# REPORT OF FINDINGS

# FOR

# GSRA RESERVE CENTER
# DEBRIS FIELD
# MARINE CORPS BASE
# CAMP LEJEUNE, NORTH CAROLINA

**August 28, 2007**

**CONTRACT NO.: N62470-05-D-6200**

**CATLIN PROJECT NO.: 207-027**

**PREPARED BY:**

**CATLIN ENGINEERS AND SCIENTISTS**
**P. O. BOX 10279**
**WILMINGTON, NORTH CAROLINA 28404-0279**
**(910) 452-5861**

## TABLE OF CONTENTS


| | | PAGE |
|---|---|---|
| LIST OF ACRONYMS | | i |
| A. | EXECUTIVE SUMMARY | 1 |
| B. | SITE HISTORY | 2 |
| C. | DEBRIS REMOVAL | 2 |
| D. | SOIL INVESTIGATION | 3 |
| E. | RECOMMENDATIONS | 4 |
| F. | LIMITATIONS | 5 |
| G. | REFERENCES | 6 |

**TABLES**

| | |
|---|---|
| TABLE 1 | SUMMARY OF SOIL LABORATORY RESULTS - EPA METHODS 5035/8015 (GRO) and 3541/8015 (DRO) |
| TABLE 2 | SUMMARY OF SOIL LABORATORY RESULTS - EPA METHODS 8081, 8151, and 8270 |
| TABLE 3 | SUMMARY OF SOIL LABORATORY RESULTS - EPA METHOD 8260 |
| TABLE 4 | SUMMARY OF SOIL LABORATORY RESULTS - EPA METHODS 6010B and 7470 |

**FIGURES**

| | |
|---|---|
| FIGURE 1 | SITE VICINITY MAP |
| FIGURE 2 | SITE PLAN WITH SOIL BORING LOCATIONS |

**APPENDICES**

| | |
|---|---|
| APPENDIX A | CATLIN STANDARD METHODS OF INVESTIGATON |
| APPENDIX B | LABORATORY REPORTS AND CHAIN-OF-CUSTODY DOCUMENTATION |

# LIST OF ACRONYMS

| | |
|---|---|
| 2000 Guidelines | Groundwater Section Guidelines for Investigation and Remediation of Soil and Groundwater |
| 2001 Guidelines | Guidelines for Assessment and Corrective Action, North Carolina Underground Storage Tank Section (Effective July 1, 2001) |
| 2L GWQS | NCAC T15A:02L Groundwater Quality Standards |
| ARO | Asheville Regional Office |
| AS | Air Sparge |
| AST | Aboveground Storage Tank |
| BDL | Below Detection Limit |
| BN | Base/Neutral (extractables) |
| BNA | Base/Neutral/Acid (extractables) |
| BQL | Below Quantitation Limit |
| BLS | Below Land Surface |
| BTEX | Benzene, Toluene, Ethylbenzene, Xylenes |
| CAP | Corrective Action Plan |
| CATLIN | CATLIN Engineers and Scientists (Formerly RC&A) |
| CFR | Code of Federal Regulations |
| Cr | Chromium |
| CSA | Comprehensive Site Assessment |
| CNP | Carbon Nitrogen Phosphorous |
| CPT | Cone Penetrometer Test |
| DEM | Division of Environmental Management |
| DIPE | Diisopropyl Ether |
| DO | Dissolved Oxygen |
| DOD | Department of Defense |
| DPT | Direct Push Technology |
| DWQ | Division of Water Quality |
| DWM | Division of Waste Management |
| DRO | Diesel Range Organics |
| DTW | Depth to Water |
| EAD | Environmental Affairs Department |
| EDB | Ethylene di-bromide |
| EMD | Environmental Management Division |
| EPA | United States Environmental Protection Agency |
| EPH | Extractable Petroleum Hydrocarbons |
| EQB | Environmental Quality Branch |
| Fe | Iron |
| FID | Flame Ionization Detector |
| FOD | Foreign Object Debris |
| FRO | Fayetteville Regional Office |
| FT | Feet |
| GCL | Gross Contaminant Level |
| GIS | Geographic Information System |
| GPS | Global Positioning System |
| GRO | Gasoline Range Organics |

| | |
|---|---|
| Guidelines Vol. I | Groundwater Section Guidelines for Investigation and Remediation of Soil and Groundwater, Volume I, Sources Other Than Petroleum Underground Storage Tanks (May 1998) |
| Guidelines Vol. II | Groundwater Section Guidelines for Investigation and Remediation of Soil and Groundwater, Volume II, Petroleum Underground Storage Tanks (January 2, 1998) |
| HDPE | High Density Polyethylene |
| I/C | Industrial/Commercial |
| ID | Identification |
| I&E | Installations and Environment Department |
| IGWQS | Interim Groundwater Quality Standards |
| IPE | Isopropyl Ether |
| LANTDIV | Atlantic Division |
| LSA | Limited Site Assessment |
| LUST | Leaking Underground Storage Tank |
| m- | meta |
| m | meter |
| MADEP | Massachusetts Department of Environmental Protection |
| MCALF | Marine Corps Auxiliary Landing Field |
| MCAS | Marine Corps Air Station |
| MCB | Marine Corps Base |
| MCOLF | Marine Corps Outlying Landing Field |
| MDL | Method Detection Limit |
| mg/Kg | Milligrams per Kilogram |
| mg/L | Milligrams per Litre |
| MRO | Mooresville Regional Office |
| MSCC | Maximum Soil Contaminant Concentration |
| MSL | Mean Sea Level |
| MTBE | Methyl tertiary butyl ether |
| µg/Kg | Micrograms per Kilogram |
| µg/L | Micrograms per Litre |
| NA | Not Analyzed |
| N/A | Not Applicable |
| NC | North Carolina |
| NCAC | North Carolina Administrative Code |
| NCDENR | North Carolina Department of Environment and Natural Resources |
| NCDOC | North Carolina Department of Corrections |
| NCDOT | North Carolina Department of Transportation |
| NCSP | North Carolina State Plane |
| NCSPA | North Carolina State Ports Authority |
| NE | None Established |
| NM | Not Measured |
| NMT | No Measurable Thickness |
| NS | Not Sampled |
| o- | ortho |
| OVA | Organic Vapor Analyzer |
| p- | para |
| PAH | Polynuclear Aromatic Hydrocarbons |
| Pb | Lead |
| PPB | Parts Per Billion |
| PPM | Parts Per Million |
| PID | Photo Ionization Detector |

| | |
|---|---|
| PQL | Practical Quantitation Limit |
| PVC | Polyvinyl chloride |
| RBCA | Risk-Based Corrective Action |
| RCRA | Resource Conservation and Recovery Act |
| Res | Residential |
| ROI | Radius of Influence |
| RRO | Raleigh Regional Office |
| SOW | Scope of Work |
| STGW | Soil-to-Groundwater |
| SVE | Soil Vapor Extraction |
| SVOC | Semi Volatile Organic Compound |
| TDHF | Toxicologically Defined Hydrocarbons Fractions |
| TCLP | Toxicity Characteristic Leaching Procedure |
| TIC | Tentatively Identified Compound |
| TKN | Total Kjeldahl Nitrogen |
| TOC | Top of Casing |
| TPH | Total Petroleum Hydrocarbons |
| US | United States |
| USCS | Unified Soil Classification System |
| USEPA | United States Environmental Protection Agency |
| USGS | United States Geological Survey |
| UST | Underground Storage Tank |
| VOC | Volatile Organic Compounds |
| VPH | Volatile Petroleum Hydrocarbons |
| WaRO | Washington Regional Office |
| WiRO | Wilmington Regional Office |
| WSRO | Winston-Salem Regional Office |

# REPORT OF FINDINGS
# GSRA RESERVE CENTER DEBRIS FIELD
# MARINE CORPS BASE, CAMP LEJEUNE
# NORTH CAROLINA

## A. EXECUTIVE SUMMARY

The subject site is located in a wooded area in the Greater Sandy Run Area (GSRA) Reserve Center aboard MCB, Camp Lejeune. The area of environmental concern was a debris pile discovered during surveying activities associated with the construction of a new building. The debris consisted of illegally discarded household trash, miscellaneous heavy equipment parts, and old five-gallon steel oil cans. The source of the debris is unknown.

In June 2007, the debris pile was segregated into generalized debris, scrap metal (heavy and light), and tires then transported and disposed at the MCB, Camp Lejeune Sanitary Landfill and an off-site recycling facility. Three soil borings were advanced into the shallow subsurface subsequent to the debris removal and representative soils samples collected and submitted for laboratory analysis per the following: EPA Method 5035/8015 - TPH GRO, Method 3541/8015 - TPH DRO, EPA Method 8260 - Volatile Organics + IPE & MTBE, EPA Method 8270 - B/N/A, EPA Method 6010B - Total Metals, EPA Method 7470 - Mercury, EPA Method 8081 - Pesticides, and EPA Method 8151 - Herbicides.

Analytical results were compared to applicable NCDENR Action Limits, Preliminary Remediation Goals, Soil Remediation Goals, and Soil Screening Levels. Soil Laboratory reports identified no compounds above any of the listed regulatory compliance levels. No additional assessment is recommended for the project site.

A copy of this report should be forwarded to the regional NCDENR office.

## B. SITE HISTORY

The subject site is located within the GSRA Reserve Center of MCB, Camp Lejeune approximately two miles north of Dixon, North Carolina. See site vicinity map presented on Figure 1 for the site location. During site reconnaissance and surveying activities conducted by Camp Lejeune personnel in association with the proposed construction of a structure, a debris field of illegally discarded materials was discovered in a densely wooded area. The debris consisted of three predominant "piles" of household debris, five-gallon steel lubricant containers (empty and rusted through), and pieces of heavy machinery in addition to miscellaneous scrap steel, equipment parts, and tires scattered randomly throughout the wooded area. The origin and age of the debris field is unknown. A generalized site plan depicting the approximate location of the three dominant debris piles is presented on Figure 2. Catlin Engineers and Scientists (CATLIN) was contracted by Osage of Virginia Incorporated (OSAGE) to conduct site coordination and documentation of field activities associated with the removal and disposal of the debris, soil sampling and analysis, and preparation of a report of findings documenting field activities, findings, and recommendations.

## C. DEBRIS REMOVAL

CATLIN personnel utilized a mapping grade Geographical Positioning System (GPS), capable of sub-yard accuracy, to record the location of each debris pile and the horizontal extent of the densely wooded area. A&D Environmental (A&D) conducted excavation activities which commenced on May 29, 2007. Due to the location of the debris, clearing of light vegetation and small trees was necessary to allow equipment and personnel access to the project site. All removed vegetation was placed in piles and left on site. When sufficient clearing was completed to access the debris, the materials were removed with a track-hoe and segregated on site into the following:

- Heavy steely consisting of farm equipment, cables, axles, and miscellaneous heavy gauged steel pieces.
- Light steel consisting of mufflers, cables, five-gallon lubricant containers, steel utility pipes, and miscellaneous light gauged steel pieces.
- Generalized debris consisting of household trash and generalized domestic debris.
- Tires and miscellaneous rubber.

During removal activities, materials were thoroughly inspected to insure that no potentially hazardous materials were present in or within the debris. After the debris field was cleared and the material was segregated, the generalized debris was loaded into tandem-axel dump trucks and transported by A&D to the MCB, Camp Lejeune sanitary landfill for disposal. Six loads (approximately 10 cubic yards each) of generalized debris were disposed at the MCB landfill. The remaining light and heavy scrap steel was loaded into two dump trucks for disposal at the Defense Reutilization and Marketing Office (DRMO) steel recycling facility located aboard

MCB, Camp Lejeune. Due to logistical obstacles, the disposal of the scrap steel aboard MCB, Camp Lejeune was not feasible and the materials were transported and disposed at Jacksonville Scrap Iron and Metal Company, Inc. Tires and rubber were transported to High Point, North Carolina and stockpiled for later disposal by A&D at an appropriate rubber recycling facility.

## D. SOIL INVESTIGATION

When debris removal, debris disposal, and site restoration activities were completed, CATLIN personnel advanced one soil boring at the locations of each of the three former debris piles on June 4, 2007. The borings were advanced utilizing a hand-auger to a depth of approximately two feet BLS and a composite soil sample collected from each. Once sample collection was completed all resulting boreholes were backfilled with native material. The boring locations are presented on Figure 2.

All sampling was conducted in general accordance with CATLIN's Standard Methods, a copy of which has been provided in Appendix A. Each sample intended for laboratory analysis was placed in laboratory provided glassware, labeled with site location, borehole ID, date/time, and sampler and placed on ice in a cooler. Soil samples were transported under proper Chain-of-Custody protocol to SGS Environmental Services, Inc. (SGS) in Wilmington, North Carolina for analysis per the following:

| EPA METHOD | ANALYTES |
|---|---|
| 5035/8015 | TPH GRO |
| 3541/8015 | TPH DRO |
| 8260 | Volatile Organics + IPE + MTBE |
| 8270 | Base/Neutral/ and Acid Extractables |
| 6010B & 7470 | Total Metals & Mercury |
| 8081 | Pesticides |
| 8151 | Herbicides |

A copy of the SGS analytical report and Chain-of-Custody documentation has been provided in Appendix B. The soil sample results can be summarized as follows:

EPA METHODS 5035/8015 & 3541/8015

For regulatory compliance, EPA Methods 5035/8015 (TPH-GRO) and 3541/8015 (TPH-DRO) results were compared to the NCDENR Action Levels of 10 mg/kg and 40 mg/kg, respectively. A summary of the laboratory analytical reports prepared by SGS for TPH GRO-DRO is presented on Table 1. A review of the summarized data as presented on Table 1 indicates that with the exception of TPH-DRO in sample HA-1, all results were below the MDL. The concentration of 14.6 mg/kg identified in sample HA-1 is below the applicable NCDENR Action Level of 40 mg/kg.

EPA METHODS 8081, 8151, and 8270

Laboratory analytical results for EPA Methods 8081, 8151, and 8270 reported that no target analytes were identified at concentrations above the MDL. A summary of the laboratory analytical reports prepared by SGS for EPA Methods 8081, 8151, and 8270 is presented on Table 2.

EPA METHOD 8260

The only EPA Method 8260 compound reported above the MDL in any of the samples was acetone. Acetone was identified at estimated concentrations of 0.00669 mg/kg, 0.00306 mg/kg, and 0.00576 mg/kg in samples HA-1, HA-2, and HA-3, respectively. For regulatory compliance, the laboratory results were compared to the North Carolina Inactive Hazardous Sites Branch Soil Remediation Goal (SRG) of 2,800 mg/kg, North Carolina Hazardous Waste Section Soil Screening Level (SSL) of 2.81 mg/kg, and the US EPA Region 9 Industrial Risk Preliminary Remediation Goal (PRG) of 5,500 mg/kg. EPA Method 8260 laboratory results and applicable compliance levels are summarized on Table 3.

EPA METHOD 6010B

Review of the laboratory data as summarized on Table 4 indicates that numerous RCRA Metals were identified in each of the soil samples submitted for laboratory analysis. None of the identified metals were reported at concentrations above the established SRGs, SSLs, or PRGs. However, there is no established SRG for barium which was reported at estimated concentrations of 1.60 mg/kg and 2.58 mg/kg in samples HA-2 and HA-3, respectively. The reported concentrations are substantially below the established SSL and PRG of 848 mg/kg and 67,000 mg/kg, respectively.

## E. RECOMMENDATIONS

Based on the reported success of the debris removal activities and the lack of any target constituents identified at levels above current remedial action levels, no additional site remediation is proposed. The site appears eligible to be considered for "No Further Action" status.

A copy of this report should be forwarded to the regional NCDENR office at the following address:

North Carolina Department of Environment and Natural Resources
Division of Waste Management
Hazardous Waste Section
127 Cardinal Drive Extension
Wilmington, North Carolina 28405

## F. LIMITATIONS

The soil samples analyzed as part of this investigation only provide isolated data points and may not represent conditions at every location in the project area. Analyses and conclusions of this report, being based on interpolation between data points at the project area, may not be completely representative of all site conditions. Conclusions and recommendations of this investigation and report are based on the best available data in an effort to comply with current regulatory requirements.

## G. REFERENCES

North Carolina Department of Environment and Natural Resources, *Guidelines for Assessment and Corrective Action, North Carolina Underground Storage Tank Section* (Effective July 1, 2001).

North Carolina Department of Environment and Natural Resources - Division of Waste Management - Hazardous Waste Section, *Guidelines for Establishing Remediation Goals at RCRA Hazardous Waste Sites,* Revised May 2005.

# TABLES

**TABLE 1**
**SUMMARY OF SOIL LABORATORY RESULTS**
**Analytical Method: EPA Methods 5035/8015 (GRO) and 3541/8015 (DRO)**

Incident Name and No.: GSRA Reserve Center Debris Field

| Sample ID | Contaminant of Concern → | | Gasoline Range Organics | Diesel Range Organics |
|---|---|---|---|---|
| | Date Collected | Sample Depth (ft. BLS) | | |
| **NCDENR Action Level (mg/kg)** | | | 10 | 40 |
| HA-1 | 6/4/2007 | 0-2 | <0.0163 | 14.6 |
| HA-2 | 6/4/2007 | 0-2 | <0.0159 | <2.12 |
| HA-3 | 6/4/2007 | 0-2 | <0.0142 | <2.14 |

All results in milligrams per kilogram (mg/kg).
ft. BLS = Feet Below Land Surface.
< = Less than method detection limit

**TABLE 2**
**SUMMARY OF SOIL LABORATORY RESULTS**
**Analytical Methods: EPA Methods 8081, 8151, and 8270**

Incident Name and No.: GSRA Reserve Center Debris Field

| Sample ID | Contaminant of Concern → | | All 8081 Compounds | All 8151 Compounds | All 8270 Compounds |
|---|---|---|---|---|---|
| | Date Collected | Sample Depth (ft. BLS) | | | |
| **SRG (mg/kg)**<br>**NC HWS SSL (mg/kg)**<br>**US EPA Region 9 Industrial Risk PRG (mg/kg)** | | | Varies<br>Varies<br>Varies | Varies<br>Varies<br>Varies | Varies<br>Varies<br>Varies |
| HA-1 | 6/4/2007 | 0-2 | BMDL | BMDL | BMDL |
| HA-2 | 6/4/2007 | 0-2 | BMDL | BMDL | BMDL |
| HA-3 | 6/4/2007 | 0-2 | BMDL | BMDL | BMDL |

All results in milligrams per kilogram (mg/kg).
BMDL = Below Method Detection Limit
ft. BLS = Feet Below Land Surface.
US EPA Region 9 Industrial Risk Based PRG (Preliminary Remediation Goal)
SRG = NC Inactive Hazardous Sites Branch Soil Remediation Goal
NC HWS SSL = North Carolina Hazardous Waste Section Soil Screening Level

**TABLE 3**
**SUMMARY OF SOIL LABORATORY RESULTS**
**Analytical Method: EPA Method 8260**

Incident Name and No.: GSRA Reserve Center Debris Field

| Sample ID | Contaminant of Concern → | | Acetone | All other 8260 Compounds |
|---|---|---|---|---|
| | Date Collected | Sample Depth (ft. BLS) | | |
| **SRG (mg/kg)**<br>**NC HWS SSL (mg/kg)**<br>**US EPA Region 9 Industrial Risk PRG (mg/kg)** | | | 2,800<br>2.81<br>5,500 | Varies<br>Varies<br>Varies |
| HA-1 | 6/4/2007 | 0-2 | 0.00669 J | BMDL |
| HA-2 | 6/4/2007 | 0-2 | 0.00306 J | BMDL |
| HA-3 | 6/4/2007 | 0-2 | 0.00576 J | BMDL |

All results in milligrams per kilogram (mg/kg).
BMDL = Below Method Detection Limit
ft. BLS = Feet Below Land Surface.
J = Estimated concentration, below calibration range and above MDL
US EPA Region 9 Industrial Risk Based PRG (Preliminary Remediation Goal)
SRG = NC Inactive Hazardous Sites Branch Soil Remediation Goal
NC HWS SSL = North Carolina Hazardous Waste Section Soil Screening Level

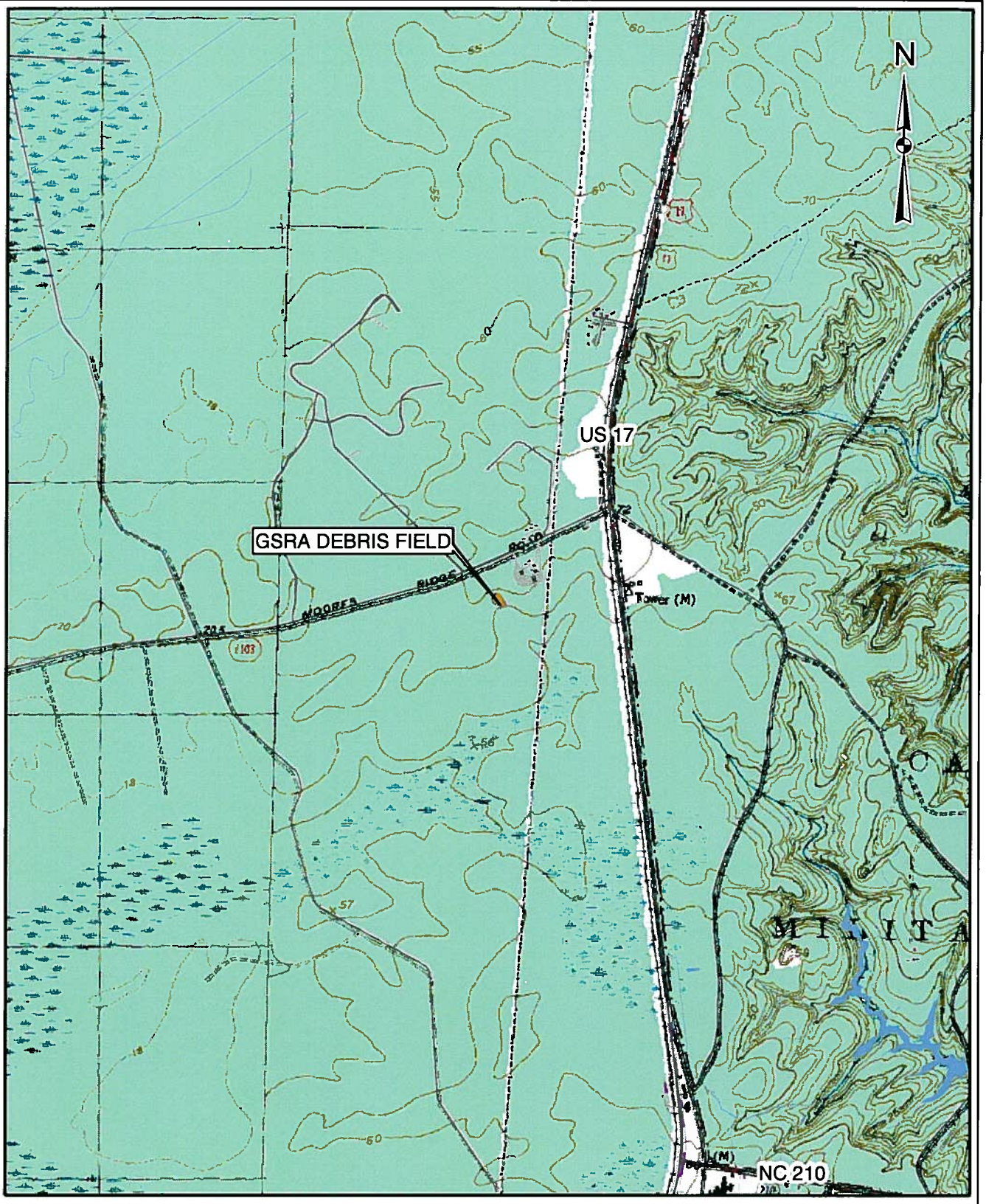
**TABLE 4**
**SUMMARY OF SOIL LABORATORY RESULTS**
**Analytical Methods: EPA Methods 6010B and 7470**

Incident Name and No.: GSRA Reserve Center Debris Field

| Sample ID | Contaminant of Concern → | | Arsenic | Barium | Cadmium | Chromium | Lead | Mercury | Selenium | Silver |
|---|---|---|---|---|---|---|---|---|---|---|
| | Date Collected | Sample Depth (ft. BLS) | | | | | | | | |
| **SRG (mg/kg)** | | | 4.4 | NE | 7.4 | 44 | 400 | 4.6 | 78 | 78 |
| **NC HWS SSL (mg/kg)** | | | 5.24 | 848 | 0.95 | 27.2 | 270 | 0.015 | 12.2 | 0.217 |
| **US EPA Region 9 Industrial Risk PRG (mg/kg)** | | | 1.6 | 67,000 | 450 | 450 | 800 | 310 | 5,100 | 5,100 |
| HA-1 | 6/4/2007 | 0-2 | <0.602 | <0.428 | <0.200 | 0.360 J | 0.750 J | <0.00293 | 0.513 JB | <0.0800 |
| HA-2 | 6/4/2007 | 0-2 | 0.566 J | 1.60 J | <0.187 | 2.24 | 2.14 | 0.00497 J | 0.942 JB | <0.0747 |
| HA-3 | 6/4/2007 | 0-2 | 1.36 | 2.58 J | <0.216 | 4.51 | 4.34 | 0.0137 J | 1.40 JB | <0.0864 |

All results in milligrams per kilogram (mg/kg).
NE = None Established
ft. BLS = Feet Below Land Surface.
< = Less than method detection limit
J = Estimated concentration, below calibration range and above MDL
B = Amount in Prep. Blank greater than Method Detection Limit
US EPA Region 9 Industrial Risk Based PRG (Preliminary Remediation Goal)
SRG = NC Inactive Hazardous Sites Branch Soil Remediation Goal
NC HWS SSL = North Carolina Hazardous Waste Section Soil Screening Level

# FIGURES




Data Source: GIS Data provided by MCB Camp Lejeune GIS Department.

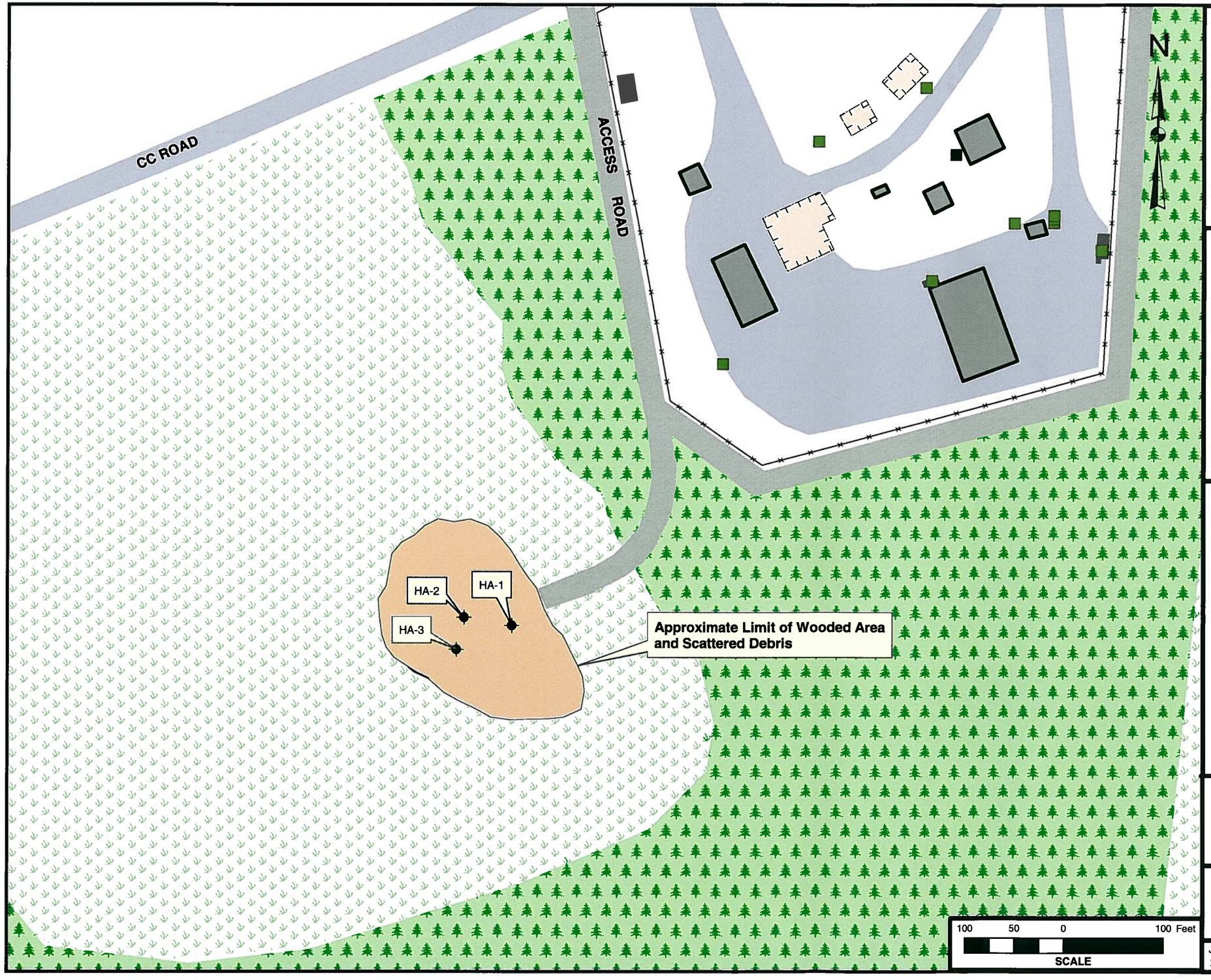
CATLIN ENGINEERS and SCIENTISTS WILMINGTON, NORTH CAROLINA

| PROJECT | TITLE | FIGURE |
|---|---|---|
| REPORT OF FINDINGS<br>GSRA RESERVE<br>CENTER DEBRIS FIELD<br>MCB CAMP LEJEUNE, N.C. | **SITE VICINITY MAP** | **1** |

| JOB NO. | DATE | SCALE | DRAWN BY | CHECKED BY |
|---|---|---|---|---|
| 207-027 | AUG 2007 | AS SHOWN | SAC | SVH |

# REPORT OF FINDINGS
# GSRA RESERVE CENTER
# DEBRIS FIELD
# MCB, CAMP LEJEUNE

NAVFAC
Naval Facilities Engineering Command




## LEGEND

- Soil Boring
- Water Supply Wells
- Above Ground Storage Tank
- Underground Storage Tank
- Railroad Tracks

**Walls and Fences**
- FENCE
- GATE
- WALL

- Buildings and Structures
- Demolished Structures
- Oil/Water Separators
- Slabs
- Roads
- Driveways
- Parking Lots
- Surface Water Bodies
- Creeks and Streams

**Vegetation Cover**
- Forestland
- Scrubland
- Wetland

**Airfield Pavement**
- HELIPAD
- RAMP
- RUNWAY
- SHLDR_OVERRUN
- TAXIWAY

## NOTES

1. GIS Layers provided by MCB Camp Lejeune GIS Office.
2. Site boundary and soil boring locations via GPS by CATLIN.

CATLIN
ENGINEERS and SCIENTISTS

**SITE PLAN WITH SOIL BORING LOCATIONS**

FIGURE 2

| Job No.: | Date: | Scale: | Drawn By: | Checked By: |
|---|---|---|---|---|
| 207-027 | AUG 2007 | AS SHOWN | SAC | SVH |

# APPENDICES

# APPENDIX A

# CATLIN STANDARD METHODS OF INVESTIGATION

# CATLIN STANDARD METHODS OF INVESTIGATION

# (REVISED APRIL 2002)

## 1.0 DATA COLLECTION

### *1.1 BACKGROUND DATA*

Background data and history information relevant to the site investigation is generated through numerous sources. These sources may include, but are not limited to, the following:

- Conversations with the client and regulatory officials involved with the incident.
- Review of pertinent regulatory correspondence.
- Review of previous and existing reports and other technical data.
- Review of available historical records.

### *1.2 SURVEYS AND POTENTIAL RECEPTOR DATA*

Physical survey and potential receptor data are collected in accordance with the intended level of investigation. In general, the purpose is to collect sufficient information for site assessment and corrective action planning.

Individual receptors are identified and evaluated in the context of their potential for contaminant impact. Potential receptors of contamination can include surface water bodies, groundwater supply wells, wellhead protection areas, and subsurface building structures.

#### 1.2.1 Horizontal Survey

Horizontal survey data are generated using either accepted general field surveying techniques, or existing survey maps; or by using a combination of existing data and field generated information. The survey area generally extends to a point at least 50 feet beyond suspected plume boundaries. A receptor scale survey of a larger area surrounding a site will be made if appropriate and necessary.

#### 1.2.2 Vertical Survey

A vertical survey is conducted at the site typically within an accuracy of 0.01 foot. The datum plane is generally assumed unless otherwise noted. Assumed temporary benchmarks (TBM) are selected near ground level. The vertical survey includes such points as top of all well casings, selected ground shots, important utility inverts, utility fluid levels, important surface water levels, and other items determined to be significant.

## *1.3 DRILLING AND MONITORING WELL/PIEZOMETER INSTALLATION*

Necessary permits are applied for and obtained in accordance with federal, state, and local requirements prior to drilling or well construction activities. Additionally, the well locations are scanned for underground utilities prior to conducting intrusive subsurface activities. Wells are installed under applicable licensing requirements, and are designed and constructed in accordance with accepted standards and practices. Any wells purposely installed at off-site locations are permitted through appropriate right-of-entry agreements with all necessary property owners and/or their agents.

### 1.3.1 Drilling Methods and Subsurface Data Collection

Drilling is accomplished utilizing one or more of the following methods:

***Auger Drilling***

Auger drilling is the preferred, most often used method of subsurface investigation and is accomplished using a vehicle or trailer mounted drill rig. Continuous flight auger types used vary upon the site and situation; ranging from the 4-inch outside diameter solid stem to the 12-inch outside diameter hollow stem. Auger type is selected based upon appropriateness and/or site-specific requirements.

***Hand Augering***

Hand augering is utilized when economically and scientifically feasible, or when no other method is suitable. Hand augers typically produce three-inch diameter holes and are generally limited to depths of less than 15 feet.

***Direct Push***

Direct push methods of subsurface investigation are used generally for soil screening purposes or collection of groundwater samples where permanent wells are not viable.

***Other Methods***

Other drilling methods, such as mud and air rotary, rock coring, cable tool, and large bucket augering are used when site conditions or project requirements dictate.

Regardless of the drilling method used, the drill rig(s) and all drilling tools are thoroughly cleaned between boreholes to prevent cross introduction of contaminants. Split spoon samples are collected and field-described at intervals of five feet or less, and cuttings are continuously monitored for organic vapors. Drill cuttings are containerized for off-site disposal or are spread on the ground surface in proximity to the well or boring in accordance with North Carolina Department of Environment and Natural Resources (NCDENR) requirements. A geologist or engineer, trained in using visual/manual techniques, is always present during drilling and is

responsible for subsurface contaminant and geologic data collection. Soils are classified in general agreement with the Unified Soils Classification System (USCS).

### 1.3.2 Hydropunch Installation

Hydropunch penetrometers (Hydropunches) are used to delineate the spatial extent of dissolved and free phase plumes. Soil borings are advanced to the appropriate depth and then the Hydropunch is advanced through the soil boring into undisturbed material. Groundwater samples are collected by pulling back on the body of the Hydropunch and allowing the groundwater to enter the screened portion of the sample chamber. Samples are retrieved using a decontaminated Teflon bailer or peristaltic pump.

### 1.3.3 Well Installation

Wells are typically constructed of threaded PVC casing and screen. No glues or cements are used in joining PVC components. Well diameter, slot sizes, and protective covers vary depending upon site-specific conditions or situation-specific requirements.

### 1.3.4 Well Development

Wells are developed by over-pumping or surging using appropriate pumps, blocks, or bailers. Through development, unwanted fine materials are removed from the natural formation surrounding the well. Well development will be performed no sooner than 24-hours after grouting is completed for the Type III wells. Water generated during development is containerized and properly disposed or is discharged onto the ground in proximity of the well in accordance with NCDENR requirements.

## *1.4 HYDROGEOLOGIC DATA COLLECTION*

Data used to help characterize hydrogeologic conditions at a site are obtained through various procedures including, but not necessarily limited to, those described below:

### 1.4.1 Regional Geology

Information pertaining to the regional geologic framework is compiled from existing publications, maps, and scientific papers.

### 1.4.2 Site Geology

Shallow site geology is generally determined from field descriptions and borehole samples. Interpretations with regard to hydrogeologically important contacts, zones, fractures, faults, cleavage, and facies changes are made when possible.

### 1.4.3 Groundwater Occurrence and Characteristics

Groundwater data is obtained utilizing a number of methods and procedures, not limited to the general list below:

***Well Water Levels***

After well development, wells are allowed to stabilize for a minimum of 24 hours prior to measuring. Water level and free product thickness (where applicable) measurements are performed using an electronic interface probe or steel tape with water/product finding pastes.

The specific gravity of any accumulated product is determined and used to calculate true hydraulic grade from measured water levels. This information is combined with vertical survey data to determine relative potentiometric surface elevations for all wells.

***Aquifer Testing***

Various aquifer tests may be used to make determinations of hydraulic conductivity. Slug or pumping tests are often used to characterize site hydrogeologic conditions and to develop remedial action alternatives utilizing appropriate pumping technologies.

***Other Methods***

Other methods may be deemed appropriate for determining various groundwater characteristics. These other methods may include nested well configurations and/or clustered piezometer installations; sieve or pipette analysis; fracture trace analysis; computer modeling; and geophysical logging.

## *1.5 PETROLEUM HYDROCARBON DATA COLLECTION*

### 1.5.1 Collection Methods

Petroleum hydrocarbon data is obtained through various methods including, but not limited to, the following:

***Field Analysis***

- Direct thickness measurement of phase separated components using tapes and/or probes.
- Manual vapor analysis using a photoionization detector (PID) or flame ionization detector (FID).
- Detectable odor and visual observation.

***Laboratory Analysis***

- Laboratory analysis of phase-separated products.

- Laboratory vapor, soil, and groundwater analysis using appropriate EPA Methods.

### 1.5.2 Field Sampling

Field sampling procedures are performed in accordance with recommended protocol, accepted industry standards, and under appropriate chain-of-custody procedures. Generally, sampling procedures are as follows:

***Product Samples***

Product samples are obtained using clean equipment and containers. Each is shipped to the analytical laboratory in protective containers.

***Vapor Samples***

PID/FID readings are measured from soil sample headspace using containerized samples that have been brought to ambient temperature.

Carbon tubes are utilized in conjunction with a laboratory-calibrated vacuum pump to obtain vapor samples. The carbon tubes are sealed and refrigerated for shipment to the analytical laboratory (This method is known as the Carbon Adsorption Method).

***Soil Samples***

Soil samples are immediately packed into clean containers, and refrigerated for shipment to the analytical laboratory.

***Groundwater Samples***

Groundwater samples are collected in accordance with the following procedures:

- Creeks/Lakes/Etc.

  Grab samples are obtained.

- Domestic Wells

  Wells are pumped for a time sufficient to completely purge the well and any pressure or holding tanks prior to sampling.

- Monitoring Wells

  Water level measurements are made and well volumes calculated for each well.

  Three well volumes are removed from each well using a thoroughly cleaned Teflon bailer or appropriate purging pump. If it is not possible to

remove three volumes, due to very low yields, a minimum of one volume is removed prior to obtaining a sample.

Where analysis for metals is required, wells are typically sampled utilizing low flow techniques, which reduce turbidity and the potential for matrix interference.

Samples are collected and containerized in a manner that minimizes agitation and contact with the air.

Sampling records are field prepared.

Samples are labeled and proper Chain-of-Custody documents are maintained.

Samples are promptly protectively packed, refrigerated, and shipped to the analytical laboratory for analysis.

## 2.0 DATA EVALUATION

Data obtained as a result of the site investigation is compiled and evaluated and a report is prepared for client review and distribution to the appropriate agencies. Generally, specific data are evaluated as follows:

- Background data are evaluated in context with the suspected or confirmed problem.
- Survey data are utilized to develop site maps and to evaluate contaminant receptors.
- Well construction records are compiled and presented as part of the report. As-built information is used in combination with other data to evaluate subsurface conditions and monitoring well screen settings as they relate to the investigation.
- Subsurface drilling logs are used to develop geologic cross-sections, fence diagrams, isopaths, structure contours, or other constructions. Regional geologic data are used to obtain an overall framework.
- Hydrogeologic data are used to develop contour maps, flow nets and other constructions. The data is also used to calculate various hydrogeologic parameters that describe aquifer characteristics.
- Hydrocarbon data are utilized to develop various plume geometry and isoconcentration maps.
- All data are compiled and utilized for making specific recommendations with regard to remedial action alternatives.

# APPENDIX B

# LABORATORY REPORTS
# AND
# CHAIN-OF-CUSTODY DOCUMENTATION

SGS

Mr. Steve Hudson
Richard Catlin & Associates
P.O. Box 10279
Wilmington NC 28404-0279

Report Number: G128-1964

Client Project: GSRA Debris

Dear Mr. Hudson:

Enclosed are the results of the analytical services performed under the referenced project. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. Any samples submitted to our laboratory will will be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

If there are any questions about the report or the services performed during this project, please call SGS/Paradigm at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS/Paradigm Analytical Labs for your analytical services. We look forward to working with you again on any additional analytical needs which you may have.

Sincerely,
SGS/Paradigm Analytical Laboratories, Inc.

Laboratory Director
J. Patrick Weaver

Date 6/15/07

SGS

## Results for Total Petroleum Hydrocarbons
by GC/FID 8015

| | | | |
|---|---|---|---|
| Client Sample ID: | HA-1 | Analyzed By: | DVG |
| Client Project ID: | GSRA Debris | Date Collected: | 6/4/2007 13:00 |
| Lab Sample ID: | G128-1964-1 | Date Received: | 6/4/2007 |
| Lab Project ID: | G128-1964 | Matrix: | Soil |
| Report Basis: | Dry Weight | Solids | 85.62 |

| Analyte | Result MG/KG | RL MG/KG | Prep Method | Dilution Factor | Date Analyzed |
|---|---|---|---|---|---|
| Gasoline Range Organics | BQL | 6.19 | 5035 | 1 | 06/05/07 |
| Diesel Range Organics | **14.6** | 7.02 | 3541 | 1 | 06/07/07 |

Comments:

Flags:

Reviewed By: [signature]

SGS

## Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: HA-2
Client Project ID: GSRA Debris
Lab Sample ID: G128-1964-2
Lab Project ID: G128-1964
Report Basis: Dry Weight

Analyzed By: DVG
Date Collected: 6/4/2007 13:10
Date Received: 6/4/2007
Matrix: Soil
Solids 87.03

| Analyte | Result MG/KG | RL MG/KG | Prep Method | Dilution Factor | Date Analyzed |
|---|---|---|---|---|---|
| Gasoline Range Organics | BQL | 6.04 | 5035 | 1 | 06/05/07 |
| Diesel Range Organics | BQL | 6.89 | 3541 | 1 | 06/07/07 |

Comments:

Flags:

Reviewed By: [signature]

SGS

## Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: HA-3
Client Project ID: GSRA Debris
Lab Sample ID: G128-1964-3
Lab Project ID: G128-1964
Report Basis: Dry Weight

Analyzed By: DVG
Date Collected: 6/4/2007 13:15
Date Received: 6/4/2007
Matrix: Soil
Solids 87.01

| Analyte | Result MG/KG | RL MG/KG | Prep Method | Dilution Factor | Date Analyzed |
|---|---|---|---|---|---|
| Gasoline Range Organics | BQL | 5.40 | 5035 | 1 | 06/05/07 |
| Diesel Range Organics | BQL | 6.98 | 3541 | 1 | 06/07/07 |

Comments:

Flags:

Reviewed By: _____

SGS

**Results for Volatiles**
**by GCMS 8260-5035**

Client Sample ID: HA-1
Client Project ID: GSRA Debris
Lab Sample ID G128-1964-1A
Lab Project ID: G128-1964
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 06-04-2007 13:00
Date Received: 6/4/2007
Matrix: Soil
Sample Amount: 6.5 g
%Solids: 85.6

| Report Name<br>Compound | Result<br>MG/KG | Quantitation<br>Limit MG/KG | MDL<br>MG/KG | Dilution<br>Factor | Date<br>Analyzed | Flag |
|---|---|---|---|---|---|---|
| Acetone | **0.00669** | 0.0449 | 0.00264 | 1 | 6/8/2007 | J |
| Benzene | BQL | 0.00449 | 0.00256 | 1 | 6/8/2007 | |
| Bromobenzene | BQL | 0.00449 | 0.00221 | 1 | 6/8/2007 | |
| Bromochloromethane | BQL | 0.00449 | 0.00262 | 1 | 6/8/2007 | |
| Bromodichloromethane | BQL | 0.00449 | 0.00255 | 1 | 6/8/2007 | |
| Bromoform | BQL | 0.00449 | 0.00217 | 1 | 6/8/2007 | |
| Bromomethane | BQL | 0.00449 | 0.00376 | 1 | 6/8/2007 | |
| 2-Butanone | BQL | 0.0225 | 0.00259 | 1 | 6/8/2007 | |
| n-Butylbenzene | BQL | 0.00449 | 0.00301 | 1 | 6/8/2007 | |
| sec-Butylbenzene | BQL | 0.00449 | 0.00314 | 1 | 6/8/2007 | |
| tert-Butylbenzene | BQL | 0.00449 | 0.00312 | 1 | 6/8/2007 | |
| Carbon disulfide | BQL | 0.00449 | 0.00236 | 1 | 6/8/2007 | |
| Carbon tetrachloride | BQL | 0.00449 | 0.00311 | 1 | 6/8/2007 | |
| Chlorobenzene | BQL | 0.00449 | 0.00226 | 1 | 6/8/2007 | |
| Chloroethane | BQL | 0.00449 | 0.00282 | 1 | 6/8/2007 | |
| Chloroform | BQL | 0.00449 | 0.00226 | 1 | 6/8/2007 | |
| Chloromethane | BQL | 0.00449 | 0.00217 | 1 | 6/8/2007 | |
| 2-Chlorotoluene | BQL | 0.00449 | 0.00268 | 1 | 6/8/2007 | |
| 4-Chlorotoluene | BQL | 0.00449 | 0.00250 | 1 | 6/8/2007 | |
| Dibromochloromethane | BQL | 0.00449 | 0.00201 | 1 | 6/8/2007 | |
| 1,2-Dibromo-3-chloropropane | BQL | 0.00449 | 0.00952 | 1 | 6/8/2007 | |
| Dibromomethane | BQL | 0.00449 | 0.00270 | 1 | 6/8/2007 | |
| 1,2-Dibromoethane (EDB) | BQL | 0.00449 | 0.00209 | 1 | 6/8/2007 | |
| 1,2-Dichlorobenzene | BQL | 0.00449 | 0.00217 | 1 | 6/8/2007 | |
| 1,3-Dichlorobenzene | BQL | 0.00449 | 0.00210 | 1 | 6/8/2007 | |
| 1,4-Dichlorobenzene | BQL | 0.00449 | 0.00221 | 1 | 6/8/2007 | |
| trans-1,4-Dichloro-2-butene | BQL | 0.00449 | 0.00961 | 1 | 6/8/2007 | |
| 1,1-Dichloroethane | BQL | 0.00449 | 0.00259 | 1 | 6/8/2007 | |
| 1,1-Dichloroethene | BQL | 0.00449 | 0.00346 | 1 | 6/8/2007 | |
| 1,2-Dichloroethane | BQL | 0.00449 | 0.00258 | 1 | 6/8/2007 | |
| cis-1,2-Dichloroethene | BQL | 0.00449 | 0.00221 | 1 | 6/8/2007 | |
| trans-1,2-dichloroethene | BQL | 0.00449 | 0.00292 | 1 | 6/8/2007 | |
| 1,2-Dichloropropane | BQL | 0.00449 | 0.00230 | 1 | 6/8/2007 | |
| 1,3-Dichloropropane | BQL | 0.00449 | 0.00206 | 1 | 6/8/2007 | |
| 2,2-Dichloropropane | BQL | 0.00449 | 0.00286 | 1 | 6/8/2007 | |
| 1,1-Dichloropropene | BQL | 0.00449 | 0.00324 | 1 | 6/8/2007 | |
| cis-1,3-Dichloropropene | BQL | 0.00449 | 0.00250 | 1 | 6/8/2007 | |
| trans-1,3-Dichloropropene | BQL | 0.00449 | 0.00254 | 1 | 6/8/2007 | |
| Dichlorodifluoromethane | BQL | 0.00449 | 0.00335 | 1 | 6/8/2007 | |
| Diisopropyl ether (DIPE) | BQL | 0.00449 | 0.00213 | 1 | 6/8/2007 | |
| Ethylbenzene | BQL | 0.00449 | 0.00273 | 1 | 6/8/2007 | |
| Hexachlorobutadiene | BQL | 0.00449 | 0.00355 | 1 | 6/8/2007 | |

SGS

**Results for Volatiles**
**by GCMS 8260-5035**

Client Sample ID: HA-1
Client Project ID: GSRA Debris
Lab Sample ID G128-1964-1A
Lab Project ID: G128-1964
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 06-04-2007 13:00
Date Received: 6/4/2007
Matrix: Soil
Sample Amount: 6.5 g
%Solids: 85.6

| Report Name<br>Compound | Result<br>MG/KG | Quantitation<br>Limit MG/KG | MDL<br>MG/KG | Dilution<br>Factor | Date<br>Analyzed | Flag |
|---|---|---|---|---|---|---|
| 2-Hexanone | BQL | 0.00449 | 0.00196 | 1 | 6/8/2007 | |
| Iodomethane | BQL | 0.00449 | 0.00418 | 1 | 6/8/2007 | |
| Isopropylbenzene | BQL | 0.00449 | 0.00289 | 1 | 6/8/2007 | |
| 4-Isopropyltoluene | BQL | 0.00449 | 0.00305 | 1 | 6/8/2007 | |
| Methylene chloride | BQL | 0.0180 | 0.00257 | 1 | 6/8/2007 | |
| 4-Methyl-2-pentanone | BQL | 0.00449 | 0.00208 | 1 | 6/8/2007 | |
| Methyl-tert-butyl ether (MTBE) | BQL | 0.00449 | 0.00228 | 1 | 6/8/2007 | |
| Naphthalene | BQL | 0.00449 | 0.00181 | 1 | 6/8/2007 | |
| n-Propyl benzene | BQL | 0.00449 | 0.00288 | 1 | 6/8/2007 | |
| Styrene | BQL | 0.00449 | 0.00322 | 1 | 6/8/2007 | |
| 1,1,1,2-Tetrachloroethane | BQL | 0.00449 | 0.00244 | 1 | 6/8/2007 | |
| 1,1,2,2-Tetrachloroethane | BQL | 0.00449 | 0.00221 | 1 | 6/8/2007 | |
| Tetrachloroethene | BQL | 0.00449 | 0.00283 | 1 | 6/8/2007 | |
| Toluene | BQL | 0.00449 | 0.00266 | 1 | 6/8/2007 | |
| 1,2,3-Trichlorobenzene | BQL | 0.00449 | 0.00197 | 1 | 6/8/2007 | |
| 1,2,4-Trichlorobenzene | BQL | 0.00449 | 0.00201 | 1 | 6/8/2007 | |
| Trichloroethene | BQL | 0.00449 | 0.00280 | 1 | 6/8/2007 | |
| 1,1,1-Trichloroethane | BQL | 0.00449 | 0.00310 | 1 | 6/8/2007 | |
| 1,1,2-Trichloroethane | BQL | 0.00449 | 0.00232 | 1 | 6/8/2007 | |
| Trichlorofluoromethane | BQL | 0.00449 | 0.00371 | 1 | 6/8/2007 | |
| 1,2,3-Trichloropropane | BQL | 0.00449 | 0.00238 | 1 | 6/8/2007 | |
| 1,2,4-Trimethylbenzene | BQL | 0.00449 | 0.00252 | 1 | 6/8/2007 | |
| 1,3,5-Trimethylbenzene | BQL | 0.00449 | 0.00268 | 1 | 6/8/2007 | |
| Vinyl chloride | BQL | 0.00449 | 0.00296 | 1 | 6/8/2007 | |
| m-,p-Xylene | BQL | 0.00898 | 0.00509 | 1 | 6/8/2007 | |
| o-Xylene | BQL | 0.00449 | 0.00252 | 1 | 6/8/2007 | |

| | Spike Added | Spike Result | Percent Recovered |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 0.05 | 0.0646 | 129 |
| Toluene-d8 | 0.05 | 0.0504 | 101 |
| 4-Bromofluorobenzene | 0.05 | 0.0451 | 90 |

**Comments:**

**Flags:**
BQL = Below Quantitation Limits.

Reviewed By: _____

SGS

**Results for Volatiles**
**by GCMS 8260-5035**

Client Sample ID: HA-2
Client Project ID: GSRA Debris
Lab Sample ID G128-1964-2A
Lab Project ID: G128-1964
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 06-04-2007 13:10
Date Received: 6/4/2007
Matrix: Soil
Sample Amount: 6.01 g
%Solids: 87.0

| Report Name<br>Compound | Result<br>MG/KG | Quantitation<br>Limit MG/KG | MDL<br>MG/KG | Dilution<br>Factor | Date<br>Analyzed | Flag |
|---|---|---|---|---|---|---|
| Acetone | **0.00306** | 0.0478 | 0.00281 | 1 | 6/8/2007 | J |
| Benzene | BQL | 0.00478 | 0.00272 | 1 | 6/8/2007 | |
| Bromobenzene | BQL | 0.00478 | 0.00235 | 1 | 6/8/2007 | |
| Bromochloromethane | BQL | 0.00478 | 0.00279 | 1 | 6/8/2007 | |
| Bromodichloromethane | BQL | 0.00478 | 0.00271 | 1 | 6/8/2007 | |
| Bromoform | BQL | 0.00478 | 0.00231 | 1 | 6/8/2007 | |
| Bromomethane | BQL | 0.00478 | 0.00401 | 1 | 6/8/2007 | |
| 2-Butanone | BQL | 0.0239 | 0.00275 | 1 | 6/8/2007 | |
| n-Butylbenzene | BQL | 0.00478 | 0.00320 | 1 | 6/8/2007 | |
| sec-Butylbenzene | BQL | 0.00478 | 0.00335 | 1 | 6/8/2007 | |
| tert-Butylbenzene | BQL | 0.00478 | 0.00332 | 1 | 6/8/2007 | |
| Carbon disulfide | BQL | 0.00478 | 0.00251 | 1 | 6/8/2007 | |
| Carbon tetrachloride | BQL | 0.00478 | 0.00331 | 1 | 6/8/2007 | |
| Chlorobenzene | BQL | 0.00478 | 0.00240 | 1 | 6/8/2007 | |
| Chloroethane | BQL | 0.00478 | 0.00300 | 1 | 6/8/2007 | |
| Chloroform | BQL | 0.00478 | 0.00240 | 1 | 6/8/2007 | |
| Chloromethane | BQL | 0.00478 | 0.00230 | 1 | 6/8/2007 | |
| 2-Chlorotoluene | BQL | 0.00478 | 0.00285 | 1 | 6/8/2007 | |
| 4-Chlorotoluene | BQL | 0.00478 | 0.00266 | 1 | 6/8/2007 | |
| Dibromochloromethane | BQL | 0.00478 | 0.00214 | 1 | 6/8/2007 | |
| 1,2-Dibromo-3-chloropropane | BQL | 0.00478 | 0.0101 | 1 | 6/8/2007 | |
| Dibromomethane | BQL | 0.00478 | 0.00287 | 1 | 6/8/2007 | |
| 1,2-Dibromoethane (EDB) | BQL | 0.00478 | 0.00223 | 1 | 6/8/2007 | |
| 1,2-Dichlorobenzene | BQL | 0.00478 | 0.00230 | 1 | 6/8/2007 | |
| 1,3-Dichlorobenzene | BQL | 0.00478 | 0.00224 | 1 | 6/8/2007 | |
| 1,4-Dichlorobenzene | BQL | 0.00478 | 0.00235 | 1 | 6/8/2007 | |
| trans-1,4-Dichloro-2-butene | BQL | 0.00478 | 0.0102 | 1 | 6/8/2007 | |
| 1,1-Dichloroethane | BQL | 0.00478 | 0.00275 | 1 | 6/8/2007 | |
| 1,1-Dichloroethene | BQL | 0.00478 | 0.00368 | 1 | 6/8/2007 | |
| 1,2-Dichloroethane | BQL | 0.00478 | 0.00274 | 1 | 6/8/2007 | |
| cis-1,2-Dichloroethene | BQL | 0.00478 | 0.00235 | 1 | 6/8/2007 | |
| trans-1,2-dichloroethene | BQL | 0.00478 | 0.00311 | 1 | 6/8/2007 | |
| 1,2-Dichloropropane | BQL | 0.00478 | 0.00245 | 1 | 6/8/2007 | |
| 1,3-Dichloropropane | BQL | 0.00478 | 0.00219 | 1 | 6/8/2007 | |
| 2,2-Dichloropropane | BQL | 0.00478 | 0.00304 | 1 | 6/8/2007 | |
| 1,1-Dichloropropene | BQL | 0.00478 | 0.00345 | 1 | 6/8/2007 | |
| cis-1,3-Dichloropropene | BQL | 0.00478 | 0.00266 | 1 | 6/8/2007 | |
| trans-1,3-Dichloropropene | BQL | 0.00478 | 0.00271 | 1 | 6/8/2007 | |
| Dichlorodifluoromethane | BQL | 0.00478 | 0.00357 | 1 | 6/8/2007 | |
| Diisopropyl ether (DIPE) | BQL | 0.00478 | 0.00227 | 1 | 6/8/2007 | |
| Ethylbenzene | BQL | 0.00478 | 0.00291 | 1 | 6/8/2007 | |
| Hexachlorobutadiene | BQL | 0.00478 | 0.00378 | 1 | 6/8/2007 | |

SGS

**Results for Volatiles**
**by GCMS 8260-5035**

Client Sample ID: HA-2
Client Project ID: GSRA Debris
Lab Sample ID G128-1964-2A
Lab Project ID: G128-1964
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 06-04-2007 13:10
Date Received: 6/4/2007
Matrix: Soil
Sample Amount: 6.01 g
%Solids: 87.0

| Report Name<br>Compound | Result<br>MG/KG | Quantitation<br>Limit MG/KG | MDL<br>MG/KG | Dilution<br>Factor | Date<br>Analyzed | Flag |
|---|---|---|---|---|---|---|
| 2-Hexanone | BQL | 0.00478 | 0.00208 | 1 | 6/8/2007 | |
| Iodomethane | BQL | 0.00478 | 0.00445 | 1 | 6/8/2007 | |
| Isopropylbenzene | BQL | 0.00478 | 0.00308 | 1 | 6/8/2007 | |
| 4-Isopropyltoluene | BQL | 0.00478 | 0.00325 | 1 | 6/8/2007 | |
| Methylene chloride | BQL | 0.0191 | 0.00273 | 1 | 6/8/2007 | |
| 4-Methyl-2-pentanone | BQL | 0.00478 | 0.00221 | 1 | 6/8/2007 | |
| Methyl-tert-butyl ether (MTBE) | BQL | 0.00478 | 0.00243 | 1 | 6/8/2007 | |
| Naphthalene | BQL | 0.00478 | 0.00192 | 1 | 6/8/2007 | |
| n-Propyl benzene | BQL | 0.00478 | 0.00307 | 1 | 6/8/2007 | |
| Styrene | BQL | 0.00478 | 0.00342 | 1 | 6/8/2007 | |
| 1,1,1,2-Tetrachloroethane | BQL | 0.00478 | 0.00260 | 1 | 6/8/2007 | |
| 1,1,2,2-Tetrachloroethane | BQL | 0.00478 | 0.00235 | 1 | 6/8/2007 | |
| Tetrachloroethene | BQL | 0.00478 | 0.00301 | 1 | 6/8/2007 | |
| Toluene | BQL | 0.00478 | 0.00283 | 1 | 6/8/2007 | |
| 1,2,3-Trichlorobenzene | BQL | 0.00478 | 0.00209 | 1 | 6/8/2007 | |
| 1,2,4-Trichlorobenzene | BQL | 0.00478 | 0.00214 | 1 | 6/8/2007 | |
| Trichloroethene | BQL | 0.00478 | 0.00298 | 1 | 6/8/2007 | |
| 1,1,1-Trichloroethane | BQL | 0.00478 | 0.00330 | 1 | 6/8/2007 | |
| 1,1,2-Trichloroethane | BQL | 0.00478 | 0.00247 | 1 | 6/8/2007 | |
| Trichlorofluoromethane | BQL | 0.00478 | 0.00395 | 1 | 6/8/2007 | |
| 1,2,3-Trichloropropane | BQL | 0.00478 | 0.00253 | 1 | 6/8/2007 | |
| 1,2,4-Trimethylbenzene | BQL | 0.00478 | 0.00268 | 1 | 6/8/2007 | |
| 1,3,5-Trimethylbenzene | BQL | 0.00478 | 0.00285 | 1 | 6/8/2007 | |
| Vinyl chloride | BQL | 0.00478 | 0.00315 | 1 | 6/8/2007 | |
| m-,p-Xylene | BQL | 0.00956 | 0.00542 | 1 | 6/8/2007 | |
| o-Xylene | BQL | 0.00478 | 0.00268 | 1 | 6/8/2007 | |

| | Spike Added | Spike Result | Percent Recovered |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 0.05 | 0.0637 | 127 |
| Toluene-d8 | 0.05 | 0.0504 | 101 |
| 4-Bromofluorobenzene | 0.05 | 0.0466 | 93 |

**Comments:**

**Flags:**
BQL = Below Quantitation Limits.

Reviewed By: _____

SGS

**Results for Volatiles**
**by GCMS 8260-5035**

Client Sample ID: HA-3
Client Project ID: GSRA Debris
Lab Sample ID G128-1964-3A
Lab Project ID: G128-1964
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 06-04-2007 13:15
Date Received: 6/4/2007
Matrix: Soil
Sample Amount: 6.44 g
%Solids: 87.0

| Report Name<br>Compound | Result<br>MG/KG | Quantitation<br>Limit MG/KG | MDL<br>MG/KG | Dilution<br>Factor | Date<br>Analyzed | Flag |
|---|---|---|---|---|---|---|
| Acetone | **0.00576** | 0.0445 | 0.00262 | 1 | 6/8/2007 | J |
| Benzene | BQL | 0.00445 | 0.00254 | 1 | 6/8/2007 | |
| Bromobenzene | BQL | 0.00445 | 0.00219 | 1 | 6/8/2007 | |
| Bromochloromethane | BQL | 0.00445 | 0.00260 | 1 | 6/8/2007 | |
| Bromodichloromethane | BQL | 0.00445 | 0.00253 | 1 | 6/8/2007 | |
| Bromoform | BQL | 0.00445 | 0.00216 | 1 | 6/8/2007 | |
| Bromomethane | BQL | 0.00445 | 0.00373 | 1 | 6/8/2007 | |
| 2-Butanone | BQL | 0.0223 | 0.00257 | 1 | 6/8/2007 | |
| n-Butylbenzene | BQL | 0.00445 | 0.00298 | 1 | 6/8/2007 | |
| sec-Butylbenzene | BQL | 0.00445 | 0.00312 | 1 | 6/8/2007 | |
| tert-Butylbenzene | BQL | 0.00445 | 0.00309 | 1 | 6/8/2007 | |
| Carbon disulfide | BQL | 0.00445 | 0.00234 | 1 | 6/8/2007 | |
| Carbon tetrachloride | BQL | 0.00445 | 0.00308 | 1 | 6/8/2007 | |
| Chlorobenzene | BQL | 0.00445 | 0.00224 | 1 | 6/8/2007 | |
| Chloroethane | BQL | 0.00445 | 0.00280 | 1 | 6/8/2007 | |
| Chloroform | BQL | 0.00445 | 0.00224 | 1 | 6/8/2007 | |
| Chloromethane | BQL | 0.00445 | 0.00215 | 1 | 6/8/2007 | |
| 2-Chlorotoluene | BQL | 0.00445 | 0.00265 | 1 | 6/8/2007 | |
| 4-Chlorotoluene | BQL | 0.00445 | 0.00248 | 1 | 6/8/2007 | |
| Dibromochloromethane | BQL | 0.00445 | 0.00200 | 1 | 6/8/2007 | |
| 1,2-Dibromo-3-chloropropane | BQL | 0.00445 | 0.00944 | 1 | 6/8/2007 | |
| Dibromomethane | BQL | 0.00445 | 0.00267 | 1 | 6/8/2007 | |
| 1,2-Dibromoethane (EDB) | BQL | 0.00445 | 0.00208 | 1 | 6/8/2007 | |
| 1,2-Dichlorobenzene | BQL | 0.00445 | 0.00215 | 1 | 6/8/2007 | |
| 1,3-Dichlorobenzene | BQL | 0.00445 | 0.00208 | 1 | 6/8/2007 | |
| 1,4-Dichlorobenzene | BQL | 0.00445 | 0.00219 | 1 | 6/8/2007 | |
| trans-1,4-Dichloro-2-butene | BQL | 0.00445 | 0.00953 | 1 | 6/8/2007 | |
| 1,1-Dichloroethane | BQL | 0.00445 | 0.00257 | 1 | 6/8/2007 | |
| 1,1-Dichloroethene | BQL | 0.00445 | 0.00343 | 1 | 6/8/2007 | |
| 1,2-Dichloroethane | BQL | 0.00445 | 0.00256 | 1 | 6/8/2007 | |
| cis-1,2-Dichloroethene | BQL | 0.00445 | 0.00219 | 1 | 6/8/2007 | |
| trans-1,2-dichloroethene | BQL | 0.00445 | 0.00290 | 1 | 6/8/2007 | |
| 1,2-Dichloropropane | BQL | 0.00445 | 0.00228 | 1 | 6/8/2007 | |
| 1,3-Dichloropropane | BQL | 0.00445 | 0.00204 | 1 | 6/8/2007 | |
| 2,2-Dichloropropane | BQL | 0.00445 | 0.00283 | 1 | 6/8/2007 | |
| 1,1-Dichloropropene | BQL | 0.00445 | 0.00322 | 1 | 6/8/2007 | |
| cis-1,3-Dichloropropene | BQL | 0.00445 | 0.00248 | 1 | 6/8/2007 | |
| trans-1,3-Dichloropropene | BQL | 0.00445 | 0.00252 | 1 | 6/8/2007 | |
| Dichlorodifluoromethane | BQL | 0.00445 | 0.00332 | 1 | 6/8/2007 | |
| Diisopropyl ether (DIPE) | BQL | 0.00445 | 0.00211 | 1 | 6/8/2007 | |
| Ethylbenzene | BQL | 0.00445 | 0.00271 | 1 | 6/8/2007 | |
| Hexachlorobutadiene | BQL | 0.00445 | 0.00352 | 1 | 6/8/2007 | |

SGS

**Results for Volatiles**
**by GCMS 8260-5035**

Client Sample ID: HA-3
Client Project ID: GSRA Debris
Lab Sample ID G128-1964-3A
Lab Project ID: G128-1964
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 06-04-2007 13:15
Date Received: 6/4/2007
Matrix: Soil
Sample Amount: 6.44 g
%Solids: 87.0

| Report Name<br>Compound | Result<br>MG/KG | Quantitation<br>Limit MG/KG | MDL<br>MG/KG | Dilution<br>Factor | Date<br>Analyzed | Flag |
|---|---|---|---|---|---|---|
| 2-Hexanone | BQL | 0.00445 | 0.00194 | 1 | 6/8/2007 | |
| Iodomethane | BQL | 0.00445 | 0.00414 | 1 | 6/8/2007 | |
| Isopropylbenzene | BQL | 0.00445 | 0.00287 | 1 | 6/8/2007 | |
| 4-Isopropyltoluene | BQL | 0.00445 | 0.00303 | 1 | 6/8/2007 | |
| Methylene chloride | BQL | 0.0178 | 0.00255 | 1 | 6/8/2007 | |
| 4-Methyl-2-pentanone | BQL | 0.00445 | 0.00206 | 1 | 6/8/2007 | |
| Methyl-tert-butyl ether (MTBE) | BQL | 0.00445 | 0.00226 | 1 | 6/8/2007 | |
| Naphthalene | BQL | 0.00445 | 0.00179 | 1 | 6/8/2007 | |
| n-Propyl benzene | BQL | 0.00445 | 0.00286 | 1 | 6/8/2007 | |
| Styrene | BQL | 0.00445 | 0.00319 | 1 | 6/8/2007 | |
| 1,1,1,2-Tetrachloroethane | BQL | 0.00445 | 0.00242 | 1 | 6/8/2007 | |
| 1,1,2,2-Tetrachloroethane | BQL | 0.00445 | 0.00219 | 1 | 6/8/2007 | |
| Tetrachloroethene | BQL | 0.00445 | 0.00281 | 1 | 6/8/2007 | |
| Toluene | BQL | 0.00445 | 0.00264 | 1 | 6/8/2007 | |
| 1,2,3-Trichlorobenzene | BQL | 0.00445 | 0.00195 | 1 | 6/8/2007 | |
| 1,2,4-Trichlorobenzene | BQL | 0.00445 | 0.00200 | 1 | 6/8/2007 | |
| Trichloroethene | BQL | 0.00445 | 0.00278 | 1 | 6/8/2007 | |
| 1,1,1-Trichloroethane | BQL | 0.00445 | 0.00307 | 1 | 6/8/2007 | |
| 1,1,2-Trichloroethane | BQL | 0.00445 | 0.00230 | 1 | 6/8/2007 | |
| Trichlorofluoromethane | BQL | 0.00445 | 0.00368 | 1 | 6/8/2007 | |
| 1,2,3-Trichloropropane | BQL | 0.00445 | 0.00236 | 1 | 6/8/2007 | |
| 1,2,4-Trimethylbenzene | BQL | 0.00445 | 0.00249 | 1 | 6/8/2007 | |
| 1,3,5-Trimethylbenzene | BQL | 0.00445 | 0.00265 | 1 | 6/8/2007 | |
| Vinyl chloride | BQL | 0.00445 | 0.00294 | 1 | 6/8/2007 | |
| m-,p-Xylene | BQL | 0.00891 | 0.00505 | 1 | 6/8/2007 | |
| o-Xylene | BQL | 0.00445 | 0.00249 | 1 | 6/8/2007 | |

| | Spike Added | Spike Result | Percent Recovered |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 0.05 | 0.064 | 128 |
| Toluene-d8 | 0.05 | 0.0509 | 102 |
| 4-Bromofluorobenzene | 0.05 | 0.0447 | 89 |

**Comments:**

**Flags:**
BQL = Below Quantitation Limits.

Reviewed By: _____

SGS

**Results for Volatiles**
**by GCMS 8260-5035**

Client Sample ID: Trip Blank
Client Project ID: GSRA Debris
Lab Sample ID G128-1964-4A
Lab Project ID: G128-1964
Report Basis: 0.0

Analyzed By: MJC
Date Collected: 06-04-2007 00:00
Date Received: 6/4/2007
Matrix: Soil
Sample Amount: 5 g
%Solids: 100.0

| Report Name<br>Compound | Result<br>MG/KG | Quantitation<br>Limit MG/KG | MDL<br>MG/KG | Dilution<br>Factor | Date<br>Analyzed | Flag |
|---|---|---|---|---|---|---|
| Acetone | BQL | 0.0500 | 0.00294 | 1 | 6/8/2007 | |
| Benzene | BQL | 0.00500 | 0.00285 | 1 | 6/8/2007 | |
| Bromobenzene | BQL | 0.00500 | 0.00246 | 1 | 6/8/2007 | |
| Bromochloromethane | BQL | 0.00500 | 0.00292 | 1 | 6/8/2007 | |
| Bromodichloromethane | BQL | 0.00500 | 0.00284 | 1 | 6/8/2007 | |
| Bromoform | BQL | 0.00500 | 0.00242 | 1 | 6/8/2007 | |
| Bromomethane | BQL | 0.00500 | 0.00419 | 1 | 6/8/2007 | |
| 2-Butanone | BQL | 0.0250 | 0.00288 | 1 | 6/8/2007 | |
| n-Butylbenzene | BQL | 0.00500 | 0.00335 | 1 | 6/8/2007 | |
| sec-Butylbenzene | BQL | 0.00500 | 0.00350 | 1 | 6/8/2007 | |
| tert-Butylbenzene | BQL | 0.00500 | 0.00347 | 1 | 6/8/2007 | |
| Carbon disulfide | BQL | 0.00500 | 0.00263 | 1 | 6/8/2007 | |
| Carbon tetrachloride | BQL | 0.00500 | 0.00346 | 1 | 6/8/2007 | |
| Chlorobenzene | BQL | 0.00500 | 0.00251 | 1 | 6/8/2007 | |
| Chloroethane | BQL | 0.00500 | 0.00314 | 1 | 6/8/2007 | |
| Chloroform | BQL | 0.00500 | 0.00251 | 1 | 6/8/2007 | |
| Chloromethane | BQL | 0.00500 | 0.00241 | 1 | 6/8/2007 | |
| 2-Chlorotoluene | BQL | 0.00500 | 0.00298 | 1 | 6/8/2007 | |
| 4-Chlorotoluene | BQL | 0.00500 | 0.00278 | 1 | 6/8/2007 | |
| Dibromochloromethane | BQL | 0.00500 | 0.00224 | 1 | 6/8/2007 | |
| 1,2-Dibromo-3-chloropropane | BQL | 0.00500 | 0.0106 | 1 | 6/8/2007 | |
| Dibromomethane | BQL | 0.00500 | 0.00300 | 1 | 6/8/2007 | |
| 1,2-Dibromoethane (EDB) | BQL | 0.00500 | 0.00233 | 1 | 6/8/2007 | |
| 1,2-Dichlorobenzene | BQL | 0.00500 | 0.00241 | 1 | 6/8/2007 | |
| 1,3-Dichlorobenzene | BQL | 0.00500 | 0.00234 | 1 | 6/8/2007 | |
| 1,4-Dichlorobenzene | BQL | 0.00500 | 0.00246 | 1 | 6/8/2007 | |
| trans-1,4-Dichloro-2-butene | BQL | 0.00500 | 0.0107 | 1 | 6/8/2007 | |
| 1,1-Dichloroethane | BQL | 0.00500 | 0.00288 | 1 | 6/8/2007 | |
| 1,1-Dichloroethene | BQL | 0.00500 | 0.00385 | 1 | 6/8/2007 | |
| 1,2-Dichloroethane | BQL | 0.00500 | 0.00287 | 1 | 6/8/2007 | |
| cis-1,2-Dichloroethene | BQL | 0.00500 | 0.00246 | 1 | 6/8/2007 | |
| trans-1,2-dichloroethene | BQL | 0.00500 | 0.00325 | 1 | 6/8/2007 | |
| 1,2-Dichloropropane | BQL | 0.00500 | 0.00256 | 1 | 6/8/2007 | |
| 1,3-Dichloropropane | BQL | 0.00500 | 0.00229 | 1 | 6/8/2007 | |
| 2,2-Dichloropropane | BQL | 0.00500 | 0.00318 | 1 | 6/8/2007 | |
| 1,1-Dichloropropene | BQL | 0.00500 | 0.00361 | 1 | 6/8/2007 | |
| cis-1,3-Dichloropropene | BQL | 0.00500 | 0.00278 | 1 | 6/8/2007 | |
| trans-1,3-Dichloropropene | BQL | 0.00500 | 0.00283 | 1 | 6/8/2007 | |
| Dichlorodifluoromethane | BQL | 0.00500 | 0.00373 | 1 | 6/8/2007 | |
| Diisopropyl ether (DIPE) | BQL | 0.00500 | 0.00237 | 1 | 6/8/2007 | |
| Ethylbenzene | BQL | 0.00500 | 0.00304 | 1 | 6/8/2007 | |
| Hexachlorobutadiene | BQL | 0.00500 | 0.00395 | 1 | 6/8/2007 | |

SGS

**Results for Volatiles**
**by GCMS 8260-5035**

Client Sample ID: Trip Blank
Client Project ID: GSRA Debris
Lab Sample ID G128-1964-4A
Lab Project ID: G128-1964
Report Basis: 0.0

Analyzed By: MJC
Date Collected: 06-04-2007 00:00
Date Received: 6/4/2007
Matrix: Soil
Sample Amount: 5 g
%Solids: 100.0

| Report Name<br>Compound | Result<br>MG/KG | Quantitation<br>Limit MG/KG | MDL<br>MG/KG | Dilution<br>Factor | Date<br>Analyzed | Flag |
|---|---|---|---|---|---|---|
| 2-Hexanone | BQL | 0.00500 | 0.00218 | 1 | 6/8/2007 | |
| Iodomethane | BQL | 0.00500 | 0.00465 | 1 | 6/8/2007 | |
| Isopropylbenzene | BQL | 0.00500 | 0.00322 | 1 | 6/8/2007 | |
| 4-Isopropyltoluene | BQL | 0.00500 | 0.00340 | 1 | 6/8/2007 | |
| Methylene chloride | BQL | 0.0200 | 0.00286 | 1 | 6/8/2007 | |
| 4-Methyl-2-pentanone | BQL | 0.00500 | 0.00231 | 1 | 6/8/2007 | |
| Methyl-tert-butyl ether (MTBE) | BQL | 0.00500 | 0.00254 | 1 | 6/8/2007 | |
| Naphthalene | BQL | 0.00500 | 0.00201 | 1 | 6/8/2007 | |
| n-Propyl benzene | BQL | 0.00500 | 0.00321 | 1 | 6/8/2007 | |
| Styrene | BQL | 0.00500 | 0.00358 | 1 | 6/8/2007 | |
| 1,1,1,2-Tetrachloroethane | BQL | 0.00500 | 0.00272 | 1 | 6/8/2007 | |
| 1,1,2,2-Tetrachloroethane | BQL | 0.00500 | 0.00246 | 1 | 6/8/2007 | |
| Tetrachloroethene | BQL | 0.00500 | 0.00315 | 1 | 6/8/2007 | |
| Toluene | BQL | 0.00500 | 0.00296 | 1 | 6/8/2007 | |
| 1,2,3-Trichlorobenzene | BQL | 0.00500 | 0.00219 | 1 | 6/8/2007 | |
| 1,2,4-Trichlorobenzene | BQL | 0.00500 | 0.00224 | 1 | 6/8/2007 | |
| Trichloroethene | BQL | 0.00500 | 0.00312 | 1 | 6/8/2007 | |
| 1,1,1-Trichloroethane | BQL | 0.00500 | 0.00345 | 1 | 6/8/2007 | |
| 1,1,2-Trichloroethane | BQL | 0.00500 | 0.00258 | 1 | 6/8/2007 | |
| Trichlorofluoromethane | BQL | 0.00500 | 0.00413 | 1 | 6/8/2007 | |
| 1,2,3-Trichloropropane | BQL | 0.00500 | 0.00265 | 1 | 6/8/2007 | |
| 1,2,4-Trimethylbenzene | BQL | 0.00500 | 0.00280 | 1 | 6/8/2007 | |
| 1,3,5-Trimethylbenzene | BQL | 0.00500 | 0.00298 | 1 | 6/8/2007 | |
| Vinyl chloride | BQL | 0.00500 | 0.00330 | 1 | 6/8/2007 | |
| m-,p-Xylene | BQL | 0.0100 | 0.00567 | 1 | 6/8/2007 | |
| o-Xylene | BQL | 0.00500 | 0.00280 | 1 | 6/8/2007 | |

| | Spike Added | Spike Result | Percent Recovered |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 0.05 | 0.0697 | 139 |
| Toluene-d8 | 0.05 | 0.0495 | 99 |
| 4-Bromofluorobenzene | 0.05 | 0.0471 | 94 |

**Comments:**

**Flags:**
BQL = Below Quantitation Limits.

Reviewed By: _____

SGS

**Results for Semivolatiles**
**by GCMS 8270**

Client Sample ID: HA-1
Client Project ID: GSRA Debris
Lab Sample ID: G128-1964-1K
Lab Project ID: G128-1964
Report Basis: Dry weight

Analyzed By: EAW
Date Collected: 6/4/2007 13:00
Date Received: 6/4/2007
Date Extracted: 6/6/2007
Matrix: Soil
% Solids: 85.62

| Compound | Result mg/Kg | RL mg/Kg | MDL mg/Kg | Dilution Factor | Date Analyzed | Flag |
|---|---|---|---|---|---|---|
| Acenaphthene | BQL | 0.359 | 0.051 | 1 | 6/10/2007 | |
| Acenaphthylene | BQL | 0.359 | 0.048 | 1 | 6/10/2007 | |
| Anthracene | BQL | 0.359 | 0.052 | 1 | 6/10/2007 | |
| Benzo[a]anthracene | BQL | 0.359 | 0.062 | 1 | 6/10/2007 | |
| Benzo[a]pyrene | BQL | 0.359 | 0.055 | 1 | 6/10/2007 | |
| Benzo[b]fluoranthene | BQL | 0.359 | 0.063 | 1 | 6/10/2007 | |
| Benzo[g,h,i]perylene | BQL | 0.359 | 0.098 | 1 | 6/10/2007 | |
| Benzo[k]fluoranthene | BQL | 0.359 | 0.069 | 1 | 6/10/2007 | |
| Benzoic Acid | BQL | 0.717 | 0.717 | 1 | 6/10/2007 | |
| Bis(2-chloroethoxy)methane | BQL | 0.359 | 0.053 | 1 | 6/10/2007 | |
| Bis(2-chloroethyl)ether | BQL | 0.359 | 0.043 | 1 | 6/10/2007 | |
| Bis(2-chloroisopropyl)ether | BQL | 0.359 | 0.045 | 1 | 6/10/2007 | |
| Bis(2-ethylhexyl)phthalate | BQL | 0.359 | 0.048 | 1 | 6/10/2007 | |
| 4-bromophenyl phenyl ether | BQL | 0.359 | 0.061 | 1 | 6/10/2007 | |
| Butylbenzylphthalate | BQL | 0.359 | 0.055 | 1 | 6/10/2007 | |
| 2-Chloronaphthalene | BQL | 0.359 | 0.056 | 1 | 6/10/2007 | |
| 2-Chlorophenol | BQL | 0.359 | 0.112 | 1 | 6/10/2007 | |
| 4-Chloro-3-methylphenol | BQL | 0.359 | 0.112 | 1 | 6/10/2007 | |
| 4-Chloroaniline | BQL | 1.79 | 0.273 | 1 | 6/10/2007 | |
| 4-Chlorophenyl phenyl ether | BQL | 0.359 | 0.053 | 1 | 6/10/2007 | |
| Chrysene | BQL | 0.359 | 0.039 | 1 | 6/10/2007 | |
| Dibenzo[a,h]anthracene | BQL | 0.359 | 0.100 | 1 | 6/10/2007 | |
| Dibenzofuran | BQL | 0.359 | 0.065 | 1 | 6/10/2007 | |
| Di-n-Butylphthalate | BQL | 0.359 | 0.043 | 1 | 6/10/2007 | |
| 1,2-Dichlorobenzene | BQL | 0.359 | 0.040 | 1 | 6/10/2007 | |
| 1,3-Dichlorobenzene | BQL | 0.359 | 0.039 | 1 | 6/10/2007 | |
| 1,4-Dichlorobenzene | BQL | 0.359 | 0.041 | 1 | 6/10/2007 | |
| 3,3'-Dichlorobenzidine | BQL | 0.717 | 0.090 | 1 | 6/10/2007 | |
| 2,4-Dichlorophenol | BQL | 0.359 | 0.129 | 1 | 6/10/2007 | |
| Diethylphthalate | BQL | 0.359 | 0.046 | 1 | 6/10/2007 | |
| Dimethylphthalate | BQL | 0.359 | 0.043 | 1 | 6/10/2007 | |
| 2,4-Dimethylphenol | BQL | 0.359 | 0.256 | 1 | 6/10/2007 | |
| Di-n-octylphthalate | BQL | 0.359 | 0.059 | 1 | 6/10/2007 | |
| 4,6-Dinitro-2-methylphenol | BQL | 1.79 | 0.211 | 1 | 6/10/2007 | |
| 2,4-Dinitrophenol | BQL | 1.79 | 0.790 | 1 | 6/10/2007 | |
| 2,4-Dinitrotoluene | BQL | 0.359 | 0.047 | 1 | 6/10/2007 | |
| 2,6-Dinitrotoluene | BQL | 0.359 | 0.065 | 1 | 6/10/2007 | |
| Diphenylamine * | BQL | 0.359 | 0.035 | 1 | 6/10/2007 | |
| Fluoranthene | BQL | 0.359 | 0.050 | 1 | 6/10/2007 | |
| Fluorene | BQL | 0.359 | 0.045 | 1 | 6/10/2007 | |
| Hexachlorobenzene | BQL | 0.359 | 0.055 | 1 | 6/10/2007 | |
| Hexachlorobutadiene | BQL | 0.359 | 0.057 | 1 | 6/10/2007 | |
| Hexachlorocyclopentadiene | BQL | 0.717 | 0.037 | 1 | 6/10/2007 | |
| Hexachloroethane | BQL | 0.359 | 0.032 | 1 | 6/10/2007 | |

SGS

**Results for Semivolatiles**
**by GCMS 8270**

Client Sample ID: HA-1
Client Project ID: GSRA Debris
Lab Sample ID: G128-1964-1K
Lab Project ID: G128-1964
Report Basis: Dry weight

Analyzed By: EAW
Date Collected: 6/4/2007 13:00
Date Received: 6/4/2007
Date Extracted: 6/6/2007
Matrix: Soil
% Solids: 85.62

| Compound | Result mg/Kg | RL mg/Kg | MDL mg/Kg | Dilution Factor | Date Analyzed | Flag |
|---|---|---|---|---|---|---|
| Indeno(1,2,3-c,d)pyrene | BQL | 0.359 | 0.092 | 1 | 6/10/2007 | |
| Isophorone | BQL | 0.359 | 0.053 | 1 | 6/10/2007 | |
| 2-Methylnaphthalene | BQL | 0.359 | 0.105 | 1 | 6/10/2007 | |
| 2-Methylphenol | BQL | 0.359 | 0.126 | 1 | 6/10/2007 | |
| 3- & 4-Methylphenol | BQL | 0.359 | 0.122 | 1 | 6/10/2007 | |
| Naphthalene | BQL | 0.359 | 0.029 | 1 | 6/10/2007 | |
| 2-Nitroaniline | BQL | 0.359 | 0.056 | 1 | 6/10/2007 | |
| 3-Nitroaniline | BQL | 1.79 | 0.369 | 1 | 6/10/2007 | |
| 4-Nitroaniline | BQL | 1.79 | 0.110 | 1 | 6/10/2007 | |
| Nitrobenzene | BQL | 0.359 | 0.048 | 1 | 6/10/2007 | |
| 2-Nitrophenol | BQL | 0.359 | 0.111 | 1 | 6/10/2007 | |
| 4-Nitrophenol | BQL | 1.79 | 0.099 | 1 | 6/10/2007 | |
| N-Nitrosodi-n-propylamine | BQL | 0.359 | 0.046 | 1 | 6/10/2007 | |
| Pentachlorophenol | BQL | 1.79 | 0.094 | 1 | 6/10/2007 | |
| Phenanthrene | BQL | 0.359 | 0.041 | 1 | 6/10/2007 | |
| Phenol | BQL | 0.359 | 0.098 | 1 | 6/10/2007 | |
| Pyrene | BQL | 0.359 | 0.069 | 1 | 6/10/2007 | |
| 1,2,4-Trichlorobenzene | BQL | 0.359 | 0.045 | 1 | 6/10/2007 | |
| 2,4,5-Trichlorophenol | BQL | 0.359 | 0.139 | 1 | 6/10/2007 | |
| 2,4,6-Trichlorophenol | BQL | 0.359 | 0.128 | 1 | 6/10/2007 | |

| | Spike Added | Spike Result | Percent Recovered |
|---|---|---|---|
| 2-Fluorobiphenyl | 10 | 9 | 90 |
| 2-Fluorophenol | 10 | 10 | 100 |
| Nitrobenzene-d5 | 10 | 9.6 | 96 |
| Phenol-d6 | 10 | 10.7 | 107 |
| 2,4,6-Tribromophenol | 10 | 9.7 | 97 |
| 4-Terphenyl-d14 | 10 | 12.5 | 125 |

**Comments:**
* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

**Flags:**
BQL = Below Quantitation Limits.
J = Detected below the quantitation limit.

Reviewed By: _____

SGS

**Results for Semivolatiles**
**by GCMS 8270**

Client Sample ID: HA-2
Client Project ID: GSRA Debris
Lab Sample ID: G128-1964-2K
Lab Project ID: G128-1964
Report Basis: Dry weight

Analyzed By: EAW
Date Collected: 6/4/2007 13:10
Date Received: 6/4/2007
Date Extracted: 6/6/2007
Matrix: Soil
% Solids: 87.03

| Compound | Result mg/Kg | RL mg/Kg | MDL mg/Kg | Dilution Factor | Date Analyzed | Flag |
|---|---|---|---|---|---|---|
| Acenaphthene | BQL | 0.350 | 0.050 | 1 | 6/10/2007 | |
| Acenaphthylene | BQL | 0.350 | 0.047 | 1 | 6/10/2007 | |
| Anthracene | BQL | 0.350 | 0.051 | 1 | 6/10/2007 | |
| Benzo[a]anthracene | BQL | 0.350 | 0.061 | 1 | 6/10/2007 | |
| Benzo[a]pyrene | BQL | 0.350 | 0.054 | 1 | 6/10/2007 | |
| Benzo[b]fluoranthene | BQL | 0.350 | 0.061 | 1 | 6/10/2007 | |
| Benzo[g,h,i]perylene | BQL | 0.350 | 0.095 | 1 | 6/10/2007 | |
| Benzo[k]fluoranthene | BQL | 0.350 | 0.068 | 1 | 6/10/2007 | |
| Benzoic Acid | BQL | 0.701 | 0.701 | 1 | 6/10/2007 | |
| Bis(2-chloroethoxy)methane | BQL | 0.350 | 0.052 | 1 | 6/10/2007 | |
| Bis(2-chloroethyl)ether | BQL | 0.350 | 0.042 | 1 | 6/10/2007 | |
| Bis(2-chloroisopropyl)ether | BQL | 0.350 | 0.044 | 1 | 6/10/2007 | |
| Bis(2-ethylhexyl)phthalate | BQL | 0.350 | 0.047 | 1 | 6/10/2007 | |
| 4-bromophenyl phenyl ether | BQL | 0.350 | 0.059 | 1 | 6/10/2007 | |
| Butylbenzylphthalate | BQL | 0.350 | 0.054 | 1 | 6/10/2007 | |
| 2-Chloronaphthalene | BQL | 0.350 | 0.055 | 1 | 6/10/2007 | |
| 2-Chlorophenol | BQL | 0.350 | 0.110 | 1 | 6/10/2007 | |
| 4-Chloro-3-methylphenol | BQL | 0.350 | 0.109 | 1 | 6/10/2007 | |
| 4-Chloroaniline | BQL | 1.75 | 0.267 | 1 | 6/10/2007 | |
| 4-Chlorophenyl phenyl ether | BQL | 0.350 | 0.052 | 1 | 6/10/2007 | |
| Chrysene | BQL | 0.350 | 0.038 | 1 | 6/10/2007 | |
| Dibenzo[a,h]anthracene | BQL | 0.350 | 0.098 | 1 | 6/10/2007 | |
| Dibenzofuran | BQL | 0.350 | 0.064 | 1 | 6/10/2007 | |
| Di-n-Butylphthalate | BQL | 0.350 | 0.042 | 1 | 6/10/2007 | |
| 1,2-Dichlorobenzene | BQL | 0.350 | 0.039 | 1 | 6/10/2007 | |
| 1,3-Dichlorobenzene | BQL | 0.350 | 0.038 | 1 | 6/10/2007 | |
| 1,4-Dichlorobenzene | BQL | 0.350 | 0.040 | 1 | 6/10/2007 | |
| 3,3'-Dichlorobenzidine | BQL | 0.701 | 0.088 | 1 | 6/10/2007 | |
| 2,4-Dichlorophenol | BQL | 0.350 | 0.126 | 1 | 6/10/2007 | |
| Diethylphthalate | BQL | 0.350 | 0.045 | 1 | 6/10/2007 | |
| Dimethylphthalate | BQL | 0.350 | 0.042 | 1 | 6/10/2007 | |
| 2,4-Dimethylphenol | BQL | 0.350 | 0.251 | 1 | 6/10/2007 | |
| Di-n-octylphthalate | BQL | 0.350 | 0.058 | 1 | 6/10/2007 | |
| 4,6-Dinitro-2-methylphenol | BQL | 1.75 | 0.206 | 1 | 6/10/2007 | |
| 2,4-Dinitrophenol | BQL | 1.75 | 0.772 | 1 | 6/10/2007 | |
| 2,4-Dinitrotoluene | BQL | 0.350 | 0.046 | 1 | 6/10/2007 | |
| 2,6-Dinitrotoluene | BQL | 0.350 | 0.064 | 1 | 6/10/2007 | |
| Diphenylamine * | BQL | 0.350 | 0.034 | 1 | 6/10/2007 | |
| Fluoranthene | BQL | 0.350 | 0.049 | 1 | 6/10/2007 | |
| Fluorene | BQL | 0.350 | 0.044 | 1 | 6/10/2007 | |
| Hexachlorobenzene | BQL | 0.350 | 0.054 | 1 | 6/10/2007 | |
| Hexachlorobutadiene | BQL | 0.350 | 0.056 | 1 | 6/10/2007 | |
| Hexachlorocyclopentadiene | BQL | 0.701 | 0.036 | 1 | 6/10/2007 | |
| Hexachloroethane | BQL | 0.350 | 0.032 | 1 | 6/10/2007 | |

SGS

**Results for Semivolatiles**
**by GCMS 8270**

Client Sample ID: HA-2
Client Project ID: GSRA Debris
Lab Sample ID: G128-1964-2K
Lab Project ID: G128-1964
Report Basis: Dry weight

Analyzed By: EAW
Date Collected: 6/4/2007 13:10
Date Received: 6/4/2007
Date Extracted: 6/6/2007
Matrix: Soil
% Solids: 87.03

| Compound | Result mg/Kg | RL mg/Kg | MDL mg/Kg | Dilution Factor | Date Analyzed | Flag |
|---|---|---|---|---|---|---|
| Indeno(1,2,3-c,d)pyrene | BQL | 0.350 | 0.090 | 1 | 6/10/2007 | |
| Isophorone | BQL | 0.350 | 0.052 | 1 | 6/10/2007 | |
| 2-Methylnaphthalene | BQL | 0.350 | 0.102 | 1 | 6/10/2007 | |
| 2-Methylphenol | BQL | 0.350 | 0.123 | 1 | 6/10/2007 | |
| 3- & 4-Methylphenol | BQL | 0.350 | 0.119 | 1 | 6/10/2007 | |
| Naphthalene | BQL | 0.350 | 0.028 | 1 | 6/10/2007 | |
| 2-Nitroaniline | BQL | 0.350 | 0.055 | 1 | 6/10/2007 | |
| 3-Nitroaniline | BQL | 1.75 | 0.361 | 1 | 6/10/2007 | |
| 4-Nitroaniline | BQL | 1.75 | 0.108 | 1 | 6/10/2007 | |
| Nitrobenzene | BQL | 0.350 | 0.047 | 1 | 6/10/2007 | |
| 2-Nitrophenol | BQL | 0.350 | 0.109 | 1 | 6/10/2007 | |
| 4-Nitrophenol | BQL | 1.75 | 0.097 | 1 | 6/10/2007 | |
| N-Nitrosodi-n-propylamine | BQL | 0.350 | 0.045 | 1 | 6/10/2007 | |
| Pentachlorophenol | BQL | 1.75 | 0.092 | 1 | 6/10/2007 | |
| Phenanthrene | BQL | 0.350 | 0.040 | 1 | 6/10/2007 | |
| Phenol | BQL | 0.350 | 0.096 | 1 | 6/10/2007 | |
| Pyrene | BQL | 0.350 | 0.067 | 1 | 6/10/2007 | |
| 1,2,4-Trichlorobenzene | BQL | 0.350 | 0.044 | 1 | 6/10/2007 | |
| 2,4,5-Trichlorophenol | BQL | 0.350 | 0.136 | 1 | 6/10/2007 | |
| 2,4,6-Trichlorophenol | BQL | 0.350 | 0.125 | 1 | 6/10/2007 | |

| | Spike Added | Spike Result | Percent Recovered |
|---|---|---|---|
| 2-Fluorobiphenyl | 10 | 9.3 | 93 |
| 2-Fluorophenol | 10 | 10 | 100 |
| Nitrobenzene-d5 | 10 | 9.7 | 97 |
| Phenol-d6 | 10 | 10.8 | 108 |
| 2,4,6-Tribromophenol | 10 | 10.1 | 101 |
| 4-Terphenyl-d14 | 10 | 12.1 | 121 |

**Comments:**
* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

**Flags:**
BQL = Below Quantitation Limits.
J = Detected below the quantitation limit.

Reviewed By: _____

SGS

**Results for Semivolatiles**
**by GCMS 8270**

Client Sample ID: HA-3
Client Project ID: GSRA Debris
Lab Sample ID: G128-1964-3K
Lab Project ID: G128-1964
Report Basis: Dry weight

Analyzed By: EAW
Date Collected: 6/4/2007 13:15
Date Received: 6/4/2007
Date Extracted: 6/6/2007
Matrix: Soil
% Solids: 87.01

| Compound | Result mg/Kg | RL mg/Kg | MDL mg/Kg | Dilution Factor | Date Analyzed | Flag |
|---|---|---|---|---|---|---|
| Acenaphthene | BQL | 0.355 | 0.051 | 1 | 6/10/2007 | |
| Acenaphthylene | BQL | 0.355 | 0.047 | 1 | 6/10/2007 | |
| Anthracene | BQL | 0.355 | 0.052 | 1 | 6/10/2007 | |
| Benzo[a]anthracene | BQL | 0.355 | 0.061 | 1 | 6/10/2007 | |
| Benzo[a]pyrene | BQL | 0.355 | 0.054 | 1 | 6/10/2007 | |
| Benzo[b]fluoranthene | BQL | 0.355 | 0.062 | 1 | 6/10/2007 | |
| Benzo[g,h,i]perylene | BQL | 0.355 | 0.097 | 1 | 6/10/2007 | |
| Benzo[k]fluoranthene | BQL | 0.355 | 0.069 | 1 | 6/10/2007 | |
| Benzoic Acid | BQL | 0.710 | 0.710 | 1 | 6/10/2007 | |
| Bis(2-chloroethoxy)methane | BQL | 0.355 | 0.053 | 1 | 6/10/2007 | |
| Bis(2-chloroethyl)ether | BQL | 0.355 | 0.043 | 1 | 6/10/2007 | |
| Bis(2-chloroisopropyl)ether | BQL | 0.355 | 0.044 | 1 | 6/10/2007 | |
| Bis(2-ethylhexyl)phthalate | BQL | 0.355 | 0.048 | 1 | 6/10/2007 | |
| 4-bromophenyl phenyl ether | BQL | 0.355 | 0.060 | 1 | 6/10/2007 | |
| Butylbenzylphthalate | BQL | 0.355 | 0.055 | 1 | 6/10/2007 | |
| 2-Chloronaphthalene | BQL | 0.355 | 0.056 | 1 | 6/10/2007 | |
| 2-Chlorophenol | BQL | 0.355 | 0.111 | 1 | 6/10/2007 | |
| 4-Chloro-3-methylphenol | BQL | 0.355 | 0.111 | 1 | 6/10/2007 | |
| 4-Chloroaniline | BQL | 1.77 | 0.270 | 1 | 6/10/2007 | |
| 4-Chlorophenyl phenyl ether | BQL | 0.355 | 0.052 | 1 | 6/10/2007 | |
| Chrysene | BQL | 0.355 | 0.038 | 1 | 6/10/2007 | |
| Dibenzo[a,h]anthracene | BQL | 0.355 | 0.099 | 1 | 6/10/2007 | |
| Dibenzofuran | BQL | 0.355 | 0.065 | 1 | 6/10/2007 | |
| Di-n-Butylphthalate | BQL | 0.355 | 0.042 | 1 | 6/10/2007 | |
| 1,2-Dichlorobenzene | BQL | 0.355 | 0.039 | 1 | 6/10/2007 | |
| 1,3-Dichlorobenzene | BQL | 0.355 | 0.039 | 1 | 6/10/2007 | |
| 1,4-Dichlorobenzene | BQL | 0.355 | 0.040 | 1 | 6/10/2007 | |
| 3,3'-Dichlorobenzidine | BQL | 0.710 | 0.089 | 1 | 6/10/2007 | |
| 2,4-Dichlorophenol | BQL | 0.355 | 0.128 | 1 | 6/10/2007 | |
| Diethylphthalate | BQL | 0.355 | 0.046 | 1 | 6/10/2007 | |
| Dimethylphthalate | BQL | 0.355 | 0.043 | 1 | 6/10/2007 | |
| 2,4-Dimethylphenol | BQL | 0.355 | 0.254 | 1 | 6/10/2007 | |
| Di-n-octylphthalate | BQL | 0.355 | 0.059 | 1 | 6/10/2007 | |
| 4,6-Dinitro-2-methylphenol | BQL | 1.77 | 0.209 | 1 | 6/10/2007 | |
| 2,4-Dinitrophenol | BQL | 1.77 | 0.781 | 1 | 6/10/2007 | |
| 2,4-Dinitrotoluene | BQL | 0.355 | 0.046 | 1 | 6/10/2007 | |
| 2,6-Dinitrotoluene | BQL | 0.355 | 0.065 | 1 | 6/10/2007 | |
| Diphenylamine * | BQL | 0.355 | 0.035 | 1 | 6/10/2007 | |
| Fluoranthene | BQL | 0.355 | 0.050 | 1 | 6/10/2007 | |
| Fluorene | BQL | 0.355 | 0.044 | 1 | 6/10/2007 | |
| Hexachlorobenzene | BQL | 0.355 | 0.055 | 1 | 6/10/2007 | |
| Hexachlorobutadiene | BQL | 0.355 | 0.057 | 1 | 6/10/2007 | |
| Hexachlorocyclopentadiene | BQL | 0.710 | 0.037 | 1 | 6/10/2007 | |
| Hexachloroethane | BQL | 0.355 | 0.032 | 1 | 6/10/2007 | |

SGS

**Results for Semivolatiles**
**by GCMS 8270**

Client Sample ID: HA-3
Client Project ID: GSRA Debris
Lab Sample ID: G128-1964-3K
Lab Project ID: G128-1964
Report Basis: Dry weight

Analyzed By: EAW
Date Collected: 6/4/2007 13:15
Date Received: 6/4/2007
Date Extracted: 6/6/2007
Matrix: Soil
% Solids: 87.01

| Compound | Result mg/Kg | RL mg/Kg | MDL mg/Kg | Dilution Factor | Date Analyzed | Flag |
|---|---|---|---|---|---|---|
| Indeno(1,2,3-c,d)pyrene | BQL | 0.355 | 0.091 | 1 | 6/10/2007 | |
| Isophorone | BQL | 0.355 | 0.052 | 1 | 6/10/2007 | |
| 2-Methylnaphthalene | BQL | 0.355 | 0.104 | 1 | 6/10/2007 | |
| 2-Methylphenol | BQL | 0.355 | 0.125 | 1 | 6/10/2007 | |
| 3- & 4-Methylphenol | BQL | 0.355 | 0.120 | 1 | 6/10/2007 | |
| Naphthalene | BQL | 0.355 | 0.029 | 1 | 6/10/2007 | |
| 2-Nitroaniline | BQL | 0.355 | 0.056 | 1 | 6/10/2007 | |
| 3-Nitroaniline | BQL | 1.77 | 0.365 | 1 | 6/10/2007 | |
| 4-Nitroaniline | BQL | 1.77 | 0.109 | 1 | 6/10/2007 | |
| Nitrobenzene | BQL | 0.355 | 0.048 | 1 | 6/10/2007 | |
| 2-Nitrophenol | BQL | 0.355 | 0.110 | 1 | 6/10/2007 | |
| 4-Nitrophenol | BQL | 1.77 | 0.098 | 1 | 6/10/2007 | |
| N-Nitrosodi-n-propylamine | BQL | 0.355 | 0.045 | 1 | 6/10/2007 | |
| Pentachlorophenol | BQL | 1.77 | 0.093 | 1 | 6/10/2007 | |
| Phenanthrene | BQL | 0.355 | 0.041 | 1 | 6/10/2007 | |
| Phenol | BQL | 0.355 | 0.097 | 1 | 6/10/2007 | |
| Pyrene | BQL | 0.355 | 0.068 | 1 | 6/10/2007 | |
| 1,2,4-Trichlorobenzene | BQL | 0.355 | 0.044 | 1 | 6/10/2007 | |
| 2,4,5-Trichlorophenol | BQL | 0.355 | 0.137 | 1 | 6/10/2007 | |
| 2,4,6-Trichlorophenol | BQL | 0.355 | 0.126 | 1 | 6/10/2007 | |

| | Spike Added | Spike Result | Percent Recovered |
|---|---|---|---|
| 2-Fluorobiphenyl | 10 | 9.4 | 94 |
| 2-Fluorophenol | 10 | 10.3 | 103 |
| Nitrobenzene-d5 | 10 | 9.9 | 99 |
| Phenol-d6 | 10 | 11.1 | 111 |
| 2,4,6-Tribromophenol | 10 | 10.3 | 103 |
| 4-Terphenyl-d14 | 10 | 12.5 | 125 |

**Comments:**
* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

**Flags:**
BQL = Below Quantitation Limits.
J = Detected below the quantitation limit.

Reviewed By: _____

SGS

## Results for Metals

| | | | |
|---|---|---|---|
| Client Sample ID: | HA-1 | Analyzed By: | AEC |
| Client Project ID: | GSRA Debris | Date Collected: | 6/4/07 13:00 |
| Lab Sample ID: | G128-1964-1 | Date Received: | 6/4/07 |
| Lab Project ID: | G128-1964 | Matrix: | SOIL |
| Batch ID: | 8334 8392 | Solids | 85.62 |
| Report Basis: | Dry | | |

| Metals | Result | RL | MDL | DF | Units | Method | Date Analyzed | Flags |
|---|---|---|---|---|---|---|---|---|
| Arsenic | BQL | 1.04 | 0.602 | 1 | MG/KG | 6010B | 6/8/07 | |
| Barium | BQL | 10.4 | 0.428 | 1 | MG/KG | 6010B | 6/8/07 | |
| Cadmium | BQL | 1.04 | 0.200 | 1 | MG/KG | 6010B | 6/8/07 | |
| Chromium | **0.360** | 1.04 | 0.266 | 1 | MG/KG | 6010B | 6/8/07 | J |
| Lead | **0.750** | 1.04 | 0.504 | 1 | MG/KG | 6010B | 6/8/07 | J |
| Mercury | BQL | 0.0216 | 0.00293 | 1 | MG/KG | 7471 | 6/14/07 | |
| Selenium | **0.513** | 2.09 | 0.449 | 1 | MG/KG | 6010B | 6/8/07 | JB |
| Silver | BQL | 1.04 | 0.0800 | 1 | MG/KG | 6010B | 6/8/07 | |

**Comments**
BQL = Below Quantitation Limits
DF = Dilution Factor
J = Between MDL and RL
B= Amount in Prep Blank > MDL

Reviewed By: _____
MET_LIMS_4.2

SGS

## Results for Metals

| | | | |
|---|---|---|---|
| Client Sample ID: | HA-2 | Analyzed By: | AEC |
| Client Project ID: | GSRA Debris | Date Collected: | 6/4/07 13:10 |
| Lab Sample ID: | G128-1964-2 | Date Received: | 6/4/07 |
| Lab Project ID: | G128-1964 | Matrix: | SOIL |
| Batch ID: | 8334 8392 | Solids | 87.03 |
| Report Basis: | Dry | | |

| Metals | Result | RL | MDL | DF | Units | Method | Date Analyzed | Flags |
|---|---|---|---|---|---|---|---|---|
| Arsenic | **0.566** | 0.974 | 0.562 | 1 | MG/KG | 6010B | 6/8/07 | J |
| Barium | **1.60** | 9.74 | 0.399 | 1 | MG/KG | 6010B | 6/8/07 | J |
| Cadmium | BQL | 0.974 | 0.187 | 1 | MG/KG | 6010B | 6/8/07 | |
| Chromium | **2.24** | 0.974 | 0.248 | 1 | MG/KG | 6010B | 6/8/07 | |
| Lead | **2.14** | 0.974 | 0.470 | 1 | MG/KG | 6010B | 6/8/07 | |
| Mercury | **0.00497** | 0.0230 | 0.00311 | 1 | MG/KG | 7471 | 6/14/07 | J |
| Selenium | **0.942** | 1.95 | 0.420 | 1 | MG/KG | 6010B | 6/8/07 | JB |
| Silver | BQL | 0.974 | 0.0747 | 1 | MG/KG | 6010B | 6/8/07 | |

**Comments**
BQL = Below Quantitation Limits
DF = Dilution Factor
J = Between MDL and RL
B= Amount in Prep Blank > MDL

Reviewed By: _____
MET_LIMS_4.2

SGS

## Results for Metals

| | | | |
|---|---|---|---|
| Client Sample ID: | HA-3 | Analyzed By: | AEC |
| Client Project ID: | GSRA Debris | Date Collected: | 6/4/07 13:15 |
| Lab Sample ID: | G128-1964-3 | Date Received: | 6/4/07 |
| Lab Project ID: | G128-1964 | Matrix: | SOIL |
| Batch ID: | 8334 8392 | Solids | 87.01 |
| Report Basis: | Dry | | |

| Metals | Result | RL | MDL | DF | Units | Method | Date Analyzed | Flags |
|---|---|---|---|---|---|---|---|---|
| Arsenic | **1.36** | 1.13 | 0.650 | 1 | MG/KG | 6010B | 6/8/07 | |
| Barium | **2.58** | 11.3 | 0.462 | 1 | MG/KG | 6010B | 6/8/07 | J |
| Cadmium | BQL | 1.13 | 0.216 | 1 | MG/KG | 6010B | 6/8/07 | |
| Chromium | **4.51** | 1.13 | 0.287 | 1 | MG/KG | 6010B | 6/8/07 | |
| Lead | **4.34** | 1.13 | 0.544 | 1 | MG/KG | 6010B | 6/8/07 | |
| Mercury | **0.0137** | 0.0205 | 0.00278 | 1 | MG/KG | 7471 | 6/14/07 | J |
| Selenium | **1.40** | 2.25 | 0.486 | 1 | MG/KG | 6010B | 6/8/07 | JB |
| Silver | BQL | 1.13 | 0.0864 | 1 | MG/KG | 6010B | 6/8/07 | |

**Comments**
BQL = Below Quantitation Limits
DF = Dilution Factor
J = Between MDL and RL
B= Amount in Prep Blank > MDL

Reviewed By: _____
MET_LIMS_4.2

SGS

**Results for Pesticides**
by EPA 8081

Client Sample ID: HA-1
Client Project ID: GSRA Debris
Lab Sample ID: G128-1964-1O
Lab Project ID: G128-1964
Sample Wt/Vol: 32.45 g ColumnID: STX_CLPest
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 6/4/2007 13:00
Date Received: 6/4/2007
Date Extracted: 6/7/2007
Matrix: Soil
% Solids: 85.6

| Compound | Result ug/KG | RL ug/KG | MDL ug/KG | Dilution Factor | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| alpha-BHC | BQL | 10.8 | 0.609 | 1 | 6/11/2007 | |
| beta-BHC | BQL | 10.8 | 0.531 | 1 | 6/11/2007 | |
| delta-BHC | BQL | 10.8 | 2.94 | 1 | 6/11/2007 | |
| gamma-BHC (Lindane) | BQL | 10.8 | 0.597 | 1 | 6/11/2007 | |
| Heptachlor | BQL | 10.8 | 0.708 | 1 | 6/11/2007 | |
| Aldrin | BQL | 10.8 | 1 | 1 | 6/11/2007 | |
| Heptachlor epoxide | BQL | 10.8 | 0.987 | 1 | 6/11/2007 | |
| Endosulfan I | BQL | 10.8 | 0.8 | 1 | 6/11/2007 | |
| Dieldrin | BQL | 10.8 | 0.675 | 1 | 6/11/2007 | |
| 4,4'-DDE | BQL | 10.8 | 1.22 | 1 | 6/11/2007 | |
| Endrin | BQL | 10.8 | 1.11 | 1 | 6/11/2007 | |
| DDD | BQL | 10.8 | 1.22 | 1 | 6/11/2007 | |
| Endosulfan II | BQL | 10.8 | 0.924 | 1 | 6/11/2007 | |
| 4,4'-DDT | BQL | 10.8 | 1.07 | 1 | 6/11/2007 | |
| Methoxychlor | BQL | 10.8 | 1.37 | 1 | 6/11/2007 | |
| Toxaphene | BQL | 36.0 | 32.4 | 1 | 6/11/2007 | |
| alpha-Chlordane | BQL | 10.8 | 0.773 | 1 | 6/11/2007 | |
| gamma-Chlordane | BQL | 10.8 | 1.32 | 1 | 6/11/2007 | |
| Chlordane, Total | BQL | 18.0 | 10.8 | 1 | 6/11/2007 | |
| Endrin aldehyde | BQL | 10.8 | 0.842 | 1 | 6/11/2007 | |
| Endosulfan sulfate | BQL | 10.8 | 0.671 | 1 | 6/11/2007 | |
| Endrin ketone | BQL | 10.8 | 1.22 | 1 | 6/11/2007 | |

| Surrogate Spike Recoveries | Spike Added | Spike Result | Percent Recovered |
|---|---|---|---|
| TCMX | 100 | 91 | 91 |

**Comments:**
BQL = Below Quantitation Limit

Reviewed By: Rue

SGS

**Results for Pesticides**
by EPA 8081

Client Sample ID: HA-2
Client Project ID: GSRA Debris
Lab Sample ID: G128-1964-2M
Lab Project ID: G128-1964
Sample Wt/Vol: 32.87 g ColumnID: STX_CLPest
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 6/4/2007 13:10
Date Received: 6/4/2007
Date Extracted: 6/7/2007
Matrix: Soil
% Solids: 87.0

| Compound | Result ug/KG | RL ug/KG | MDL ug/KG | Dilution Factor | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| alpha-BHC | BQL | 10.5 | 0.592 | 1 | 6/11/2007 | |
| beta-BHC | BQL | 10.5 | 0.516 | 1 | 6/11/2007 | |
| delta-BHC | BQL | 10.5 | 2.85 | 1 | 6/11/2007 | |
| gamma-BHC (Lindane) | BQL | 10.5 | 0.579 | 1 | 6/11/2007 | |
| Heptachlor | BQL | 10.5 | 0.688 | 1 | 6/11/2007 | |
| Aldrin | BQL | 10.5 | 0.976 | 1 | 6/11/2007 | |
| Heptachlor epoxide | BQL | 10.5 | 0.959 | 1 | 6/11/2007 | |
| Endosulfan I | BQL | 10.5 | 0.777 | 1 | 6/11/2007 | |
| Dieldrin | BQL | 10.5 | 0.656 | 1 | 6/11/2007 | |
| 4,4'-DDE | BQL | 10.5 | 1.18 | 1 | 6/11/2007 | |
| Endrin | BQL | 10.5 | 1.08 | 1 | 6/11/2007 | |
| DDD | BQL | 10.5 | 1.18 | 1 | 6/11/2007 | |
| Endosulfan II | BQL | 10.5 | 0.897 | 1 | 6/11/2007 | |
| 4,4'-DDT | BQL | 10.5 | 1.04 | 1 | 6/11/2007 | |
| Methoxychlor | BQL | 10.5 | 1.33 | 1 | 6/11/2007 | |
| Toxaphene | BQL | 35.0 | 31.5 | 1 | 6/11/2007 | |
| alpha-Chlordane | BQL | 10.5 | 0.75 | 1 | 6/11/2007 | |
| gamma-Chlordane | BQL | 10.5 | 1.29 | 1 | 6/11/2007 | |
| Chlordane, Total | BQL | 17.5 | 10.5 | 1 | 6/11/2007 | |
| Endrin aldehyde | BQL | 10.5 | 0.818 | 1 | 6/11/2007 | |
| Endosulfan sulfate | BQL | 10.5 | 0.652 | 1 | 6/11/2007 | |
| Endrin ketone | BQL | 10.5 | 1.18 | 1 | 6/11/2007 | |

| Surrogate Spike Recoveries | Spike Added | Spike Result | Percent Recovered |
|---|---|---|---|
| TCMX | 100 | 87.6 | 87.6 |

**Comments:**
BQL = Below Quantitation Limit

Reviewed By: _____

SGS

**Results for Pesticides**
by EPA 8081

Client Sample ID: HA-3
Client Project ID: GSRA Debris
Lab Sample ID: G128-1964-3M
Lab Project ID: G128-1964
Sample Wt/Vol: 32.73 g ColumnID: STX_CLPest
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 6/4/2007 13:15
Date Received: 6/4/2007
Date Extracted: 6/7/2007
Matrix: Soil
% Solids: 87.0

| Compound | Result ug/KG | RL ug/KG | MDL ug/KG | Dilution Factor | Date Analyzed | Flags |
|---|---|---|---|---|---|---|
| alpha-BHC | BQL | 10.5 | 0.594 | 1 | 6/11/2007 | |
| beta-BHC | BQL | 10.5 | 0.518 | 1 | 6/11/2007 | |
| delta-BHC | BQL | 10.5 | 2.86 | 1 | 6/11/2007 | |
| gamma-BHC (Lindane) | BQL | 10.5 | 0.582 | 1 | 6/11/2007 | |
| Heptachlor | BQL | 10.5 | 0.691 | 1 | 6/11/2007 | |
| Aldrin | BQL | 10.5 | 0.981 | 1 | 6/11/2007 | |
| Heptachlor epoxide | BQL | 10.5 | 0.963 | 1 | 6/11/2007 | |
| Endosulfan I | BQL | 10.5 | 0.781 | 1 | 6/11/2007 | |
| Dieldrin | BQL | 10.5 | 0.658 | 1 | 6/11/2007 | |
| 4,4'-DDE | BQL | 10.5 | 1.19 | 1 | 6/11/2007 | |
| Endrin | BQL | 10.5 | 1.08 | 1 | 6/11/2007 | |
| DDD | BQL | 10.5 | 1.19 | 1 | 6/11/2007 | |
| Endosulfan II | BQL | 10.5 | 0.901 | 1 | 6/11/2007 | |
| 4,4'-DDT | BQL | 10.5 | 1.05 | 1 | 6/11/2007 | |
| Methoxychlor | BQL | 10.5 | 1.34 | 1 | 6/11/2007 | |
| Toxaphene | BQL | 35.1 | 31.6 | 1 | 6/11/2007 | |
| alpha-Chlordane | BQL | 10.5 | 0.754 | 1 | 6/11/2007 | |
| gamma-Chlordane | BQL | 10.5 | 1.29 | 1 | 6/11/2007 | |
| Chlordane, Total | BQL | 17.6 | 10.5 | 1 | 6/11/2007 | |
| Endrin aldehyde | BQL | 10.5 | 0.821 | 1 | 6/11/2007 | |
| Endosulfan sulfate | BQL | 10.5 | 0.655 | 1 | 6/11/2007 | |
| Endrin ketone | BQL | 10.5 | 1.19 | 1 | 6/11/2007 | |

| Surrogate Spike Recoveries | Spike Added | Spike Result | Percent Recovered |
|---|---|---|---|
| TCMX | 100 | 87.6 | 87.6 |

**Comments:**
BQL = Below Quantitation Limit

Reviewed By: _____

SGS

**Results for Herbicides**
by EPA 8151

| | | | |
|---|---|---|---|
| Client Sample ID: | HA-1 | Analyzed By: | DCS |
| Client Project ID: | GSRA Debris | Date Collected: | 6/4/2007 13:00 |
| Lab Sample ID: | G128-1964-1I | Date Received: | 6/4/2007 |
| Lab Project ID: | G128-1964 | Date Extracted: | 6/5/2007 |
| Sample Wt/Vol: | 32.85 g | ColumnID: STX_CLPest | Matrix: Soil |
| Report Basis: | Dry Weight | | % Solids: 85.6 |

| Compound | Result ug/KG | Quantitation Limit ug/KG | MDL ug/KG | Dilution Factor | Date Analyzed | Flag |
|---|---|---|---|---|---|---|
| 2,4-D | BQL | 35.6 | 2.98 | 1 | 6/11/2007 | |
| 2,4,5-TP(Silvex) | BQL | 35.6 | 3.94 | 1 | 6/11/2007 | |
| 2,4,5-T | BQL | 35.6 | 4.61 | 1 | 6/11/2007 | |

| Surrogate Spike Recoveries | Spike Added | Spike Result | Percent Recovered |
|---|---|---|---|
| DCAA | 4.0 | 3.14 | 78 |

**Comments:**
BQL = Below Quantitation Limit

Reviewed By: _____

SGS

**Results for Herbicides**
by EPA 8151

| | | | |
|---|---|---|---|
| Client Sample ID: | HA-2 | Analyzed By: | DCS |
| Client Project ID: | GSRA Debris | Date Collected: | 6/4/2007 13:10 |
| Lab Sample ID: | G128-1964-2I | Date Received: | 6/4/2007 |
| Lab Project ID: | G128-1964 | Date Extracted: | 6/5/2007 |
| Sample Wt/Vol: | 33.35 g | ColumnID: STX_CLPest Matrix: | Soil |
| Report Basis: | Dry Weight | % Solids: | 87.0 |

| Compound | Result ug/KG | Quantitation Limit ug/KG | MDL ug/KG | Dilution Factor | Date Analyzed | Flag |
|---|---|---|---|---|---|---|
| 2,4-D | BQL | 34.4 | 2.89 | 1 | 6/11/2007 | |
| 2,4,5-TP(Silvex) | BQL | 34.4 | 3.82 | 1 | 6/11/2007 | |
| 2,4,5-T | BQL | 34.4 | 4.46 | 1 | 6/11/2007 | |

| Surrogate Spike Recoveries | Spike Added | Spike Result | Percent Recovered |
|---|---|---|---|
| DCAA | 4.0 | 3 | 75 |

**Comments:**
BQL = Below Quantitation Limit

Reviewed By: _____

SGS

**Results for Herbicides**
by EPA 8151

| | | | |
|---|---|---|---|
| Client Sample ID: | HA-3 | Analyzed By: | DCS |
| Client Project ID: | GSRA Debris | Date Collected: | 6/4/2007 13:15 |
| Lab Sample ID: | G128-1964-3I | Date Received: | 6/4/2007 |
| Lab Project ID: | G128-1964 | Date Extracted: | 6/5/2007 |
| Sample Wt/Vol: | 32.01 g | ColumnID: STX_CLPest | Matrix: Soil |
| Report Basis: | Dry Weight | | % Solids: 87.0 |

| Compound | Result ug/KG | Quantitation Limit ug/KG | MDL ug/KG | Dilution Factor | Date Analyzed | Flag |
|---|---|---|---|---|---|---|
| 2,4-D | BQL | 35.9 | 3.01 | 1 | 6/11/2007 | |
| 2,4,5-TP(Silvex) | BQL | 35.9 | 3.98 | 1 | 6/11/2007 | |
| 2,4,5-T | BQL | 35.9 | 4.65 | 1 | 6/11/2007 | |

| Surrogate Spike Recoveries | Spike Added | Spike Result | Percent Recovered |
|---|---|---|---|
| DCAA | 4.0 | 3.08 | 77 |

**Comments:**
BQL = Below Quantitation Limit

Reviewed By: _____

SGS

# List of Reporting Abbreviations and Data Qualifiers

B = Compound also detected in batch blank

BQL = Below Quantitation Limit (RL or MDL)

DF = Dilution Factor

Dup = Duplicate

D = Detected, but RPD is > 40% between results in dual column method.

E = Estimated concentration, exceeds calibration range.

J = Estimated concentration, below calibration range and above MDL

LCS(D) = Laboratory Control Spike (Duplicate)

MDL = Method Detection Limit

MS(D) = Matrix Spike (Duplicate)

PQL = Practical Quantitation Limit

RL = Reporting Limit

RPD = Relative Percent Difference

mg/kg = milligram per kilogram, ppm, parts per million

ug/kg = micrograms per kilogram, ppb, parts per billion

mg/L = milligram per liter, ppm, parts per million

ug/L = micrograms per liter, ppb, parts per billion

% Rec = Percent Recovery

% soilds = Percent Solids

Special Notes:

1) Metals and mercury samples are digested with a hot block, see the standard operating procedure document for details.

2) Uncertainty for all reported data is less than or equal to 30 percent.

# SGS

## CHAIN OF CUSTODY RECORD
## SGS Environmental Services Inc.

Locations Nationwide
- Alaska
- Hawaii
- Ohio
- Maryland
- New Jersey
- North Carolina
- West Virginia

www.us.sgs.com

07 [illegible]

SGS

(1)

CLIENT: Catlin

CONTACT: Steve Hudson PHONE NO:(910) 452.5861

PROJECT: GSRA Debris SITE/PWSID#: 207-027

REPORTS TO: Steve Hudson E-MAIL: FAX NO.:( )

INVOICE TO: Catlin QUOTE # P.O. NUMBER 270604-4

SGS Reference: G128-1964 PAGE 1 o

(2)

| LAB NO. | SAMPLE IDENTIFICATION | DATE | TIME | MATRIX | No CONTAINERS | SAMPLE TYPE C=COMP G=GRAB | Preservatives Used | — | MeOH | NaBi | | — | — | — | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Analysis Required (3) | DRO | GRO | 8260 | 8270 (share) | RCRA | 8081 | 8151 (share) | | | |
| | HA-1 | 6/4/07 | 1300 | S | 8 | G | | 1 | 2 | 3 | | 1 | 1 | | | | |
| | HA-2 | | 1310 | | | | | | | | | | | | | | |
| | HA-3 | | 1315 | | | | | | | | | | | | | | |

(5)

| Collected/Relinquished By:(1) | Date | Time | Received By: | Date | Time |
|---|---|---|---|---|---|
| Justin Hatley | 6/4/07 | 1440 | [illegible] | 6/4/07 | 1440 |
| Relinquished By: (2) | Date | Time | Received By: | Date | Time |
| Relinquished By: (3) | Date | Time | Received By: | Date | Time |
| Relinquished By: (4) | Date | Time | Received By: | Date | Time |

(4)

Shipping Carrier:

Shipping Ticket No:

Samples Received Cold? (Circle) YES NO

Temperature [illegible] 5.9°C

Special Deliverable Requirements:

Chain of Custody Seal: (Circle)

INTACT BROKEN ABSENT

Special Instructions: —

Requested Turnaround Time:

☐ RUSH _____ Date Needed ☑ STD



☐ 200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301
☐ 5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557
☐ 1270 Greenbrier Street Charleston, WV 25311 Tel: (304) 346-0725 Fax: (304) 346-0761

White - Retained by Lab
Yellow - Returned with Report
Pink - Retained by Sampler

# SGS

## CHAIN OF CUSTODY RECORD
## SGS Environmental Services Inc.

**Locations Nationwide**
- Alaska
- Hawaii
- Ohio
- Maryland
- New Jersey
- North Carolina
- West Virginia

www.us.sgs.com

074892

(1)

CLIENT:

CONTACT: PHONE NO:( )

PROJECT: SITE/PWSID# :

REPORTS TO: E-MAIL:

FAX NO.:( )

INVOICE TO: QUOTE #

P.O. NUMBER

SGS Reference:

PAGE____ OF____

(2)

| LAB NO. | SAMPLE IDENTIFICATION | DATE | TIME | MATRIX | No CONTAINERS | SAMPLE TYPE C= COMP G= GRAB | Preservatives Used | Analysis Required (3) | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

(5)

| Collected/Relinquished By:(1) | Date | Time | Received By: | Date | Time |
|---|---|---|---|---|---|
| Relinquished By: (2) | Date | Time | Received By: | Date | Time |
| Relinquished By: (3) | Date | Time | Received By: | Date | Time |
| Relinquished By: (4) | Date | Time | Received By: | Date | Time |

(4)

Shipping Carrier:

Shipping Ticket No:

Samples Received Cold? (Circle) YES NO

Temperature ∫C:_____ ï _____

Special Deliverable Requirements:

Chain of Custody Seal: (Circle)

INTACT BROKEN ABSENT

Special Instructions:

Requested Turnaround Time:

☐ **RUSH** _____ ☐ STD

Date Needed


☐ 200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301
☐ 5500 Business Drive **Wilmington, NC 28405** Tel: (910) 350-1903 Fax: (910) 350-1557
☐ 1270 Greenbrier Street **Charleston, WV 25311** Tel: (304) 346-0725 Fax: (304) 346-0761


White - Retained by Lab
Yellow - Returned with Report