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December 16, 2004

Commander
NAVFAC, Atlantic Division
6506 Hampton Blvd., Bldg. A, Room 1306
Norfolk, VA 23508

Attention: Mr. David T. Cleland, P.G. – Code EV23DC

Re: **Report of Findings for**
Soil And Free-Phase Product Assessment
Building LCH-4015 and Building LCH-4034
Marine Corps Base
Camp Lejeune, North Carolina
Navy Contract No. N62470-01-D-3009
Delivery Order No. 0116
CATLIN Project No. 204-036

Dear Mr. Cleland:

CATLIN Engineers and Scientists (CATLIN) are pleased to submit the FINAL Report of Findings for Soil and Free-Phase Product Assessment for the above referenced site. We have reviewed the comments to the referenced draft report and offer the following responses to the comments/concerns offered by Ms. Hall.

Executive Summary

- **1st paragraph- Last sentence, change to "near the intersection of Highway 24 and Butler Drive in Midway Park."**

  Acknowledge. Text has been changed.

Site History

- **1st paragraph- Last sentence, change to "near the intersection of Highway 24 and Butler Drive in Midway Park."**

  Acknowledge. Text has been changed.

Soil Investigation

- **2nd paragraph- Note in the soil investigation (second paragraph) that samples were not taken from USTLCH4034-PZ09.**

  Acknowledged. Text has been included as such.

Table 3A

- **Bottom note "Both sets are included" is shown twice. Delete one.**

  Acknowledged. Text has been changed.

CATLIN Engineers and Scientists appreciates the opportunity to continue to provide services to NAVFAC Atlantic and the MCB on your environmental projects. We look forward to hearing from you soon.

Sincerely,

Michael E. Mason, P.E.
CATLIN Program Manager

Jeffery K. Becken, P.E.
Project Engineer

Attachments: Final Report

cc: Ms. Pamela Argilan – Code AQ11B Contracts, Correspondence only
Commanding General, Attn: Director I&E, EMD, EQB (w/ attachment – 2 copies)
Mr. William Morris, P.G. – Engineering and Environment, Inc.

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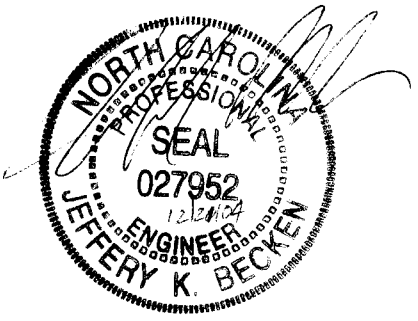
REPORT OF FINDINGS
FOR SOIL AND FREE-PHASE PRODUCT ASSESSMENT

FOR

BUILDING LCH-4015 AND BUILDING LCH-4034
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DECEMBER 16, 2004

CONTRACT NO. N62470-01-D-3009
DELIVERY ORDER NO. 0116
CATLIN PROJECT NO. 204-036



PREPARED BY:

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TABLES

FIGURES

APPENDICES

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
DTW	Depth to Water
EAD	Environmental Affairs Department
EDB	Ethylene di-bromide
EMD	Environmental Management Division
EPA	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

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
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
NAVFAC Atlantic	Naval Facilities Atlantic Division
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 (ROF)
FOR
SOIL AND FREE-PHASE PRODUCT ASSESSMENT

A. UST TITLE PAGE

DATE OF REPORT: December 16, 2004
Facility ID: N/A UST Incident Number (if known): Pending
Site Name: Building LCH-4015
Site Location: Marine Corps Base, Camp Lejeune
Nearest City/Town: Camp Lejeune County: Onslow
Risk Classification: Intermediate* Land Use Classification: Residential*
* = pending NCDENR approval
UST Owner: Commanding General – MCB Camp Lejeune
I&E/EMD/EQB
Address: PSC 20004
MCB Camp Lejeune, NC 28542 Phone: (910) 451-5068

UST Operator: Same as above
Address: Same as above Phone: Same as above

Property Owner: Same as above
Address: Same as above Phone: Same as above

Property Occupant: Same as above
Address: Unknown Phone: Unknown

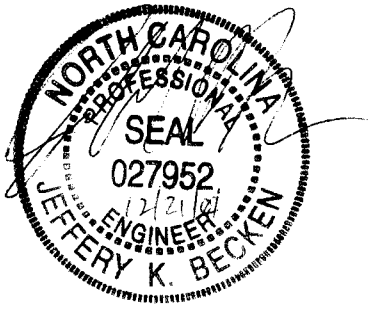
Consultant/Contractor: CATLIN Engineers and Scientists
Address: 220 Old Dairy Road, Wilmington, North Carolina 28405 Phone: (910) 452-5861

Release Information

Date Discovered: April/May 2002
Longitude: 34° 43' 34" N **Latitude:** 77° 20' 23" W
Estimated Quantity of Release: Unknown
Cause of Release: Unknown
Source of Release (e.g. Piping/UST):
Possible leaking USTs and associated pipeline delivery system.

Sizes and contents of UST system(s) from which the release occurred:
Two 10,000 gallon capacity gasoline USTs, One 2,500 gallon capacity gasoline UST

I, **Jeffery K. Becken** a Professional Engineer/Licensed Geologist **(circle one)** for CATLIN Engineers and Scientists, do certify that the information contained in this report is correct and accurate to the best of my knowledge.



(Please Affix Seal and Signature)

B. EXECUTIVE SUMMARY

The Building LCH-4015 project site is located within the Midway Park Community Center of MCB, Camp Lejeune in Onslow County, North Carolina. The project site consists of the Community Center Building (LCH-4014), former fueling and maintenance area (LCH-4015), Marine Corps Exchange Convenience Store (LCH-4034), and the former fuel tank farm (SLCH-4024). The site is located near the intersection of North Carolina Highway 24 and Butler Drive in Midway Park.

Various site assessments were conducted in the early 1990s to determine the integrity of the AST system and delineate the extent, if applicable, of free-phase product, soil contamination, and groundwater contamination in the vicinity of Building LCH-4015. LAW Engineering and Environmental Services, Inc. (LAW) prepared and submitted a CAP dated August 27, 1996 utilizing the findings from these various site assessments. The recommended remediation strategy within the CAP for site restoration was a treatment system consisting of a biosparge system and a SVE system. It is our understanding that J. A. Jones Environmental Services Company (JA Jones) installed the biosparge and horizontal SVE treatment system in 1998 and began operation of the system in November 1998.

In 1992, a UST system replaced an inoperable offloading facility located south of LCH-4034. These USTs were replaced by ASTs in April/May 2002 that are currently located northwest of LCH-4015. These ASTs (LCH-4034-1, LCH-4034-2, and LCH-4034-3) currently provide fuel to the Marine Corps Exchange Convenience Store (Building LCH-4034). Activities associated with the removal of the USTs, referred to as LCH-4034 USTs, were documented in a UST Closure Report dated June 23, 2002 prepared by JA Jones. The UST report concluded that based on field observations and analytical results, soil and groundwater had been impacted by petroleum contamination in the vicinity of the former USTs.

CATLIN prepared an Remedial Action Optimization and Revised Corrective Action Plan (RAO & RCAP) dated May 6, 2004 that concluded current applicable remedial requirements for the contamination associated with the LCH-4015 ASTs is based on the corrective action requirements per 15A NCAC 2L .0106 which became effective on January 2, 1998 and the document entitled "*Groundwater Section Guidelines for the Investigation and Remediation of Soil and Groundwater*" (2000 Guidelines) as released by the NCDENR Division of Water Quality, Groundwater Section, effective July 2000. The current applicable remedial requirements for the LCH-4034 USTs portion of the site are the Risk Based Corrective Action (RBCA) for Petroleum Underground Storage Tanks per 15A NCAC 2L .0115 effective date January 2, 1998 and document entitled *"Guidelines for Assessment and Corrective Action"* (2001 Guidelines) as released by the NCDENR Division of Waste Management, UST Section, effective July 1, 2001. Per the General Assembly of the North Carolina Session Law 2003-352, House Bill 897 (House Bill 897), "...a mixed plume of contamination that results from releases of petroleum from both an underground storage tank and an aboveground storage tank or other source may be cleaned up under the risk-based cleanup rules applicable to releases from petroleum underground storage tanks..." Therefore, the RAO & RCAP recommended the investigation of the free-phase product at the former LCH-4034 USTs in order to determine if plume co-mingling has occurred between

the release from ASTs at Building LCH-4015 and the USTs at Building LCH-4034. After submittal of the RAO & RCAP to NCDENR, a response letter was received from Charles F. Stehman, Ph.D., P.G. of the NCDENR, Division of Water Quality, Groundwater Section. This response letter requested additional information associated with the USTs at Building LCH-4034. A portion of this requested information has been addressed within this ROF.

The RAO & RCAP concluded that the shallow groundwater conditions had not been evaluated within the vicinity of the former LCH-4034 USTs and product lines based on the documented presence of free-phase product during UST closure activities in 2002. Based on the groundwater data presented within the RAO & RCAP, monitoring wells in the vicinity of the former LCH-4034 USTs and product lines indicate that the groundwater contamination within this area appears to be less than the 2L GWQS. Therefore, based on the findings within this ROF and the RAO & RCAP, it does not appear that contamination associated with the LCH-4034 USTs and the LCH-4015 ASTs has co-mingled. The regulatory frame work for the LCH-4034 UST portion of the site therefore may be based on the Risk Based Corrective Actions. The Risk Classification and Land Use Classifications presented within the RAO & RCAP, proposed this portion of the site to be a Residential Land Use site with an Intermediate Risk Classification. The portion of the site associated with the former LCH-4015 AST system will be regulated under the current Groundwater Section Guidelines.

Based on the results of the soil samples collected during this ROF, it appears that current soil conditions near the former LCH-4034 UST system exhibit no petroleum based soil contamination above the Residential MSCCs. No additional soil remediation activities are recommended at this time in the area associated with the former LCH-4034 UST system.

Additionally, based on gauging data associated with the temporary piezometers installed within the LCH-4034 UST area, no measurable thickness of free-phase product has been identified.

Concentrations of TPH DRO and GRO have been identified above current State Action Levels in the vicinity of the former LCH-4015 AST system. Total petroleum hydrocarbon contamination limits have been refined and delineated in the area of the former ASTs and product lines. This area is within the boundaries of an active remediation system; therefore, no additional remedial actions are warranted at this time.

CATLIN recommends continuation of the active remediation activities and implementation of the groundwater monitoring program recommended in the RAO & RCAP. Based on the horizontal extent of the groundwater and soil contamination, CATLIN recommends that the Annual Groundwater Monitoring Report evaluate the possibility of shutting down a portion of the biosparge and soil vapor extraction systems.

C. SITE HISTORY

The Building LCH-4015 project site is located within the Midway Park Community Center of MCB, Camp Lejeune in Onslow County, North Carolina. The site vicinity is presented on Figure 1. The project site consists of the Community Center Building (LCH-4014), former fueling and maintenance area (LCH-4015), Marine Corps Exchange Convenience Store (LCH-4034), and the former fuel tank farm (SLCH-4024). The site is located near the intersection of North Carolina Highway 24 and Butler Drive in Midway Park. See Figure 2 for the site layout plan.

A former AST system located south of former Building LCH-4015 began operation in 1945. The AST system consisted of two 14,000-gallon gasoline tanks that supplied fuel to four gasoline dispensers located on a pump island to the north of Building LCH-4015, one 14,000-gallon diesel tank that supplied fuel to a dispenser located on the north side of Building LCH-4015, and one 3,000-gallon No. 2 fuel oil AST that supplied fuel oil to a boiler contained within Building LCH-4014. A number of smaller storage tanks were also located at the site. Fuel was distributed through a number of underground product piping systems.

Various site assessments were conducted in the early 1990s to determine the integrity of the AST system and delineate the extent, if applicable, of free-phase product, soil contamination and groundwater contamination in the vicinity of Building LCH-4015. The findings of the previous assessments have been summarized in reports submitted to NCDENR, Division of Water Quality, Groundwater Section in the WiRO. The reports from these various site assessments were utilized by LAW to develop a CAP dated August 27, 1996. These site assessment reports were referenced within the CAP. LAW reported that petroleum-impacted soil and groundwater present at the site were suspected to be the result of releases of diesel fuel and gasoline from the former pipeline distribution network previously discussed. In 1990, the ASTs at Building LCH-4015 were emptied of product, and the three 14,000-gallon ASTs were removed and relocated for use at other locations on the base.

The CAP identified the presence of soil and shallow groundwater (surficial aquifer) petroleum contamination. The recommended remediation strategy within the CAP for site restoration was a treatment system consisting of a biosparge system and a SVE system for the remediation of the soil and groundwater contamination. It is our understanding that JA Jones installed a biosparge and horizontal soil vapor extraction remediation system in 1998 and began operation of the system in November 1998. The biosparge wells were reportedly installed with a 1.5 to 3.5 feet screen interval ranging from 4.5 to 8.0 feet BLS. The soil vapor extraction wells consist of a 2-inch diameter 0.02-inch slot width PVC horizontal well screen believed to be installed slightly above the shallow groundwater table. JA Jones operated the remediation system from start-up to early 2003. Engineering & Environment, Inc. (E&E) began operation in early 2003 and continues to operate the remediation system. E&E has provided the 2002 and 2003 data referenced within this report. Shaw Environmental, Inc. (Shaw) prepared an Annual Monitoring Report dated February 2004 that documented JA Jones' activities between August 2000 and August 2001.

In 1992, a UST system consisting of two 10,000-gallon gasoline USTs and one 2,500-gallon premium gasoline UST replaced an inoperable offloading facility located south of LCH-4034. The UST system was removed in April/May 2002. These former USTs were manufactured of fiberglass and identified as LCH-4034-1, LCH-4034-2, and LCH-4034-3. These USTs were replaced by ASTs that are currently located northwest of former building LCH-4015. These ASTs currently provide fuel to the Marine Corps Exchange Convenience Store (Building LCH-4034).

Activities associated with the removal of the LCH-4034 USTs were documented in a UST Closure Report dated June 23, 2002 prepared by JA Jones. The closure report concluded that based on field observations and analytical results that soil and groundwater had been impacted by petroleum contamination in the vicinity of the former USTs. Also, free-phase product was observed within the excavation area around the product lines. The closure report recommended investigating the free-phase product plume and expanding the existing remediation system. Information pertaining to the UST and AST systems is summarized on Table 1 and the owner and operator information is summarized on Table 2. For the purpose of this report, the Building LCH-4015 project site has been divided into two areas identified as LCH-4015 ASTs and LCH-4034 USTs.

A RAO & RCAP was prepared by CATLIN Engineers and Scientists (CATLIN) dated May 6, 2004. The purpose of the RAO & RCAP was to provide information relevant to address and review the effectiveness of the current remedial actions being conducted at the Building LCH-4015 project site. The RAO & RCAP concluded that the shallow groundwater conditions had not been evaluated within the vicinity of the former LCH-4034 USTs and product lines based on the documented presence of free-phase product during UST closure activities in 2002. Recommendations made in the RAO & RCAP included additional assessment activities to further define the extent of free-phase product and petroleum impacted soil identified in the vicinity of the LCH-4034 USTs; obtain soil samples from along the former supply lines and other areas associated with the LCH-4015 ASTs; and determine if co-mingling has occurred between the release from the ASTs at Building LCH-4015 and the USTs at Building LCH-4034.

CATLIN was authorized to perform the additional free-phase product and soil assessment activities by NAVFAC Atlantic Division in accordance with the Order of Supplies Contract Number N62470-01-D-3009, Delivery Order Number 0116. This Report of Findings documents the methods and findings from these assessment activities.

D. RECEPTOR INFORMATION

Potential receptors were re-evaluated during the preparation of the RAO & RCAP using the Risk Classification and Land Use Form. The receptor survey performed as part of the plan identified the following receptors within 1,500 feet of the site:

- An unnamed creek is located approximately 1,000 feet southeast of the site.
- An additional unnamed creek is located approximately 1,300 feet north of the site.
- A potable water supply well LCH-4009 is located approximately 1,300 feet southeast of the site. Groundwater samples collected from 50 feet deep Type III monitoring wells at the site have historically been reported below detection limits for all parameters analyzed. Well construction information for the potable water supply well LCH-4009 was not available as of the preparation of this report, however, the Well Head Protection Plan Update (2002) stated that the well was installed in 1942 and is 134 feet deep with the pump depth set at 85 feet below ground surface.
- According to the Well Head Protection Plan Update (2002), the site is located within a potential wellhead protection area.
- The closest residence is approximately 150 feet east of the site.
- The LCH-4015 project site contains the following public assembly places: a community center, convenience store with gasoline/diesel dispensers, post office, YMCA, and laundromat.
- Athletic fields are located approximately 1,200 feet north of the site.

Based on information provided by MCB, Camp Lejeune, these potential receptors are not reported to have been impacted by the potentially contaminated soils and/or groundwater. The potential receptors are presented on the Site Location Map on Figure 1. Water supply well (potable well) information is presented on Table 5.

E. SITE GEOLOGY

As identified in the Geologic Map of North Carolina (North Carolina Department of Natural Resources and Community Development, 1985), the subject site lies within the Coastal Plain physiographic province. Cardinell et al (1993) stated that to some degree, seven of the ten aquifers identified to date in the North Carolina Coastal Plain are typically present beneath portions of the MCB, Camp Lejeune. In order of increasing depth, these aquifers, as stated in by Winner and Coble (1989), include the Surficial, Castle Hayne, Beaufort, Peedee, Black Creek, and upper and lower Cape Fear aquifers.

The topography of the project site is relatively flat. Soils in the vicinity of the site have been documented to be generally silty sands with occasional pockets of clayey sand within the near surface (5 to 10 feet BLS). Below this surficial material, a one to five foot silty clay layer has been noted across the site. Soils beneath the clay layer have been described as gravelly sands, silty sands or clayey sands to a depth of approximately 50 feet BLS. Soil samples collected during this investigation were described predominantly as sand and silty sand to varying degrees across the site. Boring logs from this investigation are included in Appendix A.

F. SOIL INVESTIGATION

The RAO & RCAP recommended additional soil sampling to assess potential soil contamination associated with the LCH-4015 ASTs and the LCH-4034 USTs. Soil samples were recommended to be collected from the area associated with the LCH-4015 ASTs based on the 2000 Guidelines (TPH Action Levels). Additionally, soil samples were recommended to be collected from the area associated with the LCH-4034 USTs based on the Risk Based Corrective Actions (MSCCs). The following paragraphs provide a brief description of the activities associated with this additional soil sampling.

On September 27 through 30, 2004, CATLIN personnel conducted a soil sampling event at the Building LCH-4015 project site. Soil samples were collected for Risk Based Analysis from eleven of the 49 direct push probe soil borings advanced during the investigation. The eleven borings, designated USTLCH4034-PZ01 through USTLCH4034-PZ08 and USTLCH4034-PZ49 through USTLCH4034-PZ51, were located in the vicinity of the former LCH-4034 UST system. These locations were selected based on the recommendations of the RAO & RCAP in order to assess the presence of free-phase product and soil contamination in the vicinity of the former supply lines. Due to the presence of utilities in the vicinity of these former supply lines the boring locations were offset within 10 feet of these former supply lines (refer to Figures 2A through 2C). It is important to note that the soil samples were not taken from clean backfill material associated with the removal of the former LCH-4034 UST system. Additionally, a soil sample was not collected from boring USTLCH4034-PZ09 due to poor recovery and soil type (appeared to be gravel fill).

The additional soil borings, designated ASTLCH4015-SB10 through ASTLCH4015-SB48, were installed in the vicinity of the former LCH-4015 AST system. These locations were selected based on the recommendations of the RAO & RCAP in order to assess the presence of soil contamination in the vicinity of previously detected soil contamination and the former supply lines. The soil boring locations are presented on Figure 2D.

All sampling was conducted in general accordance with CATLIN's Standard Procedures included in Appendix B and the approved Workplan. The soil samples were placed in laboratory glassware, labeled, placed immediately on ice in a cooler, and transported under proper chain of custody protocol to Paradigm Analytical Laboratories, Inc. in Wilmington, North Carolina. The laboratory reports and chain of custody documentation are provided in Appendix C. Analytical results are summarized as follows:

LCH-4034 USTs Area

EPA Method 8260B/5035 (includes DIPE + MTBE)

As indicated in Table 3A and illustrated in Figure 2A, there were no EPA Method 8260B/5035 target compounds detected in the soil samples collected during the September 2004 sampling event above current Residential MSCCs. However, concentrations of benzene, ethylbenzene, and/or 4-isopropyltoluene were identified above Soil to Groundwater MSCCs in the samples collected from borings

USTLCH4034-PZ05 (0-2 feet BLS) and USTLCH4034-PZ07 (0-2 feet BLS).

EPA Method 8270

As indicated in Table 3B and illustrated in Figure 2B, there were no EPA Method 8270 target compounds detected in the soil samples collected during the September 2004 sampling event at concentrations above the laboratory practical quantitation limits.

MADEP VPH/EPH

All MADEP VPH/EPH concentrations identified from the September 2004 sampling event were below the laboratory practical quantitation limits, with the exception of samples collected from soil borings USTLCH4034-PZ06 (0-2 feet BLS - duplicate) and USTLCH4034-PZ07 (0-2 feet BLS). Concentrations of C_9-C_{22} Aromatics were identified in the samples collected from these borings at a concentration of <150 mg/kg and <290 mg/kg, respectively. Sampling results are summarized on Tables 3C and 3D and graphically illustrated on Figure 2C.

LCH-4015 ASTs Area

TPH per EPA Method 8015

Total petroleum hydrocarbon concentrations of Gasoline Range Organics (GRO) were identified above current State Action Levels of 10 mg/kg in soil samples collected at depths of one to two feet BLS (two to three feet BLS in boring SB36) from borings (all "SB" borings prefaced with ASTLCH4015-) SB14, SB18, SB20, SB26, SB36, SB37, and SB38 at concentrations of 15.2, 59.4, 106, 16.1, 876, 42.9, and 14.9 mg/kg, respectively. Total petroleum hydrocarbon concentrations of Diesel Range Organics (DRO) were identified above current State Action Levels of 40 mg/kg in soil samples collected at depths of one to two feet BLS (zero to two feet BLS in SB13 and two to three feet BLS in boring SB36) from borings SB13, SB18, SB24, SB24Dup, SB36, and SB37 at concentrations of 190, 99.1, 691, 302, 287, and 146 mg/kg, respectively. Sampling results are summarized on Table 3E and graphically illustrated on Figure 2D. The estimated areal extent of TPH DRO and GRO contamination above current State Action Levels for ASTs is presented Figure 2E.

G. FREE-PHASE PRODUCT DELINEATION

As per the recommendations in the May 6, 2004 RAO & RCAP, temporary piezometers were installed in select soil borings advanced along the former product lines located near Building LCH-4034. Twelve temporary piezometers (USTLCH4034-PZ01 to USTLCH4034-PZ09 and USTLCH4034-PZ49 to USTLCH4034-PZ51) were installed to depths of five to six feet BLS at horizontal intervals of approximately 20 feet along the former product delivery lines and around the existing dispensers. The locations of the temporary piezometers are illustrated

on Figures 2A through 2C. The piezometers were constructed of one-inch diameter PVC material consisting of five feet of 0.010 inch slotted well screen in general accordance with CATLIN's standard procedures included in Appendix B. The temporary piezometers were abandoned on November 1, 2004. No measurable thickness of free-phase product was identified in any of the temporary piezometers during this investigation. The temporary piezometers were gauged three times over a twenty-six day period following the initial gauging event on September 30, 2004. Piezometer gauging data is presented on Table 4.

H. CONCLUSIONS AND RECOMMENDATIONS

The RAO & RCAP concluded that the shallow groundwater conditions had not been evaluated within the vicinity of the former LCH-4034 USTs and product lines based on the documented presence of free-phase product during UST closure activities in 2002. Based on the groundwater data presented within the RAO & RCAP and the absence of free-phase product during this investigation, it does not appear that contamination associated with the LCH-4034 USTs and the LCH-4015 ASTs has co-mingled.

Based on this evidence, the regulatory frame work for the LCH-4034 UST portion of the Building LCH-4015 site may be based on the Risk Based Corrective Actions. The Risk Classification and Land Use Classifications presented within the RAO & RCAP, propose this portion of the site to be a Residential Land Use site with an Intermediate Risk Classification. The portion of the site associated with the former LCH-4015 AST system will be regulated under the current Groundwater Section Guidelines.

Based on the results of the soil samples collected during this Report of Findings, it appears that current soil conditions near the former LCH-4034 UST system exhibit no petroleum based soil contamination above the Residential MSCCs for soils in the vicinity of the former USTs and pipelines. Therefore, no additional soil remediation activities are recommended at this time in the area associated with the former LCH-4034 UST system.

Additionally, based on gauging data associated with the temporary piezometers installed within the LCH-4034 UST project site, no measurable thickness of free-phase product has been identified.

Concentrations of TPH DRO and GRO have been identified above current State Action Levels in the vicinity of the former LCH-4015 AST system. Total petroleum hydrocarbon contamination limits have been refined and delineated in the area of the former ASTs and product lines. This area is within the boundaries of an active remediation system; therefore, no additional remedial actions are warranted at this time.

CATLIN recommends continuation of the active remediation activities and implementation of the groundwater monitoring program recommended in the RAO & RCAP. Based on the horizontal extent of the groundwater and soil contamination, CATLIN recommends that the Annual Groundwater Monitoring Report evaluate the possibility of shutting down a portion of the biosparge and soil vapor extraction systems.

I. PROPOSED REMEDIAL ACTIVITIES

As stated above, no additional soil or free-phase product remediation activities are warranted at this time. Upon shut down of the active remediation system, alternative soil remedial activities may be warranted.

J. 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.

K. REFERENCES

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J.A. Jones Environmental Services Company, *Underground Storage Tank Closure Report, UST LCH 4034-1, LCH 4034-2, LCH 4034-3, Marine Corps Base, Camp Lejeune, North Carolina.* June 23, 2002.

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TABLES

TABLE 1

SITE HISTORY
UST & AST SYSTEM INFORMATION

BUILDING LCH-4015 AND BUILDING LCH-4034
MCB, CAMP LEJEUNE, NORTH CAROLINA

ID Number	Product (gasoline, diesel, jet fuel, etc.)	Capacity (gallons)	Date Installed (m/dd/yy)	Date Permanently Closed (P), or Still in Use* (C) (m/dd/yy)	Was Release Associated With This System? (Yes / No)
USTs					
LCH 4034-1	Gasoline	10000	April 1992	(P) 4/30/2002	No
LCH 4034-2	Gasoline	10000	April 1992	(P) 4/30/2002	Yes
LCH 4034-3	Gasoline	2500	April 1992	(P) 4/30/2002	No
ASTs					
Unknown **	Gasoline	14000	1945	(P) 1990	Unknown
Unknown **	Gasoline	14000	1945	(P) 1990	Unknown
Unknown **	Diesel	14000	1945	(P) 1990	Unknown
Unknown **	No. 2 Fuel Oil	3000	1945	(P) 1990	Unknown
LCH 4034-1	Gasoline	10000	2002	(C)	No
LCH 4034-2	Gasoline	10000	2002	(C)	No
LCH 4034-3	Gasoline	2500	2002	(C)	No

* Still in use means not permanently closed.

** The AST system is located south of former Building LCH-4015.

TABLE 2

SITE HISTORY
UST & AST OWNER/OPERATOR INFORMATION

BUILDING LCH-4015 AND BUILDING LCH-4034
MCB, CAMP LEJEUNE, NORTH CAROLINA

UST ID Number	Name of Owner or Operator	Dates of Ownership/Operation (m/dd/yy) to (m/dd/yy)	Site Use
All	Commanding General Attn: Director I&E/EMD/EQB (owner/operator)	Unknown to Current	Marine Corps Exchange Convenience Store and Former Fueling and Maintenance Area

Address	Telephone Number
PSC Box 20004 Marine Corps Base Camp Lejeune, NC 28542-0004	910-451-5068

TABLE 3A SUMMARY OF SOIL LABORATORY RESULTS

Date: September 2004 | Incident Number and Name: Pending - LCH-4034 | Facility ID#: N/A

Analytical Method: EPA Method 8260B/5035

Sample ID	Contaminant of Concern →		Acetone	Benzene	Ethylbenzene	Isopropylbenzene	4-Isopropyltoluene	Methyl-tert-butyl ether (MTBE)	Naphthalene	n-Propyl benzene	Toluene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Total Xylenes	All Other Analytes
	Date Collected	Sample Depth (ft. BLS)													
Residential MSCC (mg/kg)			1,564	22	1,560	1,564	NE	156	63	156	3,200	782	782	32,000	Varies
Industrial/Commercial MSCC (mg/kg)			40,880	200	40,000	40,880	NE	4,088	1,635	4,088	82,000	20,440	20,440	200,000	Varies
Soil to Groundwater MSCC (mg/kg)			3	0.0056	0.24	2	NE	0.92	0.58	2	7	8	7	5	Varies
USTLCH4034-PZ01	9/28/2004	4-6	<0.046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.01381	BQL
USTLCH4034-PZ02	9/27/2004	0-2	<0.0467	<0.00467	<0.00467	<0.00467	<0.00467	<0.00467	<0.00467	<0.00467	<0.00467	<0.00467	<0.00467	<0.014	BQL
USTLCH4034-PZ03	9/28/2004	4-6	<0.0545	<0.00545	<0.00545	<0.00545	<0.00545	<0.00545	<0.00545	<0.00545	<0.00545	<0.00545	<0.00545	<0.01635	BQL
USTLCH4034-PZ04	9/28/2004	2-4	<0.0447	<0.00447	<0.00447	<0.00447	<0.00447	<0.00447	<0.00447	<0.00447	<0.00447	<0.00447	<0.00447	<0.0134	BQL
USTLCH4034-PZ05	9/27/2004	0-2	0.0548	0.00718	0.00678	<0.0045	<0.0045	0.0142	<0.0045	<0.0045	<0.0045	<0.0045	<0.0045	<0.0166	BQL
USTLCH4034-PZ06	9/28/2004	0-2	0.0469	0.00439	0.0561	0.00667	<0.00413	0.0134	<0.00413	0.0179	0.00547	0.0724	0.0247	0.1741	BQL
USTLCH4034-PZ06 Dup	9/28/2004	0-2	<0.0395	0.00497	0.078	0.0108	<0.00395	0.0133	0.00557	0.0302	0.00649	0.134	0.0449	0.2546	BQL
USTLCH4034-PZ07 *[1]	9/27/2004	0-2	<1.35	0.548	1.03	0.0757	0.691	<0.0541	<0.0541	0.0957	0.778	0.577	0.288	3.92	BQL
USTLCH4034-PZ07 *[2]	9/27/2004	0-2	0.083	0.0214	0.0155	<0.00555	0.00635	0.00682	<0.00555	<0.00555	0.0103	0.00983	<0.00555	0.0533	BQL
USTLCH4034-PZ08	9/27/2004	0-2	<0.0426	<0.00426	<0.00426	<0.00426	<0.00426	<0.00426	<0.00426	<0.00426	<0.00426	<0.00426	<0.00426	<0.01279	BQL
USTLCH4034-PZ49	9/27/2004	0-2	<0.0421	<0.00421	<0.00421	<0.00421	<0.00421	<0.00421	<0.00421	<0.00421	<0.00421	<0.00421	<0.00421	<0.01264	BQL
USTLCH4034-PZ50	9/27/2004	2-4	<0.0438	<0.00438	<0.00438	<0.00438	<0.00438	<0.00438	<0.00438	<0.00438	<0.00438	<0.00438	<0.00438	<0.01314	BQL
USTLCH4034-PZ51	9/28/2004	0-4	<0.0455	<0.00455	<0.00455	<0.00455	<0.00455	<0.00455	<0.00455	<0.00455	<0.00455	<0.00455	<0.00455	<0.01365	BQL

All results in mg/kg.

ft. BLS = feet below land surface

BQL = Below Quantitation Limit

Shading indicates concentration greater than the lowest MSCC.

* Sample USTLCH4034-PZ07 was analyzed at two dilutions, 50:1 (*[1]) and 1:1 (*[2]) due to elevated target concentrations. However, the results from the 1:1 dilutions, the sodium bisulfate preserved vials were a much lower concentration than the results obtained in the 50:1 dilution using the methanol preserved vial. The difference could be due to a non-homogeneity. Both sets of results are included.

TABLE 3B SUMMARY OF SOIL LABORATORY RESULTS

Date: September 2004 Incident Number and Name: Pending - LCH-4034 Facility ID#: N/A

Analytical Method: EPA Method 8270

Sample ID	Contaminant of Concern →		All 8270 Analytes
	Date Collected	Sample Depth (ft. BLS)	
Residential MSCC (mg/kg) **Industrial/Commercial MSCC (mg/kg)** **Soil to Groundwater MSCC (mg/kg)**			Varies Varies Varies
USTLCH4034-PZ01	9/28/2004	4-6	BQL
USTLCH4034-PZ02	9/27/2004	0-2	BQL
USTLCH4034-PZ03	9/28/2004	4-6	BQL
USTLCH4034-PZ04	9/28/2004	2-4	BQL
USTLCH4034-PZ05	9/27/2004	0-2	BQL
USTLCH4034-PZ06	9/28/2004	0-2	BQL
USTLCH4034-PZ06 Dup	9/28/2004	0-2	BQL
USTLCH4034-PZ07	9/27/2004	0-2	BQL
USTLCH4034-PZ08	9/27/2004	0-2	BQL
USTLCH4034-PZ49	9/27/2004	0-2	BQL
USTLCH4034-PZ50	9/27/2004	2-4	BQL
USTLCH4034-PZ51	9/28/2004	0-4	BQL

All results in mg/kg.
ft. BLS = feet below land surface
BQL = Below Quantitation Limit

TABLE 3C SUMMARY OF SOIL LABORATORY RESULTS

Date: September 2004 Incident Number and Name: Pending - LCH-4034 Facility ID#: N/A

Analytical Method: MADEP VPH/EPH

Sample ID	Contaminant of Concern →		C5-C8 Aliphatics	C9-C12 Aliphatics	C9-C10 Aromatics	C9-C18 Aliphatics	C19-C36 Aliphatics	C11-C22 Aromatics
	Date Collected	Sample Depth (ft. BLS)						
USTLCH4034-PZ01	9/28/2004	4-6	<10	<10	<10	<10	<10	<10
USTLCH4034-PZ02	9/27/2004	0-2	<10	<10	<10	<10	<10	<10
USTLCH4034-PZ03	9/28/2004	4-6	<10	<10	<10	<10	<10	<10
USTLCH4034-PZ04	9/28/2004	2-4	<10	<10	<10	<10	<10	<10
USTLCH4034-PZ05	9/27/2004	0-2	<10	<10	<10	<10	<10	<10
USTLCH4034-PZ06	9/28/2004	0-2	<10	<10	<10	22	<10	<10
USTLCH4034-PZ06 Dup	9/28/2004	0-2	<10	<10	<10	<10	<10	140
USTLCH4034-PZ07	9/27/2004	0-2	<10	11	<10	<10	150	280
USTLCH4034-PZ08	9/27/2004	0-2	<10	<10	<10	<10	<10	<10
USTLCH4034-PZ49	9/27/2004	0-2	<10	<10	<10	<10	<10	<10
USTLCH4034-PZ50	9/27/2004	2-4	<10	<10	<10	<10	<10	<10
USTLCH4034-PZ51	9/28/2004	0-4	<10	<10	<10	<10	<10	<10

All results in mg/kg.

ft. BLS = feet below land surface

TABLE 3D SUMMARY OF SOIL LABORATORY RESULTS

Date: September 2004 Incident Number and Name: Pending - LCH-4034 Facility ID#: N/A

Analytical Method: MADEP VPH/EPH AS COMPARED TO NCDENR MSCCs

Sample ID	Contaminant of Concern → Date Collected	Sample Depth (ft. BLS)	C5-C8 Aliphatics	C9-C18 Aliphatics	C19-C36 Aliphatics	C9-C22 Aromatics
Residential MSCC (mg/kg)			939	9,386	93,860	469
Industrial/Commercial MSCC (mg/kg)			24,528	245,280	#	12,264
Soil to Groundwater MSCC (mg/kg)			72	3,255	##	34
USTLCH4034-PZ01	9/28/2004	4-6	<10	<20	<10	<20
USTLCH4034-PZ02	9/27/2004	0-2	<10	<20	<10	<20
USTLCH4034-PZ03	9/28/2004	4-6	<10	<20	<10	<20
USTLCH4034-PZ04	9/28/2004	2-4	<10	<20	<10	<20
USTLCH4034-PZ05	9/27/2004	0-2	<10	<20	<10	<20
USTLCH4034-PZ06	9/28/2004	0-2	<10	<32	<10	<20
USTLCH4034-PZ06 Dup	9/28/2004	0-2	<10	<20	<10	<150
USTLCH4034-PZ07	9/27/2004	0-2	<10	<21	150	<290
USTLCH4034-PZ08	9/27/2004	0-2	<10	<20	<10	<20
USTLCH4034-PZ49	9/27/2004	0-2	<10	<20	<10	<20
USTLCH4034-PZ50	9/27/2004	2-4	<10	<20	<10	<20
USTLCH4034-PZ51	9/28/2004	0-4	<10	<20	<10	<20

All results in mg/kg.

ft. BLS = feet below land surface

Health based level >100%

Considered immobile

Shading indicates concentration is greater than the lowest MSCC.

TABLE 3E SUMMARY OF SOIL LABORATORY RESULTS

Date: September 2004 Incident Number and Name: Pending - LCH-4015 Facility ID#: N/A

Analytical Method: TPH per EPA Method 8015

Sample ID	Contaminant of Concern →		Gasoline Range Organics	Diesel Range Organics
	Date Collected	Sample Depth (ft. BLS)		
State Action Level (mg/kg)			10	40
ASTLCH4015-SB10	9/29/2004	1-2	<5.75	28.4
ASTLCH4015-SB11	9/28/2004	0-1	<5.83	<7.74
ASTLCH4015-SB12	9/28/2004	1-2	<6.07	<6.95
ASTLCH4015-SB13	9/28/2004	0-2	<5.41	190
ASTLCH4015-SB14	9/29/2004	1-2	15.2	24.9
ASTLCH4015-SB15	9/28/2004	1-2	<5.59	<7.33
ASTLCH4015-SB16	9/28/2004	1-2	<6.83	7.66
ASTLCH4015-SB17	9/28/2004	1-2	<5.52	<6.91
ASTLCH4015-SB18	9/29/2004	1-2	59.4	99.1
ASTLCH4015-SB19	9/29/2004	1-2	<6.03	<7.17
ASTLCH4015-SB20	9/29/2004	1-2	106	20
ASTLCH4015-SB21	9/29/2004	2-3	<6.52	<7.67
ASTLCH4015-SB22	9/29/2004	2-3	<5.82	<7.41
ASTLCH4015-SB23	9/30/2004	1-2	<6.45	<7.11
ASTLCH4015-SB24	9/30/2004	2-4	<5.71	691
ASTLCH4015-SB24Dup	9/30/2004	2-4	<5.91	302
ASTLCH4015-SB25	9/28/2004	1-2	<5.8	<6.87
ASTLCH4015-SB26	9/28/2004	1-2	16.1	28.8
ASTLCH4015-SB27	9/29/2004	1-2	<6.05	<7.18
ASTLCH4015-SB28	9/29/2004	1-2	<6.37	7.56
ASTLCH4015-SB29	9/29/2004	2-3	<5.45	<7.29
ASTLCH4015-SB31	9/29/2004	2-3	<5.68	<7.37
ASTLCH4015-SB32	9/29/2004	1-2	<6.21	21.9
ASTLCH4015-SB33	9/29/2004	1-2	<5.66	<7.2
ASTLCH4015-SB34	9/30/2004	1-2	<6.09	15.5

TABLE 3E SUMMARY OF SOIL LABORATORY RESULTS

Date: September 2004 Incident Number and Name: Pending - LCH-4015 Facility ID#: N/A

Analytical Method: TPH per EPA Method 8015

Sample ID	Contaminant of Concern →		Gasoline Range Organics	Diesel Range Organics
	Date Collected	Sample Depth (ft. BLS)		
State Action Level (mg/kg)			10	40
ASTLCH4015-SB35	9/28/2004	1-2	<6.07	10.5
ASTLCH4015-SB36	9/28/2004	2-3	876	287
ASTLCH4015-SB37	9/28/2004	1-2	42.9	146
ASTLCH4015-SB38	9/28/2004	1-2	14.9	35.1
ASTLCH4015-SB39	9/29/2004	1-2	<6.07	<7.23
ASTLCH4015-SB40	9/29/2004	1-2	<5.88	<7.42
ASTLCH4015-SB41	9/29/2004	2-3	<6.3	<7.68
ASTLCH4015-SB42	9/29/2004	2-3	<8.25	14.9
ASTLCH4015-SB43	9/29/2004	2-3	<6.06	9.58
ASTLCH4015-SB44	9/30/2004	1-2	<5.83	<7.18
ASTLCH4015-SB45	9/30/2004	1-2	<6.02	<6.9
ASTLCH4015-SB46	9/30/2004	1-3	<5.8	<6.68
ASTLCH4015-SB46Dup	9/30/2004	1-3	<6.26	<7.92
ASTLCH4015-SB47	9/30/2004	1-2	<6.06	22.3
ASTLCH4015-SB48	9/30/2004	1-3	<5.73	16.1
ASTLCH4015-SB48Dup	9/30/2004	1-3	<5.56	16.2

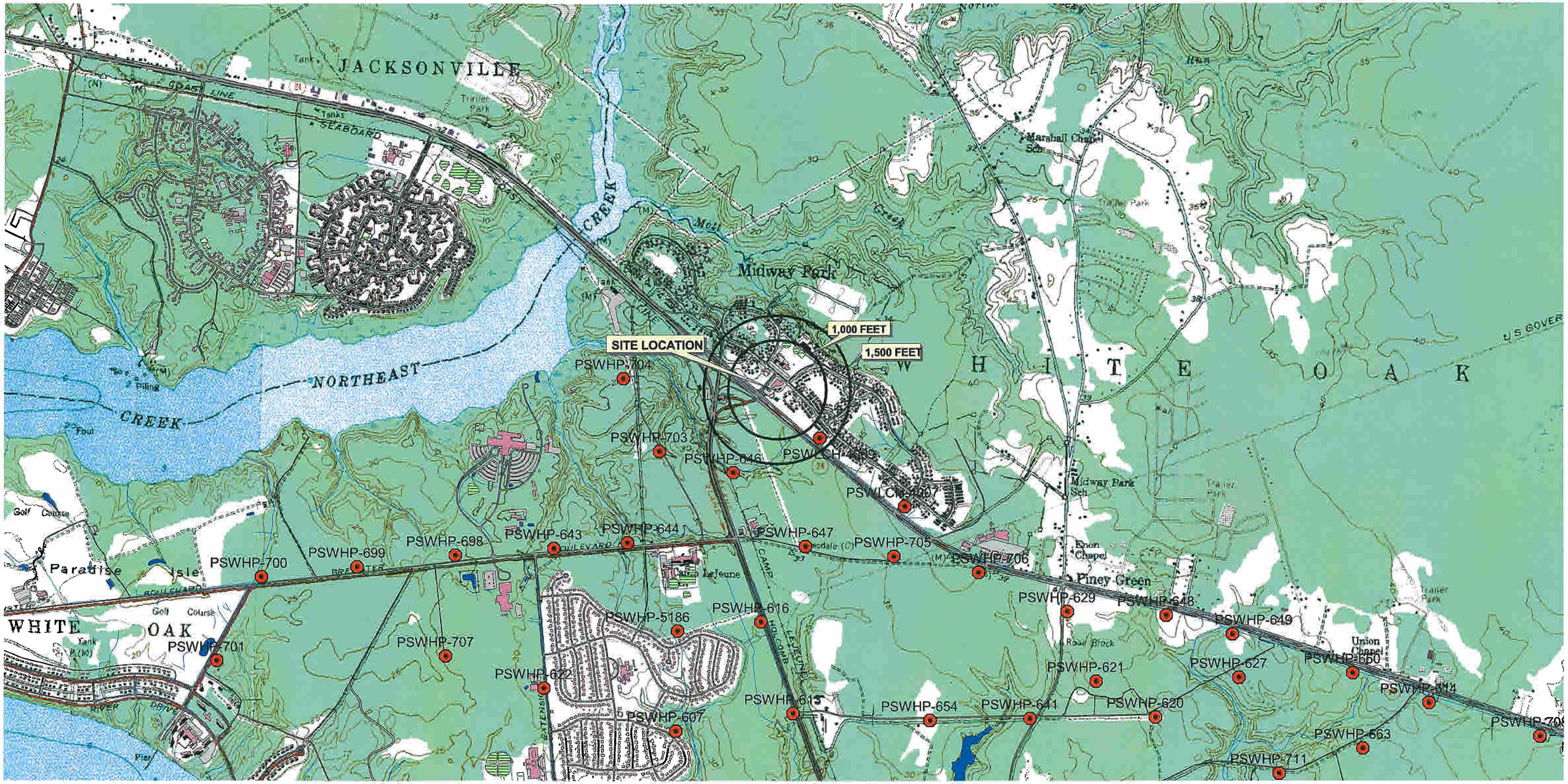
All results in mg/kg.

ft. BLS = feet below land surface

BQL = Below Quantitation Limit

Shading indicates concentration greater than the State Action Level.

FIGURES



LEGEND

- WATER SUPPLY WELL
- PLAYGROUND
- ATHLETIC FIELD
- ATHLETIC COURT
- CREEK/STREAM
- DITCH
- SURFACE WATER BODY
- EXISTING BUILDINGS
- FENCE
- PAVEMENT
- PARKING LOT
- SLABS

N

0.5 0 0.5 1 Kilometers

1000 0 1000 2000 3000 4000 5000 Feet

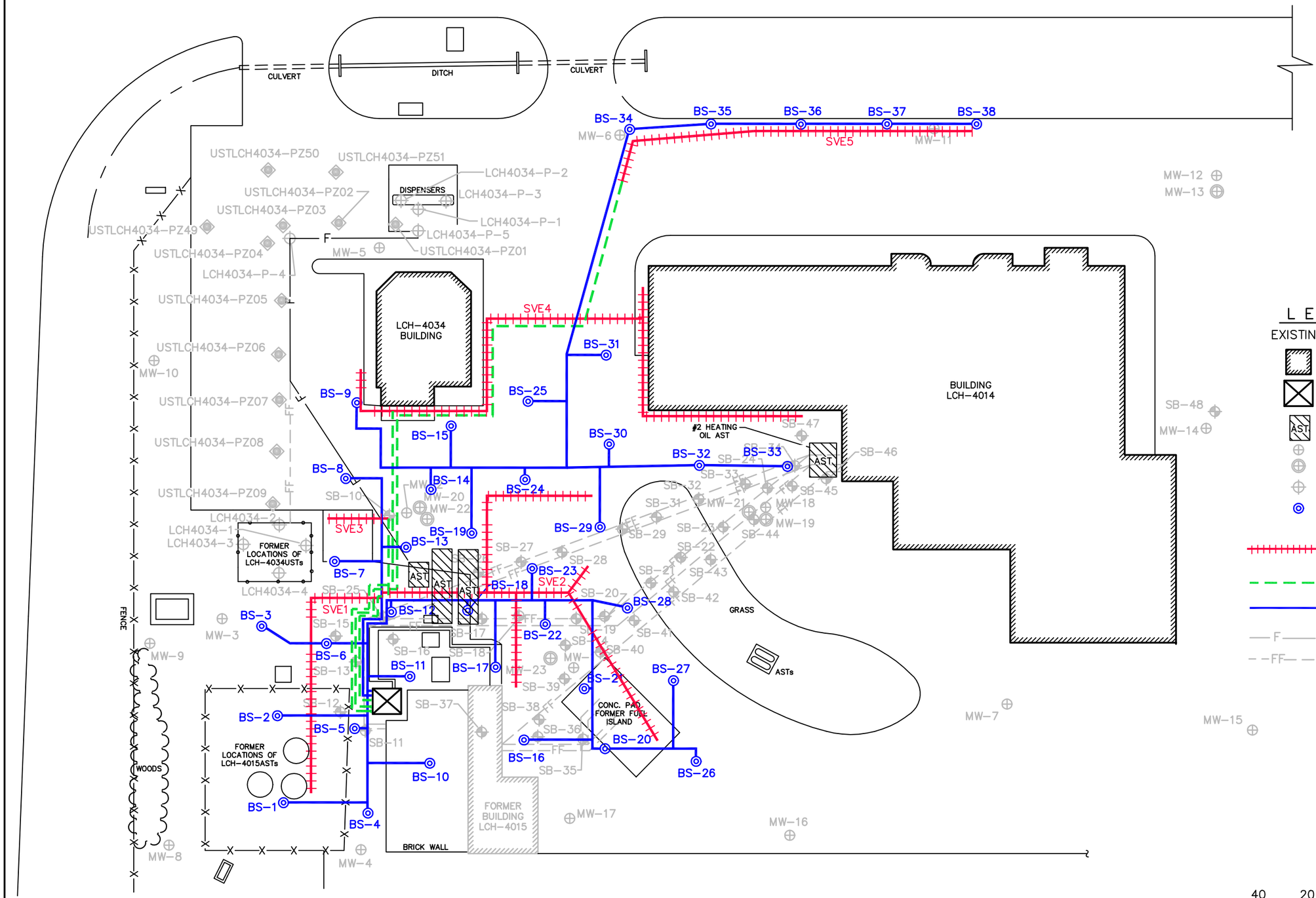
0.5 0 0.5 1 Miles

JACKSONVILLE SOUTH, N.C.
NW/4 NEW RIVER 15' QUADRANGLE
N 3437.5 - W 7722.5 / 7.5
1952
PHOTOREVISED 1971

CATLIN ENGINEERS and SCIENTISTS

PROJECT:	TITLE:	FIGURE
BUILDING LCH-4015 AND BUILDING LCH-4034 MARINE CORPS BASE CAMP LEJEUNE, N.C.	SITE LOCATION MAP	1

JOB NO.:	DATE:	SCALE:	DRAWN BY:	CHECKED BY:
204-036	NOV. 2004	1 : 24,000	SVH	JKB



LEGEND

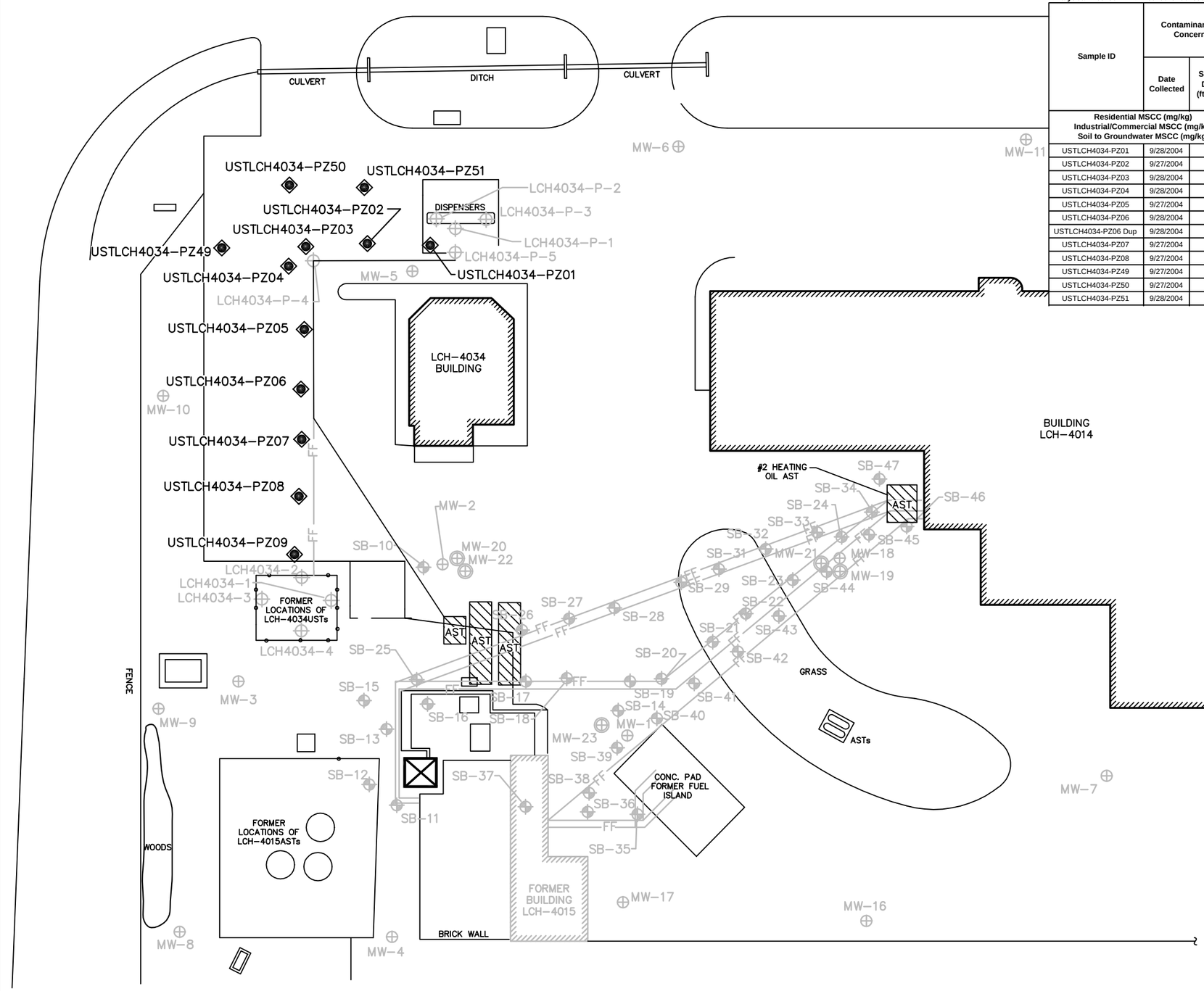
EXISTING	NEW	DESCRIPTION
▭		BUILDING
⊠		TREATMENT BUILDING
AST		ABOVE GROUND STORAGE TANK
⊕		TYPE II MONITORING WELL
⊕		TYPE III MONITORING WELL
⊕	◈	SOIL BORING
◎		SPARGE WELL
	◈	TEMPORARY PIEZOMETER
		SVE CIRCUMSLOT PVC WELL SCREEN
		SVE SCH. 40 PVC WELL CASING
		BIOSPARGE AIR-PRO HDPE COMPRESSED AIR PIPE
		FUEL PRODUCT LINES
		FORMER FUEL PRODUCT LINES

NOTE:
1. DRAWING ADAPTED FROM SITE MAP/REMEDIAL SYSTEM LAYOUT BY J.A. JONES ENVIRONMENTAL SERVICES, DATED 10/14/98.
2. LCH4034 SOIL BORING LOCATIONS OBTAINED FROM UST CLOSURE REPORT.
3. ALL SB- SOIL BORINGS HAVE THE PREFIX ASTLCH4015.

CATLIN ENGINEERS and SCIENTISTS
WILMINGTON, NORTH CAROLINA

PROJECT: BUILDING LCH-4015 AND BUILDING LCH-4034 MARINE CORPS BASE CAMP LEJEUNE, N.C.	TITLE: SITE PLAN WITH CURRENT REMEDIATION LAYOUT		FIGURE 2
JOB NO. 204-036	DATE: NOV 2004	SCALE: 1"=40'	DRAWN BY: HCS / CHECKED BY: JKB

204036-2041-02



Analytical Method: EPA Method 8260B/5035

Sample ID	Contaminant of Concern → Date Collected	Sample Depth (ft. BGS)	Acetone	Benzene	Ethylbenzene	Isopropylbenzene	4-isopropyltoluene	Methyl-tert-butyl ether (MTBE)	Naphthalene	n-Propyl benzene	Toluene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Total Xylenes	All Other Analytes
Residential MSCC (mg/kg)			1,564	22	1,560	1,564	NE	156	63	156	3,200	782	782	32,000	Varies
Industrial/Commercial MSCC (mg/kg)			40,880	200	40,000	40,880	NE	4,088	1,635	4,088	82,000	20,440	20,440	200,000	Varies
Soil to Groundwater MSCC (mg/kg)			3	0.0056	0.24	2	NE	0.92	0.58	2	7	8	7	5	Varies
USTLCH4034-PZ01	9/28/2004	4-6	<0.046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.01381	BQL
USTLCH4034-PZ02	9/27/2004	0-2	<0.0467	<0.00467	<0.00467	<0.00467	<0.00467	<0.00467	<0.00467	<0.00467	<0.00467	<0.00467	<0.00467	<0.014	BQL
USTLCH4034-PZ03	9/28/2004	4-6	<0.0545	<0.00545	<0.00545	<0.00545	<0.00545	<0.00545	<0.00545	<0.00545	<0.00545	<0.00545	<0.00545	<0.01635	BQL
USTLCH4034-PZ04	9/28/2004	2-4	<0.0447	<0.00447	<0.00447	<0.00447	<0.00447	<0.00447	<0.00447	<0.00447	<0.00447	<0.00447	<0.00447	<0.0134	BQL
USTLCH4034-PZ05	9/27/2004	0-2	0.0548	0.00718	0.00678	<0.0045	<0.0045	0.0142	<0.0045	<0.0045	<0.0045	<0.0045	<0.0045	<0.0166	BQL
USTLCH4034-PZ06	9/28/2004	0-2	0.0469	0.00439	0.0561	0.00667	<0.00413	0.0134	<0.00413	0.0179	0.00547	0.0724	0.0247	0.1741	BQL
USTLCH4034-PZ06 Dup	9/28/2004	0-2	<0.0395	0.00497	0.078	0.0108	<0.00395	0.0133	0.00557	0.0302	0.00649	0.134	0.0449	0.2546	BQL
USTLCH4034-PZ07	9/27/2004	0-2	<1.35	0.548	1.03	0.0757	0.691	<0.0541	<0.0541	0.0957	0.778	0.577	0.288	3.92	BQL
USTLCH4034-PZ08	9/27/2004	0-2	<0.0426	<0.00426	<0.00426	<0.00426	<0.00426	<0.00426	<0.00426	<0.00426	<0.00426	<0.00426	<0.00426	<0.01279	BQL
USTLCH4034-PZ49	9/27/2004	0-2	<0.0421	<0.00421	<0.00421	<0.00421	<0.00421	<0.00421	<0.00421	<0.00421	<0.00421	<0.00421	<0.00421	<0.01264	BQL
USTLCH4034-PZ50	9/27/2004	2-4	<0.0438	<0.00438	<0.00438	<0.00438	<0.00438	<0.00438	<0.00438	<0.00438	<0.00438	<0.00438	<0.00438	<0.01314	BQL
USTLCH4034-PZ51	9/28/2004	0-4	<0.0455	<0.00455	<0.00455	<0.00455	<0.00455	<0.00455	<0.00455	<0.00455	<0.00455	<0.00455	<0.00455	<0.01365	BQL

LEGEND

EXISTING	NEW	DESCRIPTION
		BUILDING
		TREATMENT BUILDING
AST		ABOVE GROUND STORAGE TANK
⊕		TYPE II MONITORING WELL
⊕		TYPE III MONITORING WELL
⊕		SOIL BORING
◆		TEMPORARY PIEZOMETER
— F — F —		FUEL PRODUCT LINES
— FF — FF —		FORMER FUEL PRODUCT LINES
BQL		BELOW QUANTITATION LIMIT

N

40 20 0 40

SCALE IN FEET

NOTE:
1. DRAWING ADAPTED FROM SITE MAP/REMEDIAL SYSTEM LAYOUT BY J.A. JONES ENVIRONMENTAL SERVICES, DATED 10/14/98.
2. LCH4034 SOIL BORING LOCATIONS OBTAINED FROM UST CLOSURE REPORT.
3. ALL SB- SOIL BORINGS HAVE THE PREFIX ASTLCH4015.
4. ALL RESULTS IN mg/Kg.
5. SHADED CONCENTRATIONS EXCEED LOWEST CORRESPONDING MSCC.

CATLIN ENGINEERS and SCIENTISTS
WILMINGTON, NORTH CAROLINA

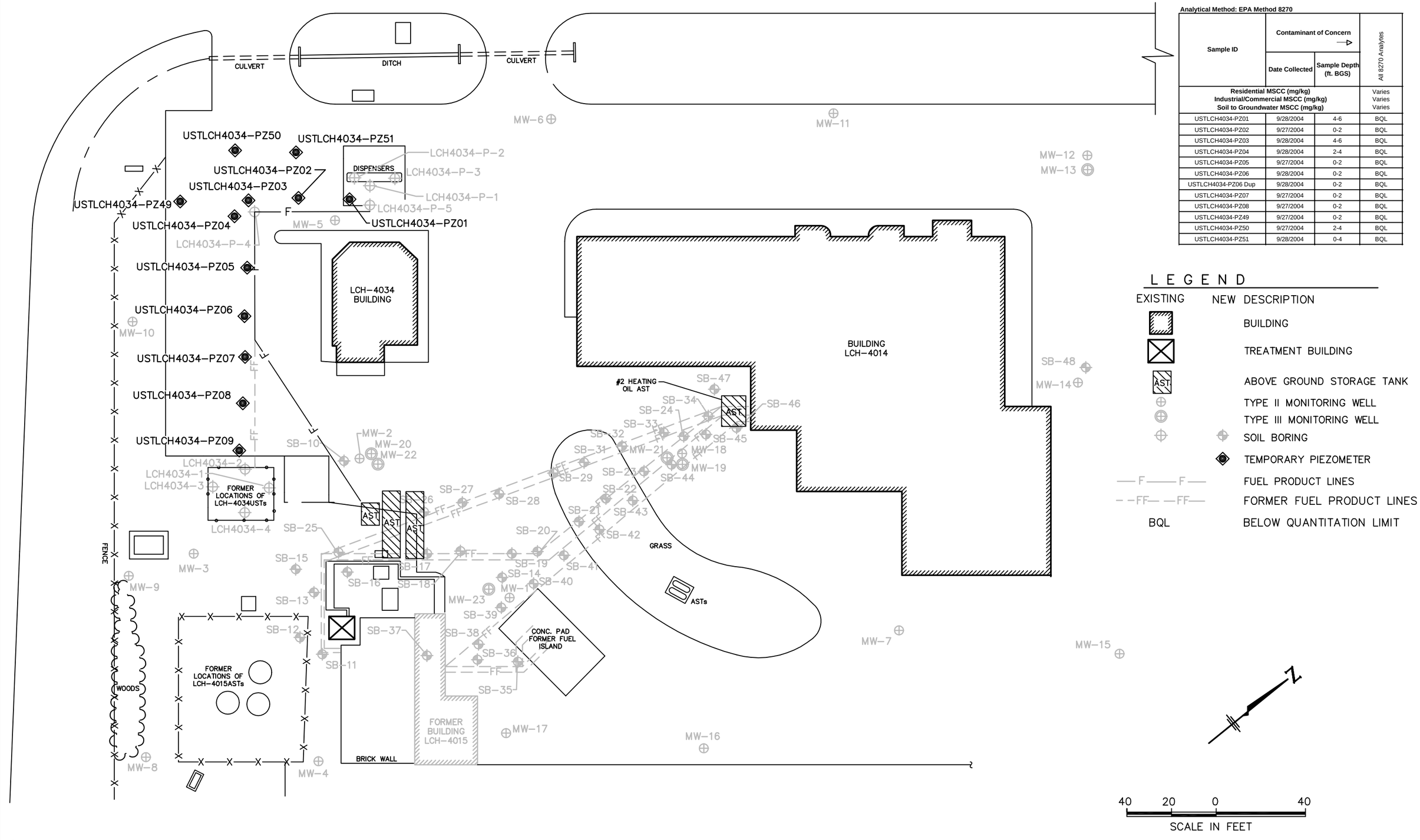
PROJECT: BUILDING LCH-4015 AND BUILDING LCH-4034 MARINE CORPS BASE CAMP LEJEUNE, N.C.

TITLE: SITE PLAN WITH SOIL LABORATORY RESULTS - EPA METHOD 8260B/5035

FIGURE: 2A

JOB NO. 204-036 | DATE: NOV 2004 | SCALE: 1"=40' | DRAWN BY: HCS | CHECKED BY: JKB

204036-2041-02A



Analytical Method: EPA Method 8270

Sample ID	Date Collected	Sample Depth (ft. BGS)	All 8270 Analytes
Contaminant of Concern →			
Residential MSCC (mg/kg)			Varies
Industrial/Commercial MSCC (mg/kg)			Varies
Soil to Groundwater MSCC (mg/kg)			Varies
USTLCH4034-PZ01	9/28/2004	4-6	BQL
USTLCH4034-PZ02	9/27/2004	0-2	BQL
USTLCH4034-PZ03	9/28/2004	4-6	BQL
USTLCH4034-PZ04	9/28/2004	2-4	BQL
USTLCH4034-PZ05	9/27/2004	0-2	BQL
USTLCH4034-PZ06	9/28/2004	0-2	BQL
USTLCH4034-PZ06 Dup	9/28/2004	0-2	BQL
USTLCH4034-PZ07	9/27/2004	0-2	BQL
USTLCH4034-PZ08	9/27/2004	0-2	BQL
USTLCH4034-PZ49	9/27/2004	0-2	BQL
USTLCH4034-PZ50	9/27/2004	2-4	BQL
USTLCH4034-PZ51	9/28/2004	0-4	BQL

LEGEND

EXISTING	NEW	DESCRIPTION
		BUILDING
		TREATMENT BUILDING
AST		ABOVE GROUND STORAGE TANK
		TYPE II MONITORING WELL
		TYPE III MONITORING WELL
		SOIL BORING
		TEMPORARY PIEZOMETER
—— F —— F ——		FUEL PRODUCT LINES
– –FF– –FF–		FORMER FUEL PRODUCT LINES
BQL		BELOW QUANTITATION LIMIT

N

40 20 0 40

SCALE IN FEET

NOTE:
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3. ALL SB- SOIL BORINGS HAVE THE PREFIX ASTLCH4015.
4. ALL RESULTS IN mg/Kg.

CATLIN ENGINEERS and SCIENTISTS
WILMINGTON, NORTH CAROLINA

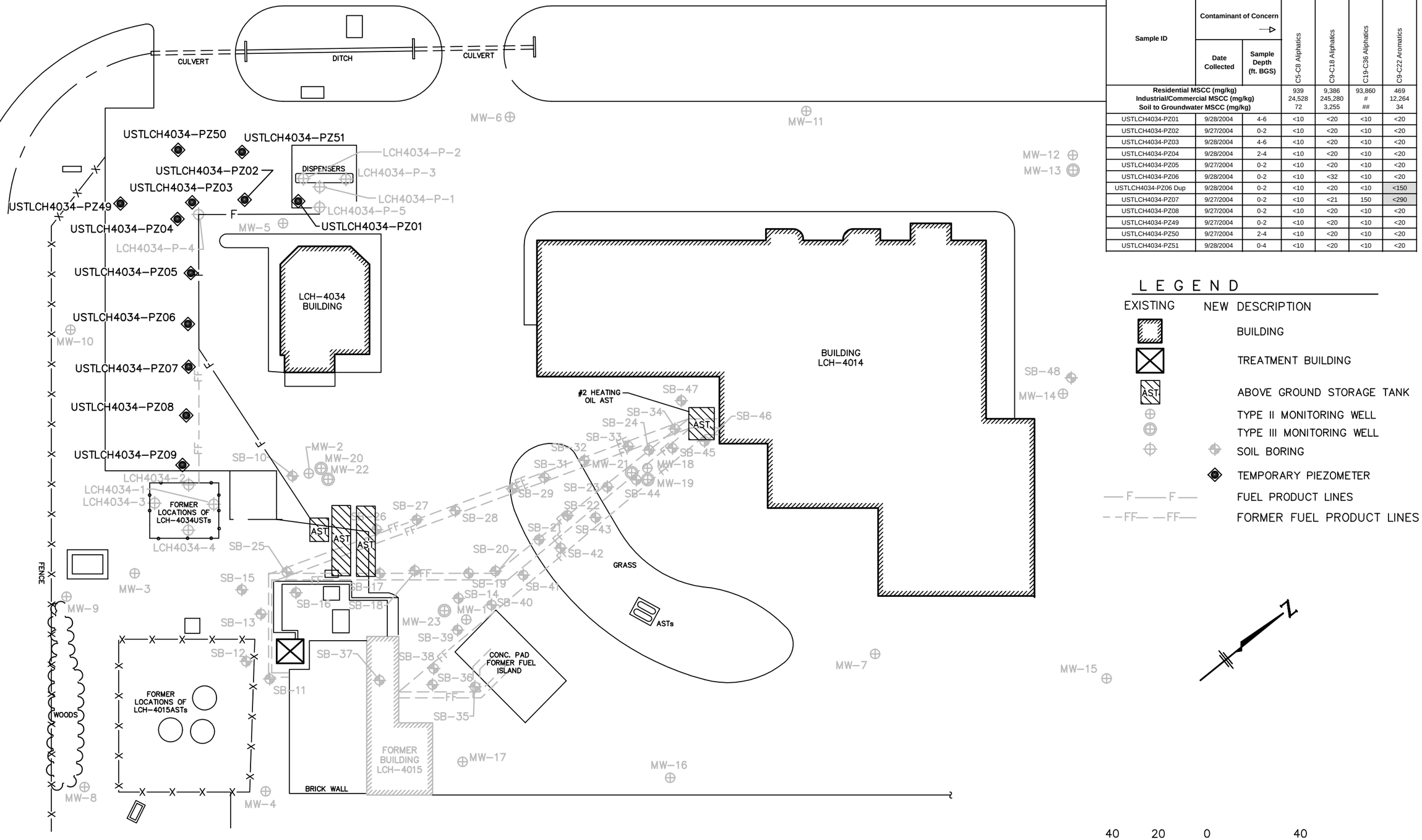
PROJECT: BUILDING LCH-4015 AND BUILDING LCH-4034 MARINE CORPS BASE CAMP LEJEUNE, N.C.

TITLE: SITE PLAN WITH SOIL LABORATORY RESULTS - EPA METHOD 8270

FIGURE: 2B

JOB NO. 204-036 | DATE: NOV 2004 | SCALE: 1'=40' | DRAWN BY: HCS | CHECKED BY: JKB

204036-2041-02B



Analytical Method: MADEP VPH/EPH AS COMPARED TO NCDENR MSCCs

Sample ID	Contaminant of Concern → Date Collected	Sample Depth (ft. BGS)	C5-C8 Aliphatics	C9-C18 Aliphatics	C19-C36 Aliphatics	C9-C22 Aromatics
Residential MSCC (mg/kg)			939	9,386	93,860	469
Industrial/Commercial MSCC (mg/kg)			24,528	245,280	#	12,264
Soil to Groundwater MSCC (mg/kg)			72	3,255	##	34
USTLCH4034-PZ01	9/28/2004	4-6	<10	<20	<10	<20
USTLCH4034-PZ02	9/27/2004	0-2	<10	<20	<10	<20
USTLCH4034-PZ03	9/28/2004	4-6	<10	<20	<10	<20
USTLCH4034-PZ04	9/28/2004	2-4	<10	<20	<10	<20
USTLCH4034-PZ05	9/27/2004	0-2	<10	<20	<10	<20
USTLCH4034-PZ06	9/28/2004	0-2	<10	<32	<10	<20
USTLCH4034-PZ06 Dup	9/28/2004	0-2	<10	<20	<10	<150
USTLCH4034-PZ07	9/27/2004	0-2	<10	<21	150	<290
USTLCH4034-PZ08	9/27/2004	0-2	<10	<20	<10	<20
USTLCH4034-PZ49	9/27/2004	0-2	<10	<20	<10	<20
USTLCH4034-PZ50	9/27/2004	2-4	<10	<20	<10	<20
USTLCH4034-PZ51	9/28/2004	0-4	<10	<20	<10	<20

LEGEND

EXISTING	NEW	DESCRIPTION
		BUILDING
		TREATMENT BUILDING
AST		ABOVE GROUND STORAGE TANK
⊕		TYPE II MONITORING WELL
⊕		TYPE III MONITORING WELL
⊕	⊕	SOIL BORING
	◆	TEMPORARY PIEZOMETER
—F—	—F—	FUEL PRODUCT LINES
–FF–	–FF–	FORMER FUEL PRODUCT LINES

40 20 0 40

SCALE IN FEET

NOTE:
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2. LCH4034 SOIL BORING LOCATIONS OBTAINED FROM UST CLOSURE REPORT.
3. ALL SB- SOIL BORINGS HAVE THE PREFIX ASTLCH4015.
4. ALL RESULTS IN mg/Kg.
5. SHADED CONCENTRATIONS EXCEED LOWEST CORRESPONDING MSCC.
6. # HEALTH BASED LEVEL >100%.
7. ## CONSIDERED IMMOBILE.

CATLIN ENGINEERS and SCIENTISTS
WILMINGTON, NORTH CAROLINA

PROJECT: BUILDING LCH-4015 AND BUILDING LCH-4034 MARINE CORPS BASE CAMP LEJEUNE, N.C.

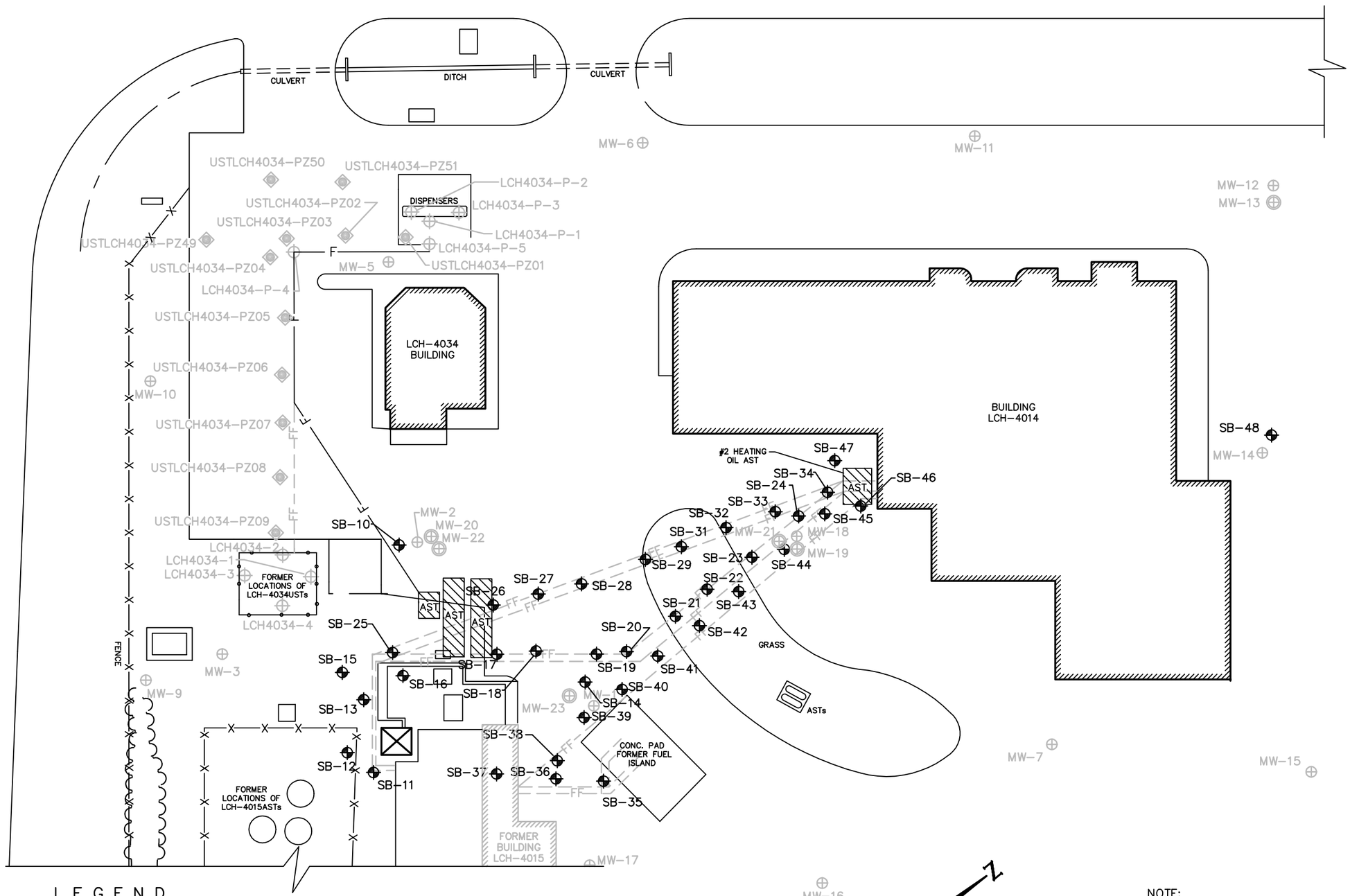
JOB NO. 204-036 DATE: NOV 2004

TITLE: SITE PLAN WITH SOIL LABORATORY RESULTS - MADEP EPH/VPH AS COMPARED TO NCDENR MSCCs

SCALE: 1'=40' DRAWN BY: HCS CHECKED BY: JKB

FIGURE 2C

204036-2041-02C



Sample ID	Contaminant of Concern → Date Collected	Sample Depth (ft. BGS)	Gasoline Range Organics	Diesel Range Organics
State Action Level (mg/kg)			10	40
ASTLCH4015-SB10	9/29/2004	1-2	<5.75	28.4
ASTLCH4015-SB11	9/28/2004	0-1	<5.83	<7.74
ASTLCH4015-SB12	9/28/2004	1-2	<6.07	<6.95
ASTLCH4015-SB13	9/28/2004	0-2	<5.41	190
ASTLCH4015-SB14	9/29/2004	1-2	15.2	24.9
ASTLCH4015-SB15	9/28/2004	1-2	<5.59	<7.33
ASTLCH4015-SB16	9/28/2004	1-2	<6.83	7.66
ASTLCH4015-SB17	9/28/2004	1-2	<5.52	<6.91
ASTLCH4015-SB18	9/29/2004	1-2	59.4	99.1
ASTLCH4015-SB19	9/29/2004	1-2	<6.03	<7.17
ASTLCH4015-SB20	9/29/2004	1-2	106	20
ASTLCH4015-SB21	9/29/2004	2-3	<6.52	<7.67
ASTLCH4015-SB22	9/29/2004	2-3	<5.82	<7.41
ASTLCH4015-SB23	9/30/2004	1-2	<6.45	<7.11
ASTLCH4015-SB24	9/30/2004	2-4	<5.71	691
ASTLCH4015-SB24Dup	9/30/2004	2-4	<5.91	302
ASTLCH4015-SB25	9/28/2004	1-2	<5.8	<6.87
ASTLCH4015-SB26	9/28/2004	1-2	16.1	28.8
ASTLCH4015-SB27	9/29/2004	1-2	<6.05	<7.18
ASTLCH4015-SB28	9/29/2004	1-2	<6.37	7.56
ASTLCH4015-SB29	9/29/2004	2-3	<5.45	<7.29
ASTLCH4015-SB31	9/29/2004	2-3	<5.68	<7.37
ASTLCH4015-SB32	9/29/2004	1-2	<6.21	21.9
ASTLCH4015-SB33	9/29/2004	1-2	<5.66	<7.2
ASTLCH4015-SB34	9/30/2004	1-2	<6.09	15.5
ASTLCH4015-SB35	9/28/2004	1-2	<6.07	10.5
ASTLCH4015-SB36	9/28/2004	2-3	876	287
ASTLCH4015-SB37	9/28/2004	1-2	42.9	146
ASTLCH4015-SB38	9/28/2004	1-2	14.9	35.1
ASTLCH4015-SB39	9/29/2004	1-2	<6.07	<7.23
ASTLCH4015-SB40	9/29/2004	1-2	<5.88	<7.42
ASTLCH4015-SB41	9/29/2004	2-3	<6.3	<7.68
ASTLCH4015-SB42	9/29/2004	2-3	<8.25	14.9
ASTLCH4015-SB43	9/29/2004	2-3	<6.06	9.58
ASTLCH4015-SB44	9/30/2004	1-2	<5.83	<7.18
ASTLCH4015-SB45	9/30/2004	1-2	<6.02	<6.9
ASTLCH4015-SB46	9/30/2004	1-3	<5.8	<6.68
ASTLCH4015-SB46Dup	9/30/2004	1-3	<6.26	<7.92
ASTLCH4015-SB47	9/30/2004	1-2	<6.06	22.3
ASTLCH4015-SB48	9/30/2004	1-3	<5.73	16.1
ASTLCH4015-SB48Dup	9/30/2004	1-3	<5.56	16.2

LEGEND

EXISTING	NEW	DESCRIPTION
		BUILDING
		TREATMENT BUILDING
AST		ABOVE GROUND STORAGE TANK
		TYPE II MONITORING WELL
		TYPE III MONITORING WELL
		SOIL BORING
		TEMPORARY PIEZOMETER
F F		FUEL PRODUCT LINES
FF FF		FORMER FUEL PRODUCT LINES

NOTE:
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3. ALL SB- SOIL BORINGS HAVE THE PREFIX ASTLCH4015.
4. ALL RESULTS IN mg/Kg.
5. SHADED CONCENTRATIONS EXCEED THE STATE ACTION LEVEL.

CATLIN ENGINEERS and SCIENTISTS
WILMINGTON, NORTH CAROLINA

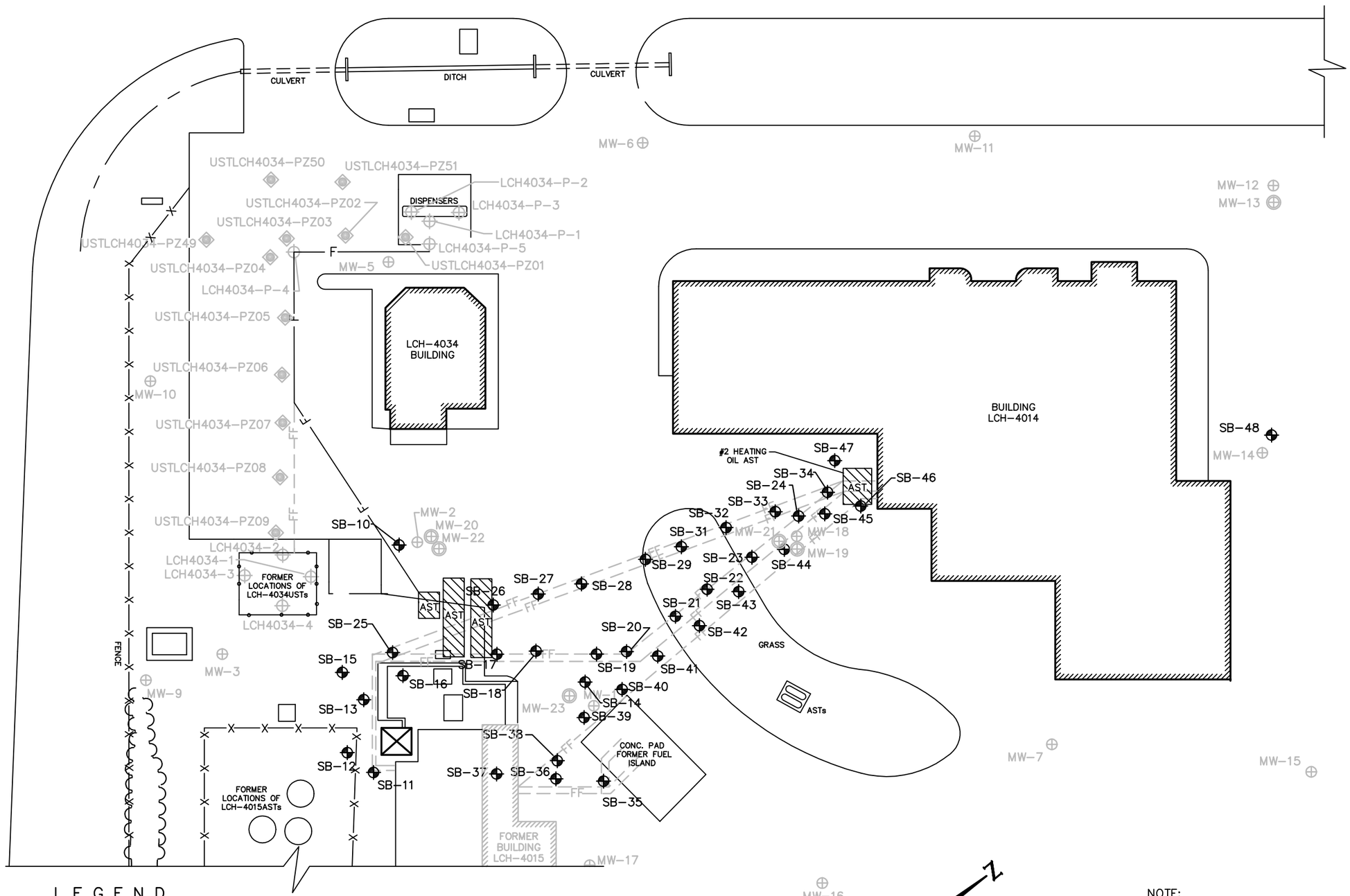
PROJECT: BUILDING LCH-4015 AND BUILDING LCH-4034 MARINE CORPS BASE CAMP LEJEUNE, N.C.

TITLE: SITE PLAN WITH SOIL LABORATORY RESULTS - TPH

FIGURE: 2D

JOB NO. 204-036 | DATE: NOV 2004 | SCALE: 1"=40' | DRAWN BY: HCS | CHECKED BY: JKB

204036-2041-02D



Sample ID	Contaminant of Concern → Date Collected	Sample Depth (ft. BGS)	Gasoline Range Organics	Diesel Range Organics
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ASTLCH4015-SB12	9/28/2004	1-2	<6.07	<6.95
ASTLCH4015-SB13	9/28/2004	0-2	<5.41	190
ASTLCH4015-SB14	9/29/2004	1-2	15.2	24.9
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ASTLCH4015-SB16	9/28/2004	1-2	<6.83	7.66
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ASTLCH4015-SB24	9/30/2004	2-4	<5.71	691
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ASTLCH4015-SB35	9/28/2004	1-2	<6.07	10.5
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ASTLCH4015-SB42	9/29/2004	2-3	<8.25	14.9
ASTLCH4015-SB43	9/29/2004	2-3	<6.06	9.58
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ASTLCH4015-SB45	9/30/2004	1-2	<6.02	<6.9
ASTLCH4015-SB46	9/30/2004	1-3	<5.8	<6.68
ASTLCH4015-SB46Dup	9/30/2004	1-3	<6.26	<7.92
ASTLCH4015-SB47	9/30/2004	1-2	<6.06	22.3
ASTLCH4015-SB48	9/30/2004	1-3	<5.73	16.1
ASTLCH4015-SB48Dup	9/30/2004	1-3	<5.56	16.2

LEGEND

EXISTING	NEW	DESCRIPTION
		BUILDING
		TREATMENT BUILDING
AST		ABOVE GROUND STORAGE TANK
		TYPE II MONITORING WELL
		TYPE III MONITORING WELL
		SOIL BORING
		TEMPORARY PIEZOMETER
F F		FUEL PRODUCT LINES
FF FF		FORMER FUEL PRODUCT LINES

NOTE:
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CATLIN ENGINEERS and SCIENTISTS
WILMINGTON, NORTH CAROLINA

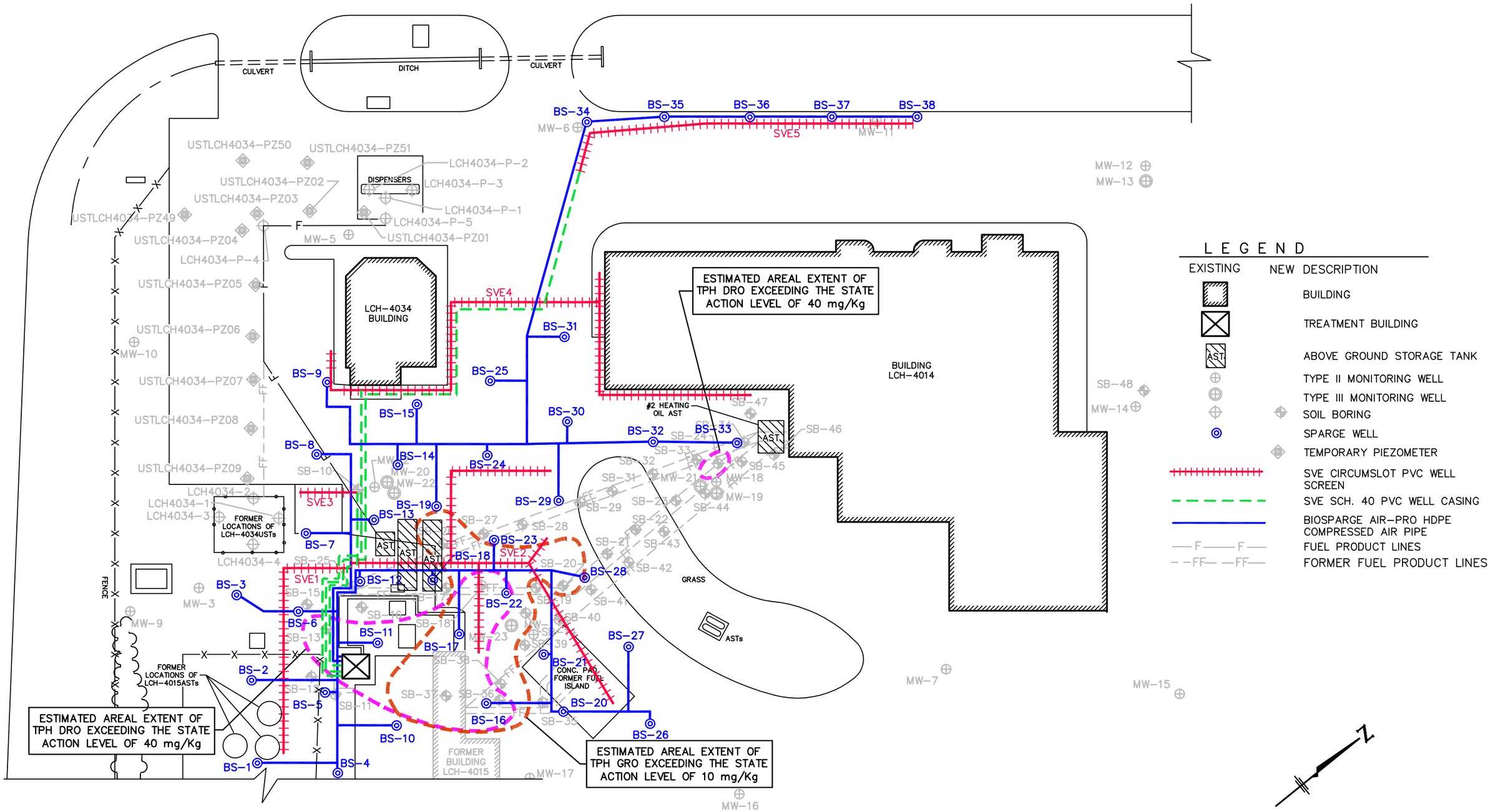
PROJECT: BUILDING LCH-4015 AND BUILDING LCH-4034 MARINE CORPS BASE CAMP LEJEUNE, N.C.

TITLE: SITE PLAN WITH SOIL LABORATORY RESULTS - TPH

FIGURE: 2D

JOB NO. 204-036 | DATE: NOV 2004 | SCALE: 1"=40' | DRAWN BY: HCS | CHECKED BY: JKB

204036-2041-02D



NOTE:
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2. LCH4034 SOIL BORING LOCATIONS OBTAINED FROM UST CLOSURE REPORT.
3. ALL SB- SOIL BORINGS HAVE THE PREFIX ASTLCH4015.

40 20 0 40
SCALE IN FEET

CATLIN ENGINEERS and SCIENTISTS
WILMINGTON, NORTH CAROLINA

PROJECT: BUILDING LCH-4015 AND BUILDING LCH-4034 MARINE CORPS BASE CAMP LEJEUNE, N.C.

TITLE: ESTIMATED EXTENT OF TPH SOIL CONTAMINATION ABOVE STATE ACTION LEVELS

FIGURE 2E

JOB NO. 204-036 | DATE: NOV 2004 | SCALE: 1"=40' | DRAWN BY: HCS | CHECKED BY: JKB

204036-2041-02E

APPENDIX A

BORING LOGS

WELL LOG

CATLIN ENGINEERS and SCIENTISTS
Wilmington, North Carolina

SHEET 1 OF 1

PROJECT NO.: 204-036	STATE: NC	COUNTY: Onslow	LOCATION: MCB Camp Lejeune
PROJECT NAME: LCH-4015	LOGGED BY: AMH		WELL ID: PZ01
	DRILLER: William Miller		
NORTHING:	EASTING:	CREW:	
SYSTEM:	BORING LOCATION: See Map		T.O.C. ELEV.:
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 8.0
START DATE: 09/27/04	FINISH DATE: 09/27/04	24 HOUR DTW:	WELL DEPTH: 6.0

DEPTH	BLOW COUNT 6in	6in	6in	6in	OVA (ppm)	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	WELL DETAIL
									0.0	LAND SURFACE	0.0
0.0	DP	DP	DP	DP					0.3	ASPHALT	0.0
0.3	DP	DP	DP	DP	0.8		SM		2.0	Olive, med. grain Silty SAND - damp No HCO	1.0 1" Sch. 40 PVC
2.0	DP	DP	DP	DP	2.2		GP-GM		4.0	Olive, GRAVEL with silt - wet No HCO	1" Slot .010 Sch. 40 PVC
4.0	DP	DP	DP	DP	0.5	PZ01	SC/ SM		6.0	Olive/orange, f. to v.f. Clayey Silty SAND - wet No HCO	6.0 6.0
6.0	DP	DP	DP	DP	0.3		SM		8.0	Light grey, SILTY, f. SAND - wet No HCO	
										Boring Terminated at Depth 8.0 ft DP = DIRECT PUSH	

#2 Medium Sand

CATLIN BORING LOG 204-036.GPJ CATLIN.GDT 11/24/04

WELL LOG

CATLIN ENGINEERS and SCIENTISTS
Wilmington, North Carolina

SHEET 1 OF 1

PROJECT NO.: 204-036	STATE: NC	COUNTY: Onslow	LOCATION: MCB Camp Lejeune
PROJECT NAME: LCH-4015		LOGGED BY: AMH	WELL ID: PZ02
		DRILLER: William Miller	
NORTHING:	EASTING:	CREW:	
SYSTEM:	BORING LOCATION: See Map		T.O.C. ELEV.:
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 6.0
START DATE: 09/27/04	FINISH DATE: 09/27/04	24 HOUR DTW:	WELL DEPTH: 6.0

DEPTH	BLOW COUNT 6in	6in	6in	6in	OVA (ppm)	LAB.	USCS	LOG	SOIL AND ROCK DESCRIPTION	WELL DETAIL
									0.0 LAND SURFACE	0.0
0.0	DP	DP	DP	DP					0.3 ASPHALT	0.0
0.3	DP	DP	DP	DP	0.6	PZ02	MH		Brown SILT with some sandy clay - damp No HCO 2.0	1.0 1" Sch. 40 PVC
2.0	DP	DP	DP	DP	0.6		SM		Orange/grey v.f. to f. Silty SAND w/ some clay - wet No HCO 4.0	1" Slot .010 Sch. 40 PVC
										6.0 6.0
									Boring Terminated at Depth 6.0 ft DP = DIRECT PUSH	

#2 Medium Sand

CATLIN BORING LOG 204-036.GPJ CATLIN.GDT 11/24/04

WELL LOG

CATLIN ENGINEERS and SCIENTISTS
Wilmington, North Carolina

SHEET 1 OF 1

PROJECT NO.: 204-036	STATE: NC	COUNTY: Onslow	LOCATION: MCB Camp Lejeune
PROJECT NAME: LCH-4015		LOGGED BY: AMH	WELL ID: PZ03
		DRILLER: William Miller	
NORTHING:	EASTING:	CREW:	
SYSTEM:	BORING LOCATION: See Map		T.O.C. ELEV.:
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 6.0
START DATE: 09/27/04	FINISH DATE: 09/27/04	24 HOUR DTW:	WELL DEPTH: 5.0

DEPTH	BLOW COUNT 6in	6in	6in	6in	OVA (ppm)	LAB.	USCS	LOG	SOIL AND ROCK DESCRIPTION	WELL DETAIL
									0.0 LAND SURFACE	0.0
0.0	DP	DP	DP	DP					0.3 ASPHALT	0.0
0.3	DP	DP	DP	DP	0.9		GP		GRAVEL - wet	1" Sch. 40 PVC; 1" Slot .010 Sch. 40 PVC
4.0	DP	DP	DP	DP	1.1	PZ03	SM		4.0 Light grey, fine Silty SAND - wet No HCO	5.0 5.0
									6.0 Boring Terminated at Depth 6.0 ft DP = DIRECT PUSH	

#2 Medium Sand

CATLIN BORING LOG 204-036.GPJ CATLIN.GDT 11/30/04

WELL LOG

CATLIN ENGINEERS and SCIENTISTS
Wilmington, North Carolina

SHEET 1 OF 1

PROJECT NO.: 204-036	STATE: NC	COUNTY: Onslow	LOCATION: MCB Camp Lejeune
PROJECT NAME: LCH-4015		LOGGED BY: AMH	WELL ID: PZ04
		DRILLER: William Miller	
NORTHING:	EASTING:	CREW:	
SYSTEM:	BORING LOCATION: See Map		T.O.C. ELEV.:
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 6.0
START DATE: 09/27/04	FINISH DATE: 09/27/04	24 HOUR DTW:	WELL DEPTH: 5.0

DEPTH	BLOW COUNT 6in	6in	6in	6in	OVA (ppm)	LAB.	USCS	LOG	SOIL AND ROCK DESCRIPTION	WELL DETAIL
									0.0 LAND SURFACE	0.0
0.0	DP	DP	DP	DP					0.3 ASPHALT	0.0 1" Sch. 40 PVC
0.3	DP	DP	DP	DP			GP		GRAVEL with sand - moist No HCO 2.0	
2.0	DP	DP	DP	DP	0.3	PZ04	SM		Brown/olive v.f. to f. Silty SAND - wet No HCO 4.0	1" Slot .010 Sch. 40 PVC
4.0	DP	DP	DP	DP	0.6		SM		Brown/olive v.f. to f. Silty SAND - wet No HCO 6.0	5.0 5.0
									Boring Terminated at Depth 6.0 ft DP = DIRECT PUSH	

#2 Medium Sand

CATLIN BORING LOG 204-036.GPJ CATLIN.GDT 11/30/04

WELL LOG

CATLIN ENGINEERS and SCIENTISTS
Wilmington, North Carolina

SHEET 1 OF 1

PROJECT NO.: 204-036	STATE: NC	COUNTY: Onslow	LOCATION: MCB Camp Lejeune
PROJECT NAME: LCH-4015		LOGGED BY: AMH	WELL ID: PZ05
		DRILLER: William Miller	
NORTHING:	EASTING:	CREW:	
SYSTEM:	BORING LOCATION: See Map		T.O.C. ELEV.:
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 8.0
START DATE: 09/27/04	FINISH DATE: 09/27/04	24 HOUR DTW:	WELL DEPTH: 5.0

DEPTH	BLOW COUNT 6in	6in	6in	6in	OVA (ppm)	LAB.	USCS	LOG	SOIL AND ROCK DESCRIPTION	WELL DETAIL
									0.0 LAND SURFACE	0.0
0.0	DP	DP	DP	DP					0.3 ASPHALT	0.0
0.3	DP	DP	DP	DP	4.5	PZ05	SM		Dark grey/olive v.f. to f. Silty SAND - damp No HCO 2.0	1" Sch. 40 PVC
2.0	DP	DP	DP	DP	1.4		SM		Light brown/olive v.f. to f. Silty SAND with trace clay - moist to wet No HCO 4.0	1" Slot .010 Sch. 40 PVC
4.0	DP	DP	DP	DP	0.6		SP/SM		Olive v.f. to f. SAND with some silt - wet No HCO 6.0	5.0 5.0
6.0	DP	DP	DP	DP	0.7		SM		Olive v.f. to f. Silty SAND with trace clay - wet No HCO 8.0	
									Boring Terminated at Depth 8.0 ft DP = DIRECT PUSH	

#2 Medium Sand

CATLIN BORING LOG 204-036.GPJ CATLIN.GDT 11/30/04

WELL LOG

CATLIN ENGINEERS and SCIENTISTS
Wilmington, North Carolina

SHEET 1 OF 1

PROJECT NO.: 204-036	STATE: NC	COUNTY: Onslow	LOCATION: MCB Camp Lejeune
PROJECT NAME: LCH-4015		LOGGED BY: AMH	WELL ID: PZ06
		DRILLER: William Miller	
NORTHING:	EASTING:	CREW:	
SYSTEM:	BORING LOCATION: See Map		T.O.C. ELEV.:
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 8.0
START DATE: 09/27/04	FINISH DATE: 09/27/04	24 HOUR DTW:	WELL DEPTH: 5.0

DEPTH	BLOW COUNT 6in	6in	6in	6in	OVA (ppm)	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	WELL DETAIL
									0.0	LAND SURFACE	0.0
0.0	DP	DP	DP	DP					0.3	ASPHALT	
0.3	DP	DP	DP	DP	4.6	PZ06	MH		2.0	Dark brown SILT with some sandy clay - dry No HCO	
2.0	DP	DP	DP	DP	4.2		SC/ SM		4.0	Brown/olive v.f. Clayey Silty SAND - wet No HCO	
4.0	DP	DP	DP	DP	1.6		SM		6.0	Olive, fine Silty SAND with trace clay - wet No HCO	
6.0	DP	DP	DP	DP			SM		8.0	Olive, fine Silty SAND with trace clay - wet No HCO	
										Boring Terminated at Depth 8.0 ft DP = DIRECT PUSH	

0.0 1" Sch. 40 PVC
1" Slot .010 Sch. 40 PVC
5.0 5.0

#2 Medium Sand

CATLIN BORING LOG 204-036.GPJ CATLIN.GDT 11/30/04

WELL LOG

CATLIN ENGINEERS and SCIENTISTS
Wilmington, North Carolina

SHEET 1 OF 1

PROJECT NO.: 204-036	STATE: NC	COUNTY: Onslow	LOCATION: MCB Camp Lejeune
PROJECT NAME: LCH-4015	LOGGED BY: AMH	DRILLER: William Miller	WELL ID: PZ07
NORTHING:	EASTING:	CREW:	
SYSTEM:	BORING LOCATION: See Map		T.O.C. ELEV.:
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 5.0
START DATE: 09/27/04	FINISH DATE: 09/27/04	24 HOUR DTW:	WELL DEPTH: 5.0

DEPTH	BLOW COUNT 6in	6in	6in	6in	OVA (ppm)	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	WELL DETAIL
									0.0	LAND SURFACE	0.0
0.0	DP	DP	DP	DP					0.3	ASPHALT	0.0 1" Sch. 40 PVC
0.3	DP	DP	DP	DP	11.8	PZ07	MH		2.0	Dark brown SILT with some sandy clay and wood chips - damp Moderate HCO	
2.0	DP	DP	DP	DP	1.7		SC/ SM		4.0	Orange/grey v.f. Clayey Silty SAND - wet No HCO	1" Slot .010 Sch. 40 PVC
											5.0 5.0
										Boring Terminated at Depth 5.0 ft DP = DIRECT PUSH	

#2 Medium Sand

CATLIN BORING LOG 204-036.GPJ CATLIN.GDT 11/30/04

WELL LOG

CATLIN ENGINEERS and SCIENTISTS
Wilmington, North Carolina

SHEET 1 OF 1

PROJECT NO.: 204-036	STATE: NC	COUNTY: Onslow	LOCATION: MCB Camp Lejeune
PROJECT NAME: LCH-4015		LOGGED BY: AMH	WELL ID: PZ08
		DRILLER: William Miller	
NORTHING:	EASTING:	CREW:	
SYSTEM:	BORING LOCATION: See Map		T.O.C. ELEV.:
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 5.0
START DATE: 09/27/04	FINISH DATE: 09/27/04	24 HOUR DTW:	WELL DEPTH: 5.0

DEPTH	BLOW COUNT 6in	6in	6in	6in	OVA (ppm)	LAB.	USCS	LOG	SOIL AND ROCK DESCRIPTION	WELL DETAIL
									0.0 LAND SURFACE	0.0
0.0	DP	DP	DP	DP					0.3 ASPHALT	0.0 1" Sch. 40 PVC
0.3	DP	DP	DP	DP	4.0	PZ08	MH		Dark brown/olive SILT with some sandy clay - damp No HCO	
2.0	DP	DP	DP	DP	1.6		SC/ SM		2.0 Orange/grey v.f. Clayey Silty SAND - wet No HCO	1" Slot .010 Sch. 40 PVC
									4.0	5.0 5.0
									Boring Terminated at Depth 5.0 ft DP = DIRECT PUSH	

#2 Medium Sand

CATLIN BORING LOG 204-036.GPJ CATLIN.GDT 11/30/04

WELL LOG

CATLIN ENGINEERS and SCIENTISTS
Wilmington, North Carolina

SHEET 1 OF 1

PROJECT NO.: 204-036	STATE: NC	COUNTY: Onslow	LOCATION: MCB Camp Lejeune
PROJECT NAME: LCH-4015	LOGGED BY: AMH		WELL ID: PZ09
	DRILLER: William Miller		
NORTHING:	EASTING:	CREW:	
SYSTEM:	BORING LOCATION: See Map		T.O.C. ELEV.:
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 5.0
START DATE: 09/27/04	FINISH DATE: 09/27/04	24 HOUR DTW:	WELL DEPTH: 5.0

DEPTH	BLOW COUNT 6in	6in	6in	6in	OVA (ppm)	LAB.	USCS	LOG	SOIL AND ROCK DESCRIPTION	WELL DETAIL
									0.0 LAND SURFACE	0.0
0.0	DP	DP	DP	DP					0.3 ASPHALT	0.0 1" Sch. 40 PVC
0.3	DP	DP	DP	DP	14.7		SM		Olive Silty SAND and GRAVEL - moist No HCO 2.0	
2.0	DP	DP	DP	DP	40.5		SM		Olive Silty SAND and GRAVEL - moist No HCO 4.0	1" Slot .010 Sch. 40 PVC
										5.0 5.0
									Boring Terminated at Depth 5.0 ft DP = DIRECT PUSH	

#2 Medium Sand

CATLIN BORING LOG 204-036.GPJ CATLIN.GDT 11/30/04

BORING LOG

CATLIN ENGINEERS and SCIENTISTS
ENGLISH
Wilmington, North Carolina

PROJECT NO.: 204-036	**STATE:** NC	**COUNTY:** Onslow	**LOCATION:** MCB Camp Lejeune
PROJECT NAME: LCH-4015		**LOGGED BY:** AMH	**BORING ID:** SB10
		DRILLER: William Miller	
LATITUDE:	**LONGITUDE:**	**CREW:**	
SYSTEM:	**BORING LOCATION:** See Map		**LAND ELEV.:** NM
DRILL MACHINE: Power Probe	**METHOD:** Direct Push	**0 HOUR DTW:**	**BORING DEPTH:** 4.0
START DATE: 09/29/04	**FINISH DATE:** 09/29/04	**24 HOUR DTW:**	**ROCK DEPTH:** --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	SAMP. TYPE	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0	DIRECT PUSH						0.0	ASPHALT	
0.3	DIRECT PUSH		▲3.5		SM		0.3	Orange/olive v.f. Silty SAND with trace clay - dry No HCO	
1.0	DIRECT PUSH	DP	▲4.1	SB10	SM		1.0	Orange/olive v.f. Silty SAND with trace clay and dark brown SILT - dry No HCO	
2.0	DIRECT PUSH		▲5.5		SM		2.0	Light brown v.f. Silty SAND and dark brown SILT - moist No HCO	
3.0	DIRECT PUSH		▲3.6		SC/SM		3.0	Grey/orange Clayey Silty SAND - wet No HCO	
4.0							4.0	Boring Terminated at Depth 4.0 ft	

BORING LOG

CATLIN ENGINEERS and SCIENTISTS
ENGLISH
Wilmington, North Carolina

SHEET 1 OF 1

PROJECT NO.: 204-036	**STATE:** NC	**COUNTY:** Onslow	**LOCATION:** MCB Camp Lejeune
PROJECT NAME: LCH-4015		**LOGGED BY:** AMH	**BORING ID:** SB11
		DRILLER: William Miller	
LATITUDE:	**LONGITUDE:**	**CREW:**	
SYSTEM:	**BORING LOCATION:** See Map		**LAND ELEV.:** NM
DRILL MACHINE: Power Probe	**METHOD:** Direct Push	**0 HOUR DTW:**	**BORING DEPTH:** 4.0
START DATE: 09/28/04	**FINISH DATE:** 09/28/04	**24 HOUR DTW:**	**ROCK DEPTH:** --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	SAMP. TYPE	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0	DIRECT PUSH						0.0	TOPSOIL	
0.5	DIRECT PUSH	DP	▲16.3	SB11	MH		0.5	Dark brown SILT with some sandy clay- dry Moderate HCO	
1.0	DIRECT PUSH		▲10.4		MH		1.0	Dark brown SILT with some sandy clay and brown/grey v.f. Silty SAND - dry Moderate HCO	
2.0	DIRECT PUSH		▲5.8		SM		2.0	Dark brown/dark grey v.f. Silty SAND - moist No HCO	
3.0	DIRECT PUSH		▲4.2		SM		3.0	Dark grey/olive v.f. Silty SAND - wet No HCO	
4.0							4.0	Boring Terminated at Depth 4.0 ft	

CATLIN ENVIRO_LOG_204-036.GPJ CATLIN.GDT 11/24/04

BORING LOG

CATLIN ENGINEERS and SCIENTISTS
ENGLISH
Wilmington, North Carolina

SHEET 1 OF 1

PROJECT NO.: 204-036	STATE: NC	COUNTY: Onslow	LOCATION: MCB Camp Lejeune
PROJECT NAME: LCH-4015	LOGGED BY: AMH		BORING ID: SB12
	DRILLER: William Miller		
LATITUDE:	LONGITUDE:	CREW:	
SYSTEM:	BORING LOCATION: See Map		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 4.0
START DATE: 09/28/04	FINISH DATE: 09/28/04	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	SAMP. TYPE	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0	DIRECT PUSH						0.0	TOPSOIL	
0.5	DIRECT PUSH		▲10.4		SM		0.5	Dark brown, med. to fine Silty SAND - dry Some HCO	
1.0	DIRECT PUSH	DP	▲6.0	SB12	SM		1.0	Dark brown/olive fine Silty SAND - dry Some HCO	
2.0	DIRECT PUSH		▲4.8		ML		2.0	Dark brown SILT with some v.f. sand - wet No HCO	
3.0	DIRECT PUSH		▲12.0		SP/ SM		3.0	Olive/grey v.f. SAND with some silt - wet No HCO	
4.0							4.0	Boring Terminated at Depth 4.0 ft	

CATLIN ENVIRO_LOG_204-036.GPJ_CATLIN.GDT_11/24/04

BORING LOG

CATLIN ENGINEERS and SCIENTISTS ENGLISH Wilmington, North Carolina

SHEET 1 OF 1

PROJECT NO.: 204-036	STATE: NC	COUNTY: Onslow	LOCATION: MCB Camp Lejeune
PROJECT NAME: LCH-4015		LOGGED BY: AMH	BORING ID: SB13
		DRILLER: William Miller	
LATITUDE:	LONGITUDE:	CREW:	
SYSTEM:	BORING LOCATION: See Map		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 4.0
START DATE: 09/28/04	FINISH DATE: 09/28/04	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	SAMP. TYPE	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0	DIRECT PUSH						0.0	TOPSOIL	
0.5	DIRECT PUSH	DP	▲12.3	SB13	SM		0.5	Dark brown med. grain Silty SAND - dry Some HCO	
2.0	DIRECT PUSH		▲18.5		SM		2.0	Dark brown med. grain Silty SAND - moist Moderate HCO	
3.0	DIRECT PUSH		▲4.2		SM		3.0	Dark brown/grey v.f. Silty SAND - wet No HCO	
4.0							4.0	Boring Terminated at Depth 4.0 ft	

CATLIN ENVIRO_LOG_204-036.GPJ CATLIN.GDT 11/24/04

BORING LOG

CATLIN ENGINEERS and SCIENTISTS
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Wilmington, North Carolina

SHEET 1 OF 1

PROJECT NO.: 204-036	STATE: NC	COUNTY: Onslow	LOCATION: MCB Camp Lejeune
PROJECT NAME: LCH-4015		LOGGED BY: AMH	BORING ID: SB14
		DRILLER: William Miller	
LATITUDE:	LONGITUDE:	CREW:	
SYSTEM:	BORING LOCATION: See Map		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 4.0
START DATE: 09/29/04	FINISH DATE: 09/29/04	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	SAMP. TYPE	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0	DIRECT PUSH						0.0	ASPHALT	
0.3	DIRECT PUSH		▲4.8		SP/SM		0.3 1.0	Light brown v.f. to f. SAND with trace silt - dry No HCO	
1.0	DIRECT PUSH	DP	▲21.3	SB14	SP/SM		2.0	Light brown v.f. to f. SAND and dark brown v.f. Silty SAND - dry No HCO	
2.0	DIRECT PUSH		▲17.1		SM		3.0	Dark grey/olive v.f. silty SAND - wet Moderate HCO	
3.0	DIRECT PUSH		▲24.2		SM		4.0	Olive v.f. Silty SAND with some clay - wet Moderate HCO	
4.0								Boring Terminated at Depth 4.0 ft	

CATLIN ENVIRO_LOG_204-036.GPJ CATLIN.GDT 11/24/04

BORING LOG

CATLIN ENGINEERS and SCIENTISTS ENGLISH Wilmington, North Carolina

SHEET 1 OF 1

PROJECT NO.: 204-036	STATE: NC	COUNTY: Onslow	LOCATION: MCB Camp Lejeune
PROJECT NAME: LCH-4015	LOGGED BY: AMH		BORING ID: SB15
	DRILLER: William Miller		
LATITUDE:	LONGITUDE:	CREW:	
SYSTEM:	BORING LOCATION: See Map		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 4.0
START DATE: 09/28/04	FINISH DATE: 09/28/04	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	SAMP. TYPE	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0	DIRECT PUSH						0.0	TOPSOIL	
0.5	DIRECT PUSH		▲3.3		SM		0.5	Dark brown med. grain Silty SAND - dry Some HCO	
1.0	DIRECT PUSH	DP	▲4.9	SB15	SM		1.0	Dark brown med. grain Silty SAND - dry Some HCO	
2.0	DIRECT PUSH		▲1.4		SM/ ML		2.0	Olive v.f. Silty SAND and dark brown SILT with some v.f. sand - moist No HCO	
3.0	DIRECT PUSH		▲2.9		SC		3.0	Orange/olive/grey v.f. Clayey SAND with trace silt - wet Moderate HCO	
4.0							4.0	Boring Terminated at Depth 4.0 ft	

CATLIN ENVIRO_LOG_204-036.GPJ CATLIN.GDT 11/24/04

BORING LOG

CATLIN ENGINEERS and SCIENTISTS ENGLISH Wilmington, North Carolina

SHEET 1 OF 1

PROJECT NO.: 204-036	STATE: NC	COUNTY: Onslow	LOCATION: MCB Camp Lejeune
PROJECT NAME: LCH-4015	LOGGED BY: AMH		BORING ID: SB16
	DRILLER: William Miller		
LATITUDE:	LONGITUDE:	CREW:	
SYSTEM:	BORING LOCATION: See Map		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 4.0
START DATE: 09/28/04	FINISH DATE: 09/28/04	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	SAMP. TYPE	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0	DIRECT PUSH						0.0	TOPSOIL	
0.5	DIRECT PUSH		▲26.4		SM		0.5	Dark brown med. grain Silty SAND - dry Some HCO	
1.0	DIRECT PUSH	DP	▲12.4	SB16	SM		1.0	Dark brown med. grain Silty SAND - dry Some HCO	
2.0	DIRECT PUSH		▲275		SP/ SM		2.0	Grey/olive fine SAND with some silt - moist Some HCO	
3.0	DIRECT PUSH		▲142		SM		3.0	Dark brown v.f. Silty SAND - wet Strong HCO	
4.0							4.0	Boring Terminated at Depth 4.0 ft	

CATLIN ENVIRO LOG 204-036.GPJ CATLIN.GDT 11/24/04

BORING LOG

CATLIN ENGINEERS and SCIENTISTS
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SHEET 1 OF 1

PROJECT NO.: 204-036	STATE: NC	COUNTY: Onslow	LOCATION: MCB Camp Lejeune
PROJECT NAME: LCH-4015		LOGGED BY: AMH	BORING ID: SB17
		DRILLER: William Miller	
LATITUDE:	LONGITUDE:	CREW:	
SYSTEM:	BORING LOCATION: See Map		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 4.0
START DATE: 09/28/04	FINISH DATE: 09/28/04	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	SAMP. TYPE	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0	DIRECT PUSH						0.0	ASPHALT	
0.3	DIRECT PUSH		▲3.0		SP/SM		0.3	Olive fine SAND with some silt - dry Some HCO	
1.0	DIRECT PUSH	DP	▲18.7	SB17	SP/SM		1.0	Olive fine SAND with some silt - dry Some HCO	
2.0	DIRECT PUSH		▲8.9		SM		2.0	Olive fine SAND with some silt and dark brown v.f. Silty SAND - moist Some HCO	
3.0	DIRECT PUSH		▲18.8		SM		3.0	Olive/orange/grey v.f. to f. Silty SAND with some clay - wet No HCO	
4.0							4.0	Boring Terminated at Depth 4.0 ft	

CATLIN ENVIRO_LOG_204-036.GPJ_CATLIN.GDT_11/24/04

BORING LOG

CATLIN ENGINEERS and SCIENTISTS
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SHEET 1 OF 1

PROJECT NO.: 204-036	STATE: NC	COUNTY: Onslow	LOCATION: MCB Camp Lejeune
PROJECT NAME: LCH-4015		LOGGED BY: AMH	BORING ID: SB18
		DRILLER: William Miller	
LATITUDE:	LONGITUDE:	CREW:	
SYSTEM:	BORING LOCATION: See Map		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 4.0
START DATE: 09/29/04	FINISH DATE: 09/29/04	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	SAMP. TYPE	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0	DIRECT PUSH						0.0	ASPHALT	
0.3	DIRECT PUSH		▲6.4		SM/ ML		0.3 1.0	Light brown med. grain SAND with trace silt and dark brown Sandy SILT - dry No HCO	
1.0	DIRECT PUSH	DP	▲19.8	SB18	MH		2.0	Dark brown SILT with some sandy clay - dry No HCO	
2.0	DIRECT PUSH		▲24.7		MH		3.0	Dark brown SILT with some sandy clay - damp No HCO	
3.0	DIRECT PUSH		▲22.2		SM		4.0	Olive v.f. Silty SAND with some clay - wet No HCO	
4.0								Boring Terminated at Depth 4.0 ft	

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BORING LOG

CATLIN ENGINEERS and SCIENTISTS ENGLISH Wilmington, North Carolina

SHEET 1 OF 1

PROJECT NO.: 204-036	STATE: NC	COUNTY: Onslow	LOCATION: MCB Camp Lejeune
PROJECT NAME: LCH-4015		LOGGED BY: AMH	BORING ID: SB19
		DRILLER: William Miller	
LATITUDE:	LONGITUDE:	CREW:	
SYSTEM:	BORING LOCATION: See Map		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 4.0
START DATE: 09/29/04	FINISH DATE: 09/29/04	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	SAMP. TYPE	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0	DIRECT PUSH						0.0	ASPHALT	
0.3	DIRECT PUSH		▲4.5		SP/ SM		0.3 1.0	Light brown/grey fine SAND with some silt - dry Slight HCO	
1.0	DIRECT PUSH	DP	▲7.3	SB19	SP		2.0	Light brown/grey fine SAND with trace silt - dry No HCO	
2.0	DIRECT PUSH		▲2.7		SM		3.0	Dark brown v.f. Silty SAND - moist No HCO	
3.0	DIRECT PUSH		▲5.0		SM		4.0	Dark grey v.f. Silty SAND with some clay - wet No HCO	
4.0								Boring Terminated at Depth 4.0 ft	

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SHEET 1 OF 1

PROJECT NO.: 204-036	**STATE:** NC	**COUNTY:** Onslow	**LOCATION:** MCB Camp Lejeune
PROJECT NAME: LCH-4015		**LOGGED BY:** AMH	**BORING ID:** SB20
		DRILLER: William Miller	
LATITUDE:	**LONGITUDE:**	**CREW:**	
SYSTEM:	**BORING LOCATION:** See Map		**LAND ELEV.:** NM
DRILL MACHINE: Power Probe	**METHOD:** Direct Push	**0 HOUR DTW:**	**BORING DEPTH:** 4.0
START DATE: 09/29/04	**FINISH DATE:** 09/29/04	**24 HOUR DTW:**	**ROCK DEPTH:** --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	SAMP. TYPE	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0	DIRECT PUSH						0.0	ASPHALT	
0.3	DIRECT PUSH		▲6.4		SP/SM		0.3	Olive v.f. to f. SAND with some silt - dry No HCO	
1.0	DIRECT PUSH	DP	▲13.2	SB20	SM/ML		1.0	Olive v.f. SAND with some silt and dark brown Sandy SILT - dry No HCO	
2.0	DIRECT PUSH		▲10.4		SM/ML		2.0	Dark brown Sandy SILT and olive v.f. Silty SAND - wet No HCO	
3.0	DIRECT PUSH		▲19.8		SM		3.0	Olive v.f. Silty SAND with some clay - wet No HCO	
4.0							4.0	Boring Terminated at Depth 4.0 ft	

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PROJECT NO.: 204-036	STATE: NC	COUNTY: Onslow	LOCATION: MCB Camp Lejeune
PROJECT NAME: LCH-4015		LOGGED BY: AMH	BORING ID: SB21
		DRILLER: William Miller	
LATITUDE:	LONGITUDE:	CREW:	
SYSTEM:	BORING LOCATION: See Map		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 4.0
START DATE: 09/29/04	FINISH DATE: 09/29/04	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	SAMP. TYPE	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0	DIRECT PUSH						0.0	TOPSOIL	
0.5	DIRECT PUSH		▲622		MH		0.5	Dark brown SILT with some sandy clay - dry No HCO	
1.0	DIRECT PUSH		▲2.0		GP		1.0	Light brown SAND with some silt and GRAVEL - dry No HCO	
2.0	DIRECT PUSH	DP	▲11.7	SB21	SM		2.0	Dark brown v.f. Silty SAND - moist No HCO	
3.0	DIRECT PUSH		▲3.4		SM		3.0	Dark brown/olive Silty SAND with some clay - wet No HCO	
4.0							4.0	Boring Terminated at Depth 4.0 ft	

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PROJECT NO.: 204-036	STATE: NC	COUNTY: Onslow	LOCATION: MCB Camp Lejeune
PROJECT NAME: LCH-4015	LOGGED BY: AMH		BORING ID: SB22
	DRILLER: William Miller		
LATITUDE:	LONGITUDE:	CREW:	
SYSTEM:	BORING LOCATION: See Map		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 4.0
START DATE: 09/29/04	FINISH DATE: 09/29/04	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	SAMP. TYPE	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0	DIRECT PUSH						0.0	TOPSOIL	
0.5	DIRECT PUSH		▲4.0		SM/ ML		0.5	Dark brown SILT with some sand and olive fine SAND with some silt - dry No HCO	
1.0	DIRECT PUSH		▲13.9		GP		1.0	Olive v.f. SAND with some silt and GRAVEL - dry No HCO	
2.0	DIRECT PUSH	DP	▲11.7	SB22	SP/ SM		2.0	Olive v.f. SAND with some silt and dark brown v.f. Silty SAND - moist No HCO	
3.0	DIRECT PUSH		▲5.2		SP/ SM		3.0	Dark brown v.f. Silty SAND and olive v.f. SAND with some silt - wet No HCO	
4.0							4.0	Boring Terminated at Depth 4.0 ft	

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PROJECT NO.: 204-036	STATE: NC	COUNTY: Onslow	LOCATION: MCB Camp Lejeune
PROJECT NAME: LCH-4015		LOGGED BY: AMH	BORING ID: SB23
		DRILLER: William Miller	
LATITUDE:	LONGITUDE:	CREW:	
SYSTEM:	BORING LOCATION: See Map		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 4.0
START DATE: 09/30/04	FINISH DATE: 09/30/04	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	SAMP. TYPE	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0	DIRECT PUSH						0.0	ASPHALT	
0.3	DIRECT PUSH		▲92.0		GP		0.3 1.0	Olive v.f. SAND with some silt and GRAVEL - dry No HCO	
1.0	DIRECT PUSH	DP	▲87.4	SB23	SP		2.0	Light brown/grey v.f. SAND with trace silt - dry No HCO	
2.0	DIRECT PUSH		▲76.1		SM		3.0	Dark brown v.f. Silty SAND - moist No HCO	
3.0	DIRECT PUSH		▲69.1		SM		4.0	Grey/olive v.f. Silty SAND with some clay - wet No HCO	
4.0								Boring Terminated at Depth 4.0 ft	

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PROJECT NO.: 204-036	STATE: NC	COUNTY: Onslow	LOCATION: MCB Camp Lejeune
PROJECT NAME: LCH-4015	LOGGED BY: AMH		BORING ID: SB24
	DRILLER: William Miller		
LATITUDE:	LONGITUDE:	CREW:	
SYSTEM:	BORING LOCATION: See Map		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 6.0
START DATE: 09/30/04	FINISH DATE: 09/30/04	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	SAMP. TYPE	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0	DIRECT PUSH						0.0	ASPHALT	
0.3	DIRECT PUSH		▲161		GP		0.3	Light brown/olive v.f. SAND with some silt and GRAVEL - dry Slight HCO	
2.0	DIRECT PUSH	DP	▲185	SB24	SM		2.0	Olive/dark brown v.f. Silty SAND with some clay - moist Slight HCO	
4.0	DIRECT PUSH		▲180		SM		4.0	Olive/dark brown v.f. Silty SAND with some clay - wet HCO	
5.0	DIRECT PUSH		▲111		SM		5.0	Olive/dark brown v.f. Silty SAND with some clay - wet HCO	
6.0							6.0	Boring Terminated at Depth 6.0 ft	

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PROJECT NO.: 204-036	**STATE:** NC	**COUNTY:** Onslow	**LOCATION:** MCB Camp Lejeune
PROJECT NAME: LCH-4015		**LOGGED BY:** AMH	**BORING ID:** SB25
		DRILLER: William Miller	
LATITUDE:	**LONGITUDE:**	**CREW:**	
SYSTEM:	**BORING LOCATION:** See Map		**LAND ELEV.:** NM
DRILL MACHINE: Power Probe	**METHOD:** Direct Push	**0 HOUR DTW:**	**BORING DEPTH:** 4.0
START DATE: 09/28/04	**FINISH DATE:** 09/28/04	**24 HOUR DTW:**	**ROCK DEPTH:** --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	SAMP. TYPE	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0	DIRECT PUSH						0.0	TOPSOIL	
0.5	DIRECT PUSH		▲0.7		SM		0.5	Dark brown med.. to fine Silty SAND - dry Slight HCO	
1.0	DIRECT PUSH	DP	▲0.9	SB25	SP		1.0	Brown/orange med. grain SAND - dry No HCO	
2.0	DIRECT PUSH		▲2.3		SP/ SM		2.0	Orange med. grain SAND and olive v.f. Silty SAND - moist No HCO	
3.0	DIRECT PUSH		▲3.1		SM		3.0	Olive v.f. Silty SAND - wet No HCO	
4.0							4.0	Boring Terminated at Depth 4.0 ft	

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PROJECT NO.: 204-036	STATE: NC	COUNTY: Onslow	LOCATION: MCB Camp Lejeune
PROJECT NAME: LCH-4015	LOGGED BY: AMH		BORING ID: SB26
	DRILLER: William Miller		
LATITUDE:	LONGITUDE:	CREW:	
SYSTEM:	BORING LOCATION: See Map		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 4.0
START DATE: 09/28/04	FINISH DATE: 09/28/04	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	SAMP. TYPE	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0	DIRECT PUSH						0.0	ASPHALT	
0.3	DIRECT PUSH		▲5.5		SP/SM		0.3 1.0	Light brown/olive v.f. SAND with some silt - dry Slight HCO	
1.0	DIRECT PUSH	DP	▲25.3	SB26	SP/SM		2.0	Light brown/olive v.f. SAND with some silt - dry Slight HCO	
2.0	DIRECT PUSH		▲35.3		SM		3.0	Dark grey/olive v.f. Silty SAND with some clay - moist Slight HCO	
3.0	DIRECT PUSH		▲25.6		SM		4.0	Olive v.f. Silty SAND with some clay - wet Slight HCO	
4.0								Boring Terminated at Depth 4.0 ft	

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PROJECT NO.: 204-036	STATE: NC	COUNTY: Onslow	LOCATION: MCB Camp Lejeune
PROJECT NAME: LCH-4015	LOGGED BY: AMH		BORING ID: SB27
	DRILLER: William Miller		
LATITUDE:	LONGITUDE:	CREW:	
SYSTEM:	BORING LOCATION: See Map		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 4.0
START DATE: 09/29/04	FINISH DATE: 09/29/04	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	SAMP. TYPE	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0	DIRECT PUSH						0.0	ASPHALT	
0.3	DIRECT PUSH		▲2.6		SP/SM		0.3	Light brown/grey v.f. SAND with some silt - dry No HCO	
1.0	DIRECT PUSH	DP	▲5.5	SB27	SP/SM		1.0	Olive v.f. SAND with some silt - dry Slight HCO	
2.0	DIRECT PUSH		▲4.8		SM		2.0	Dark brown v.f. Silty SAND - moist Moderate HCO	
3.0	DIRECT PUSH		▲4.9		SC/SM		3.0	Olive v.f. Silty SAND and orange/grey v.f. Clayey SAND - wet Slight HCO	
4.0							4.0	Boring Terminated at Depth 4.0 ft	

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PROJECT NO.: 204-036	**STATE:** NC	**COUNTY:** Onslow	**LOCATION:** MCB Camp Lejeune
PROJECT NAME: LCH-4015		**LOGGED BY:** AMH	**BORING ID:** SB28
		DRILLER: William Miller	
LATITUDE:	**LONGITUDE:**	**CREW:**	
SYSTEM:	**BORING LOCATION:** See Map		**LAND ELEV.:** NM
DRILL MACHINE: Power Probe	**METHOD:** Direct Push	**0 HOUR DTW:**	**BORING DEPTH:** 4.0
START DATE: 09/29/04	**FINISH DATE:** 09/29/04	**24 HOUR DTW:**	**ROCK DEPTH:** --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	SAMP. TYPE	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0	DIRECT PUSH						0.0	ASPHALT	
0.3	DIRECT PUSH		▲0.8		SP/SM		0.3	Orange/olive v.f. SAND with some silt - dry No HCO	
1.0	DIRECT PUSH	DP	▲1.5	SB28	SP/SM		1.0	Olive/brown v.f. SAND with some silt - dry No HCO	
2.0	DIRECT PUSH		▲3.0		SM		2.0	Dark brown v.f. Silty SAND - wet No HCO	
3.0	DIRECT PUSH		▲4.7		SM		3.0	Olive v.f. Silty SAND - wet No HCO	
4.0							4.0	Boring Terminated at Depth 4.0 ft	

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SHEET 1 OF 1

PROJECT NO.: 204-036	STATE: NC	COUNTY: Onslow	LOCATION: MCB Camp Lejeune
PROJECT NAME: LCH-4015	LOGGED BY: AMH		BORING ID: SB29
	DRILLER: William Miller		
LATITUDE:	LONGITUDE:	CREW:	
SYSTEM:	BORING LOCATION: See Map		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 4.0
START DATE: 09/29/04	FINISH DATE: 09/29/04	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT (0.5 0.5 0.5 0.5)	SAMP. TYPE	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0	DIRECT PUSH						0.0	TOPSOIL	
0.5	DIRECT PUSH		▲3.6		SP/SM		0.5	Dark brown v.f. Silty SAND and orange v.f. SAND with some silt - dry No HCO	
1.0	DIRECT PUSH		▲3.4		SP/SM		1.0	Light brown/olive v.f. SAND with some silt - dry No HCO	
2.0	DIRECT PUSH	DP	▲19.0	SB29	SM		2.0	Dark brown v.f. Silty SAND - damp Slight HCO	
3.0	DIRECT PUSH		▲4.2		SM		3.0	Olive v.f. Silty SAND with trace clay - moist No HCO	
4.0							4.0	Boring Terminated at Depth 4.0 ft	

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PROJECT NO.: 204-036	STATE: NC	COUNTY: Onslow	LOCATION: MCB Camp Lejeune
PROJECT NAME: LCH-4015	LOGGED BY: AMH		BORING ID: SB31
	DRILLER: William Miller		
LATITUDE:	LONGITUDE:	CREW:	
SYSTEM:	BORING LOCATION: See Map		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 4.0
START DATE: 09/29/04	FINISH DATE: 09/29/04	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	SAMP. TYPE	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0	DIRECT PUSH						0.0	TOPSOIL	
0.5	DIRECT PUSH		▲4.3		SM/ ML		0.5	Dark brown Sandy SILT and orange v.f. SAND with some silt - dry No HCO	
1.0	DIRECT PUSH		▲3.3		SP/ SM		1.0	Orange/light brown v.f. SAND with some silt - dry No HCO	
2.0	DIRECT PUSH	DP		SB31	SP/ SM		2.0	Light brown v.f. SAND with some silt and dark brown v.f. Silty SAND - damp No HCO	
3.0	DIRECT PUSH		▲4.0		SM		3.0	Dark brown v.f. Silty SAND - moist No HCO	
4.0							4.0	Boring Terminated at Depth 4.0 ft	

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PROJECT NO.: 204-036	STATE: NC	COUNTY: Onslow	LOCATION: MCB Camp Lejeune
PROJECT NAME: LCH-4015		LOGGED BY: AMH	BORING ID: SB32
		DRILLER: William Miller	
LATITUDE:	LONGITUDE:	CREW:	
SYSTEM:	BORING LOCATION: See Map		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 4.0
START DATE: 09/29/04	FINISH DATE: 09/29/04	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	SAMP. TYPE	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0	DIRECT PUSH						0.0	ASPHALT	
0.3	DIRECT PUSH		▲2211		GP		0.3	Olive v.f. SAND with some silt and GRAVEL - dry No HCO	
1.0	DIRECT PUSH	DP	▲1906	SB32	SP/SM		1.0	Olive v.f. SAND with some silt and v.f. brown Silty SAND - dry No HCO	
2.0	DIRECT PUSH		▲21.3		SM		2.0	Dark brown v.f. Silty SAND - damp No HCO	
3.0	DIRECT PUSH		▲18.7		SM		3.0	Olive v.f. Silty SAND with some clay - wet No HCO	
4.0							4.0	Boring Terminated at Depth 4.0 ft	

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PROJECT NO.: 204-036	**STATE:** NC	**COUNTY:** Onslow	**LOCATION:** MCB Camp Lejeune
PROJECT NAME: LCH-4015		**LOGGED BY:** AMH	**BORING ID:** SB33
		DRILLER: William Miller	
LATITUDE:	**LONGITUDE:**	**CREW:**	
SYSTEM:	**BORING LOCATION:** See Map		**LAND ELEV.:** NM
DRILL MACHINE: Power Probe	**METHOD:** Direct Push	**0 HOUR DTW:**	**BORING DEPTH:** 4.0
START DATE: 09/29/04	**FINISH DATE:** 09/29/04	**24 HOUR DTW:**	**ROCK DEPTH:** --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	SAMP. TYPE	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0	DIRECT PUSH						0.0	ASPHALT	
0.3	DIRECT PUSH		▲2.6		SP/SM		0.3	Olive v.f. SAND with some silt and GRAVEL - dry No HCO	
1.0	DIRECT PUSH		▲10.5		SP/SM		1.0	Olive/grey v.f. SAND with some silt - dry No HCO	
2.0	DIRECT PUSH		▲7.1		SM/ML		2.0	Dark brown Sandy SILT and olive v.f. Silty SAND - moist No HCO	
3.0	DIRECT PUSH		▲19.8		SM		3.0	Olive v.f. Silty SAND - wet No HCO	
4.0							4.0	Boring Terminated at Depth 4.0 ft	

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PROJECT NO.: 204-036	STATE: NC	COUNTY: Onslow	LOCATION: MCB Camp Lejeune
PROJECT NAME: LCH-4015		LOGGED BY: AMH	BORING ID: SB34
		DRILLER: William Miller	
LATITUDE:	LONGITUDE:	CREW:	
SYSTEM:	BORING LOCATION: See Map		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 4.0
START DATE: 09/30/04	FINISH DATE: 09/30/04	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	SAMP. TYPE	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0	DIRECT PUSH						0.0	ASPHALT	
0.3	DIRECT PUSH		▲421		GP		0.3	Olive v.f. SAND with some silt and GRAVEL - dry Moderate HCO	
1.0	DIRECT PUSH	DP	▲83.9	SB34	SP/SM		1.0	Olive v.f. SAND with some silt - dry Moderate HCO	
2.0	DIRECT PUSH		▲85.6		SM		2.0	Dark brown/olive v.f. Silty SAND - moist HCO	
3.0	DIRECT PUSH						3.0	NO RECOVERY - Appears S.A.A. w/some clay	
3.5							3.5	ADVANCEMENT REFUSAL @ 3.5ft BLS.	
4.0								Boring Terminated at Depth 4.0 ft	

BORING LOG

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SHEET 1 OF 1

PROJECT NO.: 204-036	**STATE:** NC	**COUNTY:** Onslow	**LOCATION:** MCB Camp Lejeune
PROJECT NAME: LCH-4015		**LOGGED BY:** AMH	**BORING ID:** SB35
		DRILLER: William Miller	
LATITUDE:	**LONGITUDE:**	**CREW:**	
SYSTEM:	**BORING LOCATION:** See Map		**LAND ELEV.:** NM
DRILL MACHINE: Power Probe	**METHOD:** Direct Push	**0 HOUR DTW:**	**BORING DEPTH:** 4.0
START DATE: 09/28/04	**FINISH DATE:** 09/28/04	**24 HOUR DTW:**	**ROCK DEPTH:** --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	SAMP. TYPE	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0	DIRECT PUSH						0.0	TOPSOIL	
0.5	DIRECT PUSH		▲30.9		SM		0.5	Dark brown med. to fine Silty SAND and WOOD CHIPS - dry Moderate HCO	
1.0	DIRECT PUSH	DP	▲13.1	SB35	SP/SM		1.0	Olive med. to fine SAND with some silt - dry Moderate HCO	
2.0	DIRECT PUSH		▲9.2		SP/SM		2.0	Olive med. to fine SAND with some silt - moist Moderate HCO	
3.0	DIRECT PUSH		▲24.3		SM		3.0	Olive v.f. Silty SAND with some clay - wet Slight HCO	
4.0							4.0	Boring Terminated at Depth 4.0 ft	

CATLIN ENVIRO LOG 204-036.GPJ CATLIN.GDT 11/24/04

BORING LOG

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SHEET 1 OF 1

PROJECT NO.: 204-036	STATE: NC	COUNTY: Onslow	LOCATION: MCB Camp Lejeune
PROJECT NAME: LCH-4015	LOGGED BY: AMH		BORING ID: SB36
	DRILLER: William Miller		
LATITUDE:	LONGITUDE:	CREW:	
SYSTEM:	BORING LOCATION: See Map		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 4.0
START DATE: 09/28/04	FINISH DATE: 09/28/04	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	SAMP. TYPE	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0	DIRECT PUSH						0.0	TOPSOIL	
0.5	DIRECT PUSH		▲85		SP/SM		0.5	Light brown fine SAND with some silt and dark brown v.f. Silty SAND - dry Moderate HCO	
1.0	DIRECT PUSH		▲1094		GP		1.0	Olive med. to fine SAND with some silt and GRAVEL - dry Moderate HCO	
2.0	DIRECT PUSH	DP	▲1387	SB36	SP/SM		2.0	Olive fine SAND with some silt and dark brown Silty SAND - damp Moderate HCO	
3.0	DIRECT PUSH		▲485		SM		3.0	Olive v.f. Silty SAND - moist Some HCO	
4.0							4.0	Boring Terminated at Depth 4.0 ft	

CATLIN ENVIRO_LOG_204-036.GPJ_CATLIN.GDT_11/24/04

BORING LOG

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SHEET 1 OF 1

PROJECT NO.: 204-036	STATE: NC	COUNTY: Onslow	LOCATION: MCB Camp Lejeune
PROJECT NAME: LCH-4015		LOGGED BY: AMH	BORING ID: SB37
		DRILLER: William Miller	
LATITUDE:	LONGITUDE:	CREW:	
SYSTEM:	BORING LOCATION: See Map		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 4.0
START DATE: 09/28/04	FINISH DATE: 09/28/04	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	SAMP. TYPE	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0	DIRECT PUSH						0.0	ASPHALT	
0.3	DIRECT PUSH		▲4.2		SP/SM		0.3	Olive v.f. SAND with some silt - dry Moderate HCO	
1.0	DIRECT PUSH	DP	▲126	SB37	SP/SM		1.0	Olive v.f. SAND with some silt - dry Moderate HCO	
2.0	DIRECT PUSH		▲82.1		SP/SM		2.0	Olive v.f. SAND with some silt - moist Moderate HCO	
3.0	DIRECT PUSH		▲175		SP/SM		3.0	Olive v.f. SAND with some silt - moist Some HCO	
4.0							4.0	Boring Terminated at Depth 4.0 ft	

CATLIN ENVIRO_LOG_204-036.GPJ_CATLIN.GDT_11/24/04

BORING LOG

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SHEET 1 OF 1

PROJECT NO.: 204-036	STATE: NC	COUNTY: Onslow	LOCATION: MCB Camp Lejeune
PROJECT NAME: LCH-4015		LOGGED BY: AMH	BORING ID: SB38
		DRILLER: William Miller	
LATITUDE:	LONGITUDE:	CREW:	
SYSTEM:	BORING LOCATION: See Map		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 4.0
START DATE: 09/28/04	FINISH DATE: 09/28/04	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	SAMP. TYPE	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0	DIRECT PUSH						0.0	TOPSOIL	
0.5	DIRECT PUSH		▲19.3		SP/SM		0.5	Olive/dark brown v.f. SAND with some silt - dry Slight HCO	
1.0	DIRECT PUSH	DP	▲30.7	SB38	SP/SM		1.0	Olive, v.f. SAND with some silt - dry Slight HCO	
2.0	DIRECT PUSH		▲34.7		SP/SM		2.0	Olive, v.f. SAND with some silt and dark brown v.f. Silty SAND - moist Slight HCO	
3.0	DIRECT PUSH		▲211		SM		3.0	Olive v.f. Silty SAND - wet Some HCO	
4.0							4.0	Boring Terminated at Depth 4.0 ft	

CATLIN ENVIRO_LOG_204-036.GPJ_CATLIN.GDT_11/24/04

BORING LOG

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SHEET 1 OF 1

PROJECT NO.: 204-036	**STATE:** NC	**COUNTY:** Onslow	**LOCATION:** MCB Camp Lejeune
PROJECT NAME: LCH-4015		**LOGGED BY:** AMH	**BORING ID:** SB39
		DRILLER: William Miller	
LATITUDE:	**LONGITUDE:**	**CREW:**	
SYSTEM:	**BORING LOCATION:** See Map		**LAND ELEV.:** NM
DRILL MACHINE: Power Probe	**METHOD:** Direct Push	**0 HOUR DTW:**	**BORING DEPTH:** 4.0
START DATE: 09/29/04	**FINISH DATE:** 09/29/04	**24 HOUR DTW:**	**ROCK DEPTH:** --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	SAMP. TYPE	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0	DIRECT PUSH						0.0	ASPHALT	
0.3	DIRECT PUSH		▲4.0		GP		0.3	Olive fine SAND with some silt and GRAVEL - dry Slight HCO	
1.0	DIRECT PUSH	DP	▲7.5	SB39	SP/ SM		1.0	Olive med. grain SAND with some silt - dry Some HCO	
2.0	DIRECT PUSH		▲7.8		SP/ SM		2.0	Olive med. grain SAND with some silt - damp Some HCO	
3.0	DIRECT PUSH		▲9.7		SP/ SM		3.0	Light brown fine SAND with trace silt and dark brown v.f. Silty SAND - moist Slight HCO	
4.0							4.0	Boring Terminated at Depth 4.0 ft	

BORING LOG

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SHEET 1 OF 1

PROJECT NO.: 204-036	STATE: NC	COUNTY: Onslow	LOCATION: MCB Camp Lejeune
PROJECT NAME: LCH-4015	LOGGED BY: AMH	DRILLER: William Miller	BORING ID: SB40
LATITUDE:	LONGITUDE:	CREW:	
SYSTEM:	BORING LOCATION: See Map		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 4.0
START DATE: 09/29/04	FINISH DATE: 09/29/04	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	SAMP. TYPE	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0	DIRECT PUSH						0.0	ASPHALT	
0.3	DIRECT PUSH				SP/ SM		0.3	Olive fine SAND with some silt - dry No HCO	
1.0	DIRECT PUSH	DP	▲30.5	SB40	SP/ SM		1.0	Olive v.f. SAND with some silt - dry No HCO	
2.0	DIRECT PUSH		▲30.5		SP/ SM		2.0	Olive v.f. SAND with some silt - damp No HCO	
3.0	DIRECT PUSH		▲1180		SP/ SM		3.0	Olive v.f. SAND with some silt - moist No HCO	
4.0							4.0	Boring Terminated at Depth 4.0 ft	

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BORING LOG

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PROJECT NO.: 204-036	**STATE:** NC	**COUNTY:** Onslow	**LOCATION:** MCB Camp Lejeune
PROJECT NAME: LCH-4015		**LOGGED BY:** AMH	**BORING ID:** SB41
		DRILLER: William Miller	
LATITUDE:	**LONGITUDE:**	**CREW:**	
SYSTEM:	**BORING LOCATION:** See Map		**LAND ELEV.:** NM
DRILL MACHINE: Power Probe	**METHOD:** Direct Push	**0 HOUR DTW:**	**BORING DEPTH:** 4.0
START DATE: 09/29/04	**FINISH DATE:** 09/29/04	**24 HOUR DTW:**	**ROCK DEPTH:** --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	SAMP. TYPE	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0	DIRECT PUSH						0.0	ASPHALT	
0.3	DIRECT PUSH		▲4.9		GP		0.3	Light brown med. SAND with some silt and GRAVEL - dry No HCO	
1.0	DIRECT PUSH		▲10.3		SP/SM		1.0	Light brown/olive v.f. SAND with some silt - dry No HCO	
2.0	DIRECT PUSH	DP	▲22.3	SB41	SP/SM		2.0	Light brown/olive v.f. SAND with some silt and dark brown v.f. Silty SAND - damp Slight HCO	
3.0	DIRECT PUSH		▲15.8		SM		3.0	Dark brown v.f. Silty SAND - moist to wet No HCO	
4.0							4.0	Boring Terminated at Depth 4.0 ft	

BORING LOG

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PROJECT NO.: 204-036	**STATE:** NC	**COUNTY:** Onslow	**LOCATION:** MCB Camp Lejeune
PROJECT NAME: LCH-4015		**LOGGED BY:** AMH	**BORING ID:** SB42
		DRILLER: William Miller	
LATITUDE:	**LONGITUDE:**	**CREW:**	
SYSTEM:	**BORING LOCATION:** See Map		**LAND ELEV.:** NM
DRILL MACHINE: Power Probe	**METHOD:** Direct Push	**0 HOUR DTW:**	**BORING DEPTH:** 4.0
START DATE: 09/29/04	**FINISH DATE:** 09/29/04	**24 HOUR DTW:**	**ROCK DEPTH:** --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	SAMP. TYPE	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0	DIRECT PUSH						0.0	TOPSOIL	
0.5	DIRECT PUSH		▲42.9		SM/ ML		0.5	Dark brown Sandy SILT and olive v.f. SAND with some silt - dry Slight HCO	
1.0	DIRECT PUSH		▲4.2		GP		1.0	Olive v.f. SAND with some silt and GRAVEL - damp Slight HCO	
2.0	DIRECT PUSH	DP	▲3.5	SB42	SM		2.0	Dark brown v.f. Silty SAND - moist No HCO	
3.0	DIRECT PUSH		▲4.5		SM/ ML		3.0	Dark brown Sandy SILT and olive v.f. Silty SAND - wet No HCO	
4.0							4.0	Boring Terminated at Depth 4.0 ft	

BORING LOG

CATLIN ENGINEERS and SCIENTISTS ENGLISH Wilmington, North Carolina

SHEET 1 OF 1

PROJECT NO.: 204-036	STATE: NC	COUNTY: Onslow	LOCATION: MCB Camp Lejeune
PROJECT NAME: LCH-4015	LOGGED BY: AMH		BORING ID: SB43
	DRILLER: William Miller		
LATITUDE:	LONGITUDE:	CREW:	
SYSTEM:	BORING LOCATION: See Map		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 4.0
START DATE: 09/29/04	FINISH DATE: 09/29/04	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	SAMP. TYPE	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0	DIRECT PUSH						0.0	TOPSOIL	
0.5	DIRECT PUSH		▲5.3		SM/ ML		0.5	Dark brown Sandy SILT and olive v.f. SAND with some silt - dry No HCO	
1.0	DIRECT PUSH		▲3.7		SP/ SM		1.0	Olive v.f. SAND with some silt and dark brown v.f. Silty SAND - dry No HCO	
2.0	DIRECT PUSH	DP	▲4.0	SB43	SM		2.0	Dark brown v.f. Silty SAND - moist No HCO	
3.0	DIRECT PUSH		▲7.0		SM		3.0	Olive v.f. Silty SAND with some light brown clay - wet No HCO	
4.0							4.0	Boring Terminated at Depth 4.0 ft	

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BORING LOG

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PROJECT NO.: 204-036	STATE: NC	COUNTY: Onslow	LOCATION: MCB Camp Lejeune
PROJECT NAME: LCH-4015		LOGGED BY: AMH	BORING ID: SB44
		DRILLER: William Miller	
LATITUDE:	LONGITUDE:	CREW:	
SYSTEM:	BORING LOCATION: See Map		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 4.0
START DATE: 09/30/04	FINISH DATE: 09/30/04	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	SAMP. TYPE	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0	DIRECT PUSH						0.0	ASPHALT	
0.3	DIRECT PUSH		▲201		GP		0.3 1.0	Orange med. grain SAND with some silt and GRAVEL - dry Some HCO	
1.0	DIRECT PUSH	DP	+9999▲	SB44	SP		2.0	Light brown/grey v.f. SAND with trace SILT - dry Some HCO	
2.0	DIRECT PUSH		▲507		SP/ SM		3.0	Grey v.f. SAND with trace silt and dark brown v.f. Silty SAND - moist Slight HCO	
3.0	DIRECT PUSH		▲396		SM		4.0	Olive/grey v.f. Silty SAND with trace clay - moist No HCO	
4.0								Boring Terminated at Depth 4.0 ft	

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BORING LOG

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Wilmington, North Carolina

SHEET 1 OF 1

PROJECT NO.: 204-036	**STATE:** NC	**COUNTY:** Onslow	**LOCATION:** MCB Camp Lejeune
PROJECT NAME: LCH-4015		**LOGGED BY:** AMH	**BORING ID:** SB45
		DRILLER: William Miller	
LATITUDE:	**LONGITUDE:**	**CREW:**	
SYSTEM:	**BORING LOCATION:** See Map		**LAND ELEV.:** NM
DRILL MACHINE: Power Probe	**METHOD:** Direct Push	**0 HOUR DTW:**	**BORING DEPTH:** 4.0
START DATE: 09/30/04	**FINISH DATE:** 09/30/04	**24 HOUR DTW:**	**ROCK DEPTH:** --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	SAMP. TYPE	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0	DIRECT PUSH						0.0	ASPHALT	
0.3	DIRECT PUSH		▲760		GP		0.3 1.0	Brown/olive med. SAND with some silt and GRAVEL - dry Slight HCO	
1.0	DIRECT PUSH	DP	▲42.0	SB45	SP/ SM		2.0	Olive v.f. to f. SAND with some silt - dry Slight HCO	
2.0	DIRECT PUSH		▲176		SM		3.0	Dark brown v.f. Silty SAND - moist to wet Slight HCO	
3.0	DIRECT PUSH		▲83.5		SM		4.0	Olive v.f. Silty SAND with some clay - wet No HCO	
4.0								Boring Terminated at Depth 4.0 ft	

CATLIN ENVIRO LOG 204-036.GPJ CATLIN.GDT 11/24/04

BORING LOG

CATLIN ENGINEERS and SCIENTISTS ENGLISH Wilmington, North Carolina

SHEET 1 OF 1

PROJECT NO.: 204-036	STATE: NC	COUNTY: Onslow	LOCATION: MCB Camp Lejeune
PROJECT NAME: LCH-4015	LOGGED BY: AMH		BORING ID: SB46
	DRILLER: William Miller		
LATITUDE:	LONGITUDE:	CREW:	
SYSTEM:	BORING LOCATION: See Map		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 6.0
START DATE: 09/30/04	FINISH DATE: 09/30/04	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	SAMP. TYPE	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0	DIRECT PUSH						0.0	ASPHALT	
0.3	DIRECT PUSH		▲17.0		GP		0.3	Brown/olive med. SAND with some silt and GRAVEL - dry No HCO	
1.0	DIRECT PUSH	DP	▲29.2	SB46	SM		1.0	Dark brown/olive v.f. Silty SAND - damp No HCO	
3.0	DIRECT PUSH		▲134		SM		3.0	Olive v.f. Silty SAND - wet Slight HCO	
4.0	DIRECT PUSH		▲54.0		SM		4.0	Olive v.f. Silty SAND with some clay - wet Slight HCO	
5.0	DIRECT PUSH		▲67.3		SM		5.0	Olive v.f. Silty SAND with trace clay - wet Slight HCO	
6.0							6.0	Boring Terminated at Depth 6.0 ft	

CATLIN ENVIRO_LOG_204-036.GPJ_CATLIN.GDT_11/24/04

BORING LOG

CATLIN ENGINEERS and SCIENTISTS ENGLISH Wilmington, North Carolina

SHEET 1 OF 1

PROJECT NO.: 204-036	STATE: NC	COUNTY: Onslow	LOCATION: MCB Camp Lejeune
PROJECT NAME: LCH-4015	LOGGED BY: AMH		BORING ID: SB47
	DRILLER: William Miller		
LATITUDE:	LONGITUDE:	CREW:	
SYSTEM:	BORING LOCATION: See Map		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 4.0
START DATE: 09/30/04	FINISH DATE: 09/30/04	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	SAMP. TYPE	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0	DIRECT PUSH						0.0	ASPHALT	
0.3	DIRECT PUSH		▲54.5		GP		0.3	Brown/orange med SAND with some silt and GRAVEL - dry Slight HCO	
1.0	DIRECT PUSH	DP	▲25.6	SB47	SP/ SM		1.0	Olive/brown v.f. SAND with some silt - dry Slight HCO	
2.0	DIRECT PUSH		▲354		SM		2.0	Dark brown v.f. Silty SAND - moist Slight HCO	
3.0	DIRECT PUSH		▲310		SM		3.0	Olive v.f. Silty SAND - wet Slight HCO	
4.0							4.0	Boring Terminated at Depth 4.0 ft	

CATLIN ENVIRO LOG 204-036.GPJ CATLIN.GDT 11/24/04

BORING LOG

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SHEET 1 OF 1

PROJECT NO.: 204-036	STATE: NC	COUNTY: Onslow	LOCATION: MCB Camp Lejeune
PROJECT NAME: LCH-4015		LOGGED BY: AMH	BORING ID: SB48
		DRILLER: William Miller	
LATITUDE:	LONGITUDE:	CREW:	
SYSTEM:	BORING LOCATION: See Map		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 6.0
START DATE: 09/30/04	FINISH DATE: 09/30/04	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	SAMP. TYPE	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
							0.0	LAND SURFACE	
0.0	DIRECT PUSH						0.0	ASPHALT	
0.3	DIRECT PUSH		▲45.3		SP/SM		0.3	Olive v.f. SAND with some silt and dark brown v.f. Silty SAND - dry Trace HCO	
1.0	DIRECT PUSH	DP	▲20.5	SB48	SP/SM		1.0	Olive/dark brown v.f. SAND with some silt and dark brown Silty SAND - dry Trace HCO	
3.0	DIRECT PUSH		▲40.6		SP/SM		3.0	Olive v.f. SAND with some silt - moist Slight HCO	
4.0	DIRECT PUSH		▲82.2		SM		4.0	Olive v.f. Silty SAND with trace clay - wet Trace HCO	
5.0	DIRECT PUSH		▲25.0		SM		5.0	Olive v.f. Silty SAND - wet No HCO	
6.0							6.0	Boring Terminated at Depth 6.0 ft	

CATLIN ENVIRO LOG 204-036.GPJ CATLIN.GDT 11/24/04

WELL LOG

CATLIN ENGINEERS and SCIENTISTS
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SHEET 1 OF 1

PROJECT NO.: 204-036	STATE: NC	COUNTY: Onslow	LOCATION: MCB Camp Lejeune
PROJECT NAME: LCH-4015		LOGGED BY: AMH	WELL ID: PZ49
		DRILLER: William Miller	
NORTHING:	EASTING:	CREW:	
SYSTEM:	BORING LOCATION: See Map		T.O.C. ELEV.:
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 4.0
START DATE: 09/27/04	FINISH DATE: 09/27/04	24 HOUR DTW:	WELL DEPTH: 5.0

DEPTH	BLOW COUNT 6in	6in	6in	6in	OVA (ppm)	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	WELL DETAIL
									0.0	LAND SURFACE	0.0
0.0	DP	DP	DP	DP					0.3	ASPHALT	0.0
0.3	DP	DP	DP	DP	2.3	PZ49	SM		2.0	Dark brown v.f. Silty SAND - damp No HCO	1" Sch. 40 PVC
2.0	DP	DP	DP	DP	1.7		SM		4.0	Olive/grey v.f. Silty SAND with trace clay - wet No HCO	1" Slot .010 Sch. 40 PVC
										Boring Terminated at Depth 4.0 ft DP = DIRECT PUSH	5.0 5.0

#2 Medium Sand

CATLIN BORING LOG 204-036.GPJ CATLIN.GDT 11/30/04

WELL LOG

CATLIN ENGINEERS and SCIENTISTS
Wilmington, North Carolina

SHEET 1 OF 1

PROJECT NO.: 204-036	STATE: NC	COUNTY: Onslow	LOCATION: MCB Camp Lejeune
PROJECT NAME: LCH-4015		LOGGED BY: AMH	WELL ID: PZ50
		DRILLER: William Miller	
NORTHING:	EASTING:	CREW:	
SYSTEM:	BORING LOCATION: See Map		T.O.C. ELEV.:
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 4.0
START DATE: 09/27/04	FINISH DATE: 09/27/04	24 HOUR DTW:	WELL DEPTH: 5.0

DEPTH	BLOW COUNT 6in	6in	6in	6in	OVA (ppm)	LAB.	USCS	LOG	SOIL AND ROCK DESCRIPTION	WELL DETAIL
									0.0 LAND SURFACE	0.0
0.0	DP	DP	DP	DP					0.3 ASPHALT	0.0 1" Sch. 40 PVC
0.3	DP	DP	DP	DP			GP		GRAVEL and orange/grey v.f. SAND with some silt and trace clay - moist No HCO 2.0	
2.0	DP	DP	DP	DP	1.0	PZ50	SP		Orange/grey v.f. SAND with some silt and trace clay - wet No HCO 4.0	1" Slot .010 Sch. 40 PVC
									Boring Terminated at Depth 4.0 ft DP = DIRECT PUSH	5.0 5.0

#2 Medium Sand

CATLIN BORING LOG 204-036.GPJ CATLIN.GDT 11/30/04

WELL LOG

CATLIN ENGINEERS and SCIENTISTS
Wilmington, North Carolina

SHEET 1 OF 1

PROJECT NO.: 204-036	STATE: NC	COUNTY: Onslow	LOCATION: MCB Camp Lejeune
PROJECT NAME: LCH-4015		LOGGED BY: AMH	WELL ID: PZ51
		DRILLER: William Miller	
NORTHING:	EASTING:	CREW:	
SYSTEM:	BORING LOCATION: See Map		T.O.C. ELEV.:
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 4.0
START DATE: 09/27/04	FINISH DATE: 09/27/04	24 HOUR DTW:	WELL DEPTH: 5.0

DEPTH	BLOW COUNT 6in	6in	6in	6in	OVA (ppm)	LAB.	USCS	LOG	SOIL AND ROCK DESCRIPTION	WELL DETAIL
									0.0 LAND SURFACE	0.0
0.0	DP	DP	DP	DP					0.3 ASPHALT	0.0 1" Sch. 40 PVC
0.3	DP	DP	DP	DP	0.5	PZ51	SP		Orange v.f. SAND with some silt and trace clay - damp No HCO 2.0	
2.0	DP	DP	DP	DP	0.5	PZ51	SP		Grey/orange v.f. SAND with some silt and v.f. Silty SAND - wet No HCO 4.0	1" Slot .010 Sch. 40 PVC
									Boring Terminated at Depth 4.0 ft DP = DIRECT PUSH	5.0 5.0

#2 Medium Sand

CATLIN BORING LOG 204-036.GPJ CATLIN.GDT 11/30/04

APPENDIX B

CATLIN STANDARD PROCEDURES

CATLIN STANDARD METHODS OF INVESTIGATION

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 is 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 is 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 face 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 is evaluated as follows:

- Background data is evaluated in context with the suspected or confirmed problem.

- Survey data is 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, isopachs, structure contours, or other constructions. Regional geologic data are used to obtain an overall framework.

- Hydrogeologic data is 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 is utilized to develop various plume geometry and isoconcentration maps.

- All data is compiled and utilized for making specific recommendations with regard to remedial action alternatives.

APPENDIX C

LABORATORY REPORTS
AND
CHAIN-OF-CUSTODY DOCUMENTATION

204-056

FILE COPY

PARADIGM ANALYTICAL LABORATORIES, INC.
5500 Business Drive
Wilmington, North Carolina 28405
(910) 350-1903
Fax (910) 350-1557

Mr. Jeff Becken
Richard Catlin & Associates
P.O. Box 10280
Wilmington NC 28404-0280

Report Number: G128-1390

Client Project: LCH 4015

Dear Mr. Becken:

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 Paradigm at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

Thank you for using 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,
Paradigm Analytical Laboratories, Inc.

10/21/04
Laboratory Director Date
J. Patrick Weaver

CASE NARATIVE

Date: October 25, 2004

Richard Catlin and Associates project ID: LCH 4015
Paradigm Analytical ID: G128-1390

Fifty-three soil samples and a trip blank were received at the laboratory October 1 for analysis as indicated on the chain of custody. The samples were received in good condition, within temperature and holding time limits.

All extractions were completed within holding time.

There were no quality control exceptions with the EPH, VPH, DRO, GRO, or 8270 analyses.

One of the 8260 analyses, for sample USTLCH4034-PZ-50, had one surrogate recovery above the acceptance limit. The high recovery may indicate a high bias for any target detections, but no targets were found in this sample. The sample was not reanalyzed to confirm the out of range surrogate measurement.

A second sample, USTLCH4034-PZ07, was analyzed at two dilutions, 1:1 and 50:1, due to elevated target concentrations. However, the results from the 1:1 dilutions, the sodium bisulfate persevered vials were a much lower concentration than the results obtained in the 50:1 dilution using the methanol preserved vial. The difference could be due to a non-homogeneity. Both sets of results are included.

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: LCH 4015

Sample Information and Analytical Results	
Sample Identification	USTLCH4034-PZ01
Sample Matrix	Soil
Date Collected	09/28/04
Date Received	10/01/04
Date Extracted	10/04/04
Date Analyzed	10/07/04
Dry Weight	83.2
Dilution Factor	1
C_9-C_{18} Aliphatics*	< 10 (mg/Kg)
C_{19}-C_{36} Aliphatics*	< 10 (mg/Kg)
C_{11}-C_{22} Aromatics*	< 10 (mg/Kg)
Aliphatic Surrogate % Recovery	72
Aromatic Surrogate % Recovery	78

Comments:

* = Excludes any surrogates or internal standards.

Sample did not require fractionation.

Lab info: G128-1390-1G

Reviewed By:

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: LCH 4015

Sample Information and Analytical Results	
Sample Identification	USTLCH4034-PZ02
Sample Matrix	Soil
Date Collected	09/27/04
Date Received	10/01/04
Date Extracted	10/04/04
Date Analyzed	10/07/04
Dry Weight	86.6
Dilution Factor	1
C_9-C_{18} Aliphatics*	< 10 (mg/Kg)
C_{19}-C_{36} Aliphatics*	< 10 (mg/Kg)
C_{11}-C_{22} Aromatics*	< 10 (mg/Kg)
Aliphatic Surrogate % Recovery	70
Aromatic Surrogate % Recovery	75

Comments:

* = Excludes any surrogates or internal standards.
Sample did not require fractionation.

Lab info: G128-1390-2G

Reviewed By:

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: LCH 4015

Sample Information and Analytical Results	
Sample Identification	USTLCH4034-PZ03
Sample Matrix	Soil
Date Collected	09/28/04
Date Received	10/01/04
Date Extracted	10/04/04
Date Analyzed	10/07/04
Dry Weight	83.4
Dilution Factor	1
C_9-C_{18} Aliphatics*	< 10 (mg/Kg)
C_{19}-C_{36} Aliphatics*	< 10 (mg/Kg)
C_{11}-C_{22} Aromatics*	< 10 (mg/Kg)
Aliphatic Surrogate % Recovery	75
Aromatic Surrogate % Recovery	78

Comments:

* = Excludes any surrogates or internal standards.
Sample did not require fractionation.

Lab info: G128-1390-3G

Reviewed By:

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: LCH 4015

Sample Information and Analytical Results	
Sample Identification	USTLCH4034-PZ04
Sample Matrix	Soil
Date Collected	09/28/04
Date Received	10/01/04
Date Extracted	10/05/04
Date Analyzed	10/07/04
Dry Weight	84.7
Dilution Factor	1
C_9-C_{18} Aliphatics*	< 10 (mg/Kg)
C_{19}-C_{36} Aliphatics*	< 10 (mg/Kg)
C_{11}-C_{22} Aromatics*	< 10 (mg/Kg)
Aliphatic Surrogate % Recovery	73
Aromatic Surrogate % Recovery	74

Comments:

* = Excludes any surrogates or internal standards.
Sample did not require fractionation.

Lab info: G128-1390-4H

Reviewed By:

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: LCH 4015

Sample Information and Analytical Results	
Sample Identification	USTLCH4034-PZ05
Sample Matrix	Soil
Date Collected	09/27/04
Date Received	10/01/04
Date Extracted	10/04/04
Date Analyzed	10/07/04
Dry Weight	87.1
Dilution Factor	1
C_9-C_{18} Aliphatics*	< 10 (mg/Kg)
C_{19}-C_{36} Aliphatics*	< 10 (mg/Kg)
C_{11}-C_{22} Aromatics*	< 10 (mg/Kg)
Aliphatic Surrogate % Recovery	72
Aromatic Surrogate % Recovery	72

Comments:

* = Excludes any surrogates or internal standards.
Sample did not require fractionation.

Lab info: G128-1390-5G

Reviewed By:

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: LCH 4015

Sample Information and Analytical Results	
Sample Identification	USTLCH4034-PZ06
Sample Matrix	Soil
Date Collected	09/28/04
Date Received	10/01/04
Date Extracted	10/04/04
Date Analyzed	10/21/04
Dry Weight	88.2
Dilution Factor	1:1
C_9-C_{18} Aliphatics*	22 (mg/Kg)
C_{19}-C_{36} Aliphatics*	< 10 (mg/Kg)
C_{11}-C_{22} Aromatics*	< 10 (mg/Kg)
Aliphatic Surrogate % Recovery	95
Aromatic Surrogate % Recovery	75
Fractionation Surrogate 1 % Recovery	81

Comments:

* = Excludes any surrogates or internal standards.

Lab info: G128-1390-6G

Reviewed By:

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: LCH 4015

Sample Information and Analytical Results	
Sample Identification	USTLCH4034-PZ06 Dup
Sample Matrix	Soil
Date Collected	09/28/04
Date Received	10/01/04
Date Extracted	10/04/04
Date Analyzed	10/20/04
Dry Weight	88.2
Dilution Factor	1:1
C_9-C_{18} Aliphatics*	< 10 (mg/Kg)
C_{19}-C_{36} Aliphatics*	< 10 (mg/Kg)
C_{11}-C_{22} Aromatics*	140 (mg/Kg)
Aliphatic Surrogate % Recovery	72
Aromatic Surrogate % Recovery	68
Fractionation Surrogate 1 % Recovery	100

Comments:

* = Excludes any surrogates or internal standards.

Lab info: G128-1390-7G

Reviewed By:

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: LCH 4015

Sample Information and Analytical Results	
Sample Identification	USTLCH4034-PZ07
Sample Matrix	Soil
Date Collected	09/27/04
Date Received	10/01/04
Date Extracted	10/04/04
Date Analyzed	10/20/04
Dry Weight	83.8
Dilution Factor	1:1
C_9-C_{18} Aliphatics*	< 10 (mg/Kg)
C_{19}-C_{36} Aliphatics*	150 (mg/Kg)
C_{11}-C_{22} Aromatics*	280 (mg/Kg)
Aliphatic Surrogate % Recovery	77
Aromatic Surrogate % Recovery	72
Fractionation Surrogate 1 % Recovery	110

Comments:

* = Excludes any surrogates or internal standards.

Lab info: G128-1390-8G

Reviewed By:

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: LCH 4015

Sample Information and Analytical Results	
Sample Identification	USTLCH4034-PZ08
Sample Matrix	Soil
Date Collected	09/27/04
Date Received	10/01/04
Date Extracted	10/04/04
Date Analyzed	10/07/04
Dry Weight	87.5
Dilution Factor	1
C_9-C_{18} Aliphatics*	< 10 (mg/Kg)
C_{19}-C_{36} Aliphatics*	< 10 (mg/Kg)
C_{11}-C_{22} Aromatics*	< 10 (mg/Kg)
Aliphatic Surrogate % Recovery	79
Aromatic Surrogate % Recovery	71

Comments:

* = Excludes any surrogates or internal standards.
Sample did not require fractionation.

Lab info: G128-1390-9G

Reviewed By:

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: LCH 4015

Sample Information and Analytical Results	
Sample Identification	USTLCH4034-PZ49
Sample Matrix	Soil
Date Collected	09/27/04
Date Received	10/01/04
Date Extracted	10/04/04
Date Analyzed	10/07/04
Dry Weight	85.3
Dilution Factor	1
C_9-C_{18} Aliphatics*	< 10 (mg/Kg)
C_{19}-C_{36} Aliphatics*	< 10 (mg/Kg)
C_{11}-C_{22} Aromatics*	< 10 (mg/Kg)
Aliphatic Surrogate % Recovery	79
Aromatic Surrogate % Recovery	72

Comments:

* = Excludes any surrogates or internal standards.
Sample did not require fractionation.

Lab info: G128-1390-10G

Reviewed By:

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: LCH 4015

Sample Information and Analytical Results	
Sample Identification	USTLCH4034-PZ50
Sample Matrix	Soil
Date Collected	09/27/04
Date Received	10/01/04
Date Extracted	10/04/04
Date Analyzed	10/07/04
Dry Weight	83.8
Dilution Factor	1
C_9-C_{18} Aliphatics*	< 10 (mg/Kg)
C_{19}-C_{36} Aliphatics*	< 10 (mg/Kg)
C_{11}-C_{22} Aromatics*	< 10 (mg/Kg)
Aliphatic Surrogate % Recovery	76
Aromatic Surrogate % Recovery	72

Comments:

* = Excludes any surrogates or internal standards.
Sample did not require fractionation.

Lab info: G128-1390-11G

Reviewed By:

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: LCH 4015

Sample Information and Analytical Results	
Sample Identification	USTLCH4034-PZ51
Sample Matrix	Soil
Date Collected	09/28/04
Date Received	10/01/04
Date Extracted	10/04/04
Date Analyzed	10/07/04
Dry Weight	83.7
Dilution Factor	1
C_9-C_{18} Aliphatics*	< 10 (mg/Kg)
C_{19}-C_{36} Aliphatics*	< 10 (mg/Kg)
C_{11}-C_{22} Aromatics*	< 10 (mg/Kg)
Aliphatic Surrogate % Recovery	76
Aromatic Surrogate % Recovery	70

Comments:

* = Excludes any surrogates or internal standards.

Sample did not require fractionation.

Lab info: G128-1390-12G

Reviewed By:

Attachment 3

EPH Laboratory Reporting Form

Calibration and QA/QC Information

Initial Calibration Date: 08/09/04

Calibration Ranges and Limits

Range	MDL (µg/L)		ML (µg/L)		RL (µg/L)	RL (mg/Kg)
C_9-C_{18} Aliphatics	0.1	0.8	0.3	2.6	100	10
C_{19}-C_{36} Aliphatics	0.1	1.6	0.3	5	100	10
C_{11}-C_{22} Aromatics	0.2	2.1	0.6	6.7	100	10

Calibration Concentration Levels

Range	Levels (µg/mL)	%RSD or CCC	Method of Quantitation
C_9-C_{18} Aliphatics	6	9.70	Calibration Factor
	30		
	60		
	120		
	240		
C_{19}-C_{36} Aliphatics	8	8.6	Calibration Factor
	40		
	80		
	160		
	320		
C_{11}-C_{22} Aromatics	17	7.9	Calibration Factor
	85		
	170		
	340		
	680		

Calibration Check Date: 10/07/04

Calibration Check

Range	Levels (µg/mL)	RPD
C_9-C_{18} Aliphatics	120	-4.4
C_{19}-C_{36} Aliphatics	160	-20.5
C_{11}-C_{22} Aromatics	340	-17.3

MDL = Method Detection Limit
ML = Minimum Limit
RL = Reportable Limit

RPD = Relative Percent Difference
%RSD = Percent Relative Standard Deviation
CCC = Correlation Coefficient of Curve

Attachment 3

EPH Laboratory Reporting Form

Calibration and QA/QC Information

Initial Calibration Date: 08/09/04

Calibration Ranges and Limits

Range	MDL (µg/L)		ML (µg/L)		RL (µg/L)	RL (mg/Kg)
C_9-C_{18} Aliphatics	0.1	0.8	0.3	2.6	100	10
C_{19}-C_{36} Aliphatics	0.1	1.6	0.3	5	100	10
C_{11}-C_{22} Aromatics	0.2	2.1	0.6	6.7	100	10

Calibration Concentration Levels

Range	Levels (µg/mL)	%RSD or CCC	Method of Quantitation
C_9-C_{18} Aliphatics	6	9.70	Calibration Factor
	30		
	60		
	120		
	240		
C_{19}-C_{36} Aliphatics	8	8.6	Calibration Factor
	40		
	80		
	160		
	320		
C_{11}-C_{22} Aromatics	17	7.9	Calibration Factor
	85		
	170		
	340		
	680		

Calibration Check Date: 10/20/04

Calibration Check

Range	Levels (µg/mL)	RPD
C_9-C_{18} Aliphatics	120	-0.4
C_{19}-C_{36} Aliphatics	160	-6.8
C_{11}-C_{22} Aromatics	340	8.5

MDL = Method Detection Limit
ML = Minimum Limit
RL = Reportable Limit
RPD = Relative Percent Difference
%RSD = Percent Relative Standard Deviation
CCC = Correlation Coefficient of Curve

Attachment 3

EPH Laboratory Reporting Form

Calibration and QA/QC Information

Initial Calibration Date: 08/09/04

Calibration Ranges and Limits

Range	MDL (µg/L)		ML (µg/L)		RL (µg/L)	RL (mg/Kg)
C_9-C_{18} Aliphatics	0.1	0.8	0.3	2.6	100	10
C_{19}-C_{36} Aliphatics	0.1	1.6	0.3	5	100	10
C_{11}-C_{22} Aromatics	0.2	2.1	0.6	6.7	100	10

Calibration Concentration Levels

Range	Levels (µg/mL)	%RSD or CCC	Method of Quantitation
C_9-C_{18} Aliphatics	6	9.70	Calibration Factor
	30		
	60		
	120		
	240		
C_{19}-C_{36} Aliphatics	8	8.6	Calibration Factor
	40		
	80		
	160		
	320		
C_{11}-C_{22} Aromatics	17	7.9	Calibration Factor
	85		
	170		
	340		
	680		

Calibration Check Date: 10/21/04

Calibration Check

Range	Levels (µg/mL)	RPD
C_9-C_{18} Aliphatics	120	-2.9
C_{19}-C_{36} Aliphatics	160	-8.5
C_{11}-C_{22} Aromatics	340	6.5

MDL = Method Detection Limit
ML = Minimum Limit
RL = Reportable Limit
RPD = Relative Percent Difference
%RSD = Percent Relative Standard Deviation
CCC = Correlation Coefficient of Curve

VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: LCH 4015

Sample Information and Analytical Results	
Sample Identification	USTLCH4034-PZ01
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	09/28/04
Date Received	10/01/04
Date Extracted	09/28/04
Date Analyzed	10/07/04
Dry Weight	83
Dilution Factor	1
C_5-C_8 Aliphatics**	< 10 (mg/Kg)
C_9-C_{12} Aliphatics**	< 10 (mg/Kg)
C_9-C_{10} Aromatics**	< 10 (mg/Kg)
Surrogate % Recovery - PID	94
Surrogate % Recovery - FID	110

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards.

Lab Info: g128-1390-1e

Reviewed By:

VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

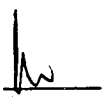
Project Name: LCH 4015

Sample Information and Analytical Results	
Sample Identification	USTLCH4034-PZ02
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	09/27/04
Date Received	10/01/04
Date Extracted	09/28/04
Date Analyzed	10/07/04
Dry Weight	87
Dilution Factor	1
C_5-C_8 Aliphatics**	< 10 (mg/Kg)
C_9-C_{12} Aliphatics**	< 10 (mg/Kg)
C_9-C_{10} Aromatics**	< 10 (mg/Kg)
Surrogate % Recovery - PID	92
Surrogate % Recovery - FID	110

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards.

Lab Info: g128-1390-2e

Reviewed By: 

VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

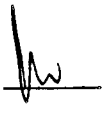
Project Name: LCH 4015

Sample Information and Analytical Results	
Sample Identification	USTLCH4034-PZ03
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	09/28/04
Date Received	10/01/04
Date Extracted	09/28/04
Date Analyzed	10/07/04
Dry Weight	83
Dilution Factor	1
C_5-C_8 Aliphatics**	< 10 (mg/Kg)
C_9-C_{12} Aliphatics**	< 10 (mg/Kg)
C_9-C_{10} Aromatics**	< 10 (mg/Kg)
Surrogate % Recovery - PID	90
Surrogate % Recovery - FID	100

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards.

Lab Info: g128-1390-3e

Reviewed By: 

VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: LCH 4015

Sample Information and Analytical Results	
Sample Identification	USTLCH4034-PZ04
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	09/28/04
Date Received	10/01/04
Date Extracted	09/28/04
Date Analyzed	10/07/04
Dry Weight	85
Dilution Factor	1
C_5-C_8 Aliphatics**	< 10 (mg/Kg)
C_9-C_{12} Aliphatics**	< 10 (mg/Kg)
C_9-C_{10} Aromatics**	< 10 (mg/Kg)
Surrogate % Recovery - PID	100
Surrogate % Recovery - FID	120

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards.

Lab Info: g128-1390-4e

Reviewed By:

VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: LCH 4015

Sample Information and Analytical Results	
Sample Identification	USTLCH4034-PZ05
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	09/27/04
Date Received	10/01/04
Date Extracted	09/28/04
Date Analyzed	10/07/04
Dry Weight	87
Dilution Factor	1
C_5-C_8 Aliphatics**	< 10 (mg/Kg)
C_9-C_{12} Aliphatics**	< 10 (mg/Kg)
C_9-C_{10} Aromatics**	< 10 (mg/Kg)
Surrogate % Recovery - PID	84
Surrogate % Recovery - FID	99

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards.

Lab Info: g128-1390-5e

Reviewed By:

VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: LCH 4015

Sample Information and Analytical Results	
Sample Identification	USTLCH4034-PZ06
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	09/28/04
Date Received	10/01/04
Date Extracted	09/28/04
Date Analyzed	10/22/04
Dry Weight	88
Dilution Factor	1
C_5-C_8 Aliphatics**	< 10 (mg/Kg)
C_9-C_{12} Aliphatics**	< 10 (mg/Kg)
C_9-C_{10} Aromatics**	< 10 (mg/Kg)
Surrogate % Recovery - PID	99
Surrogate % Recovery - FID	99

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards.

Lab Info: g128-1390-6d

Reviewed By:

VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: LCH 4015

Sample Information and Analytical Results	
Sample Identification	USTLCH4034-PZ06 Dup
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	09/28/04
Date Received	10/01/04
Date Extracted	09/28/04
Date Analyzed	10/22/04
Dry Weight	88
Dilution Factor	1
C_5-C_8 Aliphatics**	< 10 (mg/Kg)
C_9-C_{12} Aliphatics**	< 10 (mg/Kg)
C_9-C_{10} Aromatics**	< 10 (mg/Kg)
Surrogate % Recovery - PID	110
Surrogate % Recovery - FID	110

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards.

Lab Info: g128-1390-7d

Reviewed By:

VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: LCH 4015

Sample Information and Analytical Results	
Sample Identification	USTLCH4034-PZ07
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	09/27/04
Date Received	10/01/04
Date Extracted	09/28/04
Date Analyzed	10/07/04
Dry Weight	84
Dilution Factor	1
C_5-C_8 Aliphatics**	< 10 (mg/Kg)
C_9-C_{12} Aliphatics**	11 (mg/Kg)
C_9-C_{10} Aromatics**	< 10 (mg/Kg)
Surrogate % Recovery - PID	110
Surrogate % Recovery - FID	170***

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards.

***= High surrogate recovery due to matrix interference

Lab Info: g128-1390-8e

Reviewed By:

VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: LCH 4015

Sample Information and Analytical Results	
Sample Identification	USTLCH4034-PZ08
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	09/27/04
Date Received	10/01/04
Date Extracted	09/28/04
Date Analyzed	10/07/04
Dry Weight	88
Dilution Factor	1
C_5-C_8 Aliphatics**	< 10 (mg/Kg)
C_9-C_{12} Aliphatics**	< 10 (mg/Kg)
C_9-C_{10} Aromatics**	< 10 (mg/Kg)
Surrogate % Recovery - PID	99
Surrogate % Recovery - FID	110

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards.

Lab Info: g128-1390-9e

Reviewed By:

VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: LCH 4015

Sample Information and Analytical Results	
Sample Identification	USTLCH4034-PZ49
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	09/27/04
Date Received	10/01/04
Date Extracted	09/28/04
Date Analyzed	10/07/04
Dry Weight	85
Dilution Factor	1
C_5-C_8 Aliphatics**	< 10 (mg/Kg)
C_9-C_{12} Aliphatics**	< 10 (mg/Kg)
C_9-C_{10} Aromatics**	< 10 (mg/Kg)
Surrogate % Recovery - PID	90
Surrogate % Recovery - FID	100

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards.

Lab Info: g128-1390-10e

Reviewed By:

VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: LCH 4015

Sample Information and Analytical Results	
Sample Identification	USTLCH4034-PZ50
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	09/27/04
Date Received	10/01/04
Date Extracted	09/28/04
Date Analyzed	10/07/04
Dry Weight	84
Dilution Factor	1
C_5-C_8 Aliphatics**	< 10 (mg/Kg)
C_9-C_{12} Aliphatics**	< 10 (mg/Kg)
C_9-C_{10} Aromatics**	< 10 (mg/Kg)
Surrogate % Recovery - PID	93
Surrogate % Recovery - FID	110

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards.

Lab Info: g128-1390-11e

Reviewed By:

VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: LCH 4015

Sample Information and Analytical Results	
Sample Identification	USTLCH4034-PZ51
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	09/28/04
Date Received	10/01/04
Date Extracted	09/28/04
Date Analyzed	10/07/04
Dry Weight	84
Dilution Factor	1
C_5-C_8 Aliphatics**	< 10 (mg/Kg)
C_9-C_{12} Aliphatics**	< 10 (mg/Kg)
C_9-C_{10} Aromatics**	< 10 (mg/Kg)
Surrogate % Recovery - PID	93
Surrogate % Recovery - FID	110

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards.

Lab Info: g128-1390-12e

Reviewed By: JW

VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: LCH 4015

Sample Information and Analytical Results	
Sample Identification	Trip Blanks
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	10/01/04
Date Received	10/01/04
Date Extracted	09/30/04
Date Analyzed	10/11/04
Dry Weight	100
Dilution Factor	1
C_5-C_8 Aliphatics**	< 10 (mg/Kg)
C_9-C_{12} Aliphatics**	< 10 (mg/Kg)
C_9-C_{10} Aromatics**	< 10 (mg/Kg)
Surrogate % Recovery - PID	100
Surrogate % Recovery - FID	120

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards.

Lab Info: g128-1390-54a

Reviewed By:

Attachment 2

VPH Laboratory Reporting Form

Calibration and QA/QC Information

FID Initial Calibration Date: 08/27/04 PID Initial Calibration Date: 08/27/04

Calibration Ranges and Limits

Range	MDL (07/15/2004) (µg/L)	ML (µg/L)	RL (µg/L)	RL (mg/Kg)
C_5-C_8 Aliphatics	4.4	14	100	10
C_9-C_{12} Aliphatics	3.4	11	100	10
C_9-C_{10} Aromatics	0.13	0.41	100	10

Calibration Concentration Levels

Range	Levels (µg/L)	%RSD or CCC	Method of Quantitation
C_5-C_8 Aliphatics	40	5.5	Calibration Factor
	1000		
	2000		
	3000		
	4000		
C_9-C_{12} Aliphatics	10	17.3	Calibration Factor
	250		
	500		
	750		
	1000		
C_9-C_{10} Aromatics	10	2.8	Calibration Factor
	250		
	500		
	750		
	1000		

Calibration Check Date: 10/06/04

Calibration Check

Range	Levels (µg/L)	Levels (mg/Kg)	RPD
C_5-C_8 Aliphatics	2000	200	3.7
C_9-C_{12} Aliphatics	500	50	18.7
C_9-C_{10} Aromatics	500	50	3.9

MDL = Method Detection Limit
ML = Minimum Limit
RL = Reportable Limit
RPD = Relative Percent Difference
%RSD = Percent Relative Standard Deviation
CCC = Correlation Coefficient of Curve

Attachment 2

VPH Laboratory Reporting Form

Calibration and QA/QC Information

FID Initial Calibration Date: 08/27/04 PID Initial Calibration Date: 08/27/04

Calibration Ranges and Limits

Range	MDL (07/15/2004) (µg/L)	ML (µg/L)	RL (µg/L)	RL (mg/Kg)
C_5-C_8 Aliphatics	4.4	14	100	10
C_9-C_{12} Aliphatics	3.4	11	100	10
C_9-C_{10} Aromatics	0.13	0.41	100	10

Calibration Concentration Levels

Range	Levels (µg/L)	%RSD or CCC	Method of Quantitation
C_5-C_8 Aliphatics	40	5.5	Calibration Factor
	1000		
	2000		
	3000		
	4000		
C_9-C_{12} Aliphatics	10	17.3	Calibration Factor
	250		
	500		
	750		
	1000		
C_9-C_{10} Aromatics	10	2.8	Calibration Factor
	250		
	500		
	750		
	1000		

Calibration Check Date: 10/11/04

Calibration Check

Range	Levels (µg/L)	Levels (mg/Kg)	RPD
C_5-C_8 Aliphatics	2000	200	2.7
C_9-C_{12} Aliphatics	500	50	4.4
C_9-C_{10} Aromatics	500	50	5.3

MDL = Method Detection Limit
ML = Minimum Limit
RL = Reportable Limit
RPD = Relative Percent Difference
%RSD = Percent Relative Standard Deviation
CCC = Correlation Coefficient of Curve

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: USTLCH4034-PZ01
Client Project ID: LCH 4015
Lab Sample ID G128-1390-1A
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 09-28-2004 17:20
Date Received: 10/01/2004
Matrix: Soil
%Solids: 83.2

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	0.0460	1	10/07/2004
Benzene	BQL	0.00460	1	10/07/2004
Bromobenzene	BQL	0.00460	1	10/07/2004
Bromochloromethane	BQL	0.00460	1	10/07/2004
Bromodichloromethane	BQL	0.00460	1	10/07/2004
Bromoform	BQL	0.00460	1	10/07/2004
Bromomethane	BQL	0.00460	1	10/07/2004
2-Butanone	BQL	0.0230	1	10/07/2004
n-Butylbenzene	BQL	0.00460	1	10/07/2004
sec-Butylbenzene	BQL	0.00460	1	10/07/2004
tert-Butylbenzene	BQL	0.00460	1	10/07/2004
Carbon disulfide	BQL	0.00460	1	10/07/2004
Carbon tetrachloride	BQL	0.00460	1	10/07/2004
Chlorobenzene	BQL	0.00460	1	10/07/2004
Chloroethane	BQL	0.00460	1	10/07/2004
Chloroform	BQL	0.00460	1	10/07/2004
Chloromethane	BQL	0.00460	1	10/07/2004
2-Chlorotoluene	BQL	0.00460	1	10/07/2004
4-Chlorotoluene	BQL	0.00460	1	10/07/2004
Dibromochloromethane	BQL	0.00460	1	10/07/2004
1,2-Dibromo-3-chloropropane	BQL	0.00460	1	10/07/2004
Dibromomethane	BQL	0.00460	1	10/07/2004
1,2-Dibromoethane (EDB)	BQL	0.00460	1	10/07/2004
1,2-Dichlorobenzene	BQL	0.00460	1	10/07/2004
1,3-Dichlorobenzene	BQL	0.00460	1	10/07/2004
1,4-Dichlorobenzene	BQL	0.00460	1	10/07/2004
trans-1,4-Dichloro-2-butene	BQL	0.00460	1	10/07/2004
1,1-Dichloroethane	BQL	0.00460	1	10/07/2004
1,1-Dichloroethene	BQL	0.00460	1	10/07/2004
1,2-Dichloroethane	BQL	0.00460	1	10/07/2004
cis-1,2-Dichloroethene	BQL	0.00460	1	10/07/2004
trans-1,2-dichloroethene	BQL	0.00460	1	10/07/2004
1,2-Dichloropropane	BQL	0.00460	1	10/07/2004
1,3-Dichloropropane	BQL	0.00460	1	10/07/2004
2,2-Dichloropropane	BQL	0.00460	1	10/07/2004
1,1-Dichloropropene	BQL	0.00460	1	10/07/2004
cis-1,3-Dichloropropene	BQL	0.00460	1	10/07/2004
trans-1,3-Dichloropropene	BQL	0.00460	1	10/07/2004
Dichlorodifluoromethane	BQL	0.00460	1	10/07/2004
Diisopropyl ether (DIPE)	BQL	0.00460	1	10/07/2004
Ethylbenzene	BQL	0.00460	1	10/07/2004
Hexachlorobutadiene	BQL	0.00460	1	10/07/2004
2-Hexanone	BQL	0.00460	1	10/07/2004
Iodomethane	BQL	0.00460	1	10/07/2004

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: USTLCH4034-PZ01
Client Project ID: LCH 4015
Lab Sample ID G128-1390-1A
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 09-28-2004 17:20
Date Received: 10/01/2004
Matrix: Soil
%Solids: 83.2

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	0.00460	1	10/07/2004
4-Isopropyltoluene	BQL	0.00460	1	10/07/2004
Methylene chloride	BQL	0.0184	1	10/07/2004
4-Methyl-2-pentanone	BQL	0.00460	1	10/07/2004
Methyl-tert-butyl ether (MTBE)	BQL	0.00460	1	10/07/2004
Naphthalene	BQL	0.00460	1	10/07/2004
n-Propyl benzene	BQL	0.00460	1	10/07/2004
Styrene	BQL	0.00460	1	10/07/2004
1,1,1,2-Tetrachloroethane	BQL	0.00460	1	10/07/2004
1,1,2,2-Tetrachloroethane	BQL	0.00460	1	10/07/2004
Tetrachloroethene	BQL	0.00460	1	10/07/2004
Toluene	BQL	0.00460	1	10/07/2004
1,2,3-Trichlorobenzene	BQL	0.00460	1	10/07/2004
1,2,4-Trichlorobenzene	BQL	0.00460	1	10/07/2004
Trichloroethene	BQL	0.00460	1	10/07/2004
1,1,1-Trichloroethane	BQL	0.00460	1	10/07/2004
1,1,2-Trichloroethane	BQL	0.00460	1	10/07/2004
Trichlorofluoromethane	BQL	0.00460	1	10/07/2004
1,2,3-Trichloropropane	BQL	0.00460	1	10/07/2004
1,2,4-Trimethylbenzene	BQL	0.00460	1	10/07/2004
1,3,5-Trimethylbenzene	BQL	0.00460	1	10/07/2004
Vinyl chloride	BQL	0.00460	1	10/07/2004
m-,p-Xylene	BQL	0.00921	1	10/07/2004
o-Xylene	BQL	0.00460	1	10/07/2004

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	0.05	0.0475	95
1,2-Dichloroethane-d4	0.05	0.0674	135
Toluene-d8	0.05	0.05	100

Comments:

Flags:
BQL = Below Quantitation Limits.

Reviewed By: _____

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: USTLCH4034-PZ02
Client Project ID: LCH 4015
Lab Sample ID G128-1390-2A
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 09-27-2004 19:45
Date Received: 10/01/2004
Matrix: Soil
%Solids: 86.6

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	0.0467	1	10/07/2004
Benzene	BQL	0.00467	1	10/07/2004
Bromobenzene	BQL	0.00467	1	10/07/2004
Bromochloromethane	BQL	0.00467	1	10/07/2004
Bromodichloromethane	BQL	0.00467	1	10/07/2004
Bromoform	BQL	0.00467	1	10/07/2004
Bromomethane	BQL	0.00467	1	10/07/2004
2-Butanone	BQL	0.0233	1	10/07/2004
n-Butylbenzene	BQL	0.00467	1	10/07/2004
sec-Butylbenzene	BQL	0.00467	1	10/07/2004
tert-Butylbenzene	BQL	0.00467	1	10/07/2004
Carbon disulfide	BQL	0.00467	1	10/07/2004
Carbon tetrachloride	BQL	0.00467	1	10/07/2004
Chlorobenzene	BQL	0.00467	1	10/07/2004
Chloroethane	BQL	0.00467	1	10/07/2004
Chloroform	BQL	0.00467	1	10/07/2004
Chloromethane	BQL	0.00467	1	10/07/2004
2-Chlorotoluene	BQL	0.00467	1	10/07/2004
4-Chlorotoluene	BQL	0.00467	1	10/07/2004
Dibromochloromethane	BQL	0.00467	1	10/07/2004
1,2-Dibromo-3-chloropropane	BQL	0.00467	1	10/07/2004
Dibromomethane	BQL	0.00467	1	10/07/2004
1,2-Dibromoethane (EDB)	BQL	0.00467	1	10/07/2004
1,2-Dichlorobenzene	BQL	0.00467	1	10/07/2004
1,3-Dichlorobenzene	BQL	0.00467	1	10/07/2004
1,4-Dichlorobenzene	BQL	0.00467	1	10/07/2004
trans-1,4-Dichloro-2-butene	BQL	0.00467	1	10/07/2004
1,1-Dichloroethane	BQL	0.00467	1	10/07/2004
1,1-Dichloroethene	BQL	0.00467	1	10/07/2004
1,2-Dichloroethane	BQL	0.00467	1	10/07/2004
cis-1,2-Dichloroethene	BQL	0.00467	1	10/07/2004
trans-1,2-dichloroethene	BQL	0.00467	1	10/07/2004
1,2-Dichloropropane	BQL	0.00467	1	10/07/2004
1,3-Dichloropropane	BQL	0.00467	1	10/07/2004
2,2-Dichloropropane	BQL	0.00467	1	10/07/2004
1,1-Dichloropropene	BQL	0.00467	1	10/07/2004
cis-1,3-Dichloropropene	BQL	0.00467	1	10/07/2004
trans-1,3-Dichloropropene	BQL	0.00467	1	10/07/2004
Dichlorodifluoromethane	BQL	0.00467	1	10/07/2004
Diisopropyl ether (DIPE)	BQL	0.00467	1	10/07/2004
Ethylbenzene	BQL	0.00467	1	10/07/2004
Hexachlorobutadiene	BQL	0.00467	1	10/07/2004
2-Hexanone	BQL	0.00467	1	10/07/2004
Iodomethane	BQL	0.00467	1	10/07/2004

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: USTLCH4034-PZ02
Client Project ID: LCH 4015
Lab Sample ID G128-1390-2A
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 09-27-2004 19:45
Date Received: 10/01/2004
Matrix: Soil
%Solids: 86.6

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	0.00467	1	10/07/2004
4-Isopropyltoluene	BQL	0.00467	1	10/07/2004
Methylene chloride	BQL	0.0187	1	10/07/2004
4-Methyl-2-pentanone	BQL	0.00467	1	10/07/2004
Methyl-tert-butyl ether (MTBE)	BQL	0.00467	1	10/07/2004
Naphthalene	BQL	0.00467	1	10/07/2004
n-Propyl benzene	BQL	0.00467	1	10/07/2004
Styrene	BQL	0.00467	1	10/07/2004
1,1,1,2-Tetrachloroethane	BQL	0.00467	1	10/07/2004
1,1,2,2-Tetrachloroethane	BQL	0.00467	1	10/07/2004
Tetrachloroethene	BQL	0.00467	1	10/07/2004
Toluene	BQL	0.00467	1	10/07/2004
1,2,3-Trichlorobenzene	BQL	0.00467	1	10/07/2004
1,2,4-Trichlorobenzene	BQL	0.00467	1	10/07/2004
Trichloroethene	BQL	0.00467	1	10/07/2004
1,1,1-Trichloroethane	BQL	0.00467	1	10/07/2004
1,1,2-Trichloroethane	BQL	0.00467	1	10/07/2004
Trichlorofluoromethane	BQL	0.00467	1	10/07/2004
1,2,3-Trichloropropane	BQL	0.00467	1	10/07/2004
1,2,4-Trimethylbenzene	BQL	0.00467	1	10/07/2004
1,3,5-Trimethylbenzene	BQL	0.00467	1	10/07/2004
Vinyl chloride	BQL	0.00467	1	10/07/2004
m-,p-Xylene	BQL	0.00933	1	10/07/2004
o-Xylene	BQL	0.00467	1	10/07/2004

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	0.05	0.0465	93
1,2-Dichloroethane-d4	0.05	0.0687	137
Toluene-d8	0.05	0.0494	99

Comments:

Flags:
BQL = Below Quantitation Limits.

Reviewed By:

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: USTLCH4034-PZ03
Client Project ID: LCH 4015
Lab Sample ID G128-1390-3A
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 09-28-2004 17:30
Date Received: 10/01/2004
Matrix: Soil
%Solids: 83.4

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	0.0545	1	10/07/2004
Benzene	BQL	0.00545	1	10/07/2004
Bromobenzene	BQL	0.00545	1	10/07/2004
Bromochloromethane	BQL	0.00545	1	10/07/2004
Bromodichloromethane	BQL	0.00545	1	10/07/2004
Bromoform	BQL	0.00545	1	10/07/2004
Bromomethane	BQL	0.00545	1	10/07/2004
2-Butanone	BQL	0.0272	1	10/07/2004
n-Butylbenzene	BQL	0.00545	1	10/07/2004
sec-Butylbenzene	BQL	0.00545	1	10/07/2004
tert-Butylbenzene	BQL	0.00545	1	10/07/2004
Carbon disulfide	BQL	0.00545	1	10/07/2004
Carbon tetrachloride	BQL	0.00545	1	10/07/2004
Chlorobenzene	BQL	0.00545	1	10/07/2004
Chloroethane	BQL	0.00545	1	10/07/2004
Chloroform	BQL	0.00545	1	10/07/2004
Chloromethane	BQL	0.00545	1	10/07/2004
2-Chlorotoluene	BQL	0.00545	1	10/07/2004
4-Chlorotoluene	BQL	0.00545	1	10/07/2004
Dibromochloromethane	BQL	0.00545	1	10/07/2004
1,2-Dibromo-3-chloropropane	BQL	0.00545	1	10/07/2004
Dibromomethane	BQL	0.00545	1	10/07/2004
1,2-Dibromoethane (EDB)	BQL	0.00545	1	10/07/2004
1,2-Dichlorobenzene	BQL	0.00545	1	10/07/2004
1,3-Dichlorobenzene	BQL	0.00545	1	10/07/2004
1,4-Dichlorobenzene	BQL	0.00545	1	10/07/2004
trans-1,4-Dichloro-2-butene	BQL	0.00545	1	10/07/2004
1,1-Dichloroethane	BQL	0.00545	1	10/07/2004
1,1-Dichloroethene	BQL	0.00545	1	10/07/2004
1,2-Dichloroethane	BQL	0.00545	1	10/07/2004
cis-1,2-Dichloroethene	BQL	0.00545	1	10/07/2004
trans-1,2-dichloroethene	BQL	0.00545	1	10/07/2004
1,2-Dichloropropane	BQL	0.00545	1	10/07/2004
1,3-Dichloropropane	BQL	0.00545	1	10/07/2004
2,2-Dichloropropane	BQL	0.00545	1	10/07/2004
1,1-Dichloropropene	BQL	0.00545	1	10/07/2004
cis-1,3-Dichloropropene	BQL	0.00545	1	10/07/2004
trans-1,3-Dichloropropene	BQL	0.00545	1	10/07/2004
Dichlorodifluoromethane	BQL	0.00545	1	10/07/2004
Diisopropyl ether (DIPE)	BQL	0.00545	1	10/07/2004
Ethylbenzene	BQL	0.00545	1	10/07/2004
Hexachlorobutadiene	BQL	0.00545	1	10/07/2004
2-Hexanone	BQL	0.00545	1	10/07/2004
Iodomethane	BQL	0.00545	1	10/07/2004

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: USTLCH4034-PZ03
Client Project ID: LCH 4015
Lab Sample ID G128-1390-3A
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 09-28-2004 17:30
Date Received: 10/01/2004
Matrix: Soil
%Solids: 83.4

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	0.00545	1	10/07/2004
4-Isopropyltoluene	BQL	0.00545	1	10/07/2004
Methylene chloride	BQL	0.0218	1	10/07/2004
4-Methyl-2-pentanone	BQL	0.00545	1	10/07/2004
Methyl-tert-butyl ether (MTBE)	BQL	0.00545	1	10/07/2004
Naphthalene	BQL	0.00545	1	10/07/2004
n-Propyl benzene	BQL	0.00545	1	10/07/2004
Styrene	BQL	0.00545	1	10/07/2004
1,1,1,2-Tetrachloroethane	BQL	0.00545	1	10/07/2004
1,1,2,2-Tetrachloroethane	BQL	0.00545	1	10/07/2004
Tetrachloroethene	BQL	0.00545	1	10/07/2004
Toluene	BQL	0.00545	1	10/07/2004
1,2,3-Trichlorobenzene	BQL	0.00545	1	10/07/2004
1,2,4-Trichlorobenzene	BQL	0.00545	1	10/07/2004
Trichloroethene	BQL	0.00545	1	10/07/2004
1,1,1-Trichloroethane	BQL	0.00545	1	10/07/2004
1,1,2-Trichloroethane	BQL	0.00545	1	10/07/2004
Trichlorofluoromethane	BQL	0.00545	1	10/07/2004
1,2,3-Trichloropropane	BQL	0.00545	1	10/07/2004
1,2,4-Trimethylbenzene	BQL	0.00545	1	10/07/2004
1,3,5-Trimethylbenzene	BQL	0.00545	1	10/07/2004
Vinyl chloride	BQL	0.00545	1	10/07/2004
m-,p-Xylene	BQL	0.0109	1	10/07/2004
o-Xylene	BQL	0.00545	1	10/07/2004

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	0.05	0.0466	93
1,2-Dichloroethane-d4	0.05	0.0685	137
Toluene-d8	0.05	0.0496	99

Comments:

Flags:
BQL = Below Quantitation Limits.

Reviewed By:

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: USTLCH4034-PZ04
Client Project ID: LCH 4015
Lab Sample ID G128-1390-4A
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 09-28-2004 16:45
Date Received: 10/01/2004
Matrix: Soil
%Solids: 84.7

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	0.0447	1	10/07/2004
Benzene	BQL	0.00447	1	10/07/2004
Bromobenzene	BQL	0.00447	1	10/07/2004
Bromochloromethane	BQL	0.00447	1	10/07/2004
Bromodichloromethane	BQL	0.00447	1	10/07/2004
Bromoform	BQL	0.00447	1	10/07/2004
Bromomethane	BQL	0.00447	1	10/07/2004
2-Butanone	BQL	0.0223	1	10/07/2004
n-Butylbenzene	BQL	0.00447	1	10/07/2004
sec-Butylbenzene	BQL	0.00447	1	10/07/2004
tert-Butylbenzene	BQL	0.00447	1	10/07/2004
Carbon disulfide	BQL	0.00447	1	10/07/2004
Carbon tetrachloride	BQL	0.00447	1	10/07/2004
Chlorobenzene	BQL	0.00447	1	10/07/2004
Chloroethane	BQL	0.00447	1	10/07/2004
Chloroform	BQL	0.00447	1	10/07/2004
Chloromethane	BQL	0.00447	1	10/07/2004
2-Chlorotoluene	BQL	0.00447	1	10/07/2004
4-Chlorotoluene	BQL	0.00447	1	10/07/2004
Dibromochloromethane	BQL	0.00447	1	10/07/2004
1,2-Dibromo-3-chloropropane	BQL	0.00447	1	10/07/2004
Dibromomethane	BQL	0.00447	1	10/07/2004
1,2-Dibromoethane (EDB)	BQL	0.00447	1	10/07/2004
1,2-Dichlorobenzene	BQL	0.00447	1	10/07/2004
1,3-Dichlorobenzene	BQL	0.00447	1	10/07/2004
1,4-Dichlorobenzene	BQL	0.00447	1	10/07/2004
trans-1,4-Dichloro-2-butene	BQL	0.00447	1	10/07/2004
1,1-Dichloroethane	BQL	0.00447	1	10/07/2004
1,1-Dichloroethene	BQL	0.00447	1	10/07/2004
1,2-Dichloroethane	BQL	0.00447	1	10/07/2004
cis-1,2-Dichloroethene	BQL	0.00447	1	10/07/2004
trans-1,2-dichloroethene	BQL	0.00447	1	10/07/2004
1,2-Dichloropropane	BQL	0.00447	1	10/07/2004
1,3-Dichloropropane	BQL	0.00447	1	10/07/2004
2,2-Dichloropropane	BQL	0.00447	1	10/07/2004
1,1-Dichloropropene	BQL	0.00447	1	10/07/2004
cis-1,3-Dichloropropene	BQL	0.00447	1	10/07/2004
trans-1,3-Dichloropropene	BQL	0.00447	1	10/07/2004
Dichlorodifluoromethane	BQL	0.00447	1	10/07/2004
Diisopropyl ether (DIPE)	BQL	0.00447	1	10/07/2004
Ethylbenzene	BQL	0.00447	1	10/07/2004
Hexachlorobutadiene	BQL	0.00447	1	10/07/2004
2-Hexanone	BQL	0.00447	1	10/07/2004
Iodomethane	BQL	0.00447	1	10/07/2004

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: USTLCH4034-PZ04
Client Project ID: LCH 4015
Lab Sample ID G128-1390-4A
Lab Project ID: G128-1390
Report Basis: Dry Weight

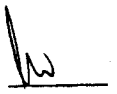
Analyzed By: JTF
Date Collected: 09-28-2004 16:45
Date Received: 10/01/2004
Matrix: Soil
%Solids: 84.7

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	0.00447	1	10/07/2004
4-Isopropyltoluene	BQL	0.00447	1	10/07/2004
Methylene chloride	BQL	0.0179	1	10/07/2004
4-Methyl-2-pentanone	BQL	0.00447	1	10/07/2004
Methyl-tert-butyl ether (MTBE)	BQL	0.00447	1	10/07/2004
Naphthalene	BQL	0.00447	1	10/07/2004
n-Propyl benzene	BQL	0.00447	1	10/07/2004
Styrene	BQL	0.00447	1	10/07/2004
1,1,1,2-Tetrachloroethane	BQL	0.00447	1	10/07/2004
1,1,2,2-Tetrachloroethane	BQL	0.00447	1	10/07/2004
Tetrachloroethene	BQL	0.00447	1	10/07/2004
Toluene	BQL	0.00447	1	10/07/2004
1,2,3-Trichlorobenzene	BQL	0.00447	1	10/07/2004
1,2,4-Trichlorobenzene	BQL	0.00447	1	10/07/2004
Trichloroethene	BQL	0.00447	1	10/07/2004
1,1,1-Trichloroethane	BQL	0.00447	1	10/07/2004
1,1,2-Trichloroethane	BQL	0.00447	1	10/07/2004
Trichlorofluoromethane	BQL	0.00447	1	10/07/2004
1,2,3-Trichloropropane	BQL	0.00447	1	10/07/2004
1,2,4-Trimethylbenzene	BQL	0.00447	1	10/07/2004
1,3,5-Trimethylbenzene	BQL	0.00447	1	10/07/2004
Vinyl chloride	BQL	0.00447	1	10/07/2004
m-,p-Xylene	BQL	0.00893	1	10/07/2004
o-Xylene	BQL	0.00447	1	10/07/2004

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	0.05	0.0466	93
1,2-Dichloroethane-d4	0.05	0.0681	136
Toluene-d8	0.05	0.0492	98

Comments:

Flags:
BQL = Below Quantitation Limits.

Reviewed By: 

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: USTLCH4034-PZ05
Client Project ID: LCH 4015
Lab Sample ID G128-1390-5A
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 09-27-2004 19:05
Date Received: 10/01/2004
Matrix: Soil
%Solids: 87.1

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Acetone	**0.0548**	0.0450	1	10/07/2004
Benzene	**0.00718**	0.00450	1	10/07/2004
Bromobenzene	BQL	0.00450	1	10/07/2004
Bromochloromethane	BQL	0.00450	1	10/07/2004
Bromodichloromethane	BQL	0.00450	1	10/07/2004
Bromoform	BQL	0.00450	1	10/07/2004
Bromomethane	BQL	0.00450	1	10/07/2004
2-Butanone	BQL	0.0225	1	10/07/2004
n-Butylbenzene	BQL	0.00450	1	10/07/2004
sec-Butylbenzene	BQL	0.00450	1	10/07/2004
tert-Butylbenzene	BQL	0.00450	1	10/07/2004
Carbon disulfide	BQL	0.00450	1	10/07/2004
Carbon tetrachloride	BQL	0.00450	1	10/07/2004
Chlorobenzene	BQL	0.00450	1	10/07/2004
Chloroethane	BQL	0.00450	1	10/07/2004
Chloroform	BQL	0.00450	1	10/07/2004
Chloromethane	BQL	0.00450	1	10/07/2004
2-Chlorotoluene	BQL	0.00450	1	10/07/2004
4-Chlorotoluene	BQL	0.00450	1	10/07/2004
Dibromochloromethane	BQL	0.00450	1	10/07/2004
1,2-Dibromo-3-chloropropane	BQL	0.00450	1	10/07/2004
Dibromomethane	BQL	0.00450	1	10/07/2004
1,2-Dibromoethane (EDB)	BQL	0.00450	1	10/07/2004
1,2-Dichlorobenzene	BQL	0.00450	1	10/07/2004
1,3-Dichlorobenzene	BQL	0.00450	1	10/07/2004
1,4-Dichlorobenzene	BQL	0.00450	1	10/07/2004
trans-1,4-Dichloro-2-butene	BQL	0.00450	1	10/07/2004
1,1-Dichloroethane	BQL	0.00450	1	10/07/2004
1,1-Dichloroethene	BQL	0.00450	1	10/07/2004
1,2-Dichloroethane	BQL	0.00450	1	10/07/2004
cis-1,2-Dichloroethene	BQL	0.00450	1	10/07/2004
trans-1,2-dichloroethene	BQL	0.00450	1	10/07/2004
1,2-Dichloropropane	BQL	0.00450	1	10/07/2004
1,3-Dichloropropane	BQL	0.00450	1	10/07/2004
2,2-Dichloropropane	BQL	0.00450	1	10/07/2004
1,1-Dichloropropene	BQL	0.00450	1	10/07/2004
cis-1,3-Dichloropropene	BQL	0.00450	1	10/07/2004
trans-1,3-Dichloropropene	BQL	0.00450	1	10/07/2004
Dichlorodifluoromethane	BQL	0.00450	1	10/07/2004
Diisopropyl ether (DIPE)	BQL	0.00450	1	10/07/2004
Ethylbenzene	**0.00678**	0.00450	1	10/07/2004
Hexachlorobutadiene	BQL	0.00450	1	10/07/2004
2-Hexanone	BQL	0.00450	1	10/07/2004
Iodomethane	BQL	0.00450	1	10/07/2004

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: USTLCH4034-PZ05
Client Project ID: LCH 4015
Lab Sample ID G128-1390-5A
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 09-27-2004 19:05
Date Received: 10/01/2004
Matrix: Soil
%Solids: 87.1

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	0.00450	1	10/07/2004
4-Isopropyltoluene	BQL	0.00450	1	10/07/2004
Methylene chloride	BQL	0.0180	1	10/07/2004
4-Methyl-2-pentanone	BQL	0.00450	1	10/07/2004
Methyl-tert-butyl ether (MTBE)	**0.0142**	0.00450	1	10/07/2004
Naphthalene	BQL	0.00450	1	10/07/2004
n-Propyl benzene	BQL	0.00450	1	10/07/2004
Styrene	BQL	0.00450	1	10/07/2004
1,1,1,2-Tetrachloroethane	BQL	0.00450	1	10/07/2004
1,1,2,2-Tetrachloroethane	BQL	0.00450	1	10/07/2004
Tetrachloroethene	BQL	0.00450	1	10/07/2004
Toluene	BQL	0.00450	1	10/07/2004
1,2,3-Trichlorobenzene	BQL	0.00450	1	10/07/2004
1,2,4-Trichlorobenzene	BQL	0.00450	1	10/07/2004
Trichloroethene	BQL	0.00450	1	10/07/2004
1,1,1-Trichloroethane	BQL	0.00450	1	10/07/2004
1,1,2-Trichloroethane	BQL	0.00450	1	10/07/2004
Trichlorofluoromethane	BQL	0.00450	1	10/07/2004
1,2,3-Trichloropropane	BQL	0.00450	1	10/07/2004
1,2,4-Trimethylbenzene	BQL	0.00450	1	10/07/2004
1,3,5-Trimethylbenzene	BQL	0.00450	1	10/07/2004
Vinyl chloride	BQL	0.00450	1	10/07/2004
m-,p-Xylene	**0.0121**	0.00899	1	10/07/2004
o-Xylene	BQL	0.00450	1	10/07/2004

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	0.05	0.0473	95
1,2-Dichloroethane-d4	0.05	0.0674	135
Toluene-d8	0.05	0.0496	99

Comments:

Flags:
BQL = Below Quantitation Limits.

Reviewed By: _____

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: USTLCH4034-PZ06
Client Project ID: LCH 4015
Lab Sample ID G128-1390-6A
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 09-28-2004 17:00
Date Received: 10/01/2004
Matrix: Soil
%Solids: 88.2

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Acetone	**0.0469**	0.0413	1	10/07/2004
Benzene	**0.00439**	0.00413	1	10/07/2004
Bromobenzene	BQL	0.00413	1	10/07/2004
Bromochloromethane	BQL	0.00413	1	10/07/2004
Bromodichloromethane	BQL	0.00413	1	10/07/2004
Bromoform	BQL	0.00413	1	10/07/2004
Bromomethane	BQL	0.00413	1	10/07/2004
2-Butanone	BQL	0.0206	1	10/07/2004
n-Butylbenzene	BQL	0.00413	1	10/07/2004
sec-Butylbenzene	BQL	0.00413	1	10/07/2004
tert-Butylbenzene	BQL	0.00413	1	10/07/2004
Carbon disulfide	BQL	0.00413	1	10/07/2004
Carbon tetrachloride	BQL	0.00413	1	10/07/2004
Chlorobenzene	BQL	0.00413	1	10/07/2004
Chloroethane	BQL	0.00413	1	10/07/2004
Chloroform	BQL	0.00413	1	10/07/2004
Chloromethane	BQL	0.00413	1	10/07/2004
2-Chlorotoluene	BQL	0.00413	1	10/07/2004
4-Chlorotoluene	BQL	0.00413	1	10/07/2004
Dibromochloromethane	BQL	0.00413	1	10/07/2004
1,2-Dibromo-3-chloropropane	BQL	0.00413	1	10/07/2004
Dibromomethane	BQL	0.00413	1	10/07/2004
1,2-Dibromoethane (EDB)	BQL	0.00413	1	10/07/2004
1,2-Dichlorobenzene	BQL	0.00413	1	10/07/2004
1,3-Dichlorobenzene	BQL	0.00413	1	10/07/2004
1,4-Dichlorobenzene	BQL	0.00413	1	10/07/2004
trans-1,4-Dichloro-2-butene	BQL	0.00413	1	10/07/2004
1,1-Dichloroethane	BQL	0.00413	1	10/07/2004
1,1-Dichloroethene	BQL	0.00413	1	10/07/2004
1,2-Dichloroethane	BQL	0.00413	1	10/07/2004
cis-1,2-Dichloroethene	BQL	0.00413	1	10/07/2004
trans-1,2-dichloroethene	BQL	0.00413	1	10/07/2004
1,2-Dichloropropane	BQL	0.00413	1	10/07/2004
1,3-Dichloropropane	BQL	0.00413	1	10/07/2004
2,2-Dichloropropane	BQL	0.00413	1	10/07/2004
1,1-Dichloropropene	BQL	0.00413	1	10/07/2004
cis-1,3-Dichloropropene	BQL	0.00413	1	10/07/2004
trans-1,3-Dichloropropene	BQL	0.00413	1	10/07/2004
Dichlorodifluoromethane	BQL	0.00413	1	10/07/2004
Diisopropyl ether (DIPE)	BQL	0.00413	1	10/07/2004
Ethylbenzene	**0.0561**	0.00413	1	10/07/2004
Hexachlorobutadiene	BQL	0.00413	1	10/07/2004
2-Hexanone	BQL	0.00413	1	10/07/2004
Iodomethane	BQL	0.00413	1	10/07/2004

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: USTLCH4034-PZ06
Client Project ID: LCH 4015
Lab Sample ID G128-1390-6A
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 09-28-2004 17:00
Date Received: 10/01/2004
Matrix: Soil
%Solids: 88.2

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	**0.00667**	0.00413	1	10/07/2004
4-Isopropyltoluene	BQL	0.00413	1	10/07/2004
Methylene chloride	BQL	0.0165	1	10/07/2004
4-Methyl-2-pentanone	BQL	0.00413	1	10/07/2004
Methyl-tert-butyl ether (MTBE)	**0.0134**	0.00413	1	10/07/2004
Naphthalene	BQL	0.00413	1	10/07/2004
n-Propyl benzene	**0.0179**	0.00413	1	10/07/2004
Styrene	BQL	0.00413	1	10/07/2004
1,1,1,2-Tetrachloroethane	BQL	0.00413	1	10/07/2004
1,1,2,2-Tetrachloroethane	BQL	0.00413	1	10/07/2004
Tetrachloroethene	BQL	0.00413	1	10/07/2004
Toluene	**0.00547**	0.00413	1	10/07/2004
1,2,3-Trichlorobenzene	BQL	0.00413	1	10/07/2004
1,2,4-Trichlorobenzene	BQL	0.00413	1	10/07/2004
Trichloroethene	BQL	0.00413	1	10/07/2004
1,1,1-Trichloroethane	BQL	0.00413	1	10/07/2004
1,1,2-Trichloroethane	BQL	0.00413	1	10/07/2004
Trichlorofluoromethane	BQL	0.00413	1	10/07/2004
1,2,3-Trichloropropane	BQL	0.00413	1	10/07/2004
1,2,4-Trimethylbenzene	**0.0724**	0.00413	1	10/07/2004
1,3,5-Trimethylbenzene	**0.0247**	0.00413	1	10/07/2004
Vinyl chloride	BQL	0.00413	1	10/07/2004
m-,p-Xylene	**0.133**	0.00825	1	10/07/2004
o-Xylene	**0.0411**	0.00413	1	10/07/2004

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	0.05	0.047	94
1,2-Dichloroethane-d4	0.05	0.0682	136
Toluene-d8	0.05	0.0502	100

Comments:

Flags:
BQL = Below Quantitation Limits.

Reviewed By:

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: USTLCH4034-PZ06 Dup
Client Project ID: LCH 4015
Lab Sample ID G128-1390-7A
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 09-28-2004 17:00
Date Received: 10/01/2004
Matrix: Soil
%Solids: 88.2

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	0.0395	1	10/07/2004
Benzene	**0.00497**	0.00395	1	10/07/2004
Bromobenzene	BQL	0.00395	1	10/07/2004
Bromochloromethane	BQL	0.00395	1	10/07/2004
Bromodichloromethane	BQL	0.00395	1	10/07/2004
Bromoform	BQL	0.00395	1	10/07/2004
Bromomethane	BQL	0.00395	1	10/07/2004
2-Butanone	BQL	0.0197	1	10/07/2004
n-Butylbenzene	BQL	0.00395	1	10/07/2004
sec-Butylbenzene	BQL	0.00395	1	10/07/2004
tert-Butylbenzene	BQL	0.00395	1	10/07/2004
Carbon disulfide	BQL	0.00395	1	10/07/2004
Carbon tetrachloride	BQL	0.00395	1	10/07/2004
Chlorobenzene	BQL	0.00395	1	10/07/2004
Chloroethane	BQL	0.00395	1	10/07/2004
Chloroform	BQL	0.00395	1	10/07/2004
Chloromethane	BQL	0.00395	1	10/07/2004
2-Chlorotoluene	BQL	0.00395	1	10/07/2004
4-Chlorotoluene	BQL	0.00395	1	10/07/2004
Dibromochloromethane	BQL	0.00395	1	10/07/2004
1,2-Dibromo-3-chloropropane	BQL	0.00395	1	10/07/2004
Dibromomethane	BQL	0.00395	1	10/07/2004
1,2-Dibromoethane (EDB)	BQL	0.00395	1	10/07/2004
1,2-Dichlorobenzene	BQL	0.00395	1	10/07/2004
1,3-Dichlorobenzene	BQL	0.00395	1	10/07/2004
1,4-Dichlorobenzene	BQL	0.00395	1	10/07/2004
trans-1,4-Dichloro-2-butene	BQL	0.00395	1	10/07/2004
1,1-Dichloroethane	BQL	0.00395	1	10/07/2004
1,1-Dichloroethene	BQL	0.00395	1	10/07/2004
1,2-Dichloroethane	BQL	0.00395	1	10/07/2004
cis-1,2-Dichloroethene	BQL	0.00395	1	10/07/2004
trans-1,2-dichloroethene	BQL	0.00395	1	10/07/2004
1,2-Dichloropropane	BQL	0.00395	1	10/07/2004
1,3-Dichloropropane	BQL	0.00395	1	10/07/2004
2,2-Dichloropropane	BQL	0.00395	1	10/07/2004
1,1-Dichloropropene	BQL	0.00395	1	10/07/2004
cis-1,3-Dichloropropene	BQL	0.00395	1	10/07/2004
trans-1,3-Dichloropropene	BQL	0.00395	1	10/07/2004
Dichlorodifluoromethane	BQL	0.00395	1	10/07/2004
Diisopropyl ether (DIPE)	BQL	0.00395	1	10/07/2004
Ethylbenzene	**0.0780**	0.00395	1	10/07/2004
Hexachlorobutadiene	BQL	0.00395	1	10/07/2004
2-Hexanone	BQL	0.00395	1	10/07/2004
Iodomethane	BQL	0.00395	1	10/07/2004

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: USTLCH4034-PZ06 Dup
Client Project ID: LCH 4015
Lab Sample ID G128-1390-7A
Lab Project ID: G128-1390
Report Basis: Dry Weight

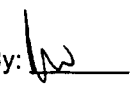
Analyzed By: JTF
Date Collected: 09-28-2004 17:00
Date Received: 10/01/2004
Matrix: Soil
%Solids: 88.2

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	**0.0108**	0.00395	1	10/07/2004
4-Isopropyltoluene	BQL	0.00395	1	10/07/2004
Methylene chloride	BQL	0.0158	1	10/07/2004
4-Methyl-2-pentanone	BQL	0.00395	1	10/07/2004
Methyl-tert-butyl ether (MTBE)	**0.0133**	0.00395	1	10/07/2004
Naphthalene	**0.00557**	0.00395	1	10/07/2004
n-Propyl benzene	**0.0302**	0.00395	1	10/07/2004
Styrene	BQL	0.00395	1	10/07/2004
1,1,1,2-Tetrachloroethane	BQL	0.00395	1	10/07/2004
1,1,2,2-Tetrachloroethane	BQL	0.00395	1	10/07/2004
Tetrachloroethene	BQL	0.00395	1	10/07/2004
Toluene	**0.00649**	0.00395	1	10/07/2004
1,2,3-Trichlorobenzene	BQL	0.00395	1	10/07/2004
1,2,4-Trichlorobenzene	BQL	0.00395	1	10/07/2004
Trichloroethene	BQL	0.00395	1	10/07/2004
1,1,1-Trichloroethane	BQL	0.00395	1	10/07/2004
1,1,2-Trichloroethane	BQL	0.00395	1	10/07/2004
Trichlorofluoromethane	BQL	0.00395	1	10/07/2004
1,2,3-Trichloropropane	BQL	0.00395	1	10/07/2004
1,2,4-Trimethylbenzene	**0.134**	0.00395	1	10/07/2004
1,3,5-Trimethylbenzene	**0.0449**	0.00395	1	10/07/2004
Vinyl chloride	BQL	0.00395	1	10/07/2004
m-,p-Xylene	**0.199**	0.00789	1	10/07/2004
o-Xylene	**0.0556**	0.00395	1	10/07/2004

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	0.05	0.0493	99
1,2-Dichloroethane-d4	0.05	0.0685	137
Toluene-d8	0.05	0.0508	102

Comments:

Flags:
BQL = Below Quantitation Limits.

Reviewed By: 

Results for Volatiles
by GCMS 8260B/5035

Client Sample ID: USTLCH4034-PZ07
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-8D
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 09/27/2004 19:20
Date Received: 10/01/2004
Matrix: Soil
%Solids: 83.8

Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	1.35	50	10/07/2004
Benzene	**0.548**	0.0541	50	10/07/2004
Bromobenzene	BQL	0.0541	50	10/07/2004
Bromochloromethane	BQL	0.0541	50	10/07/2004
Bromodichloromethane	BQL	0.0541	50	10/07/2004
Bromoform	BQL	0.0541	50	10/07/2004
Bromomethane	BQL	0.0541	50	10/07/2004
2-Butanone	BQL	1.35	50	10/07/2004
n-Butylbenzene	BQL	0.0541	50	10/07/2004
sec-Butylbenzene	BQL	0.0541	50	10/07/2004
tert-Butylbenzene	BQL	0.0541	50	10/07/2004
Carbon disulfide	BQL	0.0541	50	10/07/2004
Carbon tetrachloride	BQL	0.0541	50	10/07/2004
Chlorobenzene	BQL	0.0541	50	10/07/2004
Chloroethane	BQL	0.0541	50	10/07/2004
Chloroform	BQL	0.0541	50	10/07/2004
Chloromethane	BQL	0.0541	50	10/07/2004
2-Chlorotoluene	BQL	0.0541	50	10/07/2004
4-Chlorotoluene	BQL	0.0541	50	10/07/2004
Dibromochloromethane	BQL	0.0541	50	10/07/2004
1,2-Dibromo-3-chloropropane	BQL	0.270	50	10/07/2004
Dibromomethane	BQL	0.0541	50	10/07/2004
1,2-Dibromoethane (EDB)	BQL	0.0541	50	10/07/2004
1,2-Dichlorobenzene	BQL	0.0541	50	10/07/2004
1,3-Dichlorobenzene	BQL	0.0541	50	10/07/2004
1,4-Dichlorobenzene	BQL	0.0541	50	10/07/2004
trans-1,4-Dichloro-2-butene	BQL	0.270	50	10/07/2004
1,1-Dichloroethane	BQL	0.0541	50	10/07/2004
1,1-Dichloroethene	BQL	0.0541	50	10/07/2004
1,2-Dichloroethane	BQL	0.0541	50	10/07/2004
cis-1,2-Dichloroethene	BQL	0.0541	50	10/07/2004
trans-1,2-dichloroethene	BQL	0.0541	50	10/07/2004
1,2-Dichloropropane	BQL	0.0541	50	10/07/2004
1,3-Dichloropropane	BQL	0.0541	50	10/07/2004
2,2-Dichloropropane	BQL	0.0541	50	10/07/2004
1,1-Dichloropropene	BQL	0.0541	50	10/07/2004
cis-1,3-Dichloropropene	BQL	0.0541	50	10/07/2004
trans-1,3-Dichloropropene	BQL	0.0541	50	10/07/2004
Dichlorodifluoromethane	BQL	0.270	50	10/07/2004
Diisopropyl ether (DIPE)	BQL	0.0541	50	10/07/2004
Ethylbenzene	**1.03**	0.0541	50	10/07/2004
Hexachlorobutadiene	BQL	0.0541	50	10/07/2004
2-Hexanone	BQL	0.270	50	10/07/2004
Iodomethane	BQL	0.0541	50	10/07/2004
Isopropylbenzene	**0.0757**	0.0541	50	10/07/2004

Results for Volatiles
by GCMS 8260B/5035

Client Sample ID: USTLCH4034-PZ07
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-8D
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 09/27/2004 19:20
Date Received: 10/01/2004
Matrix: Soil
%Solids: 83.8

Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
4-Isopropyltoluene	**0.691**	0.0541	50	10/07/2004
Methylene chloride	BQL	0.270	50	10/07/2004
4-Methyl-2-pentanone	BQL	0.270	50	10/07/2004
Methyl-tert-butyl ether (MTBE)	BQL	0.0541	50	10/07/2004
Naphthalene	BQL	0.0541	50	10/07/2004
n-Propyl benzene	**0.0957**	0.0541	50	10/07/2004
Styrene	BQL	0.0541	50	10/07/2004
1,1,1,2-Tetrachloroethane	BQL	0.0541	50	10/07/2004
1,1,2,2-Tetrachloroethane	BQL	0.0541	50	10/07/2004
Tetrachloroethene	BQL	0.0541	50	10/07/2004
Toluene	**0.778**	0.0541	50	10/07/2004
1,2,3-Trichlorobenzene	BQL	0.0541	50	10/07/2004
1,2,4-Trichlorobenzene	BQL	0.0541	50	10/07/2004
Trichloroethene	BQL	0.0541	50	10/07/2004
1,1,1-Trichloroethane	BQL	0.0541	50	10/07/2004
1,1,2-Trichloroethane	BQL	0.0541	50	10/07/2004
Trichlorofluoromethane	BQL	0.0541	50	10/07/2004
1,2,3-Trichloropropane	BQL	0.0541	50	10/07/2004
1,2,4-Trimethylbenzene	**0.577**	0.0541	50	10/07/2004
1,3,5-Trimethylbenzene	**0.288**	0.0541	50	10/07/2004
Vinyl chloride	BQL	0.0541	50	10/07/2004
m-,p-Xylene	**2.73**	0.108	50	10/07/2004
o-Xylene	**1.19**	0.0541	50	10/07/2004

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	0.01	0.00972	97
1,2-Dichloroethane-d4	0.01	0.0099	99
Toluene-d8	0.01	0.00987	99

Comments:

Flags:
BQL = Below Quantitation Limits.

Reviewed By:

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: USTLCH4034-PZ07
Client Project ID: LCH 4015
Lab Sample ID G128-1390-8B
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 09-27-2004 19:20
Date Received: 10/01/2004
Matrix: Soil
%Solids: 83.8

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Acetone	**0.0830**	0.0555	1	10/07/2004
Benzene	**0.0214**	0.00555	1	10/07/2004
Bromobenzene	BQL	0.00555	1	10/07/2004
Bromochloromethane	BQL	0.00555	1	10/07/2004
Bromodichloromethane	BQL	0.00555	1	10/07/2004
Bromoform	BQL	0.00555	1	10/07/2004
Bromomethane	BQL	0.00555	1	10/07/2004
2-Butanone	BQL	0.0277	1	10/07/2004
n-Butylbenzene	BQL	0.00555	1	10/07/2004
sec-Butylbenzene	BQL	0.00555	1	10/07/2004
tert-Butylbenzene	BQL	0.00555	1	10/07/2004
Carbon disulfide	BQL	0.00555	1	10/07/2004
Carbon tetrachloride	BQL	0.00555	1	10/07/2004
Chlorobenzene	BQL	0.00555	1	10/07/2004
Chloroethane	BQL	0.00555	1	10/07/2004
Chloroform	BQL	0.00555	1	10/07/2004
Chloromethane	BQL	0.00555	1	10/07/2004
2-Chlorotoluene	BQL	0.00555	1	10/07/2004
4-Chlorotoluene	BQL	0.00555	1	10/07/2004
Dibromochloromethane	BQL	0.00555	1	10/07/2004
1,2-Dibromo-3-chloropropane	BQL	0.00555	1	10/07/2004
Dibromomethane	BQL	0.00555	1	10/07/2004
1,2-Dibromoethane (EDB)	BQL	0.00555	1	10/07/2004
1,2-Dichlorobenzene	BQL	0.00555	1	10/07/2004
1,3-Dichlorobenzene	BQL	0.00555	1	10/07/2004
1,4-Dichlorobenzene	BQL	0.00555	1	10/07/2004
trans-1,4-Dichloro-2-butene	BQL	0.00555	1	10/07/2004
1,1-Dichloroethane	BQL	0.00555	1	10/07/2004
1,1-Dichloroethene	BQL	0.00555	1	10/07/2004
1,2-Dichloroethane	BQL	0.00555	1	10/07/2004
cis-1,2-Dichloroethene	BQL	0.00555	1	10/07/2004
trans-1,2-dichloroethene	BQL	0.00555	1	10/07/2004
1,2-Dichloropropane	BQL	0.00555	1	10/07/2004
1,3-Dichloropropane	BQL	0.00555	1	10/07/2004
2,2-Dichloropropane	BQL	0.00555	1	10/07/2004
1,1-Dichloropropene	BQL	0.00555	1	10/07/2004
cis-1,3-Dichloropropene	BQL	0.00555	1	10/07/2004
trans-1,3-Dichloropropene	BQL	0.00555	1	10/07/2004
Dichlorodifluoromethane	BQL	0.00555	1	10/07/2004
Diisopropyl ether (DIPE)	BQL	0.00555	1	10/07/2004
Ethylbenzene	**0.0155**	0.00555	1	10/07/2004
Hexachlorobutadiene	BQL	0.00555	1	10/07/2004
2-Hexanone	BQL	0.00555	1	10/07/2004
Iodomethane	BQL	0.00555	1	10/07/2004

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: USTLCH4034-PZ07
Client Project ID: LCH 4015
Lab Sample ID G128-1390-8B
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 09-27-2004 19:20
Date Received: 10/01/2004
Matrix: Soil
%Solids: 83.8

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	0.00555	1	10/07/2004
4-Isopropyltoluene	**0.00635**	0.00555	1	10/07/2004
Methylene chloride	BQL	0.0222	1	10/07/2004
4-Methyl-2-pentanone	BQL	0.00555	1	10/07/2004
Methyl-tert-butyl ether (MTBE)	**0.00682**	0.00555	1	10/07/2004
Naphthalene	BQL	0.00555	1	10/07/2004
n-Propyl benzene	BQL	0.00555	1	10/07/2004
Styrene	BQL	0.00555	1	10/07/2004
1,1,1,2-Tetrachloroethane	BQL	0.00555	1	10/07/2004
1,1,2,2-Tetrachloroethane	BQL	0.00555	1	10/07/2004
Tetrachloroethene	BQL	0.00555	1	10/07/2004
Toluene	**0.0103**	0.00555	1	10/07/2004
1,2,3-Trichlorobenzene	BQL	0.00555	1	10/07/2004
1,2,4-Trichlorobenzene	BQL	0.00555	1	10/07/2004
Trichloroethene	BQL	0.00555	1	10/07/2004
1,1,1-Trichloroethane	BQL	0.00555	1	10/07/2004
1,1,2-Trichloroethane	BQL	0.00555	1	10/07/2004
Trichlorofluoromethane	BQL	0.00555	1	10/07/2004
1,2,3-Trichloropropane	BQL	0.00555	1	10/07/2004
1,2,4-Trimethylbenzene	**0.00983**	0.00555	1	10/07/2004
1,3,5-Trimethylbenzene	BQL	0.00555	1	10/07/2004
Vinyl chloride	BQL	0.00555	1	10/07/2004
m-,p-Xylene	**0.0362**	0.0111	1	10/07/2004
o-Xylene	**0.0171**	0.00555	1	10/07/2004

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	0.05	0.0412	82
1,2-Dichloroethane-d4	0.05	0.0652	130
Toluene-d8	0.05	0.0492	98

Comments:

Flags:
BQL = Below Quantitation Limits.

Reviewed By: _____

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: USTLCH4034-PZ08
Client Project ID: LCH 4015
Lab Sample ID G128-1390-9A
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 09-27-2004 18:50
Date Received: 10/01/2004
Matrix: Soil
%Solids: 87.5

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	0.0426	1	10/07/2004
Benzene	BQL	0.00426	1	10/07/2004
Bromobenzene	BQL	0.00426	1	10/07/2004
Bromochloromethane	BQL	0.00426	1	10/07/2004
Bromodichloromethane	BQL	0.00426	1	10/07/2004
Bromoform	BQL	0.00426	1	10/07/2004
Bromomethane	BQL	0.00426	1	10/07/2004
2-Butanone	BQL	0.0213	1	10/07/2004
n-Butylbenzene	BQL	0.00426	1	10/07/2004
sec-Butylbenzene	BQL	0.00426	1	10/07/2004
tert-Butylbenzene	BQL	0.00426	1	10/07/2004
Carbon disulfide	BQL	0.00426	1	10/07/2004
Carbon tetrachloride	BQL	0.00426	1	10/07/2004
Chlorobenzene	BQL	0.00426	1	10/07/2004
Chloroethane	BQL	0.00426	1	10/07/2004
Chloroform	BQL	0.00426	1	10/07/2004
Chloromethane	BQL	0.00426	1	10/07/2004
2-Chlorotoluene	BQL	0.00426	1	10/07/2004
4-Chlorotoluene	BQL	0.00426	1	10/07/2004
Dibromochloromethane	BQL	0.00426	1	10/07/2004
1,2-Dibromo-3-chloropropane	BQL	0.00426	1	10/07/2004
Dibromomethane	BQL	0.00426	1	10/07/2004
1,2-Dibromoethane (EDB)	BQL	0.00426	1	10/07/2004
1,2-Dichlorobenzene	BQL	0.00426	1	10/07/2004
1,3-Dichlorobenzene	BQL	0.00426	1	10/07/2004
1,4-Dichlorobenzene	BQL	0.00426	1	10/07/2004
trans-1,4-Dichloro-2-butene	BQL	0.00426	1	10/07/2004
1,1-Dichloroethane	BQL	0.00426	1	10/07/2004
1,1-Dichloroethene	BQL	0.00426	1	10/07/2004
1,2-Dichloroethane	BQL	0.00426	1	10/07/2004
cis-1,2-Dichloroethene	BQL	0.00426	1	10/07/2004
trans-1,2-dichloroethene	BQL	0.00426	1	10/07/2004
1,2-Dichloropropane	BQL	0.00426	1	10/07/2004
1,3-Dichloropropane	BQL	0.00426	1	10/07/2004
2,2-Dichloropropane	BQL	0.00426	1	10/07/2004
1,1-Dichloropropene	BQL	0.00426	1	10/07/2004
cis-1,3-Dichloropropene	BQL	0.00426	1	10/07/2004
trans-1,3-Dichloropropene	BQL	0.00426	1	10/07/2004
Dichlorodifluoromethane	BQL	0.00426	1	10/07/2004
Diisopropyl ether (DIPE)	BQL	0.00426	1	10/07/2004
Ethylbenzene	BQL	0.00426	1	10/07/2004
Hexachlorobutadiene	BQL	0.00426	1	10/07/2004
2-Hexanone	BQL	0.00426	1	10/07/2004
Iodomethane	BQL	0.00426	1	10/07/2004

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: USTLCH4034-PZ08
Client Project ID: LCH 4015
Lab Sample ID G128-1390-9A
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 09-27-2004 18:50
Date Received: 10/01/2004
Matrix: Soil
%Solids: 87.5

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	0.00426	1	10/07/2004
4-Isopropyltoluene	BQL	0.00426	1	10/07/2004
Methylene chloride	BQL	0.0171	1	10/07/2004
4-Methyl-2-pentanone	BQL	0.00426	1	10/07/2004
Methyl-tert-butyl ether (MTBE)	BQL	0.00426	1	10/07/2004
Naphthalene	BQL	0.00426	1	10/07/2004
n-Propyl benzene	BQL	0.00426	1	10/07/2004
Styrene	BQL	0.00426	1	10/07/2004
1,1,1,2-Tetrachloroethane	BQL	0.00426	1	10/07/2004
1,1,2,2-Tetrachloroethane	BQL	0.00426	1	10/07/2004
Tetrachloroethene	BQL	0.00426	1	10/07/2004
Toluene	BQL	0.00426	1	10/07/2004
1,2,3-Trichlorobenzene	BQL	0.00426	1	10/07/2004
1,2,4-Trichlorobenzene	BQL	0.00426	1	10/07/2004
Trichloroethene	BQL	0.00426	1	10/07/2004
1,1,1-Trichloroethane	BQL	0.00426	1	10/07/2004
1,1,2-Trichloroethane	BQL	0.00426	1	10/07/2004
Trichlorofluoromethane	BQL	0.00426	1	10/07/2004
1,2,3-Trichloropropane	BQL	0.00426	1	10/07/2004
1,2,4-Trimethylbenzene	BQL	0.00426	1	10/07/2004
1,3,5-Trimethylbenzene	BQL	0.00426	1	10/07/2004
Vinyl chloride	BQL	0.00426	1	10/07/2004
m-,p-Xylene	BQL	0.00853	1	10/07/2004
o-Xylene	BQL	0.00426	1	10/07/2004

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	0.05	0.0478	96
1,2-Dichloroethane-d4	0.05	0.0689	138
Toluene-d8	0.05	0.0496	99

Comments:

Flags:
BQL = Below Quantitation Limits.

Reviewed By: _____

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: USTLCH4034-PZ49
Client Project ID: LCH 4015
Lab Sample ID G128-1390-10A
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 09-27-2004 18:35
Date Received: 10/01/2004
Matrix: Soil
%Solids: 85.4

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	0.0421	1	10/07/2004
Benzene	BQL	0.00421	1	10/07/2004
Bromobenzene	BQL	0.00421	1	10/07/2004
Bromochloromethane	BQL	0.00421	1	10/07/2004
Bromodichloromethane	BQL	0.00421	1	10/07/2004
Bromoform	BQL	0.00421	1	10/07/2004
Bromomethane	BQL	0.00421	1	10/07/2004
2-Butanone	BQL	0.0211	1	10/07/2004
n-Butylbenzene	BQL	0.00421	1	10/07/2004
sec-Butylbenzene	BQL	0.00421	1	10/07/2004
tert-Butylbenzene	BQL	0.00421	1	10/07/2004
Carbon disulfide	BQL	0.00421	1	10/07/2004
Carbon tetrachloride	BQL	0.00421	1	10/07/2004
Chlorobenzene	BQL	0.00421	1	10/07/2004
Chloroethane	BQL	0.00421	1	10/07/2004
Chloroform	BQL	0.00421	1	10/07/2004
Chloromethane	BQL	0.00421	1	10/07/2004
2-Chlorotoluene	BQL	0.00421	1	10/07/2004
4-Chlorotoluene	BQL	0.00421	1	10/07/2004
Dibromochloromethane	BQL	0.00421	1	10/07/2004
1,2-Dibromo-3-chloropropane	BQL	0.00421	1	10/07/2004
Dibromomethane	BQL	0.00421	1	10/07/2004
1,2-Dibromoethane (EDB)	BQL	0.00421	1	10/07/2004
1,2-Dichlorobenzene	BQL	0.00421	1	10/07/2004
1,3-Dichlorobenzene	BQL	0.00421	1	10/07/2004
1,4-Dichlorobenzene	BQL	0.00421	1	10/07/2004
trans-1,4-Dichloro-2-butene	BQL	0.00421	1	10/07/2004
1,1-Dichloroethane	BQL	0.00421	1	10/07/2004
1,1-Dichloroethene	BQL	0.00421	1	10/07/2004
1,2-Dichloroethane	BQL	0.00421	1	10/07/2004
cis-1,2-Dichloroethene	BQL	0.00421	1	10/07/2004
trans-1,2-dichloroethene	BQL	0.00421	1	10/07/2004
1,2-Dichloropropane	BQL	0.00421	1	10/07/2004
1,3-Dichloropropane	BQL	0.00421	1	10/07/2004
2,2-Dichloropropane	BQL	0.00421	1	10/07/2004
1,1-Dichloropropene	BQL	0.00421	1	10/07/2004
cis-1,3-Dichloropropene	BQL	0.00421	1	10/07/2004
trans-1,3-Dichloropropene	BQL	0.00421	1	10/07/2004
Dichlorodifluoromethane	BQL	0.00421	1	10/07/2004
Diisopropyl ether (DIPE)	BQL	0.00421	1	10/07/2004
Ethylbenzene	BQL	0.00421	1	10/07/2004
Hexachlorobutadiene	BQL	0.00421	1	10/07/2004
2-Hexanone	BQL	0.00421	1	10/07/2004
Iodomethane	BQL	0.00421	1	10/07/2004

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: USTLCH4034-PZ49
Client Project ID: LCH 4015
Lab Sample ID G128-1390-10A
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 09-27-2004 18:35
Date Received: 10/01/2004
Matrix: Soil
%Solids: 85.4

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	0.00421	1	10/07/2004
4-Isopropyltoluene	BQL	0.00421	1	10/07/2004
Methylene chloride	BQL	0.0169	1	10/07/2004
4-Methyl-2-pentanone	BQL	0.00421	1	10/07/2004
Methyl-tert-butyl ether (MTBE)	BQL	0.00421	1	10/07/2004
Naphthalene	BQL	0.00421	1	10/07/2004
n-Propyl benzene	BQL	0.00421	1	10/07/2004
Styrene	BQL	0.00421	1	10/07/2004
1,1,1,2-Tetrachloroethane	BQL	0.00421	1	10/07/2004
1,1,2,2-Tetrachloroethane	BQL	0.00421	1	10/07/2004
Tetrachloroethene	BQL	0.00421	1	10/07/2004
Toluene	BQL	0.00421	1	10/07/2004
1,2,3-Trichlorobenzene	BQL	0.00421	1	10/07/2004
1,2,4-Trichlorobenzene	BQL	0.00421	1	10/07/2004
Trichloroethene	BQL	0.00421	1	10/07/2004
1,1,1-Trichloroethane	BQL	0.00421	1	10/07/2004
1,1,2-Trichloroethane	BQL	0.00421	1	10/07/2004
Trichlorofluoromethane	BQL	0.00421	1	10/07/2004
1,2,3-Trichloropropane	BQL	0.00421	1	10/07/2004
1,2,4-Trimethylbenzene	BQL	0.00421	1	10/07/2004
1,3,5-Trimethylbenzene	BQL	0.00421	1	10/07/2004
Vinyl chloride	BQL	0.00421	1	10/07/2004
m-,p-Xylene	BQL	0.00843	1	10/07/2004
o-Xylene	BQL	0.00421	1	10/07/2004

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	0.05	0.0474	95
1,2-Dichloroethane-d4	0.05	0.0671	134
Toluene-d8	0.05	0.0492	98

Comments:

Flags:
BQL = Below Quantitation Limits.

Reviewed By:

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: USTLCH4034-PZ50
Client Project ID: LCH 4015
Lab Sample ID G128-1390-11A
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 09-27-2004 19:30
Date Received: 10/01/2004
Matrix: Soil
%Solids: 83.8

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	0.0438	1	10/07/2004
Benzene	BQL	0.00438	1	10/07/2004
Bromobenzene	BQL	0.00438	1	10/07/2004
Bromochloromethane	BQL	0.00438	1	10/07/2004
Bromodichloromethane	BQL	0.00438	1	10/07/2004
Bromoform	BQL	0.00438	1	10/07/2004
Bromomethane	BQL	0.00438	1	10/07/2004
2-Butanone	BQL	0.0219	1	10/07/2004
n-Butylbenzene	BQL	0.00438	1	10/07/2004
sec-Butylbenzene	BQL	0.00438	1	10/07/2004
tert-Butylbenzene	BQL	0.00438	1	10/07/2004
Carbon disulfide	BQL	0.00438	1	10/07/2004
Carbon tetrachloride	BQL	0.00438	1	10/07/2004
Chlorobenzene	BQL	0.00438	1	10/07/2004
Chloroethane	BQL	0.00438	1	10/07/2004
Chloroform	BQL	0.00438	1	10/07/2004
Chloromethane	BQL	0.00438	1	10/07/2004
2-Chlorotoluene	BQL	0.00438	1	10/07/2004
4-Chlorotoluene	BQL	0.00438	1	10/07/2004
Dibromochloromethane	BQL	0.00438	1	10/07/2004
1,2-Dibromo-3-chloropropane	BQL	0.00438	1	10/07/2004
Dibromomethane	BQL	0.00438	1	10/07/2004
1,2-Dibromoethane (EDB)	BQL	0.00438	1	10/07/2004
1,2-Dichlorobenzene	BQL	0.00438	1	10/07/2004
1,3-Dichlorobenzene	BQL	0.00438	1	10/07/2004
1,4-Dichlorobenzene	BQL	0.00438	1	10/07/2004
trans-1,4-Dichloro-2-butene	BQL	0.00438	1	10/07/2004
1,1-Dichloroethane	BQL	0.00438	1	10/07/2004
1,1-Dichloroethene	BQL	0.00438	1	10/07/2004
1,2-Dichloroethane	BQL	0.00438	1	10/07/2004
cis-1,2-Dichloroethene	BQL	0.00438	1	10/07/2004
trans-1,2-dichloroethene	BQL	0.00438	1	10/07/2004
1,2-Dichloropropane	BQL	0.00438	1	10/07/2004
1,3-Dichloropropane	BQL	0.00438	1	10/07/2004
2,2-Dichloropropane	BQL	0.00438	1	10/07/2004
1,1-Dichloropropene	BQL	0.00438	1	10/07/2004
cis-1,3-Dichloropropene	BQL	0.00438	1	10/07/2004
trans-1,3-Dichloropropene	BQL	0.00438	1	10/07/2004
Dichlorodifluoromethane	BQL	0.00438	1	10/07/2004
Diisopropyl ether (DIPE)	BQL	0.00438	1	10/07/2004
Ethylbenzene	BQL	0.00438	1	10/07/2004
Hexachlorobutadiene	BQL	0.00438	1	10/07/2004
2-Hexanone	BQL	0.00438	1	10/07/2004
Iodomethane	BQL	0.00438	1	10/07/2004

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: USTLCH4034-PZ50
Client Project ID: LCH 4015
Lab Sample ID G128-1390-11A
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 09-27-2004 19:30
Date Received: 10/01/2004
Matrix: Soil
%Solids: 83.8

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	0.00438	1	10/07/2004
4-Isopropyltoluene	BQL	0.00438	1	10/07/2004
Methylene chloride	BQL	0.0175	1	10/07/2004
4-Methyl-2-pentanone	BQL	0.00438	1	10/07/2004
Methyl-tert-butyl ether (MTBE)	BQL	0.00438	1	10/07/2004
Naphthalene	BQL	0.00438	1	10/07/2004
n-Propyl benzene	BQL	0.00438	1	10/07/2004
Styrene	BQL	0.00438	1	10/07/2004
1,1,1,2-Tetrachloroethane	BQL	0.00438	1	10/07/2004
1,1,2,2-Tetrachloroethane	BQL	0.00438	1	10/07/2004
Tetrachloroethene	BQL	0.00438	1	10/07/2004
Toluene	BQL	0.00438	1	10/07/2004
1,2,3-Trichlorobenzene	BQL	0.00438	1	10/07/2004
1,2,4-Trichlorobenzene	BQL	0.00438	1	10/07/2004
Trichloroethene	BQL	0.00438	1	10/07/2004
1,1,1-Trichloroethane	BQL	0.00438	1	10/07/2004
1,1,2-Trichloroethane	BQL	0.00438	1	10/07/2004
Trichlorofluoromethane	BQL	0.00438	1	10/07/2004
1,2,3-Trichloropropane	BQL	0.00438	1	10/07/2004
1,2,4-Trimethylbenzene	BQL	0.00438	1	10/07/2004
1,3,5-Trimethylbenzene	BQL	0.00438	1	10/07/2004
Vinyl chloride	BQL	0.00438	1	10/07/2004
m-,p-Xylene	BQL	0.00876	1	10/07/2004
o-Xylene	BQL	0.00438	1	10/07/2004

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	0.05	0.0461	92
1,2-Dichloroethane-d4	0.05	0.0722	144 #
Toluene-d8	0.05	0.0491	98

Comments:

Flags:
BQL = Below Quantitation Limits.

Reviewed By: _____

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: USTLCH4034-PZ51
Client Project ID: LCH 4015
Lab Sample ID G128-1390-12A
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 09-28-2004 17:45
Date Received: 10/01/2004
Matrix: Soil
%Solids: 83.7

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	0.0455	1	10/07/2004
Benzene	BQL	0.00455	1	10/07/2004
Bromobenzene	BQL	0.00455	1	10/07/2004
Bromochloromethane	BQL	0.00455	1	10/07/2004
Bromodichloromethane	BQL	0.00455	1	10/07/2004
Bromoform	BQL	0.00455	1	10/07/2004
Bromomethane	BQL	0.00455	1	10/07/2004
2-Butanone	BQL	0.0228	1	10/07/2004
n-Butylbenzene	BQL	0.00455	1	10/07/2004
sec-Butylbenzene	BQL	0.00455	1	10/07/2004
tert-Butylbenzene	BQL	0.00455	1	10/07/2004
Carbon disulfide	BQL	0.00455	1	10/07/2004
Carbon tetrachloride	BQL	0.00455	1	10/07/2004
Chlorobenzene	BQL	0.00455	1	10/07/2004
Chloroethane	BQL	0.00455	1	10/07/2004
Chloroform	BQL	0.00455	1	10/07/2004
Chloromethane	BQL	0.00455	1	10/07/2004
2-Chlorotoluene	BQL	0.00455	1	10/07/2004
4-Chlorotoluene	BQL	0.00455	1	10/07/2004
Dibromochloromethane	BQL	0.00455	1	10/07/2004
1,2-Dibromo-3-chloropropane	BQL	0.00455	1	10/07/2004
Dibromomethane	BQL	0.00455	1	10/07/2004
1,2-Dibromoethane (EDB)	BQL	0.00455	1	10/07/2004
1,2-Dichlorobenzene	BQL	0.00455	1	10/07/2004
1,3-Dichlorobenzene	BQL	0.00455	1	10/07/2004
1,4-Dichlorobenzene	BQL	0.00455	1	10/07/2004
trans-1,4-Dichloro-2-butene	BQL	0.00455	1	10/07/2004
1,1-Dichloroethane	BQL	0.00455	1	10/07/2004
1,1-Dichloroethene	BQL	0.00455	1	10/07/2004
1,2-Dichloroethane	BQL	0.00455	1	10/07/2004
cis-1,2-Dichloroethene	BQL	0.00455	1	10/07/2004
trans-1,2-dichloroethene	BQL	0.00455	1	10/07/2004
1,2-Dichloropropane	BQL	0.00455	1	10/07/2004
1,3-Dichloropropane	BQL	0.00455	1	10/07/2004
2,2-Dichloropropane	BQL	0.00455	1	10/07/2004
1,1-Dichloropropene	BQL	0.00455	1	10/07/2004
cis-1,3-Dichloropropene	BQL	0.00455	1	10/07/2004
trans-1,3-Dichloropropene	BQL	0.00455	1	10/07/2004
Dichlorodifluoromethane	BQL	0.00455	1	10/07/2004
Diisopropyl ether (DIPE)	BQL	0.00455	1	10/07/2004
Ethylbenzene	BQL	0.00455	1	10/07/2004
Hexachlorobutadiene	BQL	0.00455	1	10/07/2004
2-Hexanone	BQL	0.00455	1	10/07/2004
Iodomethane	BQL	0.00455	1	10/07/2004

Results for Volatiles
by GCMS 8260-5035

Client Sample ID: USTLCH4034-PZ51
Client Project ID: LCH 4015
Lab Sample ID G128-1390-12A
Lab Project ID: G128-1390
Report Basis: Dry Weight

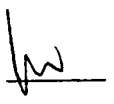
Analyzed By: JTF
Date Collected: 09-28-2004 17:45
Date Received: 10/01/2004
Matrix: Soil
%Solids: 83.7

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	0.00455	1	10/07/2004
4-Isopropyltoluene	BQL	0.00455	1	10/07/2004
Methylene chloride	BQL	0.0182	1	10/07/2004
4-Methyl-2-pentanone	BQL	0.00455	1	10/07/2004
Methyl-tert-butyl ether (MTBE)	BQL	0.00455	1	10/07/2004
Naphthalene	BQL	0.00455	1	10/07/2004
n-Propyl benzene	BQL	0.00455	1	10/07/2004
Styrene	BQL	0.00455	1	10/07/2004
1,1,1,2-Tetrachloroethane	BQL	0.00455	1	10/07/2004
1,1,2,2-Tetrachloroethane	BQL	0.00455	1	10/07/2004
Tetrachloroethene	BQL	0.00455	1	10/07/2004
Toluene	BQL	0.00455	1	10/07/2004
1,2,3-Trichlorobenzene	BQL	0.00455	1	10/07/2004
1,2,4-Trichlorobenzene	BQL	0.00455	1	10/07/2004
Trichloroethene	BQL	0.00455	1	10/07/2004
1,1,1-Trichloroethane	BQL	0.00455	1	10/07/2004
1,1,2-Trichloroethane	BQL	0.00455	1	10/07/2004
Trichlorofluoromethane	BQL	0.00455	1	10/07/2004
1,2,3-Trichloropropane	BQL	0.00455	1	10/07/2004
1,2,4-Trimethylbenzene	BQL	0.00455	1	10/07/2004
1,3,5-Trimethylbenzene	BQL	0.00455	1	10/07/2004
Vinyl chloride	BQL	0.00455	1	10/07/2004
m-,p-Xylene	BQL	0.00910	1	10/07/2004
o-Xylene	BQL	0.00455	1	10/07/2004

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	0.05	0.0484	97
1,2-Dichloroethane-d4	0.05	0.0684	137
Toluene-d8	0.05	0.0494	99

Comments:

Flags:
BQL = Below Quantitation Limits.

Reviewed By: 

Results for Volatiles
by GCMS 8260B/5035

Client Sample ID: Trip Blanks
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-54A
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 10/01/2004 11:15
Date Received: 10/01/2004
Matrix: Soil
%Solids: 100.0

Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	1.51	50	10/07/2004
Benzene	BQL	0.0602	50	10/07/2004
Bromobenzene	BQL	0.0602	50	10/07/2004
Bromochloromethane	BQL	0.0602	50	10/07/2004
Bromodichloromethane	BQL	0.0602	50	10/07/2004
Bromoform	BQL	0.0602	50	10/07/2004
Bromomethane	BQL	0.0602	50	10/07/2004
2-Butanone	BQL	1.51	50	10/07/2004
n-Butylbenzene	BQL	0.0602	50	10/07/2004
sec-Butylbenzene	BQL	0.0602	50	10/07/2004
tert-Butylbenzene	BQL	0.0602	50	10/07/2004
Carbon disulfide	BQL	0.0602	50	10/07/2004
Carbon tetrachloride	BQL	0.0602	50	10/07/2004
Chlorobenzene	BQL	0.0602	50	10/07/2004
Chloroethane	BQL	0.0602	50	10/07/2004
Chloroform	BQL	0.0602	50	10/07/2004
Chloromethane	BQL	0.0602	50	10/07/2004
2-Chlorotoluene	BQL	0.0602	50	10/07/2004
4-Chlorotoluene	BQL	0.0602	50	10/07/2004
Dibromochloromethane	BQL	0.0602	50	10/07/2004
1,2-Dibromo-3-chloropropane	BQL	0.301	50	10/07/2004
Dibromomethane	BQL	0.0602	50	10/07/2004
1,2-Dibromoethane (EDB)	BQL	0.0602	50	10/07/2004
1,2-Dichlorobenzene	BQL	0.0602	50	10/07/2004
1,3-Dichlorobenzene	BQL	0.0602	50	10/07/2004
1,4-Dichlorobenzene	BQL	0.0602	50	10/07/2004
trans-1,4-Dichloro-2-butene	BQL	0.301	50	10/07/2004
1,1-Dichloroethane	BQL	0.0602	50	10/07/2004
1,1-Dichloroethene	BQL	0.0602	50	10/07/2004
1,2-Dichloroethane	BQL	0.0602	50	10/07/2004
cis-1,2-Dichloroethene	BQL	0.0602	50	10/07/2004
trans-1,2-dichloroethene	BQL	0.0602	50	10/07/2004
1,2-Dichloropropane	BQL	0.0602	50	10/07/2004
1,3-Dichloropropane	BQL	0.0602	50	10/07/2004
2,2-Dichloropropane	BQL	0.0602	50	10/07/2004
1,1-Dichloropropene	BQL	0.0602	50	10/07/2004
cis-1,3-Dichloropropene	BQL	0.0602	50	10/07/2004
trans-1,3-Dichloropropene	BQL	0.0602	50	10/07/2004
Dichlorodifluoromethane	BQL	0.301	50	10/07/2004
Diisopropyl ether (DIPE)	BQL	0.0602	50	10/07/2004
Ethylbenzene	BQL	0.0602	50	10/07/2004
Hexachlorobutadiene	BQL	0.0602	50	10/07/2004
2-Hexanone	BQL	0.301	50	10/07/2004
Iodomethane	BQL	0.0602	50	10/07/2004
Isopropylbenzene	BQL	0.0602	50	10/07/2004

Results for Volatiles
by GCMS 8260B/5035

Client Sample ID: Trip Blanks
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-54A
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 10/01/2004 11:15
Date Received: 10/01/2004
Matrix: Soil
%Solids: 100.0

Compound	Result MG/KG	Quantitation Limit MG/KG	Dilution Factor	Date Analyzed
4-Isopropyltoluene	BQL	0.0602	50	10/07/2004
Methylene chloride	BQL	0.301	50	10/07/2004
4-Methyl-2-pentanone	BQL	0.301	50	10/07/2004
Methyl-tert-butyl ether (MTBE)	BQL	0.0602	50	10/07/2004
Naphthalene	BQL	0.0602	50	10/07/2004
n-Propyl benzene	BQL	0.0602	50	10/07/2004
Styrene	BQL	0.0602	50	10/07/2004
1,1,1,2-Tetrachloroethane	BQL	0.0602	50	10/07/2004
1,1,2,2-Tetrachloroethane	BQL	0.0602	50	10/07/2004
Tetrachloroethene	BQL	0.0602	50	10/07/2004
Toluene	BQL	0.0602	50	10/07/2004
1,2,3-Trichlorobenzene	BQL	0.0602	50	10/07/2004
1,2,4-Trichlorobenzene	BQL	0.0602	50	10/07/2004
Trichloroethene	BQL	0.0602	50	10/07/2004
1,1,1-Trichloroethane	BQL	0.0602	50	10/07/2004
1,1,2-Trichloroethane	BQL	0.0602	50	10/07/2004
Trichlorofluoromethane	BQL	0.0602	50	10/07/2004
1,2,3-Trichloropropane	BQL	0.0602	50	10/07/2004
1,2,4-Trimethylbenzene	BQL	0.0602	50	10/07/2004
1,3,5-Trimethylbenzene	BQL	0.0602	50	10/07/2004
Vinyl chloride	BQL	0.0602	50	10/07/2004
m-,p-Xylene	BQL	0.120	50	10/07/2004
o-Xylene	BQL	0.0602	50	10/07/2004

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	0.01	0.00998	100
1,2-Dichloroethane-d4	0.01	0.00936	94
Toluene-d8	0.01	0.00994	99

Comments:

Flags:
BQL = Below Quantitation Limits.

Reviewed By: _____

Results for Semivolatiles by GCMS 8270

Client Sample ID: USTLCH4034-PZ01
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-1H
Lab Project ID: G128-1390
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 09/28/2004 17:20
Date Received: 10/01/2004
Matrix: Soil
Solids: 83.2

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	0.469	1	10/08/2004
Acenaphthylene	BQL	0.469	1	10/08/2004
Anthracene	BQL	0.469	1	10/08/2004
Benzo[a]anthracene	BQL	0.469	1	10/08/2004
Benzo[a]pyrene	BQL	0.469	1	10/08/2004
Benzo[b]fluoranthene	BQL	0.469	1	10/08/2004
Benzo[g,h,i]perylene	BQL	0.469	1	10/08/2004
Benzo[k]fluoranthene	BQL	0.469	1	10/08/2004
Benzoic Acid	BQL	0.938	1	10/08/2004
Bis(2-chloroethoxy)methane	BQL	0.469	1	10/08/2004
Bis(2-chloroethyl)ether	BQL	0.469	1	10/08/2004
Bis(2-chloroisopropyl)ether	BQL	0.469	1	10/08/2004
Bis(2-ethylhexyl)phthalate	BQL	0.469	1	10/08/2004
4-bromophenyl phenyl ether	BQL	0.469	1	10/08/2004
Butylbenzylphthalate	BQL	0.469	1	10/08/2004
2-Chloronaphthalene	BQL	0.469	1	10/08/2004
2-Chlorophenol	BQL	0.469	1	10/08/2004
4-Chloro-3-methylphenol	BQL	0.469	1	10/08/2004
4-Chloroaniline	BQL	2.35	1	10/08/2004
4-Chlorophenyl phenyl ether	BQL	0.469	1	10/08/2004
Chrysene	BQL	0.469	1	10/08/2004
Dibenzo[a,h]anthracene	BQL	0.469	1	10/08/2004
Dibenzofuran	BQL	0.469	1	10/08/2004
Di-n-Butylphthalate	BQL	0.469	1	10/08/2004
1,2-Dichlorobenzene	BQL	0.469	1	10/08/2004
1,3-Dichlorobenzene	BQL	0.469	1	10/08/2004
1,4-Dichlorobenzene	BQL	0.469	1	10/08/2004
3,3'-Dichlorobenzidine	BQL	0.938	1	10/08/2004
2,4-Dichlorophenol	BQL	0.469	1	10/08/2004
Diethylphthalate	BQL	0.469	1	10/08/2004
Dimethylphthalate	BQL	0.469	1	10/08/2004
2,4-Dimethylphenol	BQL	0.469	1	10/08/2004
Di-n-octylphthalate	BQL	0.469	1	10/08/2004
4,6-Dinitro-2-methylphenol	BQL	2.35	1	10/08/2004
2,4-Dinitrophenol	BQL	2.35	1	10/08/2004
2,4-Dinitrotoluene	BQL	0.469	1	10/08/2004
2,6-Dinitrotoluene	BQL	0.469	1	10/08/2004
Fluoranthene	BQL	0.469	1	10/08/2004
Fluorene	BQL	0.469	1	10/08/2004
Hexachlorobenzene	BQL	0.469	1	10/08/2004
Hexachlorobutadiene	BQL	0.469	1	10/08/2004
Hexachlorocyclopentadiene	BQL	0.938	1	10/08/2004

Results for Semivolatiles by GCMS 8270

Client Sample ID: USTLCH4034-PZ01
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-1H
Lab Project ID: G128-1390
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 09/28/2004 17:20
Date Received: 10/01/2004
Matrix: Soil
Solids: 83.2

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Hexachloroethane	BQL	0.469	1	10/08/2004
Indeno(1,2,3-c,d)pyrene	BQL	0.469	1	10/08/2004
Isophorone	BQL	0.469	1	10/08/2004
2-Methylnaphthalene	BQL	0.469	1	10/08/2004
2-Methylphenol	BQL	0.469	1	10/08/2004
3- & 4-Methylphenol	BQL	0.469	1	10/08/2004
Naphthalene	BQL	0.469	1	10/08/2004
2-Nitroaniline	BQL	0.469	1	10/08/2004
3-Nitroaniline	BQL	2.35	1	10/08/2004
4-Nitroaniline	BQL	2.35	1	10/08/2004
Nitrobenzene	BQL	0.469	1	10/08/2004
2-Nitrophenol	BQL	0.469	1	10/08/2004
4-Nitrophenol	BQL	2.35	1	10/08/2004
N-Nitrosodi-n-propylamine	BQL	0.469	1	10/08/2004
N-Nitrosodiphenylamine	BQL	0.469	1	10/08/2004
Pentachlorophenol	BQL	2.35	1	10/08/2004
Phenanthrene	BQL	0.469	1	10/08/2004
Phenol	BQL	0.469	1	10/08/2004
Pyrene	BQL	0.469	1	10/08/2004
1,2,4-Trichlorobenzene	BQL	0.469	1	10/08/2004
2,4,5-Trichlorophenol	BQL	0.469	1	10/08/2004
2,4,6-Trichlorophenol	BQL	0.469	1	10/08/2004

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	10	100
2-Fluorophenol	10	11	110
Nitrobenzene-d5	10	11	110
Phenol-d6	10	10.9	109
2,4,6-Tribromophenol	10	11.1	111
4-Terphenyl-d14	10	10	100

Comments:

Flags:
BQL = Below Quantitation Limits.

Reviewed By:

Results for Semivolatiles by GCMS 8270

Client Sample ID: USTLCH4034-PZ02
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-2H
Lab Project ID: G128-1390
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 09/27/2004 19:45
Date Received: 10/01/2004
Matrix: Soil
Solids: 86.6

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	0.428	1	10/08/2004
Acenaphthylene	BQL	0.428	1	10/08/2004
Anthracene	BQL	0.428	1	10/08/2004
Benzo[a]anthracene	BQL	0.428	1	10/08/2004
Benzo[a]pyrene	BQL	0.428	1	10/08/2004
Benzo[b]fluoranthene	BQL	0.428	1	10/08/2004
Benzo[g,h,i]perylene	BQL	0.428	1	10/08/2004
Benzo[k]fluoranthene	BQL	0.428	1	10/08/2004
Benzoic Acid	BQL	0.856	1	10/08/2004
Bis(2-chloroethoxy)methane	BQL	0.428	1	10/08/2004
Bis(2-chloroethyl)ether	BQL	0.428	1	10/08/2004
Bis(2-chloroisopropyl)ether	BQL	0.428	1	10/08/2004
Bis(2-ethylhexyl)phthalate	BQL	0.428	1	10/08/2004
4-bromophenyl phenyl ether	BQL	0.428	1	10/08/2004
Butylbenzylphthalate	BQL	0.428	1	10/08/2004
2-Chloronaphthalene	BQL	0.428	1	10/08/2004
2-Chlorophenol	BQL	0.428	1	10/08/2004
4-Chloro-3-methylphenol	BQL	0.428	1	10/08/2004
4-Chloroaniline	BQL	2.14	1	10/08/2004
4-Chlorophenyl phenyl ether	BQL	0.428	1	10/08/2004
Chrysene	BQL	0.428	1	10/08/2004
Dibenzo[a,h]anthracene	BQL	0.428	1	10/08/2004
Dibenzofuran	BQL	0.428	1	10/08/2004
Di-n-Butylphthalate	BQL	0.428	1	10/08/2004
1,2-Dichlorobenzene	BQL	0.428	1	10/08/2004
1,3-Dichlorobenzene	BQL	0.428	1	10/08/2004
1,4-Dichlorobenzene	BQL	0.428	1	10/08/2004
3,3'-Dichlorobenzidine	BQL	0.856	1	10/08/2004
2,4-Dichlorophenol	BQL	0.428	1	10/08/2004
Diethylphthalate	BQL	0.428	1	10/08/2004
Dimethylphthalate	BQL	0.428	1	10/08/2004
2,4-Dimethylphenol	BQL	0.428	1	10/08/2004
Di-n-octylphthalate	BQL	0.428	1	10/08/2004
4,6-Dinitro-2-methylphenol	BQL	2.14	1	10/08/2004
2,4-Dinitrophenol	BQL	2.14	1	10/08/2004
2,4-Dinitrotoluene	BQL	0.428	1	10/08/2004
2,6-Dinitrotoluene	BQL	0.428	1	10/08/2004
Fluoranthene	BQL	0.428	1	10/08/2004
Fluorene	BQL	0.428	1	10/08/2004
Hexachlorobenzene	BQL	0.428	1	10/08/2004
Hexachlorobutadiene	BQL	0.428	1	10/08/2004
Hexachlorocyclopentadiene	BQL	0.856	1	10/08/2004

Results for Semivolatiles by GCMS 8270

Client Sample ID: USTLCH4034-PZ02
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-2H
Lab Project ID: G128-1390
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 09/27/2004 19:45
Date Received: 10/01/2004
Matrix: Soil
Solids: 86.6

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Hexachloroethane	BQL	0.428	1	10/08/2004
Indeno(1,2,3-c,d)pyrene	BQL	0.428	1	10/08/2004
Isophorone	BQL	0.428	1	10/08/2004
2-Methylnaphthalene	BQL	0.428	1	10/08/2004
2-Methylphenol	BQL	0.428	1	10/08/2004
3- & 4-Methylphenol	BQL	0.428	1	10/08/2004
Naphthalene	BQL	0.428	1	10/08/2004
2-Nitroaniline	BQL	0.428	1	10/08/2004
3-Nitroaniline	BQL	2.14	1	10/08/2004
4-Nitroaniline	BQL	2.14	1	10/08/2004
Nitrobenzene	BQL	0.428	1	10/08/2004
2-Nitrophenol	BQL	0.428	1	10/08/2004
4-Nitrophenol	BQL	2.14	1	10/08/2004
N-Nitrosodi-n-propylamine	BQL	0.428	1	10/08/2004
N-Nitrosodiphenylamine	BQL	0.428	1	10/08/2004
Pentachlorophenol	BQL	2.14	1	10/08/2004
Phenanthrene	BQL	0.428	1	10/08/2004
Phenol	BQL	0.428	1	10/08/2004
Pyrene	BQL	0.428	1	10/08/2004
1,2,4-Trichlorobenzene	BQL	0.428	1	10/08/2004
2,4,5-Trichlorophenol	BQL	0.428	1	10/08/2004
2,4,6-Trichlorophenol	BQL	0.428	1	10/08/2004

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	9.4	94
2-Fluorophenol	10	9.9	99
Nitrobenzene-d5	10	10.1	101
Phenol-d6	10	10.1	101
2,4,6-Tribromophenol	10	9.6	96
4-Terphenyl-d14	10	9.5	95

Comments:

Flags:
BQL = Below Quantitation Limits.

Reviewed By:

Results for Semivolatiles by GCMS 8270

Client Sample ID: USTLCH4034-PZ03
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-3H
Lab Project ID: G128-1390
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 09/28/2004 17:30
Date Received: 10/01/2004
Matrix: Soil
Solids: 83.4

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	0.455	1	10/08/2004
Acenaphthylene	BQL	0.455	1	10/08/2004
Anthracene	BQL	0.455	1	10/08/2004
Benzo[a]anthracene	BQL	0.455	1	10/08/2004
Benzo[a]pyrene	BQL	0.455	1	10/08/2004
Benzo[b]fluoranthene	BQL	0.455	1	10/08/2004
Benzo[g,h,i]perylene	BQL	0.455	1	10/08/2004
Benzo[k]fluoranthene	BQL	0.455	1	10/08/2004
Benzoic Acid	BQL	0.910	1	10/08/2004
Bis(2-chloroethoxy)methane	BQL	0.455	1	10/08/2004
Bis(2-chloroethyl)ether	BQL	0.455	1	10/08/2004
Bis(2-chloroisopropyl)ether	BQL	0.455	1	10/08/2004
Bis(2-ethylhexyl)phthalate	BQL	0.455	1	10/08/2004
4-bromophenyl phenyl ether	BQL	0.455	1	10/08/2004
Butylbenzylphthalate	BQL	0.455	1	10/08/2004
2-Chloronaphthalene	BQL	0.455	1	10/08/2004
2-Chlorophenol	BQL	0.455	1	10/08/2004
4-Chloro-3-methylphenol	BQL	0.455	1	10/08/2004
4-Chloroaniline	BQL	2.27	1	10/08/2004
4-Chlorophenyl phenyl ether	BQL	0.455	1	10/08/2004
Chrysene	BQL	0.455	1	10/08/2004
Dibenzo[a,h]anthracene	BQL	0.455	1	10/08/2004
Dibenzofuran	BQL	0.455	1	10/08/2004
Di-n-Butylphthalate	BQL	0.455	1	10/08/2004
1,2-Dichlorobenzene	BQL	0.455	1	10/08/2004
1,3-Dichlorobenzene	BQL	0.455	1	10/08/2004
1,4-Dichlorobenzene	BQL	0.455	1	10/08/2004
3,3'-Dichlorobenzidine	BQL	0.910	1	10/08/2004
2,4-Dichlorophenol	BQL	0.455	1	10/08/2004
Diethylphthalate	BQL	0.455	1	10/08/2004
Dimethylphthalate	BQL	0.455	1	10/08/2004
2,4-Dimethylphenol	BQL	0.455	1	10/08/2004
Di-n-octylphthalate	BQL	0.455	1	10/08/2004
4,6-Dinitro-2-methylphenol	BQL	2.27	1	10/08/2004
2,4-Dinitrophenol	BQL	2.27	1	10/08/2004
2,4-Dinitrotoluene	BQL	0.455	1	10/08/2004
2,6-Dinitrotoluene	BQL	0.455	1	10/08/2004
Fluoranthene	BQL	0.455	1	10/08/2004
Fluorene	BQL	0.455	1	10/08/2004
Hexachlorobenzene	BQL	0.455	1	10/08/2004
Hexachlorobutadiene	BQL	0.455	1	10/08/2004
Hexachlorocyclopentadiene	BQL	0.910	1	10/08/2004

Results for Semivolatiles by GCMS 8270

Client Sample ID: USTLCH4034-PZ03
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-3H
Lab Project ID: G128-1390
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 09/28/2004 17:30
Date Received: 10/01/2004
Matrix: Soil
Solids: 83.4

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Hexachloroethane	BQL	0.455	1	10/08/2004
Indeno(1,2,3-c,d)pyrene	BQL	0.455	1	10/08/2004
Isophorone	BQL	0.455	1	10/08/2004
2-Methylnaphthalene	BQL	0.455	1	10/08/2004
2-Methylphenol	BQL	0.455	1	10/08/2004
3- & 4-Methylphenol	BQL	0.455	1	10/08/2004
Naphthalene	BQL	0.455	1	10/08/2004
2-Nitroaniline	BQL	0.455	1	10/08/2004
3-Nitroaniline	BQL	2.27	1	10/08/2004
4-Nitroaniline	BQL	2.27	1	10/08/2004
Nitrobenzene	BQL	0.455	1	10/08/2004
2-Nitrophenol	BQL	0.455	1	10/08/2004
4-Nitrophenol	BQL	2.27	1	10/08/2004
N-Nitrosodi-n-propylamine	BQL	0.455	1	10/08/2004
N-Nitrosodiphenylamine	BQL	0.455	1	10/08/2004
Pentachlorophenol	BQL	2.27	1	10/08/2004
Phenanthrene	BQL	0.455	1	10/08/2004
Phenol	BQL	0.455	1	10/08/2004
Pyrene	BQL	0.455	1	10/08/2004
1,2,4-Trichlorobenzene	BQL	0.455	1	10/08/2004
2,4,5-Trichlorophenol	BQL	0.455	1	10/08/2004
2,4,6-Trichlorophenol	BQL	0.455	1	10/08/2004

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8.4	84
2-Fluorophenol	10	9.8	98
Nitrobenzene-d5	10	9.7	97
Phenol-d6	10	9.8	98
2,4,6-Tribromophenol	10	9.2	92
4-Terphenyl-d14	10	8.7	87

Comments:

Flags:
BQL = Below Quantitation Limits.

Reviewed By:

Results for Semivolatiles by GCMS 8270

Client Sample ID: USTLCH4034-PZ04
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-4I
Lab Project ID: G128-1390
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 09/28/2004 16:45
Date Received: 10/01/2004
Matrix: Soil
Solids: 84.7

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	0.449	1	10/08/2004
Acenaphthylene	BQL	0.449	1	10/08/2004
Anthracene	BQL	0.449	1	10/08/2004
Benzo[a]anthracene	BQL	0.449	1	10/08/2004
Benzo[a]pyrene	BQL	0.449	1	10/08/2004
Benzo[b]fluoranthene	BQL	0.449	1	10/08/2004
Benzo[g,h,i]perylene	BQL	0.449	1	10/08/2004
Benzo[k]fluoranthene	BQL	0.449	1	10/08/2004
Benzoic Acid	BQL	0.898	1	10/08/2004
Bis(2-chloroethoxy)methane	BQL	0.449	1	10/08/2004
Bis(2-chloroethyl)ether	BQL	0.449	1	10/08/2004
Bis(2-chloroisopropyl)ether	BQL	0.449	1	10/08/2004
Bis(2-ethylhexyl)phthalate	BQL	0.449	1	10/08/2004
4-bromophenyl phenyl ether	BQL	0.449	1	10/08/2004
Butylbenzylphthalate	BQL	0.449	1	10/08/2004
2-Chloronaphthalene	BQL	0.449	1	10/08/2004
2-Chlorophenol	BQL	0.449	1	10/08/2004
4-Chloro-3-methylphenol	BQL	0.449	1	10/08/2004
4-Chloroaniline	BQL	2.25	1	10/08/2004
4-Chlorophenyl phenyl ether	BQL	0.449	1	10/08/2004
Chrysene	BQL	0.449	1	10/08/2004
Dibenzo[a,h]anthracene	BQL	0.449	1	10/08/2004
Dibenzofuran	BQL	0.449	1	10/08/2004
Di-n-Butylphthalate	BQL	0.449	1	10/08/2004
1,2-Dichlorobenzene	BQL	0.449	1	10/08/2004
1,3-Dichlorobenzene	BQL	0.449	1	10/08/2004
1,4-Dichlorobenzene	BQL	0.449	1	10/08/2004
3,3'-Dichlorobenzidine	BQL	0.898	1	10/08/2004
2,4-Dichlorophenol	BQL	0.449	1	10/08/2004
Diethylphthalate	BQL	0.449	1	10/08/2004
Dimethylphthalate	BQL	0.449	1	10/08/2004
2,4-Dimethylphenol	BQL	0.449	1	10/08/2004
Di-n-octylphthalate	BQL	0.449	1	10/08/2004
4,6-Dinitro-2-methylphenol	BQL	2.25	1	10/08/2004
2,4-Dinitrophenol	BQL	2.25	1	10/08/2004
2,4-Dinitrotoluene	BQL	0.449	1	10/08/2004
2,6-Dinitrotoluene	BQL	0.449	1	10/08/2004
Fluoranthene	BQL	0.449	1	10/08/2004
Fluorene	BQL	0.449	1	10/08/2004
Hexachlorobenzene	BQL	0.449	1	10/08/2004
Hexachlorobutadiene	BQL	0.449	1	10/08/2004
Hexachlorocyclopentadiene	BQL	0.898	1	10/08/2004

Results for Semivolatiles by GCMS 8270

Client Sample ID: USTLCH4034-PZ04
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-4I
Lab Project ID: G128-1390
Report Basis: Dry weight

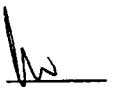
Analyzed By: MRC
Date Collected: 09/28/2004 16:45
Date Received: 10/01/2004
Matrix: Soil
Solids: 84.7

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Hexachloroethane	BQL	0.449	1	10/08/2004
Indeno(1,2,3-c,d)pyrene	BQL	0.449	1	10/08/2004
Isophorone	BQL	0.449	1	10/08/2004
2-Methylnaphthalene	BQL	0.449	1	10/08/2004
2-Methylphenol	BQL	0.449	1	10/08/2004
3- & 4-Methylphenol	BQL	0.449	1	10/08/2004
Naphthalene	BQL	0.449	1	10/08/2004
2-Nitroaniline	BQL	0.449	1	10/08/2004
3-Nitroaniline	BQL	2.25	1	10/08/2004
4-Nitroaniline	BQL	2.25	1	10/08/2004
Nitrobenzene	BQL	0.449	1	10/08/2004
2-Nitrophenol	BQL	0.449	1	10/08/2004
4-Nitrophenol	BQL	2.25	1	10/08/2004
N-Nitrosodi-n-propylamine	BQL	0.449	1	10/08/2004
N-Nitrosodiphenylamine	BQL	0.449	1	10/08/2004
Pentachlorophenol	BQL	2.25	1	10/08/2004
Phenanthrene	BQL	0.449	1	10/08/2004
Phenol	BQL	0.449	1	10/08/2004
Pyrene	BQL	0.449	1	10/08/2004
1,2,4-Trichlorobenzene	BQL	0.449	1	10/08/2004
2,4,5-Trichlorophenol	BQL	0.449	1	10/08/2004
2,4,6-Trichlorophenol	BQL	0.449	1	10/08/2004

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8.6	86
2-Fluorophenol	10	9.2	92
Nitrobenzene-d5	10	9.4	94
Phenol-d6	10	9.2	92
2,4,6-Tribromophenol	10	9	90
4-Terphenyl-d14	10	8.8	88

Comments:

Flags:
BQL = Below Quantitation Limits.

Reviewed By: 

Results for Semivolatiles
by GCMS 8270

Client Sample ID: USTLCH4034-PZ05
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-5H
Lab Project ID: G128-1390
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 09/27/2004 19:05
Date Received: 10/01/2004
Matrix: Soil
Solids: 87.1

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	0.453	1	10/08/2004
Acenaphthylene	BQL	0.453	1	10/08/2004
Anthracene	BQL	0.453	1	10/08/2004
Benzo[a]anthracene	BQL	0.453	1	10/08/2004
Benzo[a]pyrene	BQL	0.453	1	10/08/2004
Benzo[b]fluoranthene	BQL	0.453	1	10/08/2004
Benzo[g,h,i]perylene	BQL	0.453	1	10/08/2004
Benzo[k]fluoranthene	BQL	0.453	1	10/08/2004
Benzoic Acid	BQL	0.905	1	10/08/2004
Bis(2-chloroethoxy)methane	BQL	0.453	1	10/08/2004
Bis(2-chloroethyl)ether	BQL	0.453	1	10/08/2004
Bis(2-chloroisopropyl)ether	BQL	0.453	1	10/08/2004
Bis(2-ethylhexyl)phthalate	BQL	0.453	1	10/08/2004
4-bromophenyl phenyl ether	BQL	0.453	1	10/08/2004
Butylbenzylphthalate	BQL	0.453	1	10/08/2004
2-Chloronaphthalene	BQL	0.453	1	10/08/2004
2-Chlorophenol	BQL	0.453	1	10/08/2004
4-Chloro-3-methylphenol	BQL	0.453	1	10/08/2004
4-Chloroaniline	BQL	2.26	1	10/08/2004
4-Chlorophenyl phenyl ether	BQL	0.453	1	10/08/2004
Chrysene	BQL	0.453	1	10/08/2004
Dibenzo[a,h]anthracene	BQL	0.453	1	10/08/2004
Dibenzofuran	BQL	0.453	1	10/08/2004
Di-n-Butylphthalate	BQL	0.453	1	10/08/2004
1,2-Dichlorobenzene	BQL	0.453	1	10/08/2004
1,3-Dichlorobenzene	BQL	0.453	1	10/08/2004
1,4-Dichlorobenzene	BQL	0.453	1	10/08/2004
3,3'-Dichlorobenzidine	BQL	0.905	1	10/08/2004
2,4-Dichlorophenol	BQL	0.453	1	10/08/2004
Diethylphthalate	BQL	0.453	1	10/08/2004
Dimethylphthalate	BQL	0.453	1	10/08/2004
2,4-Dimethylphenol	BQL	0.453	1	10/08/2004
Di-n-octylphthalate	BQL	0.453	1	10/08/2004
4,6-Dinitro-2-methylphenol	BQL	2.26	1	10/08/2004
2,4-Dinitrophenol	BQL	2.26	1	10/08/2004
2,4-Dinitrotoluene	BQL	0.453	1	10/08/2004
2,6-Dinitrotoluene	BQL	0.453	1	10/08/2004
Fluoranthene	BQL	0.453	1	10/08/2004
Fluorene	BQL	0.453	1	10/08/2004
Hexachlorobenzene	BQL	0.453	1	10/08/2004
Hexachlorobutadiene	BQL	0.453	1	10/08/2004
Hexachlorocyclopentadiene	BQL	0.905	1	10/08/2004

Results for Semivolatiles by GCMS 8270

Client Sample ID: USTLCH4034-PZ05
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-5H
Lab Project ID: G128-1390
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 09/27/2004 19:05
Date Received: 10/01/2004
Matrix: Soil
Solids: 87.1

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Hexachloroethane	BQL	0.453	1	10/08/2004
Indeno(1,2,3-c,d)pyrene	BQL	0.453	1	10/08/2004
Isophorone	BQL	0.453	1	10/08/2004
2-Methylnaphthalene	BQL	0.453	1	10/08/2004
2-Methylphenol	BQL	0.453	1	10/08/2004
3- & 4-Methylphenol	BQL	0.453	1	10/08/2004
Naphthalene	BQL	0.453	1	10/08/2004
2-Nitroaniline	BQL	0.453	1	10/08/2004
3-Nitroaniline	BQL	2.26	1	10/08/2004
4-Nitroaniline	BQL	2.26	1	10/08/2004
Nitrobenzene	BQL	0.453	1	10/08/2004
2-Nitrophenol	BQL	0.453	1	10/08/2004
4-Nitrophenol	BQL	2.26	1	10/08/2004
N-Nitrosodi-n-propylamine	BQL	0.453	1	10/08/2004
N-Nitrosodiphenylamine	BQL	0.453	1	10/08/2004
Pentachlorophenol	BQL	2.26	1	10/08/2004
Phenanthrene	BQL	0.453	1	10/08/2004
Phenol	BQL	0.453	1	10/08/2004
Pyrene	BQL	0.453	1	10/08/2004
1,2,4-Trichlorobenzene	BQL	0.453	1	10/08/2004
2,4,5-Trichlorophenol	BQL	0.453	1	10/08/2004
2,4,6-Trichlorophenol	BQL	0.453	1	10/08/2004

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8.3	83
2-Fluorophenol	10	8.5	85
Nitrobenzene-d5	10	9.2	92
Phenol-d6	10	9.1	91
2,4,6-Tribromophenol	10	8.8	88
4-Terphenyl-d14	10	8.3	83

Comments:

Flags:
BQL = Below Quantitation Limits.

Reviewed By:

Results for Semivolatiles by GCMS 8270

Client Sample ID: USTLCH4034-PZ06
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-6H
Lab Project ID: G128-1390
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 09/28/2004 17:00
Date Received: 10/01/2004
Matrix: Soil
Solids: 88.2

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	0.420	1	10/08/2004
Acenaphthylene	BQL	0.420	1	10/08/2004
Anthracene	BQL	0.420	1	10/08/2004
Benzo[a]anthracene	BQL	0.420	1	10/08/2004
Benzo[a]pyrene	BQL	0.420	1	10/08/2004
Benzo[b]fluoranthene	BQL	0.420	1	10/08/2004
Benzo[g,h,i]perylene	BQL	0.420	1	10/08/2004
Benzo[k]fluoranthene	BQL	0.420	1	10/08/2004
Benzoic Acid	BQL	0.840	1	10/08/2004
Bis(2-chloroethoxy)methane	BQL	0.420	1	10/08/2004
Bis(2-chloroethyl)ether	BQL	0.420	1	10/08/2004
Bis(2-chloroisopropyl)ether	BQL	0.420	1	10/08/2004
Bis(2-ethylhexyl)phthalate	BQL	0.420	1	10/08/2004
4-bromophenyl phenyl ether	BQL	0.420	1	10/08/2004
Butylbenzylphthalate	BQL	0.420	1	10/08/2004
2-Chloronaphthalene	BQL	0.420	1	10/08/2004
2-Chlorophenol	BQL	0.420	1	10/08/2004
4-Chloro-3-methylphenol	BQL	0.420	1	10/08/2004
4-Chloroaniline	BQL	2.10	1	10/08/2004
4-Chlorophenyl phenyl ether	BQL	0.420	1	10/08/2004
Chrysene	BQL	0.420	1	10/08/2004
Dibenzo[a,h]anthracene	BQL	0.420	1	10/08/2004
Dibenzofuran	BQL	0.420	1	10/08/2004
Di-n-Butylphthalate	BQL	0.420	1	10/08/2004
1,2-Dichlorobenzene	BQL	0.420	1	10/08/2004
1,3-Dichlorobenzene	BQL	0.420	1	10/08/2004
1,4-Dichlorobenzene	BQL	0.420	1	10/08/2004
3,3'-Dichlorobenzidine	BQL	0.840	1	10/08/2004
2,4-Dichlorophenol	BQL	0.420	1	10/08/2004
Diethylphthalate	BQL	0.420	1	10/08/2004
Dimethylphthalate	BQL	0.420	1	10/08/2004
2,4-Dimethylphenol	BQL	0.420	1	10/08/2004
Di-n-octylphthalate	BQL	0.420	1	10/08/2004
4,6-Dinitro-2-methylphenol	BQL	2.10	1	10/08/2004
2,4-Dinitrophenol	BQL	2.10	1	10/08/2004
2,4-Dinitrotoluene	BQL	0.420	1	10/08/2004
2,6-Dinitrotoluene	BQL	0.420	1	10/08/2004
Fluoranthene	BQL	0.420	1	10/08/2004
Fluorene	BQL	0.420	1	10/08/2004
Hexachlorobenzene	BQL	0.420	1	10/08/2004
Hexachlorobutadiene	BQL	0.420	1	10/08/2004
Hexachlorocyclopentadiene	BQL	0.840	1	10/08/2004

Results for Semivolatiles by GCMS 8270

Client Sample ID: USTLCH4034-PZ06
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-6H
Lab Project ID: G128-1390
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 09/28/2004 17:00
Date Received: 10/01/2004
Matrix: Soil
Solids: 88.2

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Hexachloroethane	BQL	0.420	1	10/08/2004
Indeno(1,2,3-c,d)pyrene	BQL	0.420	1	10/08/2004
Isophorone	BQL	0.420	1	10/08/2004
2-Methylnaphthalene	BQL	0.420	1	10/08/2004
2-Methylphenol	BQL	0.420	1	10/08/2004
3- & 4-Methylphenol	BQL	0.420	1	10/08/2004
Naphthalene	BQL	0.420	1	10/08/2004
2-Nitroaniline	BQL	0.420	1	10/08/2004
3-Nitroaniline	BQL	2.10	1	10/08/2004
4-Nitroaniline	BQL	2.10	1	10/08/2004
Nitrobenzene	BQL	0.420	1	10/08/2004
2-Nitrophenol	BQL	0.420	1	10/08/2004
4-Nitrophenol	BQL	2.10	1	10/08/2004
N-Nitrosodi-n-propylamine	BQL	0.420	1	10/08/2004
N-Nitrosodiphenylamine	BQL	0.420	1	10/08/2004
Pentachlorophenol	BQL	2.10	1	10/08/2004
Phenanthrene	BQL	0.420	1	10/08/2004
Phenol	BQL	0.420	1	10/08/2004
Pyrene	BQL	0.420	1	10/08/2004
1,2,4-Trichlorobenzene	BQL	0.420	1	10/08/2004
2,4,5-Trichlorophenol	BQL	0.420	1	10/08/2004
2,4,6-Trichlorophenol	BQL	0.420	1	10/08/2004

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8.7	87
2-Fluorophenol	10	9.5	95
Nitrobenzene-d5	10	9.4	94
Phenol-d6	10	9.4	94
2,4,6-Tribromophenol	10	9.4	94
4-Terphenyl-d14	10	9.2	92

Comments:

Flags:
BQL = Below Quantitation Limits.

Reviewed By: _____

Results for Semivolatiles
by GCMS 8270

Client Sample ID: USTLCH4034-PZ06 Dup
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-7H
Lab Project ID: G128-1390
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 09/28/2004 17:00
Date Received: 10/01/2004
Matrix: Soil
Solids: 88.2

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	0.445	1	10/08/2004
Acenaphthylene	BQL	0.445	1	10/08/2004
Anthracene	BQL	0.445	1	10/08/2004
Benzo[a]anthracene	BQL	0.445	1	10/08/2004
Benzo[a]pyrene	BQL	0.445	1	10/08/2004
Benzo[b]fluoranthene	BQL	0.445	1	10/08/2004
Benzo[g,h,i]perylene	BQL	0.445	1	10/08/2004
Benzo[k]fluoranthene	BQL	0.445	1	10/08/2004
Benzoic Acid	BQL	0.889	1	10/08/2004
Bis(2-chloroethoxy)methane	BQL	0.445	1	10/08/2004
Bis(2-chloroethyl)ether	BQL	0.445	1	10/08/2004
Bis(2-chloroisopropyl)ether	BQL	0.445	1	10/08/2004
Bis(2-ethylhexyl)phthalate	BQL	0.445	1	10/08/2004
4-bromophenyl phenyl ether	BQL	0.445	1	10/08/2004
Butylbenzylphthalate	BQL	0.445	1	10/08/2004
2-Chloronaphthalene	BQL	0.445	1	10/08/2004
2-Chlorophenol	BQL	0.445	1	10/08/2004
4-Chloro-3-methylphenol	BQL	0.445	1	10/08/2004
4-Chloroaniline	BQL	2.22	1	10/08/2004
4-Chlorophenyl phenyl ether	BQL	0.445	1	10/08/2004
Chrysene	BQL	0.445	1	10/08/2004
Dibenzo[a,h]anthracene	BQL	0.445	1	10/08/2004
Dibenzofuran	BQL	0.445	1	10/08/2004
Di-n-Butylphthalate	BQL	0.445	1	10/08/2004
1,2-Dichlorobenzene	BQL	0.445	1	10/08/2004
1,3-Dichlorobenzene	BQL	0.445	1	10/08/2004
1,4-Dichlorobenzene	BQL	0.445	1	10/08/2004
3,3'-Dichlorobenzidine	BQL	0.889	1	10/08/2004
2,4-Dichlorophenol	BQL	0.445	1	10/08/2004
Diethylphthalate	BQL	0.445	1	10/08/2004
Dimethylphthalate	BQL	0.445	1	10/08/2004
2,4-Dimethylphenol	BQL	0.445	1	10/08/2004
Di-n-octylphthalate	BQL	0.445	1	10/08/2004
4,6-Dinitro-2-methylphenol	BQL	2.22	1	10/08/2004
2,4-Dinitrophenol	BQL	2.22	1	10/08/2004
2,4-Dinitrotoluene	BQL	0.445	1	10/08/2004
2,6-Dinitrotoluene	BQL	0.445	1	10/08/2004
Fluoranthene	BQL	0.445	1	10/08/2004
Fluorene	BQL	0.445	1	10/08/2004
Hexachlorobenzene	BQL	0.445	1	10/08/2004
Hexachlorobutadiene	BQL	0.445	1	10/08/2004
Hexachlorocyclopentadiene	BQL	0.889	1	10/08/2004

Results for Semivolatiles by GCMS 8270

Client Sample ID: USTLCH4034-PZ06 Dup
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-7H
Lab Project ID: G128-1390
Report Basis: Dry weight

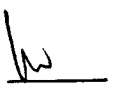
Analyzed By: MRC
Date Collected: 09/28/2004 17:00
Date Received: 10/01/2004
Matrix: Soil
Solids: 88.2

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Hexachloroethane	BQL	0.445	1	10/08/2004
Indeno(1,2,3-c,d)pyrene	BQL	0.445	1	10/08/2004
Isophorone	BQL	0.445	1	10/08/2004
2-Methylnaphthalene	BQL	0.445	1	10/08/2004
2-Methylphenol	BQL	0.445	1	10/08/2004
3- & 4-Methylphenol	BQL	0.445	1	10/08/2004
Naphthalene	BQL	0.445	1	10/08/2004
2-Nitroaniline	BQL	0.445	1	10/08/2004
3-Nitroaniline	BQL	2.22	1	10/08/2004
4-Nitroaniline	BQL	2.22	1	10/08/2004
Nitrobenzene	BQL	0.445	1	10/08/2004
2-Nitrophenol	BQL	0.445	1	10/08/2004
4-Nitrophenol	BQL	2.22	1	10/08/2004
N-Nitrosodi-n-propylamine	BQL	0.445	1	10/08/2004
N-Nitrosodiphenylamine	BQL	0.445	1	10/08/2004
Pentachlorophenol	BQL	2.22	1	10/08/2004
Phenanthrene	BQL	0.445	1	10/08/2004
Phenol	BQL	0.445	1	10/08/2004
Pyrene	BQL	0.445	1	10/08/2004
1,2,4-Trichlorobenzene	BQL	0.445	1	10/08/2004
2,4,5-Trichlorophenol	BQL	0.445	1	10/08/2004
2,4,6-Trichlorophenol	BQL	0.445	1	10/08/2004

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	9.8	98
2-Fluorophenol	10	10.1	101
Nitrobenzene-d5	10	10.3	103
Phenol-d6	10	10.3	103
2,4,6-Tribromophenol	10	10.4	104
4-Terphenyl-d14	10	11	110

Comments:

Flags:
BQL = Below Quantitation Limits.

Reviewed By: 

Results for Semivolatiles by GCMS 8270

Client Sample ID: USTLCH4034-PZ07
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-8H
Lab Project ID: G128-1390
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 09/27/2004 19:20
Date Received: 10/01/2004
Matrix: Soil
Solids: 83.8

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	0.452	1	10/08/2004
Acenaphthylene	BQL	0.452	1	10/08/2004
Anthracene	BQL	0.452	1	10/08/2004
Benzo[a]anthracene	BQL	0.452	1	10/08/2004
Benzo[a]pyrene	BQL	0.452	1	10/08/2004
Benzo[b]fluoranthene	BQL	0.452	1	10/08/2004
Benzo[g,h,i]perylene	BQL	0.452	1	10/08/2004
Benzo[k]fluoranthene	BQL	0.452	1	10/08/2004
Benzoic Acid	BQL	0.903	1	10/08/2004
Bis(2-chloroethoxy)methane	BQL	0.452	1	10/08/2004
Bis(2-chloroethyl)ether	BQL	0.452	1	10/08/2004
Bis(2-chloroisopropyl)ether	BQL	0.452	1	10/08/2004
Bis(2-ethylhexyl)phthalate	BQL	0.452	1	10/08/2004
4-bromophenyl phenyl ether	BQL	0.452	1	10/08/2004
Butylbenzylphthalate	BQL	0.452	1	10/08/2004
2-Chloronaphthalene	BQL	0.452	1	10/08/2004
2-Chlorophenol	BQL	0.452	1	10/08/2004
4-Chloro-3-methylphenol	BQL	0.452	1	10/08/2004
4-Chloroaniline	BQL	2.26	1	10/08/2004
4-Chlorophenyl phenyl ether	BQL	0.452	1	10/08/2004
Chrysene	BQL	0.452	1	10/08/2004
Dibenzo[a,h]anthracene	BQL	0.452	1	10/08/2004
Dibenzofuran	BQL	0.452	1	10/08/2004
Di-n-Butylphthalate	BQL	0.452	1	10/08/2004
1,2-Dichlorobenzene	BQL	0.452	1	10/08/2004
1,3-Dichlorobenzene	BQL	0.452	1	10/08/2004
1,4-Dichlorobenzene	BQL	0.452	1	10/08/2004
3,3'-Dichlorobenzidine	BQL	0.903	1	10/08/2004
2,4-Dichlorophenol	BQL	0.452	1	10/08/2004
Diethylphthalate	BQL	0.452	1	10/08/2004
Dimethylphthalate	BQL	0.452	1	10/08/2004
2,4-Dimethylphenol	BQL	0.452	1	10/08/2004
Di-n-octylphthalate	BQL	0.452	1	10/08/2004
4,6-Dinitro-2-methylphenol	BQL	2.26	1	10/08/2004
2,4-Dinitrophenol	BQL	2.26	1	10/08/2004
2,4-Dinitrotoluene	BQL	0.452	1	10/08/2004
2,6-Dinitrotoluene	BQL	0.452	1	10/08/2004
Fluoranthene	BQL	0.452	1	10/08/2004
Fluorene	BQL	0.452	1	10/08/2004
Hexachlorobenzene	BQL	0.452	1	10/08/2004
Hexachlorobutadiene	BQL	0.452	1	10/08/2004
Hexachlorocyclopentadiene	BQL	0.903	1	10/08/2004

Results for Semivolatiles by GCMS 8270

Client Sample ID: USTLCH4034-PZ07
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-8H
Lab Project ID: G128-1390
Report Basis: Dry weight

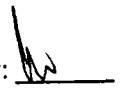
Analyzed By: MRC
Date Collected: 09/27/2004 19:20
Date Received: 10/01/2004
Matrix: Soil
Solids: 83.8

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Hexachloroethane	BQL	0.452	1	10/08/2004
Indeno(1,2,3-c,d)pyrene	BQL	0.452	1	10/08/2004
Isophorone	BQL	0.452	1	10/08/2004
2-Methylnaphthalene	BQL	0.452	1	10/08/2004
2-Methylphenol	BQL	0.452	1	10/08/2004
3- & 4-Methylphenol	BQL	0.452	1	10/08/2004
Naphthalene	BQL	0.452	1	10/08/2004
2-Nitroaniline	BQL	0.452	1	10/08/2004
3-Nitroaniline	BQL	2.26	1	10/08/2004
4-Nitroaniline	BQL	2.26	1	10/08/2004
Nitrobenzene	BQL	0.452	1	10/08/2004
2-Nitrophenol	BQL	0.452	1	10/08/2004
4-Nitrophenol	BQL	2.26	1	10/08/2004
N-Nitrosodi-n-propylamine	BQL	0.452	1	10/08/2004
N-Nitrosodiphenylamine	BQL	0.452	1	10/08/2004
Pentachlorophenol	BQL	2.26	1	10/08/2004
Phenanthrene	BQL	0.452	1	10/08/2004
Phenol	BQL	0.452	1	10/08/2004
Pyrene	BQL	0.452	1	10/08/2004
1,2,4-Trichlorobenzene	BQL	0.452	1	10/08/2004
2,4,5-Trichlorophenol	BQL	0.452	1	10/08/2004
2,4,6-Trichlorophenol	BQL	0.452	1	10/08/2004

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8.8	88
2-Fluorophenol	10	9.4	94
Nitrobenzene-d5	10	9.3	93
Phenol-d6	10	9.4	94
2,4,6-Tribromophenol	10	9.4	94
4-Terphenyl-d14	10	11.4	114

Comments:

Flags:
BQL = Below Quantitation Limits.

Reviewed By: 

Results for Semivolatiles by GCMS 8270

Client Sample ID: USTLCH4034-PZ08
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-9H
Lab Project ID: G128-1390
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 09/27/2004 18:50
Date Received: 10/01/2004
Matrix: Soil
Solids: 87.5

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	0.443	1	10/08/2004
Acenaphthylene	BQL	0.443	1	10/08/2004
Anthracene	BQL	0.443	1	10/08/2004
Benzo[a]anthracene	BQL	0.443	1	10/08/2004
Benzo[a]pyrene	BQL	0.443	1	10/08/2004
Benzo[b]fluoranthene	BQL	0.443	1	10/08/2004
Benzo[g,h,i]perylene	BQL	0.443	1	10/08/2004
Benzo[k]fluoranthene	BQL	0.443	1	10/08/2004
Benzoic Acid	BQL	0.886	1	10/08/2004
Bis(2-chloroethoxy)methane	BQL	0.443	1	10/08/2004
Bis(2-chloroethyl)ether	BQL	0.443	1	10/08/2004
Bis(2-chloroisopropyl)ether	BQL	0.443	1	10/08/2004
Bis(2-ethylhexyl)phthalate	BQL	0.443	1	10/08/2004
4-bromophenyl phenyl ether	BQL	0.443	1	10/08/2004
Butylbenzylphthalate	BQL	0.443	1	10/08/2004
2-Chloronaphthalene	BQL	0.443	1	10/08/2004
2-Chlorophenol	BQL	0.443	1	10/08/2004
4-Chloro-3-methylphenol	BQL	0.443	1	10/08/2004
4-Chloroaniline	BQL	2.22	1	10/08/2004
4-Chlorophenyl phenyl ether	BQL	0.443	1	10/08/2004
Chrysene	BQL	0.443	1	10/08/2004
Dibenzo[a,h]anthracene	BQL	0.443	1	10/08/2004
Dibenzofuran	BQL	0.443	1	10/08/2004
Di-n-Butylphthalate	BQL	0.443	1	10/08/2004
1,2-Dichlorobenzene	BQL	0.443	1	10/08/2004
1,3-Dichlorobenzene	BQL	0.443	1	10/08/2004
1,4-Dichlorobenzene	BQL	0.443	1	10/08/2004
3,3'-Dichlorobenzidine	BQL	0.886	1	10/08/2004
2,4-Dichlorophenol	BQL	0.443	1	10/08/2004
Diethylphthalate	BQL	0.443	1	10/08/2004
Dimethylphthalate	BQL	0.443	1	10/08/2004
2,4-Dimethylphenol	BQL	0.443	1	10/08/2004
Di-n-octylphthalate	BQL	0.443	1	10/08/2004
4,6-Dinitro-2-methylphenol	BQL	2.22	1	10/08/2004
2,4-Dinitrophenol	BQL	2.22	1	10/08/2004
2,4-Dinitrotoluene	BQL	0.443	1	10/08/2004
2,6-Dinitrotoluene	BQL	0.443	1	10/08/2004
Fluoranthene	BQL	0.443	1	10/08/2004
Fluorene	BQL	0.443	1	10/08/2004
Hexachlorobenzene	BQL	0.443	1	10/08/2004
Hexachlorobutadiene	BQL	0.443	1	10/08/2004
Hexachlorocyclopentadiene	BQL	0.886	1	10/08/2004

Results for Semivolatiles by GCMS 8270

Client Sample ID: USTLCH4034-PZ08
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-9H
Lab Project ID: G128-1390
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 09/27/2004 18:50
Date Received: 10/01/2004
Matrix: Soil
Solids: 87.5

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Hexachloroethane	BQL	0.443	1	10/08/2004
Indeno(1,2,3-c,d)pyrene	BQL	0.443	1	10/08/2004
Isophorone	BQL	0.443	1	10/08/2004
2-Methylnaphthalene	BQL	0.443	1	10/08/2004
2-Methylphenol	BQL	0.443	1	10/08/2004
3- & 4-Methylphenol	BQL	0.443	1	10/08/2004
Naphthalene	BQL	0.443	1	10/08/2004
2-Nitroaniline	BQL	0.443	1	10/08/2004
3-Nitroaniline	BQL	2.22	1	10/08/2004
4-Nitroaniline	BQL	2.22	1	10/08/2004
Nitrobenzene	BQL	0.443	1	10/08/2004
2-Nitrophenol	BQL	0.443	1	10/08/2004
4-Nitrophenol	BQL	2.22	1	10/08/2004
N-Nitrosodi-n-propylamine	BQL	0.443	1	10/08/2004
N-Nitrosodiphenylamine	BQL	0.443	1	10/08/2004
Pentachlorophenol	BQL	2.22	1	10/08/2004
Phenanthrene	BQL	0.443	1	10/08/2004
Phenol	BQL	0.443	1	10/08/2004
Pyrene	BQL	0.443	1	10/08/2004
1,2,4-Trichlorobenzene	BQL	0.443	1	10/08/2004
2,4,5-Trichlorophenol	BQL	0.443	1	10/08/2004
2,4,6-Trichlorophenol	BQL	0.443	1	10/08/2004

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8.8	88
2-Fluorophenol	10	9	90
Nitrobenzene-d5	10	9.2	92
Phenol-d6	10	9.2	92
2,4,6-Tribromophenol	10	9.2	92
4-Terphenyl-d14	10	9	90

Comments:

Flags:
BQL = Below Quantitation Limits.

Reviewed By: _____

Results for Semivolatiles
by GCMS 8270

Client Sample ID: USTLCH4034-PZ49
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-10H
Lab Project ID: G128-1390
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 09/27/2004 18:35
Date Received: 10/01/2004
Matrix: Soil
Solids: 85.4

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	0.422	1	10/08/2004
Acenaphthylene	BQL	0.422	1	10/08/2004
Anthracene	BQL	0.422	1	10/08/2004
Benzo[a]anthracene	BQL	0.422	1	10/08/2004
Benzo[a]pyrene	BQL	0.422	1	10/08/2004
Benzo[b]fluoranthene	BQL	0.422	1	10/08/2004
Benzo[g,h,i]perylene	BQL	0.422	1	10/08/2004
Benzo[k]fluoranthene	BQL	0.422	1	10/08/2004
Benzoic Acid	BQL	0.844	1	10/08/2004
Bis(2-chloroethoxy)methane	BQL	0.422	1	10/08/2004
Bis(2-chloroethyl)ether	BQL	0.422	1	10/08/2004
Bis(2-chloroisopropyl)ether	BQL	0.422	1	10/08/2004
Bis(2-ethylhexyl)phthalate	BQL	0.422	1	10/08/2004
4-bromophenyl phenyl ether	BQL	0.422	1	10/08/2004
Butylbenzylphthalate	BQL	0.422	1	10/08/2004
2-Chloronaphthalene	BQL	0.422	1	10/08/2004
2-Chlorophenol	BQL	0.422	1	10/08/2004
4-Chloro-3-methylphenol	BQL	0.422	1	10/08/2004
4-Chloroaniline	BQL	2.11	1	10/08/2004
4-Chlorophenyl phenyl ether	BQL	0.422	1	10/08/2004
Chrysene	BQL	0.422	1	10/08/2004
Dibenzo[a,h]anthracene	BQL	0.422	1	10/08/2004
Dibenzofuran	BQL	0.422	1	10/08/2004
Di-n-Butylphthalate	BQL	0.422	1	10/08/2004
1,2-Dichlorobenzene	BQL	0.422	1	10/08/2004
1,3-Dichlorobenzene	BQL	0.422	1	10/08/2004
1,4-Dichlorobenzene	BQL	0.422	1	10/08/2004
3,3'-Dichlorobenzidine	BQL	0.844	1	10/08/2004
2,4-Dichlorophenol	BQL	0.422	1	10/08/2004
Diethylphthalate	BQL	0.422	1	10/08/2004
Dimethylphthalate	BQL	0.422	1	10/08/2004
2,4-Dimethylphenol	BQL	0.422	1	10/08/2004
Di-n-octylphthalate	BQL	0.422	1	10/08/2004
4,6-Dinitro-2-methylphenol	BQL	2.11	1	10/08/2004
2,4-Dinitrophenol	BQL	2.11	1	10/08/2004
2,4-Dinitrotoluene	BQL	0.422	1	10/08/2004
2,6-Dinitrotoluene	BQL	0.422	1	10/08/2004
Fluoranthene	BQL	0.422	1	10/08/2004
Fluorene	BQL	0.422	1	10/08/2004
Hexachlorobenzene	BQL	0.422	1	10/08/2004
Hexachlorobutadiene	BQL	0.422	1	10/08/2004
Hexachlorocyclopentadiene	BQL	0.844	1	10/08/2004

Results for Semivolatiles by GCMS 8270

Client Sample ID: USTLCH4034-PZ49
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-10H
Lab Project ID: G128-1390
Report Basis: Dry weight

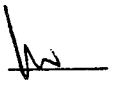
Analyzed By: MRC
Date Collected: 09/27/2004 18:35
Date Received: 10/01/2004
Matrix: Soil
Solids: 85.4

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Hexachloroethane	BQL	0.422	1	10/08/2004
Indeno(1,2,3-c,d)pyrene	BQL	0.422	1	10/08/2004
Isophorone	BQL	0.422	1	10/08/2004
2-Methylnaphthalene	BQL	0.422	1	10/08/2004
2-Methylphenol	BQL	0.422	1	10/08/2004
3- & 4-Methylphenol	BQL	0.422	1	10/08/2004
Naphthalene	BQL	0.422	1	10/08/2004
2-Nitroaniline	BQL	0.422	1	10/08/2004
3-Nitroaniline	BQL	2.11	1	10/08/2004
4-Nitroaniline	BQL	2.11	1	10/08/2004
Nitrobenzene	BQL	0.422	1	10/08/2004
2-Nitrophenol	BQL	0.422	1	10/08/2004
4-Nitrophenol	BQL	2.11	1	10/08/2004
N-Nitrosodi-n-propylamine	BQL	0.422	1	10/08/2004
N-Nitrosodiphenylamine	BQL	0.422	1	10/08/2004
Pentachlorophenol	BQL	2.11	1	10/08/2004
Phenanthrene	BQL	0.422	1	10/08/2004
Phenol	BQL	0.422	1	10/08/2004
Pyrene	BQL	0.422	1	10/08/2004
1,2,4-Trichlorobenzene	BQL	0.422	1	10/08/2004
2,4,5-Trichlorophenol	BQL	0.422	1	10/08/2004
2,4,6-Trichlorophenol	BQL	0.422	1	10/08/2004

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8.7	87
2-Fluorophenol	10	9.2	92
Nitrobenzene-d5	10	9.5	95
Phenol-d6	10	9	90
2,4,6-Tribromophenol	10	9.2	92
4-Terphenyl-d14	10	9.7	97

Comments:

Flags:
BQL = Below Quantitation Limits.

Reviewed By: 

Results for Semivolatiles by GCMS 8270

Client Sample ID: USTLCH4034-PZ50
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-11H
Lab Project ID: G128-1390
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 09/27/2004 19:30
Date Received: 10/01/2004
Matrix: Soil
Solids: 83.8

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	0.380	1	10/11/2004
Acenaphthylene	BQL	0.380	1	10/11/2004
Anthracene	BQL	0.380	1	10/11/2004
Benzo[a]anthracene	BQL	0.380	1	10/11/2004
Benzo[a]pyrene	BQL	0.380	1	10/11/2004
Benzo[b]fluoranthene	BQL	0.380	1	10/11/2004
Benzo[g,h,i]perylene	BQL	0.380	1	10/11/2004
Benzo[k]fluoranthene	BQL	0.380	1	10/11/2004
Benzoic Acid	BQL	0.759	1	10/11/2004
Bis(2-chloroethoxy)methane	BQL	0.380	1	10/11/2004
Bis(2-chloroethyl)ether	BQL	0.380	1	10/11/2004
Bis(2-chloroisopropyl)ether	BQL	0.380	1	10/11/2004
Bis(2-ethylhexyl)phthalate	BQL	0.380	1	10/11/2004
4-bromophenyl phenyl ether	BQL	0.380	1	10/11/2004
Butylbenzylphthalate	BQL	0.380	1	10/11/2004
2-Chloronaphthalene	BQL	0.380	1	10/11/2004
2-Chlorophenol	BQL	0.380	1	10/11/2004
4-Chloro-3-methylphenol	BQL	0.380	1	10/11/2004
4-Chloroaniline	BQL	1.90	1	10/11/2004
4-Chlorophenyl phenyl ether	BQL	0.380	1	10/11/2004
Chrysene	BQL	0.380	1	10/11/2004
Dibenzo[a,h]anthracene	BQL	0.380	1	10/11/2004
Dibenzofuran	BQL	0.380	1	10/11/2004
Di-n-Butylphthalate	BQL	0.380	1	10/11/2004
1,2-Dichlorobenzene	BQL	0.380	1	10/11/2004
1,3-Dichlorobenzene	BQL	0.380	1	10/11/2004
1,4-Dichlorobenzene	BQL	0.380	1	10/11/2004
3,3'-Dichlorobenzidine	BQL	0.759	1	10/11/2004
2,4-Dichlorophenol	BQL	0.380	1	10/11/2004
Diethylphthalate	BQL	0.380	1	10/11/2004
Dimethylphthalate	BQL	0.380	1	10/11/2004
2,4-Dimethylphenol	BQL	0.380	1	10/11/2004
Di-n-octylphthalate	BQL	0.380	1	10/11/2004
4,6-Dinitro-2-methylphenol	BQL	1.90	1	10/11/2004
2,4-Dinitrophenol	BQL	1.90	1	10/11/2004
2,4-Dinitrotoluene	BQL	0.380	1	10/11/2004
2,6-Dinitrotoluene	BQL	0.380	1	10/11/2004
Fluoranthene	BQL	0.380	1	10/11/2004
Fluorene	BQL	0.380	1	10/11/2004
Hexachlorobenzene	BQL	0.380	1	10/11/2004
Hexachlorobutadiene	BQL	0.380	1	10/11/2004
Hexachlorocyclopentadiene	BQL	0.759	1	10/11/2004

Results for Semivolatiles
by GCMS 8270

Client Sample ID: USTLCH4034-PZ50
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-11H
Lab Project ID: G128-1390
Report Basis: Dry weight

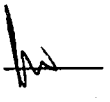
Analyzed By: MRC
Date Collected: 09/27/2004 19:30
Date Received: 10/01/2004
Matrix: Soil
Solids: 83.8

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Hexachloroethane	BQL	0.380	1	10/11/2004
Indeno(1,2,3-c,d)pyrene	BQL	0.380	1	10/11/2004
Isophorone	BQL	0.380	1	10/11/2004
2-Methylnaphthalene	BQL	0.380	1	10/11/2004
2-Methylphenol	BQL	0.380	1	10/11/2004
3- & 4-Methylphenol	BQL	0.380	1	10/11/2004
Naphthalene	BQL	0.380	1	10/11/2004
2-Nitroaniline	BQL	0.380	1	10/11/2004
3-Nitroaniline	BQL	1.90	1	10/11/2004
4-Nitroaniline	BQL	1.90	1	10/11/2004
Nitrobenzene	BQL	0.380	1	10/11/2004
2-Nitrophenol	BQL	0.380	1	10/11/2004
4-Nitrophenol	BQL	1.90	1	10/11/2004
N-Nitrosodi-n-propylamine	BQL	0.380	1	10/11/2004
N-Nitrosodiphenylamine	BQL	0.380	1	10/11/2004
Pentachlorophenol	BQL	1.90	1	10/11/2004
Phenanthrene	BQL	0.380	1	10/11/2004
Phenol	BQL	0.380	1	10/11/2004
Pyrene	BQL	0.380	1	10/11/2004
1,2,4-Trichlorobenzene	BQL	0.380	1	10/11/2004
2,4,5-Trichlorophenol	BQL	0.380	1	10/11/2004
2,4,6-Trichlorophenol	BQL	0.380	1	10/11/2004

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8.7	87
2-Fluorophenol	10	9.1	91
Nitrobenzene-d5	10	8.4	84
Phenol-d6	10	8.7	87
2,4,6-Tribromophenol	10	8.8	88
4-Terphenyl-d14	10	10.5	105

Comments:

Flags:
BQL = Below Quantitation Limits.

Reviewed By: 

Results for Semivolatiles
by GCMS 8270

Client Sample ID: USTLCH4034-PZ51
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-12H
Lab Project ID: G128-1390
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 09/28/2004 17:45
Date Received: 10/01/2004
Matrix: Soil
Solids: 83.7

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	0.456	1	10/11/2004
Acenaphthylene	BQL	0.456	1	10/11/2004
Anthracene	BQL	0.456	1	10/11/2004
Benzo[a]anthracene	BQL	0.456	1	10/11/2004
Benzo[a]pyrene	BQL	0.456	1	10/11/2004
Benzo[b]fluoranthene	BQL	0.456	1	10/11/2004
Benzo[g,h,i]perylene	BQL	0.456	1	10/11/2004
Benzo[k]fluoranthene	BQL	0.456	1	10/11/2004
Benzoic Acid	BQL	0.912	1	10/11/2004
Bis(2-chloroethoxy)methane	BQL	0.456	1	10/11/2004
Bis(2-chloroethyl)ether	BQL	0.456	1	10/11/2004
Bis(2-chloroisopropyl)ether	BQL	0.456	1	10/11/2004
Bis(2-ethylhexyl)phthalate	BQL	0.456	1	10/11/2004
4-bromophenyl phenyl ether	BQL	0.456	1	10/11/2004
Butylbenzylphthalate	BQL	0.456	1	10/11/2004
2-Chloronaphthalene	BQL	0.456	1	10/11/2004
2-Chlorophenol	BQL	0.456	1	10/11/2004
4-Chloro-3-methylphenol	BQL	0.456	1	10/11/2004
4-Chloroaniline	BQL	2.28	1	10/11/2004
4-Chlorophenyl phenyl ether	BQL	0.456	1	10/11/2004
Chrysene	BQL	0.456	1	10/11/2004
Dibenzo[a,h]anthracene	BQL	0.456	1	10/11/2004
Dibenzofuran	BQL	0.456	1	10/11/2004
Di-n-Butylphthalate	BQL	0.456	1	10/11/2004
1,2-Dichlorobenzene	BQL	0.456	1	10/11/2004
1,3-Dichlorobenzene	BQL	0.456	1	10/11/2004
1,4-Dichlorobenzene	BQL	0.456	1	10/11/2004
3,3'-Dichlorobenzidine	BQL	0.912	1	10/11/2004
2,4-Dichlorophenol	BQL	0.456	1	10/11/2004
Diethylphthalate	BQL	0.456	1	10/11/2004
Dimethylphthalate	BQL	0.456	1	10/11/2004
2,4-Dimethylphenol	BQL	0.456	1	10/11/2004
Di-n-octylphthalate	BQL	0.456	1	10/11/2004
4,6-Dinitro-2-methylphenol	BQL	2.28	1	10/11/2004
2,4-Dinitrophenol	BQL	2.28	1	10/11/2004
2,4-Dinitrotoluene	BQL	0.456	1	10/11/2004
2,6-Dinitrotoluene	BQL	0.456	1	10/11/2004
Fluoranthene	BQL	0.456	1	10/11/2004
Fluorene	BQL	0.456	1	10/11/2004
Hexachlorobenzene	BQL	0.456	1	10/11/2004
Hexachlorobutadiene	BQL	0.456	1	10/11/2004
Hexachlorocyclopentadiene	BQL	0.912	1	10/11/2004

Results for Semivolatiles by GCMS 8270

Client Sample ID: USTLCH4034-PZ51
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-12H
Lab Project ID: G128-1390
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 09/28/2004 17:45
Date Received: 10/01/2004
Matrix: Soil
Solids: 83.7

Compound	Result mg/Kg	Quantitation Limit mg/Kg	Dilution Factor	Date Analyzed
Hexachloroethane	BQL	0.456	1	10/11/2004
Indeno(1,2,3-c,d)pyrene	BQL	0.456	1	10/11/2004
Isophorone	BQL	0.456	1	10/11/2004
2-Methylnaphthalene	BQL	0.456	1	10/11/2004
2-Methylphenol	BQL	0.456	1	10/11/2004
3- & 4-Methylphenol	BQL	0.456	1	10/11/2004
Naphthalene	BQL	0.456	1	10/11/2004
2-Nitroaniline	BQL	0.456	1	10/11/2004
3-Nitroaniline	BQL	2.28	1	10/11/2004
4-Nitroaniline	BQL	2.28	1	10/11/2004
Nitrobenzene	BQL	0.456	1	10/11/2004
2-Nitrophenol	BQL	0.456	1	10/11/2004
4-Nitrophenol	BQL	2.28	1	10/11/2004
N-Nitrosodi-n-propylamine	BQL	0.456	1	10/11/2004
N-Nitrosodiphenylamine	BQL	0.456	1	10/11/2004
Pentachlorophenol	BQL	2.28	1	10/11/2004
Phenanthrene	BQL	0.456	1	10/11/2004
Phenol	BQL	0.456	1	10/11/2004
Pyrene	BQL	0.456	1	10/11/2004
1,2,4-Trichlorobenzene	BQL	0.456	1	10/11/2004
2,4,5-Trichlorophenol	BQL	0.456	1	10/11/2004
2,4,6-Trichlorophenol	BQL	0.456	1	10/11/2004

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	6.7	67
2-Fluorophenol	10	7	70
Nitrobenzene-d5	10	5.6	56
Phenol-d6	10	7.4	74
2,4,6-Tribromophenol	10	7.1	71
4-Terphenyl-d14	10	10.4	104

Comments:

Flags:
BQL = Below Quantitation Limits.

Reviewed By: _____

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: ASTLCH4015-SB10
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-13
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 09/29/2004 17:45
Date Received: 10/01/2004
Matrix: Soil
Solids 86.55

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.75	5035	1	10/08/04
Diesel Range Organics	**28.4**	8.74	3545	1	10/17/04

Reviewed By:

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: ASTLCH4015-SB11
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-14
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 09/28/2004 12:50
Date Received: 10/01/2004
Matrix: Soil
Solids 82.92

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.83	5035	1	10/08/04
Diesel Range Organics	BQL	7.74	3545	1	10/17/04

Reviewed By:

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: ASTLCH4015-SB12
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-15
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 09/28/2004 13:50
Date Received: 10/01/2004
Matrix: Soil
Solids 84.76

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.07	5035	1	10/08/04
Diesel Range Organics	BQL	6.95	3545	1	10/17/04

Reviewed By:

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: ASTLCH4015-SB13
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-16
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 09/28/2004 13:05
Date Received: 10/01/2004
Matrix: Soil
Solids 88.26

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.41	5035	1	10/08/04
Diesel Range Organics	190	7.04	3545	1	10/12/04

Reviewed By:

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: ASTLCH4015-SB14
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-17
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 09/29/2004 13:50
Date Received: 10/01/2004
Matrix: Soil
Solids 86.14

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	**15.2**	5.64	5035	1	10/08/04
Diesel Range Organics	**24.9**	7.43	3545	1	10/17/04

Reviewed By:

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: ASTLCH4015-SB15
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-18
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 09/28/2004 13:15
Date Received: 10/01/2004
Matrix: Soil
Solids 85.01

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.59	5035	1	10/08/04
Diesel Range Organics	BQL	7.33	3545	1	10/17/04

Reviewed By:

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: ASTLCH4015-SB16
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-19
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 09/28/2004 13:15
Date Received: 10/01/2004
Matrix: Soil
Solids 88.14

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.83	5035	1	10/08/04
Diesel Range Organics	**7.66**	6.87	3545	1	10/19/04

Reviewed By:

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: ASTLCH4015-SB17
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-20
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 09/28/2004 13:40
Date Received: 10/01/2004
Matrix: Soil
Solids 87.29

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.52	5035	1	10/08/04
Diesel Range Organics	BQL	6.91	3545	1	10/17/04

Reviewed By:

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: ASTLCH4015-SB18
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-21
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 09/29/2004 14:10
Date Received: 10/01/2004
Matrix: Soil
Solids 84.01

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	**59.4**	6.87	5035	1	10/08/04
Diesel Range Organics	**99.1**	7.74	3545	1	10/17/04

Reviewed By:

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: ASTLCH4015-SB19
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-22
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 09/29/2004 14:20
Date Received: 10/01/2004
Matrix: Soil
Solids 86.24

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.03	5035	1	10/08/04
Diesel Range Organics	BQL	7.17	3545	1	10/17/04

Reviewed By:

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: ASTLCH4015-SB20
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-23
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 09/29/2004 13:45
Date Received: 10/01/2004
Matrix: Soil
Solids 83.01

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	106	25.1	5035	4	10/11/04
Diesel Range Organics	20	7.76	3545	1	10/17/04

Reviewed By:

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: ASTLCH4015-SB21
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-24
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 09/29/2004 14:03
Date Received: 10/01/2004
Matrix: Soil
Solids 80.58

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.52	5035	1	10/08/04
Diesel Range Organics	BQL	7.67	3545	1	10/17/04

Reviewed By:

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: ASTLCH4015-SB22
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-25
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 09/29/2004 14:12
Date Received: 10/01/2004
Matrix: Soil
Solids 81.33

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.82	5035	1	10/08/04
Diesel Range Organics	BQL	7.41	3545	1	10/18/04

Reviewed By:

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: ASTLCH4015-SB23
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-26
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 09/30/2004 12:47
Date Received: 10/01/2004
Matrix: Soil
Solids 86.98

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.45	5035	1	10/08/04
Diesel Range Organics	BQL	7.11	3545	1	10/18/04

Reviewed By:

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: ASTLCH4015-SB24
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-27
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 09/30/2004 12:50
Date Received: 10/01/2004
Matrix: Soil
Solids 84.09

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.71	5035	1	10/08/04
Diesel Range Organics	**691**	72.3	3545	10	10/19/04

Reviewed By:

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: ASTLCH4015-SB24Dup
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-28
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 09/30/2004 12:50
Date Received: 10/01/2004
Matrix: Soil
Solids 83.64

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.91	5035	1	10/08/04
Diesel Range Organics	302	36	3545	5	10/19/04

Reviewed By:

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: ASTLCH4015-SB25
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-29
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 09/28/2004 13:28
Date Received: 10/01/2004
Matrix: Soil
Solids 86.28

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.8	5035	1	10/08/04
Diesel Range Organics	BQL	6.87	3545	1	10/18/04

Reviewed By:

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: ASTLCH4015-SB26
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-30
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 09/28/2004 13:45
Date Received: 10/01/2004
Matrix: Soil
Solids 83.24

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	**16.1**	10.5	5035	1	10/08/04
Diesel Range Organics	**28.8**	7.7	3545	1	10/18/04

Reviewed By:

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: ASTLCH4015-SB27
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-31
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 09/29/2004 14:23
Date Received: 10/01/2004
Matrix: Soil
Solids 84.24

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.05	5035	1	10/08/04
Diesel Range Organics	BQL	7.18	3545	1	10/18/04

Reviewed By:

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: ASTLCH4015-SB28
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-32
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 09/29/2004 14:20
Date Received: 10/01/2004
Matrix: Soil
Solids 84.36

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.37	5035	1	10/08/04
Diesel Range Organics	**7.56**	7.04	3545	1	10/18/04

Reviewed By:

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: ASTLCH4015-SB29
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-33
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 09/29/2004 17:30
Date Received: 10/01/2004
Matrix: Soil
Solids 87.07

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.45	5035	1	10/08/04
Diesel Range Organics	BQL	7.29	3545	1	10/18/04

Reviewed By:

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: ASTLCH4015-SB31
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-34
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 09/29/2004 18:00
Date Received: 10/01/2004
Matrix: Soil
Solids 85.10

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.68	5035	1	10/08/04
Diesel Range Organics	BQL	7.37	3545	1	10/18/04

Reviewed By:

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: ASTLCH4015-SB32
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-35
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 09/29/2004 13:57
Date Received: 10/01/2004
Matrix: Soil
Solids 84.75

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.21	5035	1	10/08/04
Diesel Range Organics	**21.9**	7.29	3545	1	10/18/04

Reviewed By:

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: ASTLCH4015-SB33
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-36
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 09/29/2004 17:20
Date Received: 10/01/2004
Matrix: Soil
Solids 81.91

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.66	5035	1	10/08/04
Diesel Range Organics	BQL	7.2	3545	1	10/18/04

Reviewed By:

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: ASTLCH4015-SB34
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-37
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 09/30/2004 16:45
Date Received: 10/01/2004
Matrix: Soil
Solids 86.82

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.09	5035	1	10/09/04
Diesel Range Organics	**15.5**	7.28	3545	1	10/18/04

Reviewed By:

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: ASTLCH4015-SB35
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-38
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 09/28/2004 13:18
Date Received: 10/01/2004
Matrix: Soil
Solids 86.83

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.07	5035	1	10/09/04
Diesel Range Organics	**10.5**	7.56	3545	1	10/18/04

Reviewed By:

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: ASTLCH4015-SB36
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-39
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 09/28/2004 13:35
Date Received: 10/01/2004
Matrix: Soil
Solids 86.10

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	**876**	627	5035	100	10/11/04
Diesel Range Organics	**287**	38	3545	5	10/20/04

Reviewed By:

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: ASTLCH4015-SB37
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-40
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 09/28/2004 13:42
Date Received: 10/01/2004
Matrix: Soil
Solids 89.45

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	**42.9**	6.1	5035	1	10/09/04
Diesel Range Organics	**146**	33.5	3545	5	10/20/04

Reviewed By:

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: ASTLCH4015-SB38
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-41
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 09/28/2004 13:25
Date Received: 10/01/2004
Matrix: Soil
Solids 88.86

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	**14.9**	7.5	5035	1	10/09/04
Diesel Range Organics	**35.1**	6.59	3545	1	10/18/04

Reviewed By:

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: ASTLCH4015-SB39
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-42
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 09/29/2004 13:42
Date Received: 10/01/2004
Matrix: Soil
Solids 85.56

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.07	5035	1	10/09/04
Diesel Range Organics	BQL	7.23	3545	1	10/18/04

Reviewed By:

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: ASTLCH4015-SB40
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-43
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 09/29/2004 14:05
Date Received: 10/01/2004
Matrix: Soil
Solids 86.19

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.88	5035	1	10/09/04
Diesel Range Organics	BQL	7.42	3545	1	10/18/04

Reviewed By:

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: ASTLCH4015-SB41
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-44
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 09/29/2004 14:25
Date Received: 10/01/2004
Matrix: Soil
Solids 83.49

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.3	5035	1	10/09/04
Diesel Range Organics	BQL	7.68	3545	1	10/18/04

Reviewed By:

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: ASTLCH4015-SB42
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-45
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 09/29/2004 17:40
Date Received: 10/01/2004
Matrix: Soil
Solids 70.03

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	8.25	5035	1	10/09/04
Diesel Range Organics	**14.9**	12.8	3545	1	10/18/04

Reviewed By: 

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: ASTLCH4015-SB43
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-46
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 09/29/2004 13:55
Date Received: 10/01/2004
Matrix: Soil
Solids 83.58

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.06	5035	1	10/09/04
Diesel Range Organics	**9.58**	7.95	3545	1	10/18/04

Reviewed By: 

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: ASTLCH4015-SB44
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-47
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 09/30/2004 12:42
Date Received: 10/01/2004
Matrix: Soil
Solids 85.23

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.83	5035	1	10/09/04
Diesel Range Organics	BQL	7.18	3545	1	10/18/04

Reviewed By:

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: ASTLCH4015-SB45
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-48
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 09/30/2004 16:35
Date Received: 10/01/2004
Matrix: Soil
Solids 87.05

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.02	5035	1	10/09/04
Diesel Range Organics	BQL	6.9	3545	1	10/18/04

Reviewed By:

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: ASTLCH4015-SB46
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-49
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 09/30/2004 13:10
Date Received: 10/01/2004
Matrix: Soil
Solids 84.99

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.8	5035	1	10/09/04
Diesel Range Organics	BQL	6.68	3545	1	10/18/04

Reviewed By:

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: ASTLCH4015-SB46Dup
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-50
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 09/30/2004 16:30
Date Received: 10/01/2004
Matrix: Soil
Solids 79.90

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.26	5035	1	10/09/04
Diesel Range Organics	BQL	7.92	3545	1	10/18/04

Reviewed By:

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: ASTLCH4015-SB47
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-51
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 09/30/2004 12:59
Date Received: 10/01/2004
Matrix: Soil
Solids 79.57

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.06	5035	1	10/09/04
Diesel Range Organics	**22.3**	7.89	3545	1	10/18/04

Reviewed By:

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: ASTLCH4015-SB48
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-52
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 09/30/2004 13:04
Date Received: 10/01/2004
Matrix: Soil
Solids 84.38

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.73	5035	1	10/09/04
Diesel Range Organics	**16.1**	7.08	3545	1	10/18/04

Reviewed By:

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: ASTLCH4015-SB48Dup
Client Project ID: LCH 4015
Lab Sample ID: G128-1390-53
Lab Project ID: G128-1390
Report Basis: Dry Weight

Analyzed By: DCS
Date Collected: 09/30/2004 13:04
Date Received: 10/01/2004
Matrix: Soil
Solids 85.81

Analyte	Result MG/KG	Report Limit MG/KG	Prep Method	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.56	5035	1	10/09/04
Diesel Range Organics	**16.2**	7.71	3545	1	10/18/04

Reviewed By:

List of Reporting Abbreviations and Data Qualifiers

B = Compound also detected in batch blank

BQL = Below Quantitation Limit

DF = Dilution Factor

Dup = Duplicate

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.

PARADIGM ANALYTICAL LABORATORIES, INC.
5500 Business Drive, Wilmington, NC 28405
Phone: (910)-350-1903 FAX: (910)-350-1557

Chain-of Custody Record & Analytical Request

COC# 42354

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Client: CATLIN
Address: 220 old Dairy Rd
Address: Wilm. NC 28405
Quote #:

Project ID: LCH 4015
Contact: Jeff Becker
Phone: 910-452-5861
Fax: 910-452-7563

Date: 10-1-04
Turnaround: Standard 10 day
Job Number: 204-036
P.O. Number: 240813-4

Report To: Jeff Becker
Invoice To: CATLIN

Sample ID	Date	Time	Matrix	Preservatives: Sodium Bisulfate	Preservatives: Methanol			Analyses: MADEP EPH	Analyses: MADEP VPH	Analyses: 8260/5035	Analyses: 8270							Comments: Please specify any special reporting requirements
																		G128-1390 Report Low Runs
USTLCH4034-PZ01	9/28/04	1720	Soil	✓	✓			✓	✓	✓	✓							DOD EDD Format
USTLCH4034-PZ02	9/27/04	1945																
USTLCH4034-PZ03	9/28/04	1730																
USTLCH4034-PZ04	9/28/04	1645																
USTLCH4034-PZ05	9/27/04	1905																
USTLCH4034-PZ06	9/28/04	1700																
USTLCH4034-PZ06 DUP	9/28/04	1700																
USTLCH4034-PZ07	9/27/04	1920																
USTLCH4034-PZ08	9/27/04	1850																
USTLCH4034-PZ49	9/27/04	1835																

Relinquished By	Date	Time	Received By	Date	Time	Temperature
Andy Howell	10-1-04	1400		10/1/04	1400	5.2, 5.6, 5.8

State Certification Requested
NC X SC ____ Other ____

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5500 Business Drive, Wilmington, NC 28405
Phone: (910)-350-1903 FAX: (910)-350-1557

Chain-of Custody Record & Analytical Request

COC# 42355

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Client: CATLIN
Address: 220 Old Dairy Rd
Address: Wilm, NC 28405
Quote #:

Project ID: LCH 4015
Contact: Jeff Becken
Phone: 910-452-5861
Fax: 910-452-7563

Date: 10-1-04
Turnaround: Standard 10 day
Job Number: 204-036
P.O. Number: 240813-4

Report To: Jeff Becken
Invoice To: CATLIN

Sample ID	Date	Time	Matrix	Preservatives: Sodium Bisulfate	Preservatives: Methanol			Analyses: MADEP EPH	MADEP VPH	8260/5035	8270	TPH DRO	TPH GRO					Comments: Please specify any special reporting requirements
																		G128-1390
USTLCH4034 -PZ50	9/27/04	1230	Soil	✓	✓			✓	✓	✓	✓							Report La Runs
USTLCH4034 -PZ51	9/28/04	1745		✓				✓	✓	✓	✓							DOD EDD Format
ASTLCH4015 -SB10	9/29/04	1745										✓	✓					
ASTLCH4015 -SB11	9/28/04	1250																
ASTLCH4015 -SB12	9/28/04	1350																
ASTLCH4015 -SB13	9/28/04	1305																
ASTLCH4015 -SB14	9/29/04	1350																
ASTLCH4015 -SB15	9/28/04	1315																
ASTLCH4015 -SB16	9/28/04	1315																
ASTLCH4015 -SB17	9/28/04	1340																

Relinquished By	Date	Time	Received By	Date	Time	Temperature	State Certification Requested
Andy Howell	10-1-04	1400		10/1/04	1400	5.2, 5.6, 5.8	NC X SC ____ Other ____
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Chain-of Custody Record & Analytical Request

COC# 42356

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Client: CATLIN
Address: 220 Old Dairy Rd
Address: Wilm, NC 28405
Quote #:

Project ID: LCH 4015
Contact: Jeff Becken
Phone: 910-452-5861
Fax: 910-452-7563

Date: 10-1-04
Turnaround: Standard 10 day
Job Number: 204-036
P.O. Number: 240813-4

Report To: Jeff Becken

Invoice To: CATLIN

Sample ID	Date	Time	Matrix	Preservatives: Methanol	Analyses: TPH GRO	Analyses: TPH DRO	Analyses: TPH GRO	Comments: Please specify any special reporting requirements
ASTLCH4015 -SB18	9/29/04	1410	Soil	✓		✓	✓	G128-1390
ASTLCH4015 -SB19	9/29/04	1420						Report Low Runs
ASTLCH4015 -SB20	9/29/04	1345						DOD EDD Format
ASTLCH4015 -SB21	9/29/04	1403						
ASTLCH4015 -SB22	9/29/04	1412						
ASTLCH4015 -SB23	9/30/04	1247						
ASTLCH4015 -SB24	9/30/04	1250						
ASTLCH4015 -SB24DUP	9/30/04	1250						
ASTLCH4015 -SB25	9/28/04	1328						
ASTLCH4015 -SB26	9/28/04	1345						

Relinquished By	Date	Time	Received By	Date	Time	Temperature	State Certification Requested
Andy Howell	10-1-04	1400		10/1/04	1400	5.2, 5.6, 5.8°	NC X SC ____ Other ____
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Chain-of Custody Record & Analytical Request

COC# 42357

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Client: CATLIN
Address: 220 Old Dairy Rd
Address: Wilm, NC 28405
Quote #:

Project ID: LCH 4015
Contact: Jeff Becker
Phone: 910-452-5861
Fax: 910-452-7563

Date: 10-1-04
Turnaround: Standard 10 day
Job Number: 204-036
P.O. Number: 240813-4

Report To: Jeff Becker
Invoice To: CATLIN

Sample ID	Date	Time	Matrix	Preservatives: Methanol	Analyses: TPH DRO	Analyses: TPH GRO	Comments: Please specify any special reporting requirements
ASTLCH4015-SB27	9/29/04	1423	Soil	✓	✓	✓	G128-1390 Report Low Runs DOD EDD Format
ASTLCH4015-SB28	9/29/04	1420					
ASTLCH4015-SB29	9/29/04	1730					
ASTLCH4015-SB31	9/29/04	1800					
ASTLCH4015-SB32	9/29/04	1357					
ASTLCH4015-SB33	9/29/04	1720					
ASTLCH4015-SB34	9/30/04	1645					
ASTLCH4015-SB35	9/28/04	1318					
ASTLCH4015-SB36	9/28/04	1335					
ASTLCH4015-SB37	9/28/04	1342					

Relinquished By	Date	Time	Received By	Date	Time	Temperature	State Certification Requested
Andy Howell	10-1-04	1400		10/1/04	1400	5.2, 5.6, 5.8	NC X SC ____ Other ____
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Chain-of Custody Record & Analytical Request

COC# 42358

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Client: CATLIN
Address: 220 Old Dairy Rd
Address: Wilm, NC 28405
Quote #:

Project ID: LCH 9015
Contact: Jeff Becker
Phone: 910-452-5861
Fax: 910-452-7563

Date: 10-1-04
Turnaround: Standard 10 day
Job Number: 204-036
P.O. Number: 240813-4

Report To: Jeff Becker
Invoice To: CATLIN

Sample ID	Date	Time	Matrix	Preservatives: Methanol	Analyses: TPH DRO	Analyses: TPH GRO	Comments: Please specify any special reporting requirements
							G128-1390
							Report Low Runs
							DOD EDD Format
ASTLCH4015-SB38	9/28/04	1325	Soil	✓	✓	✓	
ASTLCH4015-SB39	9/29/04	1342					
ASTLCH4015-SB40	9/29/04	1405					
ASTLCH4015-SB41	9/29/04	1425					
ASTLCH4015-SB42	9/29/04	1740					
ASTLCH4015-SB43	9/29/04	1355					
ASTLCH4015-SB44	9/30/04	1242					
ASTLCH4015-SB45	9/30/04	1635					
ASTLCH4015-SB46	9/30/04	1310					
ASTLCH4015-SB46DUP	9/30/04	1630					

Relinquished By	Date	Time	Received By	Date	Time	Temperature
Andy Howell	10-1-04	1900		10/1/04	1400	5.2, 5.6, 5.8

State Certification Requested: NC X SC ____ Other ____

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Chain-of Custody Record & Analytical Request

COC# 42421

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Client: CATLIN
Address: 220 Old Dairy Rd
Address: Wilm, NC 28405
Quote #:

Project ID: LCH 4015
Contact: Jeff Becker
Phone: 910-452-5861
Fax: 910-452-7563

Date: 10-1-04
Turnaround: Standard 10 day
Job Number: 204-036
P.O. Number: 240813-4

Report To: Jeff Becker
Invoice To: CATLIN

Sample ID	Date	Time	Matrix	Preservatives: Methanol	Analyses: TPH DRO	Analyses: TPH GRO	Comments: Please specify any special reporting requirements
							G128-1390
							Report Low Runs
LASTLCH4015-SB47	9/30/04	1259	Soil	✓	✓	✓	DOD EDD Format
LASTLCH4015-SB48	9/30/04	1304					
LASTLCH4015-SB48DUP	9/30/04	1304					
Trip Blank	10/1/04	1115					

Relinquished By	Date	Time	Received By	Date	Time	Temperature	State Certification Requested
Andy Howell	10-1-04	1900		10/1/04	1400	9.2, 5.6, 5.8°	NC X SC ____ Other ____

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