5H2J3-00020	E5H2J3	3.007554547	10/22/2009	284689.2	3839643.8	No Contact	No Contact	N / A	0	0	0	
E5H2J4-00019	E5H2J4	8.849211038	10/22/2009	284693.3	3839650.8	No Contact	No Contact	N / A	0	0	0	
E5H2J4-00021	E5H2J4	7.250669491	10/20/2009	284697.3	3839664.3	No Contact	No Contact	N / A	0	0	0	
E5H2J5-00004	E5H2J5	10.88104513	10/20/2009	284660.4	3839740.1	No Contact	No Contact	N / A	0	0	0	Within Road Construction Footprint
E5H2J5-00011	E5H2J5	3.921596915	10/20/2009	284695.2	3839721	No Contact	No Contact	N / A	0	0	0	
E5H2J5-00012	E5H2J5	3.778062104	10/20/2009	284675	3839725	No Contact	No Contact	N / A	0	0	0	on corner stake
E5H2J6-00005	E5H2J6	41.32702467	10/21/2009	284671	3839787.1	No Contact	No Contact	N / A	0	0	0	
E5H2J6-00008	E5H2J6	27.72819515	10/21/2009	284687	3839773.8	No Contact	No Contact	N / A	0	0	0	Within Road Construction Footprint
E5H2J6-00016	E5H2J6	4.993144243	10/21/2009	284667.3	3839780.1	No Contact	No Contact	N / A	0	0	0	
E5H2J6-00017	E5H2J6	4.474586688	10/21/2009	284698.3	3839771.8	No Contact	No Contact	N / A	0	0	0	
E5H2J6-00019	E5H2J6	3.746452639	10/21/2009	284650.8	3839762.8	No Contact	No Contact	N / A	0	0	0	Within Road Construction Footprint
E5H2J6-00020	E5H2J6	3.304472483	10/21/2009	284653.8	3839764.6	No Contact	No Contact	N / A	0	0	0	Within Road Construction Footprint
E5H2J6-00021	E5H2J6	3.05338836	10/21/2009	284681.8	3839773.8	No Contact	No Contact	N / A	0	0	0	Within Road Construction Footprint
E5H2J7-00001	E5H2J7	4.270700052	10/21/2009	284684.8	3839800.6	No Contact	No Contact	N / A	0	0	0	Within Road Construction Footprint
E5H2J7-00002	E5H2J7	4.063047149	10/21/2009	284684.8	3839802.3	No Contact	No Contact	N / A	0	0	0	Within Road Construction Footprint
E5I2A3-00008	E5I2A3	15.23947641	10/21/2009	284724.2	3839635.5	No Contact	No Contact	N / A	0	0	0	
E5I2A3-00030	E5I2A3	3.444557884	10/23/2009	284739	3839635.5	No Contact	No Contact	N / A	0	0	0	
E5I2A3-00031	E5I2A3	3.403054622	10/22/2009	284728.2	3839640	No Contact	No Contact	N / A	0	0	0	
E5I2A4-00027	E5I2A4	17.76692919	10/23/2009	284711.3	3839653.8	No Contact	No Contact	N / A	0	0	0	
E5I2A4-00069	E5I2A4	3.411418202	10/23/2009	284746.3	3839691.5	No Contact	No Contact	N / A	0	0	0	
E5I2A5-00030	E5I2A5	4.482306527	10/22/2009	284723.3	3839750	No Contact	No Contact	N / A	0	0	0	
E5I2A5-00031	E5I2A5	4.076730689	10/22/2009	284750	3839725	No Contact	No Contact	N / A	0	0	0	
E5I2A5-00037	E5I2A5	3.472773474	10/20/2009	284701.2	3839707.5	No Contact	No Contact	N / A	0	0	0	
E5I2A5-00038	E5I2A5	3.182874387	10/22/2009	284730.3	3839725.6	No Contact	No Contact	N / A	0	0	0	

APPENDIX J

DGM Intrusive Investigation Results

Site UXO-03 and the Northern Boundary

MCB CamLej, North Carolina

Generated by: David Seed Checked By: Erin Twamley

Anomaly ID	Grid	Amplitude	Dig Date	X1	Y1	Item Group	Class	Category	Quantity	Depth	Weight	Item Comment
E5I2A6-00011	E5I2A6	5.054497765	10/21/2009	284715.8	3839775.4	No Contact	No Contact	N / A	0	0	0	
E5I2A6-00013	E5I2A6	4.385083111	10/21/2009	284735.5	3839762.2	No Contact	No Contact	N / A	0	0	0	
E5I2A6-00015	E5I2A6	4.069221338	10/21/2009	284712.8	3839784.4	No Contact	No Contact	N / A	0	0	0	
E5I2A6-00016	E5I2A6	3.984242371	10/21/2009	284711.3	3839786.4	No Contact	No Contact	N / A	0	0	0	
E5I2A6-00017	E5I2A6	3.602065368	10/21/2009	284736.3	3839777	No Contact	No Contact	N / A	0	0	0	
E5I2A6-00020	E5I2A6	3.390304903	10/21/2009	284704.5	3839782.2	No Contact	No Contact	N / A	0	0	0	
E5I2A6-00021	E5I2A6	3.074304345	10/22/2009	284702.3	3839758.7	No Contact	No Contact	N / A	0	0	0	
E5I2A7-00001	E5I2A7	3.078749192	10/21/2009	284710.5	3839803.1	No Contact	No Contact	N / A	0	0	0	
E5I2B5-00004	E5I2B5	3.587624709	10/23/2009	284756.8	3839701.5	No Contact	No Contact	N / A	0	0	0	
E5I2B5-00005	E5I2B5	3.347008154	10/22/2009	284762.8	3839745.7	No Contact	No Contact	N / A	0	0	0	
E5H2I3-00004	E5H2I3	33.7229633	10/21/2009	284635.3	3839635.5	Non-MD	Other (see comments)	Other (See Comments)	1	0	0	Power pole
E5H2J3-00011	E5H2J3	5.502722574	10/20/2009	284674.1	3839641.4	Non-MD	Other (see comments)	Other (See Comments)	1	0	0.25	Flash light
E5H2I3-00001	E5H2I3	5192.76895	10/21/2009	284629.6	3839644.8	Non-MPPEH	Other (see comments)	Other (See Comments)	1	0	0	Phone cable
E5H2I3-00002	E5H2I3	48.33590707	10/21/2009	284647.5	3839640.5	Non-MPPEH	Scrap	N / A	1	4	0.1	
E5H2I3-00003	E5H2I3	39.10247589	10/21/2009	284625.7	3839637.7	Non-MPPEH	Scrap	N / A	1	3	0.2	
E5H2I3-00005	E5H2I3	23.15906457	10/22/2009	284646.2	3839643.1	Non-MPPEH	Nail	N / A	1	0	0.1	
E5H2I3-00007	E5H2I3	13.27913021	10/22/2009	284646.5	3839640.8	Non-MPPEH	Scrap	N / A	1	10	0.25	
E5H2I3-00009	E5H2I3	4.754150439	10/21/2009	284626.4	3839643.2	Non-MPPEH	Scrap	N / A	1	4	0.1	
E5H2I3-00010	E5H2I3	4.686633622	10/21/2009	284636.6	3839644.2	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5H2I3-00011	E5H2I3	3.728083408	10/22/2009	284649.3	3839639.2	Non-MPPEH	Scrap	N / A	1	4	0.1	
E5H2I4-00001	E5H2I4	155.8241357	10/21/2009	284646.2	3839653.8	Non-MPPEH	Scrap	N / A	1	4	0.1	
E5H2I4-00002	E5H2I4	135.4942985	10/21/2009	284637.8	3839651.4	Non-MPPEH	Scrap	N / A	1	6	0.2	
E5H2I4-00006	E5H2I4	21.92432236	10/21/2009	284625.9	3839653	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5H2I4-00008	E5H2I4	15.95417646	10/21/2009	284626.2	3839682.9	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5H2I4-00009	E5H2I4	13.35758275	10/21/2009	284643.7	3839681.8	Non-MPPEH	Scrap	N / A	1	6	0.1	
E5H2I4-00011	E5H2I4	5.271797565	10/21/2009	284627.9	3839665.8	Non-MPPEH	Scrap	N / A	1	6	0.1	Within Road Construction Footprint
E5H2I4-00012	E5H2I4	5.039159161	10/21/2009	284635.7	3839654.5	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5H2I4-00014	E5H2I4	4.375498367	10/21/2009	284631.9	3839652.3	Non-MPPEH	Scrap	N / A	1	3	0.25	
E5H2I4-00015	E5H2I4	4.143121616	10/21/2009	284625.4	3839699.8	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5H2I4-00016	E5H2I4	3.942845069	10/21/2009	284635.4	3839671.8	Non-MPPEH	Scrap	N / A	1	0	0.25	
E5H2I4-00017	E5H2I4	3.526412555	10/22/2009	284632.9	3839662.8	Non-MPPEH	Scrap	N / A	1	1	0.2	
E5H2I5-00001	E5H2I5	108.2303257	10/21/2009	284626.7	3839709.7	Non-MPPEH	Scrap	N / A	1	0	0.5	
E5H2I5-00002	E5H2I5	92.01868418	10/21/2009	284626	3839733.2	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5H2I5-00004	E5H2I5	35.937605	10/21/2009	284626.1	3839712.9	Non-MPPEH	Scrap	N / A	1	0	0.1	
E5H2I5-00006	E5H2I5	30.09805164	10/22/2009	284645.5	3839732.7	Non-MPPEH	Scrap	N / A	1	0	0	Within Road Construction Footprint
E5H2I5-00007	E5H2I5	19.85801513	10/21/2009	284626	3839743.1	Non-MPPEH	Scrap	N / A	1	3	0.1	Within Road Construction Footprint
E5H2I5-00009	E5H2I5	7.91239593	10/21/2009	284631.5	3839745.4	Non-MPPEH	Scrap	N / A	1	0	0.1	
E5H2I5-00013	E5H2I5	4.20517569	10/21/2009	284634.3	3839747.3	Non-MPPEH	Scrap	N / A	1	0	0.1	
E5H2I5-00014	E5H2I5	4.089419743	10/21/2009	284646.7	3839722.5	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5H2I5-00015	E5H2I5	3.922675907	10/21/2009	284650	3839725.1	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5H2I6-00002	E5H2I6	618.152063	10/21/2009	284630	3839786.5	Non-MPPEH	Scrap	N / A	1	3	10	
E5H2I6-00004	E5H2I6	91.61210235	10/21/2009	284633.3	3839782.1	Non-MPPEH	Scrap	N / A	1	6	0.2	
E5H2I6-00005	E5H2I6	90.43997238	10/21/2009	284626	3839763.4	Non-MPPEH	Scrap	N / A	1	0	0.1	
E5H2I6-00006	E5H2I6	73.8056476	10/21/2009	284626.9	3839793.5	Non-MPPEH	Scrap	N / A	1	3	0.5	
E5H2I6-00007	E5H2I6	33.57164456	10/22/2009	284639.5	3839799.3	Non-MPPEH	Scrap	N / A	1	3	0.2	
E5H2I6-00008	E5H2I6	31.08497137	10/21/2009	284638.8	3839773.4	Non-MPPEH	Scrap	N / A	1	0	0.1	
E5H2I6-00009	E5H2I6	23.67688422	10/21/2009	284626	3839753.3	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5H2I6-00010	E5H2I6	22.72524642	10/21/2009	284643	3839764.8	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5H2I6-00011	E5H2I6	22.26231161	10/21/2009	284635.8	3839770.3	Non-MPPEH	Scrap	N / A	1	0	0.1	
E5H2I6-00012	E5H2I6	21.15221745	10/21/2009	284641.5	3839799.3	Non-MPPEH	Scrap	N / A	1	6	0.25	
E5H2I6-00013	E5H2I6	18.78975945	10/21/2009	284638.5	3839772.7	Non-MPPEH	Scrap	N / A	1	0	0.1	
E5H2I6-00014	E5H2I6	18.45532545	10/21/2009	284638	3839771.8	Non-MPPEH	Scrap	N / A	1	0	0.1	
E5H2I6-00015	E5H2I6	14.45476642	10/21/2009	284638	3839799	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5H2I6-00016	E5H2I6	12.88931062	10/21/2009	284631.3	3839763.9	Non-MPPEH	Scrap	N / A	1	1	0.1	
E5H2I6-00017	E5H2I6	11.45851981	10/21/2009	284638.5	3839799.8	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5H2I6-00018	E5H2I6	8.592609249	10/21/2009	284635.8	3839771	Non-MPPEH	Scrap	N / A	1	1	0.1	
E5H2I6-00020	E5H2I6	7.179999259	10/21/2009	284633.3	3839773.4	Non-MPPEH	Scrap	N / A	1	3	0.2	
E5H2I6-00022	E5H2I6	5.562404344	10/21/2009	284638	3839760.1	Non-MPPEH	Scrap	N / A	1	1	0.1	
E5H2I6-00023	E5H2I6	4.899642598	10/21/2009	284625.3	3839763.8	Non-MPPEH	Scrap	N / A	1	0	0.1	
E5H2I6-00024	E5H2I6	4.325559174	10/21/2009	284645.5	3839764.9	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5H2I6-00026	E5H2I6	3.921801375	10/21/2009	284626.8	3839769	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5H2I6-00028	E5H2I6	3.513866988	10/21/2009	284649.3	3839764.8	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5H2I6-00029	E5H2I6	3.206229743	10/21/2009	284629.8	3839752	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5H2I7-00001	E5H2I7	50.52009698	10/21/2009	284641.8	3839803.1	Non-MPPEH	Scrap	N / A	1	24	100	Pipe left in place
E5H2I7-00002	E5H2I7	14.65698045	10/21/2009	284644	3839802.2	Non-MPPEH	Scrap	N / A	1	24	100	Pipe left in place

APPENDIX J

DGM Intrusive Investigation Results

Site UXO-03 and the Northern Boundary

MCB CamLej, North Carolina

Generated by: David Seed Checked By: Erin Twamley

Anomaly ID	Grid	Amplitude	Dig Date	X1	Y1	Item Group	Class	Category	Quantity	Depth	Weight	Item Comment
E5H2I7-00003	E5H2I7	9.687013792	10/21/2009	284639.5	3839800.6	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5H2I7-00004	E5H2I7	8.422431067	10/21/2009	284638.8	3839800.9	Non-MPPEH	Scrap	N / A	1	0	0.1	
E5H2J3-00001	E5H2J3	44.57372064	10/22/2009	284699.4	3839635.5	Non-MPPEH	Scrap	N / A	1	4	0.25	
E5H2J3-00002	E5H2J3	19.64258346	10/22/2009	284692.8	3839649.8	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5H2J3-00003	E5H2J3	14.07226561	10/20/2009	284666.6	3839643.9	Non-MPPEH	Nail	N / A	1	2	0.1	
E5H2J3-00004	E5H2J3	12.77562084	10/22/2009	284692.2	3839649	Non-MPPEH	Scrap	N / A	1	6	0.1	
E5H2J3-00005	E5H2J3	10.39782849	10/22/2009	284693.8	3839634.1	Non-MPPEH	Scrap	N / A	1	8	0.75	Multiple items within 3 ft radius.
E5H2J3-00006	E5H2J3	8.936853075	10/22/2009	284699.8	3839645.3	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5H2J3-00007	E5H2J3	8.255977891	10/22/2009	284681	3839638.4	Non-MPPEH	Scrap	N / A	1	4	0.1	
E5H2J3-00008	E5H2J3	6.538318324	10/20/2009	284656.7	3839638.3	Non-MPPEH	Scrap	N / A	1	6	0.2	
E5H2J3-00009	E5H2J3	6.340288394	10/22/2009	284684.5	3839635.5	Non-MPPEH	Scrap	N / A	1	1	0.25	
E5H2J3-00010	E5H2J3	6.048781257	10/22/2009	284692.2	3839642.8	Non-MPPEH	Scrap	N / A	1	2	0.1	
E5H2J3-00012	E5H2J3	4.628781257	10/22/2009	284686.2	3839643	Non-MPPEH	Scrap	N / A	1	4	0.1	
E5H2J3-00014	E5H2J3	4.085479202	10/20/2009	284657.2	3839639.8	Non-MPPEH	Scrap	N / A	1	6	0.1	
E5H2J3-00017	E5H2J3	3.417456755	10/22/2009	284692	3839634.8	Non-MPPEH	Scrap	N / A	1	6	0.2	
E5H2J3-00018	E5H2J3	3.317478943	10/20/2009	284655	3839638	Non-MPPEH	Scrap	N / A	1	6	0.1	
E5H2J3-00019	E5H2J3	3.163722521	10/22/2009	284685.9	3839634.1	Non-MPPEH	Scrap	N / A	1	10	0.2	
E5H2J4-00003	E5H2J4	136.9636974	10/20/2009	284673.8	3839684	Non-MPPEH	Scrap	N / A	1	0	0.25	
E5H2J4-00004	E5H2J4	67.99010094	10/20/2009	284686.6	3839654.5	Non-MPPEH	Scrap	N / A	20	0	0.25	
E5H2J4-00005	E5H2J4	57.04146591	10/20/2009	284692.5	3839656	Non-MPPEH	Scrap	N / A	20	12	0.5	
E5H2J4-00006	E5H2J4	28.80050879	10/20/2009	284688.5	3839675	Non-MPPEH	Scrap	N / A	2	3	0.1	
E5H2J4-00007	E5H2J4	24.84577429	10/20/2009	284688.2	3839674	Non-MPPEH	Scrap	N / A	3	3	0.1	
E5H2J4-00008	E5H2J4	21.74743266	10/22/2009	284691.7	3839650	Non-MPPEH	Scrap	N / A	1	4	0.1	
E5H2J4-00009	E5H2J4	17.41927228	10/21/2009	284666	3839693.8	Non-MPPEH	Scrap	N / A	1	1	0.1	
E5H2J4-00010	E5H2J4	15.83659805	10/22/2009	284685	3839652.3	Non-MPPEH	Scrap	N / A	1	2	0.25	
E5H2J4-00011	E5H2J4	14.40195473	10/21/2009	284656.1	3839662	Non-MPPEH	Scrap	N / A	1	3	0.25	
E5H2J4-00012	E5H2J4	14.26891683	10/20/2009	284683.5	3839655.3	Non-MPPEH	Scrap	N / A	1	3	0.2	
E5H2J4-00013	E5H2J4	11.52381174	10/20/2009	284694	3839655.3	Non-MPPEH	Scrap	N / A	2	3	0.2	
E5H2J4-00014	E5H2J4	10.24053723	10/20/2009	284695.9	3839654.5	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5H2J4-00015	E5H2J4	9.788708387	10/20/2009	284693.3	3839681	Non-MPPEH	Scrap	N / A	1	1	0.1	
E5H2J4-00016	E5H2J4	9.462662024	10/20/2009	284680.5	3839655.3	Non-MPPEH	Scrap	N / A	1	6	0.1	
E5H2J4-00017	E5H2J4	9.009198415	10/20/2009	284692.6	3839680.3	Non-MPPEH	Scrap	N / A	3	2	0.2	
E5H2J4-00018	E5H2J4	8.927366691	10/20/2009	284687.6	3839662.4	Non-MPPEH	Scrap	N / A	1	12	0.2	
E5H2J4-00020	E5H2J4	8.061032993	10/20/2009	284684	3839662.8	Non-MPPEH	Scrap	N / A	1	1	0.1	
E5H2J4-00022	E5H2J4	6.559274912	10/20/2009	284690	3839654.1	Non-MPPEH	Scrap	N / A	1	3	0.2	
E5H2J4-00023	E5H2J4	6.202270584	10/22/2009	284695.4	3839657.4	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5H2J4-00024	E5H2J4	4.061769192	10/20/2009	284688.9	3839657.1	Non-MPPEH	Scrap	N / A	1	1	0.1	
E5H2J4-00025	E5H2J4	4.003978294	10/20/2009	284699	3839692.7	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5H2J4-00027	E5H2J4	3.569831262	10/20/2009	284690.1	3839655.6	Non-MPPEH	Scrap	N / A	1	0	0.1	
E5H2J4-00028	E5H2J4	3.341029813	10/20/2009	284691	3839671.8	Non-MPPEH	Scrap	N / A	1	6	0.1	
E5H2J4-00029	E5H2J4	3.289513784	10/20/2009	284690	3839671.8	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5H2J5-00001	E5H2J5	26.53168266	10/20/2009	284650.4	3839734.3	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5H2J5-00003	E5H2J5	11.41004593	10/20/2009	284686.7	3839732.9	Non-MPPEH	Nail	N / A	1	3	0.1	Nail
E5H2J5-00005	E5H2J5	10.17074574	10/20/2009	284687.9	3839747.7	Non-MPPEH	Nail	N / A	1	6	0.2	Compass
E5H2J5-00006	E5H2J5	8.329801321	10/20/2009	284686.6	3839748.1	Non-MPPEH	Nail	N / A	1	0	1	Nail in tree
E5H2J5-00007	E5H2J5	8.116474962	10/22/2009	284696.1	3839705.3	Non-MPPEH	Scrap	N / A	1	5	0.3	
E5H2J5-00008	E5H2J5	7.784137801	10/20/2009	284656.3	3839707.9	Non-MPPEH	Scrap	N / A	1	4	0.1	
E5H2J5-00009	E5H2J5	6.171725154	10/22/2009	284695.4	3839704.9	Non-MPPEH	Scrap	N / A	1	5	0.3	
E5H2J5-00010	E5H2J5	5.136576882	10/20/2009	284698.6	3839738.5	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5H2J5-00013	E5H2J5	3.143279819	10/20/2009	284687.8	3839736.4	Non-MPPEH	Scrap	N / A	1	3	0.2	
E5H2J6-00001	E5H2J6	102.2301804	10/20/2009	284677.5	3839778	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5H2J6-00002	E5H2J6	67.9111579	10/21/2009	284699.7	3839798	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5H2J6-00004	E5H2J6	54.79365574	10/21/2009	284670.3	3839786.2	Non-MPPEH	Scrap	N / A	1	6	0.25	
E5H2J6-00007	E5H2J6	28.2922795	10/21/2009	284690.8	3839752.8	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5H2J6-00009	E5H2J6	19.42585338	10/21/2009	284680.8	3839777.8	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5H2J6-00010	E5H2J6	19.24659227	10/22/2009	284687	3839750.6	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5H2J6-00011	E5H2J6	15.3801404	10/21/2009	284690.9	3839752	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5H2J6-00012	E5H2J6	10.63288836	10/21/2009	284687	3839752.3	Non-MPPEH	Scrap	N / A	1	0	0.1	
E5H2J6-00013	E5H2J6	7.544368275	10/21/2009	284688.5	3839750.6	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5H2J6-00014	E5H2J6	6.218516398	10/21/2009	284665.6	3839755.2	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5H2J6-00015	E5H2J6	5.74486981	10/21/2009	284667	3839793.7	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5H2J6-00018	E5H2J6	4.325316652	10/21/2009	284682.5	3839787.4	Non-MPPEH	Scrap	N / A	1	0	0.1	
E5I2A3-00001	E5I2A3	2854.623418	10/21/2009	284725.6	3839636.3	Non-MPPEH	Wire	N / A	1	6	0.5	Reaq value of 25 way below oriinal value of 2855mv
E5I2A3-00002	E5I2A3	157.6767196	10/21/2009	284724.9	3839634.1	Non-MPPEH	Wire	N / A	1	6	0.5	
E5I2A3-00003	E5I2A3	39.77644135	10/21/2009	284725.7	3839634.8	Non-MPPEH	Wire	N / A	5	3	0.2	

APPENDIX J

DGM Intrusive Investigation Results

Site UXO-03 and the Northern Boundary

MCB CamLej, North Carolina

Generated by: David Seed Checked By: Erin Twamley

Anomaly ID	Grid	Amplitude	Dig Date	X1	Y1	Item Group	Class	Category	Quantity	Depth	Weight	Item Comment
E5I2A3-00004	E5I2A3	35.00304184	10/22/2009	284702.5	3839649.4	Non-MPPEH	Scrap	N / A	1	6	1	Multiple hinges and screws.
E5I2A3-00006	E5I2A3	21.9778789	10/23/2009	284734.1	3839646.5	Non-MPPEH	Wire	N / A	1	4	0.1	Barbed wire.
E5I2A3-00007	E5I2A3	19.81727372	10/21/2009	284733	3839637.8	Non-MPPEH	Wire	N / A	1	6	0.1	
E5I2A3-00010	E5I2A3	12.99035202	10/22/2009	284727.2	3839638	Non-MPPEH	Wire	N / A	1	6	0.3	Barbed wire
E5I2A3-00011	E5I2A3	12.85194769	10/22/2009	284729.1	3839639.3	Non-MPPEH	Wire	N / A	1	6	0.1	Barbed wire
E5I2A3-00012	E5I2A3	11.35685705	10/23/2009	284733.3	3839647	Non-MPPEH	Wire	N / A	1	4	0.1	Barbed wire
E5I2A3-00013	E5I2A3	10.98459683	10/22/2009	284728.5	3839638.5	Non-MPPEH	Wire	N / A	1	6	0.2	Barbed wire
E5I2A3-00015	E5I2A3	9.936077044	10/21/2009	284732.6	3839636.8	Non-MPPEH	Wire	N / A	1	3	0.1	
E5I2A3-00016	E5I2A3	9.912157709	10/23/2009	284732.4	3839647.5	Non-MPPEH	Wire	N / A	1	4	0.1	Barbed wire.
E5I2A3-00018	E5I2A3	8.189454216	10/22/2009	284706.6	3839645.1	Non-MPPEH	Scrap	N / A	1	4	0.1	
E5I2A3-00019	E5I2A3	7.968984471	10/21/2009	284732.3	3839638.5	Non-MPPEH	Wire	N / A	1	3	0.1	
E5I2A3-00022	E5I2A3	7.152184998	10/22/2009	284700.4	3839645.3	Non-MPPEH	Scrap	N / A	1	6	0.1	
E5I2A3-00024	E5I2A3	6.845066982	10/21/2009	284728.5	3839636.3	Non-MPPEH	Wire	N / A	3	3	0.2	
E5I2A3-00025	E5I2A3	6.104281853	10/22/2009	284705.3	3839644.7	Non-MPPEH	Scrap	N / A	1	0	0.1	
E5I2A3-00026	E5I2A3	5.562102864	10/22/2009	284714.6	3839640	Non-MPPEH	Scrap	N / A	1	4	0.2	
E5I2A3-00027	E5I2A3	4.251089108	10/22/2009	284716.1	3839634.1	Non-MPPEH	Scrap	N / A	1	0	0.25	
E5I2A3-00028	E5I2A3	3.819227069	10/21/2009	284727.5	3839634.4	Non-MPPEH	Wire	N / A	1	3	0.1	
E5I2A4-00002	E5I2A4	139.8344741	10/21/2009	284746	3839671	Non-MPPEH	Wire	N / A	1	3	0.25	
E5I2A4-00003	E5I2A4	106.8832077	10/21/2009	284743.5	3839671.8	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5I2A4-00004	E5I2A4	101.3188713	10/21/2009	284747.3	3839669.8	Non-MPPEH	Wire	N / A	1	3	0.5	
E5I2A4-00006	E5I2A4	63.97791705	10/21/2009	284746.2	3839672.5	Non-MPPEH	Wire	N / A	10	3	0.25	Barbed wire
E5I2A4-00007	E5I2A4	63.70101342	10/21/2009	284745.3	3839668.8	Non-MPPEH	Wire	N / A	1	6	0.5	
E5I2A4-00009	E5I2A4	60.23791705	10/21/2009	284747.5	3839672.5	Non-MPPEH	Wire	N / A	1	3	0.25	
E5I2A4-00010	E5I2A4	51.37690692	10/23/2009	284736.8	3839652.3	Non-MPPEH	Wire	N / A	15	12	0.5	Barbed wire.
E5I2A4-00011	E5I2A4	46.90811868	10/23/2009	284702.8	3839650.7	Non-MPPEH	Scrap	N / A	6	6	0.5	Multiple items
E5I2A4-00012	E5I2A4	44.39989354	10/20/2009	284747	3839673.4	Non-MPPEH	Wire	N / A	10	3	0.25	Barbed wire
E5I2A4-00013	E5I2A4	43.72098669	10/21/2009	284744.9	3839671.8	Non-MPPEH	Wire	N / A	12	3	0.1	Barbed wire
E5I2A4-00014	E5I2A4	30.32576254	10/21/2009	284744.4	3839670.3	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5I2A4-00015	E5I2A4	28.37306836	10/23/2009	284744.7	3839677.5	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5I2A4-00016	E5I2A4	27.95374406	10/23/2009	284738.6	3839654.3	Non-MPPEH	Wire	N / A	10	10	0.5	Barbed wire.
E5I2A4-00017	E5I2A4	27.24970661	10/23/2009	284737.7	3839653	Non-MPPEH	Wire	N / A	15	12	0.5	Barbed wire.
E5I2A4-00018	E5I2A4	24.1712082	10/23/2009	284738.8	3839656	Non-MPPEH	Wire	N / A	15	8	0.75	Barbed wire.
E5I2A4-00019	E5I2A4	23.39471416	10/23/2009	284742.8	3839660.5	Non-MPPEH	Wire	N / A	25	12	0.5	Barbed wire
E5I2A4-00021	E5I2A4	22.8272574	10/20/2009	284721.7	3839689.5	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5I2A4-00022	E5I2A4	22.61513005	10/20/2009	284711.3	3839689.3	Non-MPPEH	Wire	N / A	1	3	0.1	
E5I2A4-00023	E5I2A4	21.90428326	10/23/2009	284742.8	3839688.5	Non-MPPEH	Scrap	N / A	1	0	0.25	M-127 flare boom, Inert
E5I2A4-00024	E5I2A4	21.76356042	10/21/2009	284745.6	3839665.8	Non-MPPEH	Wire	N / A	10	6	0.25	
E5I2A4-00025	E5I2A4	19.23910622	10/20/2009	284739.9	3839656.8	Non-MPPEH	Nail	N / A	1	3	0.1	
E5I2A4-00026	E5I2A4	18.35090925	10/20/2009	284710.8	3839690	Non-MPPEH	Nail	N / A	1	3	0.1	
E5I2A4-00028	E5I2A4	17.46425954	10/20/2009	284706.4	3839693	Non-MPPEH	Nail	N / A	1	0	0.1	
E5I2A4-00029	E5I2A4	16.5694615	10/20/2009	284722.5	3839688.8	Non-MPPEH	Nail	N / A	4	3	0.2	
E5I2A4-00030	E5I2A4	15.41401232	10/23/2009	284742.2	3839661.7	Non-MPPEH	Wire	N / A	8	10	0.5	Barbed wire
E5I2A4-00031	E5I2A4	14.56114579	10/23/2009	284746.4	3839653	Non-MPPEH	Scrap	N / A	1	1	0.25	
E5I2A4-00032	E5I2A4	13.43533761	10/23/2009	284737.6	3839655.3	Non-MPPEH	Wire	N / A	15	12	0.5	Barbed wire.
E5I2A4-00033	E5I2A4	13.24490558	10/23/2009	284743.8	3839662.6	Non-MPPEH	Wire	N / A	6	4	0.2	Barbed wire
E5I2A4-00034	E5I2A4	12.61769641	10/21/2009	284744.9	3839664.3	Non-MPPEH	Wire	N / A	1	6	0.1	
E5I2A4-00035	E5I2A4	12.16660018	10/20/2009	284735.9	3839651.2	Non-MPPEH	Scrap	N / A	1	3	0.1	Can
E5I2A4-00036	E5I2A4	11.14112872	10/23/2009	284726.2	3839696	Non-MPPEH	Scrap	N / A	1	6	0.25	
E5I2A4-00037	E5I2A4	11.12157087	10/23/2009	284736.9	3839656.9	Non-MPPEH	Wire	N / A	15	8	0.5	Barbed wire.
E5I2A4-00038	E5I2A4	10.61931719	10/23/2009	284721.6	3839690.8	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5I2A4-00039	E5I2A4	9.498029371	10/23/2009	284735.3	3839655.3	Non-MPPEH	Wire	N / A	5	6	0.5	Barbed wire.
E5I2A4-00040	E5I2A4	8.949398073	10/21/2009	284743.4	3839666.5	Non-MPPEH	Wire	N / A	5	0	0.1	
E5I2A4-00041	E5I2A4	8.825337342	10/23/2009	284726.2	3839694	Non-MPPEH	Scrap	N / A	1	4	0.25	
E5I2A4-00043	E5I2A4	8.060994077	10/21/2009	284744.1	3839665	Non-MPPEH	Wire	N / A	3	6	0.1	
E5I2A4-00044	E5I2A4	8.038594188	10/23/2009	284736.2	3839654.9	Non-MPPEH	Wire	N / A	10	12	0.5	Barbed wire.
E5I2A4-00045	E5I2A4	7.68116966	10/21/2009	284738.9	3839670.8	Non-MPPEH	Wire	N / A	1	3	0.2	
E5I2A4-00046	E5I2A4	6.509004671	10/25/2009	284749.9	3839672.5	Non-MPPEH	Wire	N / A	8	10	0.25	Barbed wire
E5I2A4-00047	E5I2A4	6.449994277	10/21/2009	284742.3	3839671	Non-MPPEH	Wire	N / A	3	3	0.1	
E5I2A4-00048	E5I2A4	6.134035946	10/21/2009	284740.4	3839670.4	Non-MPPEH	Wire	N / A	5	5	0.2	
E5I2A4-00049	E5I2A4	5.982471822	10/25/2009	284748.7	3839674.8	Non-MPPEH	Wire	N / A	10	8	0.5	Barbed wire
E5I2A4-00051	E5I2A4	5.879106224	10/23/2009	284741.5	3839656.8	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5I2A4-00053	E5I2A4	5.74894477	10/23/2009	284744.8	3839660.5	Non-MPPEH	Wire	N / A	15	12	0.5	Barbed wire.
E5I2A4-00054	E5I2A4	5.741592754	10/21/2009	284741.5	3839671	Non-MPPEH	Wire	N / A	1	3	0.1	
E5I2A4-00055	E5I2A4	5.610415465	10/23/2009	284740.6	3839656	Non-MPPEH	Wire	N / A	15	8	0.5	Barbed wire.
E5I2A4-00056	E5I2A4	5.518328871	10/20/2009	284701.6	3839658.8	Non-MPPEH	Scrap	N / A	1	6	0.25	

APPENDIX J

DGM Intrusive Investigation Results

Site UXO-03 and the Northern Boundary

MCB CamLej, North Carolina

Generated by: David Seed Checked By: Erin Twamley

Anomaly ID	Grid	Amplitude	Dig Date	X1	Y1	Item Group	Class	Category	Quantity	Depth	Weight	Item Comment
E5I2A4-00058	E5I2A4	5.052935386	10/20/2009	284717.8	3839691.5	Non-MPPEH	Nail	N / A	1	24	0.1	
E5I2A4-00059	E5I2A4	4.822387334	10/20/2009	284716	3839694.3	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5I2A4-00060	E5I2A4	4.723347192	10/23/2009	284748	3839660.5	Non-MPPEH	Wire	N / A	1	6	0.2	Barbed wire
E5I2A4-00061	E5I2A4	4.702187584	10/22/2009	284727.6	3839698.3	Non-MPPEH	Scrap	N / A	1	6	0.25	
E5I2A4-00062	E5I2A4	4.361487118	10/21/2009	284740	3839667.3	Non-MPPEH	Wire	N / A	1	3	0.1	
E5I2A4-00063	E5I2A4	4.33508621	10/21/2009	284740.8	3839668	Non-MPPEH	Wire	N / A	1	3	0.1	
E5I2A4-00064	E5I2A4	4.324329559	10/22/2009	284741.3	3839669.5	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5I2A4-00065	E5I2A4	4.002941512	10/22/2009	284714.8	3839699	Non-MPPEH	Scrap	N / A	1	18	10	Large fence post in hole.
E5I2A4-00067	E5I2A4	3.831179857	10/20/2009	284735.1	3839657.5	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5I2A4-00068	E5I2A4	3.622249689	10/23/2009	284749.6	3839684.8	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5I2A4-00070	E5I2A4	3.299144645	10/20/2009	284724.7	3839665	Non-MPPEH	Scrap	N / A	1	1	0.1	
E5I2A4-00071	E5I2A4	3.18142344	10/20/2009	284710.4	3839692.3	Non-MPPEH	Nail	N / A	1	3	0.1	
E5I2A4-00072	E5I2A4	3.086631211	10/20/2009	284704.9	3839659.8	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5I2A5-00001	E5I2A5	336.0457557	10/23/2009	284706	3839712.5	Non-MPPEH	Scrap	N / A	1	3	0.2	
E5I2A5-00002	E5I2A5	36.86133309	10/23/2009	284712.7	3839724.8	Non-MPPEH	Scrap	N / A	1	6	0.1	
E5I2A5-00003	E5I2A5	28.41545851	10/23/2009	284711.3	3839715.8	Non-MPPEH	Scrap	N / A	3	0	0.1	
E5I2A5-00005	E5I2A5	20.90298827	10/22/2009	284712.9	3839726.1	Non-MPPEH	Scrap	N / A	3	4	0.1	
E5I2A5-00006	E5I2A5	20.30657896	10/22/2009	284739.1	3839706.8	Non-MPPEH	Scrap	N / A	1	0	0.25	
E5I2A5-00007	E5I2A5	18.38649339	10/22/2009	284724.9	3839745.7	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5I2A5-00009	E5I2A5	16.37550543	10/22/2009	284702.3	3839740.6	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5I2A5-00010	E5I2A5	15.92057668	10/22/2009	284713.9	3839727.1	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5I2A5-00011	E5I2A5	15.2740275	10/22/2009	284717.8	3839721.8	Non-MPPEH	Scrap	N / A	6	3	0.1	Numerous nails and wire west of flag.
E5I2A5-00012	E5I2A5	14.70159931	10/22/2009	284716.5	3839700	Non-MPPEH	Scrap	N / A	1	6	0.2	
E5I2A5-00013	E5I2A5	14.107004	10/22/2009	284714.3	3839726.3	Non-MPPEH	Scrap	N / A	2	3	0.1	
E5I2A5-00014	E5I2A5	13.66759098	10/22/2009	284717.1	3839721	Non-MPPEH	Scrap	N / A	6	4	0.5	
E5I2A5-00015	E5I2A5	13.4526048	10/22/2009	284741.7	3839707.5	Non-MPPEH	Scrap	N / A	1	0	0.25	
E5I2A5-00016	E5I2A5	12.67196053	10/22/2009	284714.2	3839722.5	Non-MPPEH	Scrap	N / A	2	6	0.1	
E5I2A5-00017	E5I2A5	12.63394492	10/22/2009	284714.2	3839703.9	Non-MPPEH	Scrap	N / A	1	4	0.2	
E5I2A5-00018	E5I2A5	12.05922495	10/22/2009	284703.8	3839741	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5I2A5-00019	E5I2A5	11.61936155	10/20/2009	284715.8	3839726.5	Non-MPPEH	Nail	N / A	1	3	0.1	Survey nail
E5I2A5-00020	E5I2A5	11.60484268	10/20/2009	284707.5	3839735.3	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5I2A5-00021	E5I2A5	10.93691205	10/20/2009	284738.5	3839710.5	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5I2A5-00022	E5I2A5	10.66544699	10/20/2009	284715.2	3839725.8	Non-MPPEH	Nail	N / A	1	3	0.1	Shared contact with E5i2a5-19
E5I2A5-00023	E5I2A5	10.0020854	10/22/2009	284729.9	3839721.8	Non-MPPEH	Scrap	N / A	1	6	0.1	
E5I2A5-00024	E5I2A5	7.809215653	10/22/2009	284718.8	3839723	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5I2A5-00025	E5I2A5	7.649877449	10/22/2009	284736.3	3839708.9	Non-MPPEH	Scrap	N / A	1	6	0.25	
E5I2A5-00026	E5I2A5	6.822294968	10/20/2009	284712.2	3839718	Non-MPPEH	Nail	N / A	1	6	0.1	
E5I2A5-00027	E5I2A5	5.211387159	10/22/2009	284748.3	3839732.1	Non-MPPEH	Scrap	N / A	1	4	0.1	
E5I2A5-00028	E5I2A5	5.199549347	10/22/2009	284747	3839721	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5I2A5-00029	E5I2A5	4.807224609	10/20/2009	284715.1	3839721	Non-MPPEH	Nail	N / A	1	3	0.1	
E5I2A5-00032	E5I2A5	3.830774018	10/22/2009	284734.9	3839721.8	Non-MPPEH	Scrap	N / A	1	3	0.3	
E5I2A5-00033	E5I2A5	3.611329788	10/22/2009	284732.4	3839723.3	Non-MPPEH	Scrap	N / A	1	24	0.1	
E5I2A5-00034	E5I2A5	3.550893949	10/22/2009	284719.5	3839742.8	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5I2A5-00035	E5I2A5	3.509506192	10/22/2009	284715.8	3839736.4	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5I2A5-00036	E5I2A5	3.485791417	10/22/2009	284749.8	3839739.7	Non-MPPEH	Scrap	N / A	1	6	0.1	
E5I2A6-00001	E5I2A6	72.01438734	10/21/2009	284700	3839797.7	Non-MPPEH	Scrap	N / A	1	0	0.1	Within Road Construction Footprint
E5I2A6-00002	E5I2A6	61.39720615	10/21/2009	284724.6	3839764.4	Non-MPPEH	Scrap	N / A	1	3	0.1	Within Road Construction Footprint
E5I2A6-00005	E5I2A6	30.34485062	10/21/2009	284713.5	3839793.5	Non-MPPEH	Scrap	N / A	1	0	0.2	
E5I2A6-00007	E5I2A6	8.208718191	10/21/2009	284749.4	3839797.3	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5I2A6-00008	E5I2A6	6.945486805	10/21/2009	284720	3839794.2	Non-MPPEH	Scrap	N / A	1	0	0.1	
E5I2A6-00009	E5I2A6	6.836372438	10/21/2009	284735.8	3839787.3	Non-MPPEH	Scrap	N / A	1	1	0.1	
E5I2A6-00010	E5I2A6	5.127658871	10/21/2009	284736.3	3839788.2	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5I2A6-00012	E5I2A6	4.779821241	10/21/2009	284731.8	3839784.1	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5I2A6-00014	E5I2A6	4.103688581	10/21/2009	284719.8	3839793.6	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5I2A6-00018	E5I2A6	3.508135177	10/22/2009	284709.8	3839758.1	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5I2A6-00019	E5I2A6	3.484384431	10/21/2009	284703	3839792.9	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5I2B4-00001	E5I2B4	125.7995369	10/23/2009	284750.3	3839657.8	Non-MPPEH	Scrap	N / A	1	1	1.5	
E5I2B4-00002	E5I2B4	47.7266414	10/23/2009	284753.2	3839660	Non-MPPEH	Scrap	N / A	1	4	0.75	
E5I2B4-00004	E5I2B4	27.29030025	10/25/2009	284754.2	3839677.5	Non-MPPEH	Wire	N / A	5	6	0.2	Barbed wire
E5I2B4-00005	E5I2B4	16.78439895	10/25/2009	284755.6	3839678.9	Non-MPPEH	Wire	N / A	3	6	0.25	Barbed wire
E5I2B4-00006	E5I2B4	15.69905305	10/22/2009	284751.6	3839684.8	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5I2B4-00007	E5I2B4	10.22341332	10/23/2009	284765.2	3839696	Non-MPPEH	Wire	N / A	1	12	0.2	Barbed wire
E5I2B4-00008	E5I2B4	10.07520956	10/25/2009	284753.2	3839682.5	Non-MPPEH	Wire	N / A	6	4	0.2	Barbed wire
E5I2B4-00009	E5I2B4	9.359775082	10/25/2009	284751.9	3839682.5	Non-MPPEH	Wire	N / A	5	6	0.2	barbed wire
E5I2B4-00010	E5I2B4	8.294180027	10/25/2009	284754.3	3839679.5	Non-MPPEH	Wire	N / A	5	6	0.2	Barbed wire

APPENDIX J

DGM Intrusive Investigation Results

Site UXO-03 and the Northern Boundary

MCB CamLej, North Carolina

Generated by: David Seed Checked By: Erin Twamley

Anomaly ID	Grid	Amplitude	Dig Date	X1	Y1	Item Group	Class	Category	Quantity	Depth	Weight	Item Comment
E5I2B4-00011	E5I2B4	6.778271386	10/25/2009	284753.5	3839679.5	Non-MPPEH	Wire	N / A	2	6	0.2	Barbed wire
E5I2B4-00012	E5I2B4	5.919008257	10/25/2009	284754.4	3839681.8	Non-MPPEH	Wire	N / A	3	6	0.2	Barbed wire
E5I2B4-00013	E5I2B4	5.788266744	10/25/2009	284753.1	3839677	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5I2B4-00014	E5I2B4	5.5321753	10/23/2009	284756.2	3839665	Non-MPPEH	Scrap	N / A	1	4	0.2	
E5I2B4-00015	E5I2B4	5.393847176	10/25/2009	284751.4	3839676.5	Non-MPPEH	Wire	N / A	5	8	0.2	Barbed wire
E5I2B4-00016	E5I2B4	5.317262855	10/25/2009	284750.3	3839684.2	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5I2B4-00017	E5I2B4	5.261127281	10/25/2009	284752.8	3839687.8	Non-MPPEH	Wire	N / A	3	10	0.25	Barbed wire.
E5I2B4-00018	E5I2B4	5.18777849	10/23/2009	284758.6	3839664.3	Non-MPPEH	Scrap	N / A	1	1	1.25	
E5I2B4-00019	E5I2B4	5.159392303	10/23/2009	284763.2	3839669.5	Non-MPPEH	Scrap	N / A	1	18	500	36 inch drain pipe
E5I2B4-00020	E5I2B4	5.008437386	10/23/2009	284764.1	3839670.3	Non-MPPEH	Scrap	N / A	1	18	500	36 inch drain pipe.
E5I2B4-00021	E5I2B4	4.822406223	10/25/2009	284753.6	3839686.4	Non-MPPEH	Wire	N / A	2	6	0.2	Barbed wire
E5I2B4-00022	E5I2B4	4.72614644	10/25/2009	284755.5	3839682.5	Non-MPPEH	Wire	N / A	3	6	0.1	Barbed wire
E5I2B4-00023	E5I2B4	4.610795439	10/25/2009	284753.9	3839687.8	Non-MPPEH	Wire	N / A	1	10	0.2	Barbed wire
E5I2B4-00024	E5I2B4	4.355568012	10/23/2009	284762.3	3839669.5	Non-MPPEH	Scrap	N / A	1	18	200	36 inch drain pipe pointing at flag.
E5I2B4-00025	E5I2B4	4.242174418	10/23/2009	284750.4	3839685.5	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5I2B4-00026	E5I2B4	4.196323975	10/23/2009	284764.9	3839698.3	Non-MPPEH	Wire	N / A	1	12	0.2	Barbed wire.
E5I2B4-00027	E5I2B4	4.13195031	10/23/2009	284764.3	3839696.3	Non-MPPEH	Wire	N / A	1	12	0.2	Barbed wire.
E5I2B4-00028	E5I2B4	3.789300334	10/20/2009	284756.6	3839699	Non-MPPEH	Nail	N / A	1	0	0.1	
E5I2B4-00029	E5I2B4	3.542928129	10/25/2009	284751.4	3839687	Non-MPPEH	Wire	N / A	4	10	0.25	Barbed wire
E5I2B4-00030	E5I2B4	3.47596927	10/25/2009	284752.6	3839686.3	Non-MPPEH	Wire	N / A	1	6	0.1	Barbed wire
E5I2B4-00031	E5I2B4	3.367686842	10/23/2009	284764.6	3839697.3	Non-MPPEH	Wire	N / A	1	8	0.5	Barbed wire
E5I2B5-00001	E5I2B5	18.81287889	10/23/2009	284760.9	3839706.8	Non-MPPEH	Wire	N / A	1	8	0.2	Barbed wire.
E5I2B5-00002	E5I2B5	10.43692288	10/23/2009	284759.1	3839706.6	Non-MPPEH	Scrap	N / A	1	6	0.1	Wire and nails.
E5I2B5-00003	E5I2B5	7.174471441	10/22/2009	284759.8	3839729.3	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5I2B6-00001	E5I2B6	87.88637285	10/21/2009	284761.3	3839755.4	Non-MPPEH	Other (see comments)	Other (See Comments)	1	24	100	Corrigated pipe
E5I2B6-00002	E5I2B6	22.25983035	10/21/2009	284750.4	3839797.2	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5I2B6-00003	E5I2B6	19.2725086	10/22/2009	284759.8	3839754.2	Non-MPPEH	Scrap	N / A	1	2	0.1	
E5I2B6-00004	E5I2B6	17.084306	10/22/2009	284750.5	3839762	Non-MPPEH	Scrap	N / A	1	0	0.1	
E5I2B7-00001	E5I2B7	8249.704231	10/22/2009	284758.3	3839802.5	Non-MPPEH	Scrap	N / A	1	3	0.1	
E5H2J4-00001	E5H2J4	160.3192686	10/21/2009	284691.7	3839651.5	QC	QC Seed	QC Seed	1	3	1	QC Seed #5
E5H2J4-00002	E5H2J4	143.6238932	10/21/2009	284655.3	3839668.8	QC	QC Seed	QC Seed	1	0	1	QC Seed #4. Chipped by brush clearing. Number unreadable.
E5H2J6-00003	E5H2J6	60.86302554	10/21/2009	284655.6	3839793	QC	QC Seed	QC Seed	1	3	1	QC Seed #1
E5H2J6-00006	E5H2J6	41.13006338	10/21/2009	284687	3839773	QC	QC Seed	QC Seed	1	3	0.25	QC Seed #3
E5I2A3-00005	E5I2A3	30.01520421	10/22/2009	284711.8	3839636.1	QC	QC Seed	QC Seed	1	3	0.5	QC Seed #4
E5I2A5-00004	E5I2A5	22.90554388	10/22/2009	284733.6	3839704.3	QC	QC Seed	QC Seed	1	6	0.5	QC Seed #4
E5I2A6-00003	E5I2A6	37.86437775	10/21/2009	284727.5	3839765.2	QC	QC Seed	QC Seed	1	6	0.5	QC Seed #3
E5I2A6-00006	E5I2A6	25.53633095	10/22/2009	284748.5	3839769.5	QC	QC Seed	QC Seed	1	1	0.1	QC Seed #2
E5H2I6-00001	E5H2I6	1038.705471	10/21/2009	284635	3839776.6	SHD	Shared	Shared	1	0	5	Shared contact with #3
E5H2I6-00003	E5H2I6	203.3782145	10/21/2009	284634.3	3839775.6	SHD	Shared	Shared	1	0	5	Shared contact with #1 fence post
E5I2A4-00008	E5I2A4	61.93139061	10/23/2009	284717.2	3839699.8	SHD	Shared	Shared	1	18	10	Same as 65
E5I2A4-00057	E5I2A4	5.447139369	10/23/2009	284715.6	3839698.3	SHD	Shared	Shared	1	18	10	Same as 65.
E5I2A6-00004	E5I2A6	37.35602111	10/22/2009	284749	3839770.3	SHD	Shared	Shared	1	0	0	Shared hit w e5i2a6-6
E5I2B4-00003	E5I2B4	32.86861646	10/23/2009	284753.8	3839658.3	SHD	Shared	Shared	1	4	0.75	Same as B4-2
N-01	N/A	12.2759	11/12/2010	284680	3839479	Non-MPPEH	Scrap	Scrap	2	6	0.65	
N-02	N/A	51.8238	11/12/2010	284685.5	3839483.5	Non-MD	Small Arms	M16 Clip	1	3	1	
N-03	N/A	5.5371	11/12/2010	284652.5	3839495	Non-MPPEH	Scrap	Scrap	1	3	0.25	
N-04	N/A	8.7949	11/12/2010	284690.5	3839496.5	Non-MPPEH	Scrap	Scrap	3	3	0.3	
N-05	N/A	10.6476	11/12/2010	284691	3839500.5	Non-MPPEH	Scrap	Scrap	3	3	1	
N-06	N/A	309.392	11/12/2010	284635	3839503.5	QC	QC Seed	QC Seed	1	3	1	QC Seed #20
N-07	N/A	12.0333	11/12/2010	284650	3839507	Non-MPPEH	Scrap	Scrap	1	6	1	
N-08	N/A	153.4834	11/12/2010	284691.5	3839512.5	Non-MPPEH	Fence	Fence	1	0	3	
N-09	N/A	85.9428	11/12/2010	284691.5	3839516.5	Non-MPPEH	Fence	Fence	2	0	0.25	
N-10	N/A	18.2644	11/12/2010	284658.5	3839525	No Contact	No Contact	No Contact	0	0	0	
N-11	N/A	3.026	11/12/2010	284632	3839526	Non-MPPEH	Scrap	Scrap	1	3	0.25	
N-12	N/A	2.6301	11/12/2010	284655.5	3839527	Non-MPPEH	Scrap	Scrap	1	3	0.25	
N-13	N/A	4.0513	11/12/2010	284649	3839531	No Contact	No Contact	No Contact	0	0	0	
N-14	N/A	20.3681	11/12/2010	284671.5	3839545	Non-MPPEH	Scrap	Scrap	2	3	0.75	
N-15	N/A	63.3888	11/12/2010	284657.5	3839548.5	Non-MPPEH	Scrap	Scrap	1	3	1.5	
N-16	N/A	88.74	11/12/2010	284628.5	3839551	Non-MPPEH	Scrap	Scrap	1	3	1	
N-17	N/A	127.9509	11/12/2010	284665	3839559.5	Non-MD	Small Arms	M16 Clip	1	3	1	
N-18	N/A	9.3491	11/12/2010	284641	3839567	No Contact	No Contact	No Contact	0	0	0	
N-19	N/A	1355.4805	11/12/2010	284671	3839571.5	Non-MPPEH	Scrap	Scrap	1	0	10	
N-20	N/A	4.0473	11/12/2010	284648	3839580.5	Non-MPPEH	Scrap	Scrap	1	0	0.25	
N-21	N/A	95.0889	11/12/2010	284691.7	3839514.2	Non-MPPEH	Fence	Fence	1	0	10	
N-22	N/A	121.744	11/12/2010	284691.8	3839518.3	Non-MPPEH	Scrap	Scrap	2	0	0.5	

APPENDIX J

DGM Intrusive Investigation Results

Site UXO-03 and the Northern Boundary

MCB CamLej, North Carolina

Generated by: David Seed Checked By: Erin Twamley

Anomaly ID	Grid	Amplitude	Dig Date	X1	Y1	Item Group	Class	Category	Quantity	Depth	Weight	Item Comment
N-23	N/A	31.5972	11/12/2010	284665.3	3839483.8	MDAS	Flare	U.S. Signal, Illum, Ground, Clusters, M125A2	1	0	0.5	Expended, Inert
N-24	N/A	32.372	11/12/2010	284664.6	3839484.8	Non-MPPEH	Scrap	Scrap	1	0	0.25	
N-25	N/A	209.4261	11/12/2010	284669.7	3839496.2	Non-MPPEH	Scrap	Scrap	1	0	1	
N-26	N/A	2.1576	11/12/2010	284675.3	3839515.8	Non-MPPEH	Scrap	Scrap	1	0	0.25	
N-27	N/A	7.032	11/12/2010	284632.4	3839586.9	Non-MPPEH	Scrap	Scrap	1	3	0.5	
N-28	N/A	4.7093	11/12/2010	284628.8	3839561	No Contact	No Contact	No Contact	0	0	0	
S-01	N/A	55.8465	11/12/2010	284596	3839401.5	Non-MPPEH	Scrap	Scrap	1	0	0.25	
S-02	N/A	4.5508	11/12/2010	284602	3839402	Non-MPPEH	Scrap	Scrap	2	3	0.5	
S-03	N/A	2.5504	11/12/2010	284640	3839405	Non-MPPEH	Scrap	Scrap	2	3	1	
S-04	N/A	30.6839	11/12/2010	284594	3839405.5	Non-MPPEH	Scrap	Scrap	1	3	7	
S-05	N/A	163.7784	11/12/2010	284536.5	3839406	Non-MPPEH	Scrap	Scrap	1	3	0.15	
S-06	N/A	781.7495	11/12/2010	284544	3839406.5	Non-MPPEH	Scrap	Scrap	1	3	0.15	
S-07	N/A	5.5387	11/12/2010	284563.5	3839408	Non-MPPEH	Scrap	Scrap	2	6	0.75	
S-08	N/A	4.4159	11/12/2010	284593.5	3839410.5	Non-MPPEH	Scrap	Scrap	1	7	0.25	
S-09	N/A	7.5223	11/12/2010	284617.5	3839410.5	Non-MPPEH	Scrap	Scrap	1	6	0.35	
S-10	N/A	6.2574	11/12/2010	284620	3839410.5	Non-MPPEH	Scrap	Scrap	1	6	2	
S-11	N/A	192.7083	11/12/2010	284610.5	3839411	QC	QC Seed	QC Seed	1	3	2	QC Seed #21
S-12	N/A	2.6392	11/12/2010	284597.5	3839414	Non-MPPEH	Scrap	Scrap	1	6	0.15	
S-13	N/A	11.8954	11/12/2010	284531.5	3839415.5	Non-MPPEH	Scrap	Scrap	1	3	0.15	
S-14	N/A	1041.4292	11/12/2010	284541.5	3839415.5	Non-MD	Utlility	Utlility	N/A	N/A	N/A	
S-15	N/A	4.8656	11/12/2010	284560	3839417	Non-MPPEH	Scrap	Scrap	1	0	0.15	
S-16	N/A	3.3696	11/12/2010	284564.5	3839417.5	Non-MPPEH	Scrap	Scrap	1	2	0.25	
S-17	N/A	2.9821	11/12/2010	284569	3839417.5	Non-MPPEH	Scrap	Scrap	1	0	0.15	
S-18	N/A	7.9042	11/12/2010	284594	3839418	Non-MPPEH	Scrap	Scrap	2	3	0.35	
S-19	N/A	14.3858	11/12/2010	284631.5	3839418	Non-MPPEH	Scrap	Scrap	1	3	0.25	
S-20	N/A	142.8562	11/12/2010	284604.5	3839420	Non-MPPEH	Scrap	Scrap	3	12	N/A	
S-21	N/A	80.7984	11/12/2010	284626	3839428.5	Non-MPPEH	Scrap	Scrap	1	3	0.15	
S-22	N/A	275.0716	11/12/2010	284612.5	3839440	Non-MPPEH	Scrap	Scrap	1	12	2	
S-23	N/A	106.3576	11/12/2010	284633.5	3839440	Non-MPPEH	Scrap	Scrap	1	12	5	
S-24	N/A	4.8175	11/12/2010	284643.5	3839441	Non-MPPEH	Scrap	Scrap	1	0	0.15	
S-25	N/A	13.9573	11/12/2010	284569.2	3839408	Non-MPPEH	Scrap	Scrap	1	0	0.5	
S-26	N/A	1.9741	11/12/2010	284558.9	3839417	Non-MPPEH	Scrap	Scrap	1	0	0.15	
S-27	N/A	6.6288	11/12/2010	284551.3	3839416.6	Non-MPPEH	Scrap	Scrap	1	9	1	
S-28	N/A	1.6954	11/12/2010	284619.8	3839400.6	Non-MPPEH	Scrap	Scrap	1	24	0.25	
S-29	N/A	1.7378	11/12/2010	284618.1	3839401	Non-MPPEH	Scrap	Scrap	1	0	0.15	
S-30	N/A	388.3491	11/12/2010	284613.1	3839432.9	Non-MPPEH	Scrap	Scrap	1	6	2	
S-31	N/A	17.7662	11/12/2010	284622.2	3839426.1	Non-MPPEH	Scrap	Scrap	1	6	0.5	
S-32	N/A	15.7616	11/12/2010	284632.4	3839417.4	Non-MPPEH	Scrap	Scrap	1	3	N/A	
S-33	N/A	794.1291	11/12/2010	284634.8	3839414.3	Non-MPPEH	Scrap	Scrap	1	0	N/A	

Donor charge taped to the Grenade, Rifle M20A1, Signal, Ground, Green Star Cluster at Site UXO-03 NB (October 20, 2009).

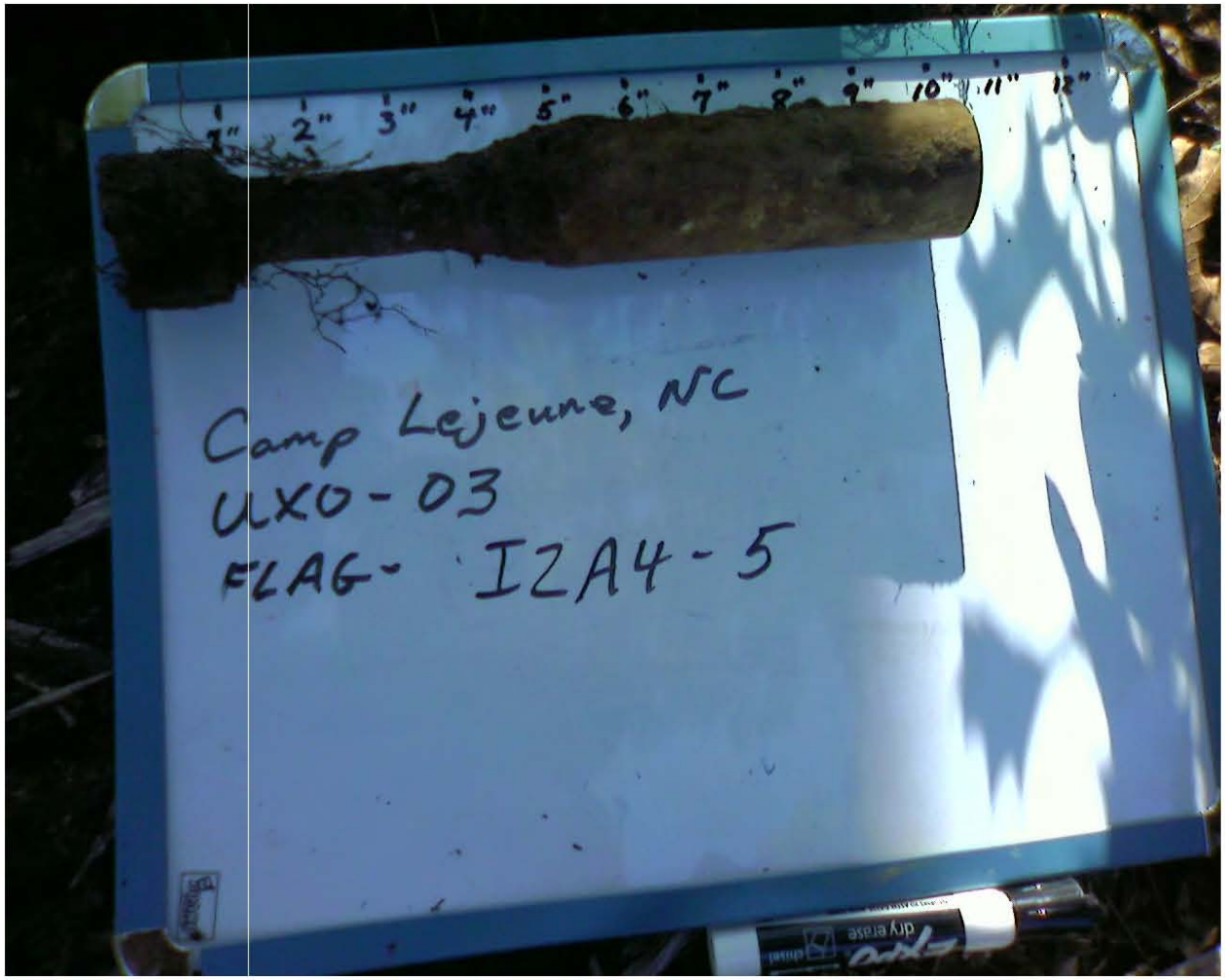
Demolition area prepared with sand bags covering the donor charge and grenade at Site UXO-03 NB (October 20, 2009).

Detonation of the grenade completed at Site UXO-03 NB (October 20, 2009).

Attachment 1

Discovered Items Information and Photos

Grenade, Rifle M20A1, Signal, Ground, Green Star Cluster


Camp Lejeune, NC
ULXO-03
FLAG- IZA4-5
dry erase

quickmatch threaded through the central hole in each star and brought back alongside the group. The ends of the quickmatch are tied together with a cord facilitating assembly and ignition. Each star burns approximately 5 to 7 seconds with a minimum candlepower of 18,000.

Identification of these signals is made by the embossed identification top and the printed nomenclature on the body of the signal.

SIGNAL, GROUND, WHITE STAR, PARACHUTE, M17A1—STANDARD— The M17A1 parachute signal measures 10.40 inches over-all and has a maximum fin diameter of 1.88 inches. When assembled it weighs 16.71 ounces. It is supplied with an M3 or AN-M6 blank cartridge which is shipped in the packing boxes containing the signals. The base of the stabilizer tube is closed by a cork to protect the propelling charge contained in the body of the signal.

At the base of the signal body is a housing which contains a propelling charge; 17 grains (1.11 grams) of smokeless powder. A circular time train groove between the propelling charge chamber and the expelling charge cavity is loaded with pressed black powder. The end of the star assembly containing the first fire composition is seated on a wad which cushions the assembly against the shock of discharge. The M19A1 green star parachute signal and the M21A1 amber star parachute signal do not require a first fire composition charge. The illuminant star assembly is attached to the parachute by braided wire cable. A chipboard disk between the illuminant assembly and the parachute prevents the flash of the expelling pellet from damaging the parachute. A second disk is fitted on top of the parachute beneath the pressed metal cap which retains parachute and illuminant assembly in the signal body.

Upon firing, gas pressure generated by the blank cartridge ruptures the retaining disk, which seals the propellant in the case, and ignites the propelling charge. The signal then is discharged from the rifle launcher and sets off the time train which burns for approximately 5.5 seconds, and then ignites the expelling charge.

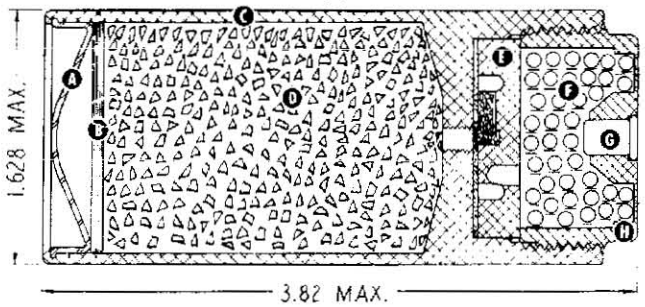
The expelling charge forces the illuminant assembly out of the signal body by pushing off the closing cover, and simultaneously ignites the stars. These signals can be identified by the embossed identification top and the printed nomenclature upon the signal body.

	M17A1	M19A1	M21A1	M51A1	M18A1	M20A1	M22A1	M52A1
Type of Signal	Parachute	Parachute	Parachute	Parachute	Cluster	Cluster	Cluster	Cluster
Color	White	Green	Amber	Red	White	Green	Amber	Red
Delay Time (seconds)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Burning Time (seconds)	20 to 30	20 to 30	20 to 30	20 to 30	5 to 7	5 to 7	5 to 7	5 to 7
Projection Height (feet)	600							
Rate of Fall (f/s)	7	7	7	7	Free	Free	Free	Free
Minimum Candlepower (thousands)	20	5	4	20	18*	7*	2*	35*
Illuminant Weight (ounces)	2.55	2.50	2.12	2.00	4.00	4.00	3.50	3.75
Complete Weight (ounces)	16.71	16.36	15.98	16.36	17.49	17.49	16.96	17.49
Length (inches)	10.40	10.40	10.40	10.40	10.14	10.14	10.14	10.14
Fin Diameter (inches)	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.88

*For each of the five star assemblies.

SIGNAL, GROUND, HIGH BURST RANGING, M27—STANDARD

SIGNAL, GROUND, HIGH BURST RANGING, M27



Ⓐ Top
Ⓑ Closing disk
Ⓒ Body
Ⓓ Smoke charge
Ⓔ Time train ring assembly
Ⓕ Propelling charge
Ⓖ Primer
Ⓗ Breech cap assembly

CHARACTERISTICS

Designation	Color	Delay Time (minutes)	Burning Time (seconds)	Rate of Fall (F/S)	Illuminant Weight (ounces)	Complete Weight (ounces)	Length (inches)	Diameter (inches)
Signal, Ground, High Burst Ranging, M27	Smoke	5	Instantaneous	†	2.20	6.8	3.82	1.63
Signal, Drift, Night, AN-Mk. 4	Flame-smoke	10	3	Free	5.3	32	13.6	2.90
Night, AN-Mk. 5, Mod. 1	Flame-smoke	9	16	Free	15.8	65	19	3
Signal, Drift, Day, AN-Mk. 1	Metallic slick	*	——	Free	16	40	10.0	3.50

*None. Upon striking water shell breaks open forming slick.
†Bursts at top of its rise.

(Continued on next page)

UNCLASSIFIED

Donor charge taped to the Grenade, Rifle M20A1, Signal, Ground, Green Star Cluster at Site UXO-03 NB (October 20, 2009).

Demolition area prepared with sand bags covering the donor charge and grenade at Site UXO-03 NB (October 20, 2009).

Detonation of the grenade completed at Site UXO-03 NB (October 20, 2009).

Appendix K
Human Health Risk Screening Tables

TABLE K-1

Occurrence, Distribution and Selection of Chemicals of Potential Convern

Site UXO-03 Former Practice Hand Grenade Course

MCB Camp Lejeune, North Carolina

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

Exposure Point	CAS Number	Chemical	Minimum [1] Concentration Qualifier	Maximum [1] Concentration Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration [2] Used for Screening	Background [3] Value	Screening [4] Toxicity Value	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for [5] Contaminant Deletion or Selection
Sediment	99-35-4	1,3,5-Trinitrobenzene	ND	ND	MG_KG		0/2	0.1 - 0.1	1.0E-01	NA	2.2E+02 N	NA	NA	NO	DLBSL
UXO-03	99-65-0	1,3-Dinitrobenzene	ND	ND	MG_KG		0/2	0.1 - 0.1	1.0E-01	NA	6.1E-01 N	NA	NA	NO	DLBSL
	118-96-7	2,4,6-Trinitrotoluene	ND	ND	MG_KG		0/2	0.1 - 0.1	1.0E-01	NA	3.6E+00 C**	NA	NA	NO	DLBSL
	121-14-2	2,4-Dinitrotoluene	ND	ND	MG_KG		0/2	0.1 - 0.1	1.0E-01	NA	1.60E+00 C*	NA	NA	NO	DLBSL
	606-20-2	2,6-Dinitrotoluene	ND	ND	MG_KG		0/2	0.1 - 0.1	1.0E-01	NA	6.1E+00 N	NA	NA	NO	DLBSL
	35572-78-2	2-Amino-4,6-dinitrotoluene	ND	ND	MG_KG		0/2	0.1 - 0.1	1.0E-01	NA	1.5E+01 N	NA	NA	NO	DLBSL
	88-72-2	2-Nitrotoluene	ND	ND	MG_KG		0/2	0.2 - 0.2	2.0E-01	NA	2.9E+00 C*	NA	NA	NO	DLBSL
	99-08-1	3-Nitrotoluene	ND	ND	MG_KG		0/2	0.2 - 0.2	2.0E-01	NA	6.1E-01 N	NA	NA	NO	DLBSL
	19406-51-0	4-Amino-2,6-dinitrotoluene	ND	ND	MG_KG		0/2	0.1 - 0.1	1.0E-01	NA	1.5E+01 N	NA	NA	NO	DLBSL
	99-99-0	4-Nitrotoluene	ND	ND	MG_KG		0/2	0.2 - 0.2	2.0E-01	NA	2.4E+01 C**	NA	NA	NO	DLBSL
	2691-41-0	HMX	ND	ND	MG_KG		0/2	0.2 - 0.2	2.0E-01	NA	3.8E+02 N	NA	NA	NO	DLBSL
	98-95-3	Nitrobenzene	ND	ND	MG_KG		0/2	0.1 - 0.1	1.0E-01	NA	4.8E+00 C*	NA	NA	NO	DLBSL
	14797-73-0	Perchlorate	ND	ND	MG_KG		0/2	0.00253 - 0.0027	2.8E-03	NA	5.5E+00 N	NA	NA	NO	DLBSL
	121-82-4	RDX	ND	ND	MG_KG		0/2	0.2 - 0.2	2.0E-01	NA	5.5E+00 C*	NA	NA	NO	DLBSL
	479-45-8	Tetryl	ND	ND	MG_KG		0/2	0.2 - 0.2	2.0E-01	NA	2.4E+01 N	NA	NA	NO	DLBSL
	7429-90-5	Aluminum	1.0E+03 J	1.3E+03 J	MG_KG	MR03-SD01-08B	2/2	18 - 19.5	1.3E+03	NA	7.7E+03 N	NA	NA	NO	BSL
	7440-36-0	Antimony	6.6E-01 J	6.6E-01 J	MG_KG	MR03-SD02-08B	1/2	5.4 - 5.9	6.6E-01	NA	3.1E+00 N	NA	NA	NO	BSL
	7440-38-2	**Arsenic**	**4.6E-01 J**	**4.6E-01 J**	**MG_KG**	**MR03-SD01-08B**	**1/2**	**0.9 - 0.98**	**4.6E-01**	**NA**	**3.9E-01 C***	**NA**	**NA**	**YES**	**ASL**
	7440-39-3	Barium	ND	ND	MG_KG		0/2	18 - 19.5	2.0E+01	NA	1.5E+03 N	NA	NA	NO	DLBSL
	7440-41-7	Beryllium	2.4E-02 J	3.4E-02 J	MG_KG	MR03-SD01-08B	2/2	0.45 - 0.49	3.4E-02	NA	1.6E+01 N	NA	NA	NO	BSL
	7440-43-9	Cadmium	ND	ND	MG_KG		0/2	0.45 - 0.49	4.9E-01	NA	7.0E+00 N	NA	NA	NO	DLBSL
	7440-70-2	Calcium	4.1E+02 J	9.1E+02 J	MG_KG	MR03-SD02-08B	2/2	449 - 488	9.1E+02	NA	NA	NA	NA	NO	NUT
	7440-47-3	**Chromium**	**1.7E+00**	**2.0E+00**	**MG_KG**	**MR03-SD01-08B**	**2/2**	**0.9 - 0.98**	**2.0E+00**	**NA**	**2.9E-01 C**	**NA**	**NA**	**YES**	**ASL**
	7440-48-4	Cobalt	7.7E-02 J	8.7E-02 J	MG_KG	MR03-SD01-08B	2/2	4.5 - 4.9	8.7E-02	NA	2.3E+00 N	NA	NA	NO	BSL
	7440-50-8	Copper	1.2E+00 J	2.5E+00	MG_KG	MR03-SD02-08B	2/2	2.2 - 2.4	2.5E+00	NA	3.1E+02 N	NA	NA	NO	BSL
	7439-89-6	Iron	4.1E+02 J	5.9E+02 J	MG_KG	MR03-SD02-08B	2/2	9 - 9.8	5.9E+02	NA	5.5E+03 N	NA	NA	NO	BSL
	7439-92-1	Lead	6.5E+00 J	7.9E+00 J	MG_KG	MR03-SD01-08B	2/2	0.9 - 0.98	7.9E+00	NA	4.0E+02 N	NA	NA	NO	BSL
	7439-95-4	Magnesium	ND	ND	MG_KG		0/2	449 - 488	4.9E+02	NA	NA	NA	NA	NO	NUT
	7439-96-5	Manganese	1.9E+00	2.1E+00	MG_KG	MR03-SD02-08B	2/2	1.3 - 1.5	2.1E+00	NA	1.8E+02 N	NA	NA	NO	BSL
	7439-97-6	Mercury	1.4E-02 J	1.4E-02 J	MG_KG	MR03-SD02-08B	1/2	0.039 - 0.042	1.4E-02	NA	2.3E+00 N	NA	NA	NO	BSL
	7440-02-0	Nickel	4.8E-01 J	5.6E-01 J	MG_KG	MR03-SD01-08B	2/2	3.6 - 3.9	5.6E-01	NA	1.5E+02 N	NA	NA	NO	BSL
	7440-09-7	Potassium	ND	ND	MG_KG		0/2	449 - 488	4.9E+02	NA	NA	NA	NA	NO	DLBSL

TABLE K-1

Occurrence, Distribution and Selection of Chemicals of Potential Convern

Site UXO-03 Former Practice Hand Grenade Course

MCB Camp Lejeune, North Carolina

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

Exposure Point	CAS Number	Chemical	Minimum [1] Concentration Qualifier	Maximum [1] Concentration Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration [2] Used for Screening	Background [3] Value	Screening [4] Toxicity Value	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for [5] Contaminant Deletion or Selection
	7782-49-2	Selenium	ND	ND	MG_KG		0/2	3.1 - 3.4	3.4E+00	NA	3.9E+01 N	NA	NA	NO	DLBSL
	7440-22-4	Silver	ND	ND	MG_KG		0/2	0.9 - 0.98	9.8E-01	NA	3.9E+01 N	NA	NA	NO	DLBSL
	7440-23-5	Sodium	ND	ND	MG_KG		0/2	449 - 488	4.9E+02	NA	NA	NA	NA	NO	NUT
	7440-43-9	Thallium	ND	ND	MG_KG		0/2	2.2 - 2.4	2.4E+00	NA	NA	NA	NA	NO	NTX
	7440-62-2	Vanadium	ND	ND	MG_KG		0/2	4.5 - 4.9	3.6E+00	NA	3.9E+01 N	NA	NA	NO	DLBSL
	7440-66-6	Zinc	7.0E+00	1.2E+01	MG_KG	MR03-SD02-08B	2/2	5.4 - 5.9	1.2E+01	NA	2.3E+03 N	NA	NA	NO	BSL

[1] Minimum/Maximum detected concentrations.

[2] Maximum concentration is used for screening.

[3] Background values not available.

[4] Oak Ridge National Laboratory (ORNL). November, 2010. Regional Screening Levels for Chemical Contaminants at Superfund Sites.
Residential Soil RSLs (based on 10^{-6} for carcinogens and HQ of 0.1 for noncarcinogens). Available Online: http://epa-prgs.ornl.gov/chemicals/index.shtml
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 (non-diet) used as surrogate for manganese.
RSL value for Mercury (inorganic salts) used as surrogate for mercury.

[5] Rationale Codes

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

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

COPC = Chemical of Potential Concern
ARAR/TBC = Applicable or Relevant and Appropriate Requirement/ To Be Considered
J = Estimated Value
C = Carcinogenic
C* = where: N RSL < 100X C RSL, therefore use N RSL
C** = where N RSL < 10 X C RSL, therefore use N RSL
N = Noncarcinogenic
NA = Not available
RSL = Regional Screening Level

TABLE K-2

Risk Ratio Screening for Sediment, Maximum Detected Concentration

Site UXO-03 Former Practice Hand Grenade Course

MCB Camp Lejeune, 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
Metals (mg/kg)								
Arsenic	1 / 2	4.6E-01 J	MR03-SD01-08B	3.9E-01	1E-06	NA	1E-06	NA
Chromium	2 / 2	2.0E+00	MR03-SD01-08B	2.9E-01	1E-06	NA	7E-06	NA
Cumulative Corresponding Hazard Index[c]								
Cumulative Corresponding Cancer Risk[a]							**8E-06**	

[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

J = Estimated Value

mg/kg = Milligrams per kilogram

NA = Not available/not applicable.

TABLE K-3

Surface Soil Occurence, Distribution and selection of Chemicals of Potential Concern

Site UXO-03 Former Practice Hand Grenade Course

MCB Camp Lejeune, 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
UXO-03 Surface Soil	99-35-4	1,3,5-Trinitrobenzene	ND	ND	MG/KG		0/34	0.099 - 0.1	1.0E-01	NA	2.2E+02 N	NA	NA	NO	DLBSL
	99-65-0	1,3-Dinitrobenzene	ND	ND	MG/KG		0/34	0.099 - 0.1	1.0E-01	NA	6.1E-01 N	NA	NA	NO	DLBSL
	118-96-7	2,4,6-Trinitrotoluene	1.6E-01 J	1.6E-01 J	MG/KG	MR03-SS05D-08B	1/34	0.099 - 0.1	1.6E-01	NA	3.6E+00 C**	NA	NA	NO	BSL
	121-14-2	2,4-Dinitrotoluene	ND	ND	MG/KG		0/34	0.099 - 0.1	1.0E-01	NA	1.6E+00 C*	NA	NA	NO	DLBSL
	606-20-2	2,6-Dinitrotoluene	1.9E-01 J	1.9E-01 J	MG/KG	MR03-SS07-08B	1/34	0.099 - 0.1	1.9E-01	NA	6.1E+00 N	NA	NA	NO	BSL
	35572-78-2	2-Amino-4,6-dinitrotoluene	ND	ND	MG/KG		0/34	0.099 - 0.1	1.0E-01	NA	1.5E+01 N	NA	NA	NO	DLBSL
	88-72-2	2-Nitrotoluene	ND	ND	MG/KG		0/34	0.2 - 0.2	2.0E-01	NA	2.9E+00 C*	NA	NA	NO	DLBSL
	99-08-1	3-Nitrotoluene	ND	ND	MG/KG		0/34	0.2 - 0.2	2.0E-01	NA	6.1E-01 N	NA	NA	NO	DLBSL
	19406-51-0	4-Amino-2,6-dinitrotoluene	ND	ND	MG/KG		0/34	0.099 - 0.1	1.0E-01	NA	1.5E+01 N	NA	NA	NO	DLBSL
	99-99-0	4-Nitrotoluene	ND	ND	MG/KG		0/34	0.2 - 0.2	2.0E-01	NA	2.4E+01 C**	NA	NA	NO	DLBSL
	2691-41-0	HMX	5.6E-01 J	1.1E+00 J	MG/KG	MR03-SS01-08B : MR03-SS05D-08B	3/34	0.2 - 0.2	1.1E+00	NA	3.8E+02 N	NA	NA	NO	BSL
	98-95-3	Nitrobenzene	ND	ND	MG/KG		0/34	0.099 - 0.1	1.0E-01	NA	4.8E+00 C*	NA	NA	NO	DLBSL
	14797-73-0	Perchlorate	7.6E-03	7.6E-03	MG/KG	MR03-SS05-08B	1/34	0.00203 - 0.00368	7.6E-03	NA	5.5E+00 N	NA	NA	NO	BSL
	121-82-4	RDX	ND	ND	MG/KG		0/34	0.2 - 0.2	2.0E-01	NA	5.5E+00 C*	NA	NA	NO	DLBSL
	479-45-8	Tetryl	ND	ND	MG/KG		0/34	0.2 - 0.2	2.0E-01	NA	2.4E+01 N	NA	NA	NO	DLBSL
	7429-90-5	Aluminum	9.2E+02	6.2E+03 J	MG/KG	MR03-SS08-08B	34/34	14.5 - 26.1	6.2E+03	5.5E+03	7.7E+03 N	NA	NA	NO	BSL
	7440-36-0	Antimony	1.2E-01 J	3.1E-01 J	MG/KG	MR03-SS08-08B	4/34	4.3 - 7.8	3.1E-01	4.5E-01	3.1E+00 N	NA	NA	NO	BSL
	7440-38-2	**Arsenic**	**2.5E-01 J**	**1.8E+00**	**MG/KG**	**MR03-SS23-08B**	**33/34**	**0.72 - 1.3**	**1.8E+00**	**6.3E-01**	**3.9E-01 C***	**5.8E+00**	**NCSSL**	**YES**	**ASL**
	7440-39-3	Barium	2.0E+01 J	4.1E+01	MG/KG	MR03-SS02-08B	5/34	14.5 - 26.1	4.1E+01	1.5E+01	1.5E+03 N	5.8E+02	NCSSL	NO	BSL
	7440-41-7	Beryllium	1.2E-02 J	1.9E-01 J	MG/KG	MR03-SS15D-08B	30/34	0.36 - 0.65	1.9E-01	1.0E-01	1.6E+01 N	NA	NA	NO	BSL
	7440-43-9	Cadmium	1.7E-02 J	1.4E-01 J	MG/KG	MR03-SS23-08B	12/34	0.36 - 0.65	1.4E-01	3.3E-02	7.0E+00 N	3.0E+00	NCSSL	NO	BSL
	7440-70-2	Calcium	2.2E+02 J	3.7E+03	MG/KG	MR03-DU01-SS03-08B	30/34	361 - 654	3.7E+03	6.4E+03	NA	NA	NA	NO	NUT
	7440-47-3	**Chromium**	**1.1E+00**	**6.7E+00 J**	**MG/KG**	**MR03-SS19-08B**	**34/34**	**0.72 - 1.3**	**6.7E+00**	**6.1E+00**	**2.9E-01 C**	**3.8E+00**	**NCSSL**	**YES**	**ASL**
	7440-48-4	Cobalt	7.9E-02 J	4.2E-01 J	MG/KG	MR03-SS11-08B	12/34	3.6 - 6.5	4.2E-01	2.9E-01	2.3E+00 N	NA	NA	NO	BSL
	7440-50-8	Copper	3.2E-01 J	7.3E+01	MG/KG	MR03-SS05D-08B	34/34	1.8 - 3.3	7.3E+01	4.8E+00	3.1E+02 N	7.0E+02	NCSSL	NO	BSL
	7439-89-6	Iron	4.6E+02	3.1E+03	MG/KG	MR03-SS10-08B	34/34	7.2 - 13.1	3.1E+03	3.2E+03	5.5E+03 N	1.5E+02	NCSSL	NO	BSL
	7439-92-1	Lead	1.9E+00	4.6E+01	MG/KG	MR03-SS02-08B	34/34	0.72 - 1.3	4.6E+01	1.2E+01	4.0E+02 N	2.7E+02	NCSSL	NO	BSL
	7439-95-4	Magnesium	5.8E+01 J	6.6E+02	MG/KG	MR03-SS14-08B	13/34	361 - 654	6.6E+02	2.4E+02	NA	NA	NA	NO	NUT
	7439-96-5	Manganese	3.8E+00	1.2E+02	MG/KG	GR-IS04-0-1-07C	34/34	1.1 - 2	1.2E+02	1.4E+01	1.8E+02 N	6.5E+01	NCSSL	NO	BSL
	7439-97-6	Mercury	1.2E-02 J	1.2E-01	MG/KG	MR03-SS05D-08B	27/34	0.029 - 0.056	1.2E-01	8.1E-02	2.3E+00 N	1.0E+00	NCSSL	NO	BSL
	7440-02-0	Nickel	1.3E-01 J	1.9E+00 J	MG/KG	MR03-SS02-08B	34/34	2.9 - 5.2	1.9E+00	1.2E+00	1.50E+02 N	1.3E+02	NCSSL	NO	BSL
	7440-09-7	Potassium	5.7E+01 J	1.0E+02 J	MG/KG	GR-IS01-0-1-07C	4/34	361 - 654	1.0E+02	1.2E+02	NA	NA	NA	NO	NUT
	7782-49-2	Selenium	4.1E-01 J	1.2E+00 J	MG/KG	MR03-SS05-08B	10/34	2.5 - 4.6	1.2E+00	5.6E-01	3.9E+01 N	2.1E+00	NCSSL	NO	BSL
	7440-22-4	Silver	ND	ND	MG/KG		0/34	0.72 - 1.3	1.3E+00	1.3E-01	3.9E+01 N	3.4E+00	NCSSL	NO	DLBSL
	7440-23-5	Sodium	9.3E+00 J	4.5E+01 J	MG/KG	MR03-SS11-08B	12/34	361 - 654	4.5E+01	8.1E+01	NA	NA	NA	NO	NUT
	7440-28-0	Thallium	ND	ND	MG/KG		0/34	1.8 - 3.3	3.3E+00	3.6E-01	NA	NA	NCSSL	NO	NTX
	7440-62-2	Vanadium	2.6E+00 J	1.0E+01	MG/KG	MR03-SS03-08B	27/34	3.6 - 6.5	1.0E+01	8.9E+00	3.9E+01 N	NA	NA	NO	BSL
	7440-66-6	Zinc	1.8E+00 J	4.2E+01	MG/KG	MR03-DU01-SS01-08B	31/34	4.3 - 7.8	4.2E+01	1.1E+01	2.3E+03 N	1.2E+03	NCSSL	NO	BSL

TABLE K-3

Surface Soil Occurence, Distribution and selection of Chemicals of Potential Concern

Site UXO-03 Former Practice Hand Grenade Course

MCB Camp Lejeune, 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 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). November, 2010. Regional Screening Levels for Chemical Contaminants at Superfund Sites.
Residential S Available: http://epa-prgs.ornl.gov/chemicals/index.shtml
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 (non-diet) used as surrogate for manganese.
RSL value for Mercury (inorganic salts) used as surrogate for mercury.

[5] Rationale Codes

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

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

COPC = Chemical of Potential Concern
ARAR/TBC = Applicable or Relevant and Appropriate Requirement/ To Be Considered
J = Estimated Value
C = Carcinogenic
C* = where: N RSL < 100X C RSL
C** = where N RSL < 10 X C RSL
N = Noncarcinogenic
NA = Not available
NCSSL = North Carolina Soil Screening Levels (NCDENR, January, 2010)
RSL = Regional Screening Level

TABLE K-4

Total Soil Occurence, Distribution and selection of Chemicals of Potential Concern

Site UXO-03 Former Practice Hand Grenade Course

MCB Camp Lejeune, North Carolina

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

Exposure Point	CAS Number	Chemical	Minimum [1] Concentration Qualifier	Maximum [1] Concentration Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration [2] Used for Screening	Background [3] Value	Screening [4] Toxicity Value	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for [5] Contaminant Deletion or Selection
UXO-03 Soil*	99-35-4	1,3,5-Trinitrobenzene	ND	ND	MG/KG		0/45	0.099 - 0.1	1.0E-01	NA	2.2E+02 N	NA	NA	NO	DLBSL
	99-65-0	1,3-Dinitrobenzene	ND	ND	MG/KG		0/45	0.099 - 0.1	1.0E-01	NA	6.1E-01 N	NA	NA	NO	DLBSL
	118-96-7	2,4,6-Trinitrotoluene	1.6E-01 J	1.6E-01 J	MG/KG	MR03-SS05D-08B	1/45	0.099 - 0.1	1.6E-01	NA	3.6E+00 C**	NA	NA	NO	BSL
	121-14-2	2,4-Dinitrotoluene	ND	ND	MG/KG		0/45	0.099 - 0.1	1.0E-01	NA	1.6E+00 C*	NA	NA	NO	DLBSL
	606-20-2	2,6-Dinitrotoluene	1.9E-01 J	1.9E-01 J	MG/KG	MR03-SS07-08B	1/45	0.099 - 0.1	1.9E-01	NA	6.1E+00 N	NA	NA	NO	BSL
	35572-78-2	2-Amino-4,6-dinitrotoluene	ND	ND	MG/KG		0/45	0.099 - 0.1	1.0E-01	NA	1.5E+01 N	NA	NA	NO	DLBSL
	88-72-2	2-Nitrotoluene	ND	ND	MG/KG		0/45	0.2 - 0.2	2.0E-01	NA	2.9E+00 C*	NA	NA	NO	DLBSL
	99-08-1	3-Nitrotoluene	ND	ND	MG/KG		0/45	0.2 - 0.2	2.0E-01	NA	6.1E-01 N	NA	NA	NO	DLBSL
	19406-51-0	4-Amino-2,6-dinitrotoluene	ND	ND	MG/KG		0/45	0.099 - 0.1	1.0E-01	NA	1.5E+01 N	NA	NA	NO	DLBSL
	99-99-0	4-Nitrotoluene	ND	ND	MG/KG		0/45	0.2 - 0.2	2.0E-01	NA	2.4E+01 C**	NA	NA	NO	DLBSL
	2691-41-0	HMX	5.6E-01 J	1.1E+00 J	MG/KG	MR03-SS01-08B : MR03-SS05D-08B	3/45	0.2 - 0.2	1.1E+00	NA	3.8E+02 N	NA	NA	NO	BSL
	98-95-3	Nitrobenzene	ND	ND	MG/KG		0/45	0.099 - 0.1	1.0E-01	NA	4.8E+00 C*	NA	NA	NO	DLBSL
	14797-73-0	Perchlorate	7.6E-03	7.6E-03	MG/KG	MR03-SS05-08B	1/45	0.00203 - 0.00368	7.6E-03	NA	5.5E+00 N	NA	NA	NO	BSL
	121-82-4	RDX	ND	ND	MG/KG		0/45	0.2 - 0.2	2.0E-01	NA	5.5E+00 C*	NA	NA	NO	DLBSL
	479-45-8	Tetryl	ND	ND	MG/KG		0/45	0.2 - 0.2	2.0E-01	NA	2.4E+01 N	NA	NA	NO	DLBSL
	7429-90-5	**Aluminum**	**9.2E+02**	**8.5E+03**	**MG/KG**	**MR03-IS08-4-5-08C**	**45/45**	**14.5 - 26.1**	**8.5E+03**	**5.5E+03**	**7.7E+03 N**	**NA**	**NA**	**YES**	**ASL**
	7440-36-0	Antimony	1.2E-01 J	5.0E-01 J	MG/KG	MR03-IS02-4_5-5_5-08C	8/45	4.3 - 7.8	5.0E-01	3.6E-01	3.1E+00 N	NA	NCSSL	NO	BSL
	7440-38-2	**Arsenic**	**2.5E-01 J**	**4.6E+00**	**MG/KG**	**MR03-IS05-3-4-08C**	**44/45**	**0.72 - 1.3**	**4.6E+00**	**6.3E-01**	**3.9E-01 C***	**5.8E+00**	**NCSSL**	**YES**	**ASL**
	7440-39-3	Barium	2.0E+01 J	4.1E+01	MG/KG	MR03-SS02-08B	5/45	14.5 - 26.1	4.1E+01	1.4E+01	1.5E+03 N	5.8E+02	NCSSL	NO	BSL
	7440-41-7	Beryllium	1.2E-02 J	1.9E-01 J	MG/KG	MR03-SS15D-08B	30/45	0.36 - 0.65	1.9E-01	1.0E-01	1.6E+01 N	NA	NCSSL	NO	BSL
	7440-43-9	Cadmium	1.7E-02 J	1.4E-01 J	MG/KG	MR03-SS23-08B	12/45	0.36 - 0.65	1.4E-01	2.3E-02	7.0E+00 N	3.0E+00	NCSSL	NO	BSL
	7440-70-2	Calcium	2.2E+02 J	1.8E+04	MG/KG	MR03-IS03-4-5-08C	31/45	361 - 654	1.8E+04	4.4E+02	NA	NA	NA	NO	NUT
	7440-47-3	**Chromium**	**1.1E+00**	**1.2E+01**	**MG/KG**	**MR03-IS04-7-8-08C**	**43/45**	**0.72 - 1.3**	**1.2E+01**	**6.1E+00**	**2.9E-01 C**	**3.8E+00**	**NCSSL**	**YES**	**ASL**
	7440-48-4	Cobalt	7.9E-02 J	4.4E-01 J	MG/KG	MR03-IS08-4-5-08C	22/45	3.6 - 6.5	4.4E-01	2.9E-01	2.3E+00 N	NA	NA	NO	BSL
	7440-50-8	Copper	3.2E-01 J	7.3E+01	MG/KG	MR03-SS05D-08B	35/45	1.8 - 3.3	7.3E+01	2.6E+00	3.1E+02 N	7.0E+02	NCSSL	NO	BSL
	7439-89-6	**Iron**	**4.6E+02**	**1.1E+04**	**MG/KG**	**MR03-IS04-7-8-08C**	**45/45**	**7.2 - 13.1**	**1.1E+04**	**3.2E+03**	**5.5E+03 N**	**1.5E+02**	**NCSSL**	**YES**	**ASL**
	7439-92-1	Lead	1.9E+00	4.6E+01	MG/KG	MR03-SS02-08B	45/45	0.72 - 1.3	4.6E+01	8.5E+00	4.0E+02 N	2.7E+02	NCSSL	NO	BSL
	7439-95-4	Magnesium	5.8E+01 J	6.6E+02	MG/KG	MR03-SS14-08B	13/45	361 - 654	6.6E+02	2.4E+02	NA	NA	NA	NO	NUT
	7439-96-5	Manganese	1.9E+00	1.2E+02	MG/KG	GR-IS04-0-1-07C	45/45	1.1 - 2	1.2E+02	9.2E+00	1.8E+02 N	6.5E+01	NCSSL	NO	BSL
	7439-97-6	Mercury	1.2E-02 J	1.2E-01	MG/KG	MR03-SS05D-08B	28/45	0.029 - 0.056	1.2E-01	7.1E-02	2.3E+00 N	1.0E+00	NCSSL	NO	BSL
	7440-02-0	Nickel	1.3E-01 J	1.9E+00 J	MG/KG	MR03-SS02-08B	45/45	2.9 - 5.2	1.9E+00	1.2E+00	1.50E+02 N	1.3E+02	NCSSL	NO	BSL
	7440-09-7	Potassium	5.7E+01 J	4.5E+02	MG/KG	MR03-IS04-7-8-08C	5/45	361 - 654	4.5E+02	1.2E+02	NA	NA	NA	NO	NUT
	7782-49-2	Selenium	4.1E-01 J	1.2E+00 J	MG/KG	MR03-SS05-08B	13/45	2.5 - 4.6	1.2E+00	5.0E-01	3.9E+01 N	2.1E+00	NCSSL	NO	BSL
	7440-22-4	Silver	5.0E-02 J	5.6E-02 J	MG/KG	MR03-IS02-4_5-5_5-08C	2/45	0.72 - 1.3	5.6E-02	1.3E-01	3.9E+01 N	3.4E+00	NCSSL	NO	BSL
	7440-23-5	Sodium	9.3E+00 J	4.5E+01 J	MG/KG	MR03-SS11-08B	12/45	361 - 654	4.5E+01	6.8E+01	NA	NA	NA	NO	NUT
	7440-28-0	Thallium	ND	ND	MG/KG		0/45	1.8 - 3.3	3.3E+00	3.6E-01	NA	NA	NCSSL	NO	NTX
	7440-62-2	Vanadium	2.6E+00 J	1.5E+01	MG/KG	MR03-IS02-4_5-5_5-08C	37/45	3.6 - 6.5	1.5E+01	8.9E+00	3.9E+01 N	NA	NA	NO	BSL
	7440-66-6	Zinc	1.8E+00 J	4.2E+01	MG/KG	MR03-DU01-SS01-08B	32/45	4.3 - 7.8	4.2E+01	6.6E+00	2.3E+03 N	1.2E+03	NCSSL	NO	BSL

TABLE K-4

Total Soil Occurence, Distribution and selection of Chemicals of Potential Concern

Site UXO-03 Former Practice Hand Grenade Course

MCB Camp Lejeune, North Carolina

Scenario Timeframe: Current/Future
Medium: Soil*
Exposure Medium: 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 & subsurface soil combined

[1] Minimum/Maximum detected concentrations.

[2] Maximum concentration is used for screening.

[3] Background values are two times the arithmetic mean basewide background 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). November, 2010. Regional Screening Levels for Chemical Contaminants at Superfund Sites.
Residential S Available: http://epa-prgs.ornl.gov/chemicals/index.shtml
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 (non-diet) used as surrogate for manganese.
RSL value for Mercury (inorganic salts) used as surrogate for mercury.

[5] Rationale Codes

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

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

COPC = Chemical of Potential Concern
ARAR/TBC = Applicable or Relevant and Appropriate Requirement/ To Be Considered
J = Estimated Value
C = Carcinogenic
C* = where: N RSL < 100X C RSL
C** = where N RSL < 10 X C RSL
N = Noncarcinogenic
NA = Not available
NCSSL = North Carolina Soil Screening Levels (NCDENR, January, 2010)
RSL = Regional Screening Level

TABLE K-5

Risk Ratio Screening for Surface Soil, Maximum Detected Concentration

Site UXO-03 Former Practice Hand Grenade Course

MCB Camp Lejeune, 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
Metals (mg/kg)								
Arsenic	33 / 34	1.8E+00	MR03-SS23-08B	3.9E-01	1E-06	NA	5E-06	NA
Chromium	34 / 34	6.7E+00 J	MR03-SS19-08B	2.9E-01	1E-06	NA	2E-05	NA
Cumulative Corresponding Hazard Index[c]								
Cumulative Corresponding Cancer Risk[a]							**3E-05**	

[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

J = Estimated Value

mg/kg = Milligrams per kilogram

NA = Not available/not applicable.

TABLE K-6

Risk Ratio Screening for Combined Surface and Subsurface Soil, Maximum Detected Concentration

Site UXO-03 Former Practice Hand Grenade Course

MCB Camp Lejeune, 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
Metals (mg/kg)								
Aluminum	45 / 45	8.5E+03	MR03-IS08-4-5-08C	7.7E+04	1	0.1	NA	Developmental, Neurological
Arsenic	44 / 45	4.6E+00	MR03-IS05-3-4-08C	3.9E-01	1E-06	NA	1E-05	NA
Chromium	43 / 45	1.2E+01	MR03-IS04-7-8-08C	2.9E-01	1E-06	NA	4E-05	NA
Iron	45 / 45	1.1E+04	MR03-IS04-7-8-08C	5.5E+04	1	0.2	NA	Gastrointestinal
Cumulative Corresponding Hazard Index[c]						**0.3**		
Cumulative Corresponding Cancer Risk[d]							**5E-05**	

Total Developmental HI =	0.1
Total Neurological HI =	0.1
Total Gastrointestinal HI =	0.2

[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

mg/kg = micrograms per kilogram

NA = Not available/not applicable.

TABLE K-7

Groundwater Occurence, Distribution and selection of Chemicals of Potential Concern

Site UXO-03 Former Practice Hand Grenade Course

MCB Camp Lejeune, North Carolina

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

Exposure Point	CAS Number	Chemical	Minimum [1] Concentration Qualifier	Maximum [1] Concentration Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration [2] Used for Screening	Background [3] Value	Screening [4] Toxicity Value	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for [5] Contaminant Deletion or Selection
UXO-03 Groundwater	99-35-4	1,3,5-Trinitrobenzene	ND	ND	UG/L		0/6	0.2 - 0.26	2.6E-01	NA	1.1E+02 N	NA		NO	DLBSL
	99-65-0	1,3-Dinitrobenzene	1.9E-01 J	1.9E-01 J	UG/L	MR03-TW01-08C-1	1/6	0.2 - 0.26	1.9E-01	NA	3.7E-01 N	NA	NA	NO	BSL
	118-96-7	2,4,6-Trinitrotoluene	ND	ND	UG/L		0/6	0.2 - 0.26	2.6E-01	NA	1.8E+00 C**	NA		NO	DLBSL
	121-14-2	2,4-Dinitrotoluene	ND	ND	UG/L		0/6	0.2 - 0.26	2.6E-01	NA	2.2E-01 C	NA	NA	YES	DLASL
	606-20-2	2,6-Dinitrotoluene	ND	ND	UG/L		0/6	0.2 - 0.26	2.6E-01	NA	3.7E+00 N	NA		NO	DLBSL
	35572-78-2	2-Amino-4,6-dinitrotoluene	ND	ND	UG/L		0/6	0.2 - 0.26	2.6E-01	NA	7.3E+00 N	NA		NO	DLBSL
	88-72-2	2-Nitrotoluene	ND	ND	UG/L		0/6	0.4 - 0.52	5.2E-01	NA	3.1E-01 C	NA		YES	DLASL
	99-08-1	3-Nitrotoluene	ND	ND	UG/L		0/6	0.4 - 0.52	5.2E-01	NA	3.7E-01 N	NA		YES	DLASL
	19406-51-0	4-Amino-2,6-dinitrotoluene	ND	ND	UG/L		0/6	0.2 - 0.26	2.6E-01	NA	7.3E+00 N	NA	NA	NO	DLBSL
	99-99-0	4-Nitrotoluene	ND	ND	UG/L		0/6	0.4 - 0.52	5.2E-01	NA	4.2E+00 C*	NA	NA	NO	DLBSL
	2691-41-0	HMX	ND	ND	UG/L		0/6	0.4 - 0.52	5.2E-01	NA	1.8E+02 N	NA		NO	DLBSL
	98-95-3	Nitrobenzene	ND	ND	UG/L		0/6	0.2 - 0.26	2.6E-01	NA	1.2E-01 C	NA		YES	DLASL
	14797-73-0	Perchlorate	ND	ND	UG/L		0/6	0.2 - 0.2	2.0E-01	NA	2.6E+00 N	NA	NA	NO	DLBSL
	121-82-4	RDX	ND	ND	UG/L		0/6	0.4 - 0.52	5.2E-01	NA	6.1E-01 C	NA		NO	DLBSL
	479-45-8	Tetryl	ND	ND	UG/L		0/6	0.4 - 0.52	5.2E-01	NA	1.5E+01 N	NA		NO	DLBSL
	7429-90-5	**Aluminum**	**6.4E+02 J**	**4.9E+03 J**	**UG/L**	**MR03-TW02-08C**	**5/6**	**200 - 200**	**4.9E+03**	**1.9E+03**	**3.7E+03 N**	**50 - 200**	**2MCL**	**YES**	**ASL**
	7440-36-0	Antimony	ND	ND	UG/L		0/6	60 - 60	6.0E+01	3.3E+00	1.5E+00 N	6.0E+00	MCL	YES	DLASL
	7440-38-2	Arsenic	ND	ND	UG/L		0/6	10 - 20	2.0E+01	5.8E+00	4.5E-02 C	1.0E+01	MCL, NC2LGW	YES	DLASL
	7440-39-3	Barium	ND	ND	UG/L		0/6	200 - 200	2.0E+02	8.6E+01	7.3E+02 N	2.0E+03	MCL	NO	DLBSL
												7.0E+02	NC2LGW		
	7440-41-7	Beryllium	0.31 J	0.31 J	UG/L	GR-TW02-07C	1/6	5 - 5	3.1E-01	3.1E-01	7.3E+00 N	4.0E+00	MCL	NO	BSL
	7440-43-9	Cadmium	ND	ND	UG/L		0/6	5 - 5	5.0E+00	3.6E-01	1.8E+00 N	5.0E+00	MCL	YES	DLASL
												1.8E+00	NC2LGW		
	7440-70-2	Calcium	9.0E+03	5.2E+04	UG/L	GR-TW02-07C	3/6	5000 - 5000	5.2E+04	6.9E+04	NA	NA	NA	NO	NUT
	7440-47-3	**Chromium**	**9.8E-01 J**	**1.9E+01**	**UG/L**	**MR03-TW02-08C**	**3/6**	**10 - 10**	**1.9E+01**	**3.1E+00**	**4.3E-02 C**	**1.0E+02**	**MCL**	**YES**	**ASL**
												1.0E+01	NC2LGW		
	7440-48-4	Cobalt	1.7E+00 J	1.9E+00 J	UG/L	MR03-TW01-08C-1	2/6	50 - 50	1.9E+00	3.4E+00	1.1E+00 N	NA	NA	NO	BBL
	7440-50-8	Copper	ND	ND	UG/L		0/6	25 - 25	2.5E+01	2.8E+00	1.5E+02 N	1.3E+03	MCL	NO	DLBSL
												1.0E+03	NC2LGW		
	7439-89-6	**Iron**	**3.7E+03 J**	**3.5E+04**	**UG/L**	**MR03-TW02-08C**	**6/6**	**100 - 100**	**3.5E+04**	**6.0E+03**	**2.6E+03 N**	**3.0E+02**	**2MCL, NC2LGW**	**YES**	**ASL**
	7439-92-1	Lead	2.0E+00 J	2.0E+00 J	UG/L	MR03-TW02-08C	1/6	10 - 10	2.0E+00	2.8E+00	NA	1.5E+01	MCL, NC2LGW	NO	BBL
	7439-95-4	Magnesium	5.5E+03	8.7E+03	UG/L	MR03-TW01-08C-1	2/6	5000 - 5000	8.7E+03	6.4E+03	NA	NA	NA	NO	NUT
	7439-96-5	**Manganese**	**3.5E+01**	**3.6E+02**	**UG/L**	**MR03-TW01-08C-1**	**6/6**	**15 - 15**	**3.6E+02**	**2.1E+02**	**8.8E+01 N**	**5.0E+01**	**NC2LGW**	**YES**	**ASL**
	7439-97-6	Mercury	1.3E-01 J	1.1E+00	UG/L	MR03-TW04-08C	4/6	0.2 - 0.2	1.1E+00	1.0E-01	1.1E+00 N	2.0E+00	MCL	NO	BSL
												1.1E+00	NC2LGW		

TABLE K-7

Groundwater Occurence, Distribution and selection of Chemicals of Potential Concern

Site UXO-03 Former Practice Hand Grenade Course

MCB Camp Lejeune, North Carolina

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

Exposure Point	CAS Number	Chemical	Minimum [1] Concentration Qualifier	Maximum [1] Concentration Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration [2] Used for Screening	Background [3] Value	Screening [4] Toxicity Value	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for [5] Contaminant Deletion or Selection
	7440-02-0	**Nickel**	**5.6E+00 J**	**9.0E+01**	**UG/L**	**MR03-TW01-08C-1**	**5/6**	**40 - 40**	**9.0E+01**	**8.0E+00**	**7.3E+01 N**	**1.0E+02**	**NC2LGW**	**YES**	**ASL**
	7440-09-7	Potassium	1510 J	1510 J	UG/L	GR-TW02-07C	1/3	5000 - 5000	1.5E+03	3.3E+03	NA	NA	NA	NO	NUT
	7782-49-2	Selenium	ND	ND	UG/L		0/6	35 - 35	3.5E+01	3.1E+00	1.8E+01 N	5.0E+01	MCL	YES	DLASL
												2.0E+01	NC2LGW		
	7440-22-4	Silver	1.3E+00 J	1.3E+00 J	UG/L	MR03-TW03D-08C	1/6	10 - 10	1.3E+00	7.7E-01	1.8E+01 N	2.0E+01	NC2LGW	NO	BSL
	7440-23-5	Sodium	7.6E+03	1.3E+04	UG/L	GR-TW03-07C	3/3	5000 - 5000	1.3E+04	2.3E+04	NA	NA	NA	NO	NUT
	7440-28-0	Thallium	ND	ND	UG/L		0/6	25 - 25	2.5E+01	3.8E+00	NA	2.0E+00	MCL	NO	NTX
	7440-62-2	Vanadium	6.2E+00 J	6.2E+00 J	UG/L	MR03-TW02-08C	1/6	50 - 50	6.2E+00	4.7E+00	1.8E+01 N	5.0E+03	2MCL	NO	BSL
	7440-66-6	Zinc	7.8E+01	7.8E+01	UG/L	MR03-TW01-08C-1	1/6	60 - 60	7.8E+01	4.2E+01	1.1E+03 N	1.1E+03	NC2LGW	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.
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). November, 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.
The tap water value of 15 ug/L for lead is the action level provided in the Drinking Water Regulations and Health Advisories.
RSL value for Chromium(VI) used as surrogate for chromium.
RSL value for Manganese (water) used as surrogate for manganese.

[5] Rationale Codes
Selection Reason: Above Screening Levels (ASL)
Detection Limit Above Screening Level (DLASL), not quantitatively evaluated in HHRA
Deletion Reason: No Toxicity Information (NTX)
Essential Nutrient (NUT)
Below Screening Level (BSL)
Below Background level (BBL)

MCL = Maximum Contaminant Level from EPA's National Primary Drinking Water Standards (US
2MCL = Secondary MCL (USEPA, 2009)
NC2LGW = 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
C* = where: N RSL < 100X C RSL
C** = where N RSL < 10 X C RSL
N = Noncarcinogenic
NA = Not available
RSL = Regional Screening Level

TABLE K-8

Risk Ratio Screening for Groundwater, Maximum Detected Concentration

Site UXO-03 Former Practice Hand Grenade Course

MCB Camp Lejeune, 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	5 / 6	4.9E+03 J	MR03-TW02-08C	3.7E+04	1	0.1	NA	Developmental, Neurological
Chromium	**3 / 6**	**1.9E+01**	**MR03-TW02-08C**	**4.3E-02**	**1.0E-06**	**NA**	**4E-04**	**NA**
Iron	**6 / 6**	**3.5E+04**	**MR03-TW02-08C**	**2.6E+04**	**1**	**1.3**	**NA**	**Gastrointestinal**
Manganese	6 / 6	3.6E+02	MR03-TW01-08C-1	8.8E+02	1	0.4	NA	Central Nervous System
Nickel	5 / 6	9.0E+01	MR03-TW01-08C-1	7.3E+02	1	0.1	NA	Body Weight
Cumulative Corresponding Hazard Index[c]						**2**	4.E-04	
Cumulative Corresponding Cancer Risk[d]								

Total Developmental HI =	0.1
Total Gastrointestinal HI =	1.3
Total CNS/Neurological HI =	0.5
Total Body Weight HI =	0.1

[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

J = Estimated Value

ug/L = micrograms per liter

NA = Not available/not applicable.

TABLE K-9
Risk Ratio Screening for Groundwater, 95% UCL
Site UXO-03 Former Practice Hand Grenade Course
MCB Camp Lejeune, North Carolina

Analyte	Detection Frequency	95% UCL		95% UCL Rationale	Tap Water RSL	Acceptable Risk Level	Corresponding Hazard Index[a]	Corresponding Cancer Risk[b]	Target Organ
Metals (ug/L)									
Chromium	**3 / 6**	**1.3E+01**	**95% KM-t**	**1, 2**	**4.3E-02**	**1.0E-06**	**NA**	**3.E-04**	**NA**
Iron	**6 / 6**	**2.6E+04**	**App. Gamma**	**1, 3**	**2.6E+04**	**1**	**1.0**	**NA**	**Gastrointestinal**
Cumulative Corresponding Hazard Index[c]							**1.0**		
Cumulative Corresponding Cancer Risk[d]								**3.E-04**	
							Total Gastrointestinal HI =		1.0

[a] Corresponding Hazard Index equals 95% UCL divided by the RSL divided by the acceptable risk level.
[b] Corresponding Cancer Risk equals 95% 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.
[d] Cumulative Corresponding Cancer Risk equals sum of Corresponding Cancer Risks for each constituent.
Constituent selected as COPC if it contributes to an overall Hazard Index by target organ greater than 0.5 or Cumulative Corresponding Cancer Risk greater than 5E-05,
Constituents selected as COPCs are indicated by shading.
ug/L = micrograms per liter
HI = Hazard Index

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).
Statstics: 95% Kaplan-Meier (t) UCL (95% KM-t); 95% Approximate Gamma (App. Gamma)

UCL Rationale:
(1) Shapiro-Wilk W Test/Lilliefors test indicates data are log-normally distributed.
(2) Shapiro-Wilk W Test/Lilliefors indicates data are normally distributed.
(3) Test indicates data are gamma distributed.
(4) Distribution tests are inconclusive (data are not normal, log-normal, or gamma-distributed).

TABLE K-10

Surface Water Occurence, Distribution and selection of Chemicals of Potential Concern

Site UXO-03 Former Practice Hand Grenade Course

MCB Camp Lejeune, North Carolina

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

Exposure Point	CAS Number	Chemical	Minimum [1] Concentration Qualifier	Maximum [1] Concentration Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration [2] Used for Screening	Background [3] Value	Screening [4] Toxicity Value	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for [5] Contaminant Deletion or Selection
UXO-03	99-35-4	1,3,5-Trinitrobenzene	ND	ND	UG_L		0/2	0.26 - 0.26	2.6E-01	NA	1.1E+02 R			NO	DLBSL
Surface Water	99-65-0	1,3-Dinitrobenzene	ND	ND	UG_L		0/2	0.26 - 0.26	2.6E-01	NA	3.7E-01 R			NO	DLBSL
	118-96-7	2,4,6-Trinitrotoluene	ND	ND	UG_L		0/2	0.26 - 0.26	2.6E-01	NA	1.8E+00 R			NO	DLBSL
	121-14-2	2,4-Dinitrotoluene	ND	ND	UG_L		0/2	0.26 - 0.26	2.6E-01	NA	1.1E-01 A	2.2E-01	R	YES	DLASL
	606-20-2	2,6-Dinitrotoluene	ND	ND	UG_L		0/2	0.26 - 0.26	2.6E-01	NA	3.7E+00 R			NO	DLBSL
	35572-78-2	2-Amino-4,6-dinitrotolue	ND	ND	UG_L		0/2	0.26 - 0.26	2.6E-01	NA	7.3E+00 R			NO	DLBSL
	88-72-2	2-Nitrotoluene	ND	ND	UG_L		0/2	0.52 - 0.52	5.2E-01	NA	3.1E-01 R			YES	DLASL
	99-08-1	3-Nitrotoluene	ND	ND	UG_L		0/2	0.52 - 0.52	5.2E-01	NA	3.7E-01 R			YES	DLASL
	19406-51-0	4-Amino-2,6-dinitrotolue	ND	ND	UG_L		0/2	0.26 - 0.26	2.6E-01	NA	7.3E+00 R			NO	DLBSL
	99-99-0	4-Nitrotoluene	ND	ND	UG_L		0/2	0.52 - 0.52	5.2E-01	NA	4.2E+00 R			NO	DLBSL
	2691-41-0	HMX	ND	ND	UG_L		0/2	0.52 - 0.52	5.2E-01	NA	1.8E+02 R			NO	DLBSL
	98-95-3	Nitrobenzene	ND	ND	UG_L		0/2	0.26 - 0.26	2.6E-01	NA	1.7E+01 A	1.2E-01	R	NO	DLBSL
	14797-73-0	Perchlorate	2.3E-01	2.3E-01	UG_L	MR03-SW02-08B	1/2	0.2 - 0.2	2.3E-01	NA	2.6E+00 R	NA	NA	NO	BSL
	121-82-4	RDX	ND	ND	UG_L		0/2	0.26 - 0.26	2.6E-01	NA	6.1E-01 R			NO	DLBSL
	479-45-8	Tetryl	ND	ND	UG_L		0/2	0.26 - 0.26	2.6E-01	NA	1.5E+01 R			NO	DLBSL
	7429-90-5	Aluminum	3.6E+02	5.6E+02	UG_L	MR03-SW01-08B	2/2	200 - 200	5.6E+02	NA	3.7E+03 R	NA	NA	NO	BSL
	7440-36-0	Antimony	3.8E+00 J	3.8E+00 J	UG_L	MR03-SW02-08B	1/2	60 - 60	3.8E+00	NA	5.6E+00 A	1.5E+00	R	NO	BSL
	7440-38-2	Arsenic	3.3E+00 J	3.9E+00 J	UG_L	MR03-SW01-08B	2/2	10 - 10	3.9E+00	NA	1.0E+01 N	1.8E-02	A	NO	BSL
	7440-39-3	Barium	ND	ND	UG_L		0/2	20 - 20	2.0E+01	NA	1.0E+03 N	1.0E+03	A	NO	DLBSL
	7440-41-7	Beryllium	ND	ND	UG_L		0/2	5 - 5	5.0E+00	NA	4.0E+00 A	7.3E+00	R	YES	DLASL
	7440-47-3	Cadmium	ND	ND	UG_L		0/2	5 - 5	5.0E+00	NA	5.0E+00 A	1.8E+00	R	NO	DLBSL
	7440-70-2	Calcium	1.9E+04	8.2E+04	UG_L	MR03-SW02-08B	2/2	5000 - 5000	8.2E+04	NA	NA	NA	NA	NO	NUT
	7440-47-3	Chromium	1.2E+00 J	1.4E+00 J	UG_L	MR03-SW02-08B	2/2	10 - 10	1.4E+00	NA	1.0E+02 A	NA	NA	NO	BSL
	7440-48-4	Cobalt	ND	ND	UG_L		0/2	50 - 50	5.0E+01	NA	1.1E+00 R			YES	DLASL
	7440-50-8	Copper	4.2E+00 J	6.5E+00 J	UG_L	MR03-SW01-08B	2/2	25 - 25	6.5E+00	NA	1.3E+03 A	1.5E+02	R	NO	BSL
	7439-89-6	**Iron**	**5.3E+02**	**6.9E+03**	**UG_L**	**MR03-SW02-08B**	**2/2**	**100 - 100**	**6.9E+03**	**NA**	**3.0E+02 A**	**2.6E+03**	**R**	**YES**	**ASL**
	7439-92-1	Lead	1.9E+00 J	2.6E+00 J	UG_L	MR03-SW01-08B	2/2	10 - 10	2.6E+00	NA	1.5E+01	NA	NA	NO	BSL
	7439-95-4	Magnesium	ND	ND	UG_L		0/2	5000 - 5000	5.0E+03	NA	NA			NO	NUT
	7439-96-5	**Manganese**	**1.4E+01 J**	**8.6E+01**	**UG_L**	**MR03-SW02-08B**	**2/2**	**15 - 15**	**8.6E+01**	**NA**	**5.0E+01 A**	**8.8E+01**	**R**	**YES**	**ASL**
	7439-97-6	Mercury	ND	ND	UG_L		0/2	0.2 - 0.2	2.0E-01	NA	1.1E+00 R			NO	DLBSL
	7440-02-0	Nickel	ND	ND	UG_L		0/2	40 - 40	4.0E+01	NA	2.5E+01 N	6.1E+02	A	YES	DLASL
	7440-09-7	Potassium	1.8E+03 J	2.1E+03 J	UG_L	MR03-SW02-08B	2/2	5000 - 5000	2.1E+03	NA	NA	NA	NA	NO	NUT
	7782-49-2	Selenium	ND	ND	UG_L		0/2	35 - 35	3.5E+01	NA	5.0E+01 A	1.8E+01	R	NO	DLBSL
	7440-22-4	Silver	ND	ND	UG_L		0/2	10 - 10	1.0E+01	ND	1.8E+01 R			NO	DLBSL
	7440-23-5	Sodium	ND	ND	UG_L		0/2	5000 - 5000	5.0E+03	NA	NA			NO	NUT

TABLE K-10

Surface Water Occurence, Distribution and selection of Chemicals of Potential Concern

Site UXO-03 Former Practice Hand Grenade Course

MCB Camp Lejeune, North Carolina

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

Exposure Point	CAS Number	Chemical	Minimum [1] Concentration Qualifier	Maximum [1] Concentration Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration [2] Used for Screening	Background [3] Value	Screening [4] Toxicity Value	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for [5] Contaminant Deletion or Selection
	7440-28-0	Thallium	ND	ND	UG_L		0/2	25 - 25	2.5E+01	NA	NA			NO	DLBSL
	7440-62-2	Vanadium	4.1E+00 J	4.1E+00 J	UG_L	MR03-SW01-08B	1/2	50 - 50	4.1E+00	NA	1.8E+01 R	NA	NA	NO	BSL
	7440-66-6	Zinc	ND	ND	UG_L		0/2	60 - 60	6.0E+01	NA	7.4E+03 A	1.1E+03	R	NO	DLBSL

[1] Minimum/Maximum detected concentrations.

[2] Maximum concentration is used for screening.

[3] Background values not available.

[4] Used either North Carolina WQS for Human Health and Water Supply or Federal Ambient Water Quality Criteria, Consumption of Water and Organisms.
Where NRWQC or AWQC are not available use the Tap Water RSL, Nov. 2010, (based on 10 -6 for carcinogens and HQ of 0.1 for noncarcinogens).
RSL value for Chromium(VI) used as surrogate for chromium.
RSL value for Manganese (water) used as surrogate for manganese.
Lead action level is 15 µg/L, Safe Drinking Water Action Level.

[5] Rationale Codes

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

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

COPC = Chemical of Potential Concern

ARAR/TBC = Applicable or Relevant and Appropriate Requirement/ To Be Considered

J = Estimated Value

N = North Carolina WQS for Human Health and Water Supply, February, 2010.

A= Federal Ambient Water Quality Criteria, Consumption of Water and Organisms, USEPA 2009

R = Tap Water RSL

NA = Not available

TABLE K-11

Surface Water Occurence, Distribution and selection of Chemicals of Potential Concern

Site UXO-03 Former Practice Hand Grenade Course

MCB Camp Lejeune, North Carolina

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

Exposure Point	CAS Number	Chemical	Minimum [1] Concentration Qualifier	Maximum [1] Concentration Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration [2] Used for Screening	Background [3] Value	Screening [4] Toxicity Value	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for [5] Contaminant Deletion or Selection
UXO-03	**7439-89-6**	**Iron**	**5.3E+02**	**6.9E+03**	**UG_L**	**MR03-SW02-08B**	**2/2**	**100 - 100**	**6.9E+03**	**NA**	**2.6E+03 N**	**NA**	**NA**	**YES**	**ASL**
Surface Water	7439-96-5	Manganese	1.4E+01 J	8.6E+01	UG_L	MR03-SW02-08B	2/2	15 - 15	8.6E+01	NA	8.8E+01 N	NA	NA	NO	BSL

[1] Minimum/Maximum detected concentrations.

[2] Maximum concentration is used for screening.

[3] Background values not available.

[4] Oak Ridge National Laboratory (ORNL). November, 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 Manganese (water) used as surrogate for manganese.

[5] Rationale Codes

Selection Reason: Above Screening Levels (ASL)

Deletion Reason: No Toxicity Information (NTX)
Essential Nutrient (NUT)
Below Screening Level (BSL)

COPC = Chemical of Potential Concern

ARAR/TBC = Applicable or Relevant and Appropriate Requirement/ To Be Considered

J = Estimated Value

C = Carcinogenic

N = Noncarcinogenic

NA = Not available

Appendix L
Ecological Risk Screening Tables

TABLE L-1
TR-02-1 Ecological Risk Screening Results
Site UXO-03 Former Practice Hand Grenade Course
MCB CamLej, North Carolina

Chemical	Maximum Concentration[a]		Average[b]	Units	Location of Maximum Detection	Detection Ratio	Ecological Screening Value	Supplemental Ecological Screening Value	Supplemental Ecological Screening Value Source	Maximum HQ	Camp Lejeune Background SS 2X Mean
Explosives (mg/kg)											
1,3,5-TRINITROBENZENE	1.00E-01		5.00E-02	mg/kg	--	0/28	--	--	--	--	--
1,3-DINITROBENZENE	1.00E-01		5.00E-02	mg/kg	--	0/28	--	--	--	--	--
2,4,6-TRINITROTOLUENE	1.60E-01	J	5.39E-02	mg/kg	MR03-SS05	1/28	--	3.00E+01	Talmage et al. 1999	5.33E-03	--
2,4-DINITROTOLUENE	1.00E-01		5.00E-02	mg/kg	--	0/28	--	--	--	--	--
2,6-DINITROTOLUENE	1.90E-01	J	5.50E-02	mg/kg	MR03-SS07	1/28	--	1.06E+01	Bernard et al. 2008	1.79E-02	--
2-AMINO-4,6-DINITROTOLUENE	1.00E-01		5.00E-02	mg/kg	--	0/28	--	--	--	--	--
2-NITROTOLUENE	2.00E-01		1.00E-01	mg/kg	--	0/28	--	--	--	--	--
3-NITROTOLUENE	2.00E-01		1.00E-01	mg/kg	--	0/28	--	--	--	--	--
4-AMINO-2,6-DINITROTOLUENE	1.00E-01		5.00E-02	mg/kg	--	0/28	--	--	--	--	--
4-NITROTOLUENE	2.00E-01		1.00E-01	mg/kg	--	0/28	--	--	--	--	--
HMX	1.10E+00	J	1.91E-01	mg/kg	MR03-SS01	3/27	--	8.90E+01	Bernard et al. 2008	1.24E-02	--
NITROBENZENE	1.00E-01		5.00E-02	mg/kg	--	0/28	4.00E+01	--	--	2.50E-06	--
PERCHLORATE	7.59E-03	J	1.52E-03	mg/kg	MR03-SS05	1/28	--	4.45E+00	Callahan and Sprenger (1998)/100	1.71E-03	--
RDX	2.00E-01		1.00E-01	mg/kg	--	0/28	--	--	--	--	--
TETRYL	2.00E-01		1.00E-01	mg/kg	--	0/28	--	--	--	--	--
Total Metals (mg/kg)											
ALUMINUM	**6.19E+03**	**J**	2.84E+03	mg/kg	MR03-SS08	28/28	5.00E+01	--	--	1.24E+02	5.49E+03
ANTIMONY	**3.10E-01**	**J**	2.51E+00	mg/kg	MR03-SS08	3/28	2.70E-01	--	--	1.15E+00	4.47E-01
ARSENIC	1.80E+00		8.76E-01	mg/kg	MR03-SS23	27/28	1.80E+01	--	--	1.00E-01	6.26E-01
BARIUM	4.09E+01		1.23E+01	mg/kg	MR03-SS02	5/28	3.30E+02	--	--	1.24E-01	1.45E+01
BERYLLIUM	1.90E-01	J	9.16E-02	mg/kg	MR03-SS15	24/28	2.10E+01	--	--	9.05E-03	1.03E-01
CADMIUM	1.40E-01	J	1.77E-01	mg/kg	MR03-SS23	10/28	3.60E-01	--	--	3.89E-01	3.30E-02
CALCIUM	3.14E+03	J	1.18E+03	mg/kg	MR03-SS16	24/28	--	--	--	--	6.36E+03
CHROMIUM	6.70E+00	J	3.66E+00	mg/kg	MR03-SS19	28/28	2.60E+01	--	--	2.58E-01	6.05E+00
COBALT	4.20E-01	J	1.58E+00	mg/kg	MR03-SS11	10/28	1.30E+01	--	--	3.23E-02	2.94E-01
COPPER	**7.27E+01**		4.69E+00	mg/kg	MR03-SS05	28/28	2.80E+01	--	--	2.60E+00	4.83E+00
IRON	**3.10E+03**		1.48E+03	mg/kg	MR03-SS10	28/28	2.00E+02	--	--	1.55E+01	3.25E+03
LEAD	**4.64E+01**		1.18E+01	mg/kg	MR03-SS02	28/28	1.10E+01	--	--	4.22E+00	1.23E+01
MAGNESIUM	6.58E+02		2.12E+02	mg/kg	MR03-SS14	11/28	--	--	--	--	2.38E+02
MANGANESE	1.16E+02		1.77E+01	mg/kg	GR-IS04	28/28	2.20E+02	--	--	5.27E-01	1.37E+01
MERCURY	**1.20E-01**		4.30E-02	mg/kg	MR03-SS05	21/28	1.00E-01	--	--	1.20E+00	8.10E-02
NICKEL	1.90E+00	J	8.10E-01	mg/kg	MR03-SS02	28/28	3.80E+01	--	--	5.00E-02	1.21E+00
POTASSIUM	1.02E+02	J	2.15E+02	mg/kg	GR-IS01	4/28	--	--	--	--	1.16E+02
SELENIUM	**1.20E+00**	**J**	1.34E+00	mg/kg	MR03-SS05	8/28	5.20E-01	--	--	2.31E+00	5.63E-01
SILVER	6.50E-01		4.73E-01	mg/kg	--	0/28	4.20E+00	--	--	3.10E-01	1.40E-01
SODIUM	4.50E+01	J	1.61E+02	mg/kg	MR03-SS11	10/28	--	--	--	--	8.09E+01
THALLIUM	1.65E+00		1.18E+00	mg/kg	--	0/28	1.00E+00	--	--	3.30E+00	3.60E-01
VANADIUM	**1.04E+01**		4.91E+00	mg/kg	MR03-SS03	21/28	7.80E+00	--	--	1.33E+00	8.90E+00
ZINC	3.88E+01		1.03E+01	mg/kg	MR03-SS15	25/28	4.60E+01	--	--	8.43E-01	1.08E+01
Wet Chemistry (%)											
% SOLIDS	9.90E+01		7.85E+01	%	MR03-SS22	24/24	--	--	--	--	--

Notes:

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

U - The material was analyed for, but not detected

a - One half of the detection limit is reported if not detected

b - Average concentrations calculated using one half of the detection limits when applicable

-- Indicates not applicable

Bold - Concentration exceeded ecological screening value

Generated by: Sara Kent

Checked by: Kelly Taylor

TABLE L-2
Multi-increment Surface Soil Ecological Risk Screening Results
Site UXO-03 Former Practice Hand Grenade Course
MCB CamLej, North Carolina

Chemical	Maximum Concentration[a]		Average[b]	Units	Location of Maximum Detection	Detection Ratio	Ecological Screening Value	Maximum HQ	Camp Lejeune Background SS 2X Mean
Explosives (mg/kg)									
1,3,5-TRINITROBENZENE	5.00E-02		5.00E-02	mg/kg	--	0/6	--	--	--
1,3-DINITROBENZENE	5.00E-02		5.00E-02	mg/kg	--	0/6	--	--	--
2,4,6-TRINITROTOLUENE	5.00E-02		5.00E-02	mg/kg	--	0/6	--	--	--
2,4-DINITROTOLUENE	5.00E-02		5.00E-02	mg/kg	--	0/6	--	--	--
2,6-DINITROTOLUENE	5.00E-02		5.00E-02	mg/kg	--	0/6	--	--	--
2-AMINO-4,6-DINITROTOLUENE	5.00E-02		5.00E-02	mg/kg	--	0/6	--	--	--
2-NITROTOLUENE	1.00E-01		1.00E-01	mg/kg	--	0/6	--	--	--
3-NITROTOLUENE	1.00E-01		1.00E-01	mg/kg	--	0/6	--	--	--
4-AMINO-2,6-DINITROTOLUENE	5.00E-02		5.00E-02	mg/kg	--	0/6	--	--	--
4-NITROTOLUENE	1.00E-01		1.00E-01	mg/kg	--	0/6	--	--	--
HMX	1.00E-01		1.00E-01	mg/kg	--	0/6	--	--	--
NITROBENZENE	5.00E-02		5.00E-02	mg/kg	--	0/6	4.00E+01	1.25E-03	--
PERCHLORATE	1.48E-03		1.17E-03	mg/kg	--	0/6	--	--	--
RDX	1.00E-01		1.00E-01	mg/kg	--	0/6	--	--	--
TETRYL	1.00E-01		1.00E-01	mg/kg	--	0/6	--	--	--
Total Metals (mg/kg)									
ALUMINUM	**3.89E+03**	**J**	3.33E+03	mg/kg	MR03-DU02	6/6	5.00E+01	7.78E+01	5.49E+03
ANTIMONY	1.20E-01	J	2.12E+00	mg/kg	MR03-DU02	1/6	2.70E-01	4.44E-01	4.47E-01
ARSENIC	9.80E-01		8.02E-01	mg/kg	MR03-DU01	6/6	1.80E+01	5.44E-02	6.26E-01
BARIUM	1.02E+01		8.23E+00	mg/kg	--	0/6	3.30E+02	3.08E-02	1.45E+01
BERYLLIUM	8.90E-02	J	5.17E-02	mg/kg	MR03-DU02	6/6	2.10E+01	4.24E-03	1.03E-01
CADMIUM	8.40E-02	J	1.55E-01	mg/kg	MR03-DU02	2/6	3.60E-01	2.33E-01	3.30E-02
CALCIUM	3.65E+03		2.07E+03	mg/kg	MR03-DU01	6/6	--	--	6.36E+03
CHROMIUM	4.90E+00	J	4.43E+00	mg/kg	MR03-DU02	6/6	2.60E+01	1.88E-01	6.05E+00
COBALT	3.00E-01	J	1.42E+00	mg/kg	MR03-DU02	2/6	1.30E+01	2.31E-02	2.94E-01
COPPER	5.70E+00		4.15E+00	mg/kg	MR03-DU01	6/6	2.80E+01	2.04E-01	4.83E+00
IRON	**1.27E+03**	**J**	1.15E+03	mg/kg	MR03-DU02	6/6	2.00E+02	6.35E+00	3.25E+03
LEAD	**1.98E+01**		1.60E+01	mg/kg	MR03-DU02	6/6	1.10E+01	1.80E+00	1.23E+01
MAGNESIUM	2.20E+02	J	1.99E+02	mg/kg	MR03-DU02	2/6	--	--	2.38E+02
MERCURY	6.30E-02		4.20E-02	mg/kg	MR03-DU02	6/6	1.00E-01	6.30E-01	8.10E-02
NICKEL	1.50E+00	J	1.11E+00	mg/kg	MR03-DU01	6/6	3.80E+01	3.95E-02	1.21E+00
POTASSIUM	2.54E+02		2.06E+02	mg/kg	--	0/6	--	--	1.16E+02
SELENIUM	4.70E-01	J	1.11E+00	mg/kg	MR03-DU02	2/6	5.20E-01	9.04E-01	5.63E-01
SILVER	5.00E-01		4.11E-01	mg/kg	--	0/6	4.20E+00	1.19E-01	1.40E-01
SODIUM	4.20E+01	J	1.45E+02	mg/kg	MR03-DU02	2/6	--	--	8.09E+01
THALLIUM	1.25E+00		1.03E+00	mg/kg	--	0/6	1.00E+00	1.25E+00	3.60E-01
VANADIUM	5.60E+00	J	4.78E+00	mg/kg	MR03-DU02	6/6	7.80E+00	7.18E-01	8.90E+00
ZINC	4.21E+01		2.27E+01	mg/kg	MR03-DU01	6/6	4.60E+01	9.15E-01	1.08E+01
Wet Chemistry (%)									
% SOLIDS	9.50E+01		8.68E+01	%	MR03-DU01	6/6	--	--	--

Notes:

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

U - The material was analyed for, but not detected

a - One half of the detection limit is reported if not detected

b - Average concentrations calculated using one half of the detection limits when applicable

-- Indicates not applicable

Bold - Concentration exceeded ecological screening value

Generated by: Sara Kent

Checked by: Kelly Taylor

TABLE L-3
Subsurface Soil Ecological Risk Screening Results
Site UXO-03 Former Practice Hand Grenade Course
MCB CamLej, North Carolina

Chemical	Maximum Concentration[a]		Average[b]	Units	Location of Maximum Detection	Detection Ratio	Ecological Screening Value	Maximum HQ	Camp Lejeune Background SB 2X Mean
Explosives (mg/kg)									
1,3,5-TRINITROBENZENE	5.00E-02		5.00E+01	mg/kg	--	0/9	--	--	--
1,3-DINITROBENZENE	5.00E-02		5.00E+01	mg/kg	--	0/9	--	--	--
2,4,6-TRINITROTOLUENE	5.00E-02		5.00E+01	mg/kg	--	0/9	--	--	--
2,4-DINITROTOLUENE	5.00E-02		5.00E+01	mg/kg	--	0/9	--	--	--
2,6-DINITROTOLUENE	5.00E-02		5.00E+01	mg/kg	--	0/9	--	--	--
2-AMINO-4,6-DINITROTOLUENE	5.00E-02		5.00E+01	mg/kg	--	0/9	--	--	--
2-NITROTOLUENE	1.00E-01		1.00E+02	mg/kg	--	0/9	--	--	--
3-NITROTOLUENE	1.00E-01		1.00E+02	mg/kg	--	0/9	--	--	--
4-AMINO-2,6-DINITROTOLUENE	5.00E-02		5.00E+01	mg/kg	--	0/9	--	--	--
4-NITROTOLUENE	1.00E-01		1.00E+02	mg/kg	--	0/9	--	--	--
HMX	1.00E-01		1.00E+02	mg/kg	--	0/9	--	--	--
NITROBENZENE	5.00E-02		1.00E+02	mg/kg	--	0/9	4.00E+01	2.50E-06	--
PERCHLORATE	1.21E-03		1.16E+00	mg/kg	--	0/9	--	--	--
RDX	1.00E-01		1.00E+02	mg/kg	--	0/9	--	--	--
TETRYL	1.00E-01		1.00E+02	mg/kg	--	0/9	--	--	--
Total Metals (mg/kg)									
ALUMINUM	**8.53E+03**		5.55E+03	mg/kg	MR03-IS08	9/9	5.00E+01	1.71E+02	1.04E+04
ANTIMONY	2.40E-01		1.97E+00	mg/kg	MR03-IS01	2/9	2.70E-01	8.89E-01	3.60E-01
ARSENIC	4.60E+00		1.90E+00	mg/kg	MR03-IS05	9/9	1.80E+01	2.56E-01	2.12E+00
BARIUM	8.65E+00		8.24E+00	mg/kg	--	0/9	3.30E+02	5.24E-02	1.66E+01
BERYLLIUM	2.15E-01		2.06E-01	mg/kg	--	0/9	2.10E+01	2.05E-02	1.65E-01
CADMIUM	2.15E-01		2.06E-01	mg/kg	--	0/9	3.60E-01	1.19E+00	2.30E-02
CALCIUM	1.80E+04		2.18E+03	mg/kg	MR03-IS03	1/9	--	--	4.41E+02
CHROMIUM	9.90E+00		7.13E+00	mg/kg	MR03-IS08	7/9	2.60E+01	3.81E-01	1.45E+01
COBALT	4.40E-01	J	1.07E+00	mg/kg	MR03-IS08	5/9	1.30E+01	3.38E-02	8.22E-01
COPPER	2.90E+00		1.12E+00	mg/kg	MR03-IS03	4/9	2.80E+01	1.04E-01	2.56E+00
IRON	**7.05E+03**		4.55E+03	mg/kg	MR03-IS01	9/9	2.00E+02	3.53E+01	5.44E+03
LEAD	4.90E+00		3.64E+00	mg/kg	MR03-IS08	9/9	1.10E+01	4.45E-01	8.49E+00
MAGNESIUM	2.17E+02		2.06E+02	mg/kg	--	0/9	--	--	3.63E+02
MANGANESE	1.32E+01		4.87E+00	mg/kg	MR03-IS03	9/9	2.20E+02	6.00E-02	9.25E+00
MERCURY	2.50E-02		1.93E-02	mg/kg	GR-IS01	3/9	1.00E-01	2.50E-01	7.10E-02
NICKEL	1.40E+00	J	8.29E-01	mg/kg	MR03-IS03	9/9	3.80E+01	3.68E-02	2.27E+00
POTASSIUM	2.84E+02		2.16E+02	mg/kg	GR-IS01	3/9	--	--	3.61E+02
SELENIUM	**5.90E-01**		1.24E+00	mg/kg	MR03-IS01	2/9	5.20E-01	1.13E+00	5.05E-01
SILVER	5.00E-02		3.72E-01	mg/kg	MR03-IS07	1/9	4.20E+00	1.19E-02	1.29E-01
SODIUM	2.17E+02		2.06E+02	mg/kg	--	0/9	--	--	6.83E+01
THALLIUM	1.10E+00		1.03E+00	mg/kg	--	0/9	1.00E+00	2.20E+00	3.80E-01
VANADIUM	**1.38E+01**		1.06E+01	mg/kg	GR-IS03	8/9	7.80E+00	1.77E+00	1.72E+01
ZINC	3.89E+01		6.83E+00	mg/kg	MR03-IS03	4/9	4.60E+01	8.46E-01	6.59E+00
Wet Chemistry (%)									
% SOLIDS	9.00E+01		8.66E+01	%	MR03-IS08	8/8	--	--	--

Notes:

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

U - The material was analyed for, but not detected

a - One half of the detection limit is reported if not detected

b - Average concentrations calculated using one half of the detection limits when applicable

-- Indicates not applicable

Bold - Concentration exceeded ecological screening value

Generated by: Sara Kent

Checked by: Kelly Taylor

TABLE L-4
Groundwater Ecological Risk Screening Results
Site UXO-03 Former Practice Hand Grenade Course
MCB CamLej, North Carolina

Chemical	Maximum Concentration[a]		Average[b]	Units	Location of Maximum Detection	Detection Ratio	Ecological Screening Value	Supplemental Ecological Screening Value[c]	Maximum HQ	Camp Lejeune Background GW 2X Mean
Explosives (mg/L)										
1,3,5-TRINITROBENZENE	1.30E-01		1.15E-01	mg/L	--	0/6	--	--	--	--
1,3-DINITROBENZENE	**1.90E-01**	J	1.25E-01	mg/L	MR03-TW01	1/6	--	7.20E-02	2.64E+00	--
2,4,6-TRINITROTOLUENE	1.30E-01		1.15E-01	mg/L	--	0/6	--	--	--	--
2,4-DINITROTOLUENE	1.30E-01		1.15E-01	mg/L	--	0/6	--	--	--	--
2,6-DINITROTOLUENE	1.30E-01		1.15E-01	mg/L	--	0/6	--	--	--	--
2-AMINO-4,6-DINITROTOLUENE	1.30E-01		1.15E-01	mg/L	--	0/6	--	--	--	--
2-NITROTOLUENE	2.60E-01		2.30E-01	mg/L	--	0/6	--	--	--	--
3-NITROTOLUENE	2.60E-01		2.30E-01	mg/L	--	0/6	--	--	--	--
4-AMINO-2,6-DINITROTOLUENE	1.30E-01		1.15E-01	mg/L	--	0/6	--	--	--	--
4-NITROTOLUENE	2.60E-01		2.30E-01	mg/L	--	0/6	--	--	--	--
HMX	2.60E-01		2.30E-01	mg/L	--	0/6	--	--	--	--
NITROBENZENE	1.30E-01		1.15E-01	mg/L	--	0/6	2.70E-01	--	9.63E-04	--
PERCHLORATE	1.00E-01		1.00E-01	mg/L	--	0/6	--	--	--	--
RDX	2.60E-01		2.30E-01	mg/L	--	0/6	--	--	--	--
TETRYL	2.60E-01		2.30E-01	mg/L	--	0/6	--	--	--	--
Total Metals (mg/L)										
ALUMINUM	**4.88E+00**	J	2.19E+00	mg/L	MR03-TW02	5/6	8.70E-02	--	5.61E+01	1.89E+00
ANTIMONY	3.00E-02		3.00E-02	mg/L	--	0/6	1.60E-01	--	3.75E-01	3.28E-03
ARSENIC	1.00E-02		5.83E-03	mg/L	--	0/6	1.50E-01	--	1.33E-01	5.77E-03
BARIUM	1.00E-01		1.00E-01	mg/L	--	0/6	--	--	--	8.62E-02
BERYLLIUM	3.10E-04		2.14E-03	mg/L	GR-TW02	1/6	5.30E-04	--	5.85E-01	3.08E-04
CADMIUM	2.50E-03		2.50E-03	mg/L	--	0/6	2.50E-04	--	2.00E+01	3.58E-04
CALCIUM	5.20E+01		1.42E+01	mg/L	GR-TW02	3/6	--	--	--	6.91E+01
CHROMIUM	1.88E-02		7.96E-03	mg/L	MR03-TW02	3/6	1.10E-02	--	1.60E-01	3.13E-03
COBALT	1.90E-03	J	1.73E-02	mg/L	MR03-TW01	2/6	--	--	--	3.40E-03
COPPER	1.25E-02		1.25E-02	mg/L	--	0/6	9.00E-03	--	2.78E+00	2.76E-03
IRON	**3.45E+01**		1.13E+01	mg/L	MR03-TW02	6/6	1.00E+00	--	3.45E+01	6.00E+00
LEAD	2.00E-03	J	4.50E-03	mg/L	MR03-TW02	1/6	2.50E-03	--	8.00E-01	2.80E-03
MAGNESIUM	8.74E+00		4.05E+00	mg/L	MR03-TW01	2/6	--	--	--	6.36E+00
MANGANESE	3.56E-01		1.71E-01	mg/L	MR03-TW01	6/6	--	--	--	2.14E-01
MERCURY	**1.10E-03**		3.15E-04	mg/L	MR03-TW04	4/6	7.70E-04	--	1.43E+00	1.00E-04
NICKEL	**9.00E-02**		2.70E-02	mg/L	MR03-TW01	5/6	5.20E-02	--	1.73E+00	7.97E-03
POTASSIUM	1.51E+00		2.17E+00	mg/L	GR-TW02	1/3	--	--	--	3.28E+00
SELENIUM	1.75E-02		1.75E-02	mg/L	--	0/6	5.00E-03	--	7.00E+00	3.14E-03
SILVER	**1.30E-03**	J	4.38E-03	mg/L	MR03-TW03	1/6	1.20E-05	--	1.08E+02	7.70E-04
SODIUM	1.29E+01		1.09E+01	mg/L	GR-TW03	3/3	--	--	--	2.25E+01
THALLIUM	1.25E-02		1.25E-02	mg/L	--	0/6	4.00E-03	--	6.25E+00	3.78E-03
VANADIUM	6.20E-03	J	2.19E-02	mg/L	MR03-TW02	1/6	--	--	--	4.72E-03
ZINC	7.80E-02		3.80E-02	mg/L	MR03-TW01	1/6	1.20E-01	--	6.50E-01	4.21E-02
Dissolved Metals (mg/L)										
ALUMINUM, DISSOLVED	2.81E-01	J	1.30E-01	mg/L	MR03-TW03	1/6	8.70E-02	--	3.23E-03	1.89E+00
ANTIMONY, DISSOLVED	3.00E-02		3.00E-02	mg/L	--	0/6	1.60E-01	--	3.75E-04	3.28E-03
ARSENIC, DISSOLVED	2.90E-03	J	5.48E-03	mg/L	GR-TW03	1/6	1.50E-01	--	1.93E-05	5.77E-03
BARIUM, DISSOLVED	1.00E-01		1.00E-01	mg/L	--	0/6	--	--	--	8.62E-02
BERYLLIUM, DISSOLVED	2.50E-03		2.50E-03	mg/L	--	0/6	5.30E-04	--	9.43E-03	3.08E-04
CADMIUM, DISSOLVED	2.50E-03		2.50E-03	mg/L	--	0/6	2.50E-04	--	2.00E-02	3.58E-04
CALCIUM, DISSOLVED	5.04E+01		1.46E+01	mg/L	GR-TW02	3/6	--	--	--	6.91E+01
CHROMIUM, DISSOLVED	5.00E-03		5.00E-03	mg/L	--	0/6	1.10E-02	--	8.52E-05	3.13E-03
COBALT, DISSOLVED	2.60E-03	J	2.13E-02	mg/L	MR03-TW01	1/6	--	--	--	3.40E-03

TABLE L-4
Groundwater Ecological Risk Screening Results
Site UXO-03 Former Practice Hand Grenade Course
MCB CamLej, North Carolina

Chemical	Maximum Concentration[a]		Average[b]	Units	Location of Maximum Detection	Detection Ratio	Ecological Screening Value	Supplemental Ecological Screening Value[c]	Maximum HQ	Camp Lejeune Background GW 2X Mean
COPPER, DISSOLVED	1.25E-02		1.25E-02	mg/L	--	0/6	9.00E-03	--	2.78E-03	2.76E-03
IRON, DISSOLVED	1.35E+01		6.63E+00	mg/L	MR03-TW02	6/6	1.00E+00	--	1.35E-02	6.00E+00
LEAD, DISSOLVED	5.00E-03		5.00E-03	mg/L	--	0/6	2.50E-03	--	4.00E-03	2.80E-03
MAGNESIUM, DISSOLVED	1.06E+01		3.85E+00	mg/L	MR03-TW01	1/6	--	--	--	6.36E+00
MANGANESE, DISSOLVED	3.51E-01		1.29E-01	mg/L	MR03-TW01	6/6	--	--	--	2.14E-01
MERCURY, DISSOLVED	2.90E-05	J	9.01E-05	mg/L	GR-TW03	1/6	7.70E-04	--	3.77E-05	1.00E-04
NICKEL, DISSOLVED	8.00E-02		2.72E-02	mg/L	MR03-TW01	3/6	5.20E-02	--	1.54E-03	7.97E-03
POTASSIUM, DISSOLVED	1.21E+00		2.07E+00	mg/L	GR-TW02	1/3	--	--	--	3.28E+00
SELENIUM, DISSOLVED	1.75E-02		1.75E-02	mg/L	--	0/6	5.00E-03	--	7.00E-03	3.14E-03
SILVER, DISSOLVED	5.00E-03		5.00E-03	mg/L	--	0/6	1.20E-05	--	8.33E-01	7.70E-04
SODIUM, DISSOLVED	1.36E+01		1.11E+01	mg/L	MR03-TW01	3/3	--	--	--	2.25E+01
THALLIUM, DISSOLVED	1.25E-02		1.25E-02	mg/L	--	0/6	4.00E-03	--	6.25E-03	3.78E-03
VANADIUM, DISSOLVED	2.50E-02		2.50E-02	mg/L	--	0/6	--	--	--	4.72E-03
ZINC, DISSOLVED	3.00E-02		3.00E-02	mg/L	--	0/6	1.20E-01	--	5.00E-04	4.21E-02

Notes:

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

U - The material was analyed for, but not detected

a - One half of the detection limit is reported if not detected

b - Average concentrations calculated using one half of the detection limits when applicable

c - source: TCEQ, 2006

-- Indicates not applicable

Bold - Concentration exceeded ecological screening value

Generated by: Sara Kent

Checked by: Kelly Taylor

TABLE L-5
Surface Water Ecological Risk Screening Results
Site UXO-03 Former Practice Hand Grenade Course
MCB CamLej, North Carolina

Chemical	Maximum Concentration[a]		Average[b]	Units	Location of Maximum Detection	Detection Ratio	Ecological Screening Value	Supplemental Ecological Screening Value[c]	Maximum HQ
Explosives (mg/L)									
1,3,5-TRINITROBENZENE	1.30E-04		1.30E-04	mg/L	--	0/1	--	--	--
1,3-DINITROBENZENE	1.30E-04		1.30E-04	mg/L	--	0/2	--	--	--
2,4,6-TRINITROTOLUENE	1.30E-04		1.30E-04	mg/L	--	0/2	--	--	--
2,4-DINITROTOLUENE	1.30E-04		1.30E-04	mg/L	--	0/2	3.10E-01	--	4.19E-04
2,6-DINITROTOLUENE	1.30E-04		1.30E-04	mg/L	--	0/2	--	--	--
2-AMINO-4,6-DINITROTOLUENE	1.30E-04		1.30E-04	mg/L	--	0/2	--	--	--
2-NITROTOLUENE	2.60E-04		2.60E-04	mg/L	--	0/2	--	--	--
3-NITROTOLUENE	2.60E-04		2.60E-04	mg/L	--	0/2	--	--	--
4-AMINO-2,6-DINITROTOLUENE	1.30E-04		1.30E-04	mg/L	--	0/2	--	--	--
4-NITROTOLUENE	2.60E-04		2.60E-04	mg/L	--	0/2	--	--	--
HMX	2.60E-04		2.60E-04	mg/L	--	0/2	--	--	--
NITROBENZENE	1.30E-04		1.30E-04	mg/L	--	0/2	2.70E-01	--	4.81E-04
PERCHLORATE	2.34E-04		1.67E-04	mg/L	MR03-SW02	1/2	--	9.30E+00	2.52E-05
RDX	2.60E-04		2.60E-04	mg/L	--	0/2	--	--	--
TETRYL	2.60E-04		2.60E-04	mg/L	--	0/2	--	--	--
Total Metals (mg/L)									
ALUMINUM	**5.56E-01**		4.60E-01	mg/L	MR03-SW01	2/2	8.70E-02	--	6.39E+00
ANTIMONY	3.80E-03	J	1.69E-02	mg/L	MR03-SW02	1/2	1.60E-01	--	2.38E-02
ARSENIC	3.90E-03	J	4.45E-03	mg/L	MR03-SW01	1/2	1.50E-01	--	2.60E-02
BARIUM	1.00E-01		1.00E-01	mg/L	--	0/2	--	--	--
BERYLLIUM	**2.50E-03**		2.50E-03	mg/L	--	0/2	5.30E-04	--	4.72E+00
CADMIUM	**2.50E-03**		2.50E-03	mg/L	--	0/2	2.50E-04	--	1.00E+01
CALCIUM	8.15E+01		5.04E+01	mg/L	MR03-SW02	2/2	--	--	--
CHROMIUM	1.40E-03	J	1.30E-03	mg/L	MR03-SW02	2/2	1.10E-02	--	1.27E-01
COBALT	**2.50E-02**		2.50E-02	mg/L	--	0/2	0.00E+00	--	--
COPPER	6.50E-03	J	4.80E-03	mg/L	MR03-SW01	2/2	9.00E-03	--	7.22E-01
IRON	**6.92E+00**		3.72E+00	mg/L	MR03-SW02	2/2	1.00E+00	--	6.92E+00
LEAD	**2.60E-03**	J	3.80E-03	mg/L	MR03-SW01	1/2	2.50E-03	--	1.04E+00
MAGNESIUM	2.50E+00		2.50E+00	mg/L	--	0/2	--	--	--
MANGANESE	8.63E-02		5.02E-02	mg/L	MR03-SW02	2/2	--	--	--
MERCURY	1.00E-04		1.00E-04	mg/L	--	0/2	7.70E-04	--	1.30E-01
NICKEL	2.00E-02		2.00E-02	mg/L	--	0/2	5.20E-02	--	3.85E-01
POTASSIUM	2.05E+00	J	1.95E+00	mg/L	MR03-SW02	2/2	--	--	--
SELENIUM	**1.75E-02**		1.75E-02	mg/L	--	0/2	5.00E-03	--	3.50E+00
SILVER	**5.00E-03**		5.00E-03	mg/L	--	0/2	1.20E-05	--	4.17E+02
SODIUM	2.50E+00		2.50E+00	mg/L	--	0/2	--	--	--
THALLIUM	**1.25E-02**		1.25E-02	mg/L	--	0/2	4.00E-03	--	3.13E+00
VANADIUM	4.10E-03	J	1.46E-02	mg/L	MR03-SW01	1/2	--	--	--
ZINC	3.00E-02		3.00E-02	mg/L	--	0/2	1.20E-01	--	2.50E-01

Notes:

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

U - The material was analyed for, but not detected

a - One half of the detection limit is reported if not detected

b - Average concentrations calculated using one half of the detection limits when applicable

c - Source: Dean et al. 2004

-- Indicates not applicable

Bold - Concentration exceeded ecological screening value

Generated by: Sara Kent

Checked by: Kelly Taylor

TABLE L-6
Sediment Ecological Risk Screening Results
Site UXO-03 Former Practice Hand Grenade Course
MCB CamLej, North Carolina

Chemical	Maximum Concentration[a]		Average[b]	Units	Location of Maximum Detection	Detection Ratio	Ecological Screening Value	HQ
Explosives (mg/kg)								
1,3,5-TRINITROBENZENE	5.00E-02		5.00E-02	mg/kg	--	0/2	--	--
1,3-DINITROBENZENE	5.00E-02		5.00E-02	mg/kg	--	0/2	--	--
2,4,6-TRINITROTOLUENE	5.00E-02		5.00E-02	mg/kg	--	0/2	--	--
2,4-DINITROTOLUENE	5.00E-02		5.00E-02	mg/kg	--	0/2	--	--
2,6-DINITROTOLUENE	5.00E-02		5.00E-02	mg/kg	--	0/2	--	--
2-AMINO-4,6-DINITROTOLUENE	5.00E-02		5.00E-02	mg/kg	--	0/2	--	--
2-NITROTOLUENE	1.00E-01		1.00E-01	mg/kg	--	0/2	--	--
3-NITROTOLUENE	1.00E-01		1.00E-01	mg/kg	--	0/2	--	--
4-AMINO-2,6-DINITROTOLUENE	5.00E-02		5.00E-02	mg/kg	--	0/2	--	--
4-NITROTOLUENE	1.00E-01		1.00E-01	mg/kg	--	0/2	--	--
HMX	1.00E-01		1.00E-01	mg/kg	--	0/2	--	--
NITROBENZENE	5.00E-02		5.00E-02	mg/kg	--	0/2	--	--
PERCHLORATE	1.40E-03		1.33E-03	mg/kg	--	0/2	--	--
RDX	1.00E-01		1.00E-01	mg/kg	--	0/2	--	--
TETRYL	1.00E-01		1.00E-01	mg/kg	--	0/2	--	--
Total Metals (mg/kg)								
ALUMINUM	1.34E+03	J	1.18E+03	mg/kg	MR03-SD01	2/2	--	--
ANTIMONY	6.60E-01	J	1.68E+00	mg/kg	MR03-SD02	1/2	2.00E+00	0.33
ARSENIC	4.60E-01	J	4.75E-01	mg/kg	MR03-SD01	1/2	7.24E+00	0.06
BARIUM	9.75E+00		9.38E+00	mg/kg	--	0/2	--	--
BERYLLIUM	3.40E-02	J	2.90E-02	mg/kg	MR03-SD01	2/2	--	--
CADMIUM	2.45E-01		2.35E-01	mg/kg	--	0/2	6.76E-01	0.36
CALCIUM	9.05E+02	J	6.59E+02	mg/kg	MR03-SD02	2/2	--	--
CHROMIUM	2.00E+00		1.85E+00	mg/kg	MR03-SD01	2/2	5.23E+01	0.04
COBALT	8.70E-02	J	8.20E-02	mg/kg	MR03-SD01	2/2	--	--
COPPER	2.50E+00		1.85E+00	mg/kg	MR03-SD02	2/2	1.87E+01	0.13
IRON	5.93E+02	J	5.03E+02	mg/kg	MR03-SD02	2/2	--	--
LEAD	7.90E+00	J	6.40E+00	mg/kg	MR03-SD01	2/2	3.02E+01	0.26
MAGNESIUM	2.44E+02		2.34E+02	mg/kg	--	0/2	--	--
MANGANESE	2.10E+00		2.00E+00	mg/kg	MR03-SD02	2/2	--	--
MERCURY	1.40E-02	J	1.68E-02	mg/kg	MR03-SD02	1/2	1.30E-01	0.11
NICKEL	5.60E-01	J	5.20E-01	mg/kg	MR03-SD01	2/2	1.59E+01	0.04
POTASSIUM	2.44E+02		2.34E+02	mg/kg	--	0/2	--	--
SELENIUM	1.70E+00		1.63E+00	mg/kg	--	0/2	--	--
SILVER	4.90E-01		4.70E-01	mg/kg	--	0/2	7.33E-01	0.67
SODIUM	2.44E+02		2.34E+02	mg/kg	--	0/2	--	--
THALLIUM	1.20E+00		1.15E+00	mg/kg	--	0/2	--	--
VANADIUM	2.45E+00		2.35E+00	mg/kg	--	0/2	--	--
ZINC	1.24E+01		9.70E+00	mg/kg	MR03-SD02	2/2	1.24E+02	0.10
Wet Chemistry (%)								
% SOLIDS	7.90E+01		7.55E+01	%	MR03-SD01	2/2	--	--

Notes:

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

U - The material was analyed for, but not detected

a - One half of the detection limit is reported if not detected

b - Average concentrations calculated using one half of the detection limits when applicable

-- Indicates not applicable

Bold - Concentration exceeded ecological screening value

Appendix M
Regulatory Concurrence Letters

NCDENR
North Carolina Department of Environment and Natural Resources
Division of Waste Management

Beverly Eaves Perdue
Governor

Dexter R. Matthews
Director

Dee Freeman
Secretary

November 7, 2011

NAVFAC Atlantic
Attn: Bryan Beck NAVFAC Mid-Atlantic Marine Corps
6506 Hampton Blvd
Norfolk, VA 23508

RE: Draft Final Preliminary Assessment/Site Inspection Report
MMRP Site UXO-03, Former D-3 Practice Hand Grenade Course
Marine Corps Base Camp Lejeune
Jacksonville, North Carolina

Dear Mr. Beck:

The Superfund Section of the Division of Waste Management has completed its review of the Draft Final Preliminary Assessment/Site Inspection Report for Site UXO-03, MMRP Site and concurs with the conclusions and recommendations. Specifically, Section 7.2, Recommendations, states that "no additional environmental or MEC investigation is recommended at Site UXO-03 or the Northern Boundary of Site UXO-03. It further recommends that it would be prudent to provide "3R" training to all MILCON personnel who will be conducting subsurface intrusive activities and to provide on-call support for MCB CamLej EOD or a UXO contractor for any suspected MEC/MPPEH that may be unearthed". This provides a practical, added degree of precaution for this area.

If you have any questions, please contact me at (919) 707-8342.

Sincerely,

Marti Morgan

Marti Morgan
Environmental Engineer
NCDENR Superfund Section

Cc: Charity Rychak, MCB Camp Lejeune
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From: "Townsend.Gena@epamail.epa.gov" <Townsend.Gena@epamail.epa.gov>
Date: Tue, Nov 15, 2011 12:06 pm
Subject: Draft UXO-03 PASI Former D-3 Practice Hand Grenade Course
To: "Townsend.Gena@epamail.epa.gov" <Townsend.Gena@epamail.epa.gov>
Cc: "beth.hartzell@ncdenr.gov" <beth.hartzell@ncdenr.gov>, "bryan.k.beck@navy.mil" <bryan.k.beck@navy.mil>, "charity.rychak@usmc.mil" <charity.rychak@usmc.mil>, "Bozzini, Chris/CLT" <Chris.Bozzini@CH2M.com>, "cleland757@gmail.com" <cleland757@gmail.com>, "david.t.cleland@navy.mil" <david.t.cleland@navy.mil>, "Henderson, Kimberly/VBO" <Kimberly.Henderson@CH2M.com>, "martha.morgan@ncdenr.gov" <martha.morgan@ncdenr.gov>, "Louth, Matt/VBO" <Matt.Louth@CH2M.com>, "nicholas.a.schultz@usmc.mil" <nicholas.a.schultz@usmc.mil>, "randy.mcelveen@ncdenr.gov" <randy.mcelveen@ncdenr.gov>

EPA has completed its review of the above subject report (dated Sept. 2011) and agrees with the recommendation of no further investigative actions and the implementation of the 3R training. This is email is designated as EPA's official response. If there are any questions or comments, I can contacted at the below listed information.

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