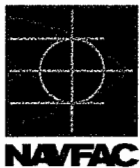


FINAL
ANNUAL GROUNDWATER MONITORING REPORT 2005-2006
LCH 4015

NCDENR Incident Number: 85352
Marine Corps Base
Camp Lejeune, North Carolina

July 21, 2006

Prepared for:



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Task Order: 0011

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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
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
CFR	Code of Federal Regulations
Cr	Chromium
CSA	Comprehensive Site Assessment
DIPE	Di-isopropyl 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
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
FT	Feet
GCL	Gross Contaminant Level
GIS	Geographic Information System
GPS	Global Positioning System
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	Meter
MADEP	Massachusetts Department of Environmental Protection
MCAS	Marine Corps Air Station

MCB	Marine Corps Base
MDL	Method Detection Limit
mg/Kg	Milligrams per Kilogram
mg/L	Milligrams per Liter
MSCC	Maximum Soil Contaminant Concentration
MSL	Mean Sea Level
MTBE	Methyl tertiary butyl ether
µg/Kg	Micrograms per Kilogram
µg/L	Micrograms per Liter
NA	Not Analyzed
N/A	Not Applicable
NAVFAC	Naval Facilities Engineering Command Atlantic
NC	North Carolina
NCAC	North Carolina Administrative Code
NCDENR	North Carolina Department of Environment and Natural Resources
NE	None Established
NM	Not Measured
NMT	No Measurable Thickness
NS	Not Sampled
OVA	Organic Vapor Analyzer
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
SOW	Scope of Work
STGW	Soil-to-Groundwater
SVE	Soil Vapor Extraction
SVOC	Semi Volatile Organic Compound
TCLP	Toxicity Characteristic Leaching Procedure
TIC	Tentatively Identified Compound
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
WiRO	NCDENR Wilmington Regional Office

EXECUTIVE SUMMARY

The site is located on MCB Camp Lejeune in Onslow County, North Carolina. The project site is located within the Midway Park Community Center area and consists of the community center building (LCH-4014), former fueling and maintenance area (LCH-4015, removed), Marine Corps Exchange Convenience Store (LCH-4034), and the former fuel tank farm. The site is located at the intersection of North Carolina Highway 24 and the Butler Drive entrance to Midway Park, which is currently blocked.

A former aboveground storage tank (AST) system began operation in 1945 at the site. 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 former 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 Number 2 fuel oil tank 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. In 1990, the ASTs at former 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.

Site assessments were performed from 1994 – 1996 by R.E. Wright Associates, Inc., and Law Engineering and Environmental Services, Inc. Groundwater samples from the monitoring wells and soil samples in the vicinity of the former AST system contained evidence of petroleum impact exceeding North Carolina state standards.

Various remediation contractors have maintained and operated the site since 1998 including J.A. Jones Environmental Services, Inc. (J.A. Jones), Shaw Environmental and Infrastructure, Inc. (Shaw), and Engineering and Environment, Inc. (EEI). During this monitoring period, December 2005 – May 2006, Sovereign Consulting Inc. (Sovereign) operated and maintained the remediation system and conducted monitoring well gauging and sampling of site wells. Monitoring wells MW01-MW23 were gauged on a monthly basis. Groundwater samples from wells (MW01, MW02, MW03, MW08, MW11, MW13, MW19, MW20, MW21, MW22, and MW23) were also collected. Analyses run included EPA Methods 602 + Xylenes, 625 + 10 largest non-target peaks, and 3030C for Lead in accordance with the program scope of work.

No measurable free product was identified during the 2005-2006 monitoring period. One volatile and three semi-volatile compounds were detected at the site above North Carolina Groundwater Quality Standards (NCGWQSSs). Those contaminants were benzene, bis(2-ethylhexyl)phthalate, 1-methylnaphthalene, and naphthalene. All other target analytes were below 2L standards. Exceedences were in shallow (MW01, MW02, and MW11), intermediate (MW21 and MW23), and deep wells (MW19).

Petroleum constituent concentrations, while above NCGWQSSs, have decreased over time, indicating that operation of the biosparge/soil vapor extraction system (BS/SVE) is benefiting groundwater quality at the site. Based on findings of this report, Sovereign recommends MCB Camp Lejeune continue site monitoring and system operation. Monitoring well gauging, however, should be conducted with

the semi-annual groundwater sampling events, as no measurable free product has been observed at the site. Sovereign recommends semi-annual groundwater sampling of monitoring wells MW01, MW02, MW03, MW08, MW011, MW13, MW18, MW19, MW20, MW21, MW22, MW23, and MW24. They should be sampled for volatiles, semivolatiles, and lead via EPA Methods 602 + Xylenes, 625 + TICs (to include the reporting of 1 and 2-methylnaphthalene), and SM 3030C.

1.0 TITLE PAGE

DATE OF REPORT: July 21, 2006

Facility I.D.: N/A

NCDENR Incident Number: 85352

Site Name: LCH 4015

Site Location: Marine Corps Base Camp Lejeune, North Carolina

Nearest City/Town: Camp Lejeune

County: Onslow

Property Owner: Commanding Officer – MCB Camp Lejeune

I&E/EMD/EQB

PSC Box 20004

Address: MCB Camp Lejeune, NC 28542-0004

Phone: (910) 451-5068

Tank Owner: Same as above

Address: Same as above

Phone: Same as above

Property Occupant: Same as above

Address: MCB Camp Lejeune, NC

Phone: None

Consultant/Contractor: Sovereign Consulting Inc.

Address: 405 Oakmears Crescent, Suite 1
Virginia Beach, VA 23462

Phone: (757) 456-5093

Release Information

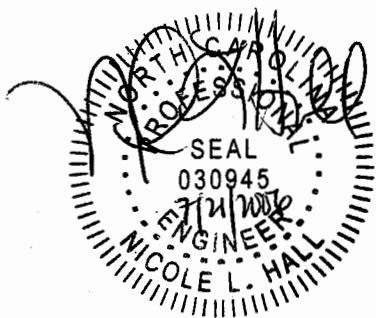
Date Discovered: 1994

Estimated Quantity of Release: Unknown

Cause of Release: Leaking aboveground storage tank system

Source of Release (Piping/AST): AST

Sizes and contents of UST system(s) from which the release occurred: The former system was two 14,000-gallon gasoline aboveground storage tanks, one 14,000-gallon diesel oil aboveground storage tank, one 3,000-gallon No.2 fuel oil AST, a number of smaller tanks, and associated underground product piping.



I, Nicole L. Hall, a Professional Engineer for Sovereign Consulting Inc., do certify that the information contained in this report is correct and accurate to the best of my knowledge.

2.0 INTRODUCTION

The purpose of this report is to summarize data from recent groundwater gauging and sampling events at the LCH 4015 site aboard MCB Camp Lejeune, North Carolina. This data was collected from December 2005 through May 2006. The project's scope of work entailed monthly gauging of 22 site monitoring wells (each are preceded by the prefix USTLCH4015) - MW01-MW23 (MW-17 cannot be located for monitoring). Groundwater samples from wells (MW01, MW02, MW03, MW08, MW11, MW13, MW19, MW20, MW21, MW22, and MW23) were also collected. Analyses run included EPA Methods 602 + Xylenes, 625 + TICs, and 3030C for Lead. The results of Sovereign's 2005-2006 gauging and sampling events are presented in this report.

3.0 SITE HISTORY

The site is located on MCB Camp Lejeune in Onslow County, North Carolina (Figure 1). The project site consists of the Community Center Building (LCH-4014), former fueling and maintenance area (LCH-4015, removed), Marine Corps Exchange Convenience Store (LCH-4034), and the former fuel tank farm. The site is located at the intersection of North Carolina Highway 24 and the entrance to Midway Park (Butler Drive).

A former aboveground storage tank (AST) system began operation in 1945 at the site. 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 former 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 Number 2 fuel oil tank 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. In 1990, the ASTs at former 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.

Site assessments were performed from 1994 – 1996 by R.E. Wright Associates, Inc., and Law Engineering and Environmental Services, Inc. Groundwater samples from the monitoring wells and soil samples in the vicinity of the former AST system contained evidence of petroleum impact exceeding North Carolina state standards.

In 1996, a corrective action plan (CAP) was prepared for the site by Law Engineering and Environmental Services, Inc. The CAP identified target clean-up levels for soil of 40 milligrams per kilogram (mg/kg) for Total Petroleum Hydrocarbons as Gasoline (TPH-GRO) and 160 mg/kg for Total Petroleum Hydrocarbons as Diesel (TPH-DRO). Groundwater target clean-up levels were set at the North Carolina Groundwater Quality Standards (NCGWQSS). The CAP recommended installation of a BS/SVE system for the remedial action at the site.

The treatment system was constructed by J.A. Jones and began remediation activities in November 1998. The groundwater treatment system has operated continuously since 1998, with the exception of occasional maintenance repairs and groundwater sampling events. Presently, 22 monitoring wells are included in gauging and sampling events.

Additional assessment work has been conducted at the site in the last several years. First, NCDENR requested that three intermediate depth wells (MW21 – MW23) be installed to further delineate the vertical extent of groundwater contamination. Well installation took place in June

2001. In addition, three underground storage tanks were removed from the site in 2002. Subsequent soil and groundwater assessment work in the former UST area concluded that soils did not require remediation as contaminant levels were below residential MSCCs. Affected soils were also within the influence of the current SVE system. In addition, there was no free product. Groundwater contamination near the former UST basin was also within the influence of the current system layout; therefore, additional groundwater remediation was not recommended. The former UST basin assessment was conducted as a result of recommendations made in an optimization report conducted by CATLIN in 2004. Results are contained in the CATLIN Report of Findings for Soil and Free Phase Product dated December 2004. Overall, the 2004 optimization report concluded that the system has been effective in reducing petroleum constituent concentrations in the upper portion of the contaminant plume and should continue operation in order to maintain influence.

Monitoring and maintenance of the groundwater treatment system at the LCH 4015 site has continued from installation in 1998 to the present. This report outlines and describes such activities as performed by Sovereign from December 2005 – May 2006.

4.0 REMEDIATION SYSTEM OPERATION AND MAINTENANCE

The LCH 4015 remediation system (Figure 2; also CALTIN optimization report figure in Appendix A) includes 38 vertical biosparge wells and five soil vapor extraction wells. The biosparge wells reportedly were installed with a 1.5 to 3.5 feet screen interval ranging from 4.5 to 8.0 feet bgs. The soil vapor extraction wells consist of a two-inch diameter 0.02-inch slot width PVC horizontal well screen reportedly to be installed slightly above the shallow groundwater table. The system has been operational since it was installed in 1998.

The system generally operated continuously except during equipment servicing/repair, power outages, and high level water alarms. The remediation system was temporarily deactivated prior to each groundwater gauging and sampling event and then re-started following field activities.

The air compressor received non-routine service repair calls in March 2006 by electrical and compressor subcontractors. The system, however, continued to operate during the repair visits and was not down due to any malfunction. System monitoring and maintenance was performed regularly, with site visits conducted at a minimum of three times per week. Instrument readings conducted during the site visits included BS flow rates, BS/SVE pressures/vacuums, temperatures, tank liquid levels, electricity usage, and motor run times. Servicing (oil changes, belt re-tensioning or replacement, filter changes, etc.) was conducted as per manufacturer's instructions or as needed upon system inspection. Emptying of the polyethylene holding tank was also conducted as needed.

Photoionization detector readings were recorded weekly during the monitoring period. Vapor velocity readings, vapor temperature, and vapor vacuum/pressure were also documented at the time the PID readings were recorded. The exhaust stack (SVE) was sampled monthly through April 2006. The air samples were submitted for laboratory analysis via Modified EPA Method 18. The collection of air samples ceased after April 2006, by direction of the Navy Technical Representative.

Well purge water, development water, and equipment decontamination water generated during field events were contained in a portable holding tank. Water that accumulated in the SVE

system polyethylene hold tank was removed and transported in the portable holding tank and processed through a groundwater treatment system located at Lot 203 on MCB Camp Lejeune.

5.0 GAUGING AND SAMPLING RESULTS

The field program for the LCH 4015 site consisted of monthly gauging, as well as groundwater sampling. Activities were conducted in accordance with NCDENR guidance.

5.1 WELL GAUGING

Monitoring wells MW01 through MW23 (MW17 cannot be located) were gauged monthly from December 2005 through May 2006. Gauging data is summarized in Tables 2 and 3. Wells were gauged using an interface probe to measure the depth to water and depth to product (if present). No measurable free product was detected at any site well designated for gauging during the 2005-2006 monitoring program.

Top of casing elevations and DTW values were used to obtain groundwater elevations at the site, as shown in Figures 3-6. From the shallow groundwater well maps, groundwater generally flows into the site from the east and away to the north and southwest, which is consistent with previous site data. Areas of relatively elevated groundwater are observed in the central and southeastern portion of the site. Intermediate well groundwater elevation maps show varying flow directions both to the northwest and north, northeast.

5.2 GROUNDWATER SAMPLING

Groundwater sampling was also conducted at the site. Samples were collected during sampling events in January and June 2006. Monitoring wells MW01, MW02, MW03, MW13, MW19, MW20, MW21, MW22, and MW23 were sampled in January 2006, and MW08 and MW11 were sampled in June as a result of a request made by NCDENR/APS.

Prior to sampling, wells were purged until water quality parameters (pH, temperature, conductivity, oxidation-reduction potential, dissolved oxygen, and turbidity) stabilized. Sampling was conducted using a peristaltic pump with connected polyethylene discharge tubing and a low flow purging and sampling procedure.

Water quality indicator parameters (pH, temperature, conductivity, oxidation-reduction potential, dissolved oxygen, and turbidity) were measured and recorded. If a well purged to dryness, the well was allowed to recharge before sampling. Samples were collected using the laboratory-prepared sample bottles, placed on ice, and shipped under proper chain of custody to SGS-Paradigm Analytical Laboratories Inc. (SGS-Paradigm) in Wilmington, North Carolina (NC Certification Number 481). Analyses run included EPA Methods 602 + Xylenes, 625 + 10 largest non-target peaks, and 3030C for Lead. Laboratory reports and chain of custody documentation are included in Appendix B.

Sovereign Monitoring Data 2005-2006

One volatile compound was detected above groundwater standards – benzene. Benzene was detected in (shallow and intermediate) wells MW01, MW02, MW11, MW21 and MW23 during the 2006 sampling events at concentrations of 45.5 µg/L, 3.63 µg/L, 1.14 µg/L, 20.2

µg/L and 25.9 µg/L, respectively. While contaminant concentrations were above 2L groundwater quality standards, they were well below gross contaminant levels (GCLs). EPA Method 602 results are summarized in Table 4.

Three semi-volatile contaminants, bis(2-ethylhexyl)phthalate, 1-methylnaphthalene, and naphthalene were detected at the site. Bis(2-ethylhexyl)phthalate was present above the groundwater quality standard in monitoring wells MW01, MW11, MW19, and MW23. Bis(2-ethylhexyl)phthalate is not typical of petroleum contamination and is widely used as a plasticizer in manufacturing of PVC. The compound may have leached into the water that was in contact with the plastic in the monitoring well. The compound 1-methylnaphthalene was found in MW11 during the June 2006 sampling event. This well was not included in the 2005 monitoring program conducted by EEI. There is no established groundwater quality standard for 1-methylnaphthalene, so any detection is considered above the standard. 1-methylnaphthalene was only included in the laboratory target analyte list for MW08 and MW11. Naphthalene was present above the groundwater quality standard in monitoring wells MW01 and MW21 at concentrations of 111µg/L and 31.7µg/L, respectively. Table 5 summarizes semi-volatile lab results.

Monitoring wells MW01, MW19 and MW20 exhibited low concentrations of lead. None of the detections, however, were above the NCGWQS of 15 µg/L. Lead results can be found in Table 6.

Historical Data Synopsis

Historical information, summarized in the 2004 CATLIN optimization report, coupled with recent (2004-2006) data shows that groundwater contamination continues to decrease at the site. Benzene, bis(2-ethylhexyl)phthalate, naphthalene, and 1-methylnaphthalene are present just above their applicable standards. Concentrations, however, are below the GCLs where established. In the following tables, maximum contaminant concentrations detected at the site are compared over time. Note that **BOLD** text indicates NCGWQS exceedences.

**Maximum Concentrations (µg/L)
Type II Monitoring Wells**

Compound	NCGWQS (µg/L)	GCL (µg/L)	1995 (CAP)	2003	2004	2005	2006
Benzene	1	5,000	8,850	297	131	48.1	45.5
Ethylbenzene	550	84,500	2,070	420	439	270	179
Total Xylenes	530	87,500	9,960	1,070	704	659	370
Toluene	1,000	257,500	256	95.3	27.5	14.8	10.1
Naphthalene	21	15,500	677	170	216	165	111
1-Methylnaphthalene ¹	NE	NE	271	36.8	34.5	23.1	7.9
2-Methylnaphthalene ¹	14	12,500	345	47	49	34.2	<10
Lead	15	15,000	42.7	NA	7.7	<10	0.6

¹Note = 2006 data only from MW08 and MW11

**Maximum Concentrations (µg/L)
Type III Monitoring Wells**

Compound	NCGWQS (µg/L)	GCL (µg/L)	1995 (CAP)	2003	2004	2005	2006
Benzene	1	5,000	0.4	33.8	73.9	47.1	25.9
Ethylbenzene	550	84,500	0.5	505E	5	4.2	3.05
Total Xylenes	530	87,500	1.9	16.9	2.7J	<3.0	0.632J
Toluene	1,000	257,500	1.0	2.1	2.0	1.1	<1.00
Naphthalene	21	15,500	ND	<5.1	15.3	32.3	31.7
1-Methylnaphthalene	NE	NE	3.8	<5.1	<5.1	2.6J	NR
2-Methylnaphthalene	14	12,500	ND	<5.1	2.1J	2.8J	NR
Lead	15	15,000	20.6	NA	7.7	18.8	2.28

1995 and 2003 data from 2004 Catlin optimization report

2004-2005 data from EEI Annual Monitoring Report

NE = Not Established

NR = Not Reported

E = Estimated concentration above the linear quantitation range

J = Estimated concentration less than reporting limit

Figures 10-13 show total BTEX trend graphs for monitoring wells MW01, MW02, MW03 and MW11. The graphs provide a general representation and demonstrate the overall decline of total BTEX concentrations at the site over time. Monitoring well MW11 exhibited a slight increase in 2006 as compared to 2004 data. Historical groundwater quality data is located in Appendix A.

6.0 RECEPTOR SURVEY

Sovereign reassessed site conditions and concluded that the receptor survey previously completed by CATLIN in the RAO & RCAP dated May 6, 2004 still applies. There has been no change in receptor impact, and there have been no changes to land use of the site or the surrounding areas. The receptor survey is located in Appendix A.

7.0 CONCLUSIONS AND RECOMMENDATIONS

Based on fieldwork and laboratory analytical data gathered during the 2005-2006 monitoring period, the following conclusions are presented:

1. Previous investigations indicate petroleum constituent concentrations in vadose zone soils at the site do not require additional remediation at this time.
2. Shallow surficial groundwater aquifer flow is into the site from the east and away from the site to the north and southwest. Intermediate well groundwater elevation maps show varying flow directions at the site, both to the northwest and north, northeast.
3. No measurable free product was observed at any site well during the monitoring period.
4. VOCs and semi-VOCs are present in shallow, intermediate, and deep groundwater monitoring wells at concentrations above NCGWQSs, but below GCLs.

5. Petroleum constituent concentrations, while above NCGWQSs, have decreased over time, indicating that operation of the AS/SVE system is benefiting groundwater quality at the site.

Based on finding of this report, Sovereign recommends MCB Camp Lejeune continue site monitoring and system operation. Monitoring well gauging, however, should be conducted only twice per year, as no measurable free product has been observed at the site. Groundwater sampling frequency should also be modified to semi-annual sampling. Monitoring wells MW01, MW02, MW03, MW08, MW011, MW13, MW18, MW19, MW20, MW21, MW22, MW23, and MW24 should be sampled for volatiles, semivolatiles, and lead via EPA Methods 602 + Xylenes, 625 + TICs (to include the reporting of 1 and 2-methylnaphthalene), and SM 3030C.

8.0 REFERENCES

AH Environmental Consultants, *Final Report, Wellhead Protection Plan – 2002 Update, Marine Corps Base, Camp Lejeune*, August 2002.

CATLIN Engineers and Scientists, *Remedial Action Optimization and Revised Corrective Action Plan, LCH 4015, Marine Corps Base Camp, Lejeune, North Carolina*, May 2004.

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Engineering and Environment, Inc., *Annual Groundwater Monitoring Report 2003-2005, LCH 4015 Site, Camp Lejeune, North Carolina*, January 2006.

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Law Engineering and Environmental Services, Inc., *Comprehensive Site Assessment Report, Building LCH-4015, Marine Corps Base Camp Lejeune, North Carolina*, June 1996.

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R.E. Wright Associates, Inc., *Five Well Site Check, Marine Corps Base, Camp Lejeune, North Carolina, LCH-4015 AST Fuel Farm*, February 1995.

Shaw Environmental and Infrastructure, Inc., *Final Annual Monitoring Report, August 2000 – August 2001, Soil and Groundwater Remediation, Building LCH-4015, Marine Corps Base Camp Lejeune, North Carolina*, February 2004.

TABLES

TABLE 1
WELL CONSTRUCTION INFORMATION
Incident Number and Name: 85352, Building LCH 4015

Monitoring Well	Date Installed	Measured Well Depth (feet below TOC)	Top of Casing Elevation (feet)	Hydrogeologic Zone
LCH4015-MW01	11/1/1994	14.90	29.78	Shallow
LCH4015-MW02	11/1/1994	12.30	29.24	Shallow
LCH4015-MW03	11/1/1994	12.10	32.02	Shallow
LCH4015-MW04	11/1/1994	11.90	32.68	Shallow
LCH4015-MW05	11/2/1994	11.70	29.35	Shallow
LCH4015-MW06	6/14/1995	12.50	29.11	Shallow
LCH4015-MW07	6/14/1995	12.50	29.67	Shallow
LCH4015-MW08	6/14/1995	12.50	28.79	Shallow
LCH4015-MW09	6/13/1995	12.50	28.35	Shallow
LCH4015-MW10	6/14/1995	12.50	28.28	Shallow
LCH4015-MW11	6/14/1995	12.50	29.18	Shallow
LCH4015-MW12	6/28/1995	12.50	29.23	Shallow
LCH4015-MW13	6/26/1995	50.00	Unknown	Deep
LCH4015-MW14	6/28/1995	12.50	29.45	Shallow
LCH4015-MW15	6/28/1995	12.50	29.26	Shallow
LCH4015-MW16	6/28/1995	12.50	29.62	Shallow
LCH4015-MW17	6/29/1995	12.50	29.76	Shallow
LCH4015-MW18	6/15/1995	12.50	28.86	Shallow
LCH4015-MW19	6/15/1995	50.00	29.98	Deep
LCH4015-MW20	6/20/1995	50.00	29.16	Deep
LCH4015-MW21	6/6/2001	31.50	29.85	Intermediate
LCH4015-MW22	6/7/2001	32.00	29.14	Intermediate
LCH4015-MW23	6/6/2001	32.00	29.86	Intermediate

TABLE 2
GROUNDWATER ELEVATION DATA
DECEMBER 2005 – MAY 2006
Incident Number and Name: 85352 – Building LCH 4015

Monitoring Well	Top of Casing Elevation (feet)	Groundwater Elevation (feet)					
		12/16/2005	1/17/2006	2/28/2006	3/9/2006	4/14/2006	5/1/2006
LCH4015-MW01	29.78	26.41	27.04	27.61	26.66	26.35	26.83
LCH4015-MW02	29.24	27.94	28.13	28.29	27.77	27.40	27.98
LCH4015-MW03	32.02	27.22	27.41	27.74	27.05	26.50	27.11
LCH4015-MW04	32.68	28.48	28.19	28.51	27.30	26.15	27.26
LCH4015-MW05	29.35	27.07	27.45	27.91	27.38	26.87	27.36
LCH4015-MW06	29.11	27.48	26.54	27.00	26.69	26.26	26.61
LCH4015-MW07	29.67	27.97	27.61	28.99	27.30	27.11	27.57
LCH4015-MW08	28.79	28.09	27.51	27.64	26.74	25.92	26.84
LCH4015-MW09	28.35	28.20	27.50	27.55	26.79	26.21	26.92
LCH4015-MW10	28.28	27.88	27.49	27.73	26.64	26.33	26.85
LCH4015-MW11	29.18	26.19	25.88	26.37	25.58	25.20	26.28
LCH4015-MW12	29.23	25.08	25.28	25.87	25.17	24.82	25.15
LCH4015-MW13	Unknown	Not Calculated	Not Calculated	Not Calculated	Not Calculated	Not Calculated	Not Calculated
LCH4015-MW14	29.45	25.03	25.30	25.76	25.23	24.95	25.22
LCH4015-MW15	29.26	25.84	25.72	26.34	25.51	25.43	25.74
LCH4015-MW16	29.62	29.29	28.42	28.97	27.68	27.24	27.84
LCH4015-MW17	29.76	28.33	29.76	29.76	29.76	29.76	29.76
LCH4015-MW18	28.86	27.61	26.81	27.47	26.61	26.44	28.86
LCH4015-MW19	29.98	7.03	8.42	7.50	7.20	6.95	6.26
LCH4015-MW20	29.16	6.96	8.36	7.68	7.27	6.84	6.61
LCH4015-MW21	29.85	7.01	8.39	7.51	7.27	6.78	6.69
LCH4015-MW22	29.14	6.96	8.38	7.52	7.30	6.94	6.24
LCH4015-MW23	29.86	7.06	8.56	7.57	7.25	6.88	6.26

Not Calculated = Elevation not calculated due to insufficient data; MW-17 LOST.

TABLE 3
PRODUCT THICKNESS DATA
DECEMBER 2005 – MAY 2006

Incident Number and Name: 85352 – Building LCH 4015

Monitoring Well	Top of Casing Elevation (feet)	Product Thickness (feet)					
		12/16/2005	1/17/2006	2/28/2006	3/9/2006	4/14/2006	5/1/2006
LCH4015-MW01	29.78	--	--	--	--	--	--
LCH4015-MW02	29.24	--	--	--	--	--	--
LCH4015-MW03	32.02	--	--	--	--	--	--
LCH4015-MW04	32.68	--	--	--	--	--	--
LCH4015-MW05	29.35	--	--	--	--	--	--
LCH4015-MW06	29.11	--	--	--	--	--	--
LCH4015-MW07	29.67	--	--	--	--	--	--
LCH4015-MW08	28.79	--	--	--	--	--	--
LCH4015-MW09	28.35	--	--	--	--	--	--
LCH4015-MW10	28.28	--	--	--	--	--	--
LCH4015-MW11	29.18	--	--	--	--	--	--
LCH4015-MW12	29.23	--	--	--	--	--	--
LCH4015-MW13	Unknown	--	--	--	--	--	--
LCH4015-MW14	29.45	--	--	--	--	--	--
LCH4015-MW15	29.26	--	--	--	--	--	--
LCH4015-MW16	29.62	--	--	--	--	--	--
LCH4015-MW17	29.76	--	NM	NM	NM	NM	NM
LCH4015-MW18	28.86	--	--	--	--	--	--
LCH4015-MW19	29.98	--	--	--	--	--	--
LCH4015-MW20	29.16	--	--	--	--	--	--
LCH4015-MW21	29.85	--	--	--	--	--	--
LCH4015-MW22	29.14	--	--	--	--	--	--
LCH4015-MW23	29.86	--	--	--	--	--	--

NM = Well not measured; insufficient data to calculate; MW17 lost.

TABLE 4
SUMMARY OF JANUARY 2006 GROUNDWATER SAMPLING RESULTS

Date: June 2006

Incident Number and Name: 85352 – Building LCH 4015

Facility ID#: N/A

Analytical Method: EPA Method 602

Contaminant of Concern			Benzene	Diisopropyl ether (DIPE)	Ethylbenzene	Methyl-tert butyl ether (MTBE)	Toluene	Total Xylenes
Well ID	Sample ID	Date Collected						
USTLCH4015-MW01	USTLCH4015-MW01	1/19/2006	45.5	BQL	179	4.98J	10.1	370.5
USTLCH4015-MW02	USTLCH4015-MW02	1/19/2006	3.63	BQL	6.10	16.7	BQL	BQL
USTLCH4015-MW03	USTLCH4015-MW03	1/19/2006	BQL	0.651J	BQL	0.949J	BQL	BQL
USTLCH4015-MW08	USTLCH4015-MW08	6/13/2006	0.903J	BQL	0.835J	BQL	4.49	5.72
USTLCH4015-MW11	USTLCH4015-MW11	6/13/2006	1.14	BQL	7.86	BQL	4.23	7.76
USTLCH4015-MW13	USTLCH4015-MW13	1/19/2006	BQL	BQL	BQL	BQL	BQL	BQL
USTLCH4015-MW13 DUP	USTLCH4015-MW13 DUP	1/19/2006	BQL	BQL	BQL	BQL	BQL	BQL
USTLCH4015-MW19	USTLCH4015-MW19	1/19/2006	BQL	BQL	BQL	BQL	BQL	BQL
USTLCH4015-MW20	USTLCH4015-MW20	1/19/2006	BQL	BQL	BQL	BQL	BQL	BQL
USTLCH4015-MW21	USTLCH4015-MW21	1/19/2006	20.2	0.670J	3.05	15.4	BQL	0.632J
USTLCH4015-MW22	USTLCH4015-MW22	1/19/2006	BQL	BQL	BQL	BQL	BQL	BQL
USTLCH4015-MW23	USTLCH4015-MW23	1/19/2006	25.9	1.81	0.400J	15.0	BQL	BQL
2L Standard (µg/l)			1	70	550	200	1,000	530
GCL (µg/l)			5,000	70,000	84,500	200,000	257,500	87,500

- All results reported in µg/l
- µg/L = micrograms per liter
- GCL = gross contamination level
- BQL = Below Quantitation Limits
- **BOLD** and shaded = detected concentration above applicable standard
- **J** = Detected below quantitation limits

TABLE 5
SUMMARY OF JANUARY 2006 GROUNDWATER SAMPLING RESULTS

Date: June 2006

Incident Number and Name: 85352 – Building LCH 4015

Facility ID#: N/A

Analytical Method: EPA Method 625

Contaminant of Concern			Acenaphthene	Bis(2-ethylhexyl)phthalate	Fluorene	1-Methylnaphthalene	Naphthalene	All Other Compounds
Well ID	Sample ID	Date Collected						
USTLCH4015-MW01	USTLCH4015-MW01	1/19/2006	BQL	8.70J	BQL	NR	111	BQL
USTLCH4015-MW02	USTLCH4015-MW02	1/19/2006	BQL	BQL	BQL	NR	2.10J	BQL
USTLCH4015-MW03	USTLCH4015-MW03	1/19/2006	BQL	BQL	BQL	NR	BQL	BQL
USTLCH4015-MW08	USTLCH4015-MW08	6/13/2006	BQL	BQL	BQL	BQL	BQL	BQL
USTLCH4015-MW11	USTLCH4015-MW11	6/13/2006	2.50J	6.30J	2.90J	7.90J	3.40J	BQL
USTLCH4015-MW13	USTLCH4015-MW13	1/19/2006	BQL	BQL	BQL	NR	BQL	BQL
USTLCH4015-MW13 DUP	USTLCH4015-MW13 DUP	1/19/2006	BQL	BQL	BQL	NR	BQL	BQL
USTLCH4015-MW19	USTLCH4015-MW19	1/19/2006	BQL	2.80J	BQL	NR	BQL	BQL
USTLCH4015-MW20	USTLCH4015-MW20	1/19/2006	BQL	BQL	BQL	NR	BQL	BQL
USTLCH4015-MW21	USTLCH4015-MW21	1/19/2006	BQL	BQL	BQL	NR	31.7	BQL
USTLCH4015-MW22	USTLCH4015-MW22	1/19/2006	BQL	BQL	BQL	NR	BQL	BQL
USTLCH4015-MW23	USTLCH4015-MW23	1/19/2006	BQL	4.90J	BQL	NR	BQL	BQL
2L Standard (µg/L)			80	2.5	280	NE	21	Varies
GCL (µg/L)			2,120	2,500	950	NE	15,500	Varies

- TICs detected in MW01, MW02, MW03, MW08, MW11, MW21
- All results reported in µg/l
- µg/L = micrograms per liter
- GCL = gross contamination level
- BQL = Below Quantitation Limits
- NE = Not Established; standard therefore compared to the reporting limit.
- NR = Not Reported in list of target analytes.
- J = Detected below quantitation limits.

TABLE 6
SUMMARY OF GROUNDWATER SAMPLING RESULTS

Date: June 2006

Incident Number and Name: 85352 – Building LCH 4015

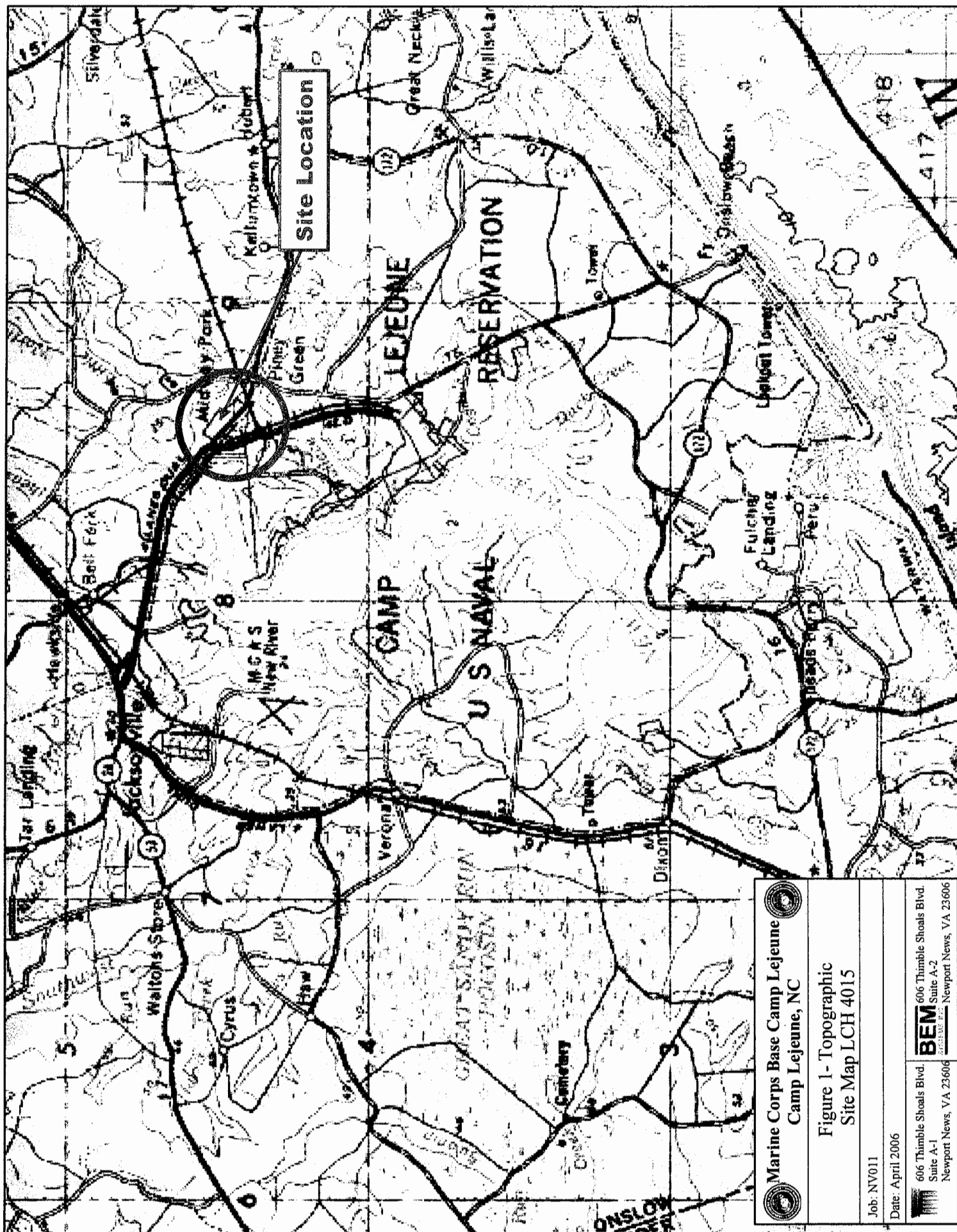
Facility ID#: N/A

Analytical Method: EPA Method 3030C

Contaminant of Concern			Lead
Well ID	Sample ID	Date Collected	
USTLCH4015-MW01	USTLCH4015-MW01	1/19/2006	0.60
USTLCH4015-MW02	USTLCH4015-MW02	1/19/2006	BQL
USTLCH4015-MW03	USTLCH4015-MW03	1/19/2006	BQL
USTLCH4015-MW13	USTLCH4015-MW13	1/19/2006	BQL
USTLCH4015-MW13 DUP	USTLCH4015-MW13 DUP	1/19/2006	BQL
USTLCH4015-MW19	USTLCH4015-MW19	1/19/2006	0.675
USTLCH4015-MW20	USTLCH4015-MW20	1/19/2006	2.28
USTLCH4015-MW21	USTLCH4015-MW21	1/19/2006	BQL
USTLCH4015-MW22	USTLCH4015-MW22	1/19/2006	BQL
USTLCH4015-MW23	USTLCH4015-MW23	1/19/2006	BQL
2L Standard (µg/l)			15
GCL (µg/l)			15,000

- All results reported in µg/l
- µg/L =micrograms per liter
- GCL = gross contamination level
- BQL = Below Quantitation Limits

FIGURES



 **Marine Corps Base Camp Lejeune**
Camp Lejeune, NC 

Figure 1- Topographic
Site Map LCH 4015

Job: NV011

Date: April 2006

606 Thimble Shoals Blvd.
Suite A-1
Newport News, VA 23606

BEM
BROOKS ENGINEERING MANAGEMENT

606 Thimble Shoals Blvd.
Suite A-2
Newport News, VA 23606

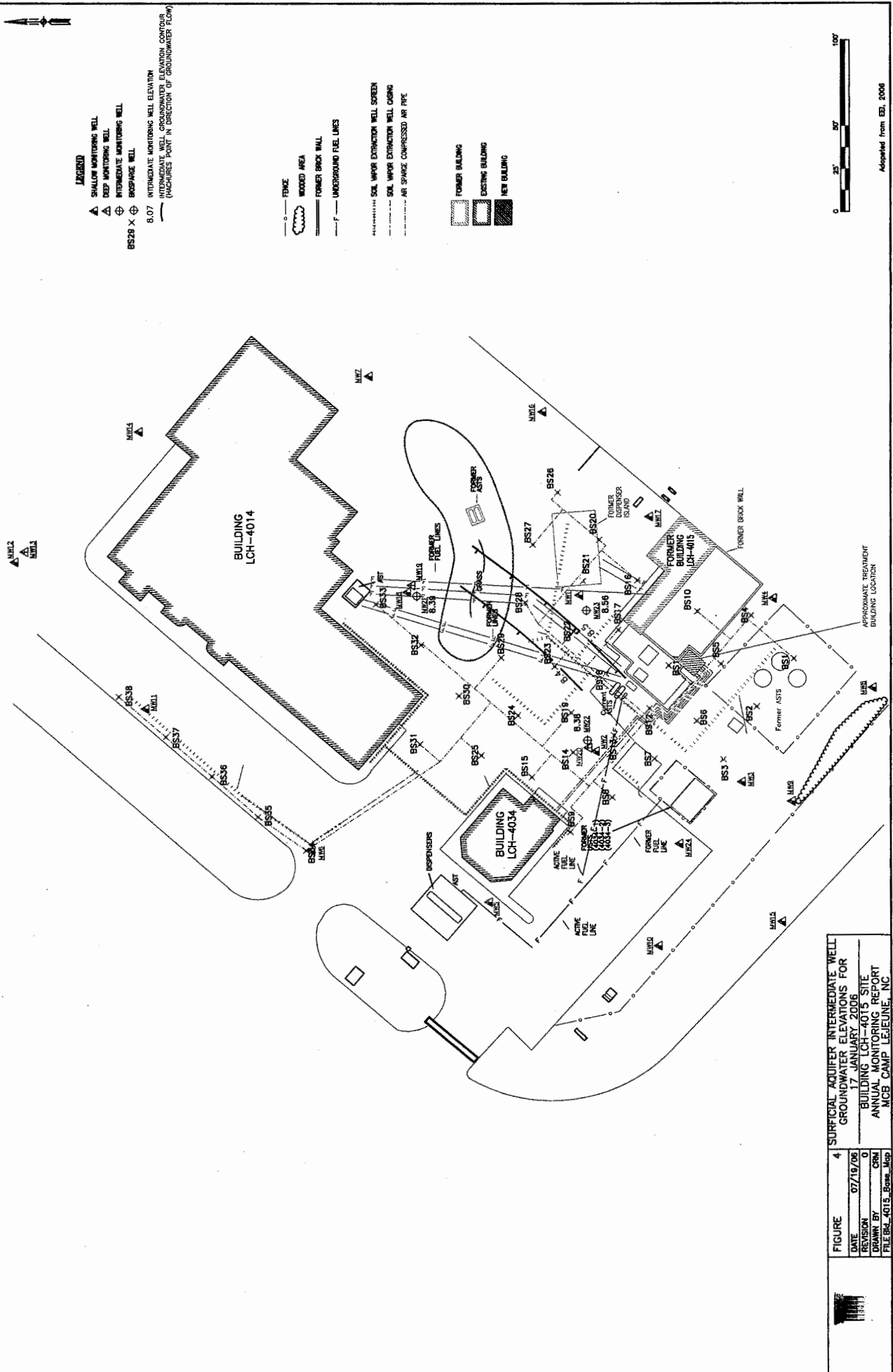
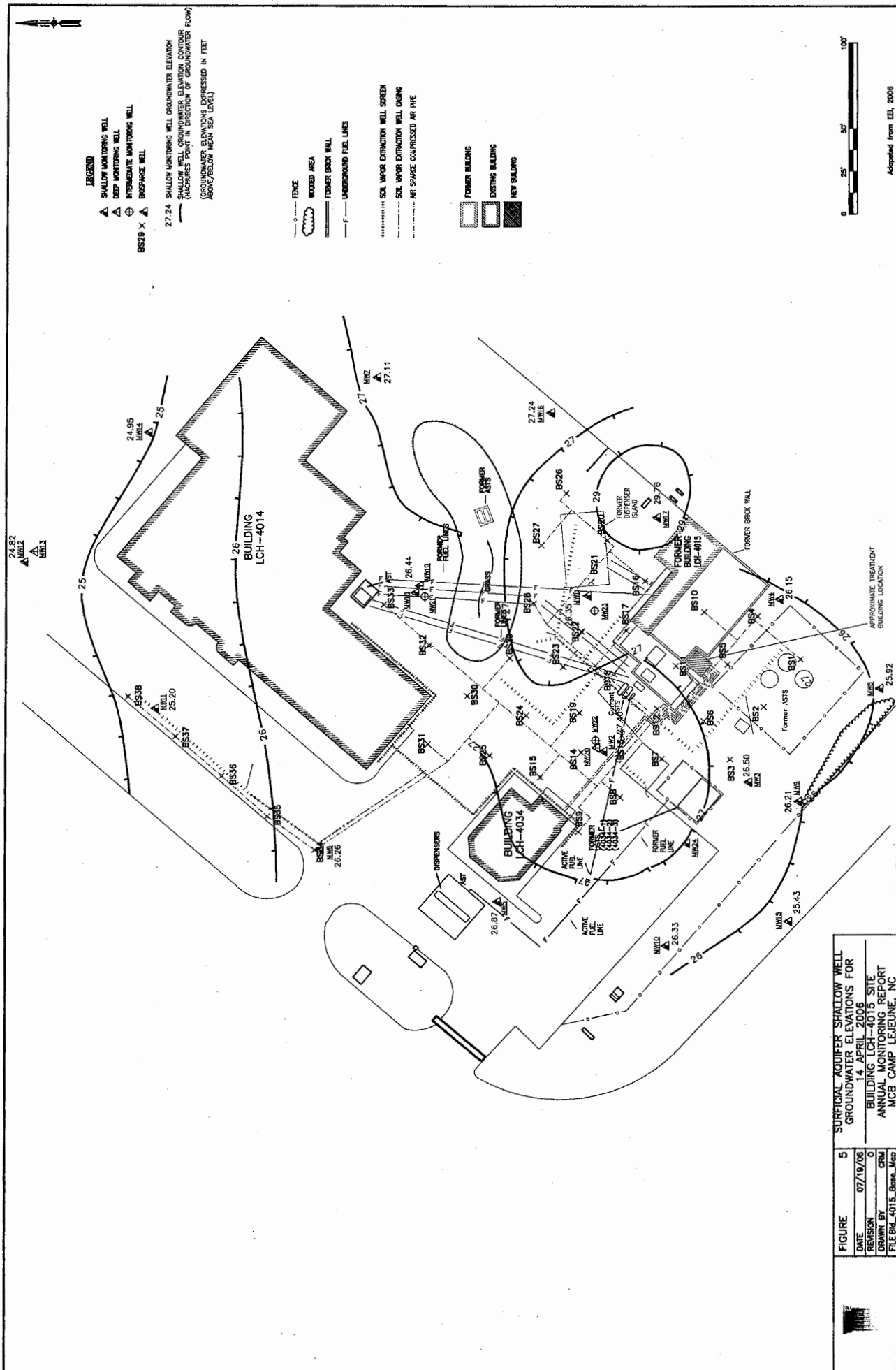


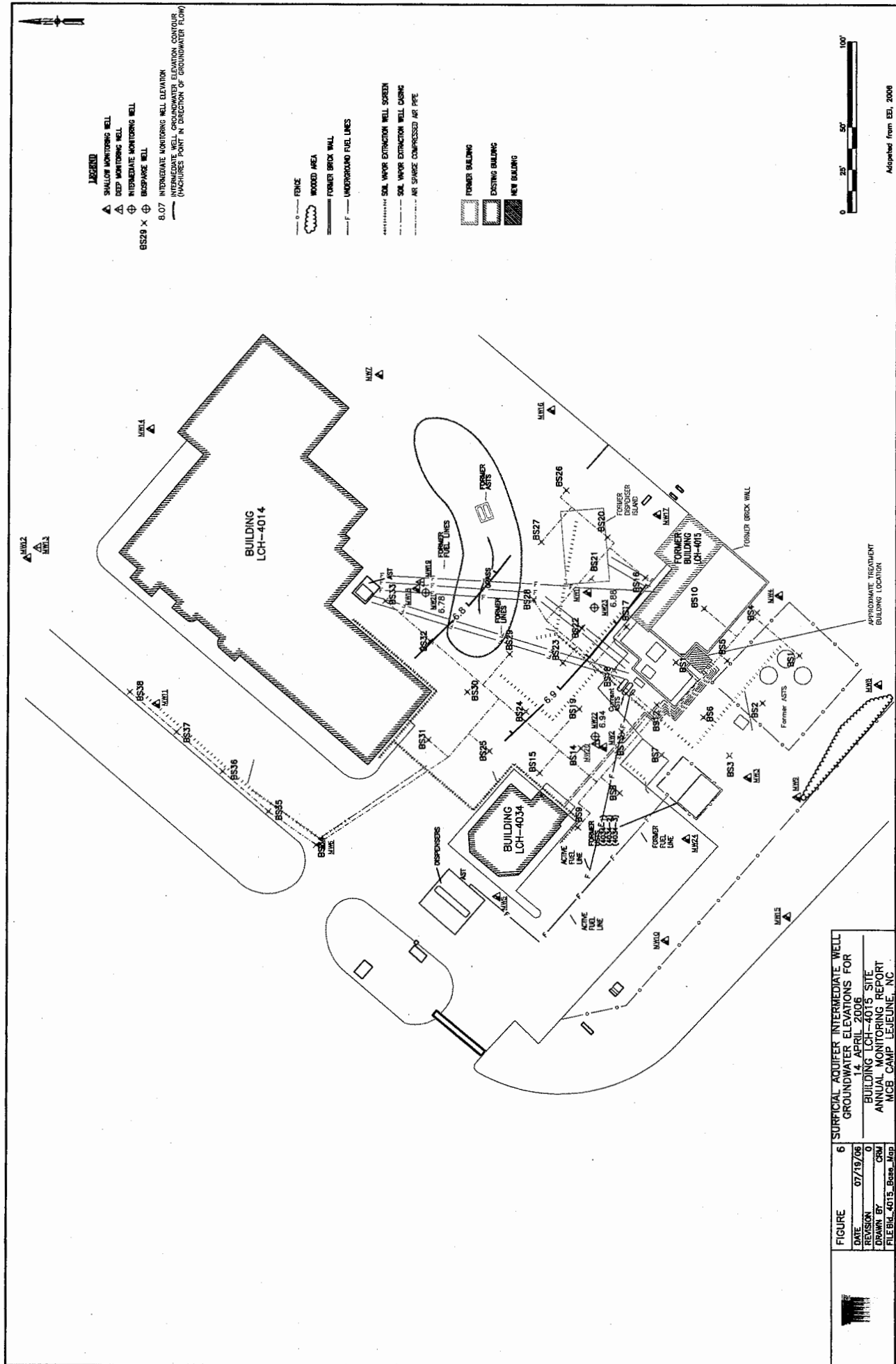
FIGURE	4
DATE	07/18/06
REVISION	0
DRAWN BY	CRN
FILE	Bld_4015_Elevs_Map



Adapted from EEL 2006

FIGURE	5
DATE	07/19/06
REVISION	0
DRAWN BY	CRM
FILE	Bld_4015_Base_Map

SURFICIAL AQUIFER SHALLOW WELL
GROUNDWATER ELEVATIONS FOR
14 APRIL 2006
BUILDING LCH-4015 SITE
ANNUAL MONITORING REPORT
MCB CAMP LEJEUNE, NC



Contaminant of Concern		Sample ID	Date Collected	Benzene					Ethylbenzene		Methyl-tert-butyl ether		Toluene	Total Xylenes
Well ID														
USTLCH4015-MW01	USTLCH4015-MW01		1/19/2006	45.5	BQL	BQL	179	4.98J	BQL	18.1	BQL	370.5	BQL	BQL
USTLCH4015-MW02	USTLCH4015-MW02		1/19/2006	3.63	BQL	BQL	6.10	16.7	BQL	16.7	BQL	BQL	BQL	BQL
USTLCH4015-MW03	USTLCH4015-MW03		1/19/2006	BQL	0.651J	BQL	0.949J	BQL	0.949J	BQL	4.49	5.72	BQL	BQL
USTLCH4015-MW08	USTLCH4015-MW08		6/13/2006	0.903J	BQL	0.835J	BQL	7.86	BQL	4.23	7.76	BQL	BQL	BQL
USTLCH4015-MW11	USTLCH4015-MW11		6/13/2006	1.14	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
USTLCH4015-MW13	USTLCH4015-MW13		1/19/2006	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
USTLCH4015-MW13 DUP	USTLCH4015-MW13 DUP		1/19/2006	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
USTLCH4015-MW19	USTLCH4015-MW19		1/19/2006	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
USTLCH4015-MW20	USTLCH4015-MW20		1/19/2006	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
USTLCH4015-MW21	USTLCH4015-MW21		1/19/2006	20.2	0.676J	BQL	3.05	15.4	BQL	0.632J	BQL	BQL	BQL	BQL
USTLCH4015-MW22	USTLCH4015-MW22		1/19/2006	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
USTLCH4015-MW23	USTLCH4015-MW23		1/19/2006	25.9	1.81	0.808J	15.0	BQL	BQL	BQL	BQL	BQL	BQL	BQL
2L Standard (µg/l)				1	70	550	200	1,000	530					
CCL (µg/l)				5,000	70,000	84,500	200,000	257,500	87,500					

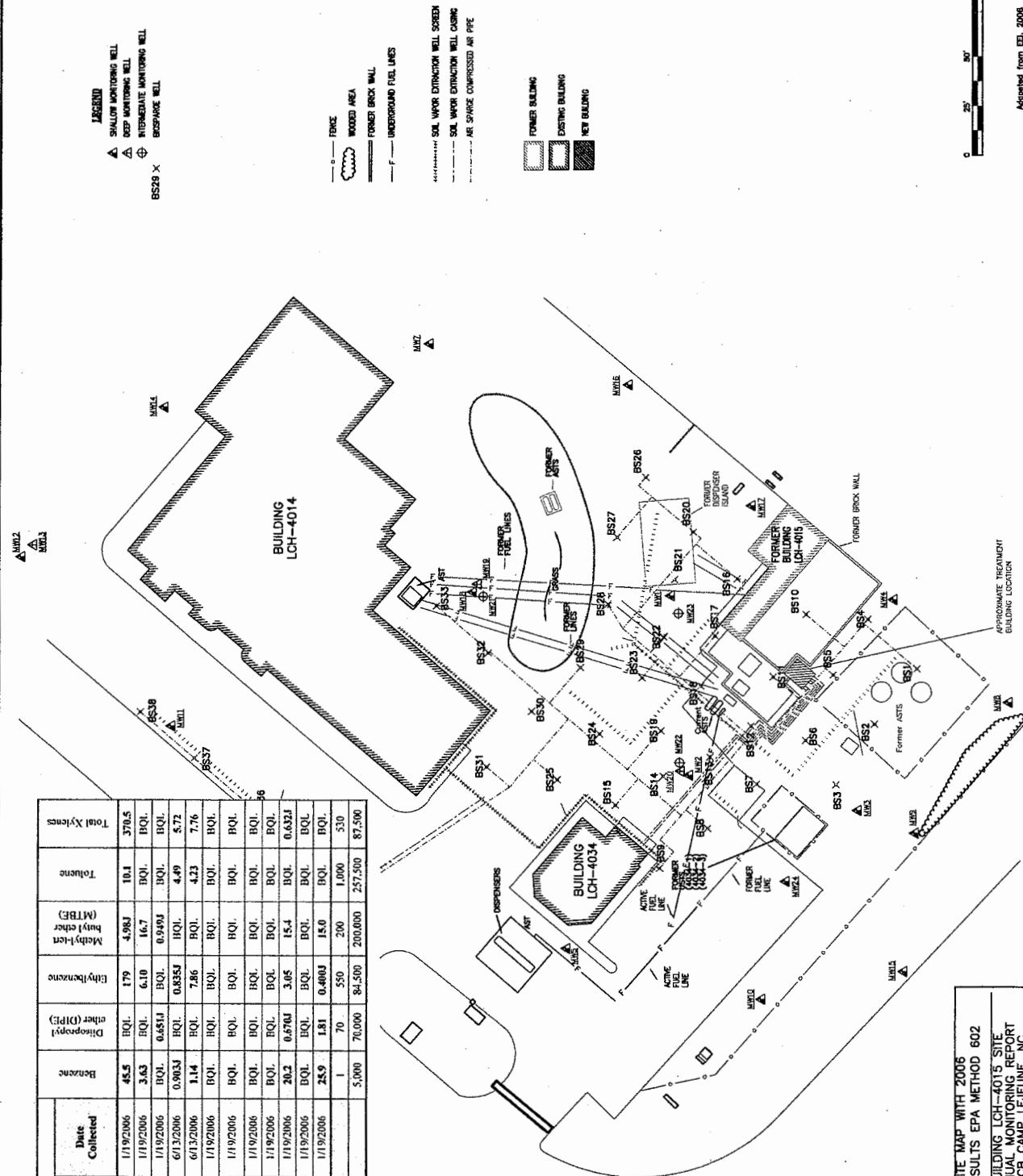


FIGURE 7		SITE MAP WITH 2006	
DATE		GW RESULTS EPA METHOD 802	
REVISION		BUILDING LCH-4015 SITE	
DRAWN BY		ANNUAL MONITORING REPORT	
FILE/Bld_4015_Base_Map		MCB CAMP LEJEUNE, NC	

Adapted from EEL 2008

Contaminant of Concern		Sample ID	Date Collected	Acenaphthene					Bis (2-ethylhexyl)phthalate	Fluorene	Methylanthracene	Naphthalene	All Other Compounds
Well ID													
USTLCH4015-MW01		USTLCH4015-MW01	1/19/2006	BQL	BQL	8.70J	BQL	BQL	BQL	BQL	BQL	111	BQL
USTLCH4015-MW02		USTLCH4015-MW02	1/19/2006	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	2.10J	BQL
USTLCH4015-MW03		USTLCH4015-MW03	1/19/2006	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
USTLCH4015-MW08		USTLCH4015-MW08	6/13/2006	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
USTLCH4015-MW11		USTLCH4015-MW11	6/13/2006	2.50J	6.30J	2.90J	7.90J	3.40J	BQL	BQL	BQL	BQL	BQL
USTLCH4015-MW13		USTLCH4015-MW13	1/19/2006	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
USTLCH4015-MW13 DUP		USTLCH4015-MW13 DUP	1/19/2006	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
USTLCH4015-MW19		USTLCH4015-MW19	1/19/2006	BQL	2.80J	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
USTLCH4015-MW20		USTLCH4015-MW20	1/19/2006	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
USTLCH4015-MW21		USTLCH4015-MW21	1/19/2006	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	31.7	BQL
USTLCH4015-MW22		USTLCH4015-MW22	1/19/2006	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
USTLCH4015-MW23		USTLCH4015-MW23	1/19/2006	BQL	4.90J	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
2L Standard (µg/L)				80	2.5	280	NE	21	Varies				
GCCL (µg/L)				2,120	2,500	950	NE	15,500	Varies				

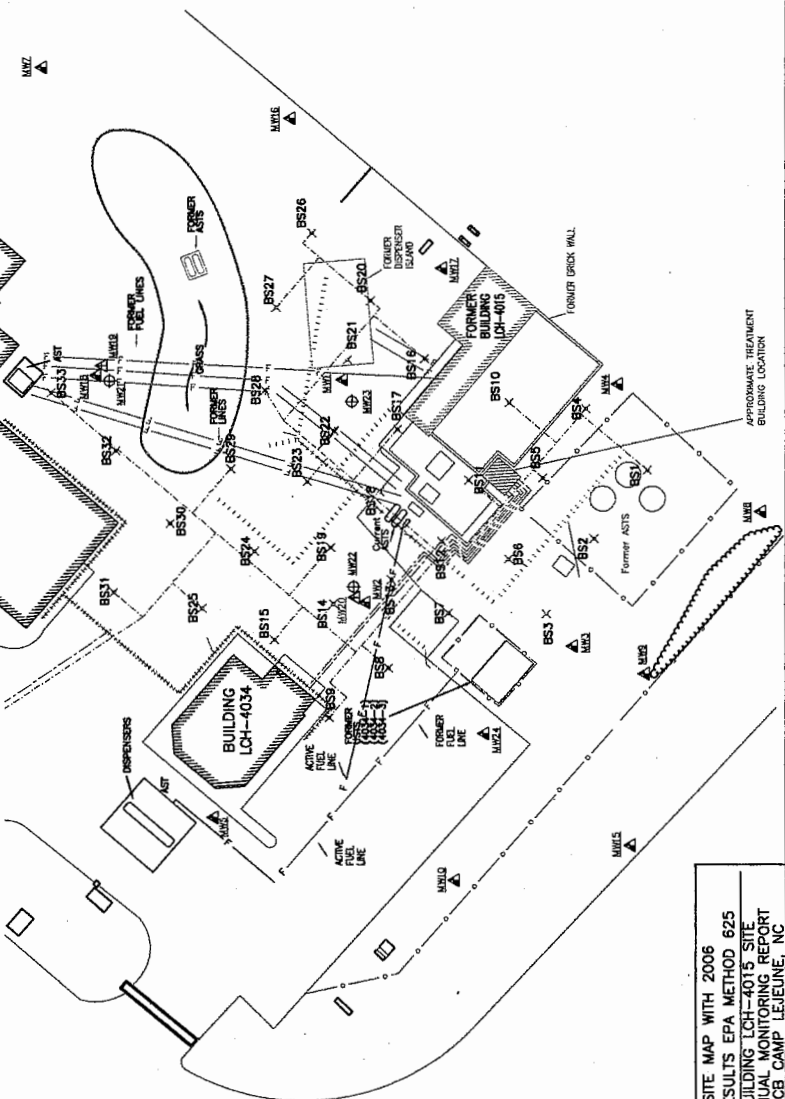
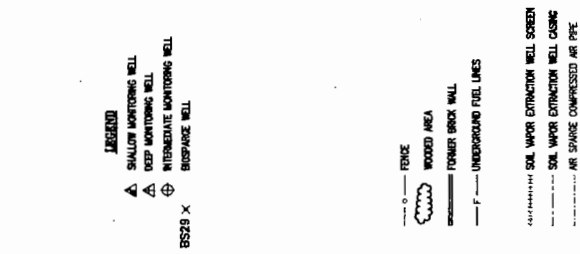


FIGURE	B	SITE MAP WITH 2006	
DATE	07/19/06	GW RESULTS EPA METHOD 825	
REVISION	0	BUILDING LCH-4015 SITE	
DRAWN BY	CSU	ANNUAL MONITORING REPORT	
FILE Bld	4015_Base_Map	MCB CAMP LEJUNE, NC	

Adapted from EES, 2006

Contaminant of Concern			Lead
Well ID	Sample ID	Date Collected	
USTLCH4015-MW01	USTLCH4015-MW01	1/19/2006	0.60
USTLCH4015-MW02	USTLCH4015-MW02	1/19/2006	BQL
USTLCH4015-MW03	USTLCH4015-MW03	1/19/2006	BQL
USTLCH4015-MW13	USTLCH4015-MW13	1/19/2006	BQL
USTLCH4015-MW13 DUP	USTLCH4015-MW13	1/19/2006	BQL
USTLCH4015-MW19	USTLCH4015-MW19	1/19/2006	0.675
USTLCH4015-MW20	USTLCH4015-MW20	1/19/2006	2.28
USTLCH4015-MW21	USTLCH4015-MW21	1/19/2006	BQL
USTLCH4015-MW22	USTLCH4015-MW22	1/19/2006	BQL
USTLCH4015-MW23	USTLCH4015-MW23	1/19/2006	BQL
Method Blank	Method Blank	1/19/2006	BQL
2L Standard (µg/l)			15
GCL (µg/l)			15,000

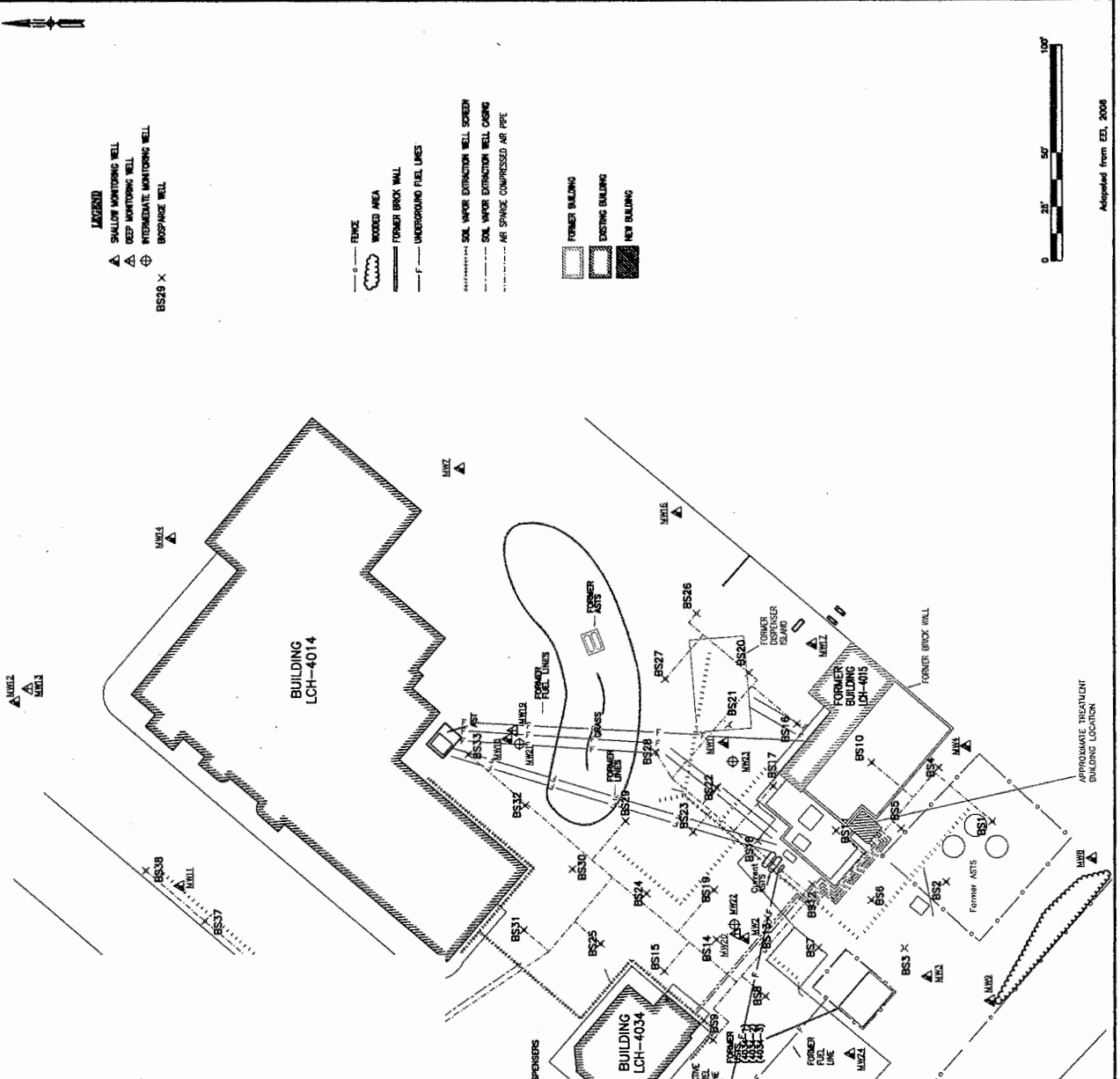


FIGURE	9	SITE MAP WITH 2006
DATE	07/19/06	GW RESULTS EPA METHOD 3030C
REVISION	0	BUILDING LCH-4015 SITE
DRAWN BY	CRM	ANNUAL MONITORING REPORT
FILE	Bldg_4015_Base_Map	MCB CAMP LEJEUNE, NC

Adapted from EEL 2008

FIGURE 10

**Total BTEX Trend at MW01
LCH-4015**

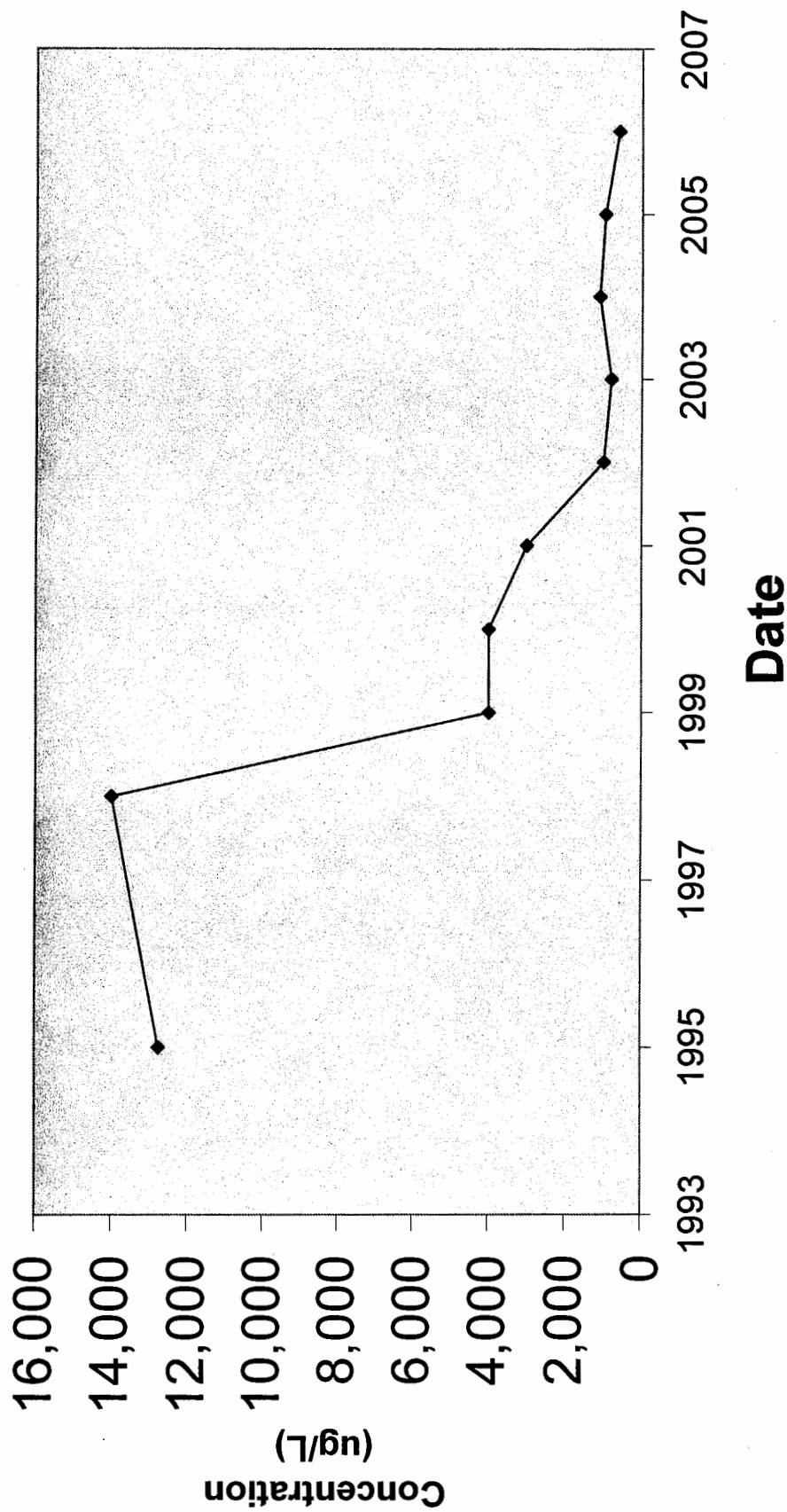


FIGURE 11

**Total BTEX Trend at MW02
LCH-4015**

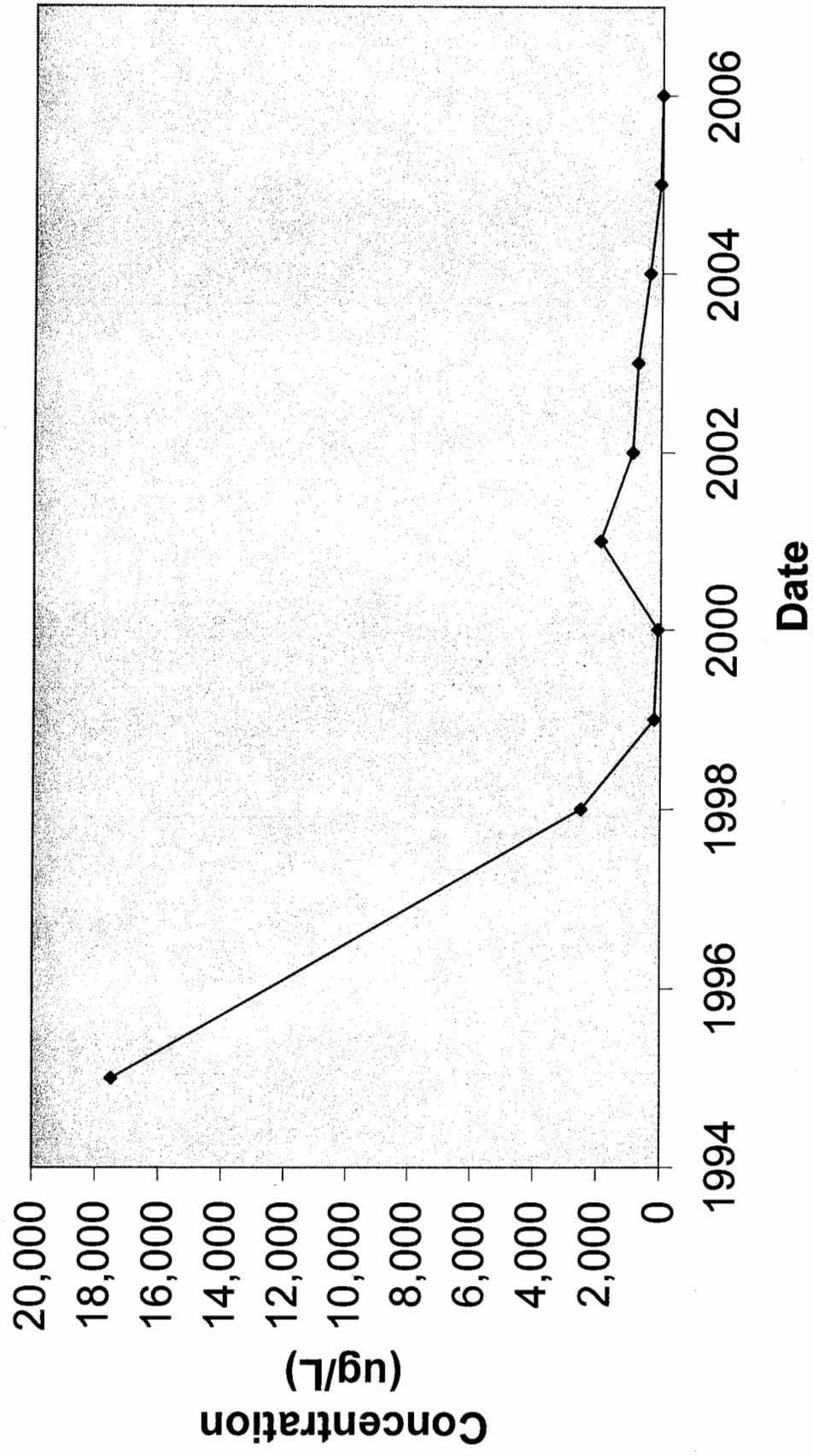


FIGURE 12

**Total BETX Trend at MW03
LCH-4015**

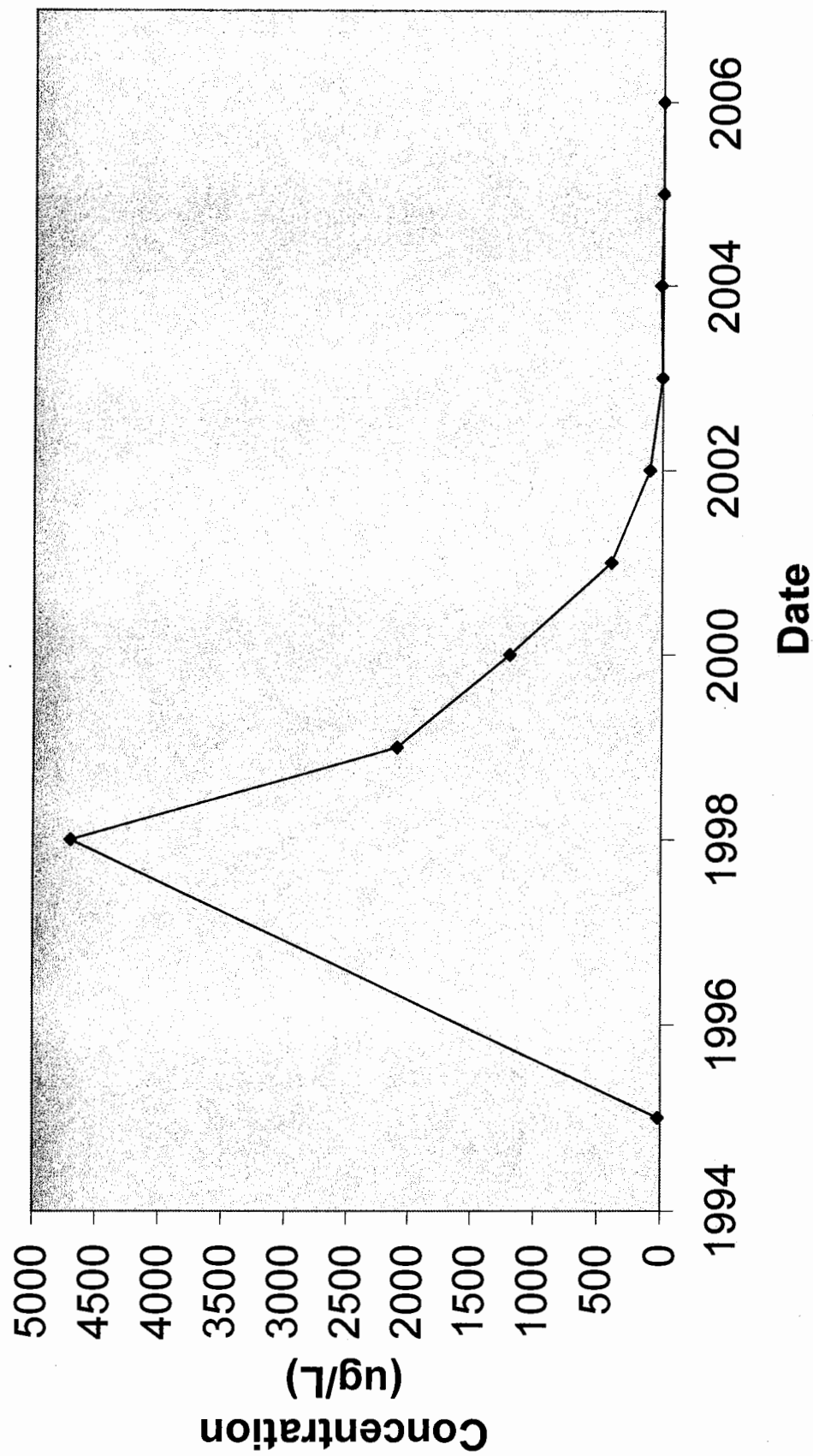
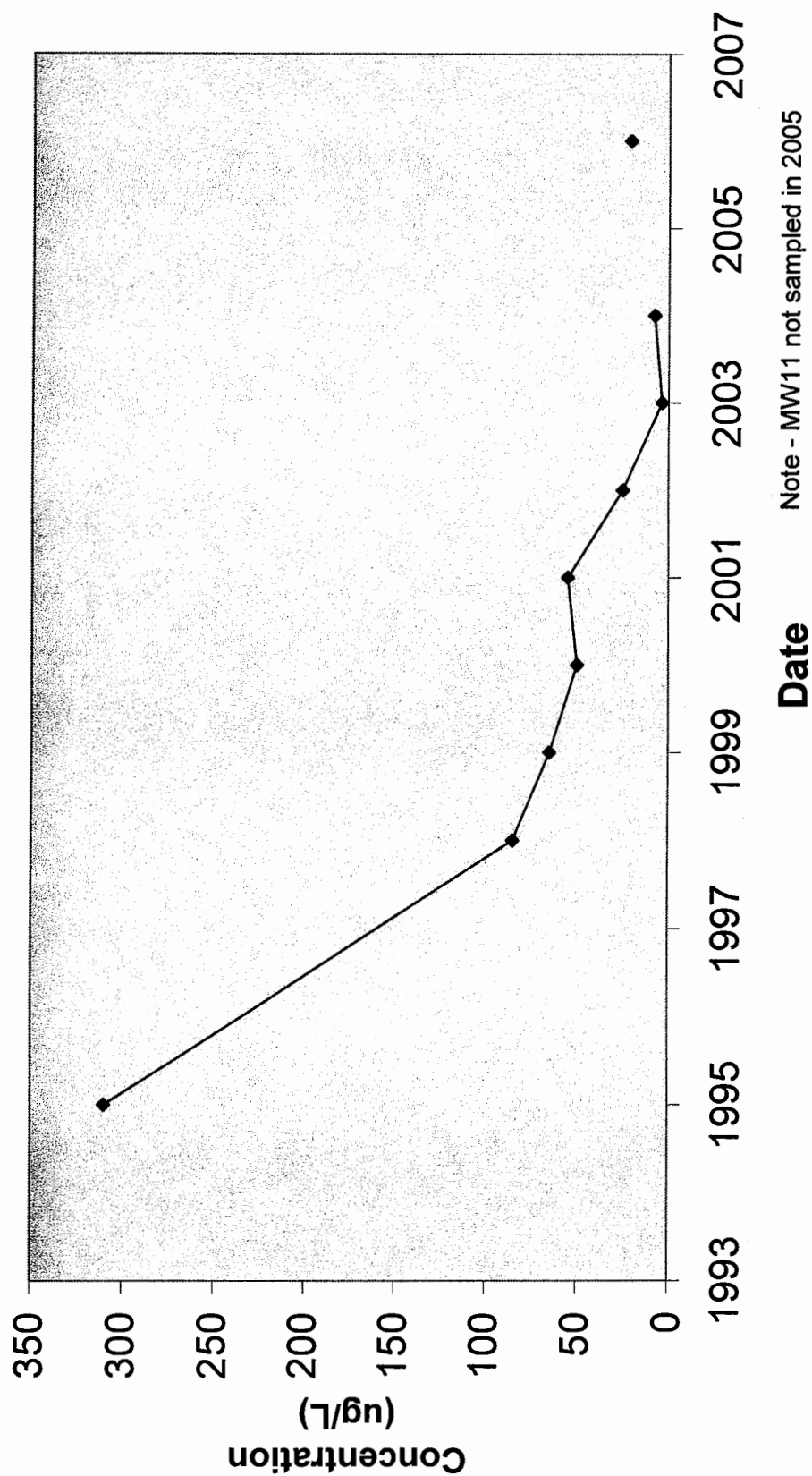


FIGURE 13

**Total BTEX Trend at MW11
LCH-4015**



APPENDIX A

HISTORICAL DATA AND FIGURES

CATLIN RAO & RCAP DATA

Figure 2 – System Layout
Risk and Land Use Form

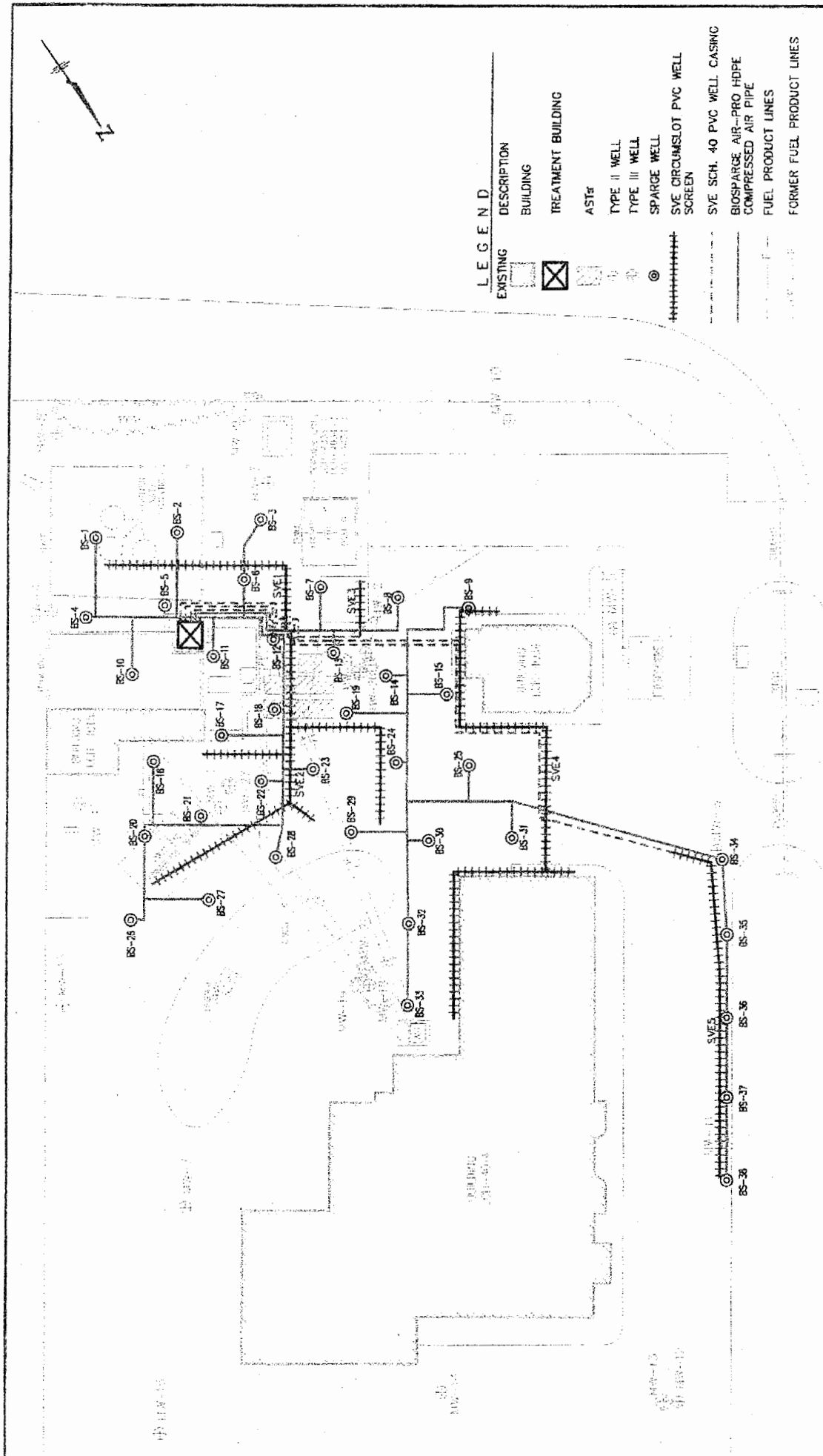
HISTORICAL GROUNDWATER QUALITY DATA

Law Data – 1995

JA Jones Data – 1998 – 2002

EEI Data 2003-2005

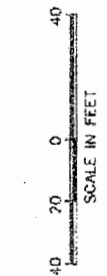
CATLIN RAO & RCAP DATA



LEGEND

EXISTING	DESCRIPTION
	BUILDING
	TREATMENT BUILDING
	AST
	TYPE II WELL
	TYPE III WELL
	SPARGE WELL
	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

- NOTES:**
1. DRAWING ADAPTED FROM SITE MAP/REMEDIATION SYSTEM LAYOUT BY J.A. JONES ENVIRONMENTAL SERVICES, DATED 10/14/96.
 2. TYPE III MONITORING WELL DEPTHS VARY. SEE WELL CONSTRUCTION DATA TABLE FOR SPECIFIC WELL INFORMATION.
 3. FORMER FUEL LINES AT BUILDING LCH-4015 ADAPTED FROM SITE MAP BY LAW ENGINEERING, DATED JUNE 1996.



PROJECT: LCH-4015
OPTIMIZATION PLAN
MARINE CORPS BASE
CAMP LEEUE, N.C.
DATE: 203053
DATE: FEB 2004

TITLE	SITE MAP WITH CURRENT REMEDIATION LAYOUT			FIGURE	2
SCALE	1"=40'	DRAWN BY	HCS	CHECKED BY	JKB

A. RISK CHARACTERIZATION

Submit the following questionnaire in its entirety. Answer all questions completely. Attach additional pages as needed to fully explain answers. Base answers/explanations on information known or required to be obtained during the Limited Site Assessment.

NOTE: Source area means point of release from a UST system.

Limited Site Assessment Risk Classification and Land Use Form

Part I - Groundwater/Surface Water/Vapor Impacts

High Risk

1. *Has the release contaminated any water supply well including any used for non-drinking purposes?* YES NO

No, according to MCB Camp Lejeune, the closest well is water supply well LCH 4009 (approximately 1,300 feet southeast of site) which does not have known contamination.
2. *Is a water supply well used for drinking water located within 1,000 feet of the source area of the discharge or release?* YES NO

No, according to water supply well data provided by MCB Camp Lejeune, there are no water supply wells located within 1,000 feet of the subject site.
3. *Is a water supply well not used for drinking water (e.g., irrigation, washing cars, industrial cooling water, filling swimming pools) located within 250 feet of the source area of the release?* YES NO

No, wells were not located within 250 feet of the source area of release.
4. *Does groundwater within 500 feet of the source area of the release have the potential for future use (there is no other source of water supply other than the groundwater)?* YES NO

No, there are an adequate number of locations for additional water supply wells to be installed on other portions of the base.
5. *Do vapors from the release pose a threat of explosion because of accumulation of the vapors in a confined space or pose any other serious threat to public health, public safety or the environment?* YES NO
If YES describe.

No, there is no evidence to suggest an accumulation of vapors and no evidence of accumulation has been reported. The area in the immediate vicinity of the plume is a parking lot and a slab-on-grade building.
6. *Are there any other factors that would cause the discharge or release to pose an* YES NO

*imminent danger to public health, public safety, or the environment?
If YES describe.*

No. Data collected during this investigation does not provide evidence to suggest other factors that would cause an imminent danger to public health, public safety or the environment.

Intermediate Risk

7. *Is a surface water body located within 500 feet of the source area of the discharge or release?* YES NO
If YES, does the maximum groundwater contaminant concentration exceed the surface water quality standards and criteria found in 15A NCAC 2B.0200 by a factor of 10? YES NO

No, surface water bodies have not been located within 500 feet of the subject site. The closest surface water body is an unnamed creek located at approximately 1,000 feet southeast of the site. Please note that a ditch was also located at approximately 500 feet southwest of the site that appears to typically have standing water present.

8. *Is the source area of the discharge or release located within an approved or planned wellhead protection area as defined in 42 USC 300h-7(e)?* YES NO
If YES describe.

Wellhead protection areas defined by 42 USC 300h-7(e) have not, as of this report, been designed by NCDENR for MCB, Camp Lejeune. However, MCB Camp Lejeune has identified well protection areas on the base. Based on the most recent Wellhead Protection Plan Update (2002) performed for MCB Camp Lejeune, the site is located within a potential wellhead protection area.

9. *Is the release located in the Coastal Plain physiographic region as designated on a map entitled "Geology of North Carolina" published by the Department in 1985?* YES NO
If YES, is the source area of the release located in an area in which there is recharge to an unconfined or semi-confined deeper aquifer that is being used or may be used as a source of drinking water? YES NO
If YES describe.

No, recharge to the lower portions of the aquifer does not appear to be significant in the area. Groundwater samples collected from 50 feet deep Type III monitoring wells at the site have historically been reported to be BDL for all parameters.

10. *Do the levels of groundwater contamination for any contaminant exceed the gross contamination levels established by the Department?* YES NO

No, all contaminant levels from the November 2003 sampling event were reported below the Gross Contaminant Levels established by the Department.

Part II - Land Use

Property Containing Source Area of Release

The questions below pertain to the property containing the source area of the release.

1. *Does the property contain one or more primary or secondary residences (permanent or temporary)?* YES NO
Describe.

No, the property does not contain any primary or secondary residences.

2. *Does the property contain a school, daycare center, hospital, playground, park, recreation area, church, nursing home, or other place of public assembly?* YES NO
Describe.

Yes, the property contains a community center, convenience store with gasoline/diesel dispensers, post office, YMCA, and laundromat.

3. *Does the property contain a commercial (e.g., retail, warehouse, office/business space, etc.) or industrial (e.g., manufacturing, utilities, industrial research and development, chemical/petroleum bulk storage, etc.) enterprise, an inactive commercial or industrial enterprise, or is the land undeveloped?* YES NO
Describe.

Yes, as mentioned above, the property contains active commercial enterprises. The property also contains three above ground storage tanks, which provide petroleum products to the previously referenced dispensers.

4. *Do children visit the property?* YES NO
Explain.

Yes, children visit the community center, convenience store, post office, YMCA, and laundromat.

- Is access to the property reliably restricted consistent with its use (e.g., by fences, security personnel or both)?* YES NO
Explain.

No, the property is open to the public with the exception of the AST's and remediation system.

5. *Do pavement, buildings, or other structures cap the contaminated soil?* YES NO
Describe.

Yes, the area that potentially has contaminated soil is capped with either parking lots or buildings.

If YES, what mechanisms are in place or can be put into place to ensure that the contaminated soil will remain capped in the foreseeable future?

As necessary, appropriate land use restrictions will insure that any potentially impacted soils will remain capped.

6. *What is the zoning status of the property?*

The MCB Camp Lejeune is not subject to local or county zoning requirements. The surrounding properties have been developed for military support purposes.

7. *Is the use of the property likely to change in the next 20 years?
Explain.*

YES NO

No, the designated use of military property is not likely to change within the foreseeable future.

Property Surrounding Source Area of Release

The questions below pertain to the area within 1500 feet of the source area of the release (excludes property containing source area of the release):

1. *What is the distance from the source area of the release to the nearest primary or secondary residence (permanent or temporary)?*

The closest residence is approximately 150 feet from the subject site.

2. *What is the distance from the source area of the release to the nearest school, daycare center, hospital, playground, park, recreation area, church, nursing home or other place of public assembly?*

As previously stated, the community center and YMCA are located on the subject property.

3. *What is the zoning status of properties in the surrounding area?*

As previously mentioned, the MCB Camp Lejeune is not subject to local or county zoning requirements.

4. *Briefly characterize the use and activities of the land in the surrounding area.*

The subject site is located in a mostly residential area.

B. RECEPTOR INFORMATION

1. Water Supply Wells

Physical reconnaissance and review of the Wellhead Protection Plan – 2002 Update prepared by AH Environmental indicated that there is one water supply well (LCH-4009) located within 1,500 feet of the subject site.

2. Public Water Supplies

Are public water supplies available within 1,500 feet of the source area of the release?

YES NO

If YES, where is the location of the nearest public water lines and the source(s) of the public water supply (indicate on map). Describe.

Public water is provided to buildings within 1,500 feet of the subject site by water mains which carry treated potable water. Potable water is supplied to the site and surrounding areas by the MCB water supply system. Potable water for Camp Lejeune is obtained from various water treatment facilities throughout the base. Groundwater obtained from the Castle Hayne Aquifer is the raw water source for the treatment facilities.

3. Surface Water

Identify all surface water bodies (e.g., ditch, pond, stream, lake, river) within 1,500 feet of the source area of the release. This information must be shown on the USGS topographic map.

The closest surface water body is an unnamed creek located at approximately 1,000 feet southeast of the site. Please note that a ditch was also located at approximately 500 feet southwest of the site that appears to typically have standing water present.

4. Wellhead Protection Areas

Identify all planned or approved wellhead protection areas (e.g., ditch, pond, stream, lake, river) within 1,500 feet of the source area of the release. This information must be shown on the USGS topographic map. Wellhead protection areas are defined in 42 USC 300h-7(e).

According to the Wellhead Protection Plan – 2002 Update prepared by AH Environmental Consultants, the site is located within a wellhead protection area.

5. Deep Aquifers in the Coastal Plain Physiographic Region

(Refer to page 19 of the guidelines) NOTE: This requirement only pertains to releases in the Coastal Plain physiographic region as designated on a map entitled "Geology of North Carolina" published by the Department in 1985.

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. Results of the groundwater analysis conducted on samples collected from the 50 feet deep Type III monitoring wells indicates that petroleum constituents have not impacted the deeper portions of the aquifer.

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 include the Surficial, Castle Hayne, Beaufort, Peedee, Black Creek, and upper and lower Cape Fear aquifers.

Aquifers below the surficial aquifer in the area typically include the Castle Hayne Aquifer, the Beaufort Aquifer, and the Peedee Aquifer, in order of increasing depth. Both the Beaufort and Peedee Aquifers contain saltwater in portions of the MCB Camp Lejeune and are not generally used for water supply. The Castle Hayne Aquifer contains freshwater and is the principal aquifer used in the area for water supply.

6. Subsurface Structures

Numerous underground utilities are present throughout the site. These utilities are located above the shallow groundwater table and are not considered potential receptors. Additionally, an active groundwater remediation system is currently in operation at the subject site.

7. Property Owners and Occupants

The subject site is owned and operated by the Commanding General – Marine Corps Base, Camp Lejeune.

HISTORICAL GROUNDWATER QUALITY DATA

LAW DATA - 1995

TABLE 5 Page 1 of 3
SUMMARY OF LABORATORY ANALYTICAL RESULTS
GROUNDWATER SAMPLES (HYDROPUNCH)
COMPREHENSIVE SITE ASSESSMENT REPORT
BUILDING LCH - 4015
CAMP LEJUNE, NORTH CAROLINA
LAW ENGINEERING JOB NO. 30740-5-0500/0096

PARAMETER	HYDROPUNCH # SCREENED INTERVAL (FT. BLS)	HP-1	HP-2	HP-3	HP-4	HP-5	HP-6	HP-7	N.C. GROUNDWATER STANDARDS
		6.0' - 9.0'	5.0' - 8.0'	5.0' - 8.0'	6.0' - 9.0'	6.0' - 9.0'	6.0' - 9.0'	6.0' - 9.0'	
		DATE SAMPLED	6/07/95	6/07/95	6/07/95	6/06/95	6/07/95	6/07/95	
EPA METHOD 602									
Benzene		ND	ND	ND	ND	ND	ND	ND	1
Toluene		ND	1.8	ND	ND	ND	0.6	ND	1000
Ethylbenzene		ND	ND	6.1	30.6	ND	ND	ND	29
Xylenes (Total)		ND	ND	ND	144	ND	ND	ND	530
Total BTEX Compounds		ND	1.8	6.1	174.6	ND	0.6	ND	*NA
EPA METHOD 610									
Naphthalene		ND	ND	ND	15.7	ND	ND	ND	21
Phenanthrene		ND	ND	ND	ND	ND	ND	ND	210
Anthracene		ND	ND	ND	ND	ND	ND	ND	**
Fluoranthene		ND	ND	ND	ND	ND	ND	ND	**
Pyrene		ND	ND	ND	ND	ND	ND	ND	**
Benzo(a)anthracene		ND	ND	ND	ND	ND	ND	ND	**
Fluorene		ND	ND	ND	ND	ND	ND	ND	280
Acenaphthene		ND	ND	ND	ND	ND	ND	ND	**
Total EPA 610 Compounds		ND	ND	ND	15.7	ND	ND	ND	*NA

ND Not detected at laboratory method detection limit for test.
BLS Below Land Surface.
** Maximum allowable concentration is the laboratory method detection limit (see laboratory reports).
*NA Not Applicable
Bolded Text & Shaded areas - Concentration is above NC Groundwater Standards.

TABLE 5 (Page 2 of 3)
 SUMMARY OF LABORATORY ANALYTICAL RESULTS
 GROUNDWATER SAMPLES (HYDROPUNCH)
 COMPREHENSIVE SITE ASSESSMENT REPORT
 BUILDING LCH - 4015
 CAMP LEJEUNE, NORTH CAROLINA
 LAW ENGINEERING JOB NO. 30740-S-0500/0096

PARAMETER	HYDROPUNCH #	HP-8	HP-9	HP-10	HP-11	HP-12	HP-13	N.C. GROUNDWATER STANDARDS
		5.0' - 8.0'	6.0' - 9.0'	5.0' - 8.0'	5.0' - 8.0'	5.0' - 8.0'	5.0' - 8.0'	
	DATE SAMPLED	6/08/95	6/08/95	6/06/95	6/07/95	6/09/95	6/09/95	
EPA METHOD 602 COMPOUNDS DETECTED								
Benzene		ND	8.9	ND	10,600	ND	ND	1
Toluene		2.0	ND	ND	534	ND	ND	1000
Ethylbenzene		ND	109	843	2,960	ND	ND	29
Xylenes (Total)		ND	19.3	3,680	9,370	ND	ND	530
Total BTEX Compounds		2.0	137.2	4,523	23,464	ND	ND	*NA
EPA METHOD 610 COMPOUNDS DETECTED								
Naphthalene		ND	232+	117+	306+	49.2	ND	21
Phenanthrene		ND	17.0	1.2	0.9	ND	ND	210
Anthracene		1.9	9.9	ND	ND	ND	ND	**
Fluoranthene		ND	1.7	ND	ND	3.3	ND	**
Pyrene		0.9	ND	ND	ND	ND	ND	**
Benzo(a)anthracene		ND	ND	ND	ND	ND	ND	**
Fluorene		ND	14.3	ND	ND	ND	ND	280
Acenaphthene		ND	ND	ND	ND	ND	ND	**
Total EPA Method 610 Compounds		2.8	274.9	118.2	306.9	52.5	ND	*NA

ND Not detected at laboratory method detection limit for test.

BLS Below Land Surface.

** Maximum allowable concentration is the laboratory method detection limit (see laboratory reports).

*NA Not Applicable

Bolded Text & Shaded areas - Concentration is above NC Groundwater Standards.

+ According to GeoChem the sample analyte exceeded calibration curve by > 20%. The values reported are considered minimum.

TABLE 5 Page 3 of 3)

SUMMARY OF LABORATORY ANALYTICAL RESULTS
GROUNDWATER SAMPLES (HYDROPUNCH)
COMPREHENSIVE SITE ASSESSMENT REPORT
BUILDING LCH - 4015
CAMP LEEJUNE, NORTH CAROLINA
LAW ENGINEERING JOB NO. 30740-5-0500/0096

PARAMETER	HYDROPUNCH #	HP-14 5.0' - 8.0'	HP-15 5.0' - 8.0'	LAB BLANK	LAB BLANK	N.C. GROUNDWATER STANDARDS
	SCREENED INTERVAL (FT.)					
	DATE SAMPLED	6/09/95	6/09/95	6/09/95	6/09/95	
EPA METHOD 602						
Benzene		ND	ND	ND	ND	1
Toluene		ND	ND	ND	ND	1000
Ethylbenzene		ND	ND	ND	ND	29
Xylenes (Total)		ND	ND	ND	ND	530
Total BTEX Compounds		ND	ND	ND	ND	*NA
EPA METHOD 610						
Naphthalene		ND	434	ND	ND	21
Phenanthrene	1.2		308	ND	ND	210
Anthracene	ND		50.1	ND	ND	**
Fluoranthene	ND		ND	ND	ND	**
Pyrene	ND		ND	ND	ND	**
Benzo(a)anthracene	ND		ND	ND	1.3	**
Fluorene	ND		530	ND	ND	280
Acenaphthene	ND		56.4	ND	ND	**
Total EPA Methods 610 Compounds	1.2		1,378.5	ND	1.3	*NA

ND Not detected at laboratory method detection limit for test.

BLS Below Land Surface.

** Maximum allowable concentration is the laboratory method detection limit (see laboratory reports).

*NA Not Applicable

Bolded Text & Shaded areas - Concentration is above NC Groundwater Standards.

TABLE 5.3 Page 1 of 2
SUMMARY OF LABORATORY ANALYTICAL RESULTS (ug/L), GROUNDWATER SAMPLES
COMPREHENSIVE SITE ASSESSMENT REPORT
BUILDING LCH-015
MARINE CORPS BASE, CAMP LEWINE, NORTH CAROLINA
LAW ENGINEERING JOB NO. 97/06-5-450/IT/ass 0096

PARAMETER	WELL #	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12	MW-13 (Type 3)	MW-14	N.C. GROUNDWATER STANDARDS (ug/L)
	DATE SAMPLED	6/6/95 7/6/95	6/6/95 7/6/95	6/6/95 7/6/95	6/6/95 7/6/95	6/6/95 7/6/95	7/6/95	7/6/95	7/6/95	7/6/95	7/6/95	7/6/95	7/6/95	7/6/95	7/6/95	7/6/95
EPA METHOD 602 - Volatile Aromatics																
Benzene		8830.0	5310.0	2.9	9.9	0.4	0.2	0.2	0.2	0.2	ND	20.5	0.3	0.2	ND	1
1,2-Dichlorobenzene		1.2	1.5	0.2	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	620
Toluene		256.0	179.0	0.9	3.4	0.4	ND	ND	0.5	0.2	ND	ND	0.3	0.5	ND	1000
Ethylbenzene		1910.0	2070.0	5.8	188.0	0.2	1.4	ND	0.2	ND	ND	114	ND	ND	ND	29
Total Xylenes		1690.0	9980.0	12.7	190.0	4.1	0.3	ND	ND	0.3	ND	179	ND	0.9	ND	530
TOTAL BTEX		12706.0	17519	22.3	391.4	5.1	2.0	ND	0.9	1.0	ND	313.5	0.6	1.6	ND	
Methyl tert-butyl ether		236	ND	20.4	ND	ND	ND	ND	ND	6.2	ND	ND	ND	ND	ND	200
EPA METHOD 610 - Polynuclear Aromatic Compounds																
Naphthalene		574	272	11.0	58.9	ND	ND	ND	3.6	4.8	ND	375.0	ND	ND	ND	21
1-Methylnaphthalene		47.6	27.2	ND	18.3	ND	16.9	ND	2.0	ND	ND	271.0	ND	ND	ND	**
2-Methylnaphthalene		88.4	36.1	ND	11.5	ND	11.7	ND	ND	ND	ND	345.0	ND	ND	ND	**
Phenanthrene		ND	ND	ND	ND	ND	7.1	ND	ND	ND	ND	24.7	ND	ND	ND	210
Anthracene		ND	ND	ND	10.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**
Benzo(b)fluoranthene		2.10	1.96	ND	1.79	ND	ND	ND	ND	ND	ND	ND	ND	ND	9.4	**
Fluorene		ND	ND	ND	ND	ND	5.0	ND	ND	ND	ND	14.3	ND	ND	ND	280
Pyrene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**
Acenaphthene		ND	ND	ND	ND	ND	6.37	ND	ND	ND	ND	15.2	ND	ND	ND	**
Fluoranthene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**
Total Method 610 Compounds		662.1	337.3	11.0	103.5	ND	47.3	ND	5.6	4.8	ND	922.2	ND	ND	9.4	
EPA METHOD 625 Semi-volatile Organic Compounds (Base Neutrals Only) - Performed on MW-4, MW-2, and Purge Water Samples only (Only 3 analyses authorized in Delivery Order #55)																
Naphthalene		677	315	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21
EPA METHOD 239.2 Total Lead																
Lead		18.6	ND	42.7	2.1	ND	2.1	12.7	9.4	2.9	16.9	2.7	10.4	ND	6.87	15

BLS - Below land surface
ND - Not Detected
NA - Not Analyzed
** Maximum allowable concentration is the minimum laboratory detection limit.
Shaded area - Concentration is above N.C. Groundwater Standards.

TABLE 2 of 2
SUMMARY OF LABORATORY ANALYTICAL RESULTS (4/7/1)
GROUNDWATER SAMPLES
BUILDING LCH-015
MARINE CORPS BASE, CAMP LEWIS, NORTH CAROLINA
LAB ENGINEERING JOB NO. 37442-5507 Phase 004

PARAMETER	WELL #	MW-15	MW-16	MW-17	MW-18	MW-19	MW-20	MW-22 Duplicate Sample (Non MW12)	MWRB (Blank Blank 1)	Title Blank 1	Blank 2	Title Blank 2 & Blank 1 (after /)	Trig Blank 6545 (after /)	Trig Blank 6545 & 6545 (after /)	PURGE WATER SAMPLE	N.C. GROUNDWATER STANDARDS (ug/L)
EPA METHOD 602 - Volatile Aromatics																
Benzene		0.2	0.3	ND	0.3	ND	0.4	0.2	ND	ND	ND	ND/ND	7/6/95	ND/ND	1410	1
1,2-Dichlorobenzene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND/ND	7/6/95	ND/ND	ND	620
Toluene		ND	0.2	ND	0.2	0.9	1.0	0.3	0.2	0.5 ++	ND	ND/ND	7/6/95	ND/ND	3150	1000
Ethylbenzene		ND	ND	ND	5.7	0.5	0.4	ND	ND	0.2 ++	ND	ND/ND	7/6/95	ND/ND	570	29
Total Xylenes		ND	ND	ND	1.0	1.9	1.8	0.3	ND	ND	ND	ND/ND	7/6/95	ND/ND	2810	530
TOTAL BTEX		0.2	0.5	ND	ND	3.3	3.6	0.8	0.2	0.7 ++	ND	ND/ND	7/6/95	ND/ND	ND	* NA
Methyl tert-butyl ether		1.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND/ND	7/6/95	ND/ND	ND	200
EPA METHOD 610 - Polynuclear Aromatic Compounds																
Naphthalene		ND	ND	ND	1.5	ND	ND	ND	ND	ND	ND	ND/ND	7/6/95	ND/ND	NA	21
1-Methylnaphthalene		ND	ND	ND	16.4	3.8	ND	ND	ND	ND	ND	ND/ND	7/6/95	ND/ND	ND	**
2-Methylnaphthalene		ND	ND	ND	17.8	ND	ND	ND	ND	ND	ND	ND/ND	7/6/95	ND/ND	ND	**
Phenanthrene		ND	ND	ND	9.1	ND	ND	ND	ND	ND	ND	ND/ND	7/6/95	ND/ND	ND	210
Anthracene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND/ND	7/6/95	ND/ND	ND	**
Benzo(k)fluoranthene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND/ND	7/6/95	ND/ND	9.4	**
Fluorene		ND	ND	ND	6.1	ND	ND	ND	ND	ND	ND	ND/ND	7/6/95	ND/ND	ND	280
Pyrene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND/ND	7/6/95	ND/ND	ND	**
Acenaphthene		ND	ND	ND	7.9	3.3	ND	ND	ND	ND	ND	ND/ND	7/6/95	ND/ND	ND	**
Fluoranthene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND/ND	7/6/95	ND/ND	ND	**
Total Method 610 Compounds		ND	ND	ND	59.2	7.1	ND	ND	ND	ND	ND	ND/ND	7/6/95	ND/ND	9.4	
EPA METHOD 219.2 Total Lead																
Lead		9.8	11.3	13.2		2.2	20.6	25.0	ND	NA	2.8	3.0	NA	ND	6.87	15

BLS - Below land surface
ND, NA - Not Detected, Not Analyzed
** Maximum allowable concentration is the minimum laboratory detection limit.
Shaded area - Concentration is above N.C. Groundwater Standards.

JA JONES DATA – 1998-2002

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCH-4015
Camp Lejeune, North Carolina

Parameter		NCDNR Regulatory Limit	Sample Location		MW-01					
			Sample ID	Sample Date	USTLCH4015-MW01-02D	USTLCH4015-MW01-02C	USTLCH4015-MW01-02B	USTLCH4015-MW01-02A	USTLCH4015-MW01-01D	USTLCH4015-MW01-01C
Volatile Aromatic Hydrocarbons by USEPA method 602, ug/L					11/14/2002 *	8/13/2002 *	5/22/2002 *	2/21/2002 *	11/19/2001 #	8/14/2001 #
	Benzene	1			150	230	216	170	360	440
	Ethylbenzene	29			330	620	740	460	590	870
	Toluene	1000			21	27	41	80	86	69
	Methyl-tert-butyl ether	200			BQL	BQL	BQL	BQL	BQL	BQL
	Total Xylenes	530			493	590	1,010	1,060	1,570	1,300
Polynuclear Aromatic Hydrocarbons by USEPA method 625/8270C, ug/L										
	Naphthalene	21			150	300	280	200	230	320
	Acenaphthene	80			BQL	BQL	BQL	BQL	BQL	BQL
	Fluorene	280			BQL	BQL	BQL	BQL	BQL	BQL
	Phenanthrene	210			BQL	BQL	BQL	BQL	BQL	BQL
	1-Methylnaphthalene	Detection Limit			23	31	46	23	29	37
	2-Methylnaphthalene	28			45	58	65	41	57	71

Notes:

NA indicates the sample was not analyzed for this constituent.
Bold type indicates detected concentrations above laboratory quantitation limits.
Detected concentrations above the regulatory limits are indicated by shading.
BQL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCH-4015
Camp Lejeune, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location Sample ID Sample Date	MW-01						
			USTLCH4015-MW01-01B 5/23/2001 *#	USTLCH4015-MW01-01A 2/20/2001 *#	USTLCH4015-MW01-00D 11/27/2000 *#	USTLCH4015-MW01-00C 8/22/2000 *#	USTLCH4015-MW01-00B 5/24/2000 *#	USTLCH4015-MW01-00A 2/22/2000 *#	
Benzene	1		340	516	590	590	300	410	
Ethylbenzene	29		770	928	1,000	1,000	1,100	630	
Toluene	1000		190	340	180	140	210	320	
Methyl-tert-butyl ether	200		BQL	BQL	BQL	BQL	BQL	BQL	
Total Xylenes	530		1,700	1,900	2,400	1,730	2,250	1,540	
Polynuclear Aromatic Hydrocarbons by USEPA method 625/627/6C, ug/L									
Naphthalene	21		210	270	250	290	220	160	
Acenaphthene	80		BQL	BQL	BQL	BQL	BQL	BQL	
Fluorene	280		BQL	BQL	BQL	BQL	BQL	BQL	
Phenanthrene	210		BQL	BQL	BQL	BQL	BQL	BQL	
1-Methylnaphthalene	Detection Limit		90	370	41	43	48	24	
2-Methylnaphthalene	28		54	55	66	77	67	36	

Notes:

NA indicates the sample was not analyzed for this constituent.
Bold type indicates detected concentrations above laboratory quantitation limits.
Detected concentrations above the regulatory limits are indicated by shading.
BOL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCH-4015
Camp Lejeune, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location Sample ID Sample Date	MW-01					
			USTLCH4015-MW01-99D 11/23/1999	USTLCH4015-MW01-99C 8/19/1999 *#	USTLCH4015-MW01-99B 5/26/1999 *#	USTLCH4015-MW01-99A2 2/23/1999 *	USTLCH4015-MW01-99A 1/26/1999 *	USTLCH4015-MW01-98D3 12/28/1998
Volatile Aromatic Hydrocarbons by USEPA method 602, ug/L								
Benzene	1		590	1,400	1,200	1,900	1,600	2,200
Ethylbenzene	29		970	1,600	1,700	2,100	1,700	2,100
Toluene	1000		440	680	1,600	4,500	3,100	3,200
Methyl-tert-butyl ether	200		BOL	BOL	BOL	BOL	BOL	BOL
Total Xylenes	530		2,040	3,500	5,300	8,100	7,000	6,800
Polynuclear Aromatic Hydrocarbons by USEPA method 625/8270C, ug/L								
Naphthalene	21		228	300	350	160	440	450
Acenaphthene	80		BOL	BOL	BOL	BOL	BOL	BOL
Fluorene	280		BOL	BOL	BOL	BOL	BOL	BOL
Phenanthrene	210		BOL	BOL	BOL	BOL	BOL	BOL
1-Methylnaphthalene	Detection Limit		46	57	75	29	50	50
2-Methylnaphthalene	28		61	95	130	52	80	98

NOTES:

NA indicates the sample was not analyzed for this constituent.
Bold type indicates detected concentrations above laboratory quantitation limits.
Detected concentrations above the regulatory limits are indicated by shading.
BOL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCH-4015
Camp Lejeune, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location Sample ID Sample Date	MW-02					
			MW-01 USTLCH4015-MW01-98C2 8/4/1998	USTLCH4015-MW02-02D 11/14/2002 #	USTLCH4015-MW02-02C 8/13/2002 *#	USTLCH4015-MW02-02B 5/22/2002 *#	USTLCH4015-MW02-02A 2/21/2002 *#	USTLCH4015-MW02-01D 11/19/2001 #
Volatile Aromatic Hydrocarbons by USEPA method 602, ug/L								
Benzene	1		3,400	87	250	400	830	550
Ethylbenzene	29		2,000	72	110	140	140	150
Toluene	1000		3,000	11	17	BQL	92	19
Methyl-tert-butyl ether	200		BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530		6,400	340	510	440	140	1,100
Polynuclear Aromatic Hydrocarbons by USEPA method 625/8270C, ug/L								
Naphthalene	21		460	160	190	190	35	68
Acenaphthene	80		BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280		BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210		BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit		60	13	12	16	BQL	BQL
2-Methylnaphthalene	28		64	15	13	16	BQL	BQL

Notes:

- NA indicates the sample was not analyzed for this constituent.
- Bold type indicates detected concentrations above laboratory quantitation limits.
- Detected concentrations above the regulatory limits are indicated by shading.
- BQL = Below Laboratory Quantitation Limit
- * verified with laboratory data package
- # verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCH-4015
Camp Lejeune, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location Sample ID Sample Date	MW-02					
			USTLCH4015-MW02-01C 8/1/2001 *#	USTLCH4015-MW02-01B 5/23/2001 *#	USTLCH4015-MW02-01A 2/20/2001 *#	USTLCH4015-MW02-00D 11/27/2000 *#	USTLCH4015-MW02-00C 8/23/2000 *#	USTLCH4015-MW02-00B 5/24/2000 *#
Volatile Aromatic Hydrocarbons by USEPA method 602, ug/L								
Benzene	1		110	85	26	5	3	36
Ethylbenzene	29		79	7	BQL	2		BQL
Toluene	1000		BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether	200		BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530		540	BQL	BQL	BQL	BQL	BQL
Polynuclear Aromatic Hydrocarbons by USEPA method 6258270C, ug/L								
Naphthalene	21		54	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80		BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280		BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210		BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit		BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28		BQL	BQL	BQL	BQL	BQL	BQL

Notes:

NA indicates the sample was not analyzed for this constituent.
Bold type indicates detected concentrations above laboratory quantitation limits.
Detected concentrations above the regulatory limits are indicated by shading.
BQL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCH-4015
Camp Lejeune, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location Sample ID Sample Date	MW-02					
			USTLCH4015-MW02-00A	USTLCH4015-MW02-99D	USTLCH4015-MW02-99C	USTLCH4015-MW02-99B	USTLCH4015-MW02-99A2	USTLCH4015-MW02-99A
Volatiles Aromatic Hydrocarbons by USEPA method 802, ug/L			2/22/2000 *#	11/23/1999	8/19/1999 *#	5/26/1999 *#	2/24/1999 *	1/26/1999 *
Benzene	1		BQL	130	5,000	1,200	5,400	1,900
Ethylbenzene	29		BQL	14	720	7,200	340	170
Toluene	1000		BQL	BQL	BQL	BQL	BQL	840
Methyl-tert-butyl ether	200		BQL	BQL	BQL	BQL	BQL	590
Total Xylenes	530		BQL	BQL	1,200	730	580	800
Polynuclear Aromatic Hydrocarbons by USEPA method 625/8270C, ug/L								
Naphthalene	21		BQL	19	190	3%	62	110
Acenaphthene	80		BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280		BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210		BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit		BQL	BQL	24	BQL	BQL	BQL
2-Methylnaphthalene	28		BQL	BQL	27	BQL	BQL	14

Notes:

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Bold type indicates detected concentrations above laboratory quantitation limits.
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BQL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCH-4015
Camp Lejeune, North Carolina

Parameter		NCDENR Regulatory Limit	Sample Location Sample ID Sample Date	MW-02		MW-03					
				USTLCH4015-MW02-98D3 12/28/1998	USTLCH4015-MW02-98C2 8/4/1998	USTLCH4015-MW03-02D 11/14/2002 #	USTLCH4015-MW03-02C 8/13/2002 **	USTLCH4015-MW03-02B 5/22/2002 **	USTLCH4015-MW03-02A 2/21/2002 **		
Volatile Aromatic Hydrocarbons by USEPA method 602, ug/L											
Benzene	1			2,600	4,500	7	75	140	210		
Ethylbenzene	29			BQL	270	7	23	56	84		
Toluene	1000			BQL	BQL	BQL	BQL	BQL	BQL		
Methyl-tert-butyl ether	200			BQL	BQL	13	13	BQL	37		
Total Xylenes	530			BQL	1,300	BQL	BQL	16	33		
Polynuclear Aromatic Hydrocarbons by USEPA method 625/8270C, ug/L											
Naphthalene	21			69	260	BQL	17	40	57		
Acenaphthene	80			BQL	BQL	BQL	BQL	BQL	BQL		
Fluorene	280			BQL	BQL	BQL	BQL	BQL	BQL		
Phenanthrene	210			BQL	BQL	BQL	BQL	BQL	BQL		
1-Methylnaphthalene	Detection Limit			BQL	25	17	24	26	27		
2-Methylnaphthalene	28			BQL	46	16	22	BQL	BQL		

NOTES:

NA indicates the sample was not analyzed for this constituent.

Bold type indicates detected concentrations above laboratory quantitation limits.

Detected concentrations above the regulatory limits are indicated by shading.

BQL = Below Laboratory Quantitation Limit

* verified with laboratory data package

verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCH-4015
Camp Lejeune, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location Sample ID Sample Date	MW-03					
			USTLCH4015-MW03-01D 11/19/2001 #	USTLCH4015-MW03-01C 8/14/2001 *#	USTLCH4015-MW03-01B 5/23/2001 *#	USTLCH4015-MW03-01A 2/20/2001 *#	USTLCH4015-MW03-00D 11/27/2000 *#	USTLCH4015-MW03-00C 8/22/2000 *#
Volatile Aromatic Hydrocarbons by USEPA method 602, ug/L								
Benzene	1		230	230	230	530	590	440
Ethylbenzene	29		160	360	410	440	570	590
Toluene	1000		8		BQL	51	57	55
Methyl-tert-butyl ether	200		35	49	190	BQL	BQL	BQL
Total Xylenes	530		53	130	160	290	220	400
Polynuclear Aromatic Hydrocarbons by USEPA method 625/8270C, ug/L								
Naphthalene	21		66	94	65	85	140	86
Acenaphthene	80		BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280		BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210		BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit		36	41	37	33	59	37
2-Methylnaphthalene	28		BQL	10	14	14	31	BQL

Notes:

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- Bold type indicates detected concentrations above laboratory quantitation limits.
- Detected concentrations above the regulatory limits are indicated by shading.
- BQL = Below Laboratory Quantitation Limit
- * verified with laboratory data package
- # verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCH-4015
Camp Lejeune, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location Sample ID Sample Date	MW-03					
			USTLCH4015-MW03-00B 5/24/2000 *#	USTLCH4015-MW03-00A 2/22/2000 *#	USTLCH4015-MW03-99D 11/23/1999	USTLCH4015-MW03-99C 8/19/1999 *#	USTLCH4015-MW03-99B 5/26/1999 *#	USTLCH4015-MW03-99A2 2/24/1999 *
Volatile Aromatic Hydrocarbons by USEPA method 602, ug/L								
Benzene	1		570	760	819	1,500	2,400	1,500
Ethylbenzene	29		430	290	580	700	530	140
Toluene	1000		87	170	100	260	810	570
Methyl-tert-butyl ether	200		62	100	BOL	BOL	BOL	320
Total Xylenes	530		360	390	720	2,300	1,600	530
Polynuclear Aromatic Hydrocarbons by USEPA method 625/8270C, ug/L								
Naphthalene	21		BOL	45	54	58	65	19
Acenaphthene	80		BOL	BOL	BOL	BOL	BOL	BOL
Fluorene	280		BOL	BOL	BOL	BOL	BOL	BOL
Phenanthrene	210		BOL	BOL	BOL	BOL	BOL	BOL
1-Methylphenanthrene	Detection Limit		BOL	71	19	21	22	BOL
2-Methylphenanthrene	28		BOL	BOL	BOL	BOL	BOL	BOL

Notes:

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Bold type indicates detected concentrations above laboratory quantization limits.

Detected concentrations above the regulatory limits are indicated by shading.

BOL = Below Laboratory Quantitation Limit

* verified with laboratory data package

verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCH-4015
Camp Lejeune, North Carolina

Parameter	NCDNR Regulatory Limit	Sample Location Sample ID Sample Date	MW-03		MW-04			
			USTLCH4015-MW03-99A	USTLCH4015-MW03-98D3	USTLCH4015-MW03-98C2	USTLCH4015-MW04-02C	USTLCH4015-MW04-02A	USTLCH4015-MW04-02A
Volatile Aromatic Hydrocarbons by USEPA method 602, ug/L			1/26/1999 *	1/28/1998	8/4/1998	8/13/2002 *#	2/26/2002 *#	2/21/2002 *#
Benzene	1		1,100	2,200	2,400	BQL	NA	BQL
Ethylbenzene	29		BQL	290	BOL	1	NA	6
Toluene	1000		360	980	3,000	BQL	NA	BQL
Methyl-tert-butyl ether	200		330	BOL	760	BQL	NA	BQL
Total Xylenes	530		200	1,300	BQL	BQL	NA	7
Polynuclear Aromatic Hydrocarbons by USEPA method 625/827/9C, ug/L								
Naphthalene	21		30	59	31	BQL	BQL	NA
Acenaphthene	80		BQL	BQL	BQL	BQL	BQL	NA
Fluorene	280		BQL	BOL	BOL	BQL	BQL	NA
Phenanthrene	210		BQL	BQL	BQL	BQL	BQL	NA
1-Methylnaphthalene	Detection Limit		BQL	BOL	BOL	BQL	BQL	NA
2-Methylnaphthalene	28		BQL	BOL	BOL	BQL	BQL	NA

Notes:

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 Bold type indicates detected concentrations above laboratory quantitation limits.
 Detected concentrations above the regulatory limits are indicated by shading.
 BQL = Below Laboratory Quantitation Limit
 * verified with laboratory data package
 # verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCH-4015
Camp Lejeune, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location Sample ID Sample Date	MW-04					
			USTLCH4015-MW04-01C	USTLCH4015-MW04-01A	USTLCH4015-MW04-00C	USTLCH4015-MW04-00A	USTLCH4015-MW04-99D	USTLCH4015-MW04-99C
Volatiles Aromatic Hydrocarbons by USEPA method 602, ug/L			8/14/2001 *#	2/20/2001 *#	8/22/2000 *#	2/22/2000 *#	11/23/1999	8/19/1999 *#
Benzene	1		BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29		7	2	5	7	7	14
Toluene	1000		BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether	200		BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530		8	2	4	6	8	16
Polynuclear Aromatic Hydrocarbons by USEPA method 625/8270C, ug/L								
Naphthalene	21		17	BQL	BQL	BQL	BQL	20
Acenaphthene	80		BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280		BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210		BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit		BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28		BQL	BQL	BQL	BQL	BQL	BQL

Notes:

NA indicates the sample was not analyzed for this constituent.

Bold type indicates detected concentrations above laboratory quantitation limits.

Detected concentrations above the regulatory limits are indicated by shading.

BQL = Below Laboratory Quantitation Limit

* verified with laboratory data package

verified with electronic data deliverables

Table 3-1 (continued)

Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCH-4015
Camp Lejeune, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location Sample ID Sample Date	MW-04				MW-05
			USTLCH4015-MW04-99B	USTLCH4015-MW04-99A2	USTLCH4015-MW04-99A	USTLCH4015-MW04-98D3	USTLCH4015-MW04-98C2
Volatiles Aromatic Hydrocarbons by USEPA method 602, ug/L			5/26/1999 #	2/23/1999 *	1/26/1999 *	12/28/1998	8/4/1998
Benzene	1		BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29		12	8	11	11	23
Toluene	1000		BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether	200		BQL	BQL	BQL	BQL	BQL
Total Xylenes	530		15	9	12	11	23
Polynuclear Aromatic Hydrocarbons by USEPA method 625/627/6C, ug/L							
Naphthalene	21		13	BQL	BQL	BQL	14
Acenaphthene	80		BQL	BQL	BQL	BQL	BQL
Fluorene	280		BQL	BQL	BQL	BQL	BQL
Phenanthrene	210		BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit		BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28		BQL	BQL	BQL	BQL	BQL

Notes:

NA indicates the sample was not analyzed for this constituent.

Bold type indicates detected concentrations above laboratory quantitation limits.

Detected concentrations above the regulatory limits are indicated by shading.

BQL = Below Laboratory Quantitation Limit

* verified with laboratory data package

verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCH-4015
Camp Lejeune, North Carolina

Parameter	NCDEMR Regulatory Limit	Sample Location Sample ID Sample Date	MW-05					
			USTLCH4015-MW05-02C	USTLCH4015-MW05-02B	USTLCH4015-MW05-02A	USTLCH4015-MW05-01D	USTLCH4015-MW05-01C	USTLCH4015-MW05-01B
Volatile Aromatic Hydrocarbons by USEPA method 602, ug/L			8/13/2002 *#	5/22/2002 *#	2/21/2002 *#	11/19/2001 #	8/14/2001 *#	5/23/2001 *#
Benzene	1		BQL			BQL	BQL	BQL
Ethylbenzene	29		BQL	4	BQL	BQL	BQL	BQL
Toluene	1000		BQL	66	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether	200		5	94	BQL	BQL	BQL	BQL
Total Xylenes	530		BQL	24	BQL	BQL	BQL	BQL
Polynuclear Aromatic Hydrocarbons by USEPA method 625/827/0C, ug/L								
Naphthalene	21		BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80		BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280		BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210		BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit		BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28		BQL	BQL	BQL	BQL	BQL	BQL

Notes:

NA indicates the sample was not analyzed for this constituent.
Bold type indicates detected concentrations above laboratory quantitation limits.
Detected concentrations above the regulatory limits are indicated by shading.
BQL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCH-4015
Camp Lejeune, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location Sample ID Sample Date	MW-05					
			USTLCH4015-MW05-01A 2/20/2001 *	USTLCH4015-MW05-00D 11/27/2000 *	USTLCH4015-MW05-00C 8/22/2000 *	USTLCH4015-MW05-00B 5/24/2000 *	USTLCH4015-MW05-00A 2/23/2000 #	USTLCH4015-MW05-99D 11/23/1999
Volatile Aromatic Hydrocarbons by USEPA method 603, ug/L								
Benzene	1		2	18	BQL	BQL	2	16
Ethylbenzene	29			25	BQL	BQL	27	140
Toluene	1000		BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether	200		8	224	3	13	34	72
Total Xylenes	530		4	223	BQL	BQL	BQL	BQL
Polynuclear Aromatic Hydrocarbons by USEPA method 625/8270C, ug/L								
Naphthalene	21		BQL	BQL	BQL	BQL	BQL	13
Acenaphthene	80		BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280		BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210		BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit		BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28		BQL	BQL	BQL	BQL	BQL	BQL

Notes:

NA indicates the sample was not analyzed for this constituent.
Bold type indicates detected concentrations above laboratory quantitation limits.
Detected concentrations above the regulatory limits are indicated by shading.
BQL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCH-4015
Camp Lejeune, North Carolina

Parameter		Sample Location Sample ID Sample Date	MW-05					
Regulatory Limit			USTLCH4015-MW05-99C 8/19/1999 #	USTLCH4015-MW05-99B 5/26/1999 #	USTLCH4015-MW05-99A2 2/23/1999 *	USTLCH4015-MW05-99A 1/26/1999 *	USTLCH4015-MW05-98D3 12/28/1998	USTLCH4015-MW05-98C2 8/4/1998
Volatile Aromatic Hydrocarbons by USEPA method 602, ug/L								
Benzene	1		BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29		BQL	BQL	BQL	BQL	BQL	BQL
Toluene	1000		BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether	200		BQL	7	24	17	7	79
Total Xylenes	530		BQL	BQL	BQL	BQL	BQL	49
Polynuclear Aromatic Hydrocarbons by USEPA method 625/8270C, ug/L								
Naphthalene	21		BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80		BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280		BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210		BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit		BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28		BQL	BQL	BQL	BQL	BQL	BQL

Notes:

- NA indicates the sample was not analyzed for this constituent.
- Bold type indicates detected concentrations above laboratory quantization limits.
- Detected concentrations above the regulatory limits are indicated by shading.
- BQL = Below Laboratory Quantization Limit
- * verified with laboratory data package
- # verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCH-4015
Camp Lejeune, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location Sample ID Sample Date	MW 06					
			USTLCH4015-MW06-02C	USTLCH4015-MW06-02A	USTLCH4015-MW06-01C	USTLCH4015-MW06-01A	USTLCH4015-MW06-00C	USTLCH4015-MW06-00A
Volatile Aromatic Hydrocarbons by USEPA method 602, ug/L			8/14/2002 *#	2/21/2002 *#	8/14/2001 *#	2/20/2001 *#	8/23/2000 *#	2/22/2000 *#
Benzene	1		BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29		BQL	BQL	BQL	BQL	BQL	BQL
Toluene	1000		BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether	200		BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530		BQL	BQL	BQL	BQL	BQL	BQL
Polynuclear Aromatic Hydrocarbons by USEPA method 625/8270C, ug/L								
Naphthalene	21		BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80		BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280		BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210		BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit		BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28		BQL	BQL	BQL	BQL	BQL	BQL

Notes:

- NA indicates the sample was not analyzed for this constituent.
- Bold type indicates detected concentrations above laboratory quantitation limits.
- Detected concentrations above the regulatory limits are indicated by shading.
- BQL = Below Laboratory Quantitation Limit
- * verified with laboratory data package
- # verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCH-4015
Camp Lejeune, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location Sample ID Sample Date	MW-06					
			USTLCH4015-MW06-99D 11/23/1999	USTLCH4015-MW06-99C 8/19/1999 *#	USTLCH4015-MW06-99B 5/26/1999 *#	USTLCH4015-MW06-99A2 2/23/1999 *	USTLCH4015-MW06-99A 1/26/1999 *	USTLCH4015-MW06-98D3 12/28/1998
Volatile Aromatic Hydrocarbons by USEPA method 602, ug/L								
Benzene	1		BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29		BQL	BQL	1	BQL	BQL	BQL
Toluene	1000		BQL	BQL	7	BQL	BQL	BQL
Methyl-tert-butyl ether	200		BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530		BQL	BQL	9	BQL	BQL	BQL
Polynuclear Aromatic Hydrocarbons by USEPA method 625/87/0C, ug/L								
Naphthalene	21		BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80		BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280		BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210		BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit		BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28		BQL	BQL	BQL	BQL	BQL	BQL

Notes:

NA indicates the sample was not analyzed for this constituent.
Bold type indicates detected concentrations above laboratory quantitation limits.
Detected concentrations above the regulatory limits are indicated by shading.
BQL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCH-4015
Camp Lejeune, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location Sample ID Sample Date	MW-06		MW-07					
			USTLCH4015-MW06-98C2	8/3/1998	USTLCH4015-MW07-02C	8/14/2002 *#	USTLCH4015-MW07-02A	USTLCH4015-MW07-01C	USTLCH4015-MW07-01A	USTLCH4015-MW07-00C
Volatile Aromatic Hydrocarbons by USEPA method 602, ug/L	1		BQL		BQL		BQL	BQL	BQL	BQL
	29		BQL		BQL		BQL	BQL	BQL	BQL
	1000		BQL		BQL		BQL	BQL	BQL	BQL
	200		BQL		BQL		BQL	BQL	BQL	BQL
			BQL		BQL		BQL	BQL	BQL	BQL
Total Xylenes										
Polynuclear Aromatic Hydrocarbons by USEPA method 625/8270C, ug/L										
Naphthalene	21		BQL		BQL		BQL	BQL	BQL	BQL
Acenaphthene	80		BQL		BQL		BQL	BQL	BQL	BQL
Fluorene	280		BQL		BQL		BQL	BQL	BQL	BQL
Phenanthrene	210		BQL		BQL		BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit		BQL		BQL		BQL	BQL	BQL	BQL
2-Methylnaphthalene	28		BQL		BQL		BQL	BQL	BQL	BQL

Notes:

NA indicates the sample was not analyzed for this constituent.
Bold type indicates detected concentrations above laboratory quantitation limits.
Detected concentrations above the regulatory limits are indicated by shading.
BQL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCH-4015
Camp Lejeune, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location Sample ID Sample Date	MW-47					
			USTLCH4015-MW07-00A	USTLCH4015-MW07-99D	USTLCH4015-MW07-99C	USTLCH4015-MW07-99B	USTLCH4015-MW07-99A	USTLCH4015-MW07-99A
Volatile Aromatic Hydrocarbons by USEPA method 602, ug/L			2/22/2000 *#	11/23/1999	8/19/1999 *#	5/26/1999 *#	2/23/1999 *	1/26/1999 *
	1		2					
	29		1					
	1000		1					
Methyl-tert-butyl ether	200							
	530		3					
Polynuclear Aromatic Hydrocarbons by USEPA method 625/8270C, ug/L								
	21							
	80							
	280							
Phenanthrene	210							
	Detection Limit							
	28							
1-Methylanthracene								
2-Methylanthracene								

Notes:

NA indicates the sample was not analyzed for this constituent.

Bold type indicates detected concentrations above laboratory quantitation limits.

Detected concentrations above the regulatory limits are indicated by shading.

BQL = Below Laboratory Quantitation Limit

* verified with laboratory data package

verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCH-4015
Camp Lejeune, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location Sample ID Sample Date	MW-07				MW-08			
			USTLCH4015-MW07-98D3	USTLCH4015-MW07-98C2	USTLCH4015-MW08-02C	USTLCH4015-MW08-02A	USTLCH4015-MW08-02A	USTLCH4015-MW08-02A	USTLCH4015-MW08-01C	USTLCH4015-MW08-01C
Volatle Aromatic Hydrocarbons by USEPA method 602, ug/L										
Benzene	1		BQL	BQL	BQL	NA	BQL	BQL	BQL	BQL
Ethylbenzene	29		BQL	BQL	BQL	NA	BQL	BQL	BQL	BQL
Toluene	1000		BQL	BQL	BQL	NA	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether	200		BQL	BQL	BQL	NA	BQL	BQL	BQL	BQL
Total Xylenes	530		BQL	BQL	BQL	NA	BQL	BQL	BQL	BQL
Polynuclear Aromatic Hydrocarbons by USEPA method 625/8270C, ug/L										
Naphthalene	21		BQL	BQL	BQL	BQL	NA	NA	BQL	BQL
Acenaphthene	80		BQL	BQL	BQL	BQL	NA	NA	BQL	BQL
Fluorene	280		BQL	BQL	BQL	BQL	NA	NA	BQL	BQL
Phenanthrene	210		BQL	BQL	BQL	BQL	NA	NA	BQL	BQL
1-Methylnaphthalene	Detection Limit		BQL	BQL	BQL	BQL	NA	NA	BQL	BQL
2-Methylnaphthalene	28		BQL	BQL	BQL	BQL	NA	NA	BQL	BQL

Notes:

NA indicates the sample was not analyzed for this constituent.
 Bold type indicates detected concentrations above laboratory quantitation limits.
 Detected concentrations above the regulatory limits are indicated by shading.
 BQL = Below Laboratory Quantitation Limit
 * verified with laboratory data package
 # verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCR-4015
Camp Lejeune, North Carolina

Parameter	NC DENR Regulatory Limit	Sample Location Sample ID Sample Date	MW-08					
			USTLCH4015-MW08-01A	USTLCH4015-MW08-00C	USTLCH4015-MW08-00A	USTLCH4015-MW08-99D	USTLCH4015-MW08-99C	USTLCH4015-MW08-99B
<i>Volatiles Aromatic Hydrocarbons by USEPA method 602, ug/L</i>			2/20/2001 *#	8/22/2000 *#	2/22/2000 *#	1/23/1999	8/19/1999 *#	5/26/1999 *#
Benzene	1		BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29		BQL	BQL	BQL	BQL	BQL	BQL
Toluene	1000		BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether	200		BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530		BQL	BQL	BQL	BQL	BQL	BQL
<i>Polynuclear Aromatic Hydrocarbons by USEPA method 625/8270C, ug/L</i>								
Naphthalene	21		BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80		BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280		BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210		BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit		BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28		BQL	BQL	BQL	BQL	BQL	BQL

Notes:

- NA indicates the sample was not analyzed for this constituent.
- Bold type indicates detected concentrations above laboratory quantitation limits.
- Detected concentrations above the regulatory limits are indicated by shading.
- BQL = Below Laboratory Quantitation Limit
- * verified with laboratory data package
- # verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCH-4015
Camp Lejeune, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location Sample ID Sample Date	MW-08			MW-09		
			USTLCH4015-MW08-99A2	USTLCH4015-MW08-99A	USTLCH4015-MW08-98D3	USTLCH4015-MW08-98C2	USTLCH4015-MW09-02D	USTLCH4015-MW09-02C
Volatiles Aromatic Hydrocarbons by USEPA method 602, ug/L								
Benzene	1		BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29		BQL	BQL	BQL	BQL	BQL	BQL
Toluene	1000		BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether	200		BQL	BQL	BQL	BQL	16	29
Total Xylenes	530		BQL	BQL	BQL	BQL	BQL	BQL
Polynuclear Aromatic Hydrocarbons by USEPA method 625/8270C, ug/L								
Naphthalene	21		BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80		BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280		BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210		BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit		BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28		BQL	BQL	BQL	BQL	BQL	BQL

Notes:

NA indicates the sample was not analyzed for this constituent.
Bold type indicates detected concentrations above laboratory quantitation limits.
Detected concentrations above the regulatory limits are indicated by shading.
BQL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCH-4015
Camp Lejeune, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location Sample ID Sample Date	MW-09					
			USTLCH4015-MW09-02B 5/22/2002 *#	USTLCH4015-MW09-02A 2/21/2002 *#	USTLCH4015-MW09-01D 11/19/2001 #	USTLCH4015-MW09-01C 8/14/2001 *#	USTLCH4015-MW09-01B 5/23/2001 *#	USTLCH4015-MW09-01A 2/20/2001 *#
Volatiles Aromatic Hydrocarbons by USEPA method 602, ug/L								
Benzene	1		1	3	16	14	73	18
Ethylbenzene	29		BQL	4	25	BQL	36	33
Toluene	1000		BQL	BQL	1	BQL	BQL	BQL
Methyl-tert-butyl ether	200		44	24	36	53	37	30
Total Xylenes	530		BQL	BQL	11	3	12	19
Polynuclear Aromatic Hydrocarbons by USEPA method 6258270C, ug/L								
Naphthalene	21		BQL	BQL	11	BQL	BQL	BQL
Acenaphthene	80		BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280		BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210		BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit		BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28		BQL	BQL	BQL	BQL	BQL	BQL

Notes:

NA indicates the sample was not analyzed for this constituent.
Bold type indicates detected concentrations above laboratory quantitation limits.
Detected concentrations above the regulatory limits are indicated by shading.
BQL = Behav Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCH-4015
Camp Lejeune, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location Sample ID Sample Date	MW-09					
			USTLCH4015-MW09-00D 11/27/2000 *#	USTLCH4015-MW09-00C 8/22/2000 *#	USTLCH4015-MW09-00B 5/24/2000 *#	USTLCH4015-MW09-00A 2/22/2000 *#	USTLCH4015-MW09-99D 11/23/1999	USTLCH4015-MW09-99C 8/19/1999 *#
Volatil Aromatic Hydrocarbons by USEPA method 602, ug/L								
Benzene	1		18	21	110*	98	210	510
Ethylbenzene	29		44	53	14	19	25	43
Toluene	1000		BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether	200		49	62	82	95	120	150
Total Xylenes	530		28	44	BQL	BQL	36	100
Polynuclear Aromatic Hydrocarbons by USEPA method 625/627/6C, ug/L								
Naphthalene	21		BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80		BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280		BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210		BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit		BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28		BQL	BQL	BQL	BQL	BQL	BQL

Notes:

- NA indicates the sample was not analyzed for this constituent.
- Bold type indicates detected concentrations above laboratory quantitation limits.
- Detected concentrations above the regulatory limits are indicated by shading.
- BQL = Below Laboratory Quantitation Limit
- * verified with laboratory data package
- # verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCH-4015
Camp Lejeune, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location		MW-09					MW-10
		Sample ID	Sample Date	USTLCH4015-MW09-99B	USTLCH4015-MW09-99A2	USTLCH4015-MW09-99A	USTLCH4015-MW09-98D3	USTLCH4015-MW09-98C2	
Volatile Aromatic Hydrocarbons by USEPA method 602, ug/L				5/26/1999 *#	2/24/1999 *	1/26/1999 *	12/28/1998	8/4/1998	8/13/2002 *#
Benzene	1			270	540	540	850	250	BQL
Ethylbenzene	29			BQL	BQL	BQL	BQL	BQL	BQL
Toluene	1000			BQL	BQL	BQL	BQL	85	BQL
Methyl-tert-butyl ether	200			150	220	250	200	200	BQL
Total Xylenes	530			BQL	BQL	46	BQL	BQL	BQL
Polynuclear Aromatic Hydrocarbons by USEPA method 625/6270C, ug/L									
Naphthalene	21			BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80			BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280			BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210			BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit			BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28			BQL	BQL	BQL	BQL	BQL	BQL

Notes:

- NA indicates the sample was not analyzed for this constituent.
- Bold type indicates detected concentrations above laboratory quantitation limits.
- Detected concentrations above the regulatory limits are indicated by shading.
- BQL = Below Laboratory Quantitation Limit
- * verified with laboratory data package
- # verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCR-4015
Camp Lejeune, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location Sample ID Sample Date	MW-10				
			USTLCH4015-MW10-02A	USTLCH4015-MW10-01C	USTLCH4015-MW10-01A	USTLCH4015-MW10-00C	USTLCH4015-MW10-00A
Volatiles Aromatic Hydrocarbons by USEPA method 602, ug/L			2/21/2002 *#	8/14/2001 *#	2/20/2001 *#	8/22/2000 *#	2/23/2000 #
Benzene	1		BQL	BQL	BQL	BQL	BQL
Ethylbenzene	25		BQL	BQL	BQL	BQL	BQL
Toluene	1000		BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether	200		BQL	BQL	BQL	BQL	BQL
Total Xylenes	530		BQL	BQL	BQL	BQL	BQL
Polynuclear Aromatic Hydrocarbons by USEPA method 625/8270C, ug/L							
Naphthalene	21		BQL	BQL	BQL	BQL	BQL
Acenaphthene	80		BQL	BQL	BQL	BQL	BQL
Fluorene	280		BQL	BQL	BQL	BQL	BQL
Phenanthrene	210		BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit		BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28		BQL	BQL	BQL	BQL	BQL

Notes:

NA indicates the sample was not analyzed for this constituent.
Bold type indicates detected concentrations above laboratory quantitation limits.
Detected concentrations above the regulatory limits are indicated by shading.
BQL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCH-4015
Camp Lejeune, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location		MW-10					
		Sample ID	Sample Date	USTLCH4015-MW10-99C	USTLCH4015-MW10-99B	USTLCH4015-MW10-99A2	USTLCH4015-MW10-99A	USTLCH4015-MW10-98D3	USTLCH4015-MW10-98C2
Volatiles Aromatic Hydrocarbons by USEPA method 602, ug/L									
Benzene	1			BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29			BQL	BQL	BQL	BQL	BQL	BQL
Toluene	1000			BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether	200			BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530			BQL	BQL	BQL	BQL	BQL	BQL
Polynuclear Aromatic Hydrocarbons by USEPA method 625/8270C, ug/L									
Naphthalene	21			BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80			BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280			BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210			BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit			BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28			BQL	BQL	BQL	BQL	BQL	BQL

Notes:

- NA indicates the sample was not analyzed for this constituent.
- Bold type indicates detected concentrations above laboratory quantitation limits.
- Detected concentrations above the regulatory limits are indicated by shading.
- BQL = Below Laboratory Quantitation Limit
- * verified with laboratory data package
- # verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCH-4015
Camp Lejeune, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location Sample ID Sample Date	MW-11					
			USTLCH4015-MW11-02D 11/14/2002 #	USTLCH4015-MW11-02C 8/14/2002 *#	USTLCH4015-MW11-02B 5/22/2002 *#	USTLCH4015-MW11-02A 2/21/2002 *#	USTLCH4015-MW11-01D 11/19/2001 #	USTLCH4015-MW11-01C 8/14/2001 *#
Volatile Aromatic Hydrocarbons by USEPA method 602, ug/L								
Benzene	1		BQL	BQL	BQL			
Ethylbenzene	29		25	44	57	28	51	158
Toluene	1000		BQL	BQL	BQL	1	BQL	3
Methyl-ter-butyl ether	200		BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530		BQL	BQL	4	BQL	5	BQL
Polynuclear Aromatic Hydrocarbons by USEPA method 625/8270C, ug/L								
Naphthalene	21		20	21	25	130	200	220
Acenaphthene	80		11	BQL	41	49	48	43
Fluorene	280		11	BQL	62	65	78	50
Phenanthrene	210		13	11	110	180	120	110
1-Methylnaphthalene	Detection Limit		150	150	590	410	630	130
2-Methylnaphthalene	28		BQL	BQL	130	360	270	120

NOTES:

- NA indicates the sample was not analyzed for this constituent.
- Bold type indicates detected concentrations above laboratory quantitation limits.
- Detected concentrations above the regulatory limits are indicated by shading.
- BQL = Below Laboratory Quantitation Limit
- * verified with laboratory data package
- # verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCH-4015
Camp Lejeune, North Carolina

Parameter		NCDENR Regulatory Limit	Sample Location Sample ID Sample Date	MW-11						
				USTLCH4015-MW11-01B 5/23/2001 *#	USTLCH4015-MW11-01A 2/20/2001 *#	USTLCH4015-MW11-00D 11/27/2000 *#	USTLCH4015-MW11-00C 8/23/2000 *#	USTLCH4015-MW11-00B 5/24/2000 *#	USTLCH4015-MW11-00A 2/22/2000 *#	
Benzene		1		5	5	5	BQL	2	BQL	
Ethylbenzene		29		51	89	46	84	49	51	
Toluene		1000		2	BQL	BQL	BQL	BQL	BQL	
Methyl-tert-butyl ether		200		BQL	BQL	BQL	BQL	BQL	BQL	
Total Xylenes		530		10	BQL	BQL	15	5	BQL	
Polynuclear Aromatic Hydrocarbons by USEPA method 625/8270C, ug/L										
Naphthalene		21		71	168	120	4,400	450	430	
Acenaphthene		80		37	26	24	516	47	BQL	
Fluorene		280		76	47	47	1,500	84	12	
Phenanthrene		210		180	92	96	2,900	190	15	
1-Methylnaphthalene		Detection Limit		400	400	430	13,000	900	220	
2-Methylnaphthalene		28		318	170	100	11,000	720	20	

NOTES:

- NA indicates the sample was not analyzed for this constituent.
- Bold type indicates detected concentrations above laboratory quantitation limits.
- Detected concentrations above the regulatory limits are indicated by shading.
- BQL = Below Laboratory Quantitation Limit
- * verified with laboratory data package
- # verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCH-4015
Camp Lejeune, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location		MW-11					
		Sample ID	Sample Date	USTLCH4015-MW11-99D	USTLCH4015-MW11-99C	USTLCH4015-MW11-99B	USTLCH4015-MW11-99A2	USTLCH4015-MW11-99A	USTLCH4015-MW11-99D3
Volatiles Aromatic Hydrocarbons by USEPA method 602, ug/L				11/23/1999	8/19/1999 *	5/26/1999 *	2/23/1999 *	1/26/1999 *	1/28/1998
Benzene	1			BOL					
Ethylbenzene	29			63	55	63	42	11	8
Toluene	1000			BOL	BOL	BOL	BOL	65	68
Methyl-tert-butyl ether	200			BOL	BOL	BOL	BOL	BOL	BOL
Total Xylenes	530			BOL	BOL	9	13	21	16
Polynuclear Aromatic Hydrocarbons by USEPA method 625/8270C, ug/L									
Naphthalene	21			234	180	190	80	100	240
Acenaphthene	80			14	BOL	BOL	BOL	BOL	BOL
Fluorene	280			26	BOL	BOL	BOL	BOL	BOL
Phenanthrene	210			40	10	BOL	BOL	BOL	BOL
1-Methylnaphthalene	Detection Limit			330	180	180	92	82	180
2-Methylnaphthalene	28			140	BOL	50	62	51	220

Notes:

NA indicates the sample was not analyzed for this constituent.

Bold type indicates detected concentrations above laboratory quantitation limits.

Detected concentrations above the regulatory limits are indicated by shading.

BOL = Below Laboratory Quantitation Limit

* verified with laboratory data package

verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCH-4015
Camp Lejeune, North Carolina

Parameter	Sample Location Sample ID Sample Date	NCDENR Regulatory Limit	MW-11		MW-12				
			USTLCH4015-MW11-98C2	8/3/1998	USTLCH4015-MW12-02C	8/14/2002 *	USTLCH4015-MW12-02A	USTLCH4015-MW12-01C	USTLCH4015-MW12-01A
Benzene		1			BQL		BQL	BQL	BQL
Ethylbenzene		29			BQL		BQL	BQL	BQL
Toluene		1000			BQL		BQL	BQL	BQL
Methyl-tert-butyl ether		200			BQL		BQL	BQL	BQL
Total Xylenes		530			BQL		BQL	BQL	BQL
Polynuclear Aromatic Hydrocarbons by USEPA method 625/8270C, ug/L									
Naphthalene		21			BQL		BQL	BQL	BQL
Acenaphthene		80			BQL		BQL	BQL	BQL
Fluorene		280			BQL		BQL	BQL	BQL
Phenanthrene		210			BQL		BQL	BQL	BQL
1-Methylnaphthalene		Detection Limit			BQL		BQL	BQL	BQL
2-Methylnaphthalene		28			BQL		BQL	BQL	BQL

Notes:

NA indicates the sample was not analyzed for this constituent.

Bold type indicates detected concentrations above laboratory quantitation limits.

Detected concentrations above the regulatory limits are indicated by shading.

BQL = Below Laboratory Quantitation Limit

* verified with laboratory data package

verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCH-4015
Camp Lejeune, North Carolina

Parameter		NCDENR Regulatory Limit	Sample Location		MW-12					
Volatile Aromatic Hydrocarbons by USEPA method 602, ug/L			Sample ID	Sample Date	USTLCH4015-MW12-00A 2/22/2000 *	USTLCH4015-MW12-99D 11/23/1999	USTLCH4015-MW12-99C 8/19/1999 *	USTLCH4015-MW12-99B 5/26/1999 *	USTLCH4015-MW12-99A2 2/23/1999 *	USTLCH4015-MW12-99A 1/26/1999 *
Benzene		1			BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene		29			BQL	BQL	BQL	BQL	BQL	BQL
Toluene		1000			BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether		200			BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes		530			BQL	BQL	BQL	BQL	BQL	BQL
Polynuclear Aromatic Hydrocarbons by USEPA method 625/8270C, ug/L										
Naphthalene		21			BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene		80			BQL	BQL	BQL	BQL	BQL	BQL
Fluorene		280			BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene		210			BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene		Detection Limit			BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene		28			BQL	BQL	BQL	BQL	BQL	BQL

Notes:

NA indicates the sample was not analyzed for this constituent.
Bold type indicates detected concentrations above laboratory quantitation limits.
Detected concentrations above the regulatory limits are indicated by shading.
BQL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCH-4015
Camp Lejeune, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location Sample ID Sample Date	MW-12		MW-13
			USTLCH4015-MW12-98D3	USTLCH4015-MW12-98C2	USTLCH4015-MW13-98C2
Volatile Aromatic Hydrocarbons by USEPA method 602, ug/L					
Benzene	1		BQL	BQL	BQL
Ethylbenzene	29		BQL	BQL	BQL
Toluene	1000		BQL	BQL	BQL
Methyl-tert-butyl ether	200		BQL	BQL	BQL
Total Xylenes	530		BQL	BQL	BQL
Polynuclear Aromatic Hydrocarbons by USEPA method 625/870C, ug/L					
Naphthalene	21		BQL	BQL	BQL
Acenaphthene	80		BQL	BQL	BQL
Fluorene	280		BQL	BQL	BQL
Phenanthrene	210		BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit		BQL	BQL	BQL
2-Methylnaphthalene	28		BQL	BQL	BQL

Notes:

NA indicates the sample was not analyzed for this constituent.
Bold type indicates detected concentrations above laboratory quantitation limits.
Detected concentrations above the regulatory limits are indicated by shading.
BQL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCH-4815
Camp Lejeune, North Carolina

Parameter		Sample Location Sample ID Sample Date	MW-14					
NCDENR Regulatory Limit			USTLCH4015-MW14-02C 8/14/2002 *#	USTLCH4015-MW14-02A 2/21/2002 *#	USTLCH4015-MW14-01C 8/14/2001 *#	USTLCH4015-MW14-01A 2/20/2001 *#	USTLCH4015-MW14-00C 8/23/2000 *#	USTLCH4015-MW14-00A 2/22/2000 *#
Volatile Aromatic Hydrocarbons by USEPA method 602, ug/L	Benzene	1	BQL	BQL	BQL	BQL	BQL	BQL
	Ethylbenzene	29	BQL	BQL	BQL	BQL	BQL	BQL
	Toluene	1000	BQL	BQL	BQL	BQL	BQL	BQL
	Methyl-tert-butyl ether	200	BQL	BQL	BQL	BQL	BQL	BQL
	Total Xylenes	530	BQL	BQL	BQL	BQL	BQL	BQL
Polynuclear Aromatic Hydrocarbons by USEPA method 625, ug/L								
Naphthalene	21		BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80		BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280		BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210		BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit		BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28		BQL	BQL	BQL	BQL	BQL	BQL

Notes:

NA indicates the sample was not analyzed for this constituent.
Bold type indicates detected concentrations above laboratory quantization limits.
Detected concentrations above the regulatory limits are indicated by shading.
BQL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCH-4015
Camp Lejeune, North Carolina

Parameter		Sample Location Sample ID Sample Date	MW-14					
Regulatory Limit			USTLCH4015-MW14-99D 11/23/1999	USTLCH4015-MW14-99C 8/19/1999 *#	USTLCH4015-MW14-99B 5/26/1999 *#	USTLCH4015-MW14-99A2 2/23/1999 *	USTLCH4015-MW14-99A 1/26/1999 *	USTLCH4015-MW14-98D3 12/28/1998
Volatile Aromatic Hydrocarbons by USEPA method 602, ug/L								
Benzene	1		BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29		BQL	BQL	BQL	BQL	BQL	BQL
Toluene	1000		BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether	200		BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530		BQL	BQL	BQL	BQL	BQL	BQL
Polynuclear Aromatic Hydrocarbons by USEPA method 625, ug/L								
Naphthalene	21		BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80		BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280		BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210		BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit		BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28		BQL	BQL	BQL	BQL	BQL	BQL

Notes:

- NA indicates the sample was not analyzed for this constituent.
- Bold type indicates detected concentrations above laboratory quantitation limits.
- Detected concentrations above the regulatory limits are indicated by shading.
- BQL = Below Laboratory Quantitation Limit
- * verified with laboratory data package
- # verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCH-4015
Camp Lejeune, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location Sample ID Sample Date	MW-14					MW-15				
			USTLCH4015-MW14-98C2					USTLCH4015-MW15-02C				
Volatile Aromatic Hydrocarbons by USEPA method 602, ug/L			8/3/1998					8/14/2002		2/7/2002		2/20/2001
Benzene	1		BQL					BQL		BQL		BQL
Ethylbenzene	29		BQL					BQL		BQL		BQL
Toluene	1000		BQL					BQL		BQL		BQL
Methyl-tert-butyl ether	200		BQL					BQL		BQL		BQL
Total Xylenes	530		BQL					BQL		BQL		BQL
Polynuclear Aromatic Hydrocarbons by USEPA method 625, ug/L												
Naphthalene	21		BQL					BQL		BQL		BQL
Acenaphthene	80		BQL					BQL		BQL		BQL
Fluorene	280		BQL					BQL		BQL		BQL
Phenanthrene	210		BQL					BQL		BQL		BQL
1-Methylnaphthalene	Detection Limit		BQL					BQL		BQL		BQL
2-Methylnaphthalene	28		BQL					BQL		BQL		BQL

Notes:

- NA indicates the sample was not analyzed for this constituent.
- Bold type indicates detected concentrations above laboratory quantitation limits.
- Detected concentrations above the regulatory limits are indicated by shading.
- BQL = Below Laboratory Quantitation Limit
- * verified with laboratory data package
- # verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCH-4015
Camp Lejeune, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location Sample ID Sample Date	MW-15					
			USTLCH4015-MW15-00A	USTLCH4015-MW15-99D	USTLCH4015-MW15-99C	USTLCH4015-MW15-99B	USTLCH4015-MW15-99A2	USTLCH4015-MW15-99A
Volatiles Aromatic Hydrocarbons by USEPA method 602, ug/L								
Benzene	1		BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29		BQL	BQL	BQL	BQL	BQL	BQL
Toluene	1000		BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether	200		BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530		BQL	BQL	BQL	BQL	BQL	BQL
Polynuclear Aromatic Hydrocarbons by USEPA method 625, ug/L								
Naphthalene	21		BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80		BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280		BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210		BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit		BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28		BQL	BQL	BQL	BQL	BQL	BQL

Notes:

- NA indicates the sample was not analyzed for this constituent.
- Bold type indicates detected concentrations above laboratory quantitation limits.
- Detected concentrations above the regulatory limits are indicated by shading.
- BQL = Below Laboratory Quantitation Limit
- * verified with laboratory data package
- # verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCH-4015
Camp Lejeune, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location Sample ID Sample Date	MW-15		MW-16			
			USTLCH4015-MW15-98D3	USTLCH4015-MW15-98C2	USTLCH4015-MW16-D2C	USTLCH4015-MW16-D2A	USTLCH4015-MW16-01C	USTLCH4015-MW16-01A
Volatile Aromatic Hydrocarbons by USEPA method 602, ug/L			12/28/1998	8/3/1998	8/14/2002 *#	2/21/2002 *#	8/14/2001 *#	2/20/2001 *#
Benzene	1		BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29		BQL	BQL	BQL	BQL	BQL	BQL
Toluene	1000		BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether	200		BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530		BQL	BQL	BQL	BQL	BQL	BQL
Polynuclear Aromatic Hydrocarbons by USEPA method 625, ug/L								
Naphthalene	21		BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80		BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280		BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210		BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit		BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28		BQL	BQL	BQL	BQL	BQL	BQL

Notes:

NA indicates the sample was not analyzed for this constituent.
Bold type indicates detected concentrations above laboratory quantitation limits.
Detected concentrations above the regulatory limits are indicated by shading.
BQL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCH-401S
Camp Lejeune, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location Sample ID Sample Date	MW-16					
			USTLCH401S-MW16-00C	USTLCH401S-MW16-00A	USTLCH401S-MW16-99D	USTLCH401S-MW16-99C	USTLCH401S-MW16-99B	USTLCH401S-MW16-99A2
Volatile Aromatic Hydrocarbons by USEPA method 602, ug/L								
Benzene	1		BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29		BQL	BQL	BQL	BQL	BQL	BQL
Toluene	1000		BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether	200		BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530		BQL	BQL	BQL	BQL	BQL	BQL
Polynuclear Aromatic Hydrocarbons by USEPA method 605, ug/L								
Naphthalene	21		BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80		BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280		BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210		BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit		BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28		BQL	BQL	BQL	BQL	BQL	BQL

Notes:

NA indicates the sample was not analyzed for this constituent.
Bold type indicates detected concentrations above laboratory quantitation limits.
Detected concentrations above the regulatory limits are indicated by shading.
BQL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCH-4015
Camp Lejeune, North Carolina

Parameter	NCIDENR Regulatory Limit	Sample Location Sample ID Sample Date	MW-16				MW-17			
			USTLCH4015-MW16-99A 1/26/1999 *	USTLCH4015-MW16-98D3 12/28/1998	USTLCH4015-MW16-98C2 8/4/1998	USTLCH4015-MW17-01C 8/14/2001 #	USTLCH4015-MW17-01A 2/20/2001 #	USTLCH4015-MW17-00C 8/23/2000 #		
Volatile Aromatic Hydrocarbons by USEPA method 602, ug/L										
Benzene	1		BQL	BQL	BQL	BQL	BQL	BQL	BQL	
Ethylbenzene	29		BQL	BQL	BQL	BQL	BQL	BQL	BQL	
Toluene	1000		BQL	BQL	BQL	BQL	BQL	BQL	BQL	
Methyl-tert-butyl ether	200		BQL	BQL	BQL	BQL	BQL	BQL	BQL	
Total Xylenes	530		BQL	BQL	BQL	BQL	BQL	BQL	BQL	
Polynuclear Aromatic Hydrocarbons by USEPA method 625, ug/L										
Naphthalene	21		BQL	BQL	BQL	BQL	BQL	BQL	BQL	
Acenaphthene	80		BQL	BQL	BQL	BQL	BQL	BQL	BQL	
Fluorene	280		BQL	BQL	BQL	BQL	BQL	BQL	BQL	
Phenanthrene	210		BQL	BQL	BQL	BQL	BQL	BQL	BQL	
1-Methylphenanthrene	Detection Limit		BQL	BQL	BQL	BQL	BQL	BQL	BQL	
2-Methylphenanthrene	28		BQL	BQL	BQL	BQL	BQL	BQL	BQL	

Notes:

NA indicates the sample was not analyzed for this constituent.
Bold type indicates detected concentrations above laboratory quantitation limits.
Detected concentrations above the regulatory limits are indicated by shading.
BQL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCH-4015
Camp Lejeune, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location Sample ID Sample Date	MW-17					
			USTLCH4015-MW17-40A 2/22/2000 *#	USTLCH4015-MW17-99D 11/23/1999	USTLCH4015-MW17-99C 8/19/1999 *#	USTLCH4015-MW17-99B 5/26/1999 *#	USTLCH4015-MW17-99A2 2/23/1999 *	USTLCH4015-MW17-99A 1/26/1999 *
Volatile Aromatic Hydrocarbons by USEPA method 602, ug/L								
Benzene	1		BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29		BQL	BQL	BQL	BQL	BQL	BQL
Toluene	1000		BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether	200		BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530		BQL	BQL	BQL	BQL	BQL	BQL
Polynuclear Aromatic Hydrocarbons by USEPA method 625, ug/L								
Naphthalene	21		BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80		BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280		BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210		BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit		BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28		BQL	BQL	BQL	BQL	BQL	BQL

Notes:

NA indicates the sample was not analyzed for this constituent.
Bold type indicates detected concentrations above laboratory quantitation limits.
Detected concentrations above the regulatory limits are indicated by shading.
BQL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCH-4015
Camp Lejeune, North Carolina

Parameter	NCIDENR Regulatory Limit	Sample Location Sample ID Sample Date	MW-17		MW-18			
			USTLCH4015-MW17-98D3	USTLCH4015-MW17-98C2	USTLCH4015-MW18-02A	USTLCH4015-MW18-01C	USTLCH4015-MW18-01A	
Volatile Aromatic Hydrocarbons by USEPA method 602, ug/L								
Benzene	1		BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29		BQL	BQL	1	BQL	BQL	BQL
Toluene	1000		BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether	200		BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530		BQL	BQL	BQL	BQL	BQL	BQL
Polynuclear Aromatic Hydrocarbons by USEPA method 625, ug/L								
Naphthalene	21		BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80		BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280		BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210		BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit		BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28		BQL	BQL	BQL	BQL	BQL	BQL

Notes:

NA indicates the sample was not analyzed for this constituent.

Bold type indicates detected concentrations above laboratory quantitation limits.

Detected concentrations above the regulatory limits are indicated by shading.

BQL = Below Laboratory Quantitation Limit

* verified with laboratory data package

verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCH-4015
Camp Lejeune, North Carolina

Parameter	NCDEMR Regulatory Limit	Sample Location Sample ID Sample Date	MW-1B					
			USTLCH4015-MW18-00C 8/22/2000 *	USTLCH4015-MW18-00A 2/22/2000 *	USTLCH4015-MW18-99D 11/23/1999	USTLCH4015-MW18-99C 8/19/1999 *	USTLCH4015-MW18-99B 5/26/1999 *	USTLCH4015-MW18-99A2 2/23/1999 *
Volatiles Aromatic Hydrocarbons by USEPA method 602, ug/L								
Benzene	1		BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29		BQL	BQL	7	2	13	10
Toluene	1000		BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether	200		BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530		BQL	BQL	BQL	BQL	BQL	BQL
Polynuclear Aromatic Hydrocarbons by USEPA method 625, ug/L								
Naphthalene	21		BQL	BQL	BQL	BQL	11	BQL
Acenaphthene	80		BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280		BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210		BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit		BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28		BQL	BQL	BQL	BQL	BQL	BQL

Notes:

- NA indicates the sample was not analyzed for this constituent.
- Bold type indicates detected concentrations above laboratory quantitation limits.
- Detected concentrations above the regulatory limits are indicated by shading.
- BQL = Below Laboratory Quantitation Limit
- * verified with laboratory data package
- # verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCH-4015
Camp Lejeune, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location Sample ID Sample Date	MW-18		MW-19	
			USTLCH4015-MW18-99A	USTLCH4015-MW18-98C3	USTLCH4015-MW19-02A	USTLCH4015-MW19-01C
Volatile Aromatic Hydrocarbons by USEPA method 602, ug/L			1/26/1999 *	1/23/1998	8/14/2002 *	8/14/2001 *
Benzene	1		BQL	BQL	BQL	BQL
Ethylbenzene	29		27	6	BQL	BQL
Toluene	1000		BQL	BQL	BQL	BQL
Methyl-tert-butyl ether	200		BQL	BQL	BQL	BQL
Total Xylenes	530		5	4	BQL	BQL
Polynuclear Aromatic Hydrocarbons by USEPA method 625, ug/L						
Naphthalene	21			BQL	BQL	BQL
Acenaphthene	80		BQL	BQL	BQL	BQL
Fluorene	280		BQL	BQL	BQL	BQL
Phenanthrene	210		BQL	BQL	BQL	BQL
1-Methylphenanthrene	Detection Limit		21	BQL	BQL	BQL
2-Methylphenanthrene	28		BQL	BQL	BQL	BQL

Notes:

- NA indicates the sample was not analyzed for this constituent.
- Bold type indicates detected concentrations above laboratory quantitation limits.
- Detected concentrations above the regulatory limits are indicated by shading.
- BQL = Below Laboratory Quantitation Limit
- * verified with laboratory data package
- # verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCH-4015
Camp Lejeune, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location Sample ID Sample Date	MW-19					
			USTLCH4015-MW19-01A 2/20/2001 *#	USTLCH4015-MW19-00C 8/22/2000 *#	USTLCH4015-MW19-00A 2/22/2000 *#	USTLCH4015-MW19-99D 11/23/1999	USTLCH4015-MW19-99C 8/19/1999 *#	USTLCH4015-MW19-99B 5/26/1999 *#
Volatile Aromatic Hydrocarbons by USEPA method 602, ug/L								
	1		BQL	BQL	BQL	BQL	BQL	BQL
	29		BQL	BQL	BQL	BQL	BQL	BQL
	1000		BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether	200		BQL	BQL	BQL	BQL	BQL	BQL
	530		BQL	BQL	BQL	BQL	BQL	BQL
Polynuclear Aromatic Hydrocarbons by USEPA method 625, ug/L								
	21		BQL	BQL	BQL	BQL	BQL	BQL
	80		BQL	BQL	BQL	BQL	BQL	BQL
	280		BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210		BQL	BQL	BQL	BQL	BQL	BQL
1-Methylphenanthrene	Detection Limit		BQL	BQL	BQL	BQL	BQL	BQL
2-Methylphenanthrene	28		BQL	BQL	BQL	BQL	BQL	BQL

Notes:

NA indicates the sample was not analyzed for this constituent.
Bold type indicates detected concentrations above laboratory quantitation limits.
Detected concentrations above the regulatory limits are indicated by shading.
BQL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCH-4015
Camp Lejeune, North Carolina

Parameter	NCDEMR Regulatory Limit	Sample Location Sample ID Sample Date	MW-19				MW-20	
			USTLCH4015-MW19-99A2	USTLCH4015-MW19-99A	USTLCH4015-MW19-98D3	USTLCH4015-MW19-98C2	USTLCH4015-MW20-02C	USTLCH4015-MW20-02A
Volatile Aromatic Hydrocarbons by USEPA method 602, ug/L			2/23/1999 *	1/26/1999 *	12/28/1998	8/21/1998	8/14/2002 **	2/26/2002 **
Benzene	1		BQL	BQL	BQL	BQL	BQL	NA
Ethylbenzene	29		BQL	BQL	BQL	BQL	BQL	NA
Toluene	1000		BQL	BQL	BQL	BQL	BQL	NA
Methyl-tert-butyl ether	200		BQL	BQL	BQL	BQL	BQL	NA
Total Xylenes	530		BQL	BQL	BQL	BQL	BQL	NA
Polynuclear Aromatic Hydrocarbons by USEPA method 625, ug/L								NA
Naphthalene	21		BQL	BQL	BQL	BQL	12	BQL
Acenaphthene	80		BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280		BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210		BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit		BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28		BQL	BQL	BQL	BQL	BQL	BQL

NOTES:

NA indicates the sample was not analyzed for this constituent.

Bold type indicates detected concentrations above laboratory quantitation limits.

Detected concentrations above the regulatory limits are indicated by shading.

BQL = Below Laboratory Quantitation Limit

* verified with laboratory data package

verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCR-4015
Camp Lejeune, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location Sample ID Sample Date	MW-20		MW-21	
			USTLCH4015-MW20-02A	USTLCH4015-MW20-01C	USTLCH4015-MW21-02B	USTLCH4015-MW21-02A
Volatile Aromatic Hydrocarbons by USEPA method 602, ug/L						
Benzene	1		BQL	BQL		2/26/2002 *#
Ethylbenzene	79		BQL	BQL		NA
Toluene	1000		BQL	BQL	BQL	NA
Methyl-tert-butyl ether	200		BQL	BQL	BQL	NA
Total Xylenes	530		BQL	BQL	BQL	NA
Polynuclear Aromatic Hydrocarbons by USEPA method 625, ug/L						
Naphthalene	21		NA	BQL	BQL	
Acenaphthene	80		NA	BQL	BQL	12
Fluorene	280		NA	BQL	BQL	BQL
Phenanthrene	210		NA	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit		NA	BQL	BQL	BQL
2-Methylnaphthalene	28		NA	BQL	BQL	BQL

Notes:

- NA indicates the sample was not analyzed for this constituent.
- Bold type indicates detected concentrations above laboratory quantitation limits.
- Detected concentrations above the regulatory limits are indicated by shading.
- BQL = Below Laboratory Quantitation Limit
- * verified with laboratory data package
- # verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCH-4015
Camp Lejeune, North Carolina

Parameter	NCDEMR Regulatory Limit	Sample Location Sample ID Sample Date	MW-21			MW-22		
			USTLCH4015-MW21-02A	USTLCH4015-MW21-01	USTLCH4015-MW21-01	USTLCH4015-MW22-02B	USTLCH4015-MW22-02A	USTLCH4015-MW22-01
Volatile Aromatic Hydrocarbons by USEPA method 602, ug/L			27/1/2002 *#	8/1/2001 *#	6/1/2001 *#	8/1/2002 *#	27/1/2002 *#	8/1/2001 *#
Benzene	1							
Ethylbenzene	29		1	BOL	BOL	BOL	BOL	BOL
Toluene	1000		BOL	BOL	BOL	BOL	BOL	BOL
Methyl-tert-butyl ether	200		BOL	BOL	BOL	2	BOL	BOL
Total Xylenes	530		BOL	BOL	BOL	BOL	BOL	BOL
Polynuclear Aromatic Hydrocarbons by USEPA method 625, ug/L								
Naphthalene	21		NA	BOL	BOL	BOL	BOL	BOL
Acenaphthene	80		NA	BOL	BOL	BOL	BOL	BOL
Fluorene	280		NA	BOL	BOL	BOL	BOL	BOL
Phenanthrene	210		NA	BOL	BOL	BOL	BOL	BOL
1-Methylnaphthalene	Detection Limit		NA	BOL	BOL	BOL	BOL	BOL
2-Methylnaphthalene	28		NA	BOL	BOL	BOL	BOL	BOL

Notes:

NA indicates the sample was not analyzed for this constituent.
BOL type indicates detected concentrations above laboratory quantitation limits.
Detected concentrations above the regulatory limits are indicated by shading.
BOL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building LCH-4015
Camp Lejeune, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location Sample ID Sample Date	MW-23			
			MW-23 USTLCH4015-MW23-01	USTLCH4015-MW23-02B	MW-23 USTLCH4015-MW23-02A	USTLCH4015-MW23-01
Volatile Aromatic Hydrocarbons by USEPA method 602, ug/L						
Benzene	1		BQL	BQL	BQL	BQL
Ethylbenzene	29		BQL	BQL	BQL	BQL
Toluene	1000		BQL	BQL	BQL	BQL
Methyl-tert-butyl ether	200		BQL	BQL	BQL	BQL
Total Xylenes	530		BQL	BQL	BQL	BQL
Polynuclear Aromatic Hydrocarbons by USEPA method 625, ug/L						
Naphthalene	21		BQL	BQL	BQL	BQL
Acenaphthene	80		BQL	BQL	BQL	BQL
Fluorene	280		BQL	BQL	BQL	BQL
Phenanthrene	210		BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit		BQL	BQL	BQL	BQL
2-Methylnaphthalene	28		BQL	BQL	BQL	BQL

Notes:

NA indicates the sample was not analyzed for this constituent.

Bold type indicates detected concentrations above laboratory quantitation limits.

Detected concentrations above the regulatory limits are indicated by shading.

BQL = Below Laboratory Quantitation Limit

* verified with laboratory data package

verified with electronic data deliverables

EEI DATA – 2003-2005

TABLE 3-1
Groundwater Elevation Data Over Time
Building LCH-4015

Location	Top of Casing Elevation ⁽¹⁾	Screen Zone	11/18/03	2/19/04	3/3/04	4/16/04	5/4/04	6/10/04	7/8/04	8/4/04	9/1/04	10/14/04	11/22/04	12/9/04	1/10/05	2/4/05	3/4/05	4/18/05	5/10/05	6/9/05	7/14/05	8/11/05	9/8/05	10/17/05	11/14/05
MW-1	29.78	Shallow	NM	27.44	27.07	26.29	27.22	25.86	25.88	27.38	27.66	25.94	25.00	24.98	25.70	25.83	26.60	26.48	26.79	26.79	26.21	26.60	25.26	26.71	25.68
MW-2	29.24	Shallow	NM	29.24	28.24	27.71	27.71	27.71	27.89	29.24	29.14	27.68	26.25	26.66	26.86	26.86	27.92	27.98	28.18	28.12	27.71	28.92	26.55	28.14	27.27
MW-3	32.02	Shallow	NM	28.89	28.20	31.13	27.22	26.62	26.51	28.09	28.19	26.77	25.47	25.94	26.53	26.43	27.28	27.30	27.45	27.40	26.82	27.21	25.69	27.41	26.42
MW-4	32.68	Shallow	NM	27.71	28.33	27.94	29.02	26.50	25.90	28.49	29.00	28.44	25.46	26.10	26.97	27.04	28.02	27.46	27.65	27.40	26.12	26.86	25.24	27.50	26.28
MW-5	29.35	Shallow	NM	28.38	25.23	27.41	28.07	26.79	26.97	28.27	28.34	27.16	25.96	26.26	26.57	26.69	27.39	27.55	27.64	27.65	27.18	27.32	26.13	27.85	26.03
MW-6	29.11	Shallow	NM	28.31	27.92	26.61	28.38	26.22	26.23	27.39	28.33	26.23	25.51	22.80	26.05	26.20	26.64	26.52	26.87	26.67	27.11	26.62	25.29	26.80	25.99
MW-7	29.67	Shallow	NM	26.85	29.67	27.79	27.80	26.70	26.64	27.24	29.35	26.28	26.39	26.62	26.72	26.68	27.59	27.35	27.27	27.02	26.83	27.39	26.28	27.22	26.53
MW-8	28.79	Shallow	NM	26.30	27.92	27.74	27.84	28.09	25.42	28.39	28.58	25.90	25.34	25.94	26.57	26.97	27.28	27.56	27.03	27.24	25.77	27.59	24.82	27.00	25.84
MW-9	28.35	Shallow	NM	27.95	27.75	27.22	28.08	26.38	26.03	28.05	28.15	25.55	25.47	27.55	26.60	26.55	27.27	27.24	27.17	28.35	26.40	28.35	25.35	28.35	26.10
MW-10	28.28	Shallow	NM	26.40	27.96	27.59	27.13	26.83	26.26	25.70	28.13	26.23	25.66	26.03	26.39	26.38	27.12	26.96	27.08	26.88	26.46	27.29	25.39	26.92	26.10
MW-11	29.18	Shallow	NM	25.16	26.61	26.59	25.78	26.33	25.14	25.09	26.60	27.53	25.35	25.20	24.83	25.08	25.75	25.60	25.77	26.48	25.64	25.56	24.73	26.89	25.33
MW-12	29.23	Shallow	NM	24.82	26.09	25.74	25.00	25.55	24.68	26.75	28.12	25.00	24.43	23.54	24.65	24.61	25.14	25.31	25.38	25.61	24.95	25.72	24.92	26.51	24.84
MW-13	InD	Deep	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-14	29.45	Shallow	NM	24.86	28.79	25.75	24.95	25.37	24.78	24.80	25.92	26.65	25.22	24.61	24.68	24.81	25.07	25.35	25.45	25.52	25.13	25.37	24.62	25.75	24.99
MW-15	29.26	Shallow	NM	25.40	25.68	26.22	25.74	26.50	25.01	25.09	26.62	26.47	24.65	24.63	24.92	27.16	25.72	25.74	26.05	25.77	24.54	26.37	24.88	26.33	25.54
MW-16	29.62	Shallow	NM	27.46	28.84	29.04	28.27	26.02	27.21	26.97	29.12	29.17	27.03	26.55	26.94	27.44	28.32	28.50	27.91	26.67	27.87	27.06	26.37	27.90	27.04
MW-18	29.86	Shallow	NM	27.05	29.86	29.86	27.74	29.86	26.55	27.59	28.63	29.76	27.13	26.65	28.14	28.46	NM	29.86	27.49	27.30	28.63	29.06	26.46	27.79	26.84
MW-19	29.98	Deep	NM	8.92	9.56	9.56	8.35	9.04	8.45	6.70	7.29	8.28	10.65	9.36	8.08	8.18	7.45	7.37	8.06	6.77	6.68	7.11	5.00	7.96	7.87
MW-20	29.16	Deep	NM	9.67	9.52	9.52	8.32	9.07	8.39	6.67	7.19	7.48	10.63	8.37	8.05	8.17	7.41	7.30	8.01	6.55	6.65	7.20	4.99	7.85	7.77
MW-21	29.85	Intermediate	NM	8.85	9.37	9.37	8.18	9.05	8.40	6.90	7.46	8.43	10.60	8.43	7.97	8.07	7.17	7.17	8.07	6.85	7.71	7.45	5.17	7.96	7.76
MW-22	29.14	Intermediate	NM	9.25	9.51	9.51	8.31	9.04	8.42	6.71	7.32	7.82	10.64	8.42	8.07	8.12	7.49	7.29	8.01	6.96	6.77	7.34	5.04	7.92	7.79
MW-23	29.96	Intermediate	NM	8.84	9.52	9.52	NM	9.01	8.51	6.69	7.04	7.77	10.61	9.07	8.09	9.15	7.54	7.24	8.14	6.68	6.96	7.06	5.61	7.86	7.83
MW-24	28.72	Shallow	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	27.36	27.53	27.59	27.60	27.30	27.25	25.87	27.83	26.83

⁽¹⁾ Top of casing elevation expressed in feet above/below MSL.

MSL: mean sea level

Groundwater elevations corrected for true product as needed by adding (0.8 x product thickness) to uncorrected groundwater elevation

NM: Not measured (e.g., for the indicated date, the well was not accessible, the well was not installed, or the well was not included in gauging program)

NC: Insufficient data to calculate groundwater elevation (e.g., top of casing elevation datum not available)

InD: Insufficient data or data unavailable

Table 4-1 (Page 1 of 9)
Summary of Laboratory Analyses for Groundwater - Building LCH-4015
September 2003

Sample Location	NCGWQS	MW-01	MW-01D	MW-02	MW-03	MW-05	MW-09	MW-11
Date Sampled		09/23/03	09/23/03	09/23/03	09/23/03	10/03/03	09/23/03	09/23/03
EPA 602 (µg/L)								
Benzene	1	141	138	60.1	1	<1.0	<1.0	<1.0
Ethylbenzene	29	371	368	62.9	0.8 J	1.9	0.63 J	3.6
Toluene	1000	17.5	14.8	7.2	<1.0	<1.0	0.66 J	<1.0
Xylenes (total)	530	269	226	612	<3.0	6.9	<3.0	<3.0
Methyl Tert Butyl Ether	200	5.8	4.8	7.5	<1.0	3.8	10.7	<1.0
Total BTEX		798.5	746.8	742.2	1.8	8.8	1.29	3.6
EPA 610 (µg/L)								
Acenaphthene	80	<5.0	<5.4	<5.7	<5.2	<5.1	<5.0	<5.1
Acenaphthylene	210	<5.0	<5.4	<5.7	<5.2	<5.1	<5.0	<5.1
Anthracene	2100	<5.0	<5.4	<5.7	<5.2	<5.1	<5.0	<5.1
Benzo(a)anthracene	0.05	<5.0	<5.4	<5.7	<5.2	<5.1	<5.0	<5.1
Fluoranthene	280	<5.0	<5.4	<5.7	<5.2	<5.1	<5.0	<5.1
Fluorene	280	<5.0	<5.4	<5.7	<5.2	<5.1	<5.0	<5.1
1-Methylnaphthalene	RL	29	23.3	7.1	<5.2	<5.1	<5.0	<5.1
2-Methylnaphthalene	14	43.7	36.2	7.6	<5.2	<5.1	<5.0	<5.1
Naphthalene	21	170	138	59.9	<5.2	<5.1	4.2 J	<5.1
Phenanthrene	210	<5.0	<5.4	<5.7	<5.2	<5.1	<5.0	<5.1
Pyrene	210	<5.0	<5.4	<5.7	<5.2	<5.1	<5.0	<5.1

MW-01D is a duplicate sample collected at well MW-01

NCGWQS: North Carolina Groundwater Quality Standard

RL: Reporting Limit, no NCGWQS established for the constituent; therefore, the NCGWQS for the constituent is the reporting limit

Total BTEX: Sum of detected concentrations of benzene, toluene, ethylbenzene, and xylene isomers

ND: None detected; no benzene, toluene, ethylbenzene, or xylene isomers were detected

µg/L: micrograms per liter

<#: not detected at the indicated reporting limit

J: estimated concentration less than reporting limit

Bold type indicates detectable concentrations.

Shaded area indicates detectable concentration above the North Carolina Groundwater Quality Standards

Table 4-1 (Page 2 of 9)
Summary of Laboratory Analyses for Groundwater - Building LCH-4015
November 2003

Sample Location	NCGWQS	MW-01	MW-02	MW-03	MW-03D	MW-05	MW-06	MW-07	MW-08	MW-09
Date Sampled		11/19/03	11/18/03	11/18/03	11/18/03	11/18/03	11/19/03	11/18/03	11/18/03	11/18/03
EPA 602 (µg/L)										
Benzene	1	139	22.4	1.3	1.5	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	29	37.7	31.9	1.3	1.4	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	1000	8.0	1.9	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	530	147	62.5	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Methyl Tert Butyl Ether	200	10.1	24.0	2.6	2.7	3.3	<1.0	<1.0	<1.0	7.5
Total BTEX		671	118.7	2.6	2.9	ND	ND	ND	ND	ND
EPA 610 (µg/L)										
Acenaphthene	80	<5.4	<5.4	<5.0	<5.0	<5.0	<5.1	<5.0	<5.1	<5.1
Acenaphthylene	210	<5.4	<5.4	<5.0	<5.0	<5.0	<5.1	<5.0	<5.1	<5.1
Anthracene	2100	<5.4	<5.4	<5.0	<5.0	<5.0	<5.1	<5.0	<5.1	<5.1
Benzo(a)anthracene	0.05	<5.4	<5.4	<5.0	<5.0	<5.0	<5.1	<5.0	<5.1	<5.1
Fluoranthene	280	<5.4	<5.4	<5.0	<5.0	<5.0	<5.1	<5.0	<5.1	<5.1
Fluorene	280	<5.4	<5.4	2.5 J	<5.0	<5.0	<5.1	<5.0	<5.1	<5.1
1-Methylnaphthalene	RL	28.1	5.1 J	<5.0	<5.0	<5.0	<5.1	<5.0	2.9 J	<5.1
2-Methylnaphthalene	14	47.0	2.9 J	<5.0	<5.0	<5.0	<5.1	<5.0	<5.1	<5.1
Naphthalene	21	169	47.8	<5.0	<5.0	<5.0	<5.1	<5.0	2.3 J	<5.1
Phenanthrene	210	<5.4	<5.4	<5.0	<5.0	<5.0	<5.1	<5.0	<5.1	<5.1
Pyrene	210	<5.4	<5.4	<5.0	<5.0	<5.0	<5.1	<5.0	<5.1	<5.1
Sample Location	NCGWQS	MW-10	MW-11	MW-12	MW-14	MW-15	MW-16	MW-18	MW-19	
Date Sampled		11/18/03	12/11/03	11/19/03	11/19/03	11/18/03	11/18/03	11/19/03	11/19/03	
EPA 602 (µg/L)										
Benzene	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Ethylbenzene	29	<1.0	2.5	<1.0	<1.0	<1.0	<1.0	0.86 J	<1.0	
Toluene	1000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Xylenes (total)	530	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	
Methyl Tert Butyl Ether	200	5.6	<1.0	<1.0	<1.0	<1.0	2.6	<1.0	<1.0	
Total BTEX		ND	2.5	ND	ND	ND	ND	0.86	ND	
EPA 610 (µg/L)										
Acenaphthene	80	<5.6	3.1 J	<5.2	<5.1	<5.1	<5.0	<5.2	2.4 J	
Acenaphthylene	210	<5.6	<5.2	<5.2	<5.1	<5.1	<5.0	<5.2	<5.1	
Anthracene	2100	<5.6	<5.2	<5.2	<5.1	<5.1	<5.0	<5.2	<5.1	
Benzo(a)anthracene	0.05	<5.6	<5.2	<5.2	<5.1	<5.1	<5.0	<5.2	<5.1	
Fluoranthene	280	<5.6	<5.2	<5.2	<5.1	<5.1	<5.0	<5.2	<5.1	
Fluorene	280	<5.6	9.0	<5.2	<5.1	<5.1	<5.0	<5.2	<5.1	
1-Methylnaphthalene	RL	<5.6	36.8	<5.2	<5.1	<5.1	<5.0	<5.2	<5.1	
2-Methylnaphthalene	14	<5.6	6.3	<5.2	<5.1	<5.1	<5.0	<5.2	<5.1	
Naphthalene	21	<5.6	5.8	<5.2	<5.1	<5.1	<5.0	<5.2	3.2 J	
Phenanthrene	210	<5.6	5.7	<5.2	<5.1	<5.1	<5.0	<5.2	<5.1	
Pyrene	210	<5.6	<5.2	<5.2	<5.1	<5.1	<5.0	<5.2	<5.1	

MW-03D is a duplicate sample collected at well MW-03

NCGWQS: North Carolina Groundwater Quality Standard

RL: Reporting Limit, no NCGWQS established for the constituent; therefore, the NCGWQS for the constituent is the reporting limit

Total BTEX: Sum of detected concentrations of benzene, toluene, ethylbenzene, and xylene isomers

ND: None detected; no benzene, toluene, ethylbenzene, or xylene isomers were detected

µg/L: micrograms per liter

<#: not detected at the indicated reporting limit

J: estimated concentration less than reporting limit

Bold type indicates detectable concentrations.

Shaded area indicates detectable concentration above the North Carolina Groundwater Quality Standards

Table 4-1 (Page 3 of 9)
Summary of Laboratory Analyses for Groundwater - Building LCH-4015
February 2004

Sample Location Date Sampled	NCGWQS	MW-01 02/20/04	MW-02 02/20/04	MW-03 02/19/04	MW-05 02/19/04	DUP (MW-05) 02/19/04	MW-09 02/20/04	MW-11 02/19/04
EPA 602 (µg/L)								
Benzene	1	131	19.1	10.5	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	29	439	14.5	3.7	<1.0	<1.0	<1.0	3.9
Toluene	1000	27.5	1.3	0.68 J	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	530	514	76.9	3.6	<3.0	<3.0	<3.0	<3.0
Methyl Tert Butyl Ether	200	8.1	94.4	7.0	5.5	5.5	8.0	<1.0
Total BTEX		1111.5	111.8	18.48	ND	ND	ND	3.9
EPA 610 (µg/L)								
Acenaphthene	80	<5.2	<5.0	<5.1	<5.0	<5.0	<5.0	<5.1
Acenaphthylene	210	<5.2	<5.0	<5.1	<5.0	<5.0	<5.0	<5.1
Anthracene	2100	<5.2	<5.0	<5.1	<5.0	<5.0	<5.0	<5.1
Benzo(a)anthracene	0.05	<5.2	<5.0	<5.1	<5.0	<5.0	<5.0	<5.1
Fluoranthene	280	<5.2	<5.0	<5.1	<5.0	<5.0	<5.0	<5.1
Fluorene	280	<5.2	<5.0	<5.1	<5.0	<5.0	<5.0	5.1
1-Methylnaphthalene	RL	26.9	3.5 J	<5.1	<5.0	<5.0	<5.0	4.6 J
2-Methylnaphthalene	14	38.7	<5.0	<5.1	<5.0	<5.0	<5.0	<5.1
Naphthalene	21	157	15.7	2.3 J	<5.0	<5.0	<5.0	<5.1
Phenanthrene	210	<5.2	<5.0	<5.1	<5.0	<5.0	<5.0	<5.1
Pyrene	210	<5.2	<5.0	<5.1	<5.0	<5.0	<5.0	<5.1

DUP is a duplicate sample collected at well MW-05

NCGWQS: North Carolina Groundwater Quality Standard

RL: Reporting Limit, no NCGWQS established for the constituent; therefore, the NCGWQS for the constituent is the reporting limit

Total BTEX: Sum of detected concentrations of benzene, toluene, ethylbenzene, and xylene isomers

ND: None detected; no benzene, toluene, ethylbenzene, or xylene isomers were detected

µg/L: micrograms per liter

<#: not detected at the indicated reporting limit

J: estimated concentration less than reporting limit

Bold type indicates detectable concentrations.

Shaded area indicates detectable concentration above the North Carolina Groundwater Quality Standards

Table 4-1 (Page 4 of 9)
Summary of Laboratory Analyses for Groundwater - Building LCH-4015

May 2004

Sample Location Date Sampled	NCGWQS	MW-01 05/12/04	MW-02 05/12/04	MW-03* 05/11/04	DUP (MW-03) 05/11/04	MW-05 05/11/04	MW-06 05/11/04	MW-07 05/11/04	MW-08 05/12/04	MW-09 05/11/04
EPA 602 (µg/L)										
Benzene	1	28.4	30.9	1.6	1.8	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	29	319	14.6	1.7	2.0	<1.0	<1.0	<1.0	<1.0	3.5
Toluene	1000	13.0	1.8	<1.0	<1.0	<1.0	<1.0	0.52 J	<1.0	<1.0
Xylenes (total)	530	70.4	85.3	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Methyl Tert Butyl Ether	200	4.0 J	25.9	<1.0	<1.0	2.7	6.2	<1.0	<1.0	<1.0
Total BTEX		1064.4	132.6	3.3	3.8	ND	ND	0.52	ND	3.5
EPA 610 (µg/L)										
Acenaphthene	80	<5.1	<5.1	<5.1	<5.0	<5.1	<5.2	<5.1	<5.0	<5.1
Acenaphthylene	210	<5.1	<5.1	<5.1	<5.0	<5.1	<5.2	<5.1	<5.0	<5.1
Anthracene	2100	<5.1	<5.1	<5.1	<5.0	<5.1	<5.2	<5.1	<5.0	<5.1
Benzo(a)anthracene	0.05	<5.1	<5.1	<5.1	<5.0	<5.1	<5.2	<5.1	<5.0	<5.1
Fluoranthene	280	<5.1	<5.1	<5.1	<5.0	<5.1	<5.2	<5.1	<5.0	<5.1
Fluorene	280	<5.1	<5.1	<5.1	<5.0	<5.1	<5.2	<5.1	<5.0	<5.1
1-Methylnaphthalene	RL	25.3	<5.1	<5.1	<5.0	<5.1	<5.2	<5.1	<5.0	<5.1
2-Methylnaphthalene	14	34.3	<5.1	<5.1	<5.0	<5.1	<5.2	<5.1	<5.0	<5.1
Naphthalene	21	102	15.7	<5.1	<5.0	<5.1	<5.2	<5.1	<5.0	<5.1
Phenanthrene	210	<5.1	<5.1	<5.1	<5.0	<5.1	<5.2	<5.1	<5.0	<5.1
Pyrene	210	<5.1	<5.1	<5.1	<5.0	<5.1	<5.2	<5.1	<5.0	<5.1
Sample Location Date Sampled	NCGWQS	MW-10 05/11/04	MW-11 05/11/04	MW-12 05/11/04	MW-14 05/11/04	MW-15 05/11/04	MW-16 05/12/04	MW-18 ⁽²⁾ 05/11/04	MW-19 05/11/04	
EPA 602 (µg/L)										
Benzene	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Ethylbenzene	29	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Toluene	1000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Xylenes (total)	530	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	
Methyl Tert Butyl Ether	200	9.8	<1.0	<1.0	<1.0	<1.0	3.7	<1.0	<1.0	
Total BTEX		ND	ND	ND	ND	ND	ND	ND	ND	
EPA 610 (µg/L)										
Acenaphthene	80	<5.0	4.3 J	<5.3	<5.1	<5.0	<5.1	<5.1	3.7 J	
Acenaphthylene	210	<5.0	<5.1	<5.3	<5.1	<5.0	<5.1	<5.1	<5.0	
Anthracene	2100	<5.0	<5.1	<5.3	<5.1	<5.0	<5.1	<5.1	<5.0	
Benzo(a)anthracene	0.05	<5.0	<5.1	<5.3	<5.1	<5.0	<5.1	<5.1	<5.0	
Fluoranthene	280	<5.0	<5.1	<5.3	<5.1	<5.0	<5.1	<5.1	<5.0	
Fluorene	280	<5.0	8.0	<5.3	<5.1	<5.0	<5.1	<5.1	<5.0	
1-Methylnaphthalene	RL	<5.0	29.5	<5.3	<5.1	<5.0	<5.1	<5.1	<5.0	
2-Methylnaphthalene	14	<5.0	5.9	<5.3	<5.1	<5.0	<5.1	<5.1	2.1 J	
Naphthalene	21	<5.0	3.8 J	<5.3	<5.1	<5.0	<5.1	<5.1	2.1 J	
Phenanthrene	210	<5.0	<5.1	<5.3	<5.1	<5.0	<5.1	<5.1	<5.0	
Pyrene	210	<5.0	<5.1	<5.3	<5.1	<5.0	<5.1	<5.1	<5.0	

* At well MW-03, 1,3-Dichlorobenzene was reported in the primary and duplicate samples at estimated concentrations of 0.69 µg/L and 0.78 µg/L, respectively; at well MW-18, 1,3-Dichlorobenzene was reported at a concentration of 1.6 µg/L; the NCGWQS for 1,3-Dichlorobenzene is 620 µg/L.

DUP is a duplicate sample collected at well MW-03

NCGWQS: North Carolina Groundwater Quality Standard

RL: Reporting Limit; no NCGWQS established for the constituent; therefore, the NCGWQS for the constituent is the reporting limit

Total BTEX: Sum of detected concentrations of benzene, toluene, ethylbenzene, and xylene isomers

NA: Not Analyzed; the indicated analysis was not requested

ND: None detected; no benzene, toluene, ethylbenzene, or xylene isomers were detected

µg/L: micrograms per liter

<#: not detected at the indicated reporting limit

J: estimated concentration less than reporting limit

Bold type indicates detectable concentrations

Shaded area indicates detectable concentration above the North Carolina Groundwater Quality Standards

Table 4-1 (Page 5 of 9)
Summary of Laboratory Analyses for Groundwater - Building LCH-4015

August 2004

Sample Location	NCGWQS	MW-01	DUP (MW-01)	MW-02	MW-03	MW-05	MW-09	MW-11
Date Sampled		08/11/04	08/11/04	08/11/04	08/11/04	08/11/04	08/11/04	08/11/04
EPA 602 (µg/L)								
Benzene	1	53.3	70.4	0.90 J	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	29	225	208	2.4	<1.0	<1.0	<1.0	5.4
Toluene	1000	8.6	13.3	<1.0	0.52 J	<1.0	0.50 J	0.63 J
Xylenes (total)	530	314	317	13.3	<3.0	<3.0	<3.0	1.8 J
Methyl Tert Butyl Ether	200	<5.0	4.5	20.0	1.9	0.76 J	6.9	<1.0
Total BTEX		600.9	608.7	16.6	0.52	ND	0.5	7.83
EPA 610 (µg/L)								
Acenaphthene	80	<48	<48	<4.8	<4.8	<4.8	<4.8	<9.5
Acenaphthylene	210	<48	<48	<4.8	<4.8	<4.8	<4.8	<9.5
Anthracene	2100	<48	<48	<4.8	<4.8	<4.8	<4.8	<9.5
Benzo(a)anthracene	0.05	<48	<48	<4.8	<4.8	<4.8	<4.8	<9.5
Fluoranthene	280	<48	<48	<4.8	<4.8	<4.8	<4.8	<9.5
Fluorene	280	<48	<48	<4.8	3.3 J	<4.8	<4.8	16.4
1-Methylnaphthalene	RL	34.4 J	34.5 J	2.9 J	<4.8	<4.8	<4.8	38.2
2-Methylnaphthalene	14	49.0	48.6	3.2 J	<4.8	<4.8	<4.8	6.6 J
Naphthalene	21	207	216	45.2	<4.8	<4.8	<4.8	3.8 J
Phenanthrene	210	<48	<48	<4.8	<4.8	<4.8	<4.8	6.5 J
Pyrene	210	<48	<48	<4.8	<4.8	<4.8	<4.8	<9.5

DUP is a duplicate sample collected at well MW-01

NCGWQS: North Carolina Groundwater Quality Standard

RL: Reporting Limit, no NCGWQS established for the constituent; therefore, the NCGWQS for the constituent is the reporting limit

Total BTEX: Sum of detected concentrations of benzene, toluene, ethylbenzene, and xylene isomers

ND: None detected; no benzene, toluene, ethylbenzene, or xylene isomers were detected

µg/L: micrograms per liter

<#: not detected at the indicated reporting limit

J: estimated concentration less than reporting limit

Bold type indicates detectable concentrations.

Shaded area indicates detectable concentration above the North Carolina Groundwater Quality Standards

Table 4-1 (Page 6 of 9)
Summary of Laboratory Analyses for Groundwater - Building LCH-4015

November 2004

Sample Location Date Sampled	NCGWQS	MW-01 11/22/04	MW-02* 11/22/04	MW-03 11/22/04	DUP (MW-03) 11/23/04	MW-13 11/23/04	MW-18 11/23/04
EPA 602 (µg/L)							
Benzene	1	29.1	84.6	0.56 J	0.61 J	<1.0	<1.0
Ethylbenzene	29	189	64.0	<1.0	<1.0	<1.0	<1.0
Toluene	1000	4.6 J	6.7	<1.0	<1.0	<1.0	0.51 J
Xylenes (total)	530	390	220	<3.0	<3.0	<3.0	<3.0
Methyl Tert Butyl Ether	200	<5.0	8.3	<1.0	<1.0	<1.0	<1.0
Total BTEX		612.7	375.3	0.56	0.61	ND	0.51
EPA 610 (µg/L)							
Acenaphthene	80	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
Acenaphthylene	210	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
Anthracene	2100	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
Benzo(a)anthracene	0.05	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
Fluoranthene	280	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
Fluorene	280	<4.8	<4.8	2.3 J	2.1 J	<4.8	5.8
1-Methylnaphthalene	RL	17.3	7.6	<4.8	<4.8	<4.8	<4.8
2-Methylnaphthalene	14	25.7	5.2	<4.8	<4.8	<4.8	<4.8
Naphthalene	21	88.1	94.5	<4.8	<4.8	<4.8	<4.8
Phenanthrene	210	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
Pyrene	210	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
MADEP VPH / EPH (µg/L)							
C5-C8 Aliphatics	420	296	197	65.7 J	154 J	<190	312
C19-C36 Aliphatics	42000	2030	363	<190	131	<55	68.4
C9-C12 + C9-C18 Aliphatics	4200	1120	487	129 J	55 J	<265	<265
C9-C10 + C11-C22 Aromatics	210	1150	222	275	106	<210	40.9
SW 6010B* (µg/L)							
Lead	15	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Sample Location Date Sampled	NCGWQS	MW-19 11/23/04	MW-20 11/22/04	MW-21 11/23/04	MW-22 11/22/04	MW-23 11/23/04	
EPA 602 (µg/L)							
Benzene	1	<1.0	<1.0	20.8	<1.0	73.9	
Ethylbenzene	29	<1.0	<1.0	5.2	<1.0	1.3	
Toluene	1000	<1.0	<1.0	2.0	<1.0	<1.0	
Xylenes (total)	530	<3.0	<3.0	2.7 J	<3.0	1.3 J	
Methyl Tert Butyl Ether	200	<1.0	<1.0	21.3	<1.0	34.3	
Total BTEX		ND	ND	30.7	ND	76.5	
EPA 610 (µg/L)							
Acenaphthene	80	<4.8	<4.8	<4.8	<4.8	<4.8	
Acenaphthylene	210	<4.8	<4.8	<4.8	<4.8	<4.8	
Anthracene	2100	<4.8	<4.8	<4.8	<4.8	<4.8	
Benzo(a)anthracene	0.05	<4.8	<4.8	<4.8	<4.8	<4.8	
Fluoranthene	280	<4.8	<4.8	<4.8	<4.8	<4.8	
Fluorene	280	<4.8	<4.8	<4.8	<4.8	<4.8	
1-Methylnaphthalene	RL	<4.8	<4.8	<4.8	<4.8	<4.8	
2-Methylnaphthalene	14	<4.8	<4.8	<4.8	<4.8	<4.8	
Naphthalene	21	<4.8	14.9	15.3	<4.8	<4.8	
Phenanthrene	210	<4.8	<4.8	<4.8	<4.8	<4.8	
Pyrene	210	<4.8	<4.8	<4.8	<4.8	<4.8	
MADEP VPH / EPH (µg/L)							
C5-C8 Aliphatics	420	<190	143 J	<190	<190	149	
C19-C36 Aliphatics	42000	<55	<55	119	<55	<55	
C9-C12 + C9-C18 Aliphatics	4200	<265	<265	<265	<265	<265	
C9-C10 + C11-C22 Aromatics	210	<210	<210	95.8	<210	<210	
SW 6010B/3030C (µg/L)							
Lead	15	<5.0	7.7	<40	<5.0	<50	

* At well MW-02, Chlorobenzene was detected at a concentration of 3.0 µg/L (NCGWQS of 50 µg/L)

NCGWQS: North Carolina Groundwater Quality Standard

RL: Reporting Limit, no NCGWQS established for the constituent; therefore, the NCGWQS for the constituent is the reporting limit

Total BTEX: Sum of detected concentrations of benzene, toluene, ethylbenzene, and xylene isomers

ND: None detected; no benzene, toluene, ethylbenzene, or xylene isomers were detected

µg/L: micrograms per liter

<#: not detected at the indicated reporting limit

J: estimated concentration less than reporting limit

Bold type indicates detectable concentrations.

Shaded area indicates detectable concentration above the North Carolina Groundwater Quality Standards

Table 4-1 (Page 7 of 9)

Summary of Laboratory Analyses for Groundwater - Building LCH-4015

March 2005

Sample Location	NCGWQS	MW-24
Date Sampled		03/07/05
EPA 602 (µg/L)		
Benzene	1	4.38
Ethylbenzene	29	0.785 J
Toluene	1000	0.418 J
Total Xylenes	530	2.088 J
1,2-Dichlorobenzene	620	15.8
1,3-Dichlorobenzene	620	<1.00
1,4-Dichlorobenzene	75	0.799 J
Naphthalene	21	19.3
Methyl-tert butyl ether	200	1.89 J
Diisopropyl ether	70	3.97
EPA 610 (µg/L)		
Acenaphthene	80	1.40 J
Bis(2-ethylhexyl)phthalate	3	1.40 J
Dimethylphthalate	RL	1.50 J
Fluorene	280	1.70 J
Naphthalene	21	11.1
TICs (total)		241.21 J
MADEP VPH / EPH (µg/L)		
C5-C8 Aliphatics	420	220
C19-C36 Aliphatics	42000	<100
C9-C12 + C9-C18 Aliphatics	4200	130
C9-C10 + C11-C22 Aromatics	210	440
SW 6010B* (µg/L)		
Lead	15	<5.0

TICs: Tentatively Identified Compound ("None" if no TICs reported)

NCGWQS: North Carolina Groundwater Quality Standard

RL: Reporting Limit, no NCGWQS established for the constituent; therefore, the NCGWQS for the constituent is the reporting limit

Total BTEX: Sum of detected concentrations of benzene, toluene, ethylbenzene, and xylene isomers

ND: None detected; no benzene, toluene, ethylbenzene, or xylene isomers were detected

µg/L: micrograms per liter

<#: not detected at the indicated reporting limit

J: estimated concentration less than reporting limit

Bold type indicates detectable concentrations.**Shaded area indicates detectable concentration above the North Carolina Groundwater Quality Standards**

Table 4-1 (Page 8 of 9)
Summary of Laboratory Analyses for Groundwater - Building LCH-4015
May 2005

Sample Location	NCGWQS	MW-01	MW-02	MW-03	DUP (MW-03)	MW-13	MW-18
Date Sampled		05/10/05	05/10/05	05/10/05	05/10/05	05/11/05	05/11/05
EPA 602 (µg/L)							
Benzene	1	30.1	13.1	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	29	270	13.5	<1.0	<1.0	<1.0	<1.0
Toluene	1000	14.8	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	530	659	32.6	<3.0	<3.0	<3.0	<3.0
Chlorobenzene	50	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	620	50.7	10.0	7.7	7.0	<1.0	2.4
1,3-Dichlorobenzene	620	<5.0	<1.0	0.83 J	0.59 J	<1.0	1.3
1,4-Dichlorobenzene	75	<5.0	<1.0	0.59 J	<1.0	<1.0	<1.0
Methyl Tert Butyl Ether	200	7.8	52.5	<1.0	<1.0	<1.0	<1.0
Total BTEX		973.9	59.2	ND	ND	ND	ND
EPA 625 (µg/L)							
Acenaphthene	80	<4.9	<4.8	1.3 J	1.2 J	<4.8	2.3 J
Acenaphthylene	210	<4.9	<4.8	<4.8	<5.0	<4.8	<5.0
Anthracene	2100	<4.9	<4.8	<4.8	<5.0	<4.8	<5.0
Benzo(a)anthracene	0.05	<4.9	<4.8	<4.8	<5.0	<4.8	<5.0
Fluoranthene	280	<4.9	<4.8	<4.8	<5.0	<4.8	<5.0
Fluorene	280	<4.9	<4.8	1.4 J	1.2 J	<4.8	3.1 J
1-Methylnaphthalene	RL	23.1	<4.8	<4.8	<5.0	<4.8	<5.0
2-Methylnaphthalene	14	34.2	<4.8	<4.8	<5.0	<4.8	<5.0
Naphthalene	21	165	11.5	1.6 J	<5.0	<4.8	<5.0
Phenanthrene	210	<4.9	<4.8	<4.8	<5.0	<4.8	<5.0
Pyrene	210	<4.9	<4.8	<4.8	<5.0	<4.8	<5.0
SW 6010B* (µg/L)							
Lead	15	<5.0	<10	<5.0	<5.0	<5.0	<5.0
Sample Location							
Date Sampled							
	NCGWQS	MW-19	MW-20	MW-21	MW-22	MW-23	MW-24
		05/11/05	05/10/05	05/11/05	05/10/05	05/11/05	05/10/05
EPA 602 (µg/L)							
Benzene	1	<1.0	<1.0	17.5	<1.0	47.1	2.3
Ethylbenzene	29	<1.0	<1.0	4.2	<1.0	0.79 J	<1.0
Toluene	1000	<1.0	<1.0	1.1	0.96 J	<1.0	<1.0
Xylenes (total)	530	<3.0	<3.0	1.1 J	<3.0	<3.0	<3.0
Chlorobenzene	50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	620	<1.0	<1.0	<1.0	<1.0	<1.0	22.1
1,3-Dichlorobenzene	620	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dichlorobenzene	75	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl Tert Butyl Ether	200	<1.0	<1.0	28.8	1.2	31.9	3.0
Total BTEX		ND	ND	23.9	0.96	47.89	2.3
EPA 625 (µg/L)							
Acenaphthene	80	2.6 J	<4.8	<4.8	<4.8	<4.8	1.5 J
Acenaphthylene	210	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
Anthracene	2100	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
Benzo(a)anthracene	0.05	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
Fluoranthene	280	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
Fluorene	280	1.1 J	<4.8	<4.8	<4.8	<4.8	1.8 J
1-Methylnaphthalene	RL	<4.8	<4.8	<4.8	<4.8	<4.8	2.6 J
2-Methylnaphthalene	14	<4.8	<4.8	<4.8	<4.8	<4.8	2.8 J
Naphthalene	21	<4.8	24.8	20.4	<4.8	<4.8	<4.8
Phenanthrene	210	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
Pyrene	210	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
SW 6010B/3030C (µg/L)							
Lead	15	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0

NCGWQS: North Carolina Groundwater Quality Standard

RL: Reporting Limit, no NCGWQS established for the constituent; therefore, the NCGWQS for the constituent is the reporting limit

Total BTEX: Sum of detected concentrations of benzene, toluene, ethylbenzene, and xylene isomers

ND: None detected; no benzene, toluene, ethylbenzene, or xylene isomers were detected

µg/L: micrograms per liter

<#: not detected at the indicated reporting limit

J: estimated concentration less than reporting limit

Bold type indicates detectable concentrations.

Shaded area indicates detectable concentration above the North Carolina Groundwater Quality Standards

Table 4-1 (Page 9 of 9)
Summary of Laboratory Analyses for Groundwater - Building LCH-4015
November 2005

Sample Location	NCGWQS	MW-01	MW-02	DUP (MW-02)	MW-13	MW-18	MW-03
Date Sampled		11/14/05	11/14/05	11/14/05	11/14/05	11/14/05	11/14/05
EPA 602 (µg/L)							
Benzene	1	48.1	1.5	1.9	<1.0	<1.0	<1.0
Ethylbenzene	29	143	2.0	2.3	<1.0	<1.0	<1.0
Toluene	1000	4.9	<1.0	<1.0	0.54 J	0.59 J	<1.0
Xylenes (total)	530	268	5.6	10.7	<3.0	<3.0	<3.0
Chlorobenzene	50	2.1	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	620	<32	<120	<120	<3.0	<3.0	<10
1,3-Dichlorobenzene	620	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dichlorobenzene	75	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl Tert Butyl Ether	200	7.2	49.6	50.1	<1.0	<1.0	1.1
Total BTEX		464	9.1	14.9	0.54	0.59	ND
EPA 625 (µg/L)							
Acenaphthene	80	<4.9	<5.0	<5.0	<5.3	3 J	1.6 J
Acenaphthylene	210	<4.9	<5.0	<5.0	<5.3	<5.3	<5.0
Anthracene	2100	<4.9	<5.0	<5.0	<5.3	<5.3	<5.0
Benzo(a)anthracene	0.05	<4.9	<5.0	<5.0	<5.3	<5.3	<5.0
Fluoranthene	280	<4.9	<5.0	<5.0	<5.3	<5.3	<5.0
Fluorene	280	<4.9	<5.0	<5.0	<5.3	4.3 J	1.6 J
1-Methylnaphthalene	RL	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	14	NA	NA	NA	NA	NA	NA
Naphthalene	21	105	2.3 J	2.1 J	<5.3	<5.3	<5.0
Phenanthrene	210	<4.9	<5.0	<5.0	<5.3	<5.3	<5.0
Pyrene	210	<4.9	<5.0	<5.0	<5.3	<5.3	<5.0
TICs (Total)		1300 J	263.4 J	248.4 J	None	344.3 J	132 J
SW 6010B* (µg/L)							
Lead	15	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Sample Location							
Date Sampled							
	NCGWQS	MW-19	MW-20	MW-21	MW-22	MW-23	MW-24
		11/14/05	11/14/05	11/14/05	11/14/05	11/14/05	11/14/05
EPA 602 (µg/L)							
Benzene	1	<1.0	<1.0	10.9	<1.0	4.2	1.8
Ethylbenzene	29	<1.0	<1.0	1.9	<1.0	0.66 J	<1.0
Toluene	1000	0.63 J	<1.0	0.7 J	0.89 J	0.71 J	0.57 J
Xylenes (total)	530	<3.0	<3.0	1.3 J	<3.0	1.3 J	<3.0
Chlorobenzene	50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	620	<1.0	<1.0	<1.0	<1.0	<1.0	<15
1,3-Dichlorobenzene	620	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dichlorobenzene	75	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl Tert Butyl Ether	200	<1.0	<1.0	26.1	1.9	17.9	1.7
Total BTEX		0.63	ND	14.76	0.89	6.87	2.37
EPA 625 (µg/L)							
Acenaphthene	80	<5.0	<4.8	<5.3	<5.3	<4.8	1.9 J
Acenaphthylene	210	<5.0	<4.8	<5.3	<5.3	<4.8	<5.6
Anthracene	2100	<5.0	<4.8	<5.3	<5.3	<4.8	<5.6
Benzo(a)anthracene	0.05	<5.0	<4.8	<5.3	<5.3	<4.8	<5.6
Fluoranthene	280	<5.0	<4.8	<5.3	<5.3	<4.8	<5.6
Fluorene	280	<5.0	<4.8	<5.3	<5.3	<4.8	2.1 J
1-Methylnaphthalene	RL	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	14	NA	NA	NA	NA	NA	NA
Naphthalene	21	<5.0	9.2	32.3	<5.3	<4.8	4.4 J
Phenanthrene	210	<5.0	<4.8	<5.3	<5.3	<4.8	<5.6
Pyrene	210	<5.0	<4.8	<5.3	<5.3	<4.8	<5.6
TICs (Total)		None	None	146 J	None	64.9 J	264.2 J
SW 6010B/3030C (µg/L)							
Lead	15	<5.0	<5.0	18.8	<5.0	10.1	<5.0

TICs: Tentatively Identified Compound ("None" if no TICs reported)

NCGWQS: North Carolina Groundwater Quality Standard

RL: Reporting Limit, no NCGWQS established for the constituent; therefore, the NCGWQS for the constituent is the reporting limit

Total BTEX: Sum of detected concentrations of benzene, toluene, ethylbenzene, and xylene isomers

ND: None detected; no benzene, toluene, ethylbenzene, or xylene isomers were detected

NA: Not Analyzed; the indicated constituent was not analyzed

µg/L: micrograms per liter

<#: not detected at the indicated reporting limit

J: estimated concentration less than reporting limit

Bold type indicates detectable concentrations.

Shaded area indicates detectable concentration above the North Carolina Groundwater Quality Standards

APPENDIX B

LABORATORY REPORTS AND CHAIN OF CUSTODY DOCUMENTATION FROM 2006 SAMPLING EVENTS

Mr. Chris Murray
Sovereign Consulting
606 Thimble Shoals Rd.
Suite A1
Newport-News VA 23606
Report Number: G650-21
Client Project: NV011

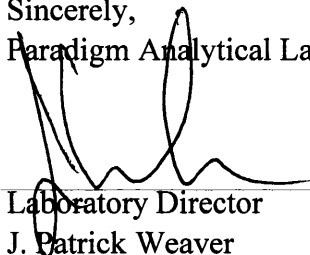
Dear Mr. Murray:

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 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.



Laboratory Director
J. Patrick Weaver

2/1/06
Date

Results for Volatiles

by GC 602

Client Sample ID: USTLCH4015-MW23

Analyzed By: MJC

Client Project ID: NV011

Date Collected: 1/19/06 8:41

Lab Sample ID: G650-21-1A

Date Received: 1/20/06

Lab Project ID: G650-21

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	25.9	1.00	0.316	1	1/24/06	
Diisopropyl ether (DIPE)	1.81	1.00	0.294	1	1/24/06	
Ethylbenzene	0.400	1.00	0.299	1	1/24/06	J
Methyl-tert butyl ether (MTBE)	15.0	2.00	0.588	1	1/24/06	
Toluene	BQL	1.00	0.302	1	1/24/06	
m/p-Xylene	BQL	2.00	0.608	1	1/24/06	
o-Xylene	BQL	2.00	0.596	1	1/24/06	

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	40.5	101

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

Reviewed By: 

GC_LIMS_v2.0.XLS

Results for Volatiles

by GC 602

Client Sample ID: USTLCH4015-MW01

Analyzed By: MJC

Client Project ID: NV011

Date Collected: 1/19/06 9:17

Lab Sample ID: G650-21-2A

Date Received: 1/20/06

Lab Project ID: G650-21

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	45.5	8.00	2.53	8	1/24/06	
Diisopropyl ether (DIPE)	BQL	8.00	2.35	8	1/24/06	
Ethylbenzene	179	8.00	2.39	8	1/24/06	
Methyl-tert butyl ether (MTBE)	4.98	16.0	4.7	8	1/24/06	J
Toluene	10.1	8.00	2.42	8	1/24/06	
m/p-Xylene	333	16.0	4.86	8	1/24/06	
o-Xylene	37.5	16.0	4.77	8	1/24/06	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	41.1	103

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

Reviewed By: 

GC_LIMS_v2.0 XLS

Results for Volatiles

by GC 602

Client Sample ID: USTLCH4015-MW21

Analyzed By: MJC

Client Project ID: NV011

Date Collected: 1/19/06 10:00

Lab Sample ID: G650-21-3A

Date Received: 1/20/06

Lab Project ID: G650-21

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	20.2	1.00	0.316	1	1/24/06	
Diisopropyl ether (DIPE)	0.670	1.00	0.294	1	1/24/06	J
Ethylbenzene	3.05	1.00	0.299	1	1/24/06	
Methyl-tert butyl ether (MTBE)	15.4	2.00	0.588	1	1/24/06	
Toluene	BQL	1.00	0.302	1	1/24/06	
m/p-Xylene	BQL	2.00	0.608	1	1/24/06	
o-Xylene	0.632	2.00	0.596	1	1/24/06	J

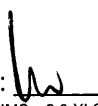
Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	41.1	103

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

Reviewed By: 

GC_LIMS_v2.0.XLS

Results for Volatiles

by GC 602

Client Sample ID: USTLCH4015-MW19

Analyzed By: MJC

Client Project ID: NV011

Date Collected: 1/19/06 10:52

Lab Sample ID: G650-21-4A

Date Received: 1/20/06

Lab Project ID: G650-21

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.316	1	1/24/06	
Diisopropyl ether (DIPE)	BQL	1.00	0.294	1	1/24/06	
Ethylbenzene	BQL	1.00	0.299	1	1/24/06	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.588	1	1/24/06	
Toluene	BQL	1.00	0.302	1	1/24/06	
m/p-Xylene	BQL	2.00	0.608	1	1/24/06	
o-Xylene	BQL	2.00	0.596	1	1/24/06	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	40.7	102

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

Results for Volatiles

by GC 602

Client Sample ID: USTLCH4015-MW22

Analyzed By: MJC

Client Project ID: NV011

Date Collected: 1/19/06 11:50

Lab Sample ID: G650-21-5A

Date Received: 1/20/06

Lab Project ID: G650-21

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.316	1	1/24/06	
Diisopropyl ether (DIPE)	BQL	1.00	0.294	1	1/24/06	
Ethylbenzene	BQL	1.00	0.299	1	1/24/06	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.588	1	1/24/06	
Toluene	BQL	1.00	0.302	1	1/24/06	
m/p-Xylene	BQL	2.00	0.608	1	1/24/06	
o-Xylene	BQL	2.00	0.596	1	1/24/06	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	40.6	102

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

Reviewed By: 

GC_LIMS_v2.0.XLS

Results for Volatiles

by GC 602

Client Sample ID: USTLCH4015-MW20

Analyzed By: MJC

Client Project ID: NV011

Date Collected: 1/19/06 12:30

Lab Sample ID: G650-21-6A

Date Received: 1/20/06

Lab Project ID: G650-21

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.316	1	1/25/06	
Diisopropyl ether (DIPE)	BQL	1.00	0.294	1	1/25/06	
Ethylbenzene	BQL	1.00	0.299	1	1/25/06	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.588	1	1/25/06	
Toluene	BQL	1.00	0.302	1	1/25/06	
m/p-Xylene	BQL	2.00	0.608	1	1/25/06	
o-Xylene	BQL	2.00	0.596	1	1/25/06	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	40.8	102

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

Reviewed By: 

GC_LIMS_v2.0.XLS

Results for Volatiles

by GC 602

Client Sample ID: USTLCH4015-MW02

Analyzed By: MJC

Client Project ID: NV011

Date Collected: 1/19/06 13:11

Lab Sample ID: G650-21-7A

Date Received: 1/20/06

Lab Project ID: G650-21

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	3.63	1.00	0.316	1	1/25/06	
Diisopropyl ether (DIPE)	BQL	1.00	0.294	1	1/25/06	
Ethylbenzene	6.10	1.00	0.299	1	1/25/06	
Methyl-tert butyl ether (MTBE)	16.7	2.00	0.588	1	1/25/06	
Toluene	BQL	1.00	0.302	1	1/25/06	
m/p-Xylene	BQL	2.00	0.608	1	1/25/06	
o-Xylene	BQL	2.00	0.596	1	1/25/06	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	40.8	102

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

Reviewed By: 

GC_LIMS_v2.0 XLS

Results for Volatiles

by GC 602

Client Sample ID: USTLCH4015-MW03

Analyzed By: MJC

Client Project ID: NV011

Date Collected: 1/19/06 13:56

Lab Sample ID: G650-21-8A

Date Received: 1/20/06

Lab Project ID: G650-21

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.316	1	1/25/06	
Diisopropyl ether (DIPE)	0.651	1.00	0.294	1	1/25/06	J
Ethylbenzene	BQL	1.00	0.299	1	1/25/06	
Methyl-tert butyl ether (MTBE)	0.949	2.00	0.588	1	1/25/06	J
Toluene	BQL	1.00	0.302	1	1/25/06	
m/p-Xylene	BQL	2.00	0.608	1	1/25/06	
o-Xylene	BQL	2.00	0.596	1	1/25/06	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	40.6	102

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

Reviewed By: 

GC_LIMS_v2.0.XLS

Results for Volatiles

by GC 602

Client Sample ID: USTLCH4015-MW13

Analyzed By: MJC

Client Project ID: NV011

Date Collected: 1/19/06 14:50

Lab Sample ID: G650-21-9A

Date Received: 1/20/06

Lab Project ID: G650-21

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.316	1	1/25/06	
Diisopropyl ether (DIPE)	BQL	1.00	0.294	1	1/25/06	
Ethylbenzene	BQL	1.00	0.299	1	1/25/06	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.588	1	1/25/06	
Toluene	BQL	1.00	0.302	1	1/25/06	
m/p-Xylene	BQL	2.00	0.608	1	1/25/06	
o-Xylene	BQL	2.00	0.596	1	1/25/06	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	40.7	102

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

Reviewed By: 

GC_LIMS_V2 0.XLS

Results for Volatiles

by GC 602

Client Sample ID: USTLCH4015-DUP

Analyzed By: MJC

Client Project ID: NV011

Date Collected: 1/19/06 0:00

Lab Sample ID: G650-21-10A

Date Received: 1/20/06

Lab Project ID: G650-21

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.316	1	1/25/06	
Diisopropyl ether (DIPE)	BQL	1.00	0.294	1	1/25/06	
Ethylbenzene	BQL	1.00	0.299	1	1/25/06	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.588	1	1/25/06	
Toluene	BQL	1.00	0.302	1	1/25/06	
m/p-Xylene	BQL	2.00	0.608	1	1/25/06	
o-Xylene	BQL	2.00	0.596	1	1/25/06	
Surrogate Spike Recoveries		Spike Added		Spike Result	Percent Recovery	
Trifluorotoluene		40		40.8	102	

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

Reviewed By: 

GC_LIMS_V2.0.XLS

Results for Volatiles

by GC 602

Client Sample ID: Method Blank

Analyzed By: MJC

Client Project ID:

Date Collected:

Lab Sample ID: VBLK3012406A

Date Received:

Lab Project ID:

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.316	1	1/24/06	
Diisopropyl ether (DIPE)	BQL	1.00	0.294	1	1/24/06	
Ethylbenzene	BQL	1.00	0.299	1	1/24/06	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.588	1	1/24/06	
Toluene	BQL	1.00	0.302	1	1/24/06	
m/p-Xylene	BQL	2.00	0.608	1	1/24/06	
o-Xylene	BQL	2.00	0.596	1	1/24/06	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	40.5	101

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

Reviewed By: 
GC_LIMS_v2.0 XLS

Control Limits for QC Check / Laboratory Control Spike

Method: **602** Spike[ppb]: **10**
 Instrument : gc3
 Filename : 012406\004r0101.txt

Compound	ppb	Q(%)	QC Limits		P _s (%)	LCS Limits	
			Lower	Upper		Lower	Upper
Benzene	10.0	100.4	77.0	123.0	100	39	150
Chlorobenzene	9.8	97.6	80.5	119.5	98	55	135
1,2-Dichlorobenzene	10.3	103.4	68.0	132.0	103	37	154
1,3-Dichlorobenzene	9.9	99.1	72.5	127.5	99	50	141
1,4-Dichlorobenzene	10.1	101.4	69.5	130.5	101	42	143
• Diisopropyl ether	9.5	95.2	43.1	156.9	95	30	170
Ethylbenzene	10.3	102.9	63.0	137.0	103	32	160
• MTBE	9.9	98.5	46.8	153.2	99	35	165
Toluene	10.0	99.7	77.5	127.0	100	46	148
• m,p-Xylene	20.7	103.4	11.2	188.8	103	D	239
• o-Xylene	10.0	99.7	47.6	152.4	100	36	164

Flags :

- + = out of QC limits.
- = lab generated limits.
- D = Detected

Reviewed by: 

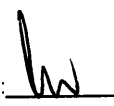
Control Limits for MS-MSD

Method: **602** Spike[ppb]: **10**
 Instrument : gc3
 Sample : 012406\019r0101.txt
 MS : 012406\020r0101.txt
 MSD : 012406\021r0101.txt

Compound	µg/L			P(%)		P Limits	
	Sam.	MS	MSD	MS	MSD	Lower	Upper
Benzene	ND	10.7	10.7	101	101	39	150
Chlorobenzene	ND	9.7	9.9	97	99	55	135
1,2-Dichlorobenzene	1.6	11.3	11.3	97	97	37	154
1,3-Dichlorobenzene	ND	9.9	10.0	93	95	50	141
1,4-Dichlorobenzene	ND	9.2	9.3	92	93	42	143
• Diisopropyl ether	ND	9.5	9.5	95	95	30	170
Ethylbenzene	17.0	27.3	27.3	103	103	32	160
• MTBE	ND	9.7	9.7	97	97	35	165
Toluene	9.8	19.9	19.8	101	100	46	148
• m,p-Xylene	23.6	43.6	43.5	100	99	D	239
• o-Xylene	25.7	35.0	34.9	93	92	36	164

Flags :

- + = out of QC limits.
- = lab generated limits.
- D = Detected
- ND = None Detected

Reviewed by: 

Results for Volatiles

by GC 602

Client Sample ID: Method Blank

Analyzed By: MJC

Client Project ID:

Date Collected:

Lab Sample ID: VBLK3012406B

Date Received:

Lab Project ID:

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.316	1	1/24/06	
Diisopropyl ether (DIPE)	BQL	1.00	0.294	1	1/24/06	
Ethylbenzene	BQL	1.00	0.299	1	1/24/06	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.588	1	1/24/06	
Toluene	BQL	1.00	0.302	1	1/24/06	
m/p-Xylene	BQL	2.00	0.608	1	1/24/06	
o-Xylene	BQL	2.00	0.596	1	1/24/06	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	40.5	101

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

Reviewed By: 

GC_LIMS_v2.0.XLS

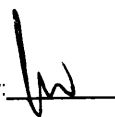
Control Limits for QC Check / Laboratory Control Spike

Method: **602** Spike[ppb] : **10**
 Instrument : gc3
 Filename : 012406\024r0101.txt

Compound	ppb	Q(%)	QC Limits		P _s (%)	LCS Limits	
			Lower	Upper		Lower	Upper
Benzene	10.0	99.6	77.0	123.0	100	39	150
Chlorobenzene	9.6	96.4	80.5	119.5	96	55	135
1,2-Dichlorobenzene	9.9	98.7	68.0	132.0	99	37	154
1,3-Dichlorobenzene	9.6	95.5	72.5	127.5	96	50	141
1,4-Dichlorobenzene	9.8	98.5	69.5	130.5	98	42	143
• Diisopropyl ether	9.3	93.2	43.1	156.9	93	30	170
Ethylbenzene	10.1	101.1	63.0	137.0	101	32	160
• MTBE	9.7	97.1	46.8	153.2	97	35	165
Toluene	9.9	99.0	77.5	127.0	99	46	148
• m,p-Xylene	20.2	101.1	11.2	188.8	101	D	239
• o-Xylene	9.8	97.9	47.6	152.4	98	36	164

Flags :

- + = out of QC limits.
- = lab generated limits.
- D = Detected

Reviewed by: 

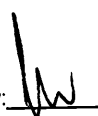
Control Limits for MS-MSD

Method: 602 Spike[ppb]: 10
 Instrument: GC3
 Sample: 012406\038r0101.txt
 MS: 012406\041r0101.txt
 MSD: 012406\042r0101.txt

Compound	$\mu\text{g/L}$			P(%)		P Limits	
	Sam.	MS	MSD	MS	MSD	Lower	Upper
Benzene	ND	10.2	9.9	102	99	39	150
Chlorobenzene	ND	9.8	9.5	98	95	55	135
1,2-Dichlorobenzene	ND	10.0	9.8	99	97	37	154
1,3-Dichlorobenzene	ND	9.4	9.3	94	93	50	141
1,4-Dichlorobenzene	ND	9.8	9.5	98	95	42	143
Diisopropyl ether	ND	9.2	8.8	92	88	30	170
Ethylbenzene	ND	10.4	10.1	104	101	32	160
MTBE	ND	9.9	9.7	98	95	35	165
Toluene	ND	10.1	9.9	101	99	46	148
m,p-Xylene	ND	21.0	20.4	104	101	D	239
o-Xylene	ND	9.8	9.5	98	95	36	164

Flags :

- + = out of QC limits.
- = lab generated limits.
- D = Detected
- ND = None Detected

Reviewed by: 

Results for Metals

Client Sample ID: USTLCH4015-MW23
Client Project ID: NV011
Lab Sample ID: G650-21-1
Lab Project ID: G650-21
Batch ID: 4361

Analyzed By: RML
Date Collected: 1/19/2006 08:41
Date Received: 1/20/06
Matrix: WATER

Metals	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Lead	BQL	5.00	0.470	25	UG/L	6020	1/31/06	

Comments

BQL = Below Quantitation Limits

DF = Dilution Factor

J = Between MDL and RL

B= Amount in Prep Blank > MDL

Samples Prepared by 3030C

Reviewed By: 

MET_LIMS_4.0

Results for Metals

Client Sample ID: USTLCH4015-MW01
Client Project ID: NV011
Lab Sample ID: G650-21-2
Lab Project ID: G650-21
Batch ID: 4361

Analyzed By: RML
Date Collected: 1/19/2006 09:17
Date Received: 1/20/06
Matrix: WATER

Metals	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Lead	0.600	5.00	0.470	25	UG/L	6020	1/31/06	J

Comments

BQL = Below Quantitation Limits

DF = Dilution Factor

J = Between MDL and RL

B= Amount in Prep Blank > MDL

Samples Prepared by 3030C

Reviewed By: 

MET_LIMS_4.0

Results for Metals

Client Sample ID: USTLCH4015-MW21
Client Project ID: NV011
Lab Sample ID: G650-21-3
Lab Project ID: G650-21
Batch ID: 4361

Analyzed By: RML
Date Collected: 1/19/2006 10:00
Date Received: 1/20/06
Matrix: WATER

Metals	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Lead	BQL	5.00	0.470	25	UG/L	6020	1/31/06	

Comments

BQL = Below Quantitation Limits

DF = Dilution Factor

J = Between MDL and RL

B= Amount in Prep Blank > MDL

Samples Prepared by 3030C

Reviewed By: 

MET_LIMS_4 0

Results for Metals

Client Sample ID: USTLCH4015-MW19
Client Project ID: NV011
Lab Sample ID: G650-21-4
Lab Project ID: G650-21
Batch ID: 4361

Analyzed By: RML
Date Collected: 1/19/2006 10:52
Date Received: 1/20/06
Matrix: WATER

Metals	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Lead	0.675	5.00	0.470	25	UG/L	6020	1/31/06	J

Comments

BQL = Below Quantitation Limits

DF = Dilution Factor

J = Between MDL and RL

B= Amount in Prep Blank > MDL

Samples Prepared by 3030C

Reviewed By: 

MET_LIMS_4.0

Results for Metals

Client Sample ID: USTLCH4015-MW22

Analyzed By: RML

Client Project ID: NV011

Date Collected: 1/19/2006 11:50

Lab Sample ID: G650-21-5

Date Received: 1/20/06

Lab Project ID: G650-21

Matrix: WATER

Batch ID: 4361

Metals	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Lead	BQL	5.00	0.470	25	UG/L	6020	1/31/06	

Comments

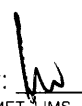
BQL = Below Quantitation Limits

DF = Dilution Factor

J = Between MDL and RL

B= Amount in Prep Blank > MDL

Samples Prepared by 3030C

Reviewed By: 

MET_LIMS_4 0

Results for Metals

Client Sample ID: USTLCH4015-MW20
Client Project ID: NV011
Lab Sample ID: G650-21-6
Lab Project ID: G650-21
Batch ID: 4361

Analyzed By: RML
Date Collected: 1/19/2006 12:30
Date Received: 1/20/06
Matrix: WATER

Metals	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Lead	2.28	5.00	0.470	25	UG/L	6020	1/31/06	J

Comments

BQL = Below Quantitation Limits

DF = Dilution Factor

J = Between MDL and RL

B= Amount in Prep Blank > MDL

Samples Prepared by 3030C

Reviewed By: 
MET_LIMS_4.0

Results for Metals

Client Sample ID: USTLCH4015-MW02

Analyzed By: RML

Client Project ID: NV011

Date Collected: 1/19/2006 13:11

Lab Sample ID: G650-21-7

Date Received: 1/20/06

Lab Project ID: G650-21

Matrix: WATER

Batch ID: 4361

Metals	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Lead	BQL	5.00	0.470	25	UG/L	6020	1/31/06	

Comments

BQL = Below Quantitation Limits

DF = Dilution Factor

J = Between MDL and RL

B= Amount in Prep Blank > MDL

Samples Prepared by 3030C

Reviewed By: 

MET_LIMS_4.0

Results for Metals

Client Sample ID: USTLCH4015-MW03
Client Project ID: NV011
Lab Sample ID: G650-21-8
Lab Project ID: G650-21
Batch ID: 4361

Analyzed By: RML
Date Collected: 1/19/2006 13:56
Date Received: 1/20/06
Matrix: WATER

Metals	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Lead	BQL	5.00	0.470	25	UG/L	6020	1/31/06	

Comments

BQL = Below Quantitation Limits

DF = Dilution Factor

J = Between MDL and RL

B= Amount in Prep Blank > MDL

Samples Prepared by 3030C

Reviewed By: 
MET_LIMS_4 0

Results for Metals

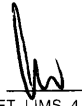
Client Sample ID: USTLCH4015-MW13
Client Project ID: NV011
Lab Sample ID: G650-21-9
Lab Project ID: G650-21
Batch ID: 4361

Analyzed By: RML
Date Collected: 1/19/2006 14:50
Date Received: 1/20/06
Matrix: WATER

Metals	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Lead	BQL	5.00	0.470	25	UG/L	6020	1/31/06	

Comments

BQL = Below Quantitation Limits
DF = Dilution Factor
J = Between MDL and RL
B= Amount in Prep Blank > MDL
Samples Prepared by 3030C

Reviewed By: 
MET_LIMS_4 0

Results for Metals

Client Sample ID: USTLCH4015-DUP
Client Project ID: NV011
Lab Sample ID: G650-21-10
Lab Project ID: G650-21
Batch ID: 4361

Analyzed By: RML
Date Collected: 1/19/2006 00:00
Date Received: 1/20/06
Matrix: WATER

Metals	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Lead	BQL	5.00	0.470	25	UG/L	6020	1/31/06	

Comments

BQL = Below Quantitation Limits

DF = Dilution Factor

J = Between MDL and RL

B= Amount in Prep Blank > MDL

Samples Prepared by 3030C

Reviewed By: 

MET_LIMS_4.0

Results for Metals

Client Sample ID: Lab Blank

Analyzed By: RML

Client Project ID:

Date Collected:

Lab Sample ID: pb4361

Date Received:

Lab Project ID:

Matrix: WATER

Batch ID: 4361

Metals	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Lead	BQL	5.00	0.470	25	UG/L	6020	1/31/06	

Comments

BQL = Below Quantitation Limits

DF = Dilution Factor

J = Between MDL and RL

B= Amount in Prep Blank > RL

Samples Prepared by 3030C

Reviewed By: 

PrepBlank

MS/MSD Results for METALS

Lab ID: G650-21-1
 MS Lab ID: G650-21-1
 MSD Lab ID: G650-21-1
 ICP Batch: 4361
 HG Batch:
 Other:

Analyzed By: RML
 Matrix: Water
 Units: MG/L

Analyte	Sample Result	SA MS	MS Result	MS %REC	SA MSD	MSD Result	MSD %REC	Limit		RPD	RPD Limit
								Lower	Upper		
Lead	BQL	0.400	0.374	93.5	0.400	0.391	97.7	75	125	4.44	20

Comments

*=Out of Limits

NA = Not applicable, due to sample concentration greater than three times spike concentration

Reviewed By: 

METALS Results for LCS/LCD

ICP Batch: 4361

HG Batch:

Other:

Matrix: WATER

Units: MG/L

Analyte	TRUE Value	LCS	LCS %REC		LCD	LCD %REC		Limit		RPD		RPD Limit
								Lower	Upper			
Lead	0.400	0.354	88.5		0.360	90.0		80	120	1.68		20

Reviewed By: 

Results for Semivolatiles by GCMS 625

Client Sample ID: USTLCH4015-MW23

Client Project ID: NV011

Lab Sample ID: G650-21-11

Lab Project ID: G650-21

Analyzed By: MRC

Date Collected: 1/19/2006 8:41

Date Received: 1/20/2006

Date Extracted: 1/23/2006

Matrix: Water

Compound	Result ug/L	Quantitation Limit ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	1/25/2006	
Acenaphthylene	BQL	10.0	1.12	1	1/25/2006	
Anthracene	BQL	10.0	1.75	1	1/25/2006	
Benzo[a]anthracene	BQL	10.0	1.36	1	1/25/2006	
Benzo[a]pyrene	BQL	10.0	1.27	1	1/25/2006	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	1/25/2006	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	1/25/2006	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	1/25/2006	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	1/25/2006	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	1/25/2006	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	1/25/2006	
Bis(2-ethylhexyl)phthalate	4.90	10.0	1.33	1	1/25/2006	J
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	1/25/2006	
Butylbenzylphthalate	BQL	10.0	1.53	1	1/25/2006	
2-Chloronaphthalene	BQL	10.0	1.25	1	1/25/2006	
2-Chlorophenol	BQL	10.0	4.22	1	1/25/2006	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	1/25/2006	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	1/25/2006	
Chrysene	BQL	10.0	1.11	1	1/25/2006	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	1/25/2006	
Di-n-Butylphthalate	BQL	10.0	1.65	1	1/25/2006	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	1/25/2006	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	1/25/2006	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	1/25/2006	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	1/25/2006	
2,4-Dichlorophenol	BQL	10.0	3.75	1	1/25/2006	
Diethylphthalate	BQL	10.0	1.48	1	1/25/2006	
Dimethylphthalate	BQL	10.0	1.04	1	1/25/2006	
2,4-Dimethylphenol	BQL	10.0	9.25	1	1/25/2006	
Di-n-octylphthalate	BQL	10.0	1.16	1	1/25/2006	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	1/25/2006	
2,4-Dinitrophenol	BQL	50.0	4.20	1	1/25/2006	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	1/25/2006	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	1/25/2006	
Diphenylamine *	BQL	10.0	1.53	1	1/25/2006	
Fluoranthene	BQL	10.0	1.41	1	1/25/2006	
Fluorene	BQL	10.0	1.22	1	1/25/2006	
Hexachlorobenzene	BQL	10.0	1.22	1	1/25/2006	
Hexachlorobutadiene	BQL	10.0	1.58	1	1/25/2006	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	1/25/2006	
Hexachloroethane	BQL	10.0	1.58	1	1/25/2006	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	1/25/2006	

**Results for Semivolatiles
by GCMS 625**

Client Sample ID: USTLCH4015-MW23

Client Project ID: NV011

Lab Sample ID: G650-21-11

Lab Project ID: G650-21

Analyzed By: MRC

Date Collected: 1/19/2006 8:41

Date Received: 1/20/2006

Date Extracted: 1/23/2006

Matrix: Water

Compound	Result ug/L	Quantitation Limit ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Isophorone	BQL	10.0	1.27	1	1/25/2006	
Naphthalene	BQL	10.0	1.08	1	1/25/2006	
Nitrobenzene	BQL	10.0	1.32	1	1/25/2006	
2-Nitrophenol	BQL	10.0	3.52	1	1/25/2006	
4-Nitrophenol	BQL	50.0	3.17	1	1/25/2006	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	1/25/2006	
Pentachlorophenol	BQL	50.0	2.83	1	1/25/2006	
Phenanthrene	BQL	10.0	1.38	1	1/25/2006	
Phenol	BQL	10.0	3.38	1	1/25/2006	
Pyrene	BQL	10.0	2.08	1	1/25/2006	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	1/25/2006	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	1/25/2006	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	7.8	78
2-Fluorophenol	10	8	80
Nitrobenzene-d5	10	7.4	74
Phenol-d6	10	8.1	81
2,4,6-Tribromophenol	10	5.5	55
4-Terphenyl-d14	10	9.2	92

Comments:

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

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: 

Results of Library Search for Semivolatile Compounds
by GCMS

Client Sample ID: USTLCH4015-MW23
Client Project ID: NV011
Lab Sample ID: G650-21-11
Lab Project ID: G650-21
Sample Wt/Vol: 500 ML
Dilution: 1

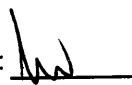
Analyzed By: MRC
Date Collected: 1/19/2006 8:41
Date Received: 1/20/2006
Date Extracted: 1/23/2006
Date Analyzed: 1/25/2006
Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	No library search compounds detected.				
2					
3					
4					
5					
6					
7					
8					
9					
10					

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: 

**Results for Semivolatiles
by GCMS 625**

Client Sample ID: USTLCH4015-MW01

Client Project ID: NV011

Lab Sample ID: G650-21-2G

Lab Project ID: G650-21

Analyzed By: MRC

Date Collected: 1/19/2006 9:17

Date Received: 1/20/2006

Date Extracted: 1/23/2006

Matrix: Water

Compound	Result ug/L	Quantitation Limit ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	1/25/2006	
Acenaphthylene	BQL	10.0	1.12	1	1/25/2006	
Anthracene	BQL	10.0	1.75	1	1/25/2006	
Benzo[a]anthracene	BQL	10.0	1.36	1	1/25/2006	
Benzo[a]pyrene	BQL	10.0	1.27	1	1/25/2006	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	1/25/2006	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	1/25/2006	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	1/25/2006	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	1/25/2006	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	1/25/2006	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	1/25/2006	
Bis(2-ethylhexyl)phthalate	8.70	10.0	1.33	1	1/25/2006	J
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	1/25/2006	
Butylbenzylphthalate	BQL	10.0	1.53	1	1/25/2006	
2-Chloronaphthalene	BQL	10.0	1.25	1	1/25/2006	
2-Chlorophenol	BQL	10.0	4.22	1	1/25/2006	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	1/25/2006	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	1/25/2006	
Chrysene	BQL	10.0	1.11	1	1/25/2006	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	1/25/2006	
Di-n-Butylphthalate	BQL	10.0	1.65	1	1/25/2006	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	1/25/2006	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	1/25/2006	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	1/25/2006	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	1/25/2006	
2,4-Dichlorophenol	BQL	10.0	3.75	1	1/25/2006	
Diethylphthalate	BQL	10.0	1.48	1	1/25/2006	
Dimethylphthalate	BQL	10.0	1.04	1	1/25/2006	
2,4-Dimethylphenol	BQL	10.0	9.25	1	1/25/2006	
Di-n-octylphthalate	BQL	10.0	1.16	1	1/25/2006	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	1/25/2006	
2,4-Dinitrophenol	BQL	50.0	4.20	1	1/25/2006	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	1/25/2006	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	1/25/2006	
Diphenylamine *	BQL	10.0	1.53	1	1/25/2006	
Fluoranthene	BQL	10.0	1.41	1	1/25/2006	
Fluorene	BQL	10.0	1.22	1	1/25/2006	
Hexachlorobenzene	BQL	10.0	1.22	1	1/25/2006	
Hexachlorobutadiene	BQL	10.0	1.58	1	1/25/2006	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	1/25/2006	
Hexachloroethane	BQL	10.0	1.58	1	1/25/2006	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	1/25/2006	

**Results for Semivolatiles
by GCMS 625**

Client Sample ID: USTLCH4015-MW01

Client Project ID: NV011

Lab Sample ID: G650-21-2G

Lab Project ID: G650-21

Analyzed By: MRC

Date Collected: 1/19/2006 9:17

Date Received: 1/20/2006

Date Extracted: 1/23/2006

Matrix: Water

Compound	Result ug/L	Quantitation Limit ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Isophorone	BQL	10.0	1.27	1	1/25/2006	
Naphthalene	111	10.0	1.08	1	1/25/2006	
Nitrobenzene	BQL	10.0	1.32	1	1/25/2006	
2-Nitrophenol	BQL	10.0	3.52	1	1/25/2006	
4-Nitrophenol	BQL	50.0	3.17	1	1/25/2006	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	1/25/2006	
Pentachlorophenol	BQL	50.0	2.83	1	1/25/2006	
Phenanthrene	BQL	10.0	1.38	1	1/25/2006	
Phenol	BQL	10.0	3.38	1	1/25/2006	
Pyrene	BQL	10.0	2.08	1	1/25/2006	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	1/25/2006	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	1/25/2006	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8	80
2-Fluorophenol	10	8.3	83
Nitrobenzene-d5	10	8.3	83
Phenol-d6	10	8.4	84
2,4,6-Tribromophenol	10	6.4	64
4-Terphenyl-d14	10	7	70

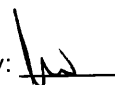
Comments:

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

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: 

Results of Library Search for Semivolatile Compounds

by GCMS

Client Sample ID: USTLCH4015-MW01

Client Project ID: NV011

Lab Sample ID: G650-21-2G

Lab Project ID: G650-21

Sample Wt/Vol: 500 ML

Dilution: 1

Analyzed By: MRC

Date Collected: 1/19/2006 9:17

Date Received: 1/20/2006

Date Extracted: 1/23/2006

Date Analyzed: 1/25/2006

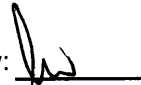
Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Trimethylbenzene, Isomer of	6.59			219
2	Aromatic, Unknown	7.09			154
3	Aromatic acid, Unknown	10.96			80.4
4	Ethylidimethylbenzene, Isomer of	8.36			73.9
5	Dimethylbenzene, Isomer of	4.91			64
6	Unknown	11.13			58.5
7	Unknown	7.32			50.1
8	Unknown	6.70			45.2
9	Trimethylbenzene, Isomer of	6.29			45.2
10	Unknown	3.59			45.1

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: 

Results for Semivolatiles by GCMS 625

Client Sample ID: USTLCH4015-MW21

Client Project ID: NV011

Lab Sample ID: G650-21-3G

Lab Project ID: G650-21

Analyzed By: MRC

Date Collected: 1/19/2006 10:00

Date Received: 1/20/2006

Date Extracted: 1/23/2006

Matrix: Water

Compound	Result ug/L	Quantitation Limit ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	1/25/2006	
Acenaphthylene	BQL	10.0	1.12	1	1/25/2006	
Anthracene	BQL	10.0	1.75	1	1/25/2006	
Benzo[a]anthracene	BQL	10.0	1.36	1	1/25/2006	
Benzo[a]pyrene	BQL	10.0	1.27	1	1/25/2006	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	1/25/2006	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	1/25/2006	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	1/25/2006	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	1/25/2006	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	1/25/2006	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	1/25/2006	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	1/25/2006	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	1/25/2006	
Butylbenzylphthalate	BQL	10.0	1.53	1	1/25/2006	
2-Chloronaphthalene	BQL	10.0	1.25	1	1/25/2006	
2-Chlorophenol	BQL	10.0	4.22	1	1/25/2006	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	1/25/2006	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	1/25/2006	
Chrysene	BQL	10.0	1.11	1	1/25/2006	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	1/25/2006	
Di-n-Butylphthalate	BQL	10.0	1.65	1	1/25/2006	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	1/25/2006	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	1/25/2006	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	1/25/2006	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	1/25/2006	
2,4-Dichlorophenol	BQL	10.0	3.75	1	1/25/2006	
Diethylphthalate	BQL	10.0	1.48	1	1/25/2006	
Dimethylphthalate	BQL	10.0	1.04	1	1/25/2006	
2,4-Dimethylphenol	BQL	10.0	9.25	1	1/25/2006	
Di-n-octylphthalate	BQL	10.0	1.16	1	1/25/2006	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	1/25/2006	
2,4-Dinitrophenol	BQL	50.0	4.20	1	1/25/2006	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	1/25/2006	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	1/25/2006	
Diphenylamine *	BQL	10.0	1.53	1	1/25/2006	
Fluoranthene	BQL	10.0	1.41	1	1/25/2006	
Fluorene	BQL	10.0	1.22	1	1/25/2006	
Hexachlorobenzene	BQL	10.0	1.22	1	1/25/2006	
Hexachlorobutadiene	BQL	10.0	1.58	1	1/25/2006	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	1/25/2006	
Hexachloroethane	BQL	10.0	1.58	1	1/25/2006	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	1/25/2006	

Results for Semivolatiles by GCMS 625

Client Sample ID: USTLCH4015-MW21

Client Project ID: NV011

Lab Sample ID: G650-21-3G

Lab Project ID: G650-21

Analyzed By: MRC

Date Collected: 1/19/2006 10:00

Date Received: 1/20/2006

Date Extracted: 1/23/2006

Matrix: Water

Compound	Result ug/L	Quantitation Limit ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Isophorone	BQL	10.0	1.27	1	1/25/2006	
Naphthalene	31.7	10.0	1.08	1	1/25/2006	
Nitrobenzene	BQL	10.0	1.32	1	1/25/2006	
2-Nitrophenol	BQL	10.0	3.52	1	1/25/2006	
4-Nitrophenol	BQL	50.0	3.17	1	1/25/2006	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	1/25/2006	
Pentachlorophenol	BQL	50.0	2.83	1	1/25/2006	
Phenanthrene	BQL	10.0	1.38	1	1/25/2006	
Phenol	BQL	10.0	3.38	1	1/25/2006	
Pyrene	BQL	10.0	2.08	1	1/25/2006	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	1/25/2006	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	1/25/2006	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8.6	86
2-Fluorophenol	10	9	90
Nitrobenzene-d5	10	8.6	86
Phenol-d6	10	9.1	91
2,4,6-Tribromophenol	10	6.4	64
4-Terphenyl-d14	10	9.8	98

Comments:

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

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: 

Results of Library Search for Semivolatile Compounds
by GCMS

Client Sample ID: USTLCH4015-MW21

Client Project ID: NV011

Lab Sample ID: G650-21-3G

Lab Project ID: G650-21

Sample Wt/Vol: 500 ML

Dilution: 1

Analyzed By: MRC

Date Collected: 1/19/2006 10:00

Date Received: 1/20/2006

Date Extracted: 1/23/2006

Date Analyzed: 1/25/2006

Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Aromatic, Unknown	7.09			89.7
2					
3					
4					
5					
6					
7					
8					
9					
10					

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: 

**Results for Semivolatiles
by GCMS 625**

Client Sample ID: USTLCH4015-MW19

Client Project ID: NV011

Lab Sample ID: G650-21-4G

Lab Project ID: G650-21

Analyzed By: MRC

Date Collected: 1/19/2006 10:52

Date Received: 1/20/2006

Date Extracted: 1/23/2006

Matrix: Water

Compound	Result ug/L	Quantitation Limit ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	1/25/2006	
Acenaphthylene	BQL	10.0	1.12	1	1/25/2006	
Anthracene	BQL	10.0	1.75	1	1/25/2006	
Benzo[a]anthracene	BQL	10.0	1.36	1	1/25/2006	
Benzo[a]pyrene	BQL	10.0	1.27	1	1/25/2006	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	1/25/2006	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	1/25/2006	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	1/25/2006	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	1/25/2006	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	1/25/2006	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	1/25/2006	
Bis(2-ethylhexyl)phthalate	2.80	10.0	1.33	1	1/25/2006	J
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	1/25/2006	
Butylbenzylphthalate	BQL	10.0	1.53	1	1/25/2006	
2-Chloronaphthalene	BQL	10.0	1.25	1	1/25/2006	
2-Chlorophenol	BQL	10.0	4.22	1	1/25/2006	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	1/25/2006	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	1/25/2006	
Chrysene	BQL	10.0	1.11	1	1/25/2006	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	1/25/2006	
Di-n-Butylphthalate	BQL	10.0	1.65	1	1/25/2006	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	1/25/2006	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	1/25/2006	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	1/25/2006	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	1/25/2006	
2,4-Dichlorophenol	BQL	10.0	3.75	1	1/25/2006	
Diethylphthalate	BQL	10.0	1.48	1	1/25/2006	
Dimethylphthalate	BQL	10.0	1.04	1	1/25/2006	
2,4-Dimethylphenol	BQL	10.0	9.25	1	1/25/2006	
Di-n-octylphthalate	BQL	10.0	1.16	1	1/25/2006	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	1/25/2006	
2,4-Dinitrophenol	BQL	50.0	4.20	1	1/25/2006	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	1/25/2006	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	1/25/2006	
Diphenylamine *	BQL	10.0	1.53	1	1/25/2006	
Fluoranthene	BQL	10.0	1.41	1	1/25/2006	
Fluorene	BQL	10.0	1.22	1	1/25/2006	
Hexachlorobenzene	BQL	10.0	1.22	1	1/25/2006	
Hexachlorobutadiene	BQL	10.0	1.58	1	1/25/2006	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	1/25/2006	
Hexachloroethane	BQL	10.0	1.58	1	1/25/2006	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	1/25/2006	

**Results for Semivolatiles
by GCMS 625**

Client Sample ID: USTLCH4015-MW19

Client Project ID: NV011

Lab Sample ID: G650-21-4G

Lab Project ID: G650-21

Analyzed By: MRC

Date Collected: 1/19/2006 10:52

Date Received: 1/20/2006

Date Extracted: 1/23/2006

Matrix: Water

Compound	Result ug/L	Quantitation Limit ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Isophorone	BQL	10.0	1.27	1	1/25/2006	
Naphthalene	BQL	10.0	1.08	1	1/25/2006	
Nitrobenzene	BQL	10.0	1.32	1	1/25/2006	
2-Nitrophenol	BQL	10.0	3.52	1	1/25/2006	
4-Nitrophenol	BQL	50.0	3.17	1	1/25/2006	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	1/25/2006	
Pentachlorophenol	BQL	50.0	2.83	1	1/25/2006	
Phenanthrene	BQL	10.0	1.38	1	1/25/2006	
Phenol	BQL	10.0	3.38	1	1/25/2006	
Pyrene	BQL	10.0	2.08	1	1/25/2006	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	1/25/2006	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	1/25/2006	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	7.8	78
2-Fluorophenol	10	7.9	79
Nitrobenzene-d5	10	7.6	76
Phenol-d6	10	8.1	81
2,4,6-Tribromophenol	10	5.7	57
4-Terphenyl-d14	10	9.7	97

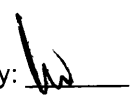
Comments:

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

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: 

Results of Library Search for Semivolatile Compounds
by GCMS

Client Sample ID: USTLCH4015-MW19
Client Project ID: NV011
Lab Sample ID: G650-21-4G
Lab Project ID: G650-21
Sample Wt/Vol: 500 ML
Dilution: 1

Analyzed By: MRC
Date Collected: 1/19/2006 10:52
Date Received: 1/20/2006
Date Extracted: 1/23/2006
Date Analyzed: 1/25/2006
Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	No library search compounds detected.				
2					
3					
4					
5					
6					
7					
8					
9					
10					

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: 

Results for Semivolatiles by GCMS 625

Client Sample ID: USTLCH4015-MW22

Client Project ID: NV011

Lab Sample ID: G650-21-5G

Lab Project ID: G650-21

Analyzed By: MRC

Date Collected: 1/19/2006 11:50

Date Received: 1/20/2006

Date Extracted: 1/23/2006

Matrix: Water

Compound	Result ug/L	Quantitation Limit ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	1/25/2006	
Acenaphthylene	BQL	10.0	1.12	1	1/25/2006	
Anthracene	BQL	10.0	1.75	1	1/25/2006	
Benzo[a]anthracene	BQL	10.0	1.36	1	1/25/2006	
Benzo[a]pyrene	BQL	10.0	1.27	1	1/25/2006	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	1/25/2006	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	1/25/2006	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	1/25/2006	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	1/25/2006	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	1/25/2006	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	1/25/2006	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	1/25/2006	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	1/25/2006	
Butylbenzylphthalate	BQL	10.0	1.53	1	1/25/2006	
2-Chloronaphthalene	BQL	10.0	1.25	1	1/25/2006	
2-Chlorophenol	BQL	10.0	4.22	1	1/25/2006	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	1/25/2006	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	1/25/2006	
Chrysene	BQL	10.0	1.11	1	1/25/2006	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	1/25/2006	
Di-n-Butylphthalate	BQL	10.0	1.65	1	1/25/2006	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	1/25/2006	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	1/25/2006	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	1/25/2006	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	1/25/2006	
2,4-Dichlorophenol	BQL	10.0	3.75	1	1/25/2006	
Diethylphthalate	BQL	10.0	1.48	1	1/25/2006	
Dimethylphthalate	BQL	10.0	1.04	1	1/25/2006	
2,4-Dimethylphenol	BQL	10.0	9.25	1	1/25/2006	
Di-n-octylphthalate	BQL	10.0	1.16	1	1/25/2006	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	1/25/2006	
2,4-Dinitrophenol	BQL	50.0	4.20	1	1/25/2006	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	1/25/2006	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	1/25/2006	
Diphenylamine *	BQL	10.0	1.53	1	1/25/2006	
Fluoranthene	BQL	10.0	1.41	1	1/25/2006	
Fluorene	BQL	10.0	1.22	1	1/25/2006	
Hexachlorobenzene	BQL	10.0	1.22	1	1/25/2006	
Hexachlorobutadiene	BQL	10.0	1.58	1	1/25/2006	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	1/25/2006	
Hexachloroethane	BQL	10.0	1.58	1	1/25/2006	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	1/25/2006	

Results for Semivolatiles by GCMS 625

Client Sample ID: USTLCH4015-MW22

Client Project ID: NV011

Lab Sample ID: G650-21-5G

Lab Project ID: G650-21

Analyzed By: MRC

Date Collected: 1/19/2006 11:50

Date Received: 1/20/2006

Date Extracted: 1/23/2006

Matrix: Water

Compound	Result ug/L	Quantitation Limit ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Isophorone	BQL	10.0	1.27	1	1/25/2006	
Naphthalene	BQL	10.0	1.08	1	1/25/2006	
Nitrobenzene	BQL	10.0	1.32	1	1/25/2006	
2-Nitrophenol	BQL	10.0	3.52	1	1/25/2006	
4-Nitrophenol	BQL	50.0	3.17	1	1/25/2006	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	1/25/2006	
Pentachlorophenol	BQL	50.0	2.83	1	1/25/2006	
Phenanthrene	BQL	10.0	1.38	1	1/25/2006	
Phenol	BQL	10.0	3.38	1	1/25/2006	
Pyrene	BQL	10.0	2.08	1	1/25/2006	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	1/25/2006	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	1/25/2006	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8.3	83
2-Fluorophenol	10	7.9	79
Nitrobenzene-d5	10	8.1	81
Phenol-d6	10	8	80
2,4,6-Tribromophenol	10	7.7	77
4-Terphenyl-d14	10	9.3	93

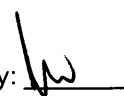
Comments:

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

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: 

Results of Library Search for Semivolatile Compounds*by GCMS*

Client Sample ID: USTLCH4015-MW22

Client Project ID: NV011

Lab Sample ID: G650-21-5G

Lab Project ID: G650-21

Sample Wt/Vol: 500 ML

Dilution: 1

Analyzed By: MRC

Date Collected: 1/19/2006 11:50

Date Received: 1/20/2006

Date Extracted: 1/23/2006

Date Analyzed: 1/25/2006

Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	No library search compounds detected.				
2					
3					
4					
5					
6					
7					
8					
9					
10					

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: 

Results for Semivolatiles by GCMS 625

Client Sample ID: USTLCH4015-MW20

Client Project ID: NV011

Lab Sample ID: G650-21-6G

Lab Project ID: G650-21

Analyzed By: MRC

Date Collected: 1/19/2006 12:30

Date Received: 1/20/2006

Date Extracted: 1/23/2006

Matrix: Water

Compound	Result ug/L	Quantitation Limit ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	1/25/2006	
Acenaphthylene	BQL	10.0	1.12	1	1/25/2006	
Anthracene	BQL	10.0	1.75	1	1/25/2006	
Benzo[a]anthracene	BQL	10.0	1.36	1	1/25/2006	
Benzo[a]pyrene	BQL	10.0	1.27	1	1/25/2006	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	1/25/2006	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	1/25/2006	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	1/25/2006	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	1/25/2006	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	1/25/2006	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	1/25/2006	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	1/25/2006	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	1/25/2006	
Butylbenzylphthalate	BQL	10.0	1.53	1	1/25/2006	
2-Chloronaphthalene	BQL	10.0	1.25	1	1/25/2006	
2-Chlorophenol	BQL	10.0	4.22	1	1/25/2006	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	1/25/2006	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	1/25/2006	
Chrysene	BQL	10.0	1.11	1	1/25/2006	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	1/25/2006	
Di-n-Butylphthalate	BQL	10.0	1.65	1	1/25/2006	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	1/25/2006	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	1/25/2006	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	1/25/2006	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	1/25/2006	
2,4-Dichlorophenol	BQL	10.0	3.75	1	1/25/2006	
Diethylphthalate	BQL	10.0	1.48	1	1/25/2006	
Dimethylphthalate	BQL	10.0	1.04	1	1/25/2006	
2,4-Dimethylphenol	BQL	10.0	9.25	1	1/25/2006	
Di-n-octylphthalate	BQL	10.0	1.16	1	1/25/2006	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	1/25/2006	
2,4-Dinitrophenol	BQL	50.0	4.20	1	1/25/2006	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	1/25/2006	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	1/25/2006	
Diphenylamine *	BQL	10.0	1.53	1	1/25/2006	
Fluoranthene	BQL	10.0	1.41	1	1/25/2006	
Fluorene	BQL	10.0	1.22	1	1/25/2006	
Hexachlorobenzene	BQL	10.0	1.22	1	1/25/2006	
Hexachlorobutadiene	BQL	10.0	1.58	1	1/25/2006	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	1/25/2006	
Hexachloroethane	BQL	10.0	1.58	1	1/25/2006	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	1/25/2006	

Results for Semivolatiles by GCMS 625

Client Sample ID: USTLCH4015-MW20

Client Project ID: NV011

Lab Sample ID: G650-21-6G

Lab Project ID: G650-21

Analyzed By: MRC

Date Collected: 1/19/2006 12:30

Date Received: 1/20/2006

Date Extracted: 1/23/2006

Matrix: Water

Compound	Result ug/L	Quantitation Limit ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Isophorone	BQL	10.0	1.27	1	1/25/2006	
Naphthalene	BQL	10.0	1.08	1	1/25/2006	
Nitrobenzene	BQL	10.0	1.32	1	1/25/2006	
2-Nitrophenol	BQL	10.0	3.52	1	1/25/2006	
4-Nitrophenol	BQL	50.0	3.17	1	1/25/2006	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	1/25/2006	
Pentachlorophenol	BQL	50.0	2.83	1	1/25/2006	
Phenanthrene	BQL	10.0	1.38	1	1/25/2006	
Phenol	BQL	10.0	3.38	1	1/25/2006	
Pyrene	BQL	10.0	2.08	1	1/25/2006	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	1/25/2006	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	1/25/2006	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8.2	82
2-Fluorophenol	10	8.3	83
Nitrobenzene-d5	10	8.2	82
Phenol-d6	10	8.3	83
2,4,6-Tribromophenol	10	7.7	77
4-Terphenyl-d14	10	9.5	95

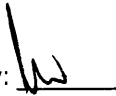
Comments:

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

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: 

Results of Library Search for Semivolatile Compounds*by GCMS*

Client Sample ID: USTLCH4015-MW20

Client Project ID: NV011

Lab Sample ID: G650-21-6G

Lab Project ID: G650-21

Sample Wt/Vol: 500 ML

Dilution: 1

Analyzed By: MRC

Date Collected: 1/19/2006 12:30

Date Received: 1/20/2006

Date Extracted: 1/23/2006

Date Analyzed: 1/25/2006

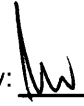
Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	No library search compounds detected.				
2					
3					
4					
5					
6					
7					
8					
9					
10					

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: 

Results for Semivolatiles by GCMS 625

Client Sample ID: USTLCH4015-MW02

Client Project ID: NV011

Lab Sample ID: G650-21-7G

Lab Project ID: G650-21

Analyzed By: MRC

Date Collected: 1/19/2006 13:11

Date Received: 1/20/2006

Date Extracted: 1/23/2006

Matrix: Water

Compound	Result ug/L	Quantitation Limit ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	1/25/2006	
Acenaphthylene	BQL	10.0	1.12	1	1/25/2006	
Anthracene	BQL	10.0	1.75	1	1/25/2006	
Benzo[a]anthracene	BQL	10.0	1.36	1	1/25/2006	
Benzo[a]pyrene	BQL	10.0	1.27	1	1/25/2006	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	1/25/2006	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	1/25/2006	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	1/25/2006	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	1/25/2006	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	1/25/2006	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	1/25/2006	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	1/25/2006	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	1/25/2006	
Butylbenzylphthalate	BQL	10.0	1.53	1	1/25/2006	
2-Chloronaphthalene	BQL	10.0	1.25	1	1/25/2006	
2-Chlorophenol	BQL	10.0	4.22	1	1/25/2006	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	1/25/2006	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	1/25/2006	
Chrysene	BQL	10.0	1.11	1	1/25/2006	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	1/25/2006	
Di-n-Butylphthalate	BQL	10.0	1.65	1	1/25/2006	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	1/25/2006	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	1/25/2006	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	1/25/2006	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	1/25/2006	
2,4-Dichlorophenol	BQL	10.0	3.75	1	1/25/2006	
Diethylphthalate	BQL	10.0	1.48	1	1/25/2006	
Dimethylphthalate	BQL	10.0	1.04	1	1/25/2006	
2,4-Dimethylphenol	BQL	10.0	9.25	1	1/25/2006	
Di-n-octylphthalate	BQL	10.0	1.16	1	1/25/2006	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	1/25/2006	
2,4-Dinitrophenol	BQL	50.0	4.20	1	1/25/2006	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	1/25/2006	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	1/25/2006	
Diphenylamine *	BQL	10.0	1.53	1	1/25/2006	
Fluoranthene	BQL	10.0	1.41	1	1/25/2006	
Fluorene	BQL	10.0	1.22	1	1/25/2006	
Hexachlorobenzene	BQL	10.0	1.22	1	1/25/2006	
Hexachlorobutadiene	BQL	10.0	1.58	1	1/25/2006	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	1/25/2006	
Hexachloroethane	BQL	10.0	1.58	1	1/25/2006	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	1/25/2006	

Results for Semivolatiles by GCMS 625

Client Sample ID: USTLCH4015-MW02

Client Project ID: NV011

Lab Sample ID: G650-21-7G

Lab Project ID: G650-21

Analyzed By: MRC

Date Collected: 1/19/2006 13:11

Date Received: 1/20/2006

Date Extracted: 1/23/2006

Matrix: Water

Compound	Result ug/L	Quantitation Limit ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Isophorone	BQL	10.0	1.27	1	1/25/2006	
Naphthalene	2.10	10.0	1.08	1	1/25/2006	J
Nitrobenzene	BQL	10.0	1.32	1	1/25/2006	
2-Nitrophenol	BQL	10.0	3.52	1	1/25/2006	
4-Nitrophenol	BQL	50.0	3.17	1	1/25/2006	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	1/25/2006	
Pentachlorophenol	BQL	50.0	2.83	1	1/25/2006	
Phenanthrene	BQL	10.0	1.38	1	1/25/2006	
Phenol	BQL	10.0	3.38	1	1/25/2006	
Pyrene	BQL	10.0	2.08	1	1/25/2006	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	1/25/2006	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	1/25/2006	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8	80
2-Fluorophenol	10	7.4	74
Nitrobenzene-d5	10	7.7	77
Phenol-d6	10	7.7	77
2,4,6-Tribromophenol	10	7.7	78
4-Terphenyl-d14	10	8.9	89

Comments:

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

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: hw

Results of Library Search for Semivolatile Compounds*by GCMS*

Client Sample ID: USTLCH4015-MW02

Client Project ID: NV011

Lab Sample ID: G650-21-7G

Lab Project ID: G650-21

Sample Wt/Vol: 500 ML

Dilution: 1

Analyzed By: MRC

Date Collected: 1/19/2006 13:11

Date Received: 1/20/2006

Date Extracted: 1/23/2006

Date Analyzed: 1/25/2006

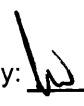
Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Aromatic, Unknown	7.11			37.9
2	Unknown	4.10			20.4
3	Unknown	4.74			19.4
4	Unknown	3.64			15.3
5	Unknown	7.22			13.3
6	Unknown	6.72			13.2
7	Unknown	12.10			9.59
8	Aromatic, Unknown	8.37			5.31
9	Unknown	3.39			4.69
10	Unknown	4.59			4.16

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: 

**Results for Semivolatiles
by GCMS 625**

Client Sample ID: USTLCH4015-MW03

Client Project ID: NV011

Lab Sample ID: G650-21-8G

Lab Project ID: G650-21

Analyzed By: MRC

Date Collected: 1/19/2006 13:56

Date Received: 1/20/2006

Date Extracted: 1/23/2006

Matrix: Water

Compound	Result ug/L	Quantitation Limit ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	1/25/2006	
Acenaphthylene	BQL	10.0	1.12	1	1/25/2006	
Anthracene	BQL	10.0	1.75	1	1/25/2006	
Benzo[a]anthracene	BQL	10.0	1.36	1	1/25/2006	
Benzo[a]pyrene	BQL	10.0	1.27	1	1/25/2006	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	1/25/2006	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	1/25/2006	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	1/25/2006	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	1/25/2006	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	1/25/2006	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	1/25/2006	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	1/25/2006	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	1/25/2006	
Butylbenzylphthalate	BQL	10.0	1.53	1	1/25/2006	
2-Chloronaphthalene	BQL	10.0	1.25	1	1/25/2006	
2-Chlorophenol	BQL	10.0	4.22	1	1/25/2006	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	1/25/2006	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	1/25/2006	
Chrysene	BQL	10.0	1.11	1	1/25/2006	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	1/25/2006	
Di-n-Butylphthalate	BQL	10.0	1.65	1	1/25/2006	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	1/25/2006	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	1/25/2006	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	1/25/2006	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	1/25/2006	
2,4-Dichlorophenol	BQL	10.0	3.75	1	1/25/2006	
Diethylphthalate	BQL	10.0	1.48	1	1/25/2006	
Dimethylphthalate	BQL	10.0	1.04	1	1/25/2006	
2,4-Dimethylphenol	BQL	10.0	9.25	1	1/25/2006	
Di-n-octylphthalate	BQL	10.0	1.16	1	1/25/2006	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	1/25/2006	
2,4-Dinitrophenol	BQL	50.0	4.20	1	1/25/2006	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	1/25/2006	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	1/25/2006	
Diphenylamine *	BQL	10.0	1.53	1	1/25/2006	
Fluoranthene	BQL	10.0	1.41	1	1/25/2006	
Fluorene	BQL	10.0	1.22	1	1/25/2006	
Hexachlorobenzene	BQL	10.0	1.22	1	1/25/2006	
Hexachlorobutadiene	BQL	10.0	1.58	1	1/25/2006	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	1/25/2006	
Hexachloroethane	BQL	10.0	1.58	1	1/25/2006	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	1/25/2006	

**Results for Semivolatiles
by GCMS 625**

Client Sample ID: USTLCH4015-MW03

Client Project ID: NV011

Lab Sample ID: G650-21-8G

Lab Project ID: G650-21

Analyzed By: MRC

Date Collected: 1/19/2006 13:56

Date Received: 1/20/2006

Date Extracted: 1/23/2006

Matrix: Water

Compound	Result ug/L	Quantitation Limit ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Isophorone	BQL	10.0	1.27	1	1/25/2006	
Naphthalene	BQL	10.0	1.08	1	1/25/2006	
Nitrobenzene	BQL	10.0	1.32	1	1/25/2006	
2-Nitrophenol	BQL	10.0	3.52	1	1/25/2006	
4-Nitrophenol	BQL	50.0	3.17	1	1/25/2006	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	1/25/2006	
Pentachlorophenol	BQL	50.0	2.83	1	1/25/2006	
Phenanthrene	BQL	10.0	1.38	1	1/25/2006	
Phenol	BQL	10.0	3.38	1	1/25/2006	
Pyrene	BQL	10.0	2.08	1	1/25/2006	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	1/25/2006	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	1/25/2006	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8.2	82
2-Fluorophenol	10	8.2	82
Nitrobenzene-d5	10	8.2	82
Phenol-d6	10	8.4	84
2,4,6-Tribromophenol	10	8.5	85
4-Terphenyl-d14	10	8.2	82

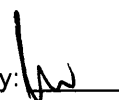
Comments:

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

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: 

Results of Library Search for Semivolatile Compounds*by GCMS*

Client Sample ID: USTLCH4015-MW03

Client Project ID: NV011

Lab Sample ID: G650-21-8G

Lab Project ID: G650-21

Sample Wt/Vol: 500 ML

Dilution: 1

Analyzed By: MRC

Date Collected: 1/19/2006 13:56

Date Received: 1/20/2006

Date Extracted: 1/23/2006

Date Analyzed: 1/25/2006

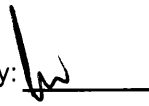
Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Aromatic, Unknown	7.11			18.8
2	Aromatic, Unknown	8.37			10.4
3	Alcohol, Unknown	3.39			9.69
4	Unknown	8.13			8.17
5	Unknown	7.53			2.68
6	Unknown	6.98			2.62
7	Unknown	9.81			2.55
8					
9					
10					

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: 

Results for Semivolatiles by GCMS 625

Client Sample ID: USTLCH4015-MW13

Client Project ID: NV011

Lab Sample ID: G650-21-9G

Lab Project ID: G650-21

Analyzed By: MRC

Date Collected: 1/19/2006 14:50

Date Received: 1/20/2006

Date Extracted: 1/23/2006

Matrix: Water

Compound	Result ug/L	Quantitation Limit ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	1/25/2006	
Acenaphthylene	BQL	10.0	1.12	1	1/25/2006	
Anthracene	BQL	10.0	1.75	1	1/25/2006	
Benzo[a]anthracene	BQL	10.0	1.36	1	1/25/2006	
Benzo[a]pyrene	BQL	10.0	1.27	1	1/25/2006	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	1/25/2006	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	1/25/2006	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	1/25/2006	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	1/25/2006	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	1/25/2006	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	1/25/2006	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	1/25/2006	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	1/25/2006	
Butylbenzylphthalate	BQL	10.0	1.53	1	1/25/2006	
2-Chloronaphthalene	BQL	10.0	1.25	1	1/25/2006	
2-Chlorophenol	BQL	10.0	4.22	1	1/25/2006	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	1/25/2006	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	1/25/2006	
Chrysene	BQL	10.0	1.11	1	1/25/2006	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	1/25/2006	
Di-n-Butylphthalate	BQL	10.0	1.65	1	1/25/2006	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	1/25/2006	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	1/25/2006	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	1/25/2006	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	1/25/2006	
2,4-Dichlorophenol	BQL	10.0	3.75	1	1/25/2006	
Diethylphthalate	BQL	10.0	1.48	1	1/25/2006	
Dimethylphthalate	BQL	10.0	1.04	1	1/25/2006	
2,4-Dimethylphenol	BQL	10.0	9.25	1	1/25/2006	
Di-n-octylphthalate	BQL	10.0	1.16	1	1/25/2006	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	1/25/2006	
2,4-Dinitrophenol	BQL	50.0	4.20	1	1/25/2006	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	1/25/2006	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	1/25/2006	
Diphenylamine *	BQL	10.0	1.53	1	1/25/2006	
Fluoranthene	BQL	10.0	1.41	1	1/25/2006	
Fluorene	BQL	10.0	1.22	1	1/25/2006	
Hexachlorobenzene	BQL	10.0	1.22	1	1/25/2006	
Hexachlorobutadiene	BQL	10.0	1.58	1	1/25/2006	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	1/25/2006	
Hexachloroethane	BQL	10.0	1.58	1	1/25/2006	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	1/25/2006	

Results for Semivolatiles by GCMS 625

Client Sample ID: USTLCH4015-MW13

Client Project ID: NV011

Lab Sample ID: G650-21-9G

Lab Project ID: G650-21

Analyzed By: MRC

Date Collected: 1/19/2006 14:50

Date Received: 1/20/2006

Date Extracted: 1/23/2006

Matrix: Water

Compound	Result ug/L	Quantitation Limit ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Isophorone	BQL	10.0	1.27	1	1/25/2006	
Naphthalene	BQL	10.0	1.08	1	1/25/2006	
Nitrobenzene	BQL	10.0	1.32	1	1/25/2006	
2-Nitrophenol	BQL	10.0	3.52	1	1/25/2006	
4-Nitrophenol	BQL	50.0	3.17	1	1/25/2006	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	1/25/2006	
Pentachlorophenol	BQL	50.0	2.83	1	1/25/2006	
Phenanthrene	BQL	10.0	1.38	1	1/25/2006	
Phenol	BQL	10.0	3.38	1	1/25/2006	
Pyrene	BQL	10.0	2.08	1	1/25/2006	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	1/25/2006	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	1/25/2006	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8.5	85
2-Fluorophenol	10	8.3	83
Nitrobenzene-d5	10	8	80
Phenol-d6	10	8.5	85
2,4,6-Tribromophenol	10	5.6	56
4-Terphenyl-d14	10	10.2	102

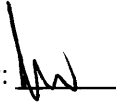
Comments:

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

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: 

Results of Library Search for Semivolatile Compounds*by GCMS*

Client Sample ID: USTLCH4015-MW13

Client Project ID: NV011

Lab Sample ID: G650-21-9G

Lab Project ID: G650-21

Sample Wt/Vol: 500 ML

Dilution: 1

Analyzed By: MRC

Date Collected: 1/19/2006 14:50

Date Received: 1/20/2006

Date Extracted: 1/23/2006

Date Analyzed: 1/25/2006

Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	No library search compounds detected.				
2					
3					
4					
5					
6					
7					
8					
9					
10					

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: 

**Results for Semivolatiles
by GCMS 625**

Client Sample ID: USTLCH4015-DUP

Client Project ID: NV011

Lab Sample ID: G650-21-10G

Lab Project ID: G650-21

Analyzed By: MRC

Date Collected: 1/19/2006 0:00

Date Received: 1/20/2006

Date Extracted: 1/23/2006

Matrix: Water

Compound	Result ug/L	Quantitation Limit ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	1/25/2006	
Acenaphthylene	BQL	10.0	1.12	1	1/25/2006	
Anthracene	BQL	10.0	1.75	1	1/25/2006	
Benzo[a]anthracene	BQL	10.0	1.36	1	1/25/2006	
Benzo[a]pyrene	BQL	10.0	1.27	1	1/25/2006	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	1/25/2006	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	1/25/2006	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	1/25/2006	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	1/25/2006	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	1/25/2006	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	1/25/2006	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	1/25/2006	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	1/25/2006	
Butylbenzylphthalate	BQL	10.0	1.53	1	1/25/2006	
2-Chloronaphthalene	BQL	10.0	1.25	1	1/25/2006	
2-Chlorophenol	BQL	10.0	4.22	1	1/25/2006	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	1/25/2006	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	1/25/2006	
Chrysene	BQL	10.0	1.11	1	1/25/2006	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	1/25/2006	
Di-n-Butylphthalate	BQL	10.0	1.65	1	1/25/2006	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	1/25/2006	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	1/25/2006	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	1/25/2006	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	1/25/2006	
2,4-Dichlorophenol	BQL	10.0	3.75	1	1/25/2006	
Diethylphthalate	BQL	10.0	1.48	1	1/25/2006	
Dimethylphthalate	BQL	10.0	1.04	1	1/25/2006	
2,4-Dimethylphenol	BQL	10.0	9.25	1	1/25/2006	
Di-n-octylphthalate	BQL	10.0	1.16	1	1/25/2006	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	1/25/2006	
2,4-Dinitrophenol	BQL	50.0	4.20	1	1/25/2006	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	1/25/2006	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	1/25/2006	
Diphenylamine *	BQL	10.0	1.53	1	1/25/2006	
Fluoranthene	BQL	10.0	1.41	1	1/25/2006	
Fluorene	BQL	10.0	1.22	1	1/25/2006	
Hexachlorobenzene	BQL	10.0	1.22	1	1/25/2006	
Hexachlorobutadiene	BQL	10.0	1.58	1	1/25/2006	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	1/25/2006	
Hexachloroethane	BQL	10.0	1.58	1	1/25/2006	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	1/25/2006	

**Results for Semivolatiles
by GCMS 625**

Client Sample ID: USTLCH4015-DUP

Client Project ID: NV011

Lab Sample ID: G650-21-10G

Lab Project ID: G650-21

Analyzed By: MRC

Date Collected: 1/19/2006 0:00

Date Received: 1/20/2006

Date Extracted: 1/23/2006

Matrix: Water

Compound	Result ug/L	Quantitation Limit ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Isophorone	BQL	10.0	1.27	1	1/25/2006	
Naphthalene	BQL	10.0	1.08	1	1/25/2006	
Nitrobenzene	BQL	10.0	1.32	1	1/25/2006	
2-Nitrophenol	BQL	10.0	3.52	1	1/25/2006	
4-Nitrophenol	BQL	50.0	3.17	1	1/25/2006	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	1/25/2006	
Pentachlorophenol	BQL	50.0	2.83	1	1/25/2006	
Phenanthrene	BQL	10.0	1.38	1	1/25/2006	
Phenol	BQL	10.0	3.38	1	1/25/2006	
Pyrene	BQL	10.0	2.08	1	1/25/2006	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	1/25/2006	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	1/25/2006	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	7.9	79
2-Fluorophenol	10	7.4	74
Nitrobenzene-d5	10	7.7	77
Phenol-d6	10	7.7	77
2,4,6-Tribromophenol	10	7.1	71
4-Terphenyl-d14	10	10.1	101

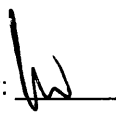
Comments:

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

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: 

Results of Library Search for Semivolatile Compounds
by GCMS

Client Sample ID: USTLCH4015-DUP
Client Project ID: NV011
Lab Sample ID: G650-21-10G
Lab Project ID: G650-21
Sample Wt/Vol: 500 ML
Dilution: 1

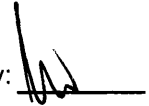
Analyzed By: MRC
Date Collected: 1/19/2006 0:00
Date Received: 1/20/2006
Date Extracted: 1/23/2006
Date Analyzed: 1/25/2006
Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	No library search compounds detected.				
2					
3					
4					
5					
6					
7					
8					
9					
10					

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: 

Results for Semivolatiles by GCMS 625

Client Sample ID: Method Blank

Client Project ID:

Lab Sample ID: PB4364

Lab Project ID:

Analyzed By: MRC

Date Collected:

Date Received:

Date Extracted: 1/23/2006

Matrix: WATER

Compound	Result ug/L	Quantitation Limit ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	1/24/2006	
Acenaphthylene	BQL	10.0	1.12	1	1/24/2006	
Anthracene	BQL	10.0	1.75	1	1/24/2006	
Benzo[a]anthracene	BQL	10.0	1.36	1	1/24/2006	
Benzo[a]pyrene	BQL	10.0	1.27	1	1/24/2006	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	1/24/2006	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	1/24/2006	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	1/24/2006	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	1/24/2006	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	1/24/2006	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	1/24/2006	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	1/24/2006	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	1/24/2006	
Butylbenzylphthalate	BQL	10.0	1.53	1	1/24/2006	
2-Chloronaphthalene	BQL	10.0	1.25	1	1/24/2006	
2-Chlorophenol	BQL	10.0	4.22	1	1/24/2006	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	1/24/2006	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	1/24/2006	
Chrysene	BQL	10.0	1.11	1	1/24/2006	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	1/24/2006	
Di-n-Butylphthalate	BQL	10.0	1.65	1	1/24/2006	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	1/24/2006	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	1/24/2006	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	1/24/2006	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	1/24/2006	
2,4-Dichlorophenol	BQL	10.0	3.75	1	1/24/2006	
Diethylphthalate	BQL	10.0	1.48	1	1/24/2006	
Dimethylphthalate	BQL	10.0	1.04	1	1/24/2006	
2,4-Dimethylphenol	BQL	10.0	9.25	1	1/24/2006	
Di-n-octylphthalate	BQL	10.0	1.16	1	1/24/2006	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	1/24/2006	
2,4-Dinitrophenol	BQL	50.0	4.20	1	1/24/2006	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	1/24/2006	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	1/24/2006	
Diphenylamine *	BQL	10.0	1.53	1	1/24/2006	
Fluoranthene	BQL	10.0	1.41	1	1/24/2006	
Fluorene	BQL	10.0	1.22	1	1/24/2006	
Hexachlorobenzene	BQL	10.0	1.22	1	1/24/2006	
Hexachlorobutadiene	BQL	10.0	1.58	1	1/24/2006	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	1/24/2006	
Hexachloroethane	BQL	10.0	1.58	1	1/24/2006	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	1/24/2006	

Results for Semivolatiles by GCMS 625

Client Sample ID: Method Blank

Client Project ID:

Lab Sample ID: PB4364

Lab Project ID:

Analyzed By: MRC

Date Collected:

Date Received:

Date Extracted: 1/23/2006

Matrix: WATER

Compound	Result ug/L	Quantitation Limit ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Isophorone	BQL	10.0	1.27	1	1/24/2006	
Naphthalene	BQL	10.0	1.08	1	1/24/2006	
Nitrobenzene	BQL	10.0	1.32	1	1/24/2006	
2-Nitrophenol	BQL	10.0	3.52	1	1/24/2006	
4-Nitrophenol	BQL	50.0	3.17	1	1/24/2006	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	1/24/2006	
Pentachlorophenol	BQL	50.0	2.83	1	1/24/2006	
Phenanthrene	BQL	10.0	1.38	1	1/24/2006	
Phenol	BQL	10.0	3.38	1	1/24/2006	
Pyrene	BQL	10.0	2.08	1	1/24/2006	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	1/24/2006	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	1/24/2006	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	7.6	76
2-Fluorophenol	10	8	80
Nitrobenzene-d5	10	7.7	77
Phenol-d6	10	8.3	83
2,4,6-Tribromophenol	10	5.4	54
4-Terphenyl-d14	10	9.5	95

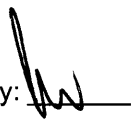
Comments:

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

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: 

Results For Matrix Spike / Matrix Spike Duplicate and Laboratory Control Standard (MS/MSD/LCS)
by GCMS

Client Sample ID: Batch QC

Date Collected:

Client Project ID:

Date Received:

Lab Sample ID: Batch-4364-MS/MSD/LCS

Date Extracted: 01/23/06

Lab Project ID:

Date Analyzed: 01/25/06

Matrix: WATER

Analyzed By: MRC

Prep Method: 3520

Dilution: 1

	Sample Amount (µg/L)	MS Spike (µg/L)	MS Conc. (µg/L)	MS Spike % Rec.	MSD Spike (µg/L)	MSD Conc. (µg/L)	MSD Conc. % Rec.	RPD	QC Limits	
									RPD	% Rec.
Acenaphthylene	BQL	286	279	97.8	250	254	102.0	3.81	30	62.0-119
4-Chloro-3-methylphenol	BQL	286	243	85.2	250	224	89.4	4.81	30	67.0-109
2-Chlorophenol	BQL	286	234	82.0	250	218	87.3	6.26	30	59.0-95.0
1,4-Dichlorobenzene	BQL	286	148	51.8	250	134	53.4	3.04	30	29.0-86.0
2,4-Dinitrotoluene	BQL	286	228	79.7	250	204	81.5	2.23	30	63.0-103
N-Nitrosodi-n-propylamine	BQL	286	268	93.9	250	245	98.0	4.27	30	67.0-107
4-Nitrophenol	BQL	286	274	96.1	250	250	100.0	4.18	30	49.0-146
Pentachlorophenol	BQL	286	186	65.3	250	173	69.3	5.94	30	43.0-106
Phenol	BQL	286	254	89.0	250	238	95.0	6.52	30	61.0-100
Pyrene	BQL	286	227	79.6	250	206	82.3	3.34	30	41.0-123
1,2,4-Trichlorobenzene	BQL	286	191	66.9	250	178	71.1	6.09	30	41.0-96.0

	Spiked Amount (µg/L)	LCS Conc. (µg/L)	LCS Spike %	QC Limits % Rec.
Acenaphthylene	10000	9780	97.8	66.1-116
4-Chloro-3-methylphenol	10000	8440	84.4	64.3-128
2-Chlorophenol	10000	8350	83.5	56.9-93.4
1,4-Dichlorobenzene	10000	5640	56.4	20.6-82.8
2,4-Dinitrotoluene	10000	7970	79.7	63.7-116
N-Nitrosodi-n-propylamine	10000	9360	93.6	62.6-108
4-Nitrophenol	10000	9280	92.8	53.7-143
Pentachlorophenol	10000	6560	65.6	31.0-102
Phenol	10000	8990	89.9	57.4-99.5
Pyrene	10000	8750	87.5	44.1-124
1,2,4-Trichlorobenzene	10000	7120	71.2	37.6-97.9

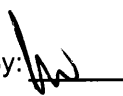
Comments:

Concentrations reflect the spiked sample amounts.

Flags:

* = Out of limits.

NA = Not applicable.

Reviewed By: 

Results for Semivolatiles by GCMS 625

Client Sample ID: Method Blank

Client Project ID:

Lab Sample ID: PB4365

Lab Project ID:

Analyzed By: MRC

Date Collected:

Date Received:

Date Extracted: 1/23/2006

Matrix: WATER

Compound	Result ug/L	Quantitation Limit ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	1/25/2006	
Acenaphthylene	BQL	10.0	1.12	1	1/25/2006	
Anthracene	BQL	10.0	1.75	1	1/25/2006	
Benzo[a]anthracene	BQL	10.0	1.36	1	1/25/2006	
Benzo[a]pyrene	BQL	10.0	1.27	1	1/25/2006	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	1/25/2006	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	1/25/2006	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	1/25/2006	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	1/25/2006	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	1/25/2006	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	1/25/2006	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	1/25/2006	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	1/25/2006	
Butylbenzylphthalate	BQL	10.0	1.53	1	1/25/2006	
2-Chloronaphthalene	BQL	10.0	1.25	1	1/25/2006	
2-Chlorophenol	BQL	10.0	4.22	1	1/25/2006	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	1/25/2006	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	1/25/2006	
Chrysene	BQL	10.0	1.11	1	1/25/2006	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	1/25/2006	
Di-n-Butylphthalate	BQL	10.0	1.65	1	1/25/2006	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	1/25/2006	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	1/25/2006	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	1/25/2006	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	1/25/2006	
2,4-Dichlorophenol	BQL	10.0	3.75	1	1/25/2006	
Diethylphthalate	BQL	10.0	1.48	1	1/25/2006	
Dimethylphthalate	BQL	10.0	1.04	1	1/25/2006	
2,4-Dimethylphenol	BQL	10.0	9.25	1	1/25/2006	
Di-n-octylphthalate	BQL	10.0	1.16	1	1/25/2006	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	1/25/2006	
2,4-Dinitrophenol	BQL	50.0	4.20	1	1/25/2006	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	1/25/2006	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	1/25/2006	
Diphenylamine *	BQL	10.0	1.53	1	1/25/2006	
Fluoranthene	BQL	10.0	1.41	1	1/25/2006	
Fluorene	BQL	10.0	1.22	1	1/25/2006	
Hexachlorobenzene	BQL	10.0	1.22	1	1/25/2006	
Hexachlorobutadiene	BQL	10.0	1.58	1	1/25/2006	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	1/25/2006	
Hexachloroethane	BQL	10.0	1.58	1	1/25/2006	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	1/25/2006	

**Results for Semivolatiles
by GCMS 625**

Client Sample ID: Method Blank

Client Project ID:

Lab Sample ID: PB4365

Lab Project ID:

Analyzed By: MRC

Date Collected:

Date Received:

Date Extracted: 1/23/2006

Matrix: WATER

Compound	Result ug/L	Quantitation Limit ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Isophorone	BQL	10.0	1.27	1	1/25/2006	
Naphthalene	BQL	10.0	1.08	1	1/25/2006	
Nitrobenzene	BQL	10.0	1.32	1	1/25/2006	
2-Nitrophenol	BQL	10.0	3.52	1	1/25/2006	
4-Nitrophenol	BQL	50.0	3.17	1	1/25/2006	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	1/25/2006	
Pentachlorophenol	BQL	50.0	2.83	1	1/25/2006	
Phenanthrene	BQL	10.0	1.38	1	1/25/2006	
Phenol	BQL	10.0	3.38	1	1/25/2006	
Pyrene	BQL	10.0	2.08	1	1/25/2006	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	1/25/2006	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	1/25/2006	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	7.7	77
2-Fluorophenol	10	7.4	74
Nitrobenzene-d5	10	7.7	77
Phenol-d6	10	7.7	77
2,4,6-Tribromophenol	10	7	70
4-Terphenyl-d14	10	9.3	93

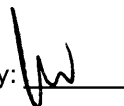
Comments:

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

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: 

Results For Matrix Spike / Matrix Spike Duplicate and Laboratory Control Standard (MS/MSD/LCS)
by GCMS

Client Sample ID: Batch QC

Date Collected:

Client Project ID:

Date Received:

Lab Sample ID: Batch-4365-MS/MSD/LCS

Date Extracted: 01/23/06

Lab Project ID:

Date Analyzed: 01/25/06

Matrix: WATER

Analyzed By: MRC

Prep Method: 3520

Dilution: 1

	Sample Amount (µg/L)	MS Spike (µg/L)	MS Conc. (µg/L)	MS Spike % Rec.	MSD Spike (µg/L)	MSD Conc. (µg/L)	MSD Conc. % Rec.	RPD	QC Limits	
									RPD	% Rec.
Acenaphthylene	BQL	286	271	95.0	250	235	94.1	0.952	30	62.0-119
4-Chloro-3-methylphenol	BQL	286	237	82.9	250	208	83.4	0.601	30	67.0-109
2-Chlorophenol	BQL	286	232	81.3	250	196	78.6	3.38	30	59.0-95.0
1,4-Dichlorobenzene	BQL	286	147	51.4	250	119	47.5	7.89	30	29.0-86.0
2,4-Dinitrotoluene	BQL	286	240	84.0	250	204	81.8	2.65	30	63.0-103
N-Nitrosodi-n-propylamine	BQL	286	235	82.3	250	197	78.9	4.22	30	67.0-107
4-Nitrophenol	BQL	286	260	91.1	250	218	87.4	4.14	30	49.0-146
Pentachlorophenol	BQL	286	210	73.7	250	180	72.2	2.06	30	43.0-106
Phenol	BQL	286	236	82.6	250	200	79.9	3.32	30	61.0-100
Pyrene	BQL	286	226	79.0	250	200	80.1	1.38	30	41.0-123
1,2,4-Trichlorobenzene	BQL	286	195	68.3	250	169	67.7	0.882	30	41.0-96.0

	Spiked Amount (µg/L)	LCS Conc. (µg/L)	LCS Spike %	QC Limits % Rec.
Acenaphthylene	100	88.5	88.5	66.1-116
4-Chloro-3-methylphenol	100	79.3	79.3	64.3-128
2-Chlorophenol	100	72.6	72.6	56.9-93.4
1,4-Dichlorobenzene	100	48.5	48.5	20.6-82.8
2,4-Dinitrotoluene	100	78.0	78.0	63.7-116
N-Nitrosodi-n-propylamine	100	76.3	76.3	62.6-108
4-Nitrophenol	100	86.4	86.4	53.7-143
Pentachlorophenol	100	67.0	67.0	31.0-102
Phenol	100	76.0	76.0	57.4-99.5
Pyrene	100	76.5	76.5	44.1-124
1,2,4-Trichlorobenzene	100	63.5	63.5	37.6-97.9

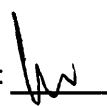
Comments:

Concentrations reflect the spiked sample amounts.

Flags:

* = Out of limits.

NA = Not applicable.

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

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

E = Estimated concentration, exceeds calibration range.

J = Estimated concentration, below calibration range and above MDL

LCS(D) = Laboratory Control Spike (Duplicate)

MDL = Method Detection Limit

MS(D) = Matrix Spike (Duplicate)

PQL = Practical Quantitation Limit

RL = Reporting Limit

RPD = Relative Percent Difference

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

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

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

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

% Rec = Percent Recovery

% solids = 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.



CHAIN OF CUSTODY RECORD
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057016

1 CLIENT: Sovereign Consulting Inc

CONTACT: Theresa Ellerman PHONE NO: (410) 536-3941

PROJECT: NMD11 SITE/PSID: LCH4015

REPORTS TO: Chris Murray (757) 417-3982

INVOICE TO: Chris Murray QUOTE # 606 A-1 THUMB ST. P.O. NUMBER NEWPORT NEWS VA 23606

SGS Reference: G670-21

PAGE 1 OF 1

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No CONTAINERS	SAMPLE TYPE				PRESERVATION				REMARKS
						Used	Analysis Required	GC/MS	GC/MS	GC/MS	GC/MS	GC/MS	GC/MS	
	USLCH4015-MW23	1/19/06	0841	W	5	X	X	X	X	X	X	X	X	*605-Plus 10 min largest peaks
	USLCH4015-MW01		0917	A		X	X	X	X	X	X	X	X	
	USLCH4015-MW24		1000			X	X	X	X	X	X	X	X	
	USLCH4015-MW19		1052			X	X	X	X	X	X	X	X	
	USLCH4015-MW02		1150			X	X	X	X	X	X	X	X	
	USLCH4015-MW03		1230			X	X	X	X	X	X	X	X	
	USLCH4015-MW02		1311			X	X	X	X	X	X	X	X	
	USLCH4015-MW03		1350			X	X	X	X	X	X	X	X	
	USLCH4015-MW13	1/19/06	1450	V		X	X	X	X	X	X	X	X	
	USLCH4015-DUP			W	5	X	X	X	X	X	X	X	X	

Collected/Relinquished By: (1)	Date	Time	Received By:
Theresa Ellerman	1/29/06	1110	Chris Murray
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received By:

Shipping Carrier: N/A

Shipping Ticket No:

Special Deliverable Requirements:

Requested Turnaround Time and Special Instructions:

STANDARD TURN - Email RESULTS in "EDD" format

Samples Received Cold? (Circle) YES NO

Temperature (C): 56°C

Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT



Mr. Chris Murray
Sovereign Consulting
606 Thimble Shoals Rd.
Suite A1
Newport-News VA 23606
Report Number: G650-60

Client Project: NV014/CTO 0014

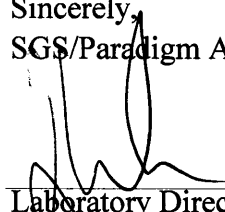
Dear Mr. Murray:

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 be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

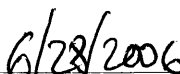
If there are any questions about the report or the services performed during this project, please call SGS/Paradigm at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

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

Sincerely,
SGS/Paradigm Analytical Laboratories, Inc.



Laboratory Director
J. Patrick Weaver



Date



Results for Volatiles

by GC 602

Client Sample ID: USTLCH4015-MW08

Analyzed By: CLP

Client Project ID: NV014/CTO 0014

Date Collected: 6/13/2006 10:41

Lab Sample ID: G650-60-1A

Date Received: 6/15/2006

Lab Project ID: G650-60

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	0.903	1.00	0.316	1	6/21/2006	J
Diisopropyl ether (DIPE)	BQL	1.00	0.294	1	6/21/2006	
Ethylbenzene	0.835	1.00	0.299	1	6/21/2006	J
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.588	1	6/21/2006	
Toluene	4.49	1.00	0.302	1	6/21/2006	
m/p-Xylene	3.46	2.00	0.608	1	6/21/2006	
o-Xylene	2.26	2.00	0.596	1	6/21/2006	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	42.8	107

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

**Results for Volatiles**

by GC 602

Client Sample ID: USTLCH4015-MW11

Analyzed By: CLP

Client Project ID: NV014/CTO 0014

Date Collected: 6/13/2006 11:17

Lab Sample ID: G650-60-2A

Date Received: 6/15/2006

Lab Project ID: G650-60

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	1.14	1.00	0.198	1	6/21/2006	
Diisopropyl ether (DIPE)	BQL	1.00	0.157	1	6/21/2006	
Ethylbenzene	7.86	1.00	0.172	1	6/21/2006	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.405	1	6/21/2006	
Toluene	4.23	1.00	0.159	1	6/21/2006	
m/p-Xylene	4.27	2.00	0.326	1	6/21/2006	
o-Xylene	3.49	2.00	0.285	1	6/21/2006	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	43.3	108

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

**Results for Volatiles**

by GC 602

Client Sample ID: Trip Blank

Analyzed By: CLP

Client Project ID: NV014/CTO 0014

Date Collected: 6/13/2006 0:00

Lab Sample ID: G650-60-3A

Date Received: 6/15/2006

Lab Project ID: G650-60

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.198	1	6/21/2006	
Diisopropyl ether (DIPE)	BQL	1.00	0.157	1	6/21/2006	
Ethylbenzene	BQL	1.00	0.172	1	6/21/2006	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.405	1	6/21/2006	
Toluene	BQL	1.00	0.159	1	6/21/2006	
m/p-Xylene	BQL	2.00	0.326	1	6/21/2006	
o-Xylene	BQL	2.00	0.285	1	6/21/2006	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	45.9	115

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

**Results for Volatiles**

by GC 602

Client Sample ID: Method Blank

Analyzed By: CLP

Client Project ID:

Date Collected:

Lab Sample ID: VBLK3062106A

Date Received:

Lab Project ID:

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.316	1	6/21/2006	
Diisopropyl ether (DIPE)	BQL	1.00	0.294	1	6/21/2006	
Ethylbenzene	BQL	1.00	0.299	1	6/21/2006	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.588	1	6/21/2006	
Toluene	BQL	1.00	0.302	1	6/21/2006	
m/p-Xylene	BQL	2.00	0.608	1	6/21/2006	
o-Xylene	BQL	2.00	0.596	1	6/21/2006	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	42.8	107

Comments:

All values corrected for dilution.
BQL = Below quantitation limit.



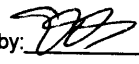
Control Limits for QC Check / Laboratory Control Spike

Method: 602 Spike[ppb]: 10
 Instrument : gc3
 Filename : 062106\005r0101.txt

Compound	ppb	Q(%)	QC Limits		P _s (%)	LCS Limits	
			Lower	Upper		Lower	Upper
Benzene	10.8	107.6	77.0	123.0	108	39	150
Chlorobenzene	10.8	108.0	80.5	119.5	108	55	135
1,2-Dichlorobenzene	10.9	108.6	68.0	132.0	109	37	154
1,3-Dichlorobenzene	10.8	107.7	72.5	127.5	108	50	141
1,4-Dichlorobenzene	10.8	108.5	69.5	130.5	108	42	143
• Diisopropyl ether	10.7	107.1	43.1	156.9	107	30	170
Ethylbenzene	11.1	111.5	63.0	137.0	111	32	160
• MTBE	10.7	107.4	46.8	153.2	107	35	165
Toluene	10.7	107.0	77.5	127.0	107	46	148
• m,p-Xylene	21.9	109.5	11.2	188.8	109	D	239
• o-Xylene	10.9	108.8	47.6	152.4	109	36	164

Flags :

- + = out of QC limits.
- = lab generated limits.
- D = Detected

Reviewed by: 



Control Limits for MS-MSD

Method: 602 Spike[ppb]: 10
 Instrument: gc3
 Sample: 062106\017r0101.txt
 MS: 062106\019r0101.txt
 MSD: 062106\020r0101.txt

Compound	µg/L			P(%)		P Limits	
	Sam.	MS	MSD	MS	MSD	Lower	Upper
Benzene	21.6	33.3	33.1	117	115	39	150
Chlorobenzene	ND	11.3	11.6	113	116	55	135
1,2-Dichlorobenzene	ND	11.0	11.6	103	108	37	154
1,3-Dichlorobenzene	ND	11.1	11.5	104	108	50	141
1,4-Dichlorobenzene	1.3	10.8	11.2	96	100	42	143
• Diisopropyl ether	2.8	13.4	13.7	106	109	30	170
Ethylbenzene	4.1	16.1	16.4	119	122	32	160
• MTBE	44.7	57.0	56.3	123	116	35	165
Toluene	45.3	57.7	57.0	123	117	46	148
• m,p-Xylene	14.3	36.9	37.3	113	115	D	239
• o-Xylene	4.1	15.1	15.4	110	113	36	164

Flags :

+ = out of QC limits.
 • = lab generated limits.
 D = Detected
 ND = None Detected

Reviewed by: 



**Results for Semivolatiles
by GCMS 625**

Client Sample ID: USTLCH4015-MW08
 Client Project ID: NV014/CTO 0014
 Lab Sample ID: G650-60-1E
 Lab Project ID: G650-60

Analyzed By: MRC
 Date Collected: 6/13/2006 10:41
 Date Received: 6/15/2006
 Date Extracted: 6/19/2006
 Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	6/22/2006	
Acenaphthylene	BQL	10.0	1.12	1	6/22/2006	
Anthracene	BQL	10.0	1.75	1	6/22/2006	
Benzo[a]anthracene	BQL	10.0	1.36	1	6/22/2006	
Benzo[a]pyrene	BQL	10.0	1.27	1	6/22/2006	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	6/22/2006	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	6/22/2006	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	6/22/2006	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	6/22/2006	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	6/22/2006	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	6/22/2006	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	6/22/2006	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	6/22/2006	
Butylbenzylphthalate	BQL	10.0	1.53	1	6/22/2006	
2-Chloronaphthalene	BQL	10.0	1.25	1	6/22/2006	
2-Chlorophenol	BQL	10.0	4.22	1	6/22/2006	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	6/22/2006	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	6/22/2006	
Chrysene	BQL	10.0	1.11	1	6/22/2006	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	6/22/2006	
Di-n-Butylphthalate	BQL	10.0	1.65	1	6/22/2006	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	6/22/2006	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	6/22/2006	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	6/22/2006	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	6/22/2006	
2,4-Dichlorophenol	BQL	10.0	3.75	1	6/22/2006	
Diethylphthalate	BQL	10.0	1.48	1	6/22/2006	
Dimethylphthalate	BQL	10.0	1.04	1	6/22/2006	
2,4-Dimethylphenol	BQL	10.0	9.25	1	6/22/2006	
Di-n-octylphthalate	BQL	10.0	1.16	1	6/22/2006	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	6/22/2006	
2,4-Dinitrophenol	BQL	50.0	4.20	1	6/22/2006	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	6/22/2006	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	6/22/2006	
Diphenylamine *	BQL	10.0	1.53	1	6/22/2006	
Fluoranthene	BQL	10.0	1.41	1	6/22/2006	
Fluorene	BQL	10.0	1.22	1	6/22/2006	
Hexachlorobenzene	BQL	10.0	1.22	1	6/22/2006	
Hexachlorobutadiene	BQL	10.0	1.58	1	6/22/2006	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	6/22/2006	
Hexachloroethane	BQL	10.0	1.58	1	6/22/2006	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	6/22/2006	
Isophorone	BQL	10.0	1.27	1	6/22/2006	
1-Methylnaphthalene	BQL	10.0	1.23	1	6/22/2006	



**Results for Semivolatiles
by GCMS 625**

Client Sample ID: USTLCH4015-MW08
 Client Project ID: NV014/CTO 0014
 Lab Sample ID: G650-60-1E
 Lab Project ID: G650-60

Analyzed By: MRC
 Date Collected: 6/13/2006 10:41
 Date Received: 6/15/2006
 Date Extracted: 6/19/2006
 Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
2-Methylnaphthalene	BQL	10.0	1.36	1	6/22/2006	
Naphthalene	BQL	10.0	1.08	1	6/22/2006	
Nitrobenzene	BQL	10.0	1.32	1	6/22/2006	
2-Nitrophenol	BQL	10.0	3.52	1	6/22/2006	
4-Nitrophenol	BQL	50.0	3.17	1	6/22/2006	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	6/22/2006	
Pentachlorophenol	BQL	50.0	2.83	1	6/22/2006	
Phenanthrene	BQL	10.0	1.38	1	6/22/2006	
Phenol	BQL	10.0	3.38	1	6/22/2006	
Pyrene	BQL	10.0	2.08	1	6/22/2006	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	6/22/2006	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	6/22/2006	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	6.7	67
2-Fluorophenol	10	5.6	56
Nitrobenzene-d5	10	6.5	65
Phenol-d6	10	5.8	58
2,4,6-Tribromophenol	10	3.8	38
4-Terphenyl-d14	10	6.1	60

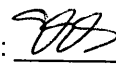
Comments:

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

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: 



Results of Library Search for Semivolatile Compounds

by GCMS

Client Sample ID: USTLCH4015-MW08
 Client Project ID: NV014/CTO 0014
 Lab Sample ID: G650-60-1E
 Lab Project ID: G650-60
 Sample Wt/Vol: 500 ML
 Dilution: 1

Analyzed By: MRC
 Date Collected: 6/13/2006 10:41
 Date Received: 6/15/2006
 Date Extracted: 6/19/2006
 Date Analyzed: 6/22/2006
 Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Unknown	18.63			54.2
2					
3					
4					
5					
6					
7					
8					
9					
10					

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: 



Results for Semivolatiles by GCMS 625

Client Sample ID: USTLCH4015-MW11
 Client Project ID: NV014/CTO 0014
 Lab Sample ID: G650-60-2E
 Lab Project ID: G650-60

Analyzed By: MRC
 Date Collected: 6/13/2006 11:17
 Date Received: 6/15/2006
 Date Extracted: 6/19/2006
 Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	2.50	10.0	1.22	1	6/22/2006	J
Acenaphthylene	BQL	10.0	1.12	1	6/22/2006	
Anthracene	BQL	10.0	1.75	1	6/22/2006	
Benzo[a]anthracene	BQL	10.0	1.36	1	6/22/2006	
Benzo[a]pyrene	BQL	10.0	1.27	1	6/22/2006	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	6/22/2006	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	6/22/2006	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	6/22/2006	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	6/22/2006	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	6/22/2006	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	6/22/2006	
Bis(2-ethylhexyl)phthalate	6.30	10.0	1.33	1	6/22/2006	J
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	6/22/2006	
Butylbenzylphthalate	BQL	10.0	1.53	1	6/22/2006	
2-Chloronaphthalene	BQL	10.0	1.25	1	6/22/2006	
2-Chlorophenol	BQL	10.0	4.22	1	6/22/2006	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	6/22/2006	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	6/22/2006	
Chrysene	BQL	10.0	1.11	1	6/22/2006	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	6/22/2006	
Di-n-Butylphthalate	BQL	10.0	1.65	1	6/22/2006	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	6/22/2006	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	6/22/2006	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	6/22/2006	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	6/22/2006	
2,4-Dichlorophenol	BQL	10.0	3.75	1	6/22/2006	
Diethylphthalate	BQL	10.0	1.48	1	6/22/2006	
Dimethylphthalate	BQL	10.0	1.04	1	6/22/2006	
2,4-Dimethylphenol	BQL	10.0	9.25	1	6/22/2006	
Di-n-octylphthalate	BQL	10.0	1.16	1	6/22/2006	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	6/22/2006	
2,4-Dinitrophenol	BQL	50.0	4.20	1	6/22/2006	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	6/22/2006	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	6/22/2006	
Diphenylamine *	BQL	10.0	1.53	1	6/22/2006	
Fluoranthene	BQL	10.0	1.41	1	6/22/2006	
Fluorene	2.90	10.0	1.22	1	6/22/2006	J
Hexachlorobenzene	BQL	10.0	1.22	1	6/22/2006	
Hexachlorobutadiene	BQL	10.0	1.58	1	6/22/2006	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	6/22/2006	
Hexachloroethane	BQL	10.0	1.58	1	6/22/2006	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	6/22/2006	
Isophorone	BQL	10.0	1.27	1	6/22/2006	
1-Methylnaphthalene	7.90	10.0	1.23	1	6/22/2006	J



**Results for Semivolatiles
by GCMS 625**

Client Sample ID: USTLCH4015-MW11
 Client Project ID: NV014/CTO 0014
 Lab Sample ID: G650-60-2E
 Lab Project ID: G650-60

Analyzed By: MRC
 Date Collected: 6/13/2006 11:17
 Date Received: 6/15/2006
 Date Extracted: 6/19/2006
 Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
2-Methylnaphthalene	BQL	10.0	1.36	1	6/22/2006	
Naphthalene	3.40	10.0	1.08	1	6/22/2006	J
Nitrobenzene	BQL	10.0	1.32	1	6/22/2006	
2-Nitrophenol	BQL	10.0	3.52	1	6/22/2006	
4-Nitrophenol	BQL	50.0	3.17	1	6/22/2006	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	6/22/2006	
Pentachlorophenol	BQL	50.0	2.83	1	6/22/2006	
Phenanthrene	BQL	10.0	1.38	1	6/22/2006	
Phenol	BQL	10.0	3.38	1	6/22/2006	
Pyrene	BQL	10.0	2.08	1	6/22/2006	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	6/22/2006	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	6/22/2006	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	6	60
2-Fluorophenol	10	5.4	54
Nitrobenzene-d5	10	6.3	63
Phenol-d6	10	5.8	58
2,4,6-Tribromophenol	10	6.9	69
4-Terphenyl-d14	10	5.6	56

Comments:

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

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: 



Results of Library Search for Semivolatile Compounds

by GCMS

Client Sample ID: USTLCH4015-MW11

Client Project ID: NV014/CTO 0014

Lab Sample ID: G650-60-2E

Lab Project ID: G650-60

Sample Wt/Vol: 500 ML

Dilution: 1

Analyzed By: MRC

Date Collected: 6/13/2006 11:17

Date Received: 6/15/2006

Date Extracted: 6/19/2006

Date Analyzed: 6/22/2006

Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Dimethylnaphthalene, Isomer of	10.94			56.5
2	Unknown	10.98			28.1
3	Unknown	12.08			27.1
4	Unknown	11.89			26.5
5	Unknown	11.09			23.5
6	Unknown	10.29			22.6
7	Aromatic, Unknown	10.54			21.8
8	Unknown	12.94			21.3
9	Aromatic, Unknown	10.21			20.2
10	Unknown	10.80			19.8

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: SVB



Results For Matrix Spike / Matrix Spike Duplicate and Laboratory Control Standard (MS/MSD/LCS)
by GCMS

Client Sample ID: Batch QC

Date Collected:

Client Project ID:

Date Received:

Lab Sample ID: Batch-5436-MS/MSD/LCS

Date Extracted: 06/19/06

Lab Project ID:

Date Analyzed: 06/25/06

Matrix: WATER

Analyzed By: MRC

Prep Method: 3520

Dilution: 1

	Sample Amount (µg/L)	MS Spike (µg/L)	MS Conc. (µg/L)	MS Spike % Rec.	MSD Spike (µg/L)	MSD Conc. (µg/L)	MSD Conc. % Rec.	RPD	QC Limits	
									RPD	% Rec.
Acenaphthylene	BQL	100	90.8	90.8	100	88.7	88.7	2.34	30	62.0-119
4-Chloro-3-methylphenol	BQL	100	79.3	79.3	100	78.6	78.6	0.887	30	67.0-109
2-Chlorophenol	BQL	100	71.8	71.8	100	64.1	64.1	11.3	30	59.0-95.0
1,4-Dichlorobenzene	BQL	100	76.7	76.7	100	59.1	59.1	25.9	30	29.0-86.0
2,4-Dinitrotoluene	BQL	100	84.4	84.4	100	78.8	78.8	6.86	30	63.0-103
N-Nitrosodi-n-propylamine	BQL	100	84.0	84.0	100	89.2	89.2	6.00	30	67.0-107
4-Nitrophenol	BQL	100	70.4	70.4	100	62.3	62.3	12.2	30	49.0-146
Pentachlorophenol	BQL	100	66.5	66.5	100	58.7	58.7	12.5	30	43.0-106
Phenol	BQL	100	78.5	78.5	100	68.4	68.4	13.8	30	61.0-100
Pyrene	BQL	100	91.9	91.9	100	87.7	87.7	4.68	30	41.0-123
1,2,4-Trichlorobenzene	BQL	100	83.6	83.6	100	72.7	72.7	13.9	30	41.0-96.0

	Spiked Amount (µg/L)	LCS Conc. (µg/L)	LCS Spike %	QC Limits % Rec.
Acenaphthylene	100	88.2	88.2	72.9-127
4-Chloro-3-methylphenol	100	80.6	80.6	61.6-113
2-Chlorophenol	100	77.1	77.1	52.3-104
1,4-Dichlorobenzene	100	50.1	50.1	27.3-85.0
2,4-Dinitrotoluene	100	82.4	82.4	66.5-117
N-Nitrosodi-n-propylamine	100	87.9	87.9	54.4-119
4-Nitrophenol	100	63.8	63.8	32.4-150
Pentachlorophenol	100	60.5	60.5	23.9-115
Phenol	100	77.5	77.5	54.5-106
Pyrene	100	90.8	90.8	63.5-126
1,2,4-Trichlorobenzene	100	67.2	67.2	49.1-98.5

Comments:

Concentrations reflect the spiked sample amounts.

Flags:

* = Out of limits.

NA = Not applicable.

Reviewed By:



List of Reporting Abbreviations and Data Qualifiers

B = Compound also detected in batch blank

BQL = Below Quantitation Limit (RL or MDL)

DF = Dilution Factor

Dup = Duplicate

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

E = Estimated concentration, exceeds calibration range.

J = Estimated concentration, below calibration range and above MDL

LCS(D) = Laboratory Control Spike (Duplicate)

MDL = Method Detection Limit

MS(D) = Matrix Spike (Duplicate)

PQL = Practical Quantitation Limit

RL = Reporting Limit

RPD = Relative Percent Difference

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

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

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

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

% Rec = Percent Recovery

% solids = 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.



Locations Nationwide

- Alaska
- Louisiana
- New Jersey
- West Virginia
- Hawaii
- Maryland
- North Carolina

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053088

[illegible]

APPENDIX C

FIELD DATA

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

Duplicate on MW13

[illegible]

[illegible]

[illegible]