

**REMEDIAL ACTION OPTIMIZATION
&
REVISED CORRECTIVE ACTION PLAN
*BUILDING 45***

**MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA**

NOVEMBER 14, 2006

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LIST OF ACRONYMS

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

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

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

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EXECUTIVE SUMMARY

This report is intended to provide information relevant to address and review the effectiveness of current remedial actions being conducted at the Building 45 project site and to make revisions to the *Corrective Action Plan (CAP)* in order to move towards site closeout. The project site is located within the Marine Corps Base (MCB), Camp Lejeune in Onslow County, North Carolina. The project site consists of the former Buildings 45 and 780, a former fueling area, and an active remediation system consisting of air sparging and soil vapor extraction wells, as well as a number of groundwater monitoring wells located throughout the site.

Various site assessments were conducted in the early 1990s to delineate the extent, if applicable, of free-phase product, soil petroleum contamination and groundwater petroleum contamination from the petroleum hydrocarbons released from the original Underground Storage Tanks (USTs) associated with Building 45, UST S-941-1 and UST S-941-2. These USTs were excavated and removed from the site by Jones and Frank, Inc. in October 1992.

LAW Engineering and Environmental Services, Inc. (LAW) prepared a *CAP* dated February 21, 1996, which identified the presence of soil and shallow groundwater (surficial aquifer) petroleum contamination. The recommended remediation strategy within the *CAP* for site restoration was a treatment system consisting of air sparging coupled with soil vapor extraction (AS/SVE). It is our understanding that J. A. Jones Environmental Services Company (JA Jones) installed an AS/SVE treatment system in 1998 and began operation of the system on April 16, 1998.

Although free product was not identified as part of the *CAP*, Aggressive Fluid Vapor Recovery (AFVR) treatment events have been performed at wells with free-phase product, including UST45-PW-1, UST45-MW-2 and UST45-MW-3 between April 9, 1999 and December 13, 2001. A total of 426 gallons of free-phase product was reportedly removed during this time period. As of the preparation of this Remedial Action Optimization and Revised Corrective Action Plan (RAO & RCAP), additional AFVR events have not been reported to have been conducted since December 13, 2001.

JA Jones removed UST 45-1 in July 1999. In the *UST Closure Report*, JA Jones concluded the detected petroleum hydrocarbon contamination might not be from the UST but rather from the long industrial operation history at Building 45.

In 1999, a 500 gallon #2 fuel oil UST was removed from the Building 45 project site. The closure report identified the tank as UST-45; the location of the tank illustrated on the figure in the closure report appears to coincide with tank labeled UST 45-2 on the attached figures.

MCB Camp Lejeune was placed on the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) National Priorities List (NPL) effective November 4, 1989. The fiscal year 2002 *Site Management Plan* for MCB Camp Lejeune identified 42 sites at MCB Camp Lejeune that were subdivided into 21 Operable Units (OUs). The Installation Restoration (IR) Program at Camp Lejeune has identified the Building 45 site under the CERCLA program as OU No. 19, which is comprised of Site 84. Herein, CATLIN has referred to the site as Building 45. The Camp Lejeune UST Program has typically addressed the petroleum contamination at the Building 45 site while the IR Program has addressed all of the non-petroleum contamination at the site.

The IR Program is currently conducting removal activities associated with a Non-Time Critical Removal Action (NTCRA) Plan at the Building 45 site. The NTCRA is addressing surface soil samples that have been impacted by Polychlorinated Biphenyls (PCB) contamination. It is CATLIN's understanding that the remedial activities being conducted by the IR Program are scheduled to be reported in the future.

In June 2002, Shaw Environmental, Inc. (Shaw) initiated and completed PCB and pesticide excavation activities as part of the NTCRA. The following wells were reportedly abandoned by Shaw as part of this excavation: UST45-PW-1, UST45-MW-2, UST45-MW-3, UST45-MW-10, and AS/SVE-5 through AS/SVE-8. Wells UST45-PW-1, UST45-MW-2, and UST45-MW-3 were replaced in February 2005 by E&E and were labeled as UST45-PW2, UST45-MW23, and UST-MW24 respectively. Since the site was incorporated into the UST Management Program in Camp Lejeune, the well nomenclature has changed from UST45-PW2, UST45-MW23 and UST-MW24 to UST45/S941-PW01R, UST45/S941-MW02R and UST45/S941-MW03R, respectively. It is important to note that this area was within the area with the highest groundwater petroleum contamination. Therefore, the excavation activities should have contributed to the reduction of the petroleum contamination in this area. The current remediation system layout and monitoring well network is illustrated on the attached Figure 2.

The remedial goals for the site were based on the regulations current at the time and presented in the *CAP*. The IR program has identified petroleum contamination that may have been contributed from operations of the former maintenance facility rather than from the former USTs. However, it is not possible to identify which areas of petroleum contamination are from activities associated with the former maintenance facility or the operation of the former USTs. Per the General Assembly of the North Carolina Session Law 2003-352, House Bill 897 (House Bill 897), "...a mixed plume of petroleum

contamination that results from releases of petroleum from both an underground storage tank and an aboveground storage tank or other source may be cleaned up under the risk-based cleanup rules applicable to releases from petroleum underground storage tanks..." The regulatory framework for the petroleum contamination at the entire Building 45 site has been based on the Risk Based Corrective Actions (RBCA). As such, reclassification of the site based on current risk factors would be necessary. Current applicable remedial requirements based on the RBCA for the petroleum contamination associated with Building 45 are based on the corrective action requirements per 15A NCAC 2L.0115 (Risk Based Rules) which became effective on January 2, 1998 and the requirements in the North Carolina Department of Environment and Natural Resources (NCDENR) Guidelines for Assessment and Corrective Action, North Carolina Underground Storage Tank Section (2001 Guidelines). Based on the findings of the Risk Classification and Land Use Form, if the site is regulated under the Risk Based Rules, then CATLIN concludes that the subject site meets the criteria for classification as an Intermediate Risk and Industrial/Commercial Land Use site.

CATLIN completed a *DRAFT RAO & RCAP* dated June 24, 2004, which recommended additional soil assessments be completed in order to evaluate the extent of soil contamination in comparison to the UST Section Risk Based Rules. Subsequently, NAVFAC Mid-Atlantic requested CATLIN to conduct soil assessment activities to complete this RAO & RCAP.

In order to effectively evaluate the current remediation system suitability, the recommendations within this report address the evaluation of the potential plume migration, free-phase product, soil petroleum contamination, the shallow groundwater petroleum contamination, and the deep groundwater petroleum contamination, separately. The following is a brief summary of the recommendations (please refer to Section 6.0 of this report for a detailed discussion of the recommendations):

- Submittal of RAO & RCAP to the UST Sections of NCDENR for approval of recommendations.
- Immediately shut down the AS/SVE systems.
- Implementation of the recommended sampling strategy for the shallow groundwater and deep groundwater conditions.
- Implement monitored natural attenuation program.
- Preparation of the Annual Groundwater Monitoring Reports.

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1.0 BACKGROUND

1.1 PURPOSE OF REPORT

The purpose of this report is to provide information relevant to address and review the effectiveness of current remedial actions being conducted at the Building 45 project site located in the MCB Camp Lejeune. Additionally, this report revises the *CAP* and provides recommendations for continuing remediation activities in order to achieve site closure. This report has been formatted according to the NAVFACENGCOM *Guidance for Optimizing Remedial Action Operation* document prepared by Radian International and dated April 2001 with the ultimate purpose to “achieve environmentally protective site closeout at the least cost.”

The work conducted herein was conducted in general accordance with the Workplans titled *Remediation System Optimization Plans at the Various Sites*, Marine Corps Base, Camp Lejeune, North Carolina dated July 16, 2003 and *Building 45 Additional Field Work and Soil Assessment for Remedial Action Optimization and Revised Corrective Action Plan*, Marine Corps Base, Camp Lejeune, North Carolina dated April 21, 2006. CATLIN was authorized to perform this investigation by the NAVFACENGCOM in accordance with the Order of Supplies Contract Numbers N62470-01-D-3009/N622470-05-3009, Delivery Order Numbers 0079/0024.

1.2 SCOPE OF WORK

This RAO & RCAP was developed in general accordance with the NAVFACENGCOM *Guidance for Optimizing Remedial Action Operation* document dated April 2001 and the 2001 Guidelines. Specific methods utilized to develop this RAO & RCAP included a thorough collection and review of available reports and field data. In addition, field reconnaissance were conducted to perform on-site inspections of existing site and remedial system conditions and a soil assessment was performed per

recommendations of the *DRAFT RAO & RCAP*. Data was then reviewed and the *RAO & RCAP* was developed.

2.0 SITE HISTORY

Building 45 is located on the south side of North Carolina Highway 24 on the MCB, Camp Lejeune in Onslow County, North Carolina. Building 45 was a former electric substation that was converted for use as a heavy equipment and maintenance shop in 1965. In 1999, the aboveground portion of Building 45 was demolished, with the foundation left in place. The foundation was subsequently removed from the site in 2002. The site vicinity is presented on Figure 1. The project site consists of the former Buildings 45 and 780, a former fueling area and an active remediation system consisting of air sparging and soil vapor extraction wells, as well as a number of groundwater monitoring wells located throughout the site.

The UST system at the site originally consisted of two USTs and associated piping, installed in 1941: tank S-941-1 was a 6,000-gallon diesel steel tank and tank S-941-2 was a 550-gallon gasoline steel tank. According to a *Leaking UST Site Assessment Report* by LAW, in June 1990, UST S-941-2 failed a leak detection test. A subsequent test of the tank indicated that the leak was from a product pipe associated with the tank. An investigation conducted by ATEC in August 1991 indicated that soil and groundwater at the subject site was contaminated by petroleum hydrocarbons. In October 1992, both UST S-941-1 and UST S-941-2 were excavated and removed from the site by Jones and Frank, Inc.

Various site assessments were conducted in the early 1990s to delineate the extent, if applicable, of free-phase product, soil petroleum contamination and groundwater petroleum contamination from the petroleum hydrocarbons released from UST S-941-1 and UST S-941-2 in the vicinity of Building 45. The findings of these previous assessments have been summarized in reports submitted to NCDENR in the Wilmington Regional Office (WiRO). The reports from these various site assessments were utilized by LAW to develop a *CAP* dated February 21, 1996. These site assessment reports were referenced within the *CAP*. LAW reported that petroleum-impacted soil and groundwater present at the site were suspected to be the result of releases of diesel fuel and gasoline from the former USTs.

The *CAP* identified the presence of soil and shallow groundwater (surficial aquifer) petroleum contamination. Please note that free-phase product was not detected at the time of the *CAP* dated February 21, 1996. Additionally, the vertical extent of the dissolved petroleum contamination was reported in the *CAP* to extend to a depth of 50 feet Below Land Surface (BLS). The recommended remediation strategy within the *CAP* for site restoration was an treatment system AS/SVE. It is our understanding that JA Jones installed an AS/SVE treatment system in 1998 and began operation of the system on April 16, 1998. The air sparge wells were reportedly installed with a 2-inch diameter screen at an interval from 39.5 to 44.5 feet BLS. The soil vapor extraction wells are reported to have a diameter of 4-

inches and installed vertically to a depth six feet BLS, with a screen interval from 2.5 to 5.5 feet BLS. JA Jones operated the remediation system from start-up through early 2003. Shaw prepared an *Annual Monitoring Report* dated March 2004 that documented JA Jones' activities between June 1998 and July 2002. Shaw's report was based on a *DRAFT Annual Monitoring Report* prepared by JA Jones in December 2002. Engineering & Environment, Inc. (E&E) operated the system from early 2003 to September 2005. E&E prepared an *Annual Monitoring Groundwater Monitoring Report 2003-2005* dated November 28, 2005, which documented their activities. Sovereign Consulting Inc. (Sovereign) has monitored and operated the site from September 2005 through May 2006. Sovereign prepared an *Annual Monitoring Groundwater Report 2005-2006* dated June 19, 2006. The monitoring and reporting of remedial activities at the Building 45 project site is currently managed under the UST Management Program at Camp Lejeune. This program was initiated in July 2005.

Although free-phase product was not identified as part of the CAP, the *Annual Monitoring Report* prepared by Shaw stated that 30 AFVR treatment events were performed at wells with free-phase product, including UST45-PW-1, UST45-MW-2 and UST45-MW-3 between April 9, 1999 and December 13, 2001. A total of 426 gallons of free-phase product was reportedly removed during this time period. As of the preparation of this RAO & RCAP, additional AFVR events have not been reported to have been conducted since December 13, 2001.

JA Jones removed UST 45-1 in July 1999. UST 45-1 was listed as a 500-gallon tank used for storing heating oil. Six confirmatory samples indicated the presence of soil Total Petroleum Hydrocarbons per Diesel Range Organics and Gasoline Range Organics (TPH-DRO and TPH-GRO) petroleum contamination ranging from non-detect to 13,000 milligrams per kilograms (mg/Kg) and non-detect to 5,800 mg/Kg, respectively. In the *UST Closure Report*, JA Jones concluded the detected petroleum hydrocarbon contamination might not be from the UST but rather from the long industrial operation history at Building 45.

In 1999, a 500 gallon #2 fuel oil UST 45 was removed from the Building 45 project site. Inspection of the tank revealed it to be in good condition and field observation of the soils in the tank excavations area appeared not to have been impacted by petroleum constituents. Laboratory analysis of soil samples were conducted and identified concentrations of TPH -GRO and TPH-DRO above the NCDENR's action levels. It was concluded that the detected petroleum concentrations may have been associated with past operational activities in the area rather than the former UST itself. The closure report identified the tank as UST-45; the location of the tank illustrated on the figure in the closure report appears to coincide with tank labeled UST 45-2 on the attached figures.

The IR Program at Camp Lejeune has identified the Building 45 site under the CERCLA program as OU No. 19, which is comprised of Site 84. CATLIN has referred to the site as Building 45.

The Camp Lejeune UST Program has typically addressed the petroleum contamination at the Building 45 site while the IR Program has addressed all of the non-petroleum contamination at the site (industrial operations). Baker Environmental, Inc. (Baker) has performed numerous assessments at the Building 45 project site. Baker confirmed the presence of PCB contamination in surface soil in 1998. It is our understanding that PCB laden oil, from used electric transformers, was sprayed on the site for dust control. Subsequent to the confirmation of PCB contamination, Baker prepared a *DRAFT Action Memorandum* for potential removal actions. The IR Program conducted removal activities associated with NTCRA at the Building 45 site. The NTCRA is addressing surface soils that have been impacted by PCB contamination. The areas of excavation completed as of March 2004 consist of the foundation and soils beneath the former Building 45 and the surface soils west of former Building 45. The approximate extents of the removal activities proposed and completed as of March 2004 by the IR Program are illustrated on Figure 3. In 2005, Baker performed a second excavation activity as part of the IR Program. The excavation is believed to have been conducted in the area of the former Building 45, northwest of the remaining dissolved phase petroleum plume. Monitoring well MW-16 appears to have been abandoned during the remedial activities. According to Rhea Engineers and Consultants, Inc. (Rhea), a third excavation was performed to the southwest of the former building during June 2006. Draft data from the 2006 excavation was provided by Rhea as indicated in the attached Appendix I. It is CATLIN's understanding that the remedial activities being conducted by the IR Program are scheduled to be reported in the future.

Baker installed numerous monitoring wells and soil borings during their assessment and removal activities. Baker has often analyzed soil and groundwater samples for petroleum constituents during their site assessment and removal activities. The available petroleum data (as of 2006) collected by Baker and Rhea has been incorporated into this RAO & RCAP in order to effectively evaluate the extent of petroleum contamination at the Building 45 site. This RAO & RCAP identifies the monitoring wells associated with the UST program by use of a UST45 prefix and the monitoring wells associated with the IR Program by an IR84 prefix.

In June 2002, Shaw initiated and completed PCB and pesticide excavation activities as part of the NTCRA. The following wells were reportedly abandoned by Shaw as part of this excavation: UST45-PW-1, UST45-MW-2, UST45-MW-3, UST45-MW-10, and AS/SVE-5 through AS/SVE-8. UST45-PW-1, UST45-MW-2, and UST45-MW-3 were replaced in February 2005 by E&E and were labeled as UST45-PW2, UST45-MW23, and UST-MW24 respectively. Since the site was incorporated into the UST Management Program in Camp Lejeune, the well nomenclature has changed from UST45-PW2, UST45-MW23 and UST-MW24 to UST45/S941-PW01R, UST45/S941-MW02R and UST45/S941-MW03R, respectively. It is important to note that this area was within the area with the highest groundwater petroleum contamination. Therefore, the excavation activities should have contributed to the reduction of the petroleum contamination in this area. The current remediation system layout and monitoring well network is illustrated on the attached Figure 2.

CATLIN completed a DRAFT *RAO & RCAP* dated June 24, 2004, which recommended additional soil assessments be completed in order to evaluate the extent of soil contamination in comparison to the UST Section Risk Based Rules. Subsequently, NAVFAC Mid-Atlantic requested CATLIN to conduct soil assessment activities to complete this *RAO & RCAP*.

2.1 CONCEPTUAL SITE MODEL (BASED ON 1996 CAP)

This conceptual site model is based on the information utilized in the development of the 1996 *CAP*.

2.1.1 Site Geology

The site geology was not reported within the 1996 *CAP*. However, based on a review of the various site assessment reports used in the preparation of the 1996 *CAP*, the site geology appears to be silty sands or sands with trace silt and intermittent pockets of clay throughout the site. The topography of the project site is relatively flat, grading slightly to the west/northwest towards Northeast Creek.

2.1.2 Groundwater Elevation and Flow Direction

Based on information presented within the *CAP*, groundwater flow direction was predominately toward the west-northwest, which is consistent with topographic inferences. The depth to groundwater ranged from approximately seven (7) feet to thirteen (13) feet BLS.

2.1.3 Potential Receptors

LAW identified Northeast Creek located approximately 700 feet west of the subject site as being the potential receptor of greatest risk.

2.1.4 Contaminants of Concern

LAW identified soil and groundwater petroleum contamination during the various site assessment activities utilized in preparing the 1996 *CAP*. The target cleanup levels for each of the petroleum contaminants of concern (COCs) as established by LAW during the February 21, 1996 *CAP* were as follows:

- The following target soil cleanup levels were established by a Site Sensitivity Evaluation:
 1. TPH-Gasoline = 40 mg/Kg.
 2. TPH-Diesel = 160 mg/Kg.

- The following analytes and target clean-up concentrations were identified as groundwater petroleum contamination by LAW based on the 2L GWQS:
 1. Benzene = 1 micrograms per liter (µg/L)
 2. Ethylbenzene = 29 µg/L
 3. Toluene = 1,000 µg/L
 4. Xylenes (Total) = 530 µg/L
 5. Methyl tert-butyl ether = 200 µg/L
 6. Naphthalene = 21 µg/L
 7. Acenaphthene = 80 µg/L
 8. Acenaphthylene = 210 µg/L
 9. Anthracene = 2,100 µg/L
 10. Fluorene = 280 µg/L
 11. Phenanthrene = 210 µg/L
 12. Fluoranthene = 280 µg/L
 13. Pyrene = 210 µg/L
 14. Chrysene = 4.79 µg/L
 15. Benzo(a)anthracene = 0.0478 µg/L

3.0 REMEDIAL ACTION REVIEW

3.1 REMEDIAL SYSTEM OBJECTIVES

As detailed in the *CAP*, the remedial objectives set forth in the report were to provide proposed mechanisms by which soil and groundwater petroleum contamination levels would be reduced to below the target clean-up concentrations previously discussed in Section 2.1.4. The *CAP* reported that free-phase product recovery is not an objective because recoverable free-phase product (0.02 feet or greater) had not been observed.

3.2 RECOMMENDED REMEDIAL SYSTEM

The *CAP* evaluated numerous remedial technologies for the site. The *CAP* recommended a combination of technologies to meet the remedial goals established in the previously discussed objectives including air sparging for the volatilization of dissolved-phase petroleum hydrocarbon constituents coupled with soil vapor extraction for the collection and discharge to the atmosphere of the generated, fugitive petroleum hydrocarbon vapors.

Based on the results of a pilot test conducted at the Building 45 project site, LAW recommended seven (7) vertical AS wells within the groundwater petroleum contamination plume. The AS wells were proposed to be two (2) inch diameter vertical wells screened over a two foot interval approximately 40 to 45 feet BLS. The SVE wells were proposed to be vertical wells placed within 8-inch boreholes paired with each air sparge well to recover vapors from the vadose zone soils and the surficial aquifer. LAW recommended the

SVE wells to be four (4) inch diameter vertical wells screened over a five feet interval at approximately three (3) to eight (8) feet BLS. The system layout proposed by LAW was based on the historical groundwater data available at the time, which is provided in the attached Appendix B.

The corrective action, including active remediation and post operation monitoring was estimated to take approximately 10 years from system installation and activation. LAW recommended the collection of groundwater analytical samples on a quarterly basis. LAW recommended that remedial activities continue until no groundwater contaminants were detected above the 2L GWQS and that annual sampling of the monitoring wells would be conducted for three years after system shutdown.

3.3 IMPLEMENTED REMEDIAL SYSTEM

Subsequent to CAP approval, JA Jones installed the AS/SVE systems in 1998. JA Jones installed eight AS/SVE well pairs. Each AS well was a 2-inch diameter PVC well with a five (5) foot section well screen installed between 39.5 and 44.5 feet BLS. Each SVE well consisted of a 4-inch diameter PVC well with a three foot section of well screen installed between 2.5 and 5.5 feet BLS. The AS system consisted of a rotary vane air compressor, 80-gallon compressed air receiver, inline filter, regulator and flow meter. The SVE system consisted of a moisture separator with condensate storage tank, a particulate filter and a positive displacement vapor extraction blower. The current remedial system layout is presented on Figure 2.

Additionally, the *Annual Monitoring Report* dated March 2004, prepared by Shaw stated that 30 AFVR treatment events were performed at wells with free-phase product, including UST45-PW-1, UST45-MW-2 and UST45-MW-3 between April 9, 1999 and December 13, 2001.

It is also important to note that additional remedial activities have been implemented at the site under the CERCLA program since submittal of the CAP. These activities have been completed as part of the previously referenced NTCRA activities for the site. The approximate extents of the removal activities proposed and completed as of March 2004 by the IR Program are illustrated on Figure 3A. Additional excavation limits for activities completed in 2006 under the IR program are provided in Appendix I.

3.4 REMEDIAL SYSTEM STATUS

Data provided by Shaw, E&E and Sovereign indicates that since system startup in April 1998 the system has operated continuously with the exception of minimal down time for equipment repairs and upgrades. Field

reconnaissance conducted by CATLIN personnel in conjunction with MCB Lejeune personnel revealed the system to be well maintained and in generally good working condition. As previously noted, a portion of the AS/SVE system (AS/SVE-5 through AS/SVE-8) was abandoned in June 2002 to accommodate the 2002 NTCRA excavation activities. Sovereign recommended deactivation of the remaining operating AS/SVE system in an annual monitoring report, date June 19, 2006. At this time, CATLIN is unaware if the deactivation activities have been implemented or is waiting to be approved by NCDENR for the remaining operating AS/SVE system.

As previously noted, AFVR events have occasionally been conducted for the remediation of accumulated free-phase product in some of the monitoring wells. A total of 426 gallons of free-phase product has reportedly been removed from this site. As of the preparation of this RAO & RCAP, additional AFVR events have not been reported to have been conducted since December 13, 2001.

3.5 MONITORING STATUS

CATLIN personnel conducted a field reconnaissance in May 2004 and May 2006 to confirm the monitoring well network status of both the UST and IR programs. As previously noted, a portion of the monitoring well network was abandoned in June 2002 and monitoring wells UST45-PW01, UST45-MW02, and UST45-MW03 were replaced in February of 2005 by UST45/S941-PW01R, UST45/S941-MW02R, and UST45/S941-MW03R. The current monitoring well status is illustrated on the attached Tables 1A and 1B and Figure 2. The UST and IR Programs utilize Type II monitoring and/or pumping test wells (ranging in depths of 15 to 20 feet BLS) to monitor shallow groundwater conditions. The UST Program utilizes Type III monitoring wells to monitor discrete intervals within the deep aquifer between 45 and 51 feet BLS. The IR program utilizes Type I monitoring wells to monitor the deep aquifer between 20 and 30 feet BLS. Groundwater sampling and analysis are currently conducted at various frequencies from the site monitoring wells (Refer to Tables 2A and 2B).

Groundwater samples from the site monitoring wells have historically been analyzed for numerous petroleum compounds by use of various test methods. The groundwater petroleum compounds observed historically at the Building 45 project site are presented on the attached Tables 3A and 3B. Please note that this report also includes the available petroleum related contaminants detected by the IR Program within the "IR" monitoring wells. Currently the site is included in the UST Management Program and Sovereign is gauging monitoring wells monthly and conducting groundwater sampling on a semi-annual basis.

4.0 REMEDIATION EFFECTIVENESS EVALUATION

4.1 CONTAMINANT LEVELS

4.1.1 Free-Phase Product

Free-phase product was not present at the site at the time of *CAP* preparation. As noted in previously submitted monitoring reports, free-phase product has been observed periodically in pumping/monitoring wells UST45-PW-1, UST45-MW-2 and UST45-MW-3. Based on the current monitoring well network status discussed in Section 3.5 of this report, these monitoring wells were abandoned and replaced in 2005 by UST45/S941-PW01R, UST45/S941-MW02R and UST45/S941-MW03R. As of the preparation of this RAO & RCAP, free-phase product at the Building 45 site has not been observed since October 2001 in the current monitoring wells.

4.2 CONTAMINANT CONCENTRATIONS

4.2.1 Soil

Soil TPH concentrations reported in the CAP were in exceedance of the target soil cleanup levels of 40 mg/Kg for TPH-GRO and 160 mg/Kg for TPH-DRO as established by a Site Sensitivity Evaluation. Please note current Action Levels established by the Aquifer Protection Section are 40 mg/Kg for TPH-DRO and 10 mg/Kg for TPH-GRO. According to historical annual monitoring reports, the air quality samples collected from the SVE effluent have indicated concentrations below the laboratory quantitation limits. Refer to Appendix F for soil vapor extraction data. Therefore, based on SVE exhaust emissions the system appears to have been effective in the removal of soil petroleum contamination.

As previously discussed, the IR Program is in the process of completing a NTCRA. As part of this removal action, the contractor is collecting confirmatory samples that include TPH analyses. Based on a summary of the laboratory TPH data provided to CATLIN for samples collected as of 2006 by the IR contractor, it appears that a portion of the soil that will remain in place at the Building 45 site may have TPH impacted soils. It is important to note that the TPH impacted soils identified by Baker are outside the areas identified during the *CAP*. A summary of the known historical TPH soil analytical results for the Building 45 site have been provided in Figure 3A and Appendix A.

However, as part of this RAO & RCAP, a soil assessment has been conducted by CATLIN in order to aid in the evaluation of the effectiveness of the soil vapor extraction system and the extent of TPH impacted soils identified as part of the IR Program work. Specifically, CATLIN collected soil samples from twenty previously identified soil boring or monitoring well locations where vadose zone soil contamination was potentially present. A summary of these additional assessment activities is discussed in the following section.

4.2.1.1 *Sampling Locations*

As previously stated, the horizontal extent of soil contamination was identified in the CAP and the IR program work based on TPH data. As discussed in Section 5.1 of this report, petroleum contamination has likely been from operations of the former maintenance facility rather than from USTs. As indicated on the attached Figure 3A, TPH contamination is present throughout the Building 45 project site. In order to compare the TPH contaminant levels to the Risk Based Action Levels, additional soil sampling was implemented as part of this report. The locations of the samples for Risk Based analysis were based on the areas with the highest TPH concentrations. The intent of the investigation was to compare the Risk Based results to the Industrial/Commercial Maximum Soil Contaminant Concentrations (MSCCs). In the event that the Industrial/Commercial MSCCs were exceeded, then additional investigations were to be considered. Based on the review of the available soil data, CATLIN recommended the collection of soil samples from twenty locations, which are illustrated on the attached Figures 3B, 3C, and 3D.

4.2.1.2 *Sample Collection Activities*

Twenty direct push probe borings were advanced on May 4th and 5th, 2006 in general accordance with CATLIN's Standard Methods of Investigation (See Appendix H) and the approved *Work Plan*. The direct push probe borings have been identified as UST45-SB01 to UST45-SB20 and are illustrated on the attached Figures 3B through 3D. These direct push probe borings were advanced to the water table ranging from eight to sixteen feet BLS. Soil samples were collected continuously on two-foot increments until

termination of the boring. Each two-foot increment of soil was analyzed in the field by use of a Flame Ionization Detector (FID). Soil samples were collected for laboratory analyses based on the highest FID results above the saturated zone. In the event elevated FID results were not identified, then laboratory soil samples were collected just above the capillary fringe. Soil descriptions and FID field screening results are provided on the attached boring logs in Appendix G.

Site soils were described in general accordance with CATLIN's Standard Methods as part of this investigation. The site soils identified during the advancement of these borings were characterized predominantly as brown, tan, fine to medium sand throughout the project site. Samples from the upper two feet encountered brown, medium sand with organics. Samples from approximately two feet to six feet BLS were described as a brown, tan, gray, fine to medium sand with some clayey layers throughout. The clayey material encountered at this horizon ranged from low to medium plasticity clays. The clay layers are discontinuous across the site and are commonly associated with sand lamina. Below the clay layers at approximately six feet BLS is a tan, well sorted fine to medium sand.

The direct push probe and sampling equipment was decontaminated prior to and upon completion of each boring to prevent possible cross-contamination. Soil cuttings were spread on the ground and hydrated bentonite was used as backfill for the soil borings.

4.2.1.3 Sampling Results

Selected soil samples were analyzed in accordance with the current Risk Based Analyses by Environmental Protection Agency (EPA) Methods 8260, EPA 8270 and Massachusetts Department of Environmental Protection Volatile and Extractable Petroleum Hydrocarbons (MADEP VPH/EPH). A summary of the laboratory test results is provided in the attached Tables 5A through 5D and Figures 3B through 3D. A copy of the laboratory reports and chain of custody records are provided in the attached Appendix A.

Methylene Chloride was the only target compound detected above the lowest of the MSCCs in four of the twenty samples analyzed per EPA Method 8260. However, this target compound was observed below the Industrial/Commercial MSCC. 4-Isopropyltoluene was detected at concentrations of 0.00428 mg/Kg and 0.0298 mg/Kg in soil samples UST45-SB01 and UST45-SB03 respectively. 2-Butanone was detected at a concentrations of 0.00260 mg/Kg in soil sample UST45-SB04. There are currently no established MSCCs for these target analytes. All other target 8260 analytes were detected below the lowest MSCC or reported as Below Quantitation Limits (BQL). Table 5A and Figure 3B summarizes the laboratory results per EPA Method 8260.

One soil sample, UST45-SB17, analyzed per EPA Method 8270 revealed 0.174 mg/Kg of Benzo[a]pyrene, which is above the lowest MSCC of 0.088 mg/Kg. However, this target compound was observed below the Industrial/Commercial MSCC. All other target 8270 analytes were detected below the lowest MSCC or reported as BQL for the remaining borings. Table 5B and Figure 3C summarize the laboratory results per EPA Method 8270.

Three soil samples indicated concentrations of one or two of the MADEP VPH/EPH target compounds above the lowest MSCC. However, none of the target compounds were observed above the Industrial/Commercial MSCC. Table 5D and Figure 3D summarizes the MADEP VPH/EPH results as compared to the MSCCs.

4.2.2 Groundwater

Groundwater petroleum contamination data at the time of the *CAP* preparation identified benzene, ethylbenzene, toluene, xylenes, MTBE, naphthalene, acenaphthene, acenaphthylene, anthracene, fluorene, phenanthrene, fluoranthene, pyrene, chrysene and benzo(a)anthracene as the target contaminants of concern. The maximum concentration of these contaminants, as reported in the *CAP*, is provided in Table 3A, 3B and Appendix B.

As previously discussed, additional groundwater assessment activities have been completed under the IR program at the Building 45 site.

Based on a review of the available groundwater petroleum contamination data from these additional assessments, the following additional contaminants are also target contaminants of concern: 1,2-dichlorobenzene, 1-methylnaphthalene, 2-methylnaphthalene, benzo(k)fluoranthene, 2-butanone, carbon disulfide, chloroform, chloromethane, methylene chloride, trichloroethene and lead. The maximum concentration of these contaminants are also provided in Tables 3A, 3B and Appendix B.

The historical data for the site does not distinguish between the shallow conditions and the deep conditions. In order to effectively evaluate the current remediation system, a discussion of the shallow conditions (Pumping test and Type II monitoring wells) and the deep conditions (Type I and Type III monitoring wells – 27 to 20 feet BLS) is provided in the following sections.

4.2.2.1 Shallow Conditions

The estimated plume boundaries of the shallow groundwater conditions as of the latest sampling event, First Semester 2006, for each monitoring well along with the plume boundaries from the CAP are shown for BTEX, naphthalene and MTBE on Figures 4, 6, and 8, respectively. As of the latest sampling event for each monitoring well, groundwater sampling detected no contaminant concentrations in excess of the 2L GWQS within the shallow groundwater. As can be seen, the estimated extent of shallow groundwater petroleum contamination has been significantly reduced by the active remediation system. Table 3A summarizes the historical groundwater petroleum contaminants of concern for the shallow monitoring wells and Tables 2A and 2B summarize the last date an individual monitoring well exhibited groundwater petroleum contaminant concentrations above the 2L GWQS.

4.2.2.2 Deep Conditions

The estimated plume boundaries of the deep conditions as of the latest sampling event, First Semester 2006, for each monitoring well along with the plume boundaries from the CAP are shown for BTEX, naphthalene and MTBE on Figures 5, 7, and 9, respectively. As of the latest sampling event, data for monitoring well UST45-MW-09 indicates contaminant concentrations in excess of the 2L GWQS for benzene only. As can be seen, the estimated extent of deep groundwater petroleum contamination has remained consistent since the CAP. The maximum concentrations of dissolved petroleum

constituents identified in groundwater from previous sampling events are presented on Table 3B. Tables 2A and 2B summarize the last date that an individual monitoring well exhibited groundwater petroleum contaminants of concern above the 2L GWQS.

4.3 SYSTEM SUITABILITY

4.3.1 Free-Phase Product

As previously stated, free-phase product has historically been reported present within pumping/monitoring wells UST45-MW02, UST45-MW03 and UST45-PW01 by JA Jones. Based on the current monitoring well network status discussed in Section 3.5 of this report, these monitoring wells have been abandoned and replaced in February 2005 by UST45/S941-MW02R, UST45/S941-MW03R, and UST45/S941-PW01R. No measurable thickness of free-phase product has been identified in any of the existing monitoring wells at the subject site since October 2001.

JA Jones utilized AFVR events to recover accumulated free-phase product. No free-phase product has been observed since the replacement monitoring wells UST45/S941-MW02R, UST45/S941-MW03R and UST45/S941-PW01R were installed. The current remedial system and the use of AFVR events seem to have adequately removed free-phase product previously identified onsite.

4.3.2 Soil

As previously stated, an additional soil assessment has been conducted in the areas in which historical exceedances of TPH have been reported. Laboratory results of the soil samples have indicated the implemented remedial approaches have aided in the reduction of soil contaminants within area of previously identified TPH contaminants.

4.3.3 Groundwater

In order to effectively evaluate the current remediation system suitability in regards to groundwater quality, a discussion of the shallow conditions and the deep conditions is provided in the following sections.

4.3.3.1 Shallow Conditions

Based on a review of the system performance and the reduced

levels of shallow groundwater petroleum contamination, the remediation system appears to have been beneficial to the reduction of the COCs established in the *CAP*.

4.3.3.2 Deep Conditions

The petroleum contaminant concentrations in the deep groundwater conditions have been slightly impacted by benzene in only one deep monitoring well. The concentration of benzene has remained consistently low and has not increased over time. The low level of benzene associated with the deep monitoring well appears to be applicable to continue monitor natural attenuation.

5.0 REMEDIATION MODIFICATIONS AND ALTERNATIVES

5.1 REGULATORY FRAMEWORK EVALUATION

The remedial goals for the site were based on the regulations current at the time and presented in the *CAP*. The IR program has identified petroleum contamination that may have been contributed from operations of the former maintenance facility rather than from the former USTs. However, it is not possible to identify which areas of petroleum contamination are from activities associated with the former maintenance facility or the operation of the former USTs. Per the General Assembly of the North Carolina Session Law 2003-352, House Bill 897 (House Bill 897), "...a mixed plume of petroleum contamination that results from releases of petroleum from both an underground storage tank and an aboveground storage tank or other source may be cleaned up under the risk-based cleanup rules applicable to releases from petroleum underground storage tanks..." The regulatory framework for the petroleum contamination at the entire Building 45 site has been based on the Risk Based Corrective Actions. As such, reclassification of the site based on current risk factors would be necessary. Current applicable remedial requirements based on the Risk Based Corrective Actions for the petroleum contamination associated with Building 45 is based on the corrective action requirements per 15A NCAC 2L.0115 which became effective on January 2, 1998 and the requirements in the NCDENR 2001 Guidelines.

A Risk Classification and Land Use Form, as presented in the 2001 Guidelines was completed as part of the field reconnaissance in 2004 to present the data necessary to allow NCDENR to assess the site's applicable risk classification. Data obtained for this RAO & RCAP was updated based on Geographic Information System (GIS) data obtained from MCB Camp Lejeune. The completed form is included in Appendix D. Based on the findings of this Risk Classification and Land Use Form, if the site is regulated

under the Risk Based Corrective Actions, then CATLIN concludes that the subject site meets the criteria for classification as an Intermediate Risk and Industrial/Commercial Land Use site.

5.2 REVISED CONCEPTUAL SITE MODEL

5.2.1 Groundwater Depth and Flow Direction

Depth to groundwater measurements from selected monitoring wells have been collected as part of the IR and UST programs during the numerous sampling and gauging events that have been conducted at the subject site. Groundwater elevation contours for the shallow monitoring wells have historically indicated a groundwater flow direction predominantly toward the west-northwest. Therefore, no change to the groundwater flow characteristics is necessary in the revised conceptual model.

5.2.2 Potential Receptors

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

- The Northeast Creek located approximately 700 feet west of the source area.
- According to the Well Head Protection Plan Update (2002), the site is located within a potential wellhead protection area.
- The site is located within an area where there has been evidence of potential recharge to the deeper aquifer.
- The closest residence is approximately 400 feet from the subject source area, across Highway 24.
- A playground is located in the residential area across Highway 24, at approximately 500 feet from the subject source area.

Based on information provided by MCB Camp Lejeune, these potential receptors have not been reported to have been impacted by the potentially petroleum contaminated soils and/or groundwater. The potential receptors are presented on Figure 1.

5.2.3 Contaminants of Concern

The groundwater petroleum COCs as established in the *CAP* are still relevant; however, JA Jones, Shaw and Baker have reported additional contaminants since the *CAP* in various reports above the 2L GWQS. Therefore, the petroleum COCs have been expanded to

include the additional contaminants reported by JA Jones, Shaw and Baker. The revised COCs have been summarized on Table 4.

5.3 ALTERNATIVE REGULATORY MECHANISMS

5.3.1 Revised Target Cleanup Goals

Based on the risk characterization study discussed above, it appears that the revised applicable cleanup concentration for soil is based on the Industrial/Commercial MSCCs. Soil petroleum contamination data presented in the *CAP* and the assessment activities completed under the IR program (Refer to Appendix A) for this site were based on the TPH-Gasoline and TPH-Diesel Action Levels. Additional soil samples were obtained for Risk Based Analysis as part of this RAO & RCAP and has indicated no detected concentrations above the Industrial/Commercial MSCCs. However, due to the intermediate risk classification discussed within the next paragraph, the target clean-up criteria is currently the lower of the Industrial/Commercial MSCCs or the Soil-to-Groundwater (STGW) MSCCs. Upon reclassification of the site as low risk, the Industrial/Commercial MSCCs will be the applicable clean-up goals. The Revised Target Cleanup Concentrations are summarized on Table 4.

Additionally, based on the intermediate risk classification due to the petroleum contamination within the deep groundwater conditions petroleum contamination that could be used as a source of drinking water, the applicable cleanup concentrations (2L GWQS) for the groundwater petroleum contamination proposed in the *CAP* remain applicable.

5.3.2 Notice of Residual Petroleum

A Notice of Residual Petroleum (NRP) is not required at this time for this site. However, pending the remediation of the deep groundwater conditions, a NRP may be applicable, and should be considered in the future.

MCB Camp Lejeune is currently in the process of developing a legal document designated as a Land Use Restriction (LUR) that is being designed as an acceptable document to both State and Federal Government agencies to accomplish the intent of the NRP.

5.4 ALTERNATIVE REMEDIAL TECHNOLOGIES

As previously stated, the implemented remedial system appears to have been effective in reducing the petroleum contaminant levels to below the

Revised Target Cleanup Levels for shallow groundwater. Soil petroleum contaminant levels have also been reduced; however, concentrations are above the lowest MSCCs. Additionally, the deep groundwater conditions have historically been slightly above the 2L GWQS for a limited number of petroleum compounds. No alternative remedial technologies are necessary to accomplish the ultimate goal of site closure. Due to the reduction of contaminants on site, it is recommended to implement a site wide natural attenuation monitoring program.

5.5 COST EFFICIENCY EVALUATION

A detailed cost efficiency evaluation was not performed for this site based on the recommendations within Section 6.0 of this report. The recommendation for shutdown of the active remediation system is based on a comparative evaluation of monitored natural attenuation versus continuation of system operation to achieve closure based on 2L GWQS criteria. The current plan of system shutdown and quarterly monitoring will be necessary regardless of the chosen method. Therefore, the only benefit of the continued operation of the system would be to attempt to achieve compliance with current 2L GWQS which would allow for site closure without LUR. The comparative cost of continued system operation versus preparation of LUR would be substantially higher resulting in system shutdown as the most economically feasible alternative.

6.0 OPTIMIZATION RECOMMENDATIONS

6.1 FREE-PHASE PRODUCT

Free-phase product has historically been reported present within pumping/monitoring wells UST45-PW01, UST45-MW02 and UST45-MW03, which have been abandoned and replaced in 2005 by UST45/S941-PW01R, UST45/S941-MW02R, UST45/S941-MW03R. No measurable thickness of free-phase product has been identified in any of the existing monitoring wells at Building 45 since 2001. Therefore, no additional free-phase product remedial activities are warranted and should be discontinued unless free-phase product is observed in the future. In the event that free-phase product is observed in the future, then an alternative remedial approach should be evaluated.

6.2 SOIL

As previously stated, an additional soil assessment has been conducted in the areas in which historical exceedances of TPH have been reported. As illustrated on Figure 3A and Appendix I, the IR program has extensively sampled and continues to sample the entire Building 45 site for TPH constituents. Based on the Revised Target Cleanup Concentrations

discussed within Section 5.3.1 of this report, CATLIN collected additional soil samples on May 4th and 5th, 2006 for Risk Based Analysis in the vicinity of 20 locations presented on Figures 3B, 3C and 3D. These locations were selected based on the highest TPH concentrations across the site. Risk Based laboratory results indicated no concentrations above the Industrial/Commercial MSCCs. However, results were above the lowest MSCCs for some compounds.

Since the current site risk classification appears to be intermediate, the soil clean-up requirements appear to be the lower of the Industrial/Commercial MSCCs or the STGW MSCCs. Therefore, since the lowest of the applicable MSCCs are currently exceeded, additional remedial activities are warranted until reclassification of the site as Low Risk. The recommended remedial approach until reclassification is natural attenuation. This recommendation is based on the continual decrease of the groundwater contaminant levels, which indicates the contaminated soil is not a continued source to the groundwater. Upon reclassification as Low Risk, land use controls may be required for this site in order to receive NFA. As previously mentioned, the IR Program will be indicating land use controls for the entire project site. CATLIN recommends selected soil samples be collected on a frequency of once every five years for the COCs to evaluate the progress of natural attenuation. The results of these sampling events should be compared to the applicable MSCCs. If implemented, the LURs should be requested to be removed from the site at the time the soil contaminants are below the applicable MSCCs.

6.3 GROUNDWATER

6.3.1 Shallow Conditions

Based on the current Monitoring Status, the Remedial Effectiveness Evaluation, and the Revised Target Cleanup Concentrations discussed within Sections 3.5, 4.2.2.1, and 5.3.1, respectively of this report, CATLIN recommends the following for the shallow groundwater constituents to meet the 2L GWQS for petroleum constituents:

- The shallow UST monitoring wells located in the vicinity of AS/SVE-1 to AS/SVE-4 have not exhibited groundwater petroleum contamination in excess of the 2L GWQS for a period of greater than one year. Therefore, CATLIN recommends that this portion of the AS/SVE system be shut down immediately. The monitoring wells in the vicinity of AS/SVE-1 to AS/SVE-4 will be monitored for rebound effect as part of the monitoring schedule presented below. These wells are UST45/S941-MW13, UST45/S941-MW14, UST45/S941-

MW15, UST45/S941-MW01/45 and UST45/S941-MW04/45.

- The following shallow monitoring wells were not located during CATLIN's site reconnaissance: IR84-MW-16, IR84-MW-18, IR84-MW-22, IR84-MW-23, UST45-MW-11, UST45-MW-02/45, UST45-MW-03/45, and UST45-MW-05/45. If these shallow monitoring wells are located in the future they may be used for monitoring purposes discussed below. However, if these shallow monitoring wells are confirmed not to be present, then these shallow monitoring wells should not be replaced. This recommendation is based on none of these wells indicating the presence of historical groundwater petroleum contamination concentrations in excess of the 2L GWQS for a period greater than one year, and the large quantity of monitoring wells within the vicinity of these monitoring wells.
- The shallow groundwater samples should be analyzed for the COCs listed in Table 4 by use of the following methods: EPA Method 8260, EPA Method 8270 and EPA Method 6010A with Standard Prep Method 3030C for lead only from selected UST monitoring wells on a semi-annual frequency. At the conclusion of one year, annual sampling should be evaluated as part of the annual Monitoring Program.
- The groundwater samples collected for lead should be collected using low-flow sampling techniques.
- The detection limits for all compounds should be below the 2L GWQS.
- The results of the sampling should be presented within an Annual Groundwater Monitoring Report.

6.3.2 Deep Conditions

CATLIN recommends the following to address the deep groundwater petroleum contamination at the project site:

- The following deep monitoring well was not located during CATLIN's site reconnaissance: UST45-MW-21. If this deep monitoring well is located in the future it may be used for monitoring purposes discussed below. However, if this deep monitoring well is confirmed not to be present, then this deep monitoring well should not be replaced. This recommendation is based on this well not indicating the presence of historical groundwater petroleum contamination concentrations in excess of the 2L GWQS for a period greater than one year, and the large quantity of monitoring wells within the vicinity of this monitoring well.
- Deep groundwater contamination remains present in

monitoring well UST45/S941-MW09. Concentrations have been less than 10 ug/L since July 14, 2004 for only benzene. Monitored natural attenuation is recommended for addressing the low levels of benzene. Groundwater samples are recommended to be collected from all deep UST monitoring wells on an annual basis for COCs listed in Table 4 by use of the following methods: EPA Method 8260, EPA Method 8270 and EPA Method 6010A with Standard Prep Method 3030C for lead only. Upon completion of four sampling events with benzene concentrations less than 1.0 ug/L, the site should be reclassified as Low Risk and No Further Action should be pursued.

- The groundwater samples collected for lead should be collected using low-flow sampling techniques.
- The results of the sampling should be presented within an *Annual Groundwater Monitoring Report*.

7.0 IMPLEMENTATION

7.1 IMPLEMENTATION PLAN

The following is a suggested implementation plan for obtaining site closure:

- Submittal of the RAO & RCAP to the UST Section of NCDENR for approval of recommendations.
- Immediately shut down the AS/SVE system.
- Implementation of the recommended sampling strategy for the shallow groundwater and deep groundwater conditions.
- Implement monitored natural attenuation program.
- Preparation of the Annual Groundwater Monitoring Reports.

7.2 SCHEDULE FOR IMPLEMENTATION

The shutdown of the AS/SVE system is recommended to commence immediately upon plan approval by appropriate State authorities. The sampling activities for monitoring natural attenuation should begin at the time of the next scheduled sampling event. The Annual Monitoring Reports should be submitted following the June operation period.

8.0 LIMITATIONS

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

9.0 REFERENCES

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Sovereign Consulting, Inc., *Final Annual Monitoring Groundwater Report 2005-2006, Building 45, Marine Corps Base, Camp Lejeune, North Carolina.* Report dated June 19, 2006.

TABLES

TABLE 1A WELL CONSTRUCTION DATA - UST PROGRAM RAO & RCAP BUILDING 45 MARINE CORPS BASE CAMP LEJEUNE, NC						
WELL I.D.	DATE CONSTRUCTED	TOP OF CASING (Feet)	DIAMETER (Inches)	TOTAL DEPTH (Feet Below TOC)	CASING INTERVAL (Feet Below TOC)	SCREEN INTERVAL (Feet Below TOC)
TYPE II MONITORING WELLS						
UST45-PW01	1994	NA	6	23.0	NA	3.0 - 23.0
UST45/S941-PW01R	2/23/2005	12.14	2	15	0-4.7	4.7-14.7
UST45-MW01	8/1991	NA	NA	NA	NA	NA
UST45-MW02	8/1991	10.74	NA	NA	NA	NA
UST45/S941-MW02R	2/23/2005	11.07	2	15	0-4.7	4.7-14.7
UST45-MW-03	8/1991	11.02	NA	NA	NA	NA
UST45/S941-MW03R	2/23/2005	12.17	2	15	0-4.7	4.7-14.7
UST45/S941-MW04	12/16/1992	14.83	2	21.95 (M)	+1.35 - 6.0	6.0 - 21.0
UST45/S941-MW05	12/16/1992	9.73	2	20.2 (M)	+1.75 - 4.5	4.5 - 19.5
UST45/S941-MW07	12/16/1992	10.00	2	23.0	+1.5 - 3.0	3.0 - 23.0
UST45/S941-MW08	12/16/1992	10.73	2	19.5	+1.54 - 4.5	4.5 - 19.5
UST45-MW10	1993	11.49	NA	18.0	0.0 - 3.0	3.0 - 18.0
UST45-MW11	1993	NA	NA	15.5	0.0 - 5.5	5.5 - 15.5
UST45/S941-MW12	11/18/1993	NA	2	16.5	0.0 - 6.5	6.5 - 16.5
UST45/S941-MW13	1993	8.32	2	12.4 (M)	NA	NA
UST45/S941-MW14	1993	7.32	2	16.1 (M)	NA	NA
UST45/S941-MW15	12/1993	8.26	2	16.5	0.0 - 6.0	6.0 - 16.0
UST45-MW16	1993	8.77	NA	16.0	0.0 - 6.0	6.0 - 16.0
UST45/S941-MW17	12/2/1993	8.95	2	15.0	0.0 - 5.0	5.0 - 15.0
UST45/S941-MW18	12/22/1993	10.80	2	16.5	0.0 - 6.0	6.0 - 16.0
UST45/S941-MW19	12/1/1993	11.85	2	14.5	+1.98 - 4.5	4.5 - 14.5
UST45/S941-MW20	12/1/1993	10.64	2	13.5	+1.5 - 3.5	3.5 - 13.5
UST45/S941-MW01/45	6/1994	11.43	4	20.0 (M)	+1.91 - 20.0	NA
UST45-MW02/45	1994	NA	NA	NA	NA	NA
UST45-MW03/45	1994	NA	NA	NA	NA	NA
UST45/S941-MW04/45	6/1994	7.11	4	22.0 (M)	NA	NA
UST45-MW05/45	1994	NA	NA	NA	NA	NA
TYPE III MONITORING WELLS						
UST45/S941-MW-06	12/16/1992	10.71	2	50.0	+1.7 - 45.0	45.0 - 50.0
UST45/S941-MW-09	12/16/1992	10.27	2	50.0	+1.8 - 45.0	45.0 - 50.0
UST45-MW-21	1/5/1994	7.13	2	50.5	0.0 - 45.5	45.5 - 50.5
UST45/S941-MW-22	1994	NA	NA	50.7	NA	45.7 - 50.7

1. Casing and screen intervals are assumed to be based on measurements from Ground Surface.

2. Total depth based on maximum depth of screen interval.

3. Top of casing provided by SHAW ENVIRONMENTAL, INC. Annual Monitoring Report, dated March 2004.

4. Data for casing and screen intervals obtained from well tags during CATLIN's Site Reconnaissance Event, May 10, 2004, unless noted.

5. NA = Not Available.

6. TOC = Top Of Casing.

7. M = Measured Depth.

8. + indicates "stick-up" casing.

9. Shading indicates well not located or abandoned. However, these wells were identified in previously submitted reports. Data presented for these wells are from previously submitted reports.

10. UST45-PW-01 has historically been used as a pumping and/or monitoring well.

11. UST45/S941-MW02R, MW03R and PW03R were initially identified as UST45-23, 24, and PW2 by E & E; however, the monitoring wells are currently known as indicated within this table.

TABLE 1B

WELL CONSTRUCTION DATA - IR PROGRAM

RAO & RCAP
BUILDING 45
MARINE CORPS BASE
CAMP LEJEUNE, NC

WELL I.D.	DATE CONSTRUCTED	TOP OF CASING (Feet)	DIAMETER (Inches)	TOTAL DEPTH (Feet Below TOC)	CASING INTERVAL (Feet Below TOC)	SCREEN INTERVAL (Feet Below TOC)
TYPE I MONITORING WELLS						
IR84-MW02	1991	NA	2	32.73 (M)	+2.1 - 32.73	NA
IR84-MW04	12/12/1991	NA	2	30.0	+1.5 - 20.0	20.0 - 30.0
IR84-MW06	12/12/1991	NA	2	30.0	+1.0 - 20.0	20.0 - 30.0
IR84-MW08	12/12/1991	NA	2	32.1 (M)	NA	NA
IR84-MW10	12/12/1991	NA	2	30.0	+1.8 - 20.0	20.0 - 30.0
IR84-MW12	12/12/1991	NA	2	30.0	+2.15 - 20.0	20.0 - 30.0
IR84-MW14	12/12/1991	NA	2	27.0	+1.83 - 17.0	17.0 - 27.0
TYPE II MONITORING WELLS						
IR84-MW01	1991	NA	2	22.54 (M)	NA	NA
IR84-MW03	12/12/1991	NA	2	15.0	+1.7 - 5.0	5.0 - 15.0
IR84-MW05	12/12/1991	NA	2	15.0	+2.0 - 5.0	5.0 - 15.0
IR84-MW07	12/12/1991	NA	2	15.0	+2.0 - 5.0	5.0 - 15.0
IR84-MW09	12/12/1991	NA	2	15.0	+1.8 - 5.0	5.0 - 15.0
IR84-MW11	12/12/1991	NA	2	15.0	+2.0 - 5.0	5.0 - 15.0
IR84-MW13	12/12/1991	NA	2	12.0	+1.83 - 2.0	2.0 - 12.0
IR84-MWA	11/1990	NA	2	22.9 (M)	NA	NA
IR84-MWB	11/28/1990	NA	2	15.0	NA	NA
IR84-MW15	BORING ONLY					
IR84-MW16	7/31/2001	19.84	2	20.0	0.0 - 10.0	10.0 - 20.0
IR84-MW17	7/31/2001	18.73	2	20.3 (M)	+1.85 - 7.5	7.5 - 17.5
IR84-MW18	8/1/2001	22.56	2	15.0	0.0 - 5.0	5.0 - 15.0
IR84-MW19	8/1/2001	18.00	2	19.5 (M)	0.0 - 9.0	9.0 - 19.0
IR84-MW20	8/1/2001	11.41	2	15.68 (M)	+2.47 - 2.0	2.0 - 12.0
IR84-MW21	8/2/2001	21.05	2	14.7 (M)	0.0 - 5.0	5.0 - 15.0
IR84-MW22	8/3/2001	19.52	2	22.0	0.0 - 12.0	12.0 - 22.0
IR84-MW23	8/3/2001	8.52	2	12.0	0.0 - 2.0	2.0 - 12.0

1. Casing and screen intervals are assumed to be based on measurements from Ground Surface.

2. Total depth based on maximum depth of screen interval.

3. Top of casing provided by BAKER ENVIRONMENTAL, INC. Remedial Investigation, dated June 2002.

4. Data for casing and screen intervals obtained from Well Construction Records and well tags during CATLIN's Site Reconnaissance Event, May 10, 2004, unless noted.

5. NA = Not Available.

6. TOC = Top Of Casing.

7. M = Measured Depth.

8. + indicates "stick-up" casing.

9. Shading indicates well not located or abandoned. However, these wells were identified in previously submitted reports. Data presented for these wells are from previously submitted reports.

TABLE 2A																						
GROUNDWATER SAMPLING HISTORY - UST PROGRAM																						
RAO & RCAP BUILDING 45 MARINE CORPS BASE CAMP LEJEUNE, NC																						
WELL I.D.	DATE INSTALLED	TYPE (I, II, III)	YEARS SAMPLED																		LAST DATE ABOVE 2L GWQS	
			1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006			
UST WELLS LOCATED																						
UST45/S941-PW01R																		X	X	NEVER ABOVE		
UST45/S941-MW02R																		X	X	NEVER ABOVE		
UST45/S941-MW03R																		X	X	NEVER ABOVE		
UST45/S941-MW04	12/16/1992	II				X												X	X	NEVER ABOVE		
UST45/S941-MW05	12/16/1992	II				X					X							X	X	NEVER ABOVE		
UST45/S941-MW06	12/16/1992	III				X												X	X	NEVER ABOVE		
UST45/S941-MW07	12/16/1992	II				X											X	X	X	NEVER ABOVE		
UST45/S941-MW08	12/16/1992	II				X					X	X	X	X	X	X	X	X	X	NEVER ABOVE		
UST45/S941-MW09	12/16/1992	III				X					X	X	X	X	X	X	X	X	X	4/6/2006		
UST45/S941-MW12	11/18/1993	II				X					X							X	X	NEVER ABOVE		
UST45/S941-MW13	1993	II				X					X	X	X	X	X	X	X	X	X	NEVER ABOVE		
UST45/S941-MW14	1993	II					X				X	X	X	X	X	X	X	X	X	1/11/1994		
UST45/S941-MW15	12/22/1993	II					X				X	X	X	X	X	X	X	X	X	4/17/2002		
UST45/S941-MW17	12/2/1993	II					X				X	X	X	X	X	X	X	X	X	4/14/1998		
UST45/S941-MW18	12/22/1993	II					X				X	X	X	X	X	X	X	X	X	7/12/1999		
UST45/S941-MW19	12/1/1993	II					X				X	X	X	X	X	X	X	X	X	NEVER ABOVE		
UST45/S941-MW20	12/1/1993	II					X				X	X	X	X	X	X	X	X	X	NEVER ABOVE		
UST45/S941-MW21	1/5/1994	III					X										X	X	X	NEVER ABOVE		
UST45/S941-MW22	1993	III					X													NEVER ABOVE		
UST45/S941-MW01/45	6/94	II					X					X	X	X	X	X	X	X	X	7/18/2000		
UST45/S941-MW04/45	6/94	II					X				X	X	X	X	X	X	X	X	X	NEVER ABOVE		
UST WELLS NOT LOCATED																						
UST45-PW01	1993	II				X					X	X	X	X	X					1/16/2002		
UST45-MW01	1993	II																		NO DATA		
UST45-MW02	1993	II					X	X			X	X	X	X	X					4/17/2002		
UST45-MW03	1993	II					X	X			X	X	X	X	X					4/17/2002		
UST45-MW10	1993	II				X					X	X	X	X	X					7/18/2000		
UST45-MW11	1993	II				X														NEVER ABOVE		
UST45-MW16	1993	II					X				X	X	X	X	X	X				4/14/1998		
UST45-MW02/45	6/94	II																		NO DATA		
UST45-MW03/45	6/94	II																		NO DATA		
UST45-MW05/45	6/94	II																		NO DATA		

1. The information presented within is based on data obtained from the following reports:

Corrective Action Plan For The Restoration Of Petroleum Contaminated Soil And Groundwater, Building 45, USTs S-941-1 And 2, MCB Camp Lejeune, North Carolina, LAW ENGINEERING AND ENVIRONMENTAL SERVICES, INC., February 21, 1996.

Remedial Investigation, Operable Unit No. 19, Site 84 - Building 45 Area, MCB Camp Lejeune, North Carolina, Vol. I, BAKER ENVIRONMENTAL, INC., June 2002.

Final Annual Monitoring Report, Soil and Groundwater Remediation, Building 45 - USTs S-941-1 and 941-2, MCB Camp Lejeune, North Carolina, SHAW ENVIRONMENTAL, INC, March 2004.

2. Last date above 2L GWQS = The last date in which a contaminant of concern was above the 2L GWQS for each monitoring well.

3. NO DATA = No sampling records available for these wells.

4. 2003-2005 Data provided by ENGINEERING AND ENVIRONMENT, INC.

5. 2005-2006 Data provided by CATLIN Engineers and Scientists.

TABLE 2B																					
GROUNDWATER SAMPLING HISTORY - IR PROGRAM																					
RAO & RCAP BUILDING 45 MARINE CORPS BASE CAMP LEJEUNE, NC																					
WELL I.D.	DATE INSTALLED	TYPE (I, II, III)	YEARS SAMPLED																		LAST DATE ABOVE 2L GWQS
			1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006		
IR WELLS LOCATED																					
IR84-MW01	1991	II																		NO DATA	
IR84-MW02	1991	I																		NO DATA	
IR84-MW03	12/12/1991	II																		NO DATA	
IR84-MW04	12/12/1991	I																		NO DATA	
IR84-MW05	12/12/1991	II																		NO DATA	
IR84-MW06	12/12/1991	I																		NO DATA	
IR84-MW07	12/12/1991	II																		NEVER ABOVE	
IR84-MW08	12/12/1991	I																		NEVER ABOVE	
IR84-MW09	12/12/1991	II																		NEVER ABOVE	
IR84-MW10	12/12/1991	I																		NEVER ABOVE	
IR84-MW11	12/12/1991	II																		NO DATA	
IR84-MW12	12/12/1991	I																		NO DATA	
IR84-MW13	12/12/1991	II																		NO DATA	
IR84-MW14	12/12/1991	I																		NO DATA	
IR84-MWA	1990	II																		NO DATA	
IR84-MWB	11/28/1990	II																		NO DATA	
IR84-MW17	7/31/2001	II																		NEVER ABOVE	
IR84-MW19	8/1/2001	II																		NEVER ABOVE	
IR84-MW20	8/1/2001	II																		NEVER ABOVE	
IR84-MW21	8/1/2001	II																		NEVER ABOVE	
IR WELLS NOT LOCATED																					
IR84-MW16	7/31/2001	II																		NEVER ABOVE	
IR84-MW18	8/1/2001	II																		NEVER ABOVE	
IR84-MW22	8/3/2001	II																		NEVER ABOVE	
IR84-MW23	8/3/2001	II																		NEVER ABOVE	

1. The information presented within is based on data obtained from the following reports:

Corrective Action Plan For The Restoration Of Petroleum Contaminated Soil And Groundwater, Building 45, USTs S-941-1 And 2, MCB Camp Lejeune, North Carolina, LAW ENGINEERING AND ENVIRONMENTAL SERVICES, INC., February 21, 1996.

Remedial Investigation, Operable Unit No. 19, Site 84 - Building 45 Area, MCB Camp Lejeune, North Carolina, Vol. I, BAKER ENVIRONMENTAL, INC., June 2002.

Final Annual Monitoring Report, Soil and Groundwater Remediation, Building 45 - USTs S-941-1 and 941-2, MCB Camp Lejeune, North Carolina, SHAW ENVIRONMENTAL, INC, March 2004.

2. Monitoring wells were located during CATLIN's Site Reconnaissance on May 10, 2004.

3. Last date above 2L GWQS = The last date in which a contaminant of concern was above the 2L GWQS for each monitoring well.

4. NO DATA = No sampling records available for these wells.

TABLE 3A
SUMMARY OF HISTORICAL GROUNDWATER CONTAMINANTS OF CONCERN
SHALLOW GROUNDWATER CONDITIONS

RAO & RCAP
BUILDING 45
MARINE CORPS BASE
CAMP LEJEUNE, NC

COMPOUND	2L GWQS (mg/L)	GCL (mg/L)	MAXIMUM CONCENTRATIONS (mg/L)										
			CAP DATA	1995	1998	1999	2000	2001	2002	2003	2004	2005	2006
1,2 Dichlorobenzene	620	72,500	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	<1.0	BQL
Benzene	1	5,000	3,800	NA	2,000	1,800	360	300	200	<1.0	<1.0	<1.0	BQL
Methyl Tert-Butyl Ether	200	200,000	ND	NA	3	15	8	5	8	<1.0	<1.0	<1.0	BQL
Ethylbenzene	29	29,000	800	NA	990	1,000	260	100	5	1.5	<1.0	<1.0	BQL
Total Xylenes	530	87,500	3,600	NA	4,330	5,410	633	240	BQL	4.1	<3.0	<3.0	BQL
Toluene	1,000	257,500	1,700	NA	1,700	4,200	69	31	2	<1.0	<1.0	<1.0	BQL
Naphthalene	21	15,500	24	NA	140	3,900	5,200	8,800	BQL	<5.1	<5.0	<5.4	BQL
1-Methylnaphthalene	NE	NE	NA	NA	450	12,000	17,000	22,000	41	<5.1	<5.0	<5.4	BQL
2-Methylnaphthalene	28	12,500	NA	NA	370	11,000	19,000	27,000	28	<5.1	<5.0	<5.4	BQL
Acenaphthene	80	2,120	ND	NA	BQL	720	1600	1,200	BQL	<5.1	<5.0	<5.4	BQL
Acenaphthylene	210	1,965	5.0	NA	BQL	19	BQL	BQL	BQL	<5.1	<5.0	<5.4	BQL
Benzo(a)anthracene	0.05	22	7.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	BQL
Benzo(k)fluoranthene	0.47	0.47	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	BQL
Bis (2-Ethylhexyl) phthalate	2.5	2,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	BQL
Flourene	280	950	NA	NA	NA	NA	NA	NA	NA	NA	<5.0	<5.4	BQL
Pyrene	210	210	2.8	NA	BQL	20	220	BQL	21	<5.1	<5.0	<5.4	BQL
Chrysene	5	5	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	BQL
Fluorene	280	950	0.8	NA	71	300	3,700	3,000	17	<5.1	<5.0	<5.4	BQL
Anthracene	2,100	2,100	4.4	NA	BQL	17	98	BQL	BQL	<5.1	<5.0	<5.4	BQL
Fluoranthene	280	280	6.7	NA	NA	NA	NA	NA	NA	<5.1	NA	NA	BQL
Phenanthrene	210	410	1.6	NA	91	3100	4,900	4,400	29	<5.1	<5.0	<5.4	BQL
2-Butanone	NE	NE	NA	NA	NA	NA	NA	0.53 J	NA	NA	NA	NA	BQL
Carbon Disulfide	700	700,000	NA	NA	BQL	NA	NA	0.49 J	NA	NA	NA	NA	BQL
Chloroform	0.19	190	NA	NA	16	NA	NA	BQL	NA	NA	NA	NA	BQL
Chloromethane	2.6	2,600	NA	NA	BQL	NA	NA	0.62 J	NA	NA	NA	NA	BQL
Methylene Chloride	5	5,000	NA	NA	BQL	NA	NA	BQL	NA	NA	NA	NA	BQL
Trichloroethene	NE	NE	NA	NA	BQL	NA	NA	0.19 J	NA	NA	NA	NA	BQL
Lead	15	15,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	BQL

NE = Not established. Therefore, the 2L GWQS for the constituent is the reporting limit.

ND = Not detected; see laboratory reports for applicable detection limits.

NA= Not Analyzed

J = Estimated concentration less than reporting limit.

BQL = Below Quantitation Limits.

Shading represents concentrations above 2L GWQS.

CAP Data provided by Law Engineering and Environmental Services, Inc.

Historical data obtained from the Shaw Environmental, Inc. Annual Monitoring Report, dated March 2004.

and the Baker Environmental, Inc. Remedial Investigation Report, dated June 2002.

2003-2005 Data provided by Engineering & Environment, Inc.

205-2006 Data provided by CATLIN Engineers and Scientists

All other compounds analyzed were below laboratory method/quantitation detection limits or historically below 2L GWQS.

It is important to note that all wells were not sampled each year and all compounds were not analyzed each year. Refer to Table 2 for well sampling frequency information.

Groundwater samples collected under the UST program were collected on a different schedule and by a different contractor than the samples collected under the IR program.

TABLE 3B
SUMMARY OF HISTORICAL GROUNDWATER CONTAMINANTS OF CONCERN
DEEP GROUNDWATER CONDITIONS

RAO & RCAP
BUILDING 45
MARINE CORPS BASE
CAMP LEJEUNE, NC

COMPOUND	2L GWQS (mg/L)	GCL (mg/L)	MAXIMUM CONCENTRATIONS (mg/L)										
			CAP DATA	1995	1998	1999	2000	2001	2002	2003	2004	2005	2006
1,2 Dichlorobenzene	620	72,500	NA	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	BQL
Benzene	1	5,000	ND	NA	BQL	7	11	15	24	16.6	12.4	5.0	5.87
Methyl Tert-Butyl Ether	200	200,000	4.4	NA	16	45	20	15	18	18.8	22.7	21.6	4.46
Ethylbenzene	29	29,000	ND	NA	BQL	BQL	BQL	3.6	1	0.78 J	2	<1.0	BQL
Total Xylenes	530	87,500	ND	NA	BQL	BQL	BQL	BQL	BQL	<3.0	3.3	<3.0	BQL
Toluene	1,000	257,500	ND	NA	BQL	BQL	BQL	BQL	BQL	<1.0	<1.0	<1.0	BQL
Naphthalene	21	15,500	1.3	NA	BQL	BQL	BQL	2.2 J	BQL	<5.1	<5.0	<5.1	BQL
1-Methylnaphthalene	NE	NE	NA	NA	BQL	BQL	BQL	BQL	BQL	<5.1	<5.0	<5.1	BQL
2-Methylnaphthalene	28	12,500	NA	NA	BQL	BQL	BQL	BQL	BQL	<5.1	<5.0	<5.1	BQL
Acenaphthene	80	2,120	ND	NA	BQL	BQL	BQL	BQL	BQL	<5.1	<5.0	<5.1	BQL
Acenaphthylene	210	1,965	ND	NA	BQL	BQL	BQL	BQL	BQL	<5.1	<5.0	<5.1	BQL
Benzo(a)anthracene	0.05	22	3.1	NA	NA	NA	NA	NA	NA	<5.1	NA	NA	BQL
Benzo(k)fluoranthene	0.47	0.47	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	BQL
Bis (2-Ethylhexyl) phthalate	2.5	2,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	BQL
Pyrene	210	210	2.2	NA	BQL	BQL	BQL	BQL	BQL	<5.1	<5.0	<5.1	BQL
Chrysene	5	5	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	BQL
Fluorene	280	950	ND	NA	BQL	BQL	BQL	BQL	BQL	<5.1	<5.0	<5.1	BQL
Anthracene	2,100	2,100	2.4	NA	BQL	BQL	BQL	BQL	BQL	<5.1	<5.0	<5.1	BQL
Fluoranthene	280	280	4.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	BQL
Phenanthrene	210	410	1.9	NA	BQL	BQL	BQL	BQL	BQL	<5.1	<5.0	<5.1	BQL
2-Butanone	NE	NE	NA	NA	NA	NA	NA	0.69 J	NA	NA	NA	NA	BQL
Carbon Disulfide	700	700,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	BQL
Chloroform	0.19	190	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	BQL
Chloromethane	2.6	2,600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	BQL
Methylene Chloride	5	5,000	NA	NA	NA	NA	NA	0.7 J	NA	NA	NA	NA	BQL
Trichloroethene	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	BQL
Lead	15	15,000	NA	NA	BQL	NA	NA	NA	NA	NA	NA	NA	BQL

NE = Not established. Therefore, the 2L GWQS for the constituent is the reporting limit.

ND = Not detected; see laboratory reports for applicable detection limits.

NA= Not Analyzed

J = Estimated concentration less than reporting limit.

BQL = Below Quantitation Limits.

E = Estimated concentration above the linear quantitation range.

Shading represents concentrations above 2L GWQS.

CAP Data provided by Law Engineering and Environmental Services, Inc.

Historical data obtained from the Shaw Environmental, Inc. Annual Monitoring Report, dated March 2004.

and the Baker Environmental, Inc. Remedial Investigation Report, dated June 2002.

2003 Data provided by Engineering & Environment, Inc.

All other compounds analyzed were below laboratory method/quantitation detection limits or historically below 2L GWQS.

It is important to note that all wells were not sampled each year and all compounds were not analyzed each year. Refer to Table 2 for well sampling frequency information.

Groundwater samples collected under the UST program were collected on a different schedule and by a different contractor than the samples collected under the IR program.

TABLE 4
REVISED TARGET CLEANUP CONCENTRATIONS

RAO & RCAP
BUILDING 45
MARINE CORPS BASE
CAMP LEJEUNE, NC

MEDIUM	COMPONENT	CURRENT CONDITIONS	TARGET CLEANUP	
Free-Phase Product	Gasoline/Diesel	No measureable thickness	<1/8"	
Vadose Zone Soil			ACTION LEVELS	
	TPH - Diesel	Unknown	40	
	TPH - Gasoline	Unknown	10	
			STGW MSCCs	Industrial/Commercial MSCCs
	Methylene Chloride	0.141	0.020	763
	Benzo[a]pyrene	0.174	0.091	0.780
	C9-C18 Aliphatics	7,574	3,300	245,280
	C9-C22 Aromatics	1,574	34	12,264
SHALLOW GROUNDWATER CONDITIONS				
GROUNDWATER			2L GWQS	
	1,2 Dichlorobenzene	BQL	24	
	Benzene	BQL	1	
	Methyl Tert-Butyl Ether	BQL	200	
	Ethylbenzene	BQL	550	
	Total Xylenes	BQL	530	
	Toluene	BQL	1,000	
	Naphthalene	BQL	21	
	1-Methylnaphthalene	BQL	NE	
	2-Methylnaphthalene	BQL	14	
	Acenaphthene	BQL	80	
	Acenaphthylene	BQL	210	
	Benzo(a)anthracene	BQL	0.05	
	Benzo(k)fluoranthene	BQL	0.48	
	Bis (2-Ethylhexyl) phthalate	BQL	2.5	
	Flourene	BQL	280	
	Pyrene	BQL	210	
	Chrysene	BQL	4.79	
	Anthracene	BQL	2,100	
	Fluoranthene	BQL	280	
	Phenanthrene	BQL	210	
	2-Butanone	BQL	NE	
	Carbon Disulfide	BQL	700	
	Chloroform	BQL	70	
	Chloromethane	BQL	2.6	
	Methylene Chloride	BQL	4.6	
	Trichloroethene	BQL	10	
	Lead	BQL	15	

TABLE 4
REVISED TARGET CLEANUP CONCENTRATIONS

RAO & RCAP
BUILDING 45
MARINE CORPS BASE
CAMP LEJEUNE, NC

MEDIUM	COMPONENT	CURRENT CONDITIONS	TARGET CLEANUP
DEEP GROUNDWATER CONDITIONS			
GROUNDWATER			2L GWQS
	1,2 Dichlorobenzene	BQL	24
	Benzene	5.87	1
	Methyl Tert-Butyl Ether	4.46	200
	Ethylbenzene	BQL	550
	Total Xylenes	BQL	530
	Toluene	BQL	1,000
	Naphthalene	BQL	21
	1-Methylnaphthalene	BQL	NE
	2-Methylnaphthalene	BQL	14
	Acenaphthene	BQL	80
	Acenaphthylene	BQL	210
	Benzo(a)anthracene	BQL	0.05
	Benzo(k)fluoranthene	BQL	0.48
	Bis (2-Ethylhexyl) phthalate	BQL	2.5
	Pyrene	BQL	210
	Chrysene	BQL	4.79
	Fluorene	BQL	280
	Anthracene	BQL	2,100
	Fluoranthene	BQL	280
	Phenanthrene	BQL	210
	2-Butanone	BQL	NE
	Carbon Disulfide	BQL	700
	Chloroform	BQL	70
	Chloromethane	BQL	2.6
	Methylene Chloride	BQL	4.6
	Trichloroethene	BQL	NE
	Lead	BQL	15

NE = Not established. Therefore, the NCGWQS for the constituent is the reporting limit.

NA= Not Analyzed

J = Estimated concentration less than reporting limit.

CAP Data provided by Law Engineering and Environmental Services, Inc.

Historical data obtained from the Shaw Environmental, Inc. Annual Monitoring Report, dated March 2004,
and the Baker Environmental, Inc. Remedial Investigation Report, dated June 2002.

2003 Data provided by Engineering & Environment, Inc.

Soil target cleanup concentrations are in mg/kg.

Groundwater current conditions and target cleanup concentrations are in ug/L.

Groundwater cleanup concentrations are pending evaluation of potentially co-mingled plumes.

TABLE 5A
SUMMARY OF SOIL LABORATORY RESULTS - EPA METHOD 8260
RAO & RCAP
BUILDING 45
MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA

Sample ID	Contaminant of Concern →		Acetone	2-Butanone	n-Butylbenzene	sec-Butylbenzene	4-Isopropyltoluene	Methylene chloride	Naphthalene	n-Propyl benzene	Toluene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	All Other 8260 Target Analytes
	Date Collected	Sample Depth (ft. BGS)												
Residential MSCC (mg/kg)			1,564	NE	626	626	NE	85	313	626	3,200	782	782	Varies
I/C MSCC (mg/kg)			40,880	NE	16,350	16,350	NE	763	8,176	16,350	82,000	20,440	20,440	Varies
STGW MSCC (mg/kg)			2.8	NE	4.3	3.3	NE	0.02	0.58	1.7	7.3	7.5	7.3	Varies
UST45-SB01	5/5/2006	2-4	0.116	<0.0254	0.0120	0.00737	0.00428	0.00388	0.00739	0.00455	<0.00508	<0.00508	<0.00508	BQL
UST45-SB02	5/5/2006	4-6	<0.0512	<0.0256	<0.00512	<0.00512	<0.00512	0.141	<0.00512	<0.00512	0.00306	<0.00512	<0.00512	BQL
UST45-SB03	5/5/2006	4-6	<3.11	<3.11	0.117	0.0448	0.0298	0.118	<0.124	<0.124	<0.124	<0.124	<0.124	BQL
UST45-SB04	5/5/2006	2-4	0.0330	0.00260	<0.00430	<0.00430	<0.00430	<0.0172	<0.00430	<0.00430	<0.00430	<0.00430	<0.00430	BQL
UST45-SB05	5/5/2006	4-6	0.00410	<0.0230	<0.00460	<0.00460	<0.00460	<0.0184	<0.00460	<0.00460	<0.00460	<0.00460	<0.00460	BQL
UST45-SB06	5/5/2006	4-6	0.00865	<0.0341	<0.00681	<0.00681	<0.00681	<0.0272	<0.00681	<0.00681	<0.00681	<0.00681	<0.00681	BQL
UST45-SB07	5/5/2006	4-6	0.00682	<0.0278	<0.00555	<0.00555	<0.00555	0.0113	<0.00555	<0.00555	<0.00555	<0.00555	<0.00555	BQL
UST45-SB08	5/5/2006	8-10	<5.27	<5.27	<0.211	<0.211	<0.211	<1.05	<0.211	<0.211	<0.211	0.0843	0.0717	BQL
UST45-SB09	5/5/2006	10-12	0.0239	<0.0273	<0.00547	<0.00547	<0.00547	<0.0219	<0.00547	<0.00547	<0.00547	<0.00547	<0.00547	BQL
UST45-SB10	5/5/2006	8-10	0.00524	<0.0256	<0.00512	<0.00512	<0.00512	<0.0205	<0.00512	<0.00512	<0.00512	<0.00512	<0.00512	BQL
UST45-SB11	5/5/2006	10-12	<5.00	<5.00	<0.200	<0.200	<0.200	<1.00	<0.200	<0.200	<0.200	<0.200	<0.200	BQL
UST45-SB12	5/5/2006	10-12	0.233	<1.20	<0.0482	<0.0482	<0.0482	0.0573	<0.0482	<0.0482	<0.0482	<0.0482	<0.0482	BQL
UST45-SB13	5/5/2006	6-8	0.00589	<0.0267	<0.00535	<0.00535	<0.00535	<0.0214	<0.00535	<0.00535	<0.00535	<0.00535	<0.00535	BQL
UST45-SB14	5/5/2006	4-6	0.00506	<0.0218	<0.00437	<0.00437	<0.00437	0.0949	<0.00437	<0.00437	<0.00437	<0.00437	<0.00437	BQL
UST45-SB15	5/5/2006	8-10	0.00820	<0.0239	<0.00477	<0.00477	<0.00477	<0.0191	<0.00477	<0.00477	<0.00477	<0.00477	<0.00477	BQL
UST45-SB16	5/5/2006	6-8	0.00427	<0.0215	<0.00430	<0.00430	<0.00430	<0.0172	<0.00430	<0.00430	<0.00430	<0.00430	<0.00430	BQL
UST45-SB17	5/5/2006	4-6	0.0105	<0.0238	<0.00475	<0.00475	<0.00475	<0.0190	<0.00475	<0.00475	<0.00475	<0.00475	<0.00475	BQL
UST45-SB18	5/5/2006	6-8	0.00533	<0.0268	<0.00536	<0.00536	<0.00536	<0.0215	<0.00536	<0.00536	<0.00536	<0.00536	<0.00536	BQL
UST45-SB19	5/5/2006	6-8	0.0217	0.00335	<0.00477	<0.00477	<0.00477	0.0103	<0.00477	<0.00477	<0.00477	<0.00477	<0.00477	BQL
UST45-SB20	5/5/2006	0-2	0.0163	<0.0253	<0.00506	<0.00506	<0.00506	<0.0202	<0.00506	<0.00506	<0.00506	<0.00506	<0.00506	BQL

ft. BGS = feet below ground surface

All results in mg/kg.

Shaded Results indicate concentrations greater than the lowest MSCCs.

BQL = Below Quantitative Limit

TABLE 5B

SUMMARY OF SOIL LABORATORY RESULTS - EPA METHOD 8270

RAO & RCAP
BUILDING 45

MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA

Sample ID	Contaminant of Concern →		Anthracene	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[k]fluoranthene	Bis(2-ethylhexyl)phthalate	Chrysene	Dibenzofuran	Fluoranthene	Fluorene	Naphthalene	Phenanthrene	Pyrene	All Other 8270 Target Analytes
	Date Collected	Sample Depth (ft. BGS)														
Residential MSCC (mg/kg)			4,600	0.88	0.088	0.88	9	46	88	62	620	620	313	469	469	Vareis
VC MSCC (mg/kg)			122,000	8	0.78	8	78	410	780	1,635	16,400	16,400	8,176	12,264	12,264	Varies
STGW MSCC (mg/kg)			1,000	0.34	0.091	1.2	12	5.6	38	4.7	280	44	0.58	60	290	Varies
UST45-SB01	5/5/2006	2-4	<0.347	<0.347	<0.347	<0.347	<0.347	<0.347	<0.347	<0.347	<0.347	<0.347	<0.347	<0.347	<0.347	BQL
UST45-SB02	5/5/2006	4-6	<0.362	<0.362	<0.362	<0.362	<0.362	<0.362	<0.362	<0.362	<0.362	<0.362	<0.362	<0.362	<0.362	BQL
UST45-SB03	5/5/2006	4-6	<0.347	<0.347	<0.347	<0.347	<0.347	<0.347	<0.347	0.844	<0.347	1.34	0.128 J	0.882	<0.347	BQL
UST45-SB04	5/5/2006	2-4	<0.317	<0.317	<0.317	<0.317	<0.317	<0.317	<0.317	<0.317	<0.317	<0.317	<0.317	<0.317	<0.317	BQL
UST45-SB05	5/5/2006	4-6	<0.348	<0.348	<0.348	<0.348	<0.348	0.049	<0.348	<0.348	<0.348	<0.348	<0.348	<0.348	<0.348	BQL
UST45-SB06	5/5/2006	4-6	<0.325	<0.325	<0.325	<0.325	<0.325	<0.325	<0.325	<0.325	<0.325	<0.325	<0.325	<0.325	<0.325	BQL
UST45-SB07	5/5/2006	4-6	<0.329	<0.329	<0.329	<0.329	<0.329	<0.329	<0.329	<0.329	<0.329	<0.329	<0.329	<0.329	<0.329	BQL
UST45-SB08	5/5/2006	8-10	<3.40	<3.40	<3.40	<3.40	<3.40	<3.40	<3.40	<3.40	<3.40	0.747	<3.40	1.05 J	<3.40	BQL
UST45-SB09	5/5/2006	10-12	<0.350	<0.350	<0.350	<0.350	<0.350	0.301 J	<0.350	<0.350	<0.350	<0.350	<0.350	<0.350	<0.350	BQL
UST45-SB10	5/5/2006	8-10	<0.323	<0.323	<0.323	<0.323	<0.323	<0.323	<0.323	<0.323	<0.323	<0.323	<0.323	<0.323	<0.323	BQL
UST45-SB11	5/5/2006	10-12	<0.332	<0.332	<0.332	<0.332	<0.332	0.0598 J	0.0399 J	<0.332	0.0664 J	<0.332	<0.332	<0.332	0.110 J	BQL
UST45-SB11 Dup	5/5/2006	10-12	<3.29	<3.29	<3.29	<3.29	<3.29	0.086	<3.29	<3.29	<3.29	<3.29	<3.29	<3.29	<3.29	BQL
UST45-SB12	5/5/2006	10-12	<0.320	<0.320	<0.320	<0.320	<0.320	0.086 J	<0.320	<0.320	<0.320	<0.320	<0.320	<0.320	<0.320	BQL
UST45-SB13	5/5/2006	6-8	<0.339	<0.339	<0.339	<0.339	<0.339	<0.339	<0.339	<0.339	<0.339	<0.339	<0.339	<0.339	<0.339	BQL
UST45-SB14	5/5/2006	4-6	<0.350	<0.350	<0.350	<0.350	<0.350	<0.350	<0.350	<0.350	<0.350	<0.350	<0.350	<0.350	<0.350	BQL
UST45-SB15	5/5/2006	8-10	<0.336	<0.336	<0.336	<0.336	<0.336	<0.336	<0.336	<0.336	<0.336	<0.336	<0.336	<0.336	<0.336	BQL
UST45-SB16	5/5/2006	6-8	<0.344	<0.344	<0.344	<0.344	<0.344	0.100 J	0.038 J	<0.344	0.079 J	<0.344	<0.344	0.058 J	<0.344	BQL
UST45-SB17	5/5/2006	4-6	0.0568 J	0.200 J	0.174 J	0.260 J	0.087 J	<0.334	0.207 J	<0.334	0.454	<0.334	<0.334	0.291 J	0.334	BQL
UST45-SB18	5/5/2006	6-8	<0.336	<0.336	<0.336	<0.336	<0.336	<0.336	<0.336	<0.336	<0.336	<0.336	<0.336	<0.336	<0.336	BQL
UST45-SB19	5/5/2006	6-8	<0.349	<0.349	<0.349	<0.349	<0.349	<0.349	<0.349	<0.349	<0.349	<0.349	<0.349	<0.349	<0.349	BQL
UST45-SB20	5/5/2006	0-2	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	BQL

ft. BGS = feet below ground surface

All results in mg/kg.

Shaded results indicate concentration above the lowest MSCCs.

BQL = Below Quantitative Limit

TABLE 5C

SUMMARY OF SOIL LABORATORY RESULTS - MADEP VPH/EPH

RAO & RCAP
BUILDING 45
MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA

Sample ID	Contaminant of Concern →		C9-C18 Aliphatics	C19-C36 Aliphatics	C11-C22 Aromatics	C5-C8 Aliphatics	C9-C12 Aliphatics	C9-C10 Aromatics
	Date Collected	Sample Depth (ft. BGS)						
UST45-SB01	5/5/2006	2-4	<10	<10	<10	<10	<10	<10
UST45-SB02	5/5/2006	4-6	<10	<10	<10	<10	<10	<10
UST45-SB03	5/5/2006	4-6	1,800	2,400	810	<10	10	<10
UST45-SB04	5/5/2006	2-4	<20.0	230	18	<10	<10	<10
UST45-SB05	5/5/2006	4-6	<10	40.0	<10	<10	<10	<10
UST45-SB06	5/5/2006	4-6	<10	<10	<10	<10	<10	<10
UST45-SB07	5/5/2006	4-6	<10	<10	<10	<10	<10	<10
UST45-SB08	5/5/2006	8-10	7,500	1,100	1,500	<10	44	74
UST45-SB09	5/5/2006	10-12	<10	<10	<10	<10	<10	<10
UST45-SB10	5/5/2006	8-10	<10	<10	<10	<10	<10	<10
UST45-SB11	5/5/2006	10-12	6,700	6,700	1,300	<10	35	42
UST45-SB12	5/5/2006	10-12	110	12	13	<10	<10	<10
UST45-SB13	5/5/2006	6-8	<10	<10	<10	<10	<10	<10
UST45-SB14	5/5/2006	4-6	<10	<10	<10	<10	<10	<10
UST45-SB15	5/5/2006	8-10	<10	<10	<10	<10	<10	<10
UST45-SB16	5/5/2006	6-8	<10	<10	<10	<10	<10	<10
UST45-SB17	5/5/2006	4-6	<10	<10	<10	<10	<10	<10
UST45-SB18	5/5/2006	6-8	<10	<10	<10	<10	<10	<10
UST45-SB19	5/5/2006	6-8	<10	<10	<10	<10	<10	<10
UST45-SB20	5/5/2006	0-2	<10	<10	<10	<10	<10	<10

All results in mg/kg.

ft. BGS = feet below ground surface

TABLE 5D

**SUMMARY OF SOIL LABORATORY RESULTS - MADEP VPH/EPH AS
COMPARED TO NCDENR MSCCs**

**RAO & RCAP
BUILDING 45
MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA**

Sample ID	Contaminant of Concern		C9-C18 Aliphatics	C19-C36 Aliphatics	C9-C22 Aromatics	C5-C8 Aliphatics
	Date Collected	Sample Depth (ft. BGS)				
Residential MSCC (mg/kg)			9,386	93,860	469	939
I/C MSCC (mg/kg)			245,280	#	12,264	24,528
STGW MSCC (mg/kg)			3,300	##	34	72
UST45-SB01	5/5/2006	2-4	<20	<10	<20	<10
UST45-SB02	5/5/2006	4-6	<20	<10	<20	<10
UST45-SB03	5/5/2006	4-6	1,810	2,400	<820	<10
UST45-SB04	5/5/2006	2-4	<30	230	<28	<10
UST45-SB05	5/5/2006	4-6	<20	40.0	<20	<10
UST45-SB06	5/5/2006	4-6	<20	<10	<20	<10
UST45-SB07	5/5/2006	4-6	<20	<10	<20	<10
UST45-SB08	5/5/2006	8-10	7,544	1,100	1,574	<10
UST45-SB09	5/5/2006	10-12	<20	<10	<20	<10
UST45-SB10	5/5/2006	8-10	<20	<10	<20	<10
UST45-SB11	5/5/2006	10-12	6,735	6,700	1,342	<10
UST45-SB12	5/5/2006	10-12	<120	12	<23	<10
UST45-SB13	5/5/2006	6-8	<20	<10	<20	<10
UST45-SB14	5/5/2006	4-6	<20	<10	<20	<10
UST45-SB15	5/5/2006	8-10	<20	<10	<20	<10
UST45-SB16	5/5/2006	6-8	<20	<10	<20	<10
UST45-SB17	5/5/2006	4-6	<20	<10	<20	<10
UST45-SB18	5/5/2006	6-8	<20	<10	<20	<10
UST45-SB19	5/5/2006	6-8	<20	<10	<20	<10
UST45-SB20	5/5/2006	0-2	<20	<10	<20	<10

All results in mg/kg.

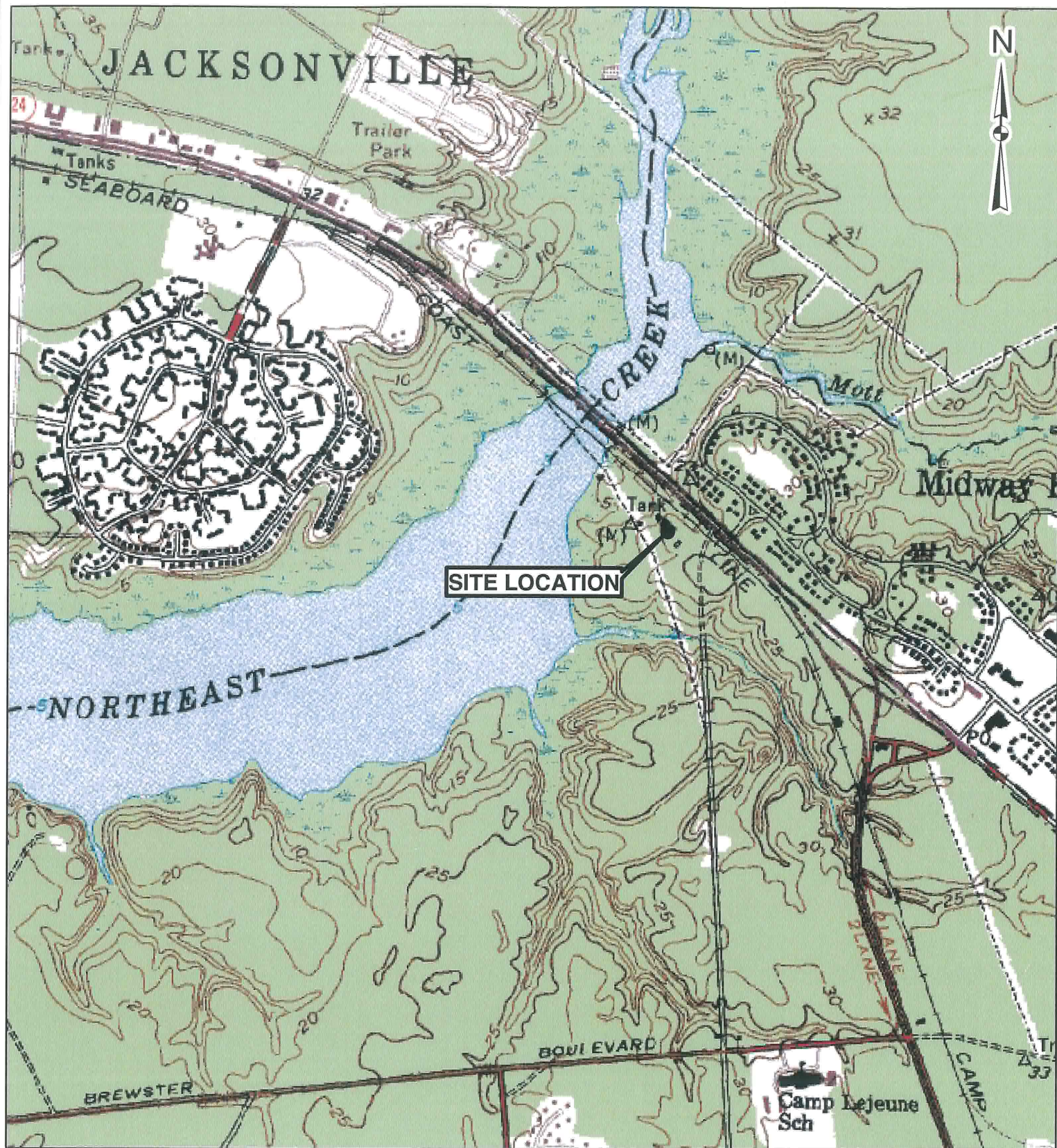
ft. BGS = feet below ground surface

Shaded results indicate concentrations above the lowest MSCCs.

= Health-Based Level (>100)

= Considered Immobile

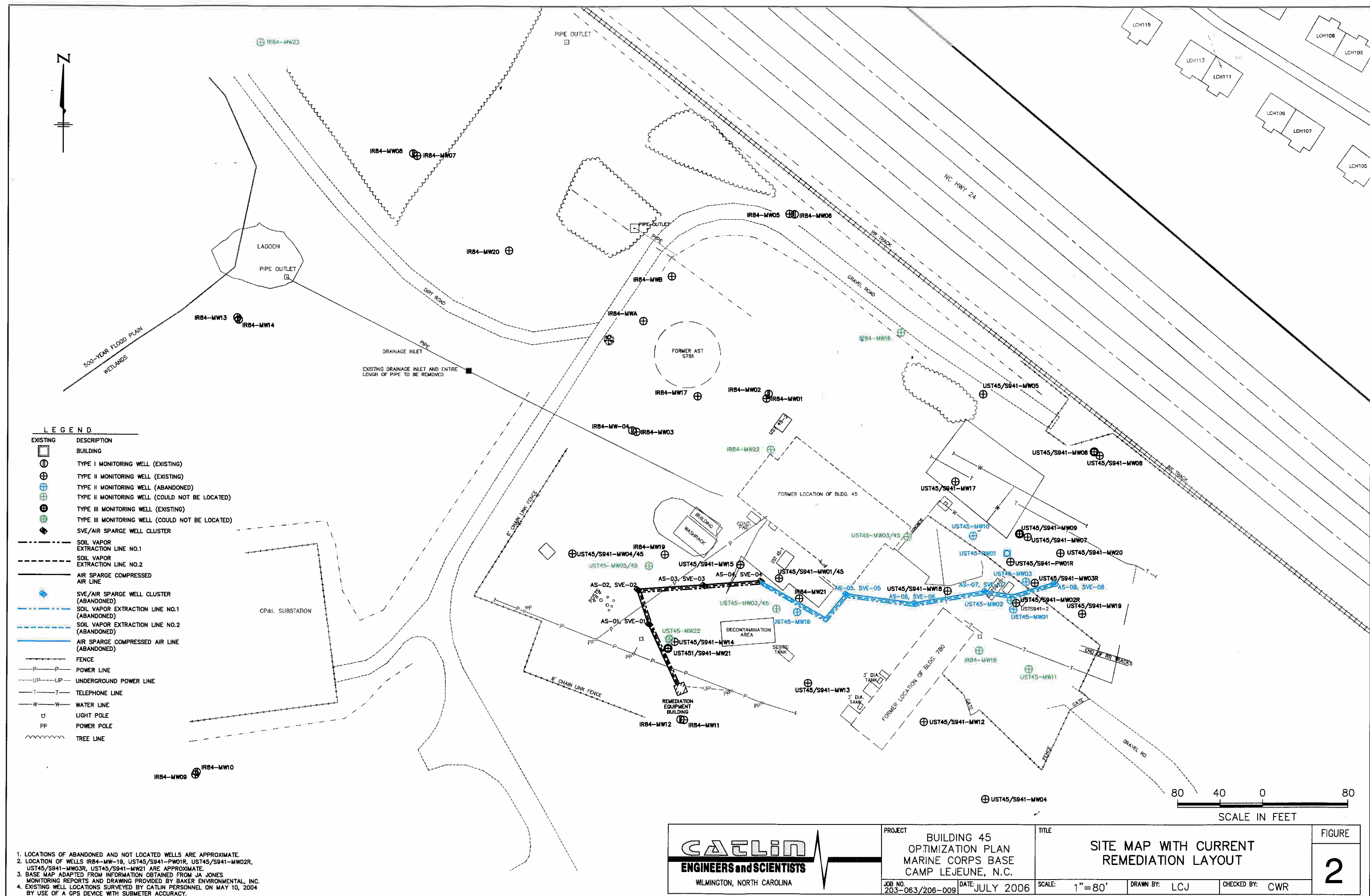
FIGURES



From: USGS Camp LeJeune, NC. Topographic Quadrangle (Dated 1971)

SCALE

	PROJECT BUILDING 45 OPTIMIZATION PLAN MARINE CORPS BASE CAMP LEJEUNE, N.C.		TITLE GENERAL VICINITY TOPOGRAPHIC SITE MAP			FIGURE
	JOB NO. 203-063/206-009	DATE JULY 2006	SCALE 1"=400'	DRAWN BY LCJ	CHECKED BY CWR	1



1. LOCATIONS OF ABANDONED AND NOT LOCATED WELLS ARE APPROXIMATE.
 2. LOCATION OF WELLS IR84-MW-19, UST45/S941-PW01R, UST45/S941-MW02R, UST45/S941-MW03R, UST45/S941-MW21 ARE APPROXIMATE.
 3. BASE MAP ADAPTED FROM INFORMATION OBTAINED FROM J.A. JONES MONITORING REPORTS AND DRAWING PROVIDED BY BAKER ENVIRONMENTAL, INC.
 4. EXISTING WELL LOCATIONS SURVEYED BY CATLIN PERSONNEL ON MAY 10, 2004 BY USE OF A GPS DEVICE WITH SUBMETER ACCURACY.



SAMPLE DATE	
#	SAMPLE DEPTH IN FEET BLS
1	GASOLINE RANGE ORGANICS
2	DIESEL RANGE ORGANICS
3	TPH
4	OIL AND GREASE

- LEGEND**
- EXISTING
- BUILDING
 - SOIL BORING
 - CONFIRMATION SAMPLES COLLECTED IN DEC 2003/JAN 2004 WITH TPH EXCEEDING 10 PPM
 - TYPE I MONITORING WELL (NO EXISTING SOIL DATA)
 - TYPE I MONITORING WELL (EXISTING)
 - TYPE II MONITORING WELL (NO EXISTING SOIL DATA)
 - TYPE II MONITORING WELL (EXISTING)
 - TYPE II MONITORING WELL (ABANDONED)
 - TYPE II MONITORING WELL (COULD NOT BE LOCATED)
 - TYPE III MONITORING WELL (NO EXISTING SOIL DATA)
 - TYPE III MONITORING WELL (EXISTING)
 - TYPE III MONITORING WELL (COULD NOT BE LOCATED)
 - RECOVERY WELL (ABANDONED)
 - SVE/AIR SPARGE WELL CLUSTER

- SOIL VAPOR EXTRACTION LINE NO.1
- SOIL VAPOR EXTRACTION LINE NO.2
- AIR SPARGE COMPRESSED AIR LINE
- SVE/AIR SPARGE WELL CLUSTER (ABANDONED)
- SOIL VAPOR EXTRACTION LINE NO.1 (ABANDONED)
- SOIL VAPOR EXTRACTION LINE NO.2 (ABANDONED)
- AIR SPARGE COMPRESSED AIR LINE (ABANDONED)
- FENCE
- POWER LINE
- UNDERGROUND POWER LINE
- TELEPHONE LINE
- WATER LINE
- LIGHT POLE
- POWER POLE
- TREE LINE
- EXCAVATED AREAS - CONFIRMATION SAMPLES IDENTIFIED AS SC WERE COLLECTED WITHIN EXCAVATION, DATA NOT AVAILABLE AS OF MARCH 19, 2004
- PROPOSED EXCAVATION LIMITS OF NON-TIME CRITICAL REMOVAL ACTION AS OF MARCH 2004

IRB4-MW10	1992
1	0-2.0' 14.0-16.0'
2	4.30 11.4

IRB4-MW09	1992
1	0-2.0' 14.0-16.0'
2	16.7 6.30

IRB4-MW12	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW11	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW13	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW14	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW15	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW16	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW17	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW18	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW19	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW20	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW21	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW22	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW23	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW24	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW25	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW26	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW27	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW28	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW29	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW30	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW31	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW32	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW33	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW34	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW35	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW36	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW37	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW38	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW39	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW40	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW41	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW42	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW43	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW44	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW45	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW46	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW47	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW48	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW49	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW50	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW51	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW52	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW53	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW54	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW55	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW56	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW57	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW58	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW59	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW60	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW61	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW62	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW63	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW64	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW65	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW66	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW67	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW68	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW69	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW70	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW71	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW72	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW73	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW74	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW75	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW76	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW77	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW78	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW79	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW80	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW81	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW82	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW83	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW84	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW85	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW86	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW87	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW88	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW89	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW90	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW91	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW92	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW93	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW94	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW95	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW96	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW97	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW98	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW99	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW100	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW101	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW102	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW103	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW104	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW105	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

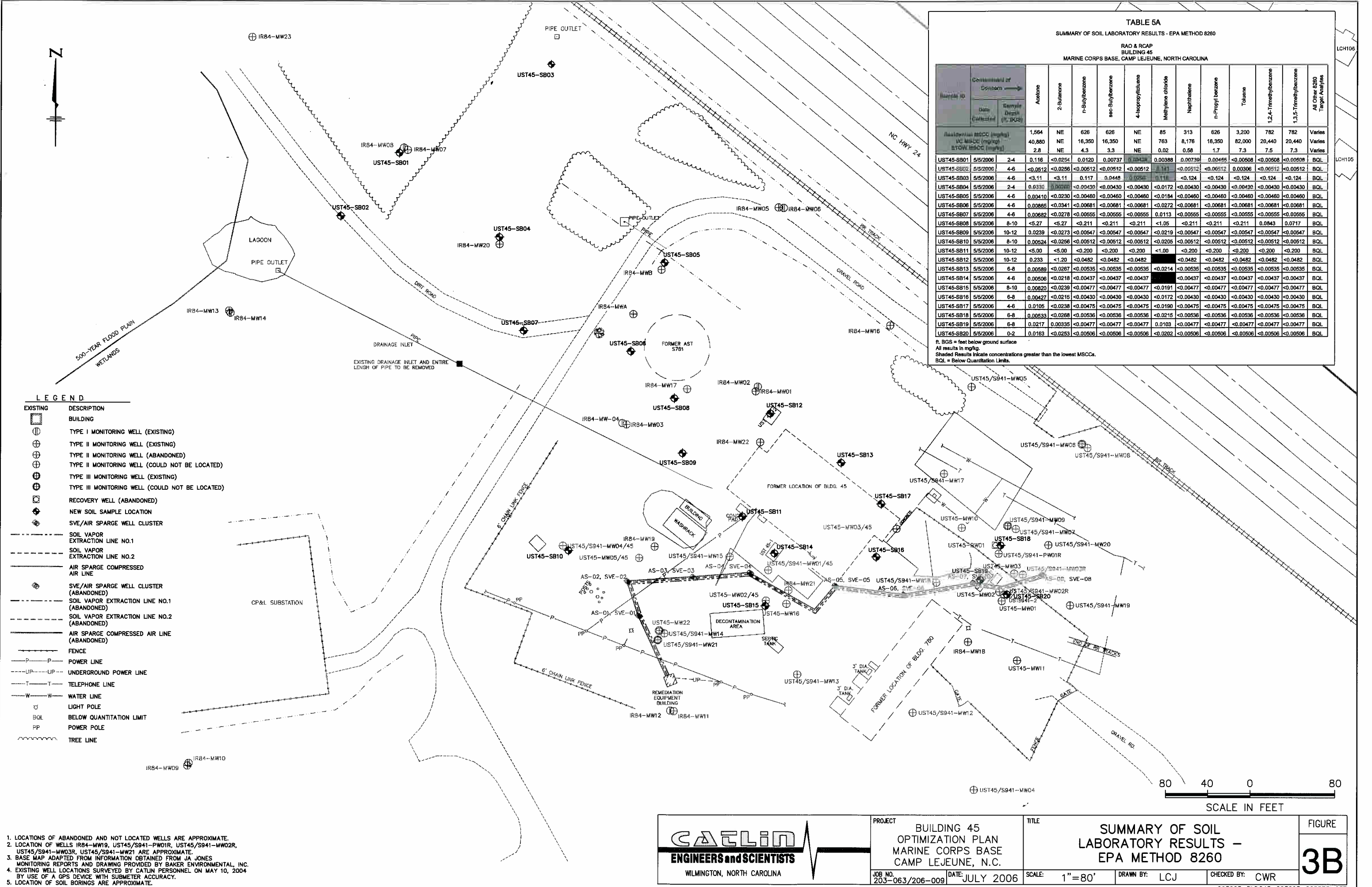
IRB4-MW106	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW107	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW108	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW109	1992
1	0-2.0' 14.0-16.0'
2	7.32 6.11

IRB4-MW110	1992
1	0-2.0' 14.0-16.0'
2	7.



1. LOCATIONS OF ABANDONED AND NOT LOCATED WELLS ARE APPROXIMATE.
2. LOCATION OF WELLS IR84-MW19, UST45/S941-PW01R, UST45/S941-MW02R, UST45/S941-MW03R, UST45/S941-MW21 ARE APPROXIMATE.
3. BASE MAP ADAPTED FROM INFORMATION OBTAINED FROM J.A. JONES MONITORING REPORTS AND DRAWING PROVIDED BY BAKER ENVIRONMENTAL, INC.
4. EXISTING WELL LOCATIONS SURVEYED BY CATLIN PERSONNEL ON MAY 10, 2004 BY USE OF A GPS DEVICE WITH SUBMETER ACCURACY.
5. LOCATION OF SOIL BORINGS ARE APPROXIMATE.



TABLE 5B

SUMMARY OF SOIL LABORATORY RESULTS - EPA METHOD 8270

RAO & RCAP
BUILDING 45
MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA

Sample ID	Contaminant	Anthracene	Benzo[a]anthracene	Benzo[b]fluoranthene	Benzo[k]fluoranthene	Benzo[e]pyrene	Chrysene	Dibenz[a,h]anthracene	Fluoranthene	Fluorene	Naphthalene	Phenanthrene	Pyrene	All Other 8270 Target Analytes
Residual MSCC (mg/kg)		4,600	0.88	0.88	0.088	9	46	88	62	620	313	469	469	Varies
LC MSCC (mg/kg)		122,000	8	0.78	8	78	410	780	1,635	16,400	8,176	12,264	12,264	Varies
KTOW MSCC (mg/kg)		1,000	0.34	0.091	1.2	12	5.6	38	4.7	280	60	290	290	Varies
UST45-SB01	5/5/2006	2.4	<0.347	<0.347	<0.347	<0.347	<0.347	<0.347	<0.347	<0.347	<0.347	<0.347	<0.347	BQL
UST45-SB02	5/5/2006	4.6	<0.362	<0.362	<0.362	<0.362	<0.362	<0.362	<0.362	<0.362	<0.362	<0.362	<0.362	BQL
UST45-SB03	5/5/2006	4.6	<0.347	<0.347	<0.347	<0.347	<0.347	<0.347	0.844	<0.347	1.34	0.128 J	0.882	<0.347
UST45-SB04	5/5/2006	2.4	<0.317	<0.317	<0.317	<0.317	<0.317	<0.317	<0.317	<0.317	<0.317	<0.317	<0.317	BQL
UST45-SB05	5/5/2006	4.6	<0.348	<0.348	<0.348	<0.348	0.049	<0.348	<0.348	<0.348	<0.348	<0.348	<0.348	BQL
UST45-SB06	5/5/2006	4.6	<0.325	<0.325	<0.325	<0.325	<0.325	<0.325	<0.325	<0.325	<0.325	<0.325	<0.325	BQL
UST45-SB07	5/5/2006	4.6	<0.329	<0.329	<0.329	<0.329	<0.329	<0.329	<0.329	<0.329	<0.329	<0.329	<0.329	BQL
UST45-SB08	5/5/2006	8-10	<3.40	<3.40	<3.40	<3.40	<3.40	<3.40	<3.40	0.747	<3.40	1.05 J	<3.40	BQL
UST45-SB09	5/5/2006	10-12	<0.350	<0.350	<0.350	<0.350	<0.350	<0.350	<0.350	<0.350	<0.350	<0.350	<0.350	BQL
UST45-SB10	5/5/2006	8-10	<0.323	<0.323	<0.323	<0.323	<0.323	<0.323	<0.323	<0.323	<0.323	<0.323	<0.323	BQL
UST45-SB11	5/5/2006	10-12	<0.332	<0.332	<0.332	<0.332	0.0598 J	<0.332	0.0598 J	<0.332	<0.332	<0.332	0.110 J	BQL
UST45-SB11 Dup	5/5/2006	10-12	<3.29	<3.29	<3.29	<3.29	<3.29	<3.29	<3.29	<3.29	<3.29	<3.29	<3.29	BQL
UST45-SB12	5/5/2006	10-12	<0.320	<0.320	<0.320	<0.320	0.086	<0.320	<0.320	<0.320	<0.320	<0.320	<0.320	BQL
UST45-SB13	5/5/2006	8-8	<0.339	<0.339	<0.339	<0.339	<0.339	<0.339	<0.339	<0.339	<0.339	<0.339	<0.339	BQL
UST45-SB14	5/5/2006	4-6	<0.350	<0.350	<0.350	<0.350	<0.350	<0.350	<0.350	<0.350	<0.350	<0.350	<0.350	BQL
UST45-SB15	5/5/2006	8-10	<0.336	<0.336	<0.336	<0.336	<0.336	<0.336	<0.336	<0.336	<0.336	<0.336	<0.336	BQL
UST45-SB16	5/5/2006	6-8	<0.344	<0.344	<0.344	<0.344	0.100	0.038 J	<0.344	0.079 J	<0.344	0.058 J	<0.344	BQL
UST45-SB17	5/5/2006	4-6	0.0568 J	0.200 J	0.260 J	0.087 J	<0.334	0.207 J	<0.334	0.454	<0.334	0.291 J	0.0568	BQL
UST45-SB18	5/5/2006	6-8	<0.336	<0.336	<0.336	<0.336	<0.336	<0.336	<0.336	<0.336	<0.336	<0.336	<0.336	BQL
UST45-SB19	5/5/2006	6-8	<0.349	<0.349	<0.349	<0.349	<0.349	<0.349	<0.349	<0.349	<0.349	<0.349	<0.349	BQL
UST45-SB20	5/5/2006	0-2	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	BQL

All results in mg/kg
R BGS = feet below ground surface
Shaded Results Indicate concentrations above the lowest MSCCs.
BQL = Below Quantitation Limits.

LEGEND

- EXISTING BUILDING
- TYPE I MONITORING WELL (EXISTING)
- TYPE II MONITORING WELL (EXISTING)
- TYPE II MONITORING WELL (ABANDONED)
- TYPE II MONITORING WELL (COULD NOT BE LOCATED)
- TYPE III MONITORING WELL (EXISTING)
- TYPE III MONITORING WELL (COULD NOT BE LOCATED)
- RECOVERY WELL (ABANDONED)
- PROPOSED SOIL SAMPLE LOCATION
- SVE/AIR SPARGE WELL CLUSTER
- SOIL VAPOR EXTRACTION LINE NO.1
- SOIL VAPOR EXTRACTION LINE NO.2
- AIR SPARGE COMPRESSED AIR LINE
- SVE/AIR SPARGE WELL CLUSTER (ABANDONED)
- SOIL VAPOR EXTRACTION LINE NO.1 (ABANDONED)
- SOIL VAPOR EXTRACTION LINE NO.2 (ABANDONED)
- AIR SPARGE COMPRESSED AIR LINE (ABANDONED)
- FENCE
- POWER LINE
- UNDERGROUND POWER LINE
- TELEPHONE LINE
- WATER LINE
- LIGHT POLE
- BQL BELOW QUANTITATION LIMIT
- PP POWER POLE
- TREE LINE

1. LOCATIONS OF ABANDONED AND NOT LOCATED WELLS ARE APPROXIMATE.
2. LOCATION OF WELLS IR84-MW-19, UST45/S941-PW01R, UST45/S941-MW02R, UST45/S941-MW03R, UST45/S941-MW21 ARE APPROXIMATE.
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4. EXISTING WELL LOCATIONS SURVEYED BY CATLIN PERSONNEL ON MAY 10, 2004 BY USE OF A GPS DEVICE WITH SUBMETER ACCURACY.



PROJECT
BUILDING 45
OPTIMIZATION PLAN
MARINE CORPS BASE
CAMP LEJEUNE, N.C.

JOB NO.
203-063/206-009

DATE
JULY 2006

TITLE
SUMMARY OF SOIL LABORATORY
RESULTS - EPA METHOD 8270

SCALE: 1"=80'

DRAWN BY: LCJ

CHECKED BY: CWR

FIGURE
3C

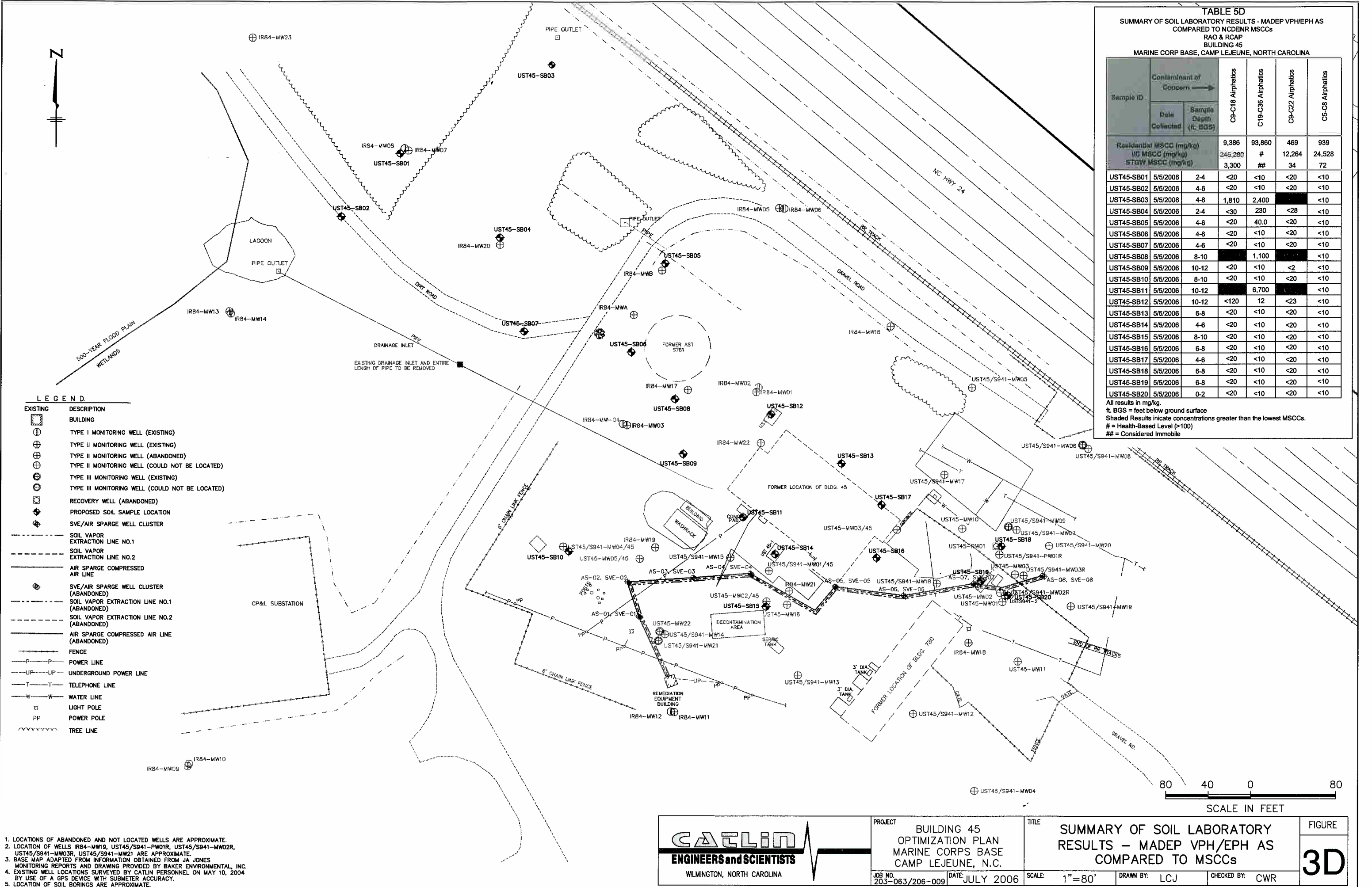


TABLE 5D SUMMARY OF SOIL LABORATORY RESULTS - MADEP VPH/EPH AS COMPARED TO NC DENR MSCCs RAO & RCAP BUILDING 45 MARINE CORP BASE, CAMP LEJEUNE, NORTH CAROLINA					
Sample ID	Contaminant of Concern		C9-C18 Aroclorics	C19-C36 Aroclorics	C9-C22 Aroclorics
	Date Collected	Sample Depth (ft. BGS)			
Residential MSCC (mg/kg)			9,386	93,860	469
VOC MSCC (mg/kg)			245,280	#	12,264
STGW MSCC (mg/kg)			3,300	##	34
UST45-SB01	5/5/2006	2-4	<20	<10	<20
UST45-SB02	5/5/2006	4-6	<20	<10	<20
UST45-SB03	5/5/2006	4-6	1,810	2,400	<10
UST45-SB04	5/5/2006	2-4	<30	230	<28
UST45-SB05	5/5/2006	4-6	<20	40.0	<20
UST45-SB06	5/5/2006	4-6	<20	<10	<20
UST45-SB07	5/5/2006	4-6	<20	<10	<20
UST45-SB08	5/5/2006	8-10	<20	1,100	<10
UST45-SB09	5/5/2006	10-12	<20	<10	<2
UST45-SB10	5/5/2006	8-10	<20	<10	<20
UST45-SB11	5/5/2006	10-12	<20	6,700	<10
UST45-SB12	5/5/2006	10-12	<120	12	<23
UST45-SB13	5/5/2006	6-8	<20	<10	<20
UST45-SB14	5/5/2006	4-6	<20	<10	<20
UST45-SB15	5/5/2006	8-10	<20	<10	<20
UST45-SB16	5/5/2006	6-8	<20	<10	<20
UST45-SB17	5/5/2006	4-6	<20	<10	<20
UST45-SB18	5/5/2006	6-8	<20	<10	<20
UST45-SB19	5/5/2006	6-8	<20	<10	<20
UST45-SB20	5/5/2006	0-2	<20	<10	<20

All results in mg/kg.
ft. BGS = feet below ground surface
Shaded Results indicate concentrations greater than the lowest MSCCs.
= Health-Based Level (>100)
= Considered Immobile

1. LOCATIONS OF ABANDONED AND NOT LOCATED WELLS ARE APPROXIMATE.
2. LOCATION OF WELLS IRB4-MW19, UST45/S941-PW01R, UST45/S941-MW02R, UST45/S941-MW03R, UST45/S941-MW21 ARE APPROXIMATE.
3. BASE MAP ADAPTED FROM INFORMATION OBTAINED FROM J.A. JONES MONITORING REPORTS AND DRAWING PROVIDED BY BAKER ENVIRONMENTAL, INC.
4. EXISTING WELL LOCATIONS SURVEYED BY CATLIN PERSONNEL ON MAY 10, 2004 BY USE OF A GPS DEVICE WITH SUBMETER ACCURACY.
5. LOCATION OF SOIL BORINGS ARE APPROXIMATE.

ENGINEERS and SCIENTISTS
WILMINGTON, NORTH CAROLINA

PROJECT

BUILDING 45
OPTIMIZATION PLAN
MARINE CORPS BASE
CAMP LEJEUNE, N.C.

TITLE

SUMMARY OF SOIL LABORATORY
RESULTS - MADEP VPH/EPH AS
COMPARED TO MSCCs

FIGURE

3D

JOB NO.
203-063/206-009

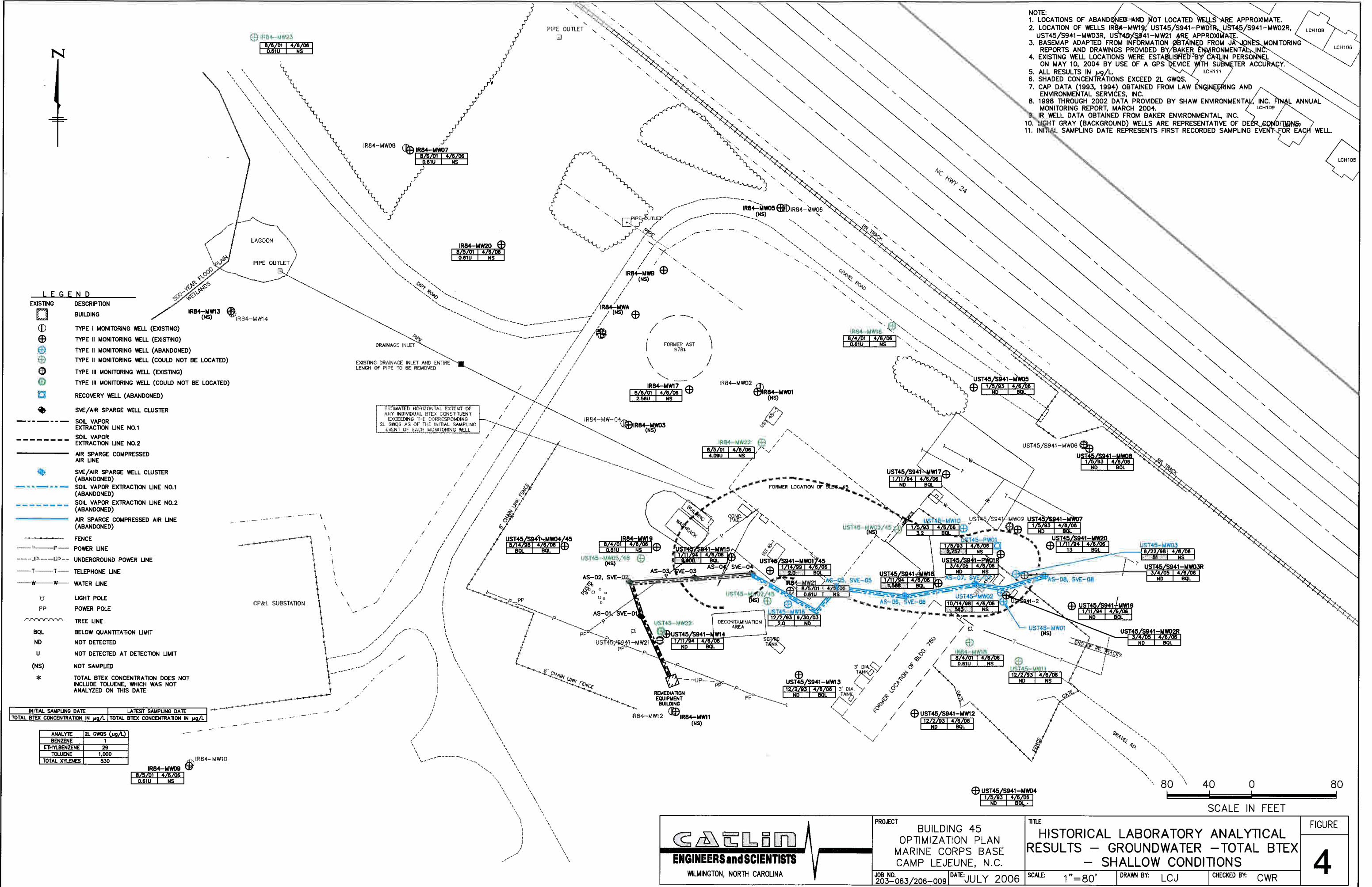
DATE
JULY 2006

SCALE
1"=80'

DRAWN BY
LCJ

CHECKED BY
CWR

203063-BLDG45-203063-206009-03D



NOTE:
1. LOCATIONS OF ABANDONED AND NOT LOCATED WELLS ARE APPROXIMATE.
2. LOCATION OF WELLS IR84-MW19, UST45/S941-PW01R, UST45/S941-MW02R, UST45/S941-MW03R, UST45/S941-MW21 ARE APPROXIMATE.
3. BASEMAP ADAPTED FROM INFORMATION OBTAINED FROM J.A. JONES MONITORING REPORTS AND DRAWINGS PROVIDED BY BAKER ENVIRONMENTAL, INC.
4. EXISTING WELL LOCATIONS WERE ESTABLISHED BY CATLIN PERSONNEL ON MAY 10, 2004 BY USE OF A GPS DEVICE WITH SUBMETER ACCURACY.
5. ALL RESULTS IN $\mu\text{g/L}$.
6. SHADED CONCENTRATIONS EXCEED 2L GWQS.
7. CAP DATA (1993, 1994) OBTAINED FROM LAW ENGINEERING AND ENVIRONMENTAL SERVICES, INC.
8. 1998 THROUGH 2002 DATA PROVIDED BY SHAW ENVIRONMENTAL, INC. FINAL ANNUAL MONITORING REPORT, MARCH 2004.
9. IR WELL DATA OBTAINED FROM BAKER ENVIRONMENTAL, INC.
10. LIGHT GRAY (BACKGROUND) WELLS ARE REPRESENTATIVE OF DEER CONDITIONS.
11. INITIAL SAMPLING DATE REPRESENTS FIRST RECORDED SAMPLING EVENT FOR EACH WELL.

- LEGEND**
- EXISTING DESCRIPTION
- BUILDING
 - TYPE I MONITORING WELL (EXISTING)
 - TYPE II MONITORING WELL (EXISTING)
 - TYPE II MONITORING WELL (ABANDONED)
 - TYPE II MONITORING WELL (COULD NOT BE LOCATED)
 - TYPE III MONITORING WELL (EXISTING)
 - TYPE III MONITORING WELL (COULD NOT BE LOCATED)
 - RECOVERY WELL (ABANDONED)
 - SVE/AIR SPARGE WELL CLUSTER
 - SOIL VAPOR EXTRACTION LINE NO.1
 - SOIL VAPOR EXTRACTION LINE NO.2
 - AIR SPARGE COMPRESSED AIR LINE
 - SVE/AIR SPARGE WELL CLUSTER (ABANDONED)
 - SOIL VAPOR EXTRACTION LINE NO.1 (ABANDONED)
 - SOIL VAPOR EXTRACTION LINE NO.2 (ABANDONED)
 - AIR SPARGE COMPRESSED AIR LINE (ABANDONED)
 - FENCE
 - POWER LINE
 - UNDERGROUND POWER LINE
 - TELEPHONE LINE
 - WATER LINE
 - LIGHT POLE
 - POWER POLE
 - TREE LINE
 - BQL BELOW QUANTITATION LIMIT
 - ND NOT DETECTED
 - U NOT DETECTED AT DETECTION LIMIT
 - (NS) NOT SAMPLED
 - * TOTAL BTEX CONCENTRATION DOES NOT INCLUDE TOLUENE, WHICH WAS NOT ANALYZED ON THIS DATE

INITIAL SAMPLING DATE	LATEST SAMPLING DATE
TOTAL BTEX CONCENTRATION IN $\mu\text{g/L}$	TOTAL BTEX CONCENTRATION IN $\mu\text{g/L}$

ANALYTE	2L GWQS ($\mu\text{g/L}$)
BENZENE	1
ETHYLBENZENE	29
TOLUENE	1,000
TOTAL XYLENES	530

CATLIN
ENGINEERS and SCIENTISTS
WILMINGTON, NORTH CAROLINA

PROJECT
BUILDING 45
OPTIMIZATION PLAN
MARINE CORPS BASE
CAMP LEJEUNE, N.C.
JOB NO. 203-063/206-009
DATE: JULY 2006

TITLE
HISTORICAL LABORATORY ANALYTICAL
RESULTS - GROUNDWATER - TOTAL BTEX
- SHALLOW CONDITIONS
SCALE: 1"=80'
DRAWN BY: LCJ
CHECKED BY: CWR

FIGURE
4

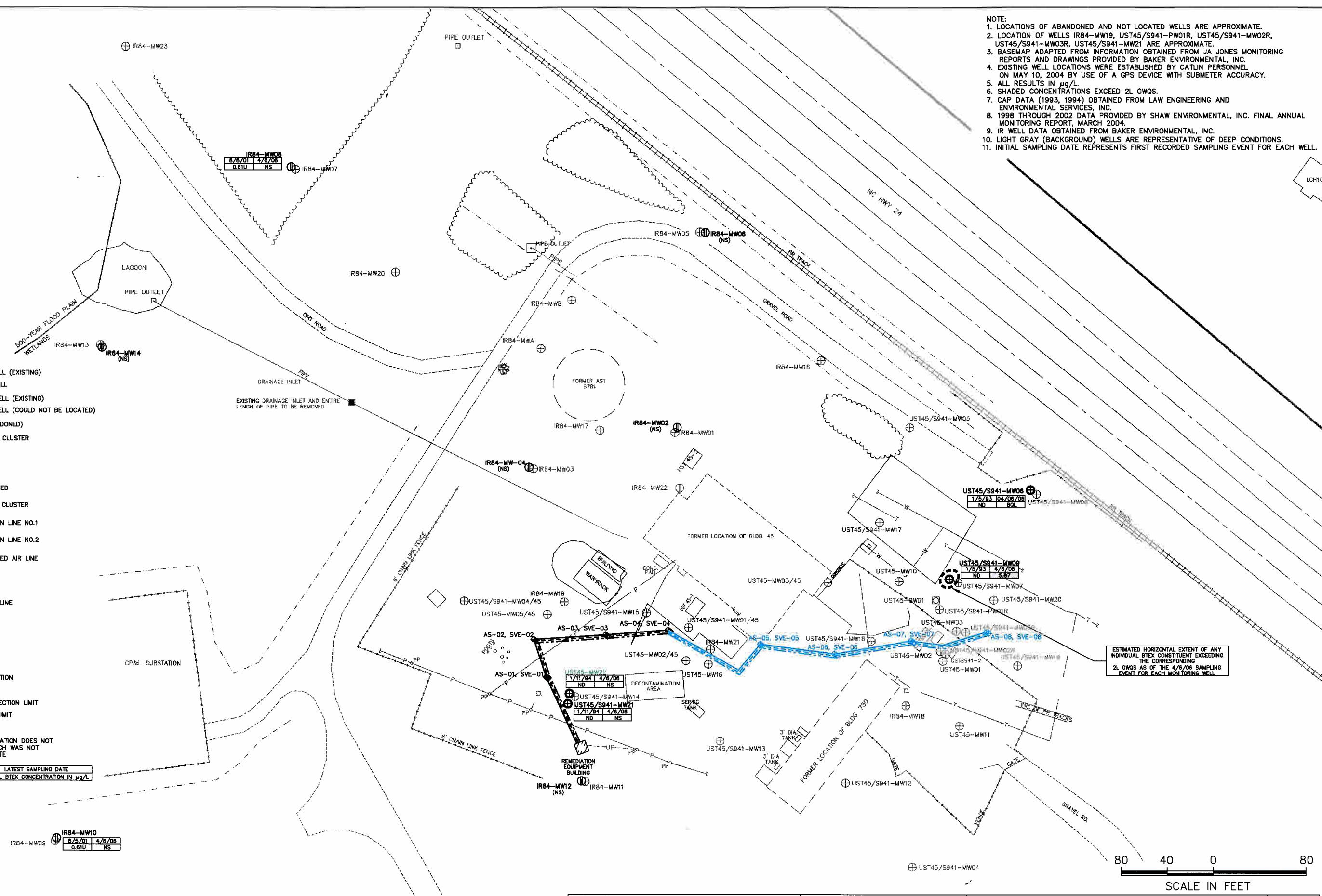


- NOTE:
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 9. IR WELL DATA OBTAINED FROM BAKER ENVIRONMENTAL, INC.
 10. LIGHT GRAY (BACKGROUND) WELLS ARE REPRESENTATIVE OF DEEP CONDITIONS.
 11. INITIAL SAMPLING DATE REPRESENTS FIRST RECORDED SAMPLING EVENT FOR EACH WELL.

- LEGEND**
- EXISTING
- BUILDING
 - TYPE I MONITORING WELL (EXISTING)
 - TYPE II MONITORING WELL
 - TYPE III MONITORING WELL (EXISTING)
 - TYPE III MONITORING WELL (COULD NOT BE LOCATED)
 - RECOVERY WELL (ABANDONED)
 - SVE/AIR SPARGE WELL CLUSTER
- SOIL VAPOR EXTRACTION LINE NO.1
- SOIL VAPOR EXTRACTION LINE NO.2
- AIR SPARGE COMPRESSED AIR LINE
- SVE/AIR SPARGE WELL CLUSTER (ABANDONED)
- SOIL VAPOR EXTRACTION LINE NO.1 (ABANDONED)
- SOIL VAPOR EXTRACTION LINE NO.2 (ABANDONED)
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- FENCE
- POWER LINE
- UNDERGROUND POWER LINE
- TELEPHONE LINE
- WATER LINE
- LIGHT POLE
- POWER POLE
- TREE LINE
- ESTIMATED CONCENTRATION
- ND NOT DETECTED
- U NOT DETECTED AT DETECTION LIMIT
- BQL BELOW QUANTITATION LIMIT
- (NS) NOT SAMPLED
- * TOTAL BTEX CONCENTRATION DOES NOT INCLUDE TOLUENE, WHICH WAS NOT ANALYZED ON THIS DATE

INITIAL SAMPLING DATE	LATEST SAMPLING DATE
TOTAL BTEX CONCENTRATION IN $\mu\text{g/L}$	TOTAL BTEX CONCENTRATION IN $\mu\text{g/L}$
ANALYTE	2L GWQS ($\mu\text{g/L}$)
BENZENE	1
ETHYLBENZENE	29
TOLUENE	1,000
TOTAL XYLENES	530

IR84-MW10	8/5/01	4/8/06
IR84-MW09	0.61U	NS

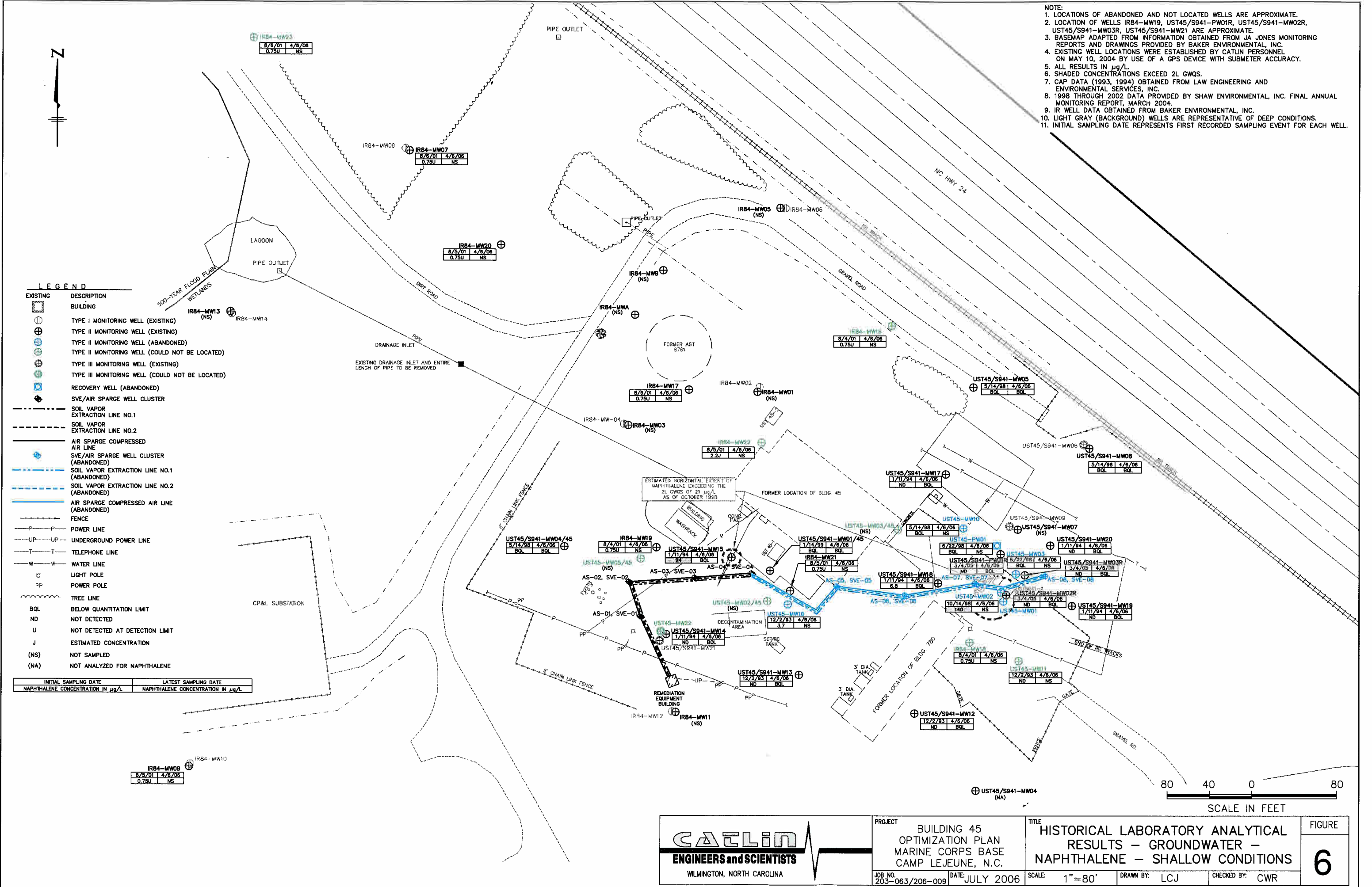


ESTIMATED HORIZONTAL EXTENT OF ANY INDIVIDUAL BTEX CONSTITUENT EXCEEDING THE CORRESPONDING 2L GWQS AS OF THE 4/8/06 SAMPLING EVENT FOR EACH MONITORING WELL



PROJECT	BUILDING 45 OPTIMIZATION PLAN MARINE CORPS BASE CAMP LEJEUNE, N.C.	TITLE	HISTORICAL LABORATORY ANALYTICAL RESULTS - GROUNDWATER - TOTAL BTEX - DEEP CONDITIONS	FIGURE	5
JOB NO.	203-063/206-009	DATE	JULY 2006	SCALE:	1"=80'
		DRAWN BY:	LCJ	CHECKED BY:	CWR

203063-BLDG45-203063-206009-05



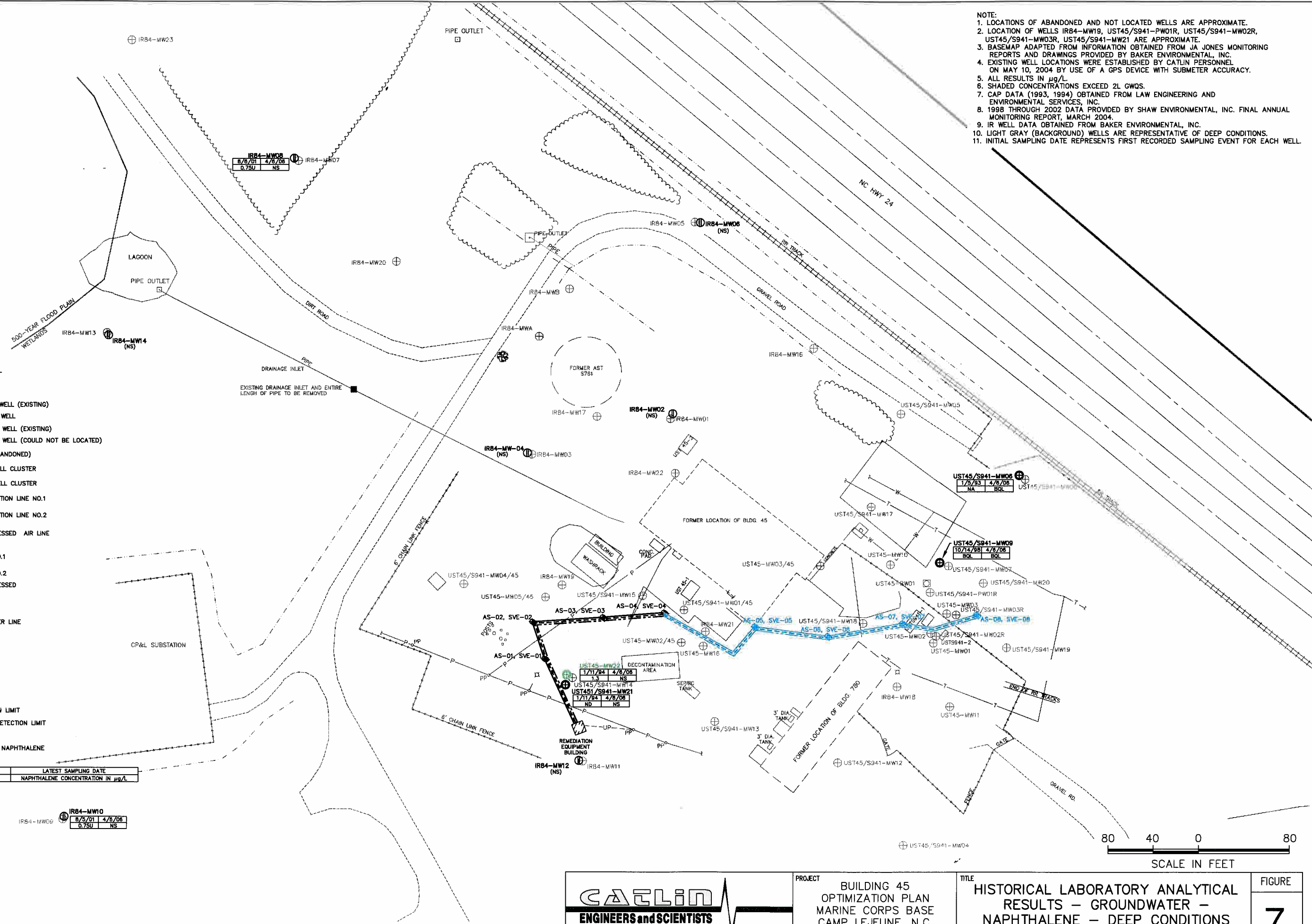


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 2. LOCATION OF WELLS IRB4-MW19, UST45/S941-PW01R, UST45/S941-MW02R, UST45/S941-MW03R, UST45/S941-MW21 ARE APPROXIMATE.
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 10. LIGHT GRAY (BACKGROUND) WELLS ARE REPRESENTATIVE OF DEEP CONDITIONS.
 11. INITIAL SAMPLING DATE REPRESENTS FIRST RECORDED SAMPLING EVENT FOR EACH WELL.

LEGEND

	EXISTING BUILDING
	TYPE I MONITORING WELL (EXISTING)
	TYPE II MONITORING WELL
	TYPE III MONITORING WELL (EXISTING)
	TYPE III MONITORING WELL (COULD NOT BE LOCATED)
	RECOVERY WELL (ABANDONED)
	SVE/AIR SPARGE WELL CLUSTER
	SVE/AIR SPARGE WELL CLUSTER (ABANDONED)
	SOIL VAPOR EXTRACTION LINE NO.1 (ABANDONED)
	SOIL VAPOR EXTRACTION LINE NO.2 (ABANDONED)
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	FENCE
	POWER LINE
	UNDERGROUND POWER LINE
	TELEPHONE LINE
	WATER LINE
	LIGHT POLE
	POWER POLE
	TREE LINE
ND	NOT DETECTED
BQL	BELOW QUANTITATION LIMIT
U	NOT DETECTED AT DETECTION LIMIT
(NS)	NOT SAMPLED
(NA)	NOT ANALYZED FOR NAPHTHALENE

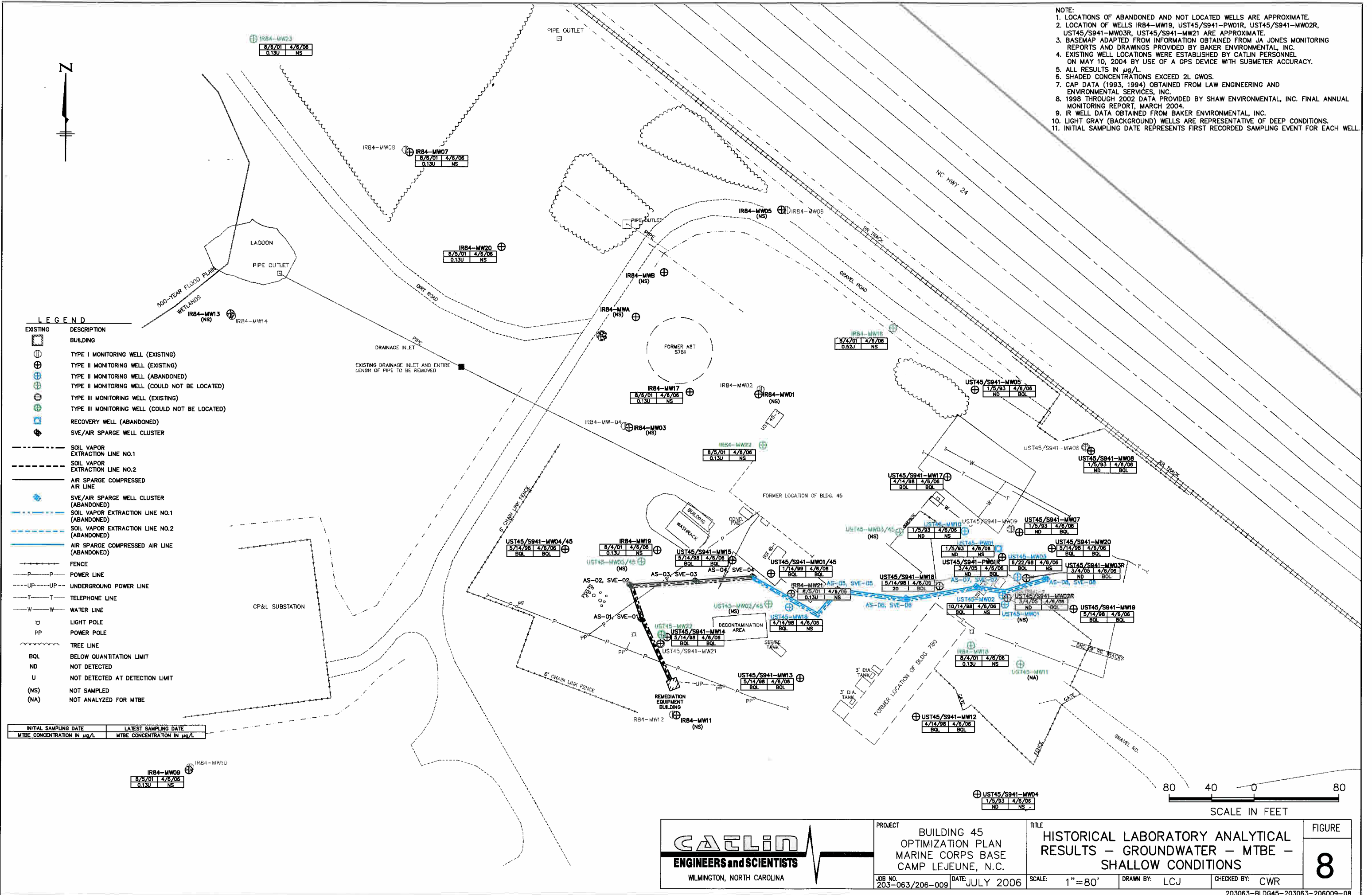
INITIAL SAMPLING DATE	LATEST SAMPLING DATE
NAPHTHALENE CONCENTRATION IN $\mu\text{g/L}$	NAPHTHALENE CONCENTRATION IN $\mu\text{g/L}$



 CATLIN ENGINEERS and SCIENTISTS WILMINGTON, NORTH CAROLINA	PROJECT BUILDING 45 OPTIMIZATION PLAN MARINE CORPS BASE CAMP LEJEUNE, N.C.	TITLE HISTORICAL LABORATORY ANALYTICAL RESULTS - GROUNDWATER - NAPHTHALENE - DEEP CONDITIONS	FIGURE 7	
	JOB NO. 203-063/206-009	DATE JULY 2006	SCALE 1"=80'	DRAWN BY LCJ

203063-BLDG45-203063-206009-07

- NOTE:
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 11. INITIAL SAMPLING DATE REPRESENTS FIRST RECORDED SAMPLING EVENT FOR EACH WELL.



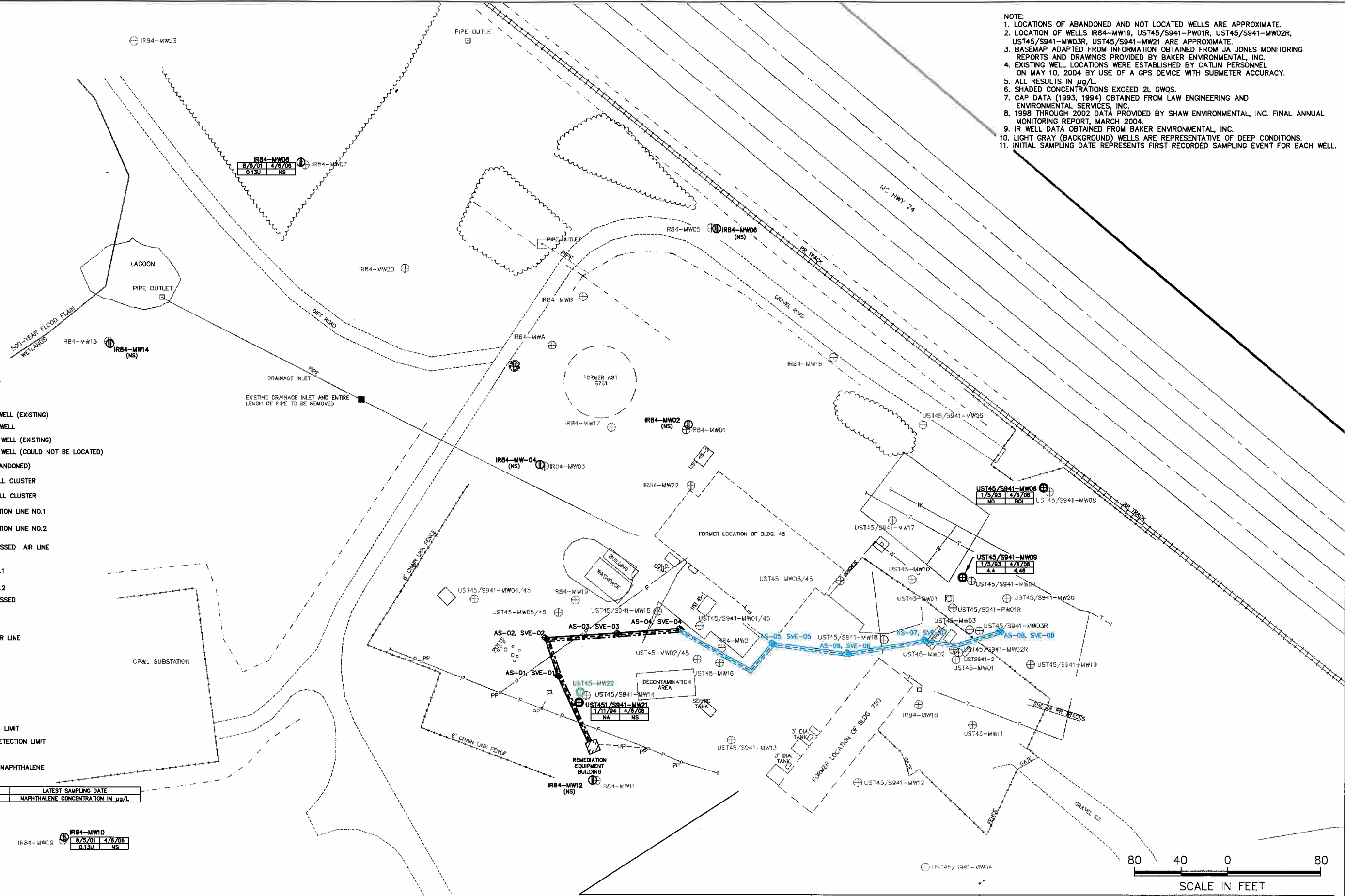


- NOTE:
1. LOCATIONS OF ABANDONED AND NOT LOCATED WELLS ARE APPROXIMATE.
 2. LOCATION OF WELLS IR84-MW19, UST45/S941-PW01R, UST45/S941-MW02R, UST45/S941-MW03R, UST45/S941-MW21 ARE APPROXIMATE.
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 9. IR WELL DATA OBTAINED FROM BAKER ENVIRONMENTAL, INC.
 10. LIGHT GRAY (BACKGROUND) WELLS ARE REPRESENTATIVE OF DEEP CONDITIONS.
 11. INITIAL SAMPLING DATE REPRESENTS FIRST RECORDED SAMPLING EVENT FOR EACH WELL.

LEGEND

	EXISTING BUILDING
	TYPE I MONITORING WELL (EXISTING)
	TYPE II MONITORING WELL
	TYPE III MONITORING WELL (EXISTING)
	TYPE III MONITORING WELL (COULD NOT BE LOCATED)
	RECOVERY WELL (ABANDONED)
	SVE/AIR SPARGE WELL CLUSTER
	SVE/AIR SPARGE WELL CLUSTER (ABANDONED)
	SOIL VAPOR EXTRACTION LINE NO.1 (ABANDONED)
	SOIL VAPOR EXTRACTION LINE NO.2 (ABANDONED)
	AIR SPARGE COMPRESSED AIR LINE (ABANDONED)
	SOIL VAPOR EXTRACTION LINE NO.1
	SOIL VAPOR EXTRACTION LINE NO.2
	AIR SPARGE COMPRESSED AIR LINE
	FENCE
	POWER LINE
	UNDERGROUND POWER LINE
	TELEPHONE LINE
	WATER LINE
	LIGHT POLE
	POWER POLE
	TREE LINE
ND	NOT DETECTED
BQL	BELOW QUANTITATION LIMIT
U	NOT DETECTED AT DETECTION LIMIT
(NS)	NOT SAMPLED
(NA)	NOT ANALYZED FOR NAPHTHALENE

INITIAL SAMPLING DATE	LATEST SAMPLING DATE
NAPHTHALENE CONCENTRATION IN $\mu\text{g/L}$	NAPHTHALENE CONCENTRATION IN $\mu\text{g/L}$



 CATLIN ENGINEERS and SCIENTISTS WILMINGTON, NORTH CAROLINA	PROJECT BUILDING 45 OPTIMIZATION PLAN MARINE CORPS BASE CAMP LEJEUNE, N.C.	TITLE HISTORICAL LABORATORY ANALYTICAL RESULTS - GROUNDWATER - MTBE - DEEP CONDITIONS	FIGURE 9	
	JOB NO. 203-063/206-009	DATE JULY 2006	SCALE: 1"=80'	DRAWN BY: LCJ

203063-BLDG45-203063-206009-09

APPENDICES

APPENDIX A

SUMMARY OF HISTORICAL SOIL LABORATORY RESULTS

CORRECTIVE ACTION PLAN

TABLE 1.1
SUMMARY OF LABORATORY ANALYTICAL RESULTS OF SELECTED TPH SOIL TESTING
CORRECTIVE ACTION PLAN
BUILDING 45, USTs S-941-1 AND 2, EQUIPMENT AND MAINTENANCE SHOP
MCB, CAMP LEJEUNE, NORTH CAROLINA
LAW ENGINEERING JOB NO. 30740-5-0500/PHASE 0033

SAMPLE LOCATION	SAMPLE DEPTH (FT.)	TPH-GASOLINE (mg/Kg)	TPH-DIESEL (mg/Kg)
		Action level = 10 mg/Kg	Action level = 40 mg/Kg
MW-1	*	300	NT
MW-2	*	2,500	NT
MW-3	*	<1.0	NT
MW-10	1.5 - 3.0	ND	ND
MW-11	3.5 - 5.5	ND	ND
MW-18	7.0 - 9.0	ND	ND
MW-19	2.0 - 4.0	1.6	ND
MW-19**	7.0 - 9.0	ND/1.1	ND/ND

NOTES:

ND Not Detected

* According to the ATEC Report, a separate soil sample for laboratory analysis was collected from each boring at the approximate water table.

** Split sample, sample analyzed at both on-site and off-site laboratories

NT Not tested

REMEDIAL INVESTIGATION REPORT

TABLE 4-6
POSITIVE DETECTIONS IN SURFACE SOIL SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	84-MW15-00	84-MW16-00	84-MW17-00	IR84-MW18-00	IR84-MW19-00	IR84-MW20-00	IR84-MW20-00D
DEPTH	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
SAMPLE DATE	07-31-2001	07-31-2001	07-31-2001	08-01-2001	08-01-2001	08-01-2001	08-01-2001
VOLATILES (ug/kg)							
2-Butanone	3.1 U	NA	2.9 U	NA	NA	9 J	4.8 J
Acetone	40 J	NA	2.2 U	NA	NA	46 UJ	23 U
Ethylbenzene	0.67 U	NA	0.62 U	NA	NA	0.69 UJ	0.67 U
Xylenes (total)	2.2 U	NA	2 U	NA	NA	2.2 UJ	2.2 U
SEMIVOLATILES (ug/kg)							
2-Methylnaphthalene	54 U	NA	350 J	NA	NA	63 U	55 U
Acenaphthene	58 U	NA	2300	NA	NA	67 U	58 U
Anthracene	56 U	NA	3500	NA	NA	64 U	56 U
Benzo(a)anthracene	62 U	NA	5900	NA	NA	72 U	63 U
Benzo(a)pyrene	68 U	NA	5800	NA	NA	78 U	68 U
Benzo(b)fluoranthene	66 U	NA	7100	NA	NA	76 U	66 U
Benzo(ghi)perylene	62 U	NA	3200	NA	NA	72 U	63 U
Benzo(k)fluoranthene	60 U	NA	3800	NA	NA	69 U	60 U
Carbazole	59 U	NA	2100	NA	NA	68 U	59 U
Chrysene	52 U	NA	6700	NA	NA	60 U	52 U
Dibenz(a,h)anthracene	58 U	NA	1200 J	NA	NA	67 U	58 U
Dibenzofuran	57 U	NA	1800 J	NA	NA	65 U	57 U
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	63 U	NA	16000	NA	NA	73 U	64 U
Fluorene	54 U	NA	2600	NA	NA	63 U	55 U
Hexachlorocyclopentadiene	68 U	NA	340 U	NA	NA	78 U	68 U
Indeno(1,2,3-cd)pyrene	79 U	NA	3200	NA	NA	91 U	80 U
Naphthalene	56 U	NA	640 J	NA	NA	64 U	56 U
Phenanthrene	59 U	NA	15000	NA	NA	68 U	59 U
Pyrene	58 U	NA	10000	NA	NA	67 U	58 U
bis(2-Ethylhexyl) phthalate	61 U	NA	310 U	NA	NA	140 J	620

TABLE 4-6 (continued)
POSITIVE DETECTIONS IN SURFACE SOIL SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	84-MW15-00	84-MW16-00	84-MW17-00	IR84-MW18-00	IR84-MW19-00	IR84-MW20-00	IR84-MW20-00D
DEPTH	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
SAMPLE DATE	07-31-2001	07-31-2001	07-31-2001	08-01-2001	08-01-2001	08-01-2001	08-01-2001
HERBICIDES (ug/kg)							
No exceedances							
PESTICIDES/PCBs (ug/kg)							
4,4'-DDD	0.9 U	NA	9.4 J	NA	NA	8.1 J	0.9 UJ
4,4'-DDE	0.65 U	NA	3.2 U	NA	NA	5.6 J	0.65 UJ
4,4'-DDT	1.5 U	NA	7.4 U	NA	NA	3.4 U	1.5 U
Dieldrin	1.7 U	NA	14 J	NA	NA	50 J	1.7 UJ
Endosulfan sulfate	0.32 U	NA	28 J	NA	NA	54 J	2.1 J
Endrin	0.69 U	NA	3.5 U	NA	NA	6.9 J	0.69 UJ
Endrin aldehyde	1.7 U	NA	46 J	NA	NA	74 J	22 J
Endrin ketone	0.29 U	NA	8.3 J	NA	NA	0.68 U	0.3 U
Heptachlor	0.69 U	NA	3.5 U	NA	NA	1.6 U	0.69 U
Heptachlor epoxide	0.75 U	NA	3.7 U	NA	NA	1.7 U	0.75 U
Methoxychlor	0.93 U	NA	4.7 U	NA	NA	98 J	0.93 UJ
PCB-1248	5.2 U	5.1 U	52 U	5.5 U	48 U	300 U	10 U
PCB-1254	23 U	22 U	230 U	24 U	210 U	1300 U	45 U
PCB-1260	8.4 U	30 J	3500	41	3600	11000 J	410 J
alpha-BHC	0.52 U	NA	2.6 U	NA	NA	1.2 U	0.52 U
alpha-Chlordane	0.67 U	NA	40 J	NA	NA	4.5 J	0.67 UJ
gamma-Chlordane	0.65 U	NA	43	NA	NA	6.7 J	0.65 UJ
METALS (mg/kg)							
Aluminum	2990	NA	2750	NA	NA	8940	2880
Antimony	0.56 UJ	NA	1.1 J	NA	NA	0.64 UJ	0.56 UJ
Arsenic	0.64 J	NA	6.7	NA	NA	1.5	1.1
Barium	5.3 J	NA	8.9 J	NA	NA	13.4 J	10.4 J
Beryllium	0.052 U	NA	0.052 U	NA	NA	0.06 U	0.052 U
Cadmium	0.049 U	NA	0.14 J	NA	NA	0.071 J	0.16 J
Calcium	636	NA	7200	NA	NA	1350	10500
Chromium	3.2	NA	4.4	NA	NA	6.4	4.5
Cobalt	0.17 U	NA	0.3 J	NA	NA	0.42 J	0.34 J
Copper	1.1 J	NA	5.8	NA	NA	1.7 J	4
Iron	1550	NA	2060	NA	NA	5000	1960
Lead	2.8	NA	31.5	NA	NA	5.7	22.4

TABLE 4-6 (continued)
POSITIVE DETECTIONS IN SURFACE SOIL SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	84-MW15-00	84-MW16-00	84-MW17-00	IR84-MW18-00	IR84-MW19-00	IR84-MW20-00	IR84-MW20-00D
DEPTH	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
SAMPLE DATE	07-31-2001	07-31-2001	07-31-2001	08-01-2001	08-01-2001	08-01-2001	08-01-2001
METALS (mg/kg) (Cont.)							
Magnesium	91 J	NA	239 J	NA	NA	188 J	234 J
Manganese	5.5	NA	13.4	NA	NA	11.5	9.1
Mercury	0.02 J	NA	0.0095 U	NA	NA	0.028 J	0.0095 U
Nickel	0.91 J	NA	1.1 J	NA	NA	1.9 J	1.3 J
Potassium	70.2 J	NA	106 J	NA	NA	107 J	71.3 J
Selenium	0.35 U	NA	0.35 U	NA	NA	0.4 U	0.53 J
Sodium	56.7 U	NA	56.8 U	NA	NA	65.2 U	56.8 U
Thallium	0.57 U	NA	0.57 U	NA	NA	0.65 U	0.57 U
Vanadium	4.1 J	NA	4.9 J	NA	NA	11.2	4.6 J
Zinc	3.2	NA	22.5	NA	NA	4.7	13.8
TOTAL PETROLEUM HYDROCARBONS							
TPH (as Diesel) (mg/kg)	NA	NA	NA	NA	NA	NA	NA
TPH (as Gasoline) (ug/kg)	NA	NA	NA	NA	NA	NA	NA
CONVENTIONAL							
Percent Solids (%)	88.3	90	88	83.5	95.1	76.7	88
Total Organic Carbon (mg/kg)	NA	NA	NA	NA	NA	NA	NA

NOTES:

J = Value is estimated

U = Not detected at detection limit

ug/kg = microgram per kilogram

mg/kg = milligram per kilogram

BG = sample was diluted due to matrix interference and blank contamination

N = sample recovery not within control limits

TABLE 4-6 (continued)
POSITIVE DETECTIONS IN SURFACE SOIL SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR84-DP06-00	IR84-DP18-00	IR84-DP20-00	IR84-DP22-00	IR84-DP22-00D	IR84-DP27-00	IR84-DP29-00
DEPTH	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
SAMPLE DATE	07-17-2001	07-19-2001	07-19-2001	07-19-2001	07-19-2001	07-19-2001	07-19-2001
VOLATILES (ug/kg)							
2-Butanone	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	NA	NA	NA	NA	NA	NA	NA
Xylènes (total)	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (ug/kg)							
2-Methylnaphthalene	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl) phthalate	NA	NA	NA	NA	NA	NA	NA

TABLE 4-6 (continued)
POSITIVE DETECTIONS IN SURFACE SOIL SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR84-DP06-00	IR84-DP18-00	IR84-DP20-00	IR84-DP22-00	IR84-DP22-00D	IR84-DP27-00	IR84-DP29-00
DEPTH	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
SAMPLE DATE	07-17-2001	07-19-2001	07-19-2001	07-19-2001	07-19-2001	07-19-2001	07-19-2001
HERBICIDES (ug/kg)							
No exceedances							
PESTICIDES/PCBs (ug/kg)							
4,4'-DDD	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA
Heptachlor epoxide	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	NA	NA	NA	NA	NA	NA	NA
PCB-1248	4.8 U	260 U	56	5.3 U	5.3 U	5.8 U	57 U
PCB-1254	21 U	1100 U	21 U	23 U	23 U	25 U	250 U
PCB-1260	56	25000	18 J	340	420	270	3800
alpha-BHC	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA
METALS (mg/kg)							
Aluminum	NA	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA
Calcium	NA	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA

TABLE 4-6 (continued)
POSITIVE DETECTIONS IN SURFACE SOIL SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR84-DP06-00	IR84-DP18-00	IR84-DP20-00	IR84-DP22-00	IR84-DP22-00D	IR84-DP27-00	IR84-DP29-00
DEPTH	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
SAMPLE DATE	07-17-2001	07-19-2001	07-19-2001	07-19-2001	07-19-2001	07-19-2001	07-19-2001
METALS (mg/kg) (Cont.)							
Magnesium	NA	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA
TOTAL PETROLEUM HYDROCARBONS							
TPH (as Diesel) (mg/kg)	NA	NA	NA	NA	NA	NA	NA
TPH (as Gasoline) (ug/kg)	NA	NA	NA	NA	NA	NA	NA
CONVENTIONAL							
Percent Solids (%)	95	88.1	94.8	86.3	86.3	79.2	81.4
Total Organic Carbon (mg/kg)	NA	NA	NA	NA	NA	13 BG	NA

NOTES:

J = Value is estimated

U = Not detected at detection limit

ug/kg = microgram per kilogram

mg/kg = milligram per kilogram

BG = sample was diluted due to matrix interference and l

N = sample recovery not within control limits

TABLE 4-6 (continued)
POSITIVE DETECTIONS IN SURFACE SOIL SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR84-DP33-00	IR84-DP36-00	IR84-DP37-00	IR84-DP41-00	IR84-DP42-00	IR84-DP42-00D	IR84-DP45-00
DEPTH	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
SAMPLE DATE	07-20-2001	07-20-2001	07-20-2001	07-20-2001	07-20-2001	07-20-2001	07-21-2001
VOLATILES (ug/kg)							
2-Butanone	NA	NA	NA	NA	NA	NA	2.8 U
Acetone	NA	NA	NA	NA	NA	NA	2.2 U
Ethylbenzene	NA	NA	NA	NA	NA	NA	0.62 U
Xylenes (total)	NA	NA	NA	NA	NA	NA	2 U
SEMIVOLATILES (ug/kg)							
2-Methylnaphthalene	NA	NA	NA	NA	NA	NA	200 U
Acenaphthene	NA	NA	NA	NA	NA	NA	460 J
Anthracene	NA	NA	NA	NA	NA	NA	910 J
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	3800
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	3300
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	4300
Benzo(ghi)perylene	NA	NA	NA	NA	NA	NA	1600
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	1800
Carbazole	NA	NA	NA	NA	NA	NA	570 J
Chrysene	NA	NA	NA	NA	NA	NA	3900
Dibenz(a,h)anthracene	NA	NA	NA	NA	NA	NA	530 J
Dibenzofuran	NA	NA	NA	NA	NA	NA	250 J
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	5900
Fluorene	NA	NA	NA	NA	NA	NA	410 J
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA	250 U
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	1500
Naphthalene	NA	NA	NA	NA	NA	NA	200 U
Phenanthrene	NA	NA	NA	NA	NA	NA	3500
Pyrene	NA	NA	NA	NA	NA	NA	5400
bis(2-Ethylhexyl) phthalate	NA	NA	NA	NA	NA	NA	230 U

TABLE 4-6 (continued)
POSITIVE DETECTIONS IN SURFACE SOIL SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR84-DP33-00	IR84-DP36-00	IR84-DP37-00	IR84-DP41-00	IR84-DP42-00	IR84-DP42-00D	IR84-DP45-00
DEPTH	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
SAMPLE DATE	07-20-2001	07-20-2001	07-20-2001	07-20-2001	07-20-2001	07-20-2001	07-21-2001
HERBICIDES (ug/kg)							
No exceedances							
PESTICIDES/PCBs (ug/kg)							
4,4'-DDD	NA	NA	NA	NA	NA	NA	820 U
4,4'-DDE	NA	NA	NA	NA	NA	NA	600 U
4,4'-DDT	NA	NA	NA	NA	NA	NA	1400 U
Dieldrin	NA	NA	NA	NA	NA	NA	1600 U
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	290 U
Endrin	NA	NA	NA	NA	NA	NA	640 U
Endrin aldehyde	NA	NA	NA	NA	NA	NA	1600 U
Endrin ketone	NA	NA	NA	NA	NA	NA	270 U
Heptachlor	NA	NA	NA	NA	NA	NA	10000
Heptachlor epoxide	NA	NA	NA	NA	NA	NA	2000 J
Methoxychlor	NA	NA	NA	NA	NA	NA	860 U
PCB-1248	54 U	48 U	4.9 U	77 U	5.9 U	6 U	480 U
PCB-1254	240 U	210 U	21 U	340 U	26 U	26 U	2100 U
PCB-1260	1400	940	84	1600	660	860	770 U
alpha-BHC	NA	NA	NA	NA	NA	NA	480 U
alpha-Chlordane	NA	NA	NA	NA	NA	NA	19000 J
gamma-Chlordane	NA	NA	NA	NA	NA	NA	23000
METALS (mg/kg)							
Aluminum	NA	NA	NA	NA	NA	NA	2810
Antimony	NA	NA	NA	NA	NA	NA	1.1 J
Arsenic	NA	NA	NA	NA	NA	NA	1.3
Barium	NA	NA	NA	NA	NA	NA	16.9 J
Beryllium	NA	NA	NA	NA	NA	NA	0.06 J
Cadmium	NA	NA	NA	NA	NA	NA	0.33 J
Calcium	NA	NA	NA	NA	NA	NA	14200 J
Chromium	NA	NA	NA	NA	NA	NA	6.1
Cobalt	NA	NA	NA	NA	NA	NA	0.33 J
Copper	NA	NA	NA	NA	NA	NA	19.3
Iron	NA	NA	NA	NA	NA	NA	2440
Lead	NA	NA	NA	NA	NA	NA	20.6

TABLE 4-6 (continued)
POSITIVE DETECTIONS IN SURFACE SOIL SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR84-DP33-00	IR84-DP36-00	IR84-DP37-00	IR84-DP41-00	IR84-DP42-00	IR84-DP42-00D	IR84-DP45-00
DEPTH	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
SAMPLE DATE	07-20-2001	07-20-2001	07-20-2001	07-20-2001	07-20-2001	07-20-2001	07-21-2001
METALS (mg/kg) (Cont.)							
Magnesium	NA	NA	NA	NA	NA	NA	329 J
Manganese	NA	NA	NA	NA	NA	NA	17.4
Mercury	NA	NA	NA	NA	NA	NA	0.052 J
Nickel	NA	NA	NA	NA	NA	NA	1.6 J
Potassium	NA	NA	NA	NA	NA	NA	114 J
Selenium	NA	NA	NA	NA	NA	NA	0.56 U
Sodium	NA	NA	NA	NA	NA	NA	52.2 U
Thallium	NA	NA	NA	NA	NA	NA	0.6 J
Vanadium	NA	NA	NA	NA	NA	NA	4.9 J
Zinc	NA	NA	NA	NA	NA	NA	64.9 J
TOTAL PETROLEUM HYDROCARBONS							
TPH (as Diesel) (mg/kg)	NA	NA	NA	NA	NA	NA	340
TPH (as Gasoline) (ug/kg)	NA	NA	NA	NA	NA	NA	18 U
CONVENTIONAL							
Percent Solids (%)	84.5	96	93.9	59.6	77.4	76.5	95.8
Total Organic Carbon (mg/kg)	NA	3 BG	NA	NA	NA	NA	NA

NOTES:

J = Value is estimated

U = Not detected at detection limit

ug/kg = microgram per kilogram

mg/kg = milligram per kilogram

BG = sample was diluted due to matrix interference and I

N = sample recovery not within control limits

TABLE 4-6 (continued)
POSITIVE DETECTIONS IN SURFACE SOIL SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR84-DP46-00	IR84-DP47-00	IR84-DP48-00	IR84-DP49-00	IR84-DP50-00	IR84-DP51-00	IR84-DP52-00
DEPTH	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
SAMPLE DATE	07-21-2001	07-21-2001	07-21-2001	07-21-2001	07-21-2001	07-21-2001	07-21-2001
VOLATILES (ug/kg)							
2-Butanone	2.8 U	2.8 U	2.9 U	2.9 U	2.8 U	2.9 U	2.9 U
Acetone	2.2 U	2.2 U	2.3 U	2.3 U	2.2 U	2.3 U	2.3 U
Ethylbenzene	0.62 U	0.62 U	0.64 U	0.63 U	0.62 U	0.64 U	0.63 U
Xylenes (total)	2 U	2 U	2.1 U	2 U	2 U	2.1 U	2 U
SEMIVOLATILES (ug/kg)							
2-Methylnaphthalene	6700 U	120 J	52 U	130 U	50 U	52 U	52 U
Acenaphthene	20000 J	910	140 J	890	53 U	56 U	55 U
Anthracene	56000	1100	210 J	1100	51 U	54 U	53 U
Benzo(a)anthracene	190000	2500	520	3100	58 U	60 U	59 U
Benzo(a)pyrene	150000	2300	470	3000	63 U	66 U	64 U
Benzo(b)fluoranthene	170000	2200	540	3600	61 U	63 U	62 U
Benzo(ghi)perylene	55000	1200	260 J	1500	58 U	74 J	59 U
Benzo(k)fluoranthene	120000	2000	340 J	2100	56 U	58 U	57 U
Carbazole	38000 J	700 J	130 J	650 J	55 U	57 U	56 U
Chrysene	180000	2700	560	3300	48 U	50 U	49 U
Dibenz(a,h)anthracene	17000 J	400 J	70 J	460 J	53 U	56 U	55 U
Dibenzofuran	8900 J	560 J	84 J	400 J	52 U	55 U	54 U
Dibenzothiophene	NA	NA	89 NJ	760 NJ	NA	NA	NA
Fluoranthene	300000	5600	1200	7200	59 U	61 U	60 U
Fluorene	19000 J	880	130 J	680 J	50 U	52 U	52 U
Hexachlorocyclopentadiene	8400 U	410 J	65 U	160 U	63 U	66 U	64 U
Indeno(1,2,3-cd)pyrene	59000	1200	250 J	1500	73 U	76 U	75 U
Naphthalene	7500 J	240 J	53 U	140 J	51 U	54 U	53 U
Phenanthrene	180000	5300	950	6000	55 U	57 U	56 U
Pyrene	250000	3200	760	6100	53 U	56 U	55 U
bis(2-Ethylhexyl) phthalate	7600 U	140 U	59 U	150 U	57 U	59 U	58 U

TABLE 4-6 (continued)
POSITIVE DETECTIONS IN SURFACE SOIL SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR84-DP46-00	IR84-DP47-00	IR84-DP48-00	IR84-DP49-00	IR84-DP50-00	IR84-DP51-00	IR84-DP52-00
DEPTH	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
SAMPLE DATE	07-21-2001	07-21-2001	07-21-2001	07-21-2001	07-21-2001	07-21-2001	07-21-2001
HERBICIDES (ug/kg)							
No exceedances							
PESTICIDES/PCBs (ug/kg)							
4,4'-DDD	830 U	3000 J	6.2 J	8.5 U	1.7 U	3.2 J	4.2 U
4,4'-DDE	600 U	590 U	1.2 U	58	6.6	17	9.7
4,4'-DDT	1400 U	1400 U	2.8 U	190	25 J	43	54 J
Dieldrin	1600 U	1600 U	9.2 J	320	21	3.3 U	8.1 U
Endosulfan sulfate	290 U	290 U	0.61 U	3 U	0.59 U	0.61 U	1.5 U
Endrin	640 U	640 U	1.3 U	6.6 U	1.3 U	1.3 U	3.3 U
Endrin aldehyde	1600 U	1600 U	3.3 U	16 U	5.6 J	3.3 U	8.3 J
Endrin ketone	270 U	270 U	4.4 J	2.8 U	0.55 U	0.57 U	1.4 U
Heptachlor	7400	22000	9.5 J	6.6 U	4.2	1.3 U	3.3 U
Heptachlor epoxide	1600 J	4500 J	4.2 J	7.1 U	1.4 U	1.4 U	3.5 U
Methoxychlor	860 U	860 U	1.8 U	8.8 U	8.1 J	1.8 U	16 J
PCB-1248	19000	160000	500 U	25 U	4.8 U	5 U	49 U
PCB-1254	4200 U	10000 U	2200 U	110 U	21 U	22 U	210 U
PCB-1260	1600 U	3900 U	810 U	820 J	470	50	980
alpha-BHC	480 U	480 U	1 U	4.9 U	0.96 U	1 U	2.5 U
alpha-Chlordane	17000 J	48000 J	65 J	6.3 U	5.8 J	1.3 U	3.2 U
gamma-Chlordane	20000	58000	75 J	6.1 U	9.8	1.2 U	3.1 U
METALS (mg/kg)							
Aluminum	3090	2760	2970	2070	2310	1420	1270
Antimony	0.74 J	1 J	1.3 J	3.3 J	0.76 J	0.54 U	0.53 U
Arsenic	1.3	1.4	1.1	9.1	8.2	0.42 J	0.33 J
Barium	24.7	23.1	13.5 J	65.7	18.5 J	7.6 J	8.4 J
Beryllium	0.075 J	0.072 J	0.05 U	0.073 J	0.065 J	0.05 U	0.049 U
Cadmium	0.13 J	0.38 J	0.067 J	0.53 J	0.37 J	0.08 J	0.078 J
Calcium	12000	56300 J	3580 J	98000 J	100000 J	17200 J	15200 J
Chromium	5.6	6.9	3.8	20.2	11.8	2.2	2.1
Cobalt	0.45 J	0.39 J	0.25 J	0.76 J	0.3 J	0.22 J	0.22 J
Copper	6	8.1	8.6	146	11.3	1.4 J	2.2 J
Iron	2460	2700	2290	2660	2510	684	992
Lead	27.1	28.9	20.2	97.3	27.9	9.1	11.9

TABLE 4-6 (continued)
POSITIVE DETECTIONS IN SURFACE SOIL SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR84-DP46-00	IR84-DP47-00	IR84-DP48-00	IR84-DP49-00	IR84-DP50-00	IR84-DP51-00	IR84-DP52-00
DEPTH	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
SAMPLE DATE	07-21-2001	07-21-2001	07-21-2001	07-21-2001	07-21-2001	07-21-2001	07-21-2001
METALS (mg/kg) (Cont.)							
Magnesium	371 J	1070	178 J	1480	1460	282 J	236 J
Manganese	22.4	25.6	10.9	32.8	27.4	17.4	15.8
Mercury	0.068 J	0.053 J	0.015 J	0.045 J	0.015 J	0.022 J	0.016 J
Nickel	1.8 J	1.5 J	1.4 J	2.9 J	2.1 J	0.98 J	1.2 J
Potassium	181 J	226 J	99.1 J	179 J	185 J	72.4 J	76.5 J
Selenium	0.33 U	0.32 U	0.34 U	0.33 U	0.32 U	0.34 U	0.33 U
Sodium	52.5 U	165 J	54.5 U	187 J	235 J	54.6 U	53.7 U
Thallium	0.53 U	0.52 U	0.55 U	0.54 U	0.52 U	0.55 U	0.54 U
Vanadium	5.4	5.7	5.8	5.7	5.7	2.3 J	2.4 J
Zinc	60.3 J	46.3 J	17.3 J	154 J	27.3 J	9.8 J	13.5 J
TOTAL PETROLEUM HYDROCARBONS							
TPH (as Diesel) (mg/kg)	470	370	130	270	170	34	49
TPH (as Gasoline) (ug/kg)	880	18 U	19 U	18 U	18 U	19 U	18 U
CONVENTIONAL							
Percent Solids (%)	95.2	95.8	91.7	93	95.4	91.5	93.1
Total Organic Carbon (mg/kg)	NA	NA	NA	NA	NA	NA	NA

NOTES:

J = Value is estimated

U = Not detected at detection limit

ug/kg = microgram per kilogram

mg/kg = milligram per kilogram

BG = sample was diluted due to matrix interference and l

N = sample recovery not within control limits

TABLE 4-6 (continued)
POSITIVE DETECTIONS IN SURFACE SOIL SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR84-DP53-00	IR84-DP54-00	IR84-DP55-00	IR84-DP63-00	IR84-DP65-00	IR84-DP69-00	IR84-DP69-00D
DEPTH	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
SAMPLE DATE	07-21-2001	07-21-2001	07-21-2001	07-22-2001	07-22-2001	07-22-2001	07-22-2001
VOLATILES (ug/kg)							
2-Butanone	3 U	2.9 U	2.8 U	NA	NA	NA	NA
Acetone	2.4 U	2.3 U	2.2 U	NA	NA	NA	NA
Ethylbenzene	0.67 U	0.64 U	0.62 U	NA	NA	NA	NA
Xylenes (total)	2.1 U	2.1 U	2 U	NA	NA	NA	NA
SEMIVOLATILES (ug/kg)							
2-Methylnaphthalene	220 U	52 U	50 U	NA	NA	NA	NA
Acenaphthene	1100 J	55 U	53 U	NA	NA	NA	NA
Anthracene	1500	53 U	51 U	NA	NA	NA	NA
Benzo(a)anthracene	3600	60 U	57 U	NA	NA	NA	NA
Benzo(a)pyrene	3300	65 U	63 U	NA	NA	NA	NA
Benzo(b)fluoranthene	4400	63 U	61 U	NA	NA	NA	NA
Benzo(ghi)perylene	1600	60 U	57 U	NA	NA	NA	NA
Benzo(k)fluoranthene	2000	58 U	55 U	NA	NA	NA	NA
Carbazole	930 J	56 U	54 U	NA	NA	NA	NA
Chrysene	3900	50 U	48 U	NA	NA	NA	NA
Dibenz(a,h)anthracene	570 J	55 U	53 U	NA	NA	NA	NA
Dibenzofuran	710 J	54 U	52 U	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	8400	61 U	59 U	NA	NA	NA	NA
Fluorene	960 J	52 U	50 U	NA	NA	NA	NA
Hexachlorocyclopentadiene	270 U	65 U	63 U	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	1600	76 U	73 U	NA	NA	NA	NA
Naphthalene	300 J	53 U	51 U	NA	NA	NA	NA
Phenanthrene	7100	56 U	54 U	NA	NA	NA	NA
Pyrene	8100 J	55 U	53 U	NA	NA	NA	NA
bis(2-Ethylhexyl) phthalate	240 U	59 U	56 U	NA	NA	NA	NA

TABLE 4-6 (continued)
POSITIVE DETECTIONS IN SURFACE SOIL SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR84-DP53-00	IR84-DP54-00	IR84-DP55-00	IR84-DP63-00	IR84-DP65-00	IR84-DP69-00	IR84-DP69-00D
DEPTH	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
SAMPLE DATE	07-21-2001	07-21-2001	07-21-2001	07-22-2001	07-22-2001	07-22-2001	07-22-2001
HERBICIDES (ug/kg)							
No exceedances							
PESTICIDES/PCBs (ug/kg)							
4,4'-DDD	890 U	0.86 U	0.83 U	NA	NA	NA	NA
4,4'-DDE	640 U	5.8	3.1	NA	NA	NA	NA
4,4'-DDT	1500 U	7.8	1.9	NA	NA	NA	NA
Dieldrin	1700 U	3.5 J	4.2	NA	NA	NA	NA
Endosulfan sulfate	320 U	0.3 U	0.29 U	NA	NA	NA	NA
Endrin	690 U	0.66 U	0.64 U	NA	NA	NA	NA
Endrin aldehyde	1700 U	1.6 U	1.6 U	NA	NA	NA	NA
Endrin ketone	290 U	0.28 U	0.27 U	NA	NA	NA	NA
Heptachlor	4400	1.7 J	1.5 J	NA	NA	NA	NA
Heptachlor epoxide	1500 J	0.72 U	0.69 U	NA	NA	NA	NA
Methoxychlor	920 U	1.9 J	0.86 U	NA	NA	NA	NA
PCB-1248	2600 U	5 U	480 U	540 U	520 U	15 U	15 U
PCB-1254	51000	22 U	2100 U	2300 U	2200 U	66 U	65 U
PCB-1260	4200 U	20 J	770 U	18000	13000	99 J	190
alpha-BHC	520 U	0.5 U	0.48 U	NA	NA	NA	NA
alpha-Chlordane	18000 J	6.9 J	0.62 U	NA	NA	NA	NA
gamma-Chlordane	22000	7.6	0.6 U	NA	NA	NA	NA
METALS (mg/kg)							
Aluminum	1770	4340	3340	NA	NA	NA	NA
Antimony	1.7 J	0.53 U	0.76 J	NA	NA	NA	NA
Arsenic	0.97 J	0.47 J	0.89 J	NA	NA	NA	NA
Barium	15.2 J	6.5 J	11.4 J	NA	NA	NA	NA
Beryllium	0.052 U	0.05 U	0.048 U	NA	NA	NA	NA
Cadmium	0.57	0.047 U	0.045 U	NA	NA	NA	NA
Calcium	6080 J	291 J	1040 J	NA	NA	NA	NA
Chromium	5.2	4.4	4	NA	NA	NA	NA
Cobalt	0.38 J	0.2 J	0.26 J	NA	NA	NA	NA
Copper	13.5	1.1 J	3	NA	NA	NA	NA
Iron	1740	1630	2000	NA	NA	NA	NA
Lead	29.5	4.7	11.8	NA	NA	NA	NA

TABLE 4-6 (continued)
POSITIVE DETECTIONS IN SURFACE SOIL SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR84-DP53-00	IR84-DP54-00	IR84-DP55-00	IR84-DP63-00	IR84-DP65-00	IR84-DP69-00	IR84-DP69-00D
DEPTH	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
SAMPLE DATE	07-21-2001	07-21-2001	07-21-2001	07-22-2001	07-22-2001	07-22-2001	07-22-2001
METALS (mg/kg) (Cont.)							
Magnesium	211 J	116 J	100 J	NA	NA	NA	NA
Manganese	13.8	4.2	11.3	NA	NA	NA	NA
Mercury	0.039 J	0.01 J	0.013 J	NA	NA	NA	NA
Nickel	1.4 J	1 J	1.1 J	NA	NA	NA	NA
Potassium	73.9 U	97.6 U	89 U	NA	NA	NA	NA
Selenium	0.35 U	0.34 U	0.32 U	NA	NA	NA	NA
Sodium	56.4 U	54.3 U	52.3 U	NA	NA	NA	NA
Thallium	0.56 U	0.54 U	0.52 U	NA	NA	NA	NA
Vanadium	3.4 J	5.5	5.2	NA	NA	NA	NA
Zinc	72 J	3.4 J	8.5 J	NA	NA	NA	NA
TOTAL PETROLEUM HYDROCARBONS							
TPH (as Diesel) (mg/kg)	220	7 J	12	NA	NA	NA	NA
TPH (as Gasoline) (ug/kg)	19 U	18 U	18 U	NA	NA	NA	NA
CONVENTIONAL							
Percent Solids (%)	88.7	92.1	95.7	85.8	89.3	30.3	30.9
Total Organic Carbon (mg/kg)	NA	NA	NA	NA	NA	NA	NA

NOTES:

J = Value is estimated

U = Not detected at detection limit

ug/kg = microgram per kilogram

mg/kg = milligram per kilogram

BG = sample was diluted due to matrix interference and l

N = sample recovery not within control limits

TABLE 4-6 (continued)
POSITIVE DETECTIONS IN SURFACE SOIL SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR84-DP71-00	IR84-DP74-00	IR84-DP75-00	IR84-DP76-00	IR84-DP77-00	IR84-DP78-00	IR84-DP79-00
DEPTH	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
SAMPLE DATE	07-22-2001	08-02-2001	08-02-2001	08-02-2001	08-05-2001	08-05-2001	08-05-2001
VOLATILES (ug/kg)							
2-Butanone	NA	3 U	2.9 U	3 U	3 U	2.7 U	3.1 U
Acetone	NA	2.4 U	2.2 U	2.3 U	2.4 U	2.1 U	2.4 U
Ethylbenzene	NA	0.66 U	0.63 U	0.65 U	0.66 U	0.58 U	0.67 U
Xylenes (total)	NA	2.1 U	2 U	2.1 U	2.1 U	1.9 U	2.2 U
SEMIVOLATILES (ug/kg)							
2-Methylnaphthalene	NA	53 U	54 U	54 U	52 U	51 U	51 U
Acenaphthene	NA	56 U	57 U	58 U	55 U	55 U	54 U
Anthracene	NA	54 U	55 U	55 U	53 U	52 U	52 U
Benzo(a)anthracene	NA	61 U	61 U	62 U	59 U	59 U	58 U
Benzo(a)pyrene	NA	66 U	67 U	68 U	65 U	64 U	64 U
Benzo(b)fluoranthene	NA	64 U	65 U	66 U	63 U	62 U	62 U
Benzo(ghi)perylene	NA	61 U	61 U	62 U	59 U	59 U	58 U
Benzo(k)fluoranthene	NA	58 U	59 U	60 U	57 U	57 U	56 U
Carbazole	NA	57 U	58 U	59 U	56 U	56 U	55 U
Chrysene	NA	51 U	51 U	52 U	50 U	49 U	49 U
Dibenz(a,h)anthracene	NA	56 U	57 U	58 U	55 U	55 U	54 U
Dibenzofuran	NA	55 U	56 U	57 U	54 U	53 U	53 U
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	62 U	62 U	63 U	60 U	60 U	59 U
Fluorene	NA	53 U	54 U	54 U	52 U	51 U	51 U
Hexachlorocyclopentadiene	NA	66 U	67 U	68 U	65 U	64 U	64 U
Indeno(1,2,3-cd)pyrene	NA	77 U	78 U	79 U	76 U	75 U	74 U
Naphthalene	NA	54 U	55 U	55 U	53 U	52 U	52 U
Phenanthrene	NA	57 U	58 U	59 U	56 U	56 U	55 U
Pyrene	NA	56 U	57 U	58 U	55 U	55 U	54 U
bis(2-Ethylhexyl) phthalate	NA	59 U	60 U	61 U	58 U	58 U	57 U

TABLE 4-6 (continued)
POSITIVE DETECTIONS IN SURFACE SOIL SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR84-DP71-00	IR84-DP74-00	IR84-DP75-00	IR84-DP76-00	IR84-DP77-00	IR84-DP78-00	IR84-DP79-00
DEPTH	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
SAMPLE DATE	07-22-2001	08-02-2001	08-02-2001	08-02-2001	08-05-2001	08-05-2001	08-05-2001
HERBICIDES (ug/kg)							
No exceedances							
PESTICIDES/PCBs (ug/kg)							
4,4'-DDD	NA	0.87 U	0.88 U	0.89 U		0.84 U	0.84 U
4,4'-DDE	NA	0.63 U	0.64 U	0.64 U		0.61 U	0.61 U
4,4'-DDT	NA	1.4 U	1.4 U	1.5 U		1.4 U	1.4 U
Dieldrin	NA	1.7 U	1.7 U	1.7 U		1.6 U	1.6 U
Endosulfan sulfate	NA	0.31 U	0.31 U	0.32 U	8.4 J	0.3 U	0.3 U
Endrin	NA	0.67 U	0.68 U	0.69 U		0.65 U	0.65 U
Endrin aldehyde	NA	1.7 U	1.7 U	1.7 U	14 J	1.6 U	1.6 U
Endrin ketone	NA	0.29 U	0.29 U	0.29 U	17 J	0.28 U	1.7 J
Heptachlor	NA	0.67 U	0.68 U	0.69 U		0.65 U	0.65 U
Heptachlor epoxide	NA	0.73 U	4.3	0.75 U		0.71 U	0.7 U
Methoxychlor	NA	0.9 U	0.91 U	0.93 U	22 J	0.88 U	0.87 U
PCB-1248	180 U	5.1 U	130	5.2 U	25 U	4.9 U	4.9 U
PCB-1254	770 U	22 U	22 U	23 U	110 U	21 U	21 U
PCB-1260	7800	8.1 U	8.3 U	8.4 U	1700	7.9 U	42
alpha-BHC	NA	0.51 U	0.51 U	0.52 U		0.49 U	0.49 U
alpha-Chlordane	NA	0.65 U	2 J	0.67 U		0.63 U	0.63 U
gamma-Chlordane	NA	0.63 U	3.9	0.64 U		0.61 U	0.61 U
METALS (mg/kg)							
Aluminum	NA	3540	1700	4820	2150	1650	1780
Antimony	NA	0.66 J	0.55 UJ	0.55 UJ	0.53 UJ	0.52 UJ	0.52 UJ
Arsenic	NA	1.5	0.79 J	2.5	3.1	0.32 U	0.32 U
Barium	NA	9.8 U	3.7 U	6.3 U	5.7 J	5.5 J	6.7 J
Beryllium	NA	0.051 U	0.051 U	0.052 U	0.081 U	0.078 U	0.094 U
Cadmium	NA	0.047 U	0.048 U	0.049 U	0.046 U	0.046 U	0.046 U
Calcium	NA	3160 J	358 J	628 J	3920	634	204 J
Chromium	NA	4.8	2.6	7.5	2.8	1.7	1.8
Cobalt	NA	0.41 J	0.17 U	0.33 J	0.2 J	0.18 J	0.16 U
Copper	NA	6.8	1 J	0.65 J	1.6 J	0.35 J	0.41 J
Iron	NA	2170	1270	2620	1710	950	1160
Lead	NA	13.7 J	5 J	4.3 J	7	1.8	2

TABLE 4-6 (continued)
POSITIVE DETECTIONS IN SURFACE SOIL SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR84-DP71-00	IR84-DP74-00	IR84-DP75-00	IR84-DP76-00	IR84-DP77-00	IR84-DP78-00	IR84-DP79-00
DEPTH	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
SAMPLE DATE	07-22-2001	08-02-2001	08-02-2001	08-02-2001	08-05-2001	08-05-2001	08-05-2001
METALS (mg/kg) (Cont.)							
Magnesium	NA	232 J	56.6 J	174 J	114 J	52.9 J	47.3 J
Manganese	NA	10.4	3.3	3.8	8	7.7	6.6
Mercury	NA	0.2	0.0094 U	0.015 J	0.019 J	0.009 U	0.0089 U
Nickel	NA	2.4 J	0.63 J	0.72 J	0.76 J	0.54 J	0.46 J
Potassium	NA	72.5 J	76.8 J	258 J	62 U	38.5 U	34.8 U
Selenium	NA	0.61	0.35 U	0.35 U	0.33 U	0.33 U	0.33 U
Sodium	NA	55 U	55.8 U	56.5 U	54 U	53.5 U	53.1 U
Thallium	NA	0.55 U	0.56 U	0.57 U	0.54 U	0.53 U	0.53 U
Vanadium	NA	5.1 J	4.2 J	10.4	4.6 J	2.5 J	2.8 J
Zinc	NA	9	2.5	1.9 J	6.2 J	1.5 J	1.8 J
TOTAL PETROLEUM HYDROCARBONS							
TPH (as Diesel) (mg/kg)	NA	NA	NA	NA	NA	NA	NA
TPH (as Gasoline) (ug/kg)	NA	NA	NA	NA	NA	NA	NA
CONVENTIONAL							
Percent Solids (%)	51.7	90.9	89.7	88.5	92.6	93.5	94.2
Total Organic Carbon (mg/kg)	NA	NA	NA	NA	NA	NA	NA

NOTES:

J = Value is estimated

U = Not detected at detection limit

ug/kg = microgram per kilogram

mg/kg = milligram per kilogram

BG = sample was diluted due to matrix interference and I

N = sample recovery not within control limits

TABLE 4-6 (continued)
POSITIVE DETECTIONS IN SURFACE SOIL SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR84-DP80-00	IR84-DP81-00	IR84-DP82-00	IR84-DP83-00	IR84-DP84-00	84-SB01A	84-SB02A
DEPTH	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 0.5	0 - 0.5
SAMPLE DATE	08-05-2001	08-05-2001	08-05-2001	08-05-2001	08-03-2001	10-26-1995	10-26-1995
VOLATILES (ug/kg)							
2-Butanone	2.9 U	3.1 U	110 U	2.8 U	50 U	NA	NA
Acetone	2.3 U	2.4 U	1400 U	2.2 U	87 U	NA	NA
Ethylbenzene	0.64 U	0.68 U	330 J	0.61 U	1.5 U	NA	NA
Xylenes (total)	2.1 U	2.2 U	120 J	2 U	8.7 J	NA	NA
SEMIVOLATILES (ug/kg)							
2-Methylnaphthalene	51 U	53 U	550 U	52 U	92000	NA	NA
Acenaphthene	54 U	56 U	590 U	56 U	2800 J	NA	NA
Anthracene	52 U	54 U	560 U	53 U	4100 J	NA	NA
Benzo(a)anthracene	58 U	61 U	630 U	60 U	1800 J	NA	NA
Benzo(a)pyrene	64 U	66 U	690 U	65 U	1700 U	NA	NA
Benzo(b)fluoranthene	61 U	64 U	670 U	63 U	1600 U	NA	NA
Benzo(ghi)perylene	58 U	61 U	630 U	60 U	1500 J	NA	NA
Benzo(k)fluoranthene	56 U	59 U	610 U	58 U	1500 U	NA	NA
Carbazole	55 U	57 U	600 U	57 U	1400 U	NA	NA
Chrysene	49 U	51 U	530 U	50 U	2800 J	NA	NA
Dibenz(a,h)anthracene	54 U	56 U	590 U	56 U	1400 U	NA	NA
Dibenzofuran	53 U	55 U	570 U	54 U	1400 U	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	59 U	62 U	640 U	61 U	1700 J	NA	NA
Fluorene	51 U	53 U	580 J	52 U	9000 J	NA	NA
Hexachlorocyclopentadiene	64 U	66 U	690 U	65 U	1700 U	NA	NA
Indeno(1,2,3-cd)pyrene	74 U	77 U	800 U	76 U	1900 U	NA	NA
Naphthalene	52 U	54 U	560 U	53 U	1400 U	NA	NA
Phenanthrene	55 U	57 U	910 J	57 U	24000	NA	NA
Pyrene	54 U	56 U	590 U	56 U	16000	NA	NA
bis(2-Ethylhexyl) phthalate	57 U	60 U	620 U	59 U	1500 U	NA	NA

TABLE 4-6 (continued)
POSITIVE DETECTIONS IN SURFACE SOIL SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR84-DP80-00	IR84-DP81-00	IR84-DP82-00	IR84-DP83-00	IR84-DP84-00	84-SB01A	84-SB02A
DEPTH	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 0.5	0 - 0.5
SAMPLE DATE	08-05-2001	08-05-2001	08-05-2001	08-05-2001	08-03-2001	10-26-1995	10-26-1995
HERBICIDES (ug/kg)							
No exceedances							
PESTICIDES/PCBs (ug/kg)							
4,4'-DDD	0.84 U	3.6 J	32 J	1.7 U		NA	NA
4,4'-DDE	0.6 U	0.63 U	6.5 U	1.2 U		NA	NA
4,4'-DDT	1.4 U	1.4 U	15 U	8.2 J		NA	NA
Dieldrin	1.6 U	1.7 U	52	3.3 U		NA	NA
Endosulfan sulfate	0.3 U	3.2	40 J	0.61 U		NA	NA
Endrin	0.65 U	0.67 U	7 U	1.3 U		NA	NA
Endrin aldehyde	1.6 U	4.5 J	61 J	3.3 U		NA	NA
Endrin ketone	0.28 U	26 J	3 U	0.57 U		NA	NA
Heptachlor	0.65 U	0.67 U	7 U	1.3 U		NA	NA
Heptachlor epoxide	0.7 U	0.73 U	7.6 U	1.4 U		NA	NA
Methoxychlor	0.87 U	8.7 J	79 J	1.8 U		NA	NA
PCB-1248	4.9 U	5.1 U	260 U	5 U	6.4 U	1900 U	380 U
PCB-1254	21 U	22 U	1100 U	22 U	28 U	1900 U	380 U
PCB-1260	7.8 U	530	11000	58	10 U	12000	4400
alpha-BHC	0.49 U	0.51 U	21	1 U		NA	NA
alpha-Chlordane	0.63 U	0.65 U	6.8 U	1.3 U		NA	NA
gamma-Chlordane	0.6 U	0.63 U	6.5 U	1.2 U		NA	NA
METALS (mg/kg)							
Aluminum	1390	2440	2380	2080	2140	NA	NA
Antimony	0.52 UJ	1.6 J	1.2 J	0.53 UJ	2 J	NA	NA
Arsenic	0.79 J	2.6	0.98 J	0.68 J	0.78 J	NA	NA
Barium	3 J	9.7 J	16.4 J	6.5 J	24.6 J	NA	NA
Beryllium	0.073 U	0.11 U	0.11 U	0.11 U	0.064 U	NA	NA
Cadmium	0.046 U	0.048 U	0.23 J	0.047 U	0.16 J	NA	NA
Calcium	109 J	461 J	17900	14500	1510	NA	NA
Chromium	2.5	3.2	4.6	3.2	2.6	NA	NA
Cobalt	0.24 J	0.22 J	0.36 J	0.22 J	0.28 J	NA	NA
Copper	0.35 J	1.9 J	8.4	1.3 J	28.4	NA	NA
Iron	1490	1910	2270	1620	1990	NA	NA
Lead	2.1	61.4	65.4	5.7	54.7	NA	NA

TABLE 4-6 (continued)
POSITIVE DETECTIONS IN SURFACE SOIL SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR84-DP80-00	IR84-DP81-00	IR84-DP82-00	IR84-DP83-00	IR84-DP84-00	84-SB01A	84-SB02A
DEPTH	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 0.5	0 - 0.5
SAMPLE DATE	08-05-2001	08-05-2001	08-05-2001	08-05-2001	08-03-2001	10-26-1995	10-26-1995
METALS (mg/kg) (Cont.)							
Magnesium	53.5 J	71.7 J	347 J	283 J	156 J	NA	NA
Manganese	2.7	13.2	11.1	15.9	6.6	NA	NA
Mercury	0.0089 U	0.0093 U	0.17	0.0091 U	0.041 J	NA	NA
Nickel	0.52 J	0.73 J	1.7 J	0.94 J	2.6 J	NA	NA
Potassium	51.1 U	53.3 U	86 J	86.8 J	75.9 U	NA	NA
Selenium	0.33 U	0.34 U	0.36 U	0.34 U	0.43 U	NA	NA
Sodium	53 U	55.2 U	57.5 U	54.4 U	69.6 U	NA	NA
Thallium	0.53 U	0.55 U	0.57 U	0.54 U	0.7 U	NA	NA
Vanadium	4 J	4.4 J	5.2 J	3.8 J	4.2 J	NA	NA
Zinc	1.3 J	19.4 J	40.7 J	7.7 J	38.2	NA	NA
TOTAL PETROLEUM HYDROCARBONS							
TPH (as Diesel) (mg/kg)	NA	NA	NA	NA	NA	NA	NA
TPH (as Gasoline) (ug/kg)	NA	NA	NA	NA	NA	NA	NA
CONVENTIONAL							
Percent Solids (%)	94.3	90.5	87	91.9	71.8	NA	NA
Total Organic Carbon (mg/kg)	NA	NA	NA	NA	NA	NA	NA

NOTES:

J = Value is estimated

U = Not detected at detection limit

ug/kg = microgram per kilogram

mg/kg = milligram per kilogram

BG = sample was diluted due to matrix interference and I

N = sample recovery not within control limits

TABLE 4-6 (continued)
POSITIVE DETECTIONS IN SURFACE SOIL SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	84-SB03A	84-SB04A	84-SB05A	84-SB06A	84-SB07A	84-SB08A	84-SB09A	84-SB10A
DEPTH	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
SAMPLE DATE	10-26-1995	10-26-1995	10-26-1995	10-26-1995	10-26-1995	10-26-1995	10-26-1995	10-26-1995
VOLATILES (ug/kg)								
2-Butanone	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (ug/kg)								
2-Methylnaphthalene	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl) phthalate	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 4-6 (continued)
POSITIVE DETECTIONS IN SURFACE SOIL SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	84-SB03A	84-SB04A	84-SB05A	84-SB06A	84-SB07A	84-SB08A	84-SB09A	84-SB10A
DEPTH	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
SAMPLE DATE	10-26-1995	10-26-1995	10-26-1995	10-26-1995	10-26-1995	10-26-1995	10-26-1995	10-26-1995
HERBICIDES (ug/kg)								
No exceedances								
PESTICIDES/PCBs (ug/kg)								
4,4'-DDD	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor epoxide	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1248	730 U	1800 U	400 U	170 U	150 U	390 U	1900 U	140 U
PCB-1254	730 U	1800 U	400 U	170 U	150 U	390 U	1900 U	140 U
PCB-1260	5300	6200	5000	1300 J	360	2500	12000	1100
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA
METALS (mg/kg)								
Aluminum	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 4-6 (continued)
POSITIVE DETECTIONS IN SURFACE SOIL SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	84-SB03A	84-SB04A	84-SB05A	84-SB06A	84-SB07A	84-SB08A	84-SB09A	84-SB10A
DEPTH	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
SAMPLE DATE	10-26-1995	10-26-1995	10-26-1995	10-26-1995	10-26-1995	10-26-1995	10-26-1995	10-26-1995
METALS (mg/kg) (Cont.)								
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PETROLEUM HYDROCARBONS								
TPH (as Diesel) (mg/kg)	NA	NA	NA	NA	NA	NA	NA	NA
TPH (as Gasoline) (ug/kg)	NA	NA	NA	NA	NA	NA	NA	NA
CONVENTIONAL								
Percent Solids (%)	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (mg/kg)	NA	NA	NA	NA	NA	NA	NA	NA

NOTES:

J = Value is estimated

U = Not detected at detection limit

ug/kg = microgram per kilogram

mg/kg = milligram per kilogram

BG = sample was diluted due to matrix interference and I

N = sample recovery not within control limits

TABLE 4-6 (continued)
POSITIVE DETECTIONS IN SURFACE SOIL SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR84-SB02-00	IR84-SB04-00	IR84-SB08-00	IR84-SB10-00	IR84-SB15-00	IR84-SB21-00	IR84-SB23-00
DEPTH	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
SAMPLE DATE	04-16-1998	04-16-1998	04-16-1998	04-16-1998	04-16-1998	04-16-1998	04-16-1998
VOLATILES (ug/kg)							
2-Butanone	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (ug/kg)							
2-Methylnaphthalene	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl) phthalate	NA	NA	NA	NA	NA	NA	NA

TABLE 4-6 (continued)
POSITIVE DETECTIONS IN SURFACE SOIL SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR84-SB02-00	IR84-SB04-00	IR84-SB08-00	IR84-SB10-00	IR84-SB15-00	IR84-SB21-00	IR84-SB23-00
DEPTH	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
SAMPLE DATE	04-16-1998	04-16-1998	04-16-1998	04-16-1998	04-16-1998	04-16-1998	04-16-1998
HERBICIDES (ug/kg)							
No exceedances							
PESTICIDES/PCBs (ug/kg)							
4,4'-DDD	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA
Heptachlor epoxide	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	NA	NA	NA	NA	NA	NA	NA
PCB-1248	74 U	390 U	350 U	710 U	390 U	36 U	42 U
PCB-1254	74 U	390 U	350 U	710 U	390 U	36 U	42 U
PCB-1260	1000	3900	4300	8100	6800	36 U	42 U
alpha-BHC	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA
METALS (mg/kg)							
Aluminum	NA	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA
Calcium	NA	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA

TABLE 4-6 (continued)
POSITIVE DETECTIONS IN SURFACE SOIL SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR84-SB02-00	IR84-SB04-00	IR84-SB08-00	IR84-SB10-00	IR84-SB15-00	IR84-SB21-00	IR84-SB23-00
DEPTH	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
SAMPLE DATE	04-16-1998	04-16-1998	04-16-1998	04-16-1998	04-16-1998	04-16-1998	04-16-1998
METALS (mg/kg) (Cont.)							
Magnesium	NA	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA
TOTAL PETROLEUM HYDROCARBONS							
TPH (as Diesel) (mg/kg)	NA	NA	NA	NA	NA	NA	NA
TPH (as Gasoline) (ug/kg)	NA	NA	NA	NA	NA	NA	NA
CONVENTIONAL							
Percent Solids (%)	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (mg/kg)	NA	NA	NA	NA	NA	NA	NA

NOTES:

J = Value is estimated

U = Not detected at detection limit

ug/kg = microgram per kilogram

mg/kg = milligram per kilogram

BG = sample was diluted due to matrix interference and 1

N = sample recovery not within control limits

TABLE 4-6 (continued)
POSITIVE DETECTIONS IN SURFACE SOIL SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR84-SB25-00	IR84-SB26-00	IR84-SB27-00	IR84-SB28-00	IR84-SB29-00	IR84-SB30-00	IR84-SB31-00
DEPTH	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
SAMPLE DATE	04-16-1998	04-23-1998	04-23-1998	04-23-1998	04-23-1998	04-23-1998	04-23-1998
VOLATILES (ug/kg)							
2-Butanone	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (ug/kg)							
2-Methylnaphthalene	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl) phthalate	NA	NA	NA	NA	NA	NA	NA

TABLE 4-6 (continued)
POSITIVE DETECTIONS IN SURFACE SOIL SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR84-SB25-00	IR84-SB26-00	IR84-SB27-00	IR84-SB28-00	IR84-SB29-00	IR84-SB30-00	IR84-SB31-00
DEPTH	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
SAMPLE DATE	04-16-1998	04-23-1998	04-23-1998	04-23-1998	04-23-1998	04-23-1998	04-23-1998
HERBICIDES (ug/kg)							
No exceedances							
PESTICIDES/PCBs (ug/kg)							
4,4'-DDD	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA
Heptachlor epoxide	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	NA	NA	NA	NA	NA	NA	NA
PCB-1248	44 U	130 U	1800 U	35 U	460 U	55 U	37 U
PCB-1254	44 U	130 U	1800 U	35 U	460 U	55 U	37 U
PCB-1260	110 J	1500 J	26000	35 U	5800	55 U	37 U
alpha-BHC	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA
METALS (mg/kg)							
Aluminum	NA	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA
Calcium	NA	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA

TABLE 4-6 (continued)
POSITIVE DETECTIONS IN SURFACE SOIL SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR84-SB25-00	IR84-SB26-00	IR84-SB27-00	IR84-SB28-00	IR84-SB29-00	IR84-SB30-00	IR84-SB31-00
DEPTH	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
SAMPLE DATE	04-16-1998	04-23-1998	04-23-1998	04-23-1998	04-23-1998	04-23-1998	04-23-1998
METALS (mg/kg) (Cont.)							
Magnesium	NA	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA
TOTAL PETROLEUM HYDROCARBONS							
TPH (as Diesel) (mg/kg)	NA	NA	NA	NA	NA	NA	NA
TPH (as Gasoline) (ug/kg)	NA	NA	NA	NA	NA	NA	NA
CONVENTIONAL							
Percent Solids (%)	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (mg/kg)	NA	NA	NA	NA	NA	NA	NA

NOTES:

J = Value is estimated

U = Not detected at detection limit

ug/kg = microgram per kilogram

mg/kg = milligram per kilogram

BG = sample was diluted due to matrix interference and I

N = sample recovery not within control limits

TABLE 4-6 (continued)
POSITIVE DETECTIONS IN SURFACE SOIL SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	84-SB01B	84-SB02B	84-SB03B	84-SB04B	84-SB05B	84-SB06B	84-SB07B	84-SB08B
DEPTH	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0
SAMPLE DATE	10-26-1995	10-26-1995	10-26-1995	10-26-1995	10-26-1995	10-26-1995	10-26-1995	10-26-1995
VOLATILES (ug/kg)								
2-Butanone	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (ug/kg)								
2-Methylnaphthalene	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl) phthalate	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 4-6 (continued)
POSITIVE DETECTIONS IN SURFACE SOIL SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	84-SB01B	84-SB02B	84-SB03B	84-SB04B	84-SB05B	84-SB06B	84-SB07B	84-SB08B
DEPTH	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0
SAMPLE DATE	10-26-1995	10-26-1995	10-26-1995	10-26-1995	10-26-1995	10-26-1995	10-26-1995	10-26-1995
HERBICIDES (ug/kg)								
No exceedances								
PESTICIDES/PCBs (ug/kg)								
4,4'-DDD	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor epoxide	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1248	370 U	1900 U	720 U	180 U	370 U	810 U	190 U	1800 U
PCB-1254	370 U	1900 U	720 U	180 U	370 U	810 U	190 U	1800 U
PCB-1260	1700	12000	5700	2300	4300 J	2800	880	6100
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA
METALS (mg/kg)								
Aluminum j	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 4-6 (continued)
POSITIVE DETECTIONS IN SURFACE SOIL SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	84-SB01B	84-SB02B	84-SB03B	84-SB04B	84-SB05B	84-SB06B	84-SB07B	84-SB08B
DEPTH	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0
SAMPLE DATE	10-26-1995	10-26-1995	10-26-1995	10-26-1995	10-26-1995	10-26-1995	10-26-1995	10-26-1995
METALS (mg/kg) (Cont.)								
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PETROLEUM HYDROCARBONS								
TPH (as Diesel) (mg/kg)	NA	NA	NA	NA	NA	NA	NA	NA
TPH (as Gasoline) (ug/kg)	NA	NA	NA	NA	NA	NA	NA	NA
CONVENTIONAL								
Percent Solids (%)	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (mg/kg)	NA	NA	NA	NA	NA	NA	NA	NA

NOTES:

J = Value is estimated

U = Not detected at detection limit

ug/kg = microgram per kilogram

mg/kg = milligram per kilogram

BG = sample was diluted due to matrix interference and l

N = sample recovery not within control limits

TABLE 4-6 (continued)
POSITIVE DETECTIONS IN SURFACE SOIL SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	84-SB09B	84-SB10B	IR84-SB02-01	IR84-SB04-01	IR84-SB08-01	IR84-SB10-01	IR84-SB15-01
DEPTH	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0
SAMPLE DATE	10-26-1995	10-26-1995	04-16-1998	04-16-1998	04-16-1998	04-16-1998	04-16-1998
VOLATILES (ug/kg)							
2-Butanone	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (ug/kg)							
2-Methylnaphthalene	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl) phthalate	NA	NA	NA	NA	NA	NA	NA

TABLE 4-6 (continued)
POSITIVE DETECTIONS IN SURFACE SOIL SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	84-SB09B	84-SB10B	IR84-SB02-01	IR84-SB04-01	IR84-SB08-01	IR84-SB10-01	IR84-SB15-01
DEPTH	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0
SAMPLE DATE	10-26-1995	10-26-1995	04-16-1998	04-16-1998	04-16-1998	04-16-1998	04-16-1998
HERBICIDES (ug/kg)							
No exceedances							
PESTICIDES/PCBs (ug/kg)							
4,4'-DDD	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA
Heptachlor epoxide	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	NA	NA	NA	NA	NA	NA	NA
PCB-1248	1800 U	730 U	41 U	39 U	36 U	360 U	39 U
PCB-1254	1800 U	730 U	41 U	39 U	36 U	360 U	39 U
PCB-1260	10000	7500	110 U	140 U	120 U	2900	530 J
alpha-BHC	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA
METALS (mg/kg)							
Aluminum	NA	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA
Calcium	NA	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA

TABLE 4-6 (continued)
POSITIVE DETECTIONS IN SURFACE SOIL SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	84-SB09B	84-SB10B	IR84-SB02-01	IR84-SB04-01	IR84-SB08-01	IR84-SB10-01	IR84-SB15-01
DEPTH	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0
SAMPLE DATE	10-26-1995	10-26-1995	04-16-1998	04-16-1998	04-16-1998	04-16-1998	04-16-1998
METALS (mg/kg) (Cont.)							
Magnesium	NA	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA
TOTAL PETROLEUM HYDROCARBONS							
TPH (as Diesel) (mg/kg)	NA	NA	NA	NA	NA	NA	NA
TPH (as Gasoline) (ug/kg)	NA	NA	NA	NA	NA	NA	NA
CONVENTIONAL							
Percent Solids (%)	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (mg/kg)	NA	NA	NA	NA	NA	NA	NA

NOTES:

J = Value is estimated

U = Not detected at detection limit

ug/kg = microgram per kilogram

mg/kg = milligram per kilogram

BG = sample was diluted due to matrix interference and 1

N = sample recovery not within control limits

TABLE 4-6 (continued)
POSITIVE DETECTIONS IN SURFACE SOIL SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR84-SB21-01	IR84-SB23-01	IR84-SB25-01	IR84-SB26-01	IR84-SB27-01	IR84-SB28-01	IR84-SB29-01
DEPTH	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0
SAMPLE DATE	04-16-1998	04-16-1998	04-16-1998	04-23-1998	04-23-1998	04-23-1998	04-23-1998
VOLATILES (ug/kg)							
2-Butanone	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (ug/kg)							
2-Methylnaphthalene	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl) phthalate	NA	NA	NA	NA	NA	NA	NA

TABLE 4-6 (continued)
POSITIVE DETECTIONS IN SURFACE SOIL SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR84-SB21-01	IR84-SB23-01	IR84-SB25-01	IR84-SB26-01	IR84-SB27-01	IR84-SB28-01	IR84-SB29-01
DEPTH	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0
SAMPLE DATE	04-16-1998	04-16-1998	04-16-1998	04-23-1998	04-23-1998	04-23-1998	04-23-1998
HERBICIDES (ug/kg)							
No exceedances							
PESTICIDES/PCBs (ug/kg)							
4,4'-DDD	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA
Heptachlor epoxide	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	NA	NA	NA	NA	NA	NA	NA
PCB-1248	36 U	36 U	40 U	40 U	18000 U	35 U	40 U
PCB-1254	36 U	36 U	40 U	40 U	18000 U	35 U	40 U
PCB-1260	62 J	36 U	40 U	40 U	200000	35 U	520
alpha-BHC	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA
METALS (mg/kg)							
Aluminum	NA	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA
Calcium	NA	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA

TABLE 4-6 (continued)
POSITIVE DETECTIONS IN SURFACE SOIL SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR84-SB21-01	IR84-SB23-01	IR84-SB25-01	IR84-SB26-01	IR84-SB27-01	IR84-SB28-01	IR84-SB29-01
DEPTH	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0
SAMPLE DATE	04-16-1998	04-16-1998	04-16-1998	04-23-1998	04-23-1998	04-23-1998	04-23-1998
METALS (mg/kg) (Cont.)							
Magnesium	NA	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA
TOTAL PETROLEUM HYDROCARBONS							
TPH (as Diesel) (mg/kg)	NA	NA	NA	NA	NA	NA	NA
TPH (as Gasoline) (ug/kg)	NA	NA	NA	NA	NA	NA	NA
CONVENTIONAL							
Percent Solids (%)	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (mg/kg)	NA	NA	NA	NA	NA	NA	NA

NOTES:

J = Value is estimated

U = Not detected at detection limit

ug/kg = microgram per kilogram

mg/kg = milligram per kilogram

BG = sample was diluted due to matrix interference and l

N = sample recovery not within control limits

TABLE 4-6 (continued)
POSITIVE DETECTIONS IN SURFACE SOIL SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR84-SB30-01	IR84-SB31-01
DEPTH	0.5 - 1.0	0.5 - 1.0
SAMPLE DATE	04-23-1998	04-23-1998
VOLATILES (ug/kg)		
2-Butanone	NA	NA
Acetone	NA	NA
Ethylbenzene	NA	NA
Xylenes (total)	NA	NA
SEMIVOLATILES (ug/kg)		
2-Methylnaphthalene	NA	NA
Acenaphthene	NA	NA
Anthracene	NA	NA
Benzo(a)anthracene	NA	NA
Benzo(a)pyrene	NA	NA
Benzo(b)fluoranthene	NA	NA
Benzo(ghi)perylene	NA	NA
Benzo(k)fluoranthene	NA	NA
Carbazole	NA	NA
Chrysene	NA	NA
Dibenz(a,h)anthracene	NA	NA
Dibenzofuran	NA	NA
Dibenzothiophene	NA	NA
Fluoranthene	NA	NA
Fluorene	NA	NA
Hexachlorocyclopentadiene	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA
Naphthalene	NA	NA
Phenanthrene	NA	NA
Pyrene	NA	NA
bis(2-Ethylhexyl) phthalate	NA	NA

TABLE 4-6 (continued)
POSITIVE DETECTIONS IN SURFACE SOIL SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR84-SB30-01	IR84-SB31-01
DEPTH	0.5 - 1.0	0.5 - 1.0
SAMPLE DATE	04-23-1998	04-23-1998
HERBICIDES (ug/kg)		
No exceedances		
PESTICIDES/PCBs (ug/kg)		
4,4'-DDD	NA	NA
4,4'-DDE	NA	NA
4,4'-DDT	NA	NA
Dieldrin	NA	NA
Endosulfan sulfate	NA	NA
Endrin	NA	NA
Endrin aldehyde	NA	NA
Endrin ketone	NA	NA
Heptachlor	NA	NA
Heptachlor epoxide	NA	NA
Methoxychlor	NA	NA
PCB-1248	44 U	36 U
PCB-1254	44 U	36 U
PCB-1260	44 U	36 U
alpha-BHC	NA	NA
alpha-Chlordane	NA	NA
gamma-Chlordane	NA	NA
METALS (mg/kg)		
Aluminum	NA	NA
Antimony	NA	NA
Arsenic	NA	NA
Barium	NA	NA
Beryllium	NA	NA
Cadmium	NA	NA
Calcium	NA	NA
Chromium	NA	NA
Cobalt	NA	NA
Copper	NA	NA
Iron	NA	NA
Lead	NA	NA

TABLE 4-6 (continued)
POSITIVE DETECTIONS IN SURFACE SOIL SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR84-SB30-01	IR84-SB31-01
DEPTH	0.5 - 1.0	0.5 - 1.0
SAMPLE DATE	04-23-1998	04-23-1998

METALS (mg/kg) (Cont.)

Magnesium	NA	NA
Manganese	NA	NA
Mercury	NA	NA
Nickel	NA	NA
Potassium	NA	NA
Selenium	NA	NA
Sodium	NA	NA
Thallium	NA	NA
Vanadium	NA	NA
Zinc	NA	NA

TOTAL PETROLEUM HYDROCARBONS

TPH (as Diesel) (mg/kg)	NA	NA
TPH (as Gasoline) (ug/kg)	NA	NA

CONVENTIONAL

Percent Solids (%)	NA	NA
Total Organic Carbon (mg/kg)	NA	NA

NOTES:

J = Value is estimated

U = Not detected at detection limit

ug/kg = microgram per kilogram

mg/kg = milligram per kilogram

BG = sample was diluted due to matrix interference and I

N = sample recovery not within control limits

TABLE 4-8
POSITIVE DETECTIONS IN SUBSURFACE SOILS
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	84-MW15-04	84-MW16-07	84-MW17-07	IR84-MW18-04	IR84-MW19-06	IR84-MW21-04	IR84-MW22-02
DEPTH	7 - 9	13 - 15	13 - 15	7 - 9	11 - 13	7 - 9	3 - 5
SAMPLE DATE	07-31-2001	07-31-2001	07-31-2001	08-01-2001	08-01-2001	08-02-2001	08-03-2001
VOLATILES (ug/kg)							
1,2-Dichloroethene (total)	36 U	NA	32 U	NA	NA	1.6 U	1.3 U
2-Butanone	100 U	NA	88 U	NA	NA	3.8 J	2.6 U
Acetone	93 U	NA	82 U	NA	NA	18 J	2 U
Benzene	160 J	NA	19 U	NA	NA	0.72 U	0.62 U
Chloroform	12 U	NA	11 U	NA	NA	0.91 U	0.98 J
Ethylbenzene	1000	NA	15 U	NA	NA	0.66 U	0.56 U
Methylene chloride	51 U	NA	270 U	NA	NA	1.4 U	1.2 U
Styrene	21 U	NA	19 U	NA	NA	0.56 U	0.47 U
Toluene	310 U	NA	11 U	NA	NA	0.59 U	0.5 U
Xylenes (total)	2800	NA	21 U	NA	NA	2.1 U	1.8 U
SEMIVOLATILES (ug/kg)							
2-Methylnaphthalene	27000	NA	57 U	NA	NA	58 U	57 U
Acenaphthene	640 U	NA	60 U	NA	NA	62 U	60 U
Anthracene	610 U	NA	58 U	NA	NA	59 U	58 U
Benzo(a)anthracene	690 U	NA	65 U	NA	NA	67 U	65 U
Benzo(a)pyrene	750 U	NA	71 U	NA	NA	73 U	71 U
Benzo(b)fluoranthene	720 U	NA	69 U	NA	NA	70 U	69 U
Benzo(ghi)perylene	690 U	NA	65 U	NA	NA	67 U	65 U
Benzo(k)fluoranthene	660 U	NA	63 U	NA	NA	64 U	63 U
Carbazole	650 U	NA	62 U	NA	NA	63 U	62 U
Chrysene	570 U	NA	54 U	NA	NA	56 U	54 U
Dibenz(a,h)anthracene	640 U	NA	60 U	NA	NA	62 U	60 U
Dibenzofuran	620 U	NA	59 U	NA	NA	61 U	59 U
Fluoranthene	700 U	NA	66 U	NA	NA	68 U	66 U
Fluorene	600 U	NA	57 U	NA	NA	58 U	57 U
Hexachlorocyclopentadiene	750 U	NA	71 U	NA	NA	73 U	71 U
Indeno(1,2,3-cd)pyrene	870 U	NA	83 U	NA	NA	85 U	83 U

TABLE 4-8 (continued)
 POSITIVE DETECTIONS IN SUBSURFACE SOILS
 REMEDIAL INVESTIGATION, CTO-0219
 OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
 MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID DEPTH SAMPLE DATE	84-MW15-04 7 - 9 07-31-2001	84-MW16-07 13 - 15 07-31-2001	84-MW17-07 13 - 15 07-31-2001	IR84-MW18-04 7 - 9 08-01-2001	IR84-MW19-06 11 - 13 08-01-2001	IR84-MW21-04 7 - 9 08-02-2001	IR84-MW22-02 3 - 5 08-03-2001
Naphthalene	8500	NA	58 U	NA	NA	59 U	58 U
Phenanthrene	3400 J	NA	62 U	NA	NA	63 U	62 U
Phthalic anhydride	NA	NA	NA	NA	NA	NA	NA
Pyrene	640 U	NA	60 U	NA	NA	62 U	60 U
bis(2-Chloroethoxy)methane	590 U	NA	56 U	NA	NA	57 U	56 U
bis(2-Ethylhexyl) phthalate	670 U	NA	91 J	NA	NA	150 J	1800
HERBICIDES (ug/kg)							
No exceedances							
PESTICIDES/PCBs (ug/kg)							
4,4'-DDD	2 U	NA	0.93 U	NA	NA	0.96 U	0.93 U
4,4'-DDE	1.4 U	NA	0.67 U	NA	NA	0.69 U	0.67 U
4,4'-DDT	3.2 U	NA	1.5 U	NA	NA	1.6 U	1.5 U
Dieldrin	3.7 U	NA	1.8 U	NA	NA	1.8 U	1.8 U
Endrin aldehyde	3.7 U	NA	1.8 U	NA	NA	1.8 U	1.8 U
Heptachlor	1.5 U	NA	0.72 U	NA	NA	0.74 U	0.72 U
Heptachlor epoxide	1.6 U	NA	0.78 U	NA	NA	0.8 U	0.78 U
Methoxychlor	2 U	NA	0.97 U	NA	NA	2.9 J	0.97 U
PCB-1248	5.7 U	5.7 U	5.4 U	5.6 U	5.7 U	5.6 U	5.4 U
PCB-1254	25 U	25 U	24 U	24 U	25 U	24 U	24 U
PCB-1260	54	9.2 U	8.8 U	8.9 U	9.2 U	9 U	8.8 U
alpha-Chlordane	1.5 U	NA	0.7 U	NA	NA	0.71 U	0.7 U
beta-BHC	1.1 U	NA	1.7 J	NA	NA	0.56 U	0.54 U
gamma-Chlordane	1.4 U	NA	0.67 U	NA	NA	0.69 U	0.67 U
METALS (mg/kg)							
Aluminum	2360	NA	630	NA	NA	4610	3470
Antimony	0.61 UJ	NA	0.58 UJ	NA	NA	0.59 UJ	0.58 U
Arsenic	0.62 J	NA	0.35 U	NA	NA	0.38 J	0.58 J
Barium	12.8 J	NA	0.92 J	NA	NA	8.8 U	6 J
Beryllium	0.057 U	NA	0.054 U	NA	NA	0.056 U	0.054 U
Cadmium	0.054 U	NA	0.051 U	NA	NA	0.052 U	0.051 U
Calcium	390 J	NA	71.4 J	NA	NA	971 J	385 J
Chromium	3.6	NA	1.2	NA	NA	4.1	5.7

TABLE 4-8 (continued)
POSITIVE DETECTIONS IN SUBSURFACE SOILS
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	84-MW15-04	84-MW16-07	84-MW17-07	IR84-MW18-04	IR84-MW19-06	IR84-MW21-04	IR84-MW22-02
DEPTH	7 - 9	13 - 15	13 - 15	7 - 9	11 - 13	7 - 9	3 - 5
SAMPLE DATE	07-31-2001	07-31-2001	07-31-2001	08-01-2001	08-01-2001	08-02-2001	08-03-2001
Cobalt	0.29 J	NA	0.18 U	NA	NA	0.18 U	0.29 J
Copper	0.63 J	NA	0.32 U	NA	NA	0.34 J	1.8 J
Iron	1140	NA	549	NA	NA	801	2670
Lead	3	NA	0.87	NA	NA	3.5 J	3.7
Magnesium	117 J	NA	16.4 J	NA	NA	117 J	111 J
Manganese	6.5	NA	1.5 J	NA	NA	5.2	6.2
Mercury	0.014 J	NA	0.0099 U	NA	NA	0.037 J	0.018 J
Nickel	0.51 J	NA	0.32 U	NA	NA	0.65 J	1.3 J
METALS (mg/kg) (cont.)							
Potassium	96.7 J	NA	21.3 J	NA	NA	81.6 J	92.5 J
Selenium	0.39 U	NA	0.37 U	NA	NA	0.38 U	0.37 U
Sodium	62.4 U	NA	59.2 U	NA	NA	60.6 U	59.2 U
Thallium	0.62 U	NA	0.59 U	NA	NA	0.61 U	0.59 U
Vanadium	4.2 J	NA	1.2 J	NA	NA	2.3 J	5.8 J
Zinc	2.1 J	NA	2.7	NA	NA	1.5 U	4
TOTAL PETROLEUM HYDROCARBONS							
TPH (as Diesel) (mg/kg)	NA	NA	NA	NA	NA	NA	NA
TPH (as Gasoline) (ug/kg)	NA	NA	NA	NA	NA	NA	NA
CONVENTIONAL							
Percent Solids (%)	80.1	80.5	84.5	82.9	80.4	82.5	84.5

NOTES:

NA = Not analyzed

U = Not detected at method detection limit

J = Value is estimated

B (inorganics) = value is less than contract required
detection limit but greater than instrument detection
limit

N = sample recovery not within control limits

ug/kg- micrograms per kilogram
mg/kg- milligrams per kilogram

TABLE 4-8 (continued)
POSITIVE DETECTIONS IN SUBSURFACE SOILS
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR84-MW23-01	IR84-DP15-03	IR84-DP18-02	IR84-DP45-03	IR84-DP46-02	IR84-DP47-01	IR84-DP49-01	IR84-DP50-01
DEPTH	1 - 3	5 - 7	3 - 5	5 - 7	3 - 5	1 - 3	1 - 3	1 - 3
SAMPLE DATE	08-03-2001	07-18-2001	07-19-2001	07-21-2001	07-21-2001	07-21-2001	07-21-2001	07-21-2001
VOLATILES (ug/kg)								
1,2-Dichloroethene (total)	2 U	93 U	NA	1.5 U	1.6 U	1.6 U	1.5 U	1.5 U
2-Butanone	3.8 U	260 U	NA	3 U	3 U	3 U	2.9 U	2.9 U
Acetone	14 J	240 U	NA	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U
Benzene	0.92 U	54 U	NA	0.72 U	0.72 U	0.72 U	0.7 U	0.69 U
Chloroform	1.2 U	32 U	NA	0.91 U	0.91 U	0.91 U	0.89 U	0.87 U
Ethylbenzene	0.89 J	140 J	NA	0.65 U	0.65 U	0.65 U	0.64 U	0.63 U
Methylene chloride	1.8 U	130 U	NA	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
Styrene	2.1 J	54 U	NA	0.55 U	0.55 U	0.55 U	0.54 U	0.53 U
Toluene	0.75 U	32 U	NA	0.59 U	0.59 U	0.59 U	0.57 U	0.56 U
Xylenes (total)	4.1 J	63 U	NA	2.1 U	2.1 U	2.1 U	2.1 U	2 U
SEMIVOLATILES (ug/kg)								
2-Methylnaphthalene	72 U	9100	NA	53 U	130 U	53 U	52 U	51 U
Acenaphthene	77 U	950 J	NA	61 J	370 J	230 J	55 U	54 U
Anthracene	74 U	630 U	NA	190 J	830 J	320 J	53 U	52 U
Benzo(a)anthracene	83 U	700 U	NA	780	3000	640	60 U	58 U
Benzo(a)pyrene	90 U	770 U	NA	660	2600	590	65 U	64 U
Benzo(b)fluoranthene	87 U	740 U	NA	880	2800	720	63 U	62 U
Benzo(ghi)perylene	83 U	700 U	NA	350 J	1200	340 J	60 U	58 U
Benzo(k)fluoranthene	80 U	680 U	NA	280 J	1700	350 J	57 U	56 U
Carbazole	78 U	660 U	NA	110 J	480 J	180 J	56 U	55 U
Chrysene	69 U	590 U	NA	750	3100	710	50 U	49 U
Dibenz(a,h)anthracene	77 U	650 U	NA	98 J	430 J	100 J	55 U	54 U
Dibenzofuran	75 U	1300 J	NA	55 U	200 J	160 J	54 U	53 U
Fluoranthene	84 U	720 U	NA	1200	4800	1500	61 U	60 U
Fluorene	72 U	1500 J	NA	61 J	310 J	230 J	52 U	51 U
Hexachlorocyclopentadiene	90 U	770 U	NA	66 U	170 U	94 J	65 U	64 U
Indeno(1,2,3-cd)pyrene	110 U	890 U	NA	340 J	1200	350 J	76 U	74 U

TABLE 4-8 (continued)
POSITIVE DETECTIONS IN SUBSURFACE SOILS
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR84-MW23-01	IR84-DP15-03	IR84-DP18-02	IR84-DP45-03	IR84-DP46-02	IR84-DP47-01	IR84-DP49-01	IR84-DP50-01
DEPTH	1 - 3	5 - 7	3 - 5	5 - 7	3 - 5	1 - 3	1 - 3	1 - 3
SAMPLE DATE	08-03-2001	07-18-2001	07-19-2001	07-21-2001	07-21-2001	07-21-2001	07-21-2001	07-21-2001
Naphthalene	74 U	2000 J	NA	54 U	140 U	55 J	53 U	52 U
Phenanthrene	78 U	3400 J	NA	610	3100	1400	56 U	55 U
Phthalic anhydride		NA	NA	NA	NA	NA	NA	NA
Pyrene	77 U	650 U	NA	900	4100	1100	55 U	54 U
bis(2-Chloroethoxy)methane	71 U	600 U	NA	52 U	130 U	52 U	51 U	50 U
bis(2-Ethylhexyl) phthalate	81 U	690 U	NA	300 J	150 J	60 U	59 U	57 U
HERBICIDES (ug/kg)								
No exceedances								
PESTICIDES/PCBs (ug/kg)								
4,4'-DDD	5.3	9.1 J	NA	46 J	88 U	880 U	0.86 U	0.84 U
4,4'-DDE	1.7 U	3.6 U	NA	13 U	63 U	630 U	0.62 U	0.61 U
4,4'-DDT	3.9 U	8.3 U	NA	29 U	140 U	1400 U	1.4 U	1.4 U
Dieldrin	4.5 U	9.6 U	NA	33 U	170 U	1700 U	1.8	1.6 U
Endrin aldehyde	4.5 U	10 J	NA	33 U	170 U	1700 U	1.6 U	1.6 U
Heptachlor	1.8 U	3.9 U	NA	200 J	790	6900	1.6 J	2.4
Heptachlor epoxide	2 U	4.2 U	NA	63 J	200 J	730 U	0.72 U	0.7 U
Methoxychlor	2.5 U	24 J	NA	18 U	91 U	910 U	0.89 U	0.87 U
PCB-1248	6.9 U	59 U	520 U	510 U	510 U	47000	5 U	4.9 U
PCB-1254	30 U	260 U	2300 U	2200 U	5000	2200 U	22 U	21 U
PCB-1260	11 U	1100	45000	820 U	820 U	820 U	8 U	7.9 U
alpha-Chlordane	1.8 U	3.8 U	NA	620 J	2200 J	14000 J	0.64 U	0.63 U
beta-BHC	1.4 U	2.9 U	NA	10 U	51 U	510 U	0.5 U	0.49 U
gamma-Chlordane	1.7 U	3.6 U	NA	730	2600	18000	0.62 U	0.61 U
METALS (mg/kg)								
Aluminum	4900	6500	NA	3140	2770	2740	2860	3050
Antimony	0.74 U	1.3 B	NA	0.54 U	0.54 U	0.6 J	1.2 J	1.2 J
Arsenic	0.94 B	2	NA	0.37 J	0.63 J	0.7 J	1.2	1.5
Barium	21.6 B	15.1 J	NA	6.2 J	7.1 J	11.8 J	24.3	23.5
Beryllium	0.1 B	0.13 B	NA	0.051 U	0.051 U	0.064 J	0.058 J	0.051 J
Cadmium	0.065 U	0.097 J	NA	0.048 U	0.048 U	0.048 U	0.18 J	0.15 J
Calcium	1400	21500	NA	3260 J	3220 J	1640 J	2270 J	8790 J
Chromium	4.8	9.7	NA	9.9	3.5	2.8	4.1	4.8

TABLE 4-8 (continued)
POSITIVE DETECTIONS IN SUBSURFACE SOILS
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID DEPTH SAMPLE DATE	IR84-MW23-01 1 - 3 08-03-2001	IR84-DP15-03 5 - 7 07-18-2001	IR84-DP18-02 3 - 5 07-19-2001	IR84-DP45-03 5 - 7 07-21-2001	IR84-DP46-02 3 - 5 07-21-2001	IR84-DP47-01 1 - 3 07-21-2001	IR84-DP49-01 1 - 3 07-21-2001	IR84-DP50-01 1 - 3 07-21-2001
Cobalt	0.38 B	0.68 J	NA	0.37 J	0.17 U	0.21 J	0.36 J	0.51 J
Copper	4.2	5.1	NA	3.4	3	1.8 J	22.2	25.5
Iron	1700	6140	NA	2320	1710	1680	2190	5400
Lead	9.1	11.4	NA	5	8.9	5.7	52.7	40.9
Magnesium	168 B	648	NA	147 J	124 J	101 J	178 J	200 J
Manganese	7.8	35	NA	9.7	6.4	10	18.8	40
Mercury	0.028 B	0.02 J	NA	0.013 J	0.055 J	0.023 J	0.038 J	0.026 J
Nickel	1.1 B	2.3 J	NA	1.1 J	0.91 J	0.91 J	1.8 J	3.5 J
METALS (mg/kg) (cont.)								
Potassium	111 B	134 J	NA	102 J	137 J	102 J	104 J	109 J
Selenium	0.47 U	0.82 U	NA	0.34 U	0.34 U	0.39 U	0.34 U	0.33 U
Sodium	75.4 U	63.8 U	NA	55.3 U	55.5 U	55.4 U	54.2 U	53.2 U
Thallium	0.75 U	0.64 U	NA	0.55 U	0.55 U	0.55 U	0.54 U	0.53 U
Vanadium	7.2 B	11.2	NA	5 J	4.5 J	4.4 J	4.8 J	5.6
Zinc	13.7	19.4 J	NA	16.2 J	23 J	6.8 J	42.6 J	32.7 J
TOTAL PETROLEUM HYDROCARBONS								
TPH (as Diesel) (mg/kg)	NA	5500	NA	27	61	67	19	15
TPH (as Gasoline) (ug/kg)	NA	580000	NA	19 U	220	19 U	18 U	18 U
CONVENTIONAL								
Percent Solids (%)	66.3	78.3	88.9	90.4	90.2	90.2	92.2	94.1

NOTES:

NA = Not analyzed

U = Not detected at method detection limit

J = Value is estimated

B (inorganics) = value is less than contract required detection limit but greater than instrument detection limit

N = sample recovery not within control limits

ug/kg- micrograms per kilogram

mg/kg- milligrams per kilogram

TABLE 4-8 (continued)
POSITIVE DETECTIONS IN SUBSURFACE SOILS
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR84-DP51-01	IR84-DP52-01	IR84-DP63-01	IR84-DP65-02	IR84-DP74-04	IR84-DP75-05	IR84-DP76-04	IR84-DP77-03
DEPTH	1 - 3	1 - 3	1 - 3	3 - 5	7 - 9	9 - 11	7 - 9	5 - 7
SAMPLE DATE	07-21-2001	07-21-2001	07-22-2001	07-22-2001	08-02-2001	08-02-2001	08-02-2001	08-05-2001
VOLATILES (ug/kg)								
1,2-Dichloroethene (total)	1.5 U	1.5 U	NA	NA	1.5 U	37 U	1.6 U	1.6 U
2-Butanone	3 U	3 U	NA	NA	2.9 U	100 U	3.2 U	3.1 U
Acetone	2.3 U	2.3 U	NA	NA	2.2 U	95 U	2.5 U	2.4 U
Benzene	0.72 U	0.72 U	NA	NA	0.69 U	120 J	0.76 U	0.74 U
Chloroform	0.91 U	0.91 U	NA	NA	0.87 U	13 U	0.96 U	0.93 U
Ethylbenzene	0.65 U	0.65 U	NA	NA	0.63 U	1300	0.69 U	0.67 U
Methylene chloride	1.4 U	1.4 U	NA	NA	1.4 U	52 U	1.5 U	1.5 U
Styrene	0.55 U	0.55 U	NA	NA	0.53 U	21 U	0.59 U	0.57 U
Toluene	0.59 U	0.59 U	NA	NA	0.56 U	75 J	0.62 U	0.6 U
Xylenes (total)	2.1 U	2.1 U	NA	NA	2 U	3100	2.2 U	2.2 U
SEMIVOLATILES (ug/kg)								
2-Methylnaphthalene	53 U	53 U	NA	NA	59 U	1000	58 U	56 U
Acenaphthene	56 U	56 U	NA	NA	62 U	66 U	62 U	60 U
Anthracene	54 U	54 U	NA	NA	60 U	63 U	59 U	58 U
Benzo(a)anthracene	61 U	61 U	NA	NA	67 U	71 U	66 U	65 U
Benzo(a)pyrene	66 U	66 U	NA	NA	73 U	77 U	73 U	71 U
Benzo(b)fluoranthene	64 U	77 J	NA	NA	71 U	75 U	70 U	68 U
Benzo(ghi)perylene	65 J	83 J	NA	NA	67 U	71 U	66 U	65 U
Benzo(k)fluoranthene	59 U	59 U	NA	NA	65 U	68 U	64 U	62 U
Carbazole	57 U	58 U	NA	NA	63 U	67 U	63 U	61 U
Chrysene	51 U	57 J	NA	NA	56 U	59 U	56 U	54 U
Dibenz(a,h)anthracene	56 U	56 U	NA	NA	62 U	66 U	62 U	60 U
Dibenzofuran	55 U	55 U	NA	NA	61 U	64 U	60 U	59 U
Fluoranthene	62 U	74 J	NA	NA	68 U	72 U	68 U	66 U
Fluorene	53 U	53 U	NA	NA	59 U	80 J	58 U	56 U
Hexachlorocyclopentadiene	66 U	66 U	NA	NA	73 U	77 U	73 U	71 U
Indeno(1,2,3-cd)pyrene	77 U	77 U	NA	NA	85 U	90 U	85 U	82 U

TABLE 4-8 (continued)
 POSITIVE DETECTIONS IN SUBSURFACE SOILS
 REMEDIAL INVESTIGATION, CTO-0219
 OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
 MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID DEPTH SAMPLE DATE	IR84-DP51-01 1 - 3 07-21-2001	IR84-DP52-01 1 - 3 07-21-2001	IR84-DP63-01 1 - 3 07-22-2001	IR84-DP65-02 3 - 5 07-22-2001	IR84-DP74-04 7 - 9 08-02-2001	IR84-DP75-05 9 - 11 08-02-2001	IR84-DP76-04 7 - 9 08-02-2001	IR84-DP77-03 5 - 7 08-05-2001
Naphthalene	54 U	54 U	NA	NA	60 U	400 J	59 U	58 U
Phenanthrene	57 U	58 U	NA	NA	63 U	150 J	63 U	61 U
Phthalic anhydride	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	56 U	69 J	NA	NA	62 U	66 U	62 U	60 U
bis(2-Chloroethoxy)methane	52 U	52 U	NA	NA	57 U	61 U	57 U	55 U
bis(2-Ethylhexyl) phthalate	60 U	60 U	NA	NA	66 U	70 U	65 U	63 U
HERBICIDES (ug/kg)								
No exceedances								
PESTICIDES/PCBs (ug/kg)								
4,4'-DDD	5.5	4.4 U	NA	NA	0.96 U	1 U	0.95 U	0.93 U
4,4'-DDE	9.4	16	NA	NA	0.7 U	0.73 U	0.69 U	0.67 U
4,4'-DDT	30	120 J	NA	NA	1.6 U	1.7 U	1.6 U	1.5 U
Dieldrin	3.3 U	8.3 U	NA	NA	1.8 U	1.9 U	1.8 U	1.8 U
Endrin aldehyde	3.3 U	8.3 U	NA	NA	1.8 U	1.9 U	1.8 U	1.8 U
Heptachlor	1.3 U	3.4 U	NA	NA	0.74 U	0.79 U	0.74 U	0.72 U
Heptachlor epoxide	1.5 U	3.7 U	NA	NA	0.81 U	0.85 U	0.8 U	0.78 U
Methoxychlor	1.8 U	14 J	NA	NA	1 U	1.1 U	0.99 U	0.96 U
PCB-1248	5.1 U	51 U	52 U	530 U	5.6 U	5.9 U	5.6 U	5.4 U
PCB-1254	22 U	220 U	230 U	2300 U	24 U	26 U	24 U	24 U
PCB-1260	23 J	1300	2500	8900	9 U	9.5 U	8.9 U	8.7 U
alpha-Chlordane	1.3 U	9.4	NA	NA	0.72 U	0.76 U	0.71 U	0.69 U
beta-BHC	1 U	2.5 U	NA	NA	0.56 U	0.59 U	0.56 U	0.54 U
gamma-Chlordane	1.3 U	10	NA	NA	0.7 U	0.73 U	0.69 U	0.67 U
METALS (mg/kg)								
Aluminum	2000	1680	NA	NA	2990	2550	3110	7210
Antimony	0.54 U	0.54 U	NA	NA	0.6 UJ	0.63 UJ	0.59 UJ	0.58 UJ
Arsenic	0.36 J	0.57 J	NA	NA	0.4 J	0.39 U	0.53 J	0.78 J
Barium	14 J	11.7 J	NA	NA	4 U	2.9 U	4.8 U	11.2 J
Beryllium	0.051 U	0.051 U	NA	NA	0.056 U	0.059 U	0.056 U	0.12 U
Cadmium	0.061 J	0.087 J	NA	NA	0.052 U	0.055 U	0.052 U	0.051 U
Calcium	16400 J	12100 J	NA	NA	253 J	164 J	231 J	931
Chromium	2.6	2.7	NA	NA	3.3	2.2	3.6	9.3

TABLE 4-8 (continued)
POSITIVE DETECTIONS IN SUBSURFACE SOILS
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID DEPTH SAMPLE DATE	IR84-DP51-01 1 - 3 07-21-2001	IR84-DP52-01 1 - 3 07-21-2001	IR84-DP63-01 1 - 3 07-22-2001	IR84-DP65-02 3 - 5 07-22-2001	IR84-DP74-04 7 - 9 08-02-2001	IR84-DP75-05 9 - 11 08-02-2001	IR84-DP76-04 7 - 9 08-02-2001	IR84-DP77-03 5 - 7 08-05-2001
Cobalt	0.25 J	0.69 J	NA	NA	0.31 J	0.19 U	0.27 J	0.51 J
Copper	2.7 J	3.3	NA	NA	0.33 U	0.37 J	0.33 U	1.4 J
Iron	1110	1050	NA	NA	1250	155	1120	1850
Lead	10.2	12.2	NA	NA	2.7 J	3.8 J	3.1 J	5.5
Magnesium	255 J	209 J	NA	NA	105 J	40.2 J	88.6 J	229 J
Manganese	19	10.7	NA	NA	2.4	1.5 J	4.4	4.2
Mercury	0.02 J	0.01 J	NA	NA	0.013 J	0.021 J	0.019 J	0.0099 U
Nickel	1.1 J	1.5 J	NA	NA	1 J	0.48 J	0.88 J	1.3 J
METALS (mg/kg) (cont.)								
Potassium	84.3 J	76.3 J	NA	NA	86.7 J	41.5 J	65.9 J	195 J
Selenium	0.34 U	0.34 U	NA	NA	0.39 J	0.69	0.45 J	0.36 U
Sodium	55.3 U	55.4 U	NA	NA	61 U	64.4 U	60.4 U	58.8 U
Thallium	0.55 U	0.55 U	NA	NA	0.65 J	0.64 U	0.6 U	0.59 U
Vanadium	3.1 J	3.5 J	NA	NA	3.4 J	2.3 J	4 J	8.1
Zinc	11.9 J	13.5 J	NA	NA	1.5 U	1.5 U	2 J	2.7 J
TOTAL PETROLEUM HYDROCARBONS								
TPH (as Diesel) (mg/kg)	27	100	NA	NA	NA	NA	NA	NA
TPH (as Gasoline) (ug/kg)	19 U	19 U	NA	NA	NA	NA	NA	NA
CONVENTIONAL								
Percent Solids (%)	90.5	90.3	88.6	86.9	81.9	77.6	82.8	85.1

NOTES:

NA = Not analyzed

U = Not detected at method detection limit

J = Value is estimated

B (inorganics) = value is less than contract required
detection limit but greater than instrument detection
limit

N = sample recovery not within control limits

ug/kg- micrograms per kilogram
mg/kg- milligrams per kilogram

TABLE 4-8 (continued)
 POSITIVE DETECTIONS IN SUBSURFACE SOILS
 REMEDIAL INVESTIGATION, CTO-0219
 OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
 MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR84-DP78-03	IR84-DP79-02	IR84-DP79-02D	IR84-DP80-02	IR84-DP81-04	IR84-DP82-04	IR84-DP83-03	IR84-SB01-02
DEPTH	5 - 7	3 - 5	3 - 5	3 - 5	7 - 9	7 - 9	5 - 7	3 - 5
SAMPLE DATE	08-05-2001	08-05-2001	08-05-2001	08-05-2001	08-05-2001	08-05-2001	08-05-2001	08-02-2001
VOLATILES (ug/kg)								
1,2-Dichloroethene (total)	1.4 U	1.5 U	1.6 U	1.4 U	1.5 U	91 J	1.5 U	1.4 U
2-Butanone	2.7 U	2.8 U	3.1 U	2.7 U	2.9 U	76 U	2.8 U	2.7 U
Acetone	2.1 U	2.2 U	2.4 U	2.1 U	2.2 U	940 U	2.2 U	2.1 U
Benzene	0.65 U	0.68 U	0.74 U	0.64 U	0.7 U	16 U	0.68 U	0.65 U
Chloroform	0.82 U	0.86 U	0.93 U	0.81 U	0.88 U	9.4 U	0.86 U	0.82 U
Ethylbenzene	0.59 U	0.62 U	0.67 U	0.58 U	0.63 U	250	0.62 U	0.59 U
Methylene chloride	1.3 J	1.4 U	1.5 U	1.3 U	1.4 U	38 U	1.4 U	1.3 U
Styrene	0.5 U	0.52 U	0.57 U	0.49 U	0.53 U	16 U	0.52 U	0.50 U
Toluene	0.53 U	0.56 U	0.6 U	0.52 U	0.57 U	9.4 U	0.55 U	0.53 U
Xylenes (total)	1.9 U	2 U	2.2 U	1.9 U	2 U	95 J	2 U	1.9 U
SEMIVOLATILES (ug/kg)								
2-Methylnaphthalene	57 U	52 U	56 U	52 U	55 U	50 U	51 U	54 U
Acenaphthene	61 U	56 U	60 U	55 U	59 U	53 U	54 U	58 U
Anthracene	59 U	53 U	58 U	53 U	56 U	51 U	52 U	56 U
Benzo(a)anthracene	66 U	60 U	65 U	59 U	63 U	57 U	58 U	62 U
Benzo(a)pyrene	72 U	65 U	70 U	65 U	69 U	63 U	63 U	68 U
Benzo(b)fluoranthene	69 U	63 U	68 U	63 U	67 U	60 U	61 U	68 J
Benzo(ghi)perylene	66 U	60 U	65 U	59 U	63 U	57 U	58 U	62 U
Benzo(k)fluoranthene	63 U	58 U	62 U	57 U	61 U	55 U	56 U	60 U
Carbazole	62 U	57 U	61 U	56 U	60 U	54 U	55 U	59 U
Chrysene	55 U	50 U	54 U	50 U	53 U	48 U	49 U	52 U
Dibenz(a,h)anthracene	61 U	56 U	60 U	55 U	59 U	53 U	54 U	58 U
Dibenzofuran	60 U	55 U	59 U	54 U	58 U	52 U	53 U	57 U
Fluoranthene	67 U	61 U	66 U	60 U	64 U	58 U	59 U	63 U
Fluorene	57 U	52 U	56 U	52 U	55 U	50 U	51 U	54 U
Hexachlorocyclopentadiene	72 U	65 U	70 U	65 U	69 U	63 U	63 U	68 U
Indeno(1,2,3-cd)pyrene	84 U	76 U	82 U	76 U	81 U	73 U	74 U	79 U

TABLE 4-8 (continued)
POSITIVE DETECTIONS IN SUBSURFACE SOILS
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR84-DP78-03	IR84-DP79-02	IR84-DP79-02D	IR84-DP80-02	IR84-DP81-04	IR84-DP82-04	IR84-DP83-03	IR84-SB01-02
DEPTH	5 - 7	3 - 5	3 - 5	3 - 5	7 - 9	7 - 9	5 - 7	3 - 5
SAMPLE DATE	08-05-2001	08-05-2001	08-05-2001	08-05-2001	08-05-2001	08-05-2001	08-05-2001	08-02-2001
Naphthalene	59 U	53 U	58 U	53 U	56 U	51 U	52 U	56 U
Phenanthrene	62 U	57 U	61 U	56 U	60 U	54 U	55 U	59 U
Phthalic anhydride	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	61 U	56 U	60 U	55 U	59 U	53 U	54 U	58 U
bis(2-Chloroethoxy)methane	56 U	51 U	55 U	51 U	54	49 U	50 U	53 U
bis(2-Ethylhexyl) phthalate	65 U	730 J	63 U	160 J	62 U	56 U	57 U	61 U
HERBICIDES (ug/kg)								
No exceedances								
PESTICIDES/PCBs (ug/kg)								
4,4'-DDD	0.94 U	0.86 U	0.93 U	0.85 U	0.91 U	0.82 U	0.83 U	0.9 U
4,4'-DDE	0.68 U	0.62 U	0.67 U	0.62 U	0.66 U	0.59 U	0.6 U	0.65 U
4,4'-DDT	1.6 U	1.4 U	1.5 U	1.4 U	1.5 U	1.4 U	1.4 U	1.5 U
Dieldrin	1.8 U	1.6 U	1.8 U	1.6 U	1.7 U	1.6 U	1.6 U	2.4
Endrin aldehyde	1.8 U	1.6 U	1.8 U	1.6 U	1.7 U	1.6 U	1.6 U	1.7 U
Heptachlor	0.73 U	0.67 U	0.72 U	0.66 U	0.7 U	0.64 U	0.64 U	0.69 U
Heptachlor epoxide	0.79 U	0.72 U	0.78 U	0.71 U	0.76 U	0.69 U	0.7 U	0.75 U
Methoxychlor	0.98 U	0.89 U	0.96 U	0.89 U	0.94 U	0.85 U	0.86 U	0.93 U
PCB-1248	5.5 U	5 U	5.4 U	5 U	5.3 U	4.8 U	4.9 U	5.2 U
PCB-1254	24 U	22 U	23 U	22 U	23 U	21 U	21 U	23 U
PCB-1260	8.9 U	8.1 U	8.7 U	8 U	8.5 U	13 J	7.8 U	77
alpha-Chlordane	0.71 U	0.64 U	0.69 U	0.64 U	0.68 U	0.61 U	0.62 U	0.67 U
beta-BHC	0.55 U	0.5 U	0.54 U	0.5 U	0.53 U	0.48 U	0.49 U	0.52 U
gamma-Chlordane	0.68 U	0.62 U	0.67 U	0.62 U	0.66 U	0.59 U	0.6 U	0.65 U
METALS (mg/kg)								
Aluminum	5540	2090	5390	2090	2700	589	1110	3930
Antimony	0.59 UJ	0.53 UJ	0.58 UJ	0.53 UJ	0.56 UJ	0.51 UJ	0.52 UJ	0.56 U
Arsenic	1.4	0.48 J	2	1.1	0.35 U	0.31 U	0.33 J	1.6
Barium	11 J	6.5 J	13.3 J	4.2 J	2.6 J	1.5 J	1.2 J	8.4 U
Beryllium	0.099 U	0.085 U	0.13 U	0.078 U	0.12 U	0.063 U	0.066 U	0.052 U
Cadmium	0.051 U	0.047 U	0.051 U	0.046 U	0.049 U	0.045 U	0.045 U	0.049 U
Calcium	846	341 J	498 J	194 J	854	3870	167 J	23900 J
Chromium	7.9	8.3	6.7	4.7	2	1.4	1.6	5.5

TABLE 4-8 (continued)
POSITIVE DETECTIONS IN SUBSURFACE SOILS
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR84-DP78-03	IR84-DP79-02	IR84-DP79-02D	IR84-DP80-02	IR84-DP81-04	IR84-DP82-04	IR84-DP83-03	IR84-SB01-02
DEPTH	5 - 7	3 - 5	3 - 5	3 - 5	7 - 9	7 - 9	5 - 7	3 - 5
SAMPLE DATE	08-05-2001	08-05-2001	08-05-2001	08-05-2001	08-05-2001	08-05-2001	08-05-2001	08-02-2001
Cobalt	0.3 J	0.18 J	0.55 J	0.27 J	0.17 U	0.16 J	0.16 U	0.31 J
Copper	1.1 J	1.2 J	1.6 J	0.52 J	0.4 J	0.46 J	0.28 U	1.3 J
Iron	3320	2080	5220	1740	503	475	1340	1970
Lead	5.4	3	4.2	2.3	1.6	3.5	1.4	5.4 J
Magnesium	149 J	56.4 J	169 J	78.7 J	33.9 J	79 J	25.8 J	406 J
Manganese	3.2	11.4	7.6	3.5	0.48 J	3	1.1 J	12.8
Mercury	0.01 U	0.0092 J	0.014 J	0.0091 U	0.0097 U	0.0088 U	0.0089 U	0.0095 U
Nickel	1 J	0.96 J	1.6 J	0.66 J	0.44 J	0.51 J	0.42 J	1.1 J
METALS (mg/kg) (cont.)								
Potassium	161 J	44.6 U	138 J	73.2 U	32.9 U	42.3 U	59.7 U	187 J
Selenium	0.37 U	0.34 U	0.36 U	0.33 U	0.36 U	0.32 U	0.33 U	0.44 J
Sodium	59.8 U	54.6 U	58.7 U	54 U	57.5 U	52.1 U	52.7 U	56.7 U
Thallium	0.6 U	0.55 U	0.59 U	0.54 U	0.67 J	0.52 U	0.53 U	0.57 U
Vanadium	9.7	4.5 J	11.4	5.1 J	1.4 J	1.1 J	2.2 J	7.1
Zinc	2.9 J	2.6 J	4.8 J	1.4 J	1.8 J	3.9 J	1.3 U	4.2
TOTAL PETROLEUM HYDROCARBONS								
TPH (as Diesel) (mg/kg)	NA	NA	NA	NA	NA	NA	NA	NA
TPH (as Gasoline) (ug/kg)	NA	NA	NA	NA	NA	NA	NA	NA
CONVENTIONAL								
Percent Solids (%)	83.6	91.6	85.1	92.6	86.9	96	94.8	88.2

NOTES:

NA = Not analyzed

U = Not detected at method detection limit

J = Value is estimated

B (inorganics) = value is less than contract required
detection limit but greater than instrument detection
limit

N = sample recovery not within control limits

ug/kg- micrograms per kilogram
mg/kg- milligrams per kilogram

TABLE 4-8 (continued)
POSITIVE DETECTIONS IN SUBSURFACE SOILS
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR84-SB02-02	IR84-SB03-02	IR84-SB04-02	IR84-SB05-01	IR84-SB06-01	IR84-SB06-01D	IR84-SB07-01	IR84-SB08-01
DEPTH	3 - 5	3 - 5	3 - 5	1 - 3	1 - 3	1 - 3	1 - 3	1 - 3
SAMPLE DATE	08-02-2001	08-02-2001	08-02-2001	08-03-2001	08-02-2001	08-02-2001	08-02-2001	08-02-2001
VOLATILES (ug/kg)								
1,2-Dichloroethene (total)	1.3 U	1.6 U	1.3 U	1.7 U	1.6 U	1.5 U	1.6 U	1.4 U
2-Butanone	2.6 U	3.2 U	2.6 U	3.4 U	3.1 U	2.9 U	3.1 U	2.8 U
Acetone	2.0 U	23 U	2.0 U	2.6 U	2.4 U	2.2 U	2.4 U	2.2 U
Benzene	0.62 U	0.76 U	0.62 U	0.81 U	0.74 U	0.69 U	0.75 U	0.67 U
Chloroform	0.78 U	0.96 U	0.78 U	2.3 J	5.7 U	1.5 J	0.94 U	0.85 U
Ethylbenzene	0.56 U	0.69 U	0.56 U	0.73 U	0.67 U	0.63 U	0.68 U	0.61 U
Methylene chloride	1.2 U	1.5 U	1.2 U	1.6 U	1.5 U	1.4 U	1.5 U	1.3 U
Styrene	0.48 U	0.58 U	0.48 U	0.62 U	0.57 U	0.53 U	0.57 U	0.52 U
Toluene	0.50 U	0.62 U	0.50 U	0.66 U	0.60 U	0.56 U	0.61 U	0.55 U
Xylenes (total)	1.8 U	2.2 U	1.8 U	2.4 U	2.2 U	2.0 U	2.2 U	2.0 U
SEMIVOLATILES (ug/kg)								
2-Methylnaphthalene	53 U	61 U	53 U	60 U	53 U	53 U	54 U	53 U
Acenaphthene	56 U	65 U	56 U	63 U	57 U	56 U	57 U	57 U
Anthracene	54 U	62 U	54 U	61 U	54 U	54 U	55 U	54 U
Benzo(a)anthracene	60 U	70 U	61 U	68 U	61 U	60 U	62 U	61 U
Benzo(a)pyrene	66 U	76 U	66 U	75 U	67 U	66 U	68 U	67 U
Benzo(b)fluoranthene	63 U	74 U	64 U	72 U	64 U	64 U	65 U	64 U
Benzo(ghi)perylene	60 U	70 U	61 U	68 U	61 U	60 U	62 U	61 U
Benzo(k)fluoranthene	58 U	67 U	59 U	66 U	59 U	58 U	60 U	59 U
Carbazole	57 U	66 U	58 U	65 U	58 U	57 U	59 U	58 U
Chrysene	50 U	59 J	51 U	57 U	51 U	50 U	52 U	51 U
Dibenz(a,h)anthracene	56 U	65 U	56 U	63 U	57 U	56 U	57 U	57 U
Dibenzofuran	55 U	63 U	55 U	62 U	56 U	55 U	56 U	55 U
Fluoranthene	61 U	82 J	62 U	70 U	62 U	61 U	63 U	62 U
Fluorene	53 U	61 U	53 U	60 U	53 U	53 U	54 U	53 U
Hexachlorocyclopentadiene	66 U	76 U	66 U	75 U	67 U	66 U	68 U	67 U
Indeno(1,2,3-cd)pyrene	77 U	89 U	77 U	87 U	78 U	77 U	79 U	78 U

TABLE 4-8 (continued)
POSITIVE DETECTIONS IN SUBSURFACE SOILS
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID DEPTH SAMPLE DATE	IR84-SB02-02 3 - 5 08-02-2001	IR84-SB03-02 3 - 5 08-02-2001	IR84-SB04-02 3 - 5 08-02-2001	IR84-SB05-01 1 - 3 08-03-2001	IR84-SB06-01 1 - 3 08-02-2001	IR84-SB06-01D 1 - 3 08-02-2001	IR84-SB07-01 1 - 3 08-02-2001	IR84-SB08-01 1 - 3 08-02-2001
Naphthalene	54 U	62 U	54 U	61 U	54 U	54 U	55 U	54 U
Phenanthrene	57 U	66 U	58 U	65 U	58 U	57 U	59 U	58 U
Phthalic anhydride	NA	120 NJ	170 NJ	NA	NA	NA	NA	NA
Pyrene	56 U	91 J	56 U	63 U	57 U	56 U	57 U	57 U
bis(2-Chloroethoxy)methane	51 U	60 U	52 U	58 U	52 U	51 U	53 U	52 U
bis(2-Ethylhexyl) phthalate	59 U	69 U	60 U	67 U	60 U	59 U	61 U	60 U
HERBICIDES (ug/kg)								
No exceedances								
PESTICIDES/PCBs (ug/kg)								
4,4'-DDD	0.86 U	2.4	0.87 U	1.7 J	1.9 J	0.87 UJ	0.89 U	0.88 U
4,4'-DDE	2.2	4.4	0.63 U	0.71 U	2 J	0.62 UJ	0.64 U	0.63 U
4,4'-DDT	2.5	8.7	1.4 U	1.6 U	4.3	1.4 UJ	1.5 U	1.4 U
Dieldrin	1.6 U	1.9 U	1.7 U	1.9 U	2 J	1.6 UJ	1.7 U	1.7 U
Endrin aldehyde	1.6 U	1.9 U	1.7 U	1.9 U	1.7 U	1.6 U	1.7 U	1.7 U
Heptachlor	0.67 U	0.77 U	0.68 U	3.1	0.68 U	0.67 U	0.69 U	0.68 U
Heptachlor epoxide	0.72 U	0.84 U	0.73 U	0.82 U	0.73 U	0.72 U	0.74 U	0.73 U
Methoxychlor	0.9 U	1 U	0.91 U	1 U	0.91 U	0.9 U	0.92 U	0.91 U
PCB-1248	5 U	5.8 U	5.1 U	5.7 U	5.1 U	5 U	5.2 U	5.1 U
PCB-1254	22 U	25 U	22 U	25 U	22 U	22 U	23 U	22 U
PCB-1260	8.1 U	40 J	8.2 U	9.2 U	29 J	8.1 U	8.3 U	8.2 U
alpha-Chlordane	0.65 U	5.9 J	0.65 U	28 J	22 J	3.3 J	0.66 U	0.65 U
beta-BHC	0.5 U	0.58 U	0.51 U	0.57 U	0.51 U	0.5 U	0.52 U	0.51 U
gamma-Chlordane	0.62 U	6.3	0.63 U	33	26	3.3 J	0.64 U	0.63 U
METALS (mg/kg)								
Aluminum	7100	1660	2610	2810	2590	2830	2750	2570
Antimony	0.54 UJ	0.62 UJ	0.54 UJ	0.61 U	0.91 J	0.65 J	0.6 J	0.69 J
Arsenic	1.6	1.1 J	0.89 J	0.59 J	1.4	0.86 J	0.87 J	0.8 J
Barium	56.6 U	9.4 U	5.8 U	10.7 J	5.5 U	29.1 U	6.3 U	6.3 U
Beryllium	0.05 U	0.058 U	0.051 U	0.057 U	0.051 U	0.05 U	0.052 U	0.051 U
Cadmium	0.047 U	0.12 J	0.048 U	0.053 U	0.05 J	0.047 U	0.048 U	0.048 U
Calcium	377 J	66800 J	795	1150	1820 J	741 J	699 J	447 J
Chromium	6.2	3.8	2.8	3.2	3	3	3.2	3.1

TABLE 4-8 (continued)
POSITIVE DETECTIONS IN SUBSURFACE SOILS
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT NO. 19, SITE 84/BUILDING 45 AREA
MCB CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR84-SB02-02	IR84-SB03-02	IR84-SB04-02	IR84-SB05-01	IR84-SB06-01	IR84-SB06-01D	IR84-SB07-01	IR84-SB08-01
DEPTH	3 - 5	3 - 5	3 - 5	1 - 3	1 - 3	1 - 3	1 - 3	1 - 3
SAMPLE DATE	08-02-2001	08-02-2001	08-02-2001	08-03-2001	08-02-2001	08-02-2001	08-02-2001	08-02-2001
Cobalt	0.4 J	0.46 J	0.27 J	0.26 J	0.22 J	0.24 J	0.21 J	0.22 J
Copper	1.8 J	1.6 J	1.6 J	2.1 J	4.1	2 J	0.67 J	0.8 J
Iron	4430	1490	1780	1800	1830	1670	1840	1560
Lead	3.3 J	10 J	5 J	4	10.5 J	4.6 J	3.9 J	3.7 J
Magnesium	118 J	943	83.7 J	137 J	111 J	123 J	105 J	92.3 J
Manganese	8.2	50.5	8.1	7.6	8.3	7.6	6.2	7.3
Mercury	0.015 J	0.017 J	0.02 J	0.01 U	0.029 J	0.0092 U	0.017 J	0.013 J
Nickel	1.9 J	2 J	0.91 J	0.88 J	1 J	1 J	0.85 J	0.83 J
METALS (mg/kg) (cont.)								
Potassium	79.5 J	182 J	67.3 J	79.8 U	78.2 J	88.1 J	81.7 J	93.1 J
Selenium	0.34 U	0.73	0.46 J	0.39 U	0.34 U	0.42 J	0.48 J	0.34 U
Sodium	54.7 U	89.7 J	55.3 U	62.2 U	55.5 U	54.8 U	56.3 U	55.5 U
Thallium	0.86 J	0.9 J	0.55 U	0.62 U	0.56 U	0.55 U	0.56 U	0.64 J
Vanadium	9.6	3.8 J	4.1 J	4.5 J	4.1 J	4.2 J	5.4 J	4.2 J
Zinc	2.6	33.2	3.2	5.7	11.4	6.8	3.5	4.4
TOTAL PETROLEUM HYDROCARBONS								
TPH (as Diesel) (mg/kg)	NA	NA	NA	NA	NA	NA	NA	NA
TPH (as Gasoline) (ug/kg)	NA	NA	NA	NA	NA	NA	NA	NA
CONVENTIONAL								
Percent Solids (%)	91.4	78.8	90.4	80.4	90.1	91.3	88.8	90.1

NOTES:

NA = Not analyzed

U = Not detected at method detection limit

J = Value is estimated

B (inorganics) = value is less than contract required detection limit but greater than instrument detection limit

N = sample recovery not within control limits

ug/kg- micrograms per kilogram
mg/kg- milligrams per kilogram

DRAFT PHASE I PCB CLEANUP AND FOUNDATION REMOVAL REPORT

Confirmation Samples Analytical Results Summary
Table 1

PAHs	Remediation Goal mg/Kg	1		2		3	
		CLJ-587-E1C Floor, east	RL	CLJ-633-E1C Floor, east	RL	CLJ-634-E2C Wall, east	RL
Acenaphthene	37,000	ND	0.7	ND	0.72	ND	0.75
Anthracene	22,000	ND	0.35	ND	0.36	ND	0.37
Benzo (a) anthracene	0.62	1.36	0.35	ND	0.36	ND	1.5
Benzo (a) pyrene	0.06	1.42	0.07	ND	0.072	ND	0.3
Benzo b) fluoranthene	0.62	0.757	0.07	ND	0.072	ND	0.3
Benzo (g,h,i) perylene	230	0.635	0.07	ND	0.072	ND	0.3
Benzo (k) fluoranthene	6.2	0.658	0.07	ND	0.072	ND	0.3
Chrysene	30	1.12	0.35	ND	0.36	ND	1.5
Dibenzo (a,h) anthracene	0.06	0.174	0.07	ND	0.072	ND	0.3
Fluoranthene	2,300	1.53	0.35	ND	0.36	0.266 J	0.37
Fluorene	2,600	ND	0.35	ND	0.36	ND	0.37
Indeno (1,2,3-cd) pyrene	0.62	0.856	0.07	ND	0.072	ND	0.3
Naphthalene	56	ND	0.35	ND	0.36	ND	0.37
Phenanthrene	2,300	0.477	0.35	ND	0.36	ND	0.37
Pyrene	2,300	1.54	0.35	ND	0.36	0.268 J	0.37
1-Methylnaphthalene	1,600	ND	0.35	ND	0.36	ND	0.37
2-Methylnaphthalene	1,600	ND	0.35	ND	0.36	ND	0.37
TPHs							
GRO	10	ND	4.8	ND	5.5	ND	4.9
DRO	10	430	89	15.6	9.1	713	180
PCBs							
PCBs	1	0.105 J	0.071	0.025 J	0.036	0.206	0.072

ND = Not Detected
RL = Reporting Limit

J = Indicates an estimated value
Note: All results are reported in ppm units except for water samples mg/L

Confirmation Samples Analytical Results Summary
Table 1

PAHs	Remediation Goal mg/Kg	4		5		6	
		CLJ-610-NE1C Floor, north east	RL	CLJ-611-NE2C Wall, north east	RL	CLJ-654-N1C Floor, north	RL
Acenaphthene	37,000	ND	0.74	ND	0.8	ND	0.71
Anthracene	22,000	ND	0.37	0.256 J	0.4	ND	0.36
Benzo (a) anthracene	0.62	0.218 J	0.37	0.622	0.4	0.129 J	0.36
Benzo (a) pyrene	0.06	0.164	0.074	0.568	0.08	0.108	0.071
Benzo b) fluoranthene	0.62	0.0995	0.074	0.262	0.08	0.0729	0.071
Benzo (g,h,i) perylene	230	0.097	0.074	0.272	0.08	0.0487 J	0.071
Benzo (k) fluoranthene	6.2	0.064 J	0.074	0.19	0.08	0.0462 J	0.071
Chrysene	30	0.173 J	0.37	0.522	0.4	0.125 J	0.36
Dibenzo (a,h) anthracene	0.06	ND	0.074	0.0433 J	0.08	ND	0.071
Fluoranthene	2,300	0.393	0.37	1.29	0.4	0.269 J	0.36
Fluorene	2,600	ND	0.37	0.252 J	0.4	ND	0.36
Indeno (1,2,3-cd) pyrene	0.62	0.0818	0.074	0.268	0.08	0.07 J	0.071
Naphthalene	56	ND	0.37	ND	0.4	ND	0.36
Phenanthrene	2,300	0.326 J	0.37	1.12	0.4	0.245 J	0.36
Pyrene	2,300	0.363 J	0.37	1.05	0.4	0.234 J	0.36
1-Methylnaphthalene	1,600	ND	0.37	ND	0.4	ND	0.36
2-Methylnaphthalene	1,600	ND	0.37	ND	0.4	ND	0.36
TPHs							
GRO	10	ND	4.9	ND	5.2	ND	5.2
DRO	10	9.67	9	25.1	9.2	ND	8.9
PCBs							
PCBs	1	ND	0.14	ND	7.9	ND	0.72

ND = Not Detected
RL = Reporting Limit

J = Indicates an estimated value
Note: All results are reported in ppm units except for water samples mg/L

Confirmation Samples Analytical Results Summary

Table 1

PAHs	Remediation Goal mg/Kg	7	8	9	RL	RL	RL
		CLJ-612-N2C Floor, north	CLJ-621-N3C Floor, north	CLJ-622-N4C Floor, north			
Acenaphthene	37,000	ND	ND	ND	0.71	0.73	0.72
Anthracene	22,000	ND	0.8362	0.456	0.36	0.37	0.36
Benzo (a) anthracene	0.62	0.593	2.25	1.09	0.36	0.37	0.36
Benzo (a) pyrene	0.06	0.621	2.22	0.882	0.071	0.073	0.072
Benzo b) fluoranthene	0.62	0.28	1.01	0.563	0.071	0.073	0.072
Benzo (g,h,i) perylene	230	0.298	1.03	0.532	0.071	0.073	0.072
Benzo (k) fluoranthene	6.2	0.2	0.724	0.449	0.071	0.073	0.072
Chrysene	30	0.514	1.79	0.894	0.36	0.37	0.36
Dibenzo (a,h) anthracene	0.06	0.0423 J	0.149	0.114	0.071	0.073	0.072
Fluoranthene	2,300	1.19	4.61	2.17	0.36	0.37	0.36
Fluorene	2,600	ND	0.745	ND	0.36	0.37	0.72
Indeno (1,2,3-cd) pyrene	0.62	0.3	1.04	0.578	0.071	0.073	0.072
Naphthalene	56	ND	ND	ND	0.36	0.37	0.36
Phenanthrene	2,300	0.87	3.59	1.93	0.36	0.37	0.36
Pyrene	2,300	0.931	3.74	1.93	0.36	0.37	0.36
1-Methylnaphthalene	1,600	ND	ND	ND	0.36	0.37	0.36
2-Methylnaphthalene	1,600	ND	ND	ND	0.36	0.37	0.36
TPHs							
GRO	10	ND	ND	ND	5.3	5.3	5.4
DRO	10	24.9	70.6	25.2	8.9	18	8.4
PCBs							
PCBs	1	ND	ND	ND	0.9	1.8	1.3

ND = Not Detected
RL = Reporting Limit

J = Indicates an estimated value
Note: All results are reported in ppm units except for water samples mg/L

Confirmation Samples Analytical Results Summary
Table 1

PAHs	Remediation Goal mg/Kg	10	RL	11	RL	12	RL
		CLJ-630-N5C Floor, north		CLJ-701-N8C Wall, north		CLJ-632-N7C Wall, north	
Acenaphthene	37,000	ND	0.7	ND	1.5	ND	0.7
Anthracene	22,000	ND	0.35	ND	0.76	ND	0.35
Benzo (a) anthracene	0.62	0.148 J	0.35	1.99	0.76	0.523	0.35
Benzo (a) pyrene	0.06	0.124	0.07	1.57	0.15	0.442	0.07
Benzo b) fluoranthene	0.62	0.0808	0.07	1.00	0.15	0.298	0.07
Benzo (g,h,i) perylene	230	0.0804	0.07	0.877	0.15	0.294	0.07
Benzo (k) fluoranthene	6.2	0.627 J	0.07	0.778	0.15	0.251	0.07
Chrysene	30	0.125 J	0.35	1.54	0.76	0.447	0.35
Dibenzo (a,h) anthracene	0.06	0.0218 J	0.07	0.217	0.15	0.0579 J	0.07
Fluoranthene	2,300	0.271 J	0.35	2.79	0.76	0.991	0.35
Fluorene	2,600	ND	0.35	ND	0.76	ND	0.35
Indeno (1,2,3-cd) pyrene	0.62	0.0891	0.07	1.05	0.15	0.283	0.07
Naphthalene	56	ND	0.35	ND	0.76	ND	0.35
Phenanthrene	2,300	0.182 J	0.35	1.13	0.76	0.689	0.35
Pyrene	2,300	0.241 J	0.35	2.94	0.76	0.851	0.35
1-Methylnaphthalene	1,600	ND	0.35	ND	0.76	ND	0.35
2-Methylnaphthalene	1,600	ND	0.35	ND	0.76	ND	0.35
TPHs							
GRO	10	ND	5.2	ND	5.4	ND	5.9
DRO	10	29.9	9	136	38	59.2	8.9
PCBs							
PCBs	1	ND	1.4	ND	15	ND	7.00

ND = Not Detected
RL = Reporting Limit

J = Indicates an estimated value
Note: All results are reported in ppm units except for water samples mg/L

Confirmation Samples Analytical Results Summary

Table 1

PAHs	Remediation Goal mg/Kg	13		14		15	
		CLJ-592-W3C Floor, west	RL	CLJ-591-W2C Floor, west	RL	CLJ-590-W1C Floor, west	RL
Acenaphthene	37,000	ND	0.72	ND	0.071	ND	0.72
Anthracene	22,000	ND	0.36	ND	0.36	ND	0.36
Benzo (a) anthracene	0.62	ND	0.36	0.152 J	0.36	ND	0.36
Benzo (a) pyrene	0.06	ND	0.072	0.0493 J	0.071	0.0288 J	0.072
Benzo b) fluoranthene	0.62	ND	0.072	0.0257 J	0.071	ND	0.072
Benzo (g,h,i) perylene	230	ND	0.072	0.0245 J	0.071	ND	0.072
Benzo (k) fluoranthene	6.2	ND	0.072	0.0297 J	0.071	ND	0.072
Chrysene	30	ND	0.36	ND	0.36	ND	0.36
Dibenzo (a,h) anthracene	0.06	ND	0.072	ND	0.071	ND	0.072
Fluoranthene	2,300	ND	0.36	0.123 J	0.36	ND	0.36
Fluorene	2,600	ND	0.36	ND	0.36	ND	0.36
Indeno (1,2,3-cd) pyrene	0.62	ND	0.072	0.0324 J	0.071	0.0233 J	0.072
Naphthalene	56	ND	0.36	ND	0.36	ND	0.36
Phenanthrene	2,300	ND	0.36	ND	0.36	ND	0.36
Pyrene	2,300	ND	0.36	0.113 J	0.36	ND	0.36
1-Methylnaphthalene	1,600	ND	0.36	ND	0.36	ND	0.36
2-Methylnaphthalene	1,600	ND	0.36	ND	0.36	ND	0.36
TPHs							
GRO	10	ND	5.4	MD	5.8	ND	5.6
DRO	10	ND	9	8.98	8.8	10.5	9
PCBs							
PCBs	1	ND	0.18	ND	0.072	ND	0.036

ND = Not Detected
RL = Reporting Limit

J = Indicates an estimated value
Note: All results are reported in ppm units except for water samples mg/L

Confirmation Samples Analytical Results Summary
Table 1

		16	17	18			
PAHs	Remediation Goal mg/Kg	CLJ-609-W4C Wall, west	RL	CLJ-656-S1C Floor, south	RL	CLJ-759-S2C Floor, south	RL
Acenaphthene	37,000	ND	0.75	ND	0.72	ND	0.74
Anthracene	22,000	ND	0.37	ND	0.36	ND	0.37
Benzo (a) anthracene	0.62	ND	0.37	0.131 J	0.36	ND	0.37
Benzo (a) pyrene	0.06	0.0386 J	0.075	0.104	0.072	0.0537 J	0.074
Benzo b) fluoranthene	0.62	0.0265 J	0.075	0.0795	0.072	0.0376 J	0.074
Benzo (g,h,i) perylene	230	0.0246 J	0.075	0.0718 J	0.072	0.0279 J	0.074
Benzo (k) fluoranthene	6.2	0.0211 J	0.075	0.0487 J	0.072	0.0298 J	0.074
Chrysene	30	ND	0.37	0.0904 J	0.36	ND	0.37
Dibenzo (a,h) anthracene	0.06	ND	0.075	ND	0.072	ND	0.074
Fluoranthene	2,300	ND	0.37	0.243 J	0.36	0.117 J	0.37
Fluorene	2,600	ND	0.37	ND	0.36	ND	0.37
Indeno (1,2,3-cd) pyrene	0.62	0.0232 J	0.075	0.094	0.072	0.0334 J	0.074
Naphthalene	56	ND	0.37	ND	0.36	ND	0.37
Phenanthrene	2,300	ND	0.37	0.185	0.36	ND	0.37
Pyrene	2,300	ND	0.37	0.22	0.36	0.0995 J	0.37
1-Methylnaphthalene	1,600	ND	0.37	ND	0.36	ND	0.37
2-Methylnaphthalene	1,600	ND	0.37	ND	0.36	ND	0.37
TPHs							
GRO	10	ND	5.3	ND	6	ND	5.4
DRO	10	8.79	9.1	41.8	8.5	28.4	9.3
PCBs							
PCBs	1	ND	0.15	0.167	0.037	0.0621	0.038

ND = Not Detected
RL = Reporting Limit

J = Indicates an estimated value
Note: All results are reported in ppm units except for water samples mg/L

Confirmation Samples Analytical Results Summary
Table 1

PAHs	Remediation Goal mg/Kg	19		20		21	
		CLJ-740-S3C Floor, south	RL	CLJ-657-S4C Floor, south	RL	CLJ-658-S5C Floor, south	RL
Acenaphthene	37,000	ND	0.74	ND	0.72	ND	0.74
Anthracene	22,000	ND	0.37	ND	0.36	ND	0.37
Benzo (a) anthracene	0.62	ND	0.37	0.281 J	0.36	0.227 J	0.37
Benzo (a) pyrene	0.06	ND	0.074	0.26	0.072	0.177	0.074
Benzo b) fluoranthene	0.62	ND	0.074	0.177	0.072	0.124	0.074
Benzo (g,h,i) perylene	230	ND	0.074	0.128	0.072	0.0804	0.074
Benzo (k) fluoranthene	6.2	ND	0.074	0.103	0.072	0.0893	0.074
Chrysene	30	ND	0.37	0.202 J	0.36	0.176 J	0.37
Dibenzo (a,h) anthracene	0.06	ND	0.074	ND	0.072	ND	0.074
Fluoranthene	2,300	ND	0.37	0.525	0.36	0.378	0.37
Fluorene	2,600	ND	0.37	ND	0.36	ND	0.37
Indeno (1,2,3-cd) pyrene	0.62	ND	0.074	0.206	0.072	0.14	0.074
Naphthalene	56	ND	0.37	ND	0.36	ND	0.37
Phenanthrene	2,300	ND	0.37	0.332 J	0.36	0.219 J	0.37
Pyrene	2,300	ND	0.37	0.484	0.36	0.322 J	0.37
1-Methylnaphthalene	1,600	ND	0.37	ND	0.36	ND	0.37
2-Methylnaphthalene	1,600	ND	0.37	ND	0.36	ND	0.37
TPHs							
GRO	10	ND	5.4	ND	5.2	ND	5.4
DRO	10	18.1	9.2	140	35	77.5	18
PCBs							
PCBs	1	0.0281 J	0.038	0.0558	0.037	0.044	0.036

ND = Not Detected
RL = Reporting Limit

J = Indicates an estimated value
Note: All results are reported in ppm units except for water samples mg/L

Confirmation Samples Analytical Results Summary

Table 1

		22	23	24			
PAHs	Remediation Goal mg/Kg	CLJ-659-S6C Floor, south	RL	CLJ-681-ST1C Floor, south trench	RL	CLJ-686-ET1C Floor, east trench	RL
Acenaphthene	37,000	ND	0.75	ND	0.76	ND	0.72
Anthracene	22,000	ND	0.38	ND	0.38	ND	0.36
Benzo (a) anthracene	0.62	0.373 J	0.38	ND	0.38	0.172 J	0.36
Benzo (a) pyrene	0.06	0.396	0.075	0.0662 J	0.076	0.187	0.072
Benzo b) fluoranthene	0.62	0.256	0.075	0.0391 J	0.076	0.109	0.072
Benzo (g,h,i) perylene	230	0.142	0.075	0.0306 J	0.076	0.0961	0.072
Benzo (k) fluoranthene	6.2	0.177	0.075	0.0326 J	0.076	0.109	0.072
Chrysene	30	0.319 J	0.38	ND	0.38	0.176 J	0.36
Dibenzo (a,h) anthracene	0.06	ND	0.075	ND	0.076	ND	0.072
Fluoranthene	2,300	0.362 J	0.38	ND	0.38	0.332 J	0.36
Fluorene	2,600	ND	0.38	ND	0.38	0.417	0.36
Indeno (1,2,3-cd) pyrene	0.62	0.259	0.075	0.0514 J	0.076	0.117	0.072
Naphthalene	56	ND	0.38	ND	0.38	ND	0.36
Phenanthrene	2,300	ND	0.38	ND	0.38	0.277 J	0.36
Pyrene	2,300	0.408	0.38	ND	0.38	0.251 J	0.36
1-Methylnaphthalene	1,600	ND	0.38	ND	0.38	ND	0.36
2-Methylnaphthalene	1,600	ND	0.38	ND	0.38	ND	0.36
TPHs							
GRO	10	ND	5.1	ND	5.8	ND	4.9
DRO	10	18.1	9.0	25.6	9.5	9.14	9.1
PCBs							
PCBs	1	0.0196 J	0.0	0.0938	0.041	0.0153 J	0.037

ND = Not Detected
RL = Reporting Limit

J = Indicates an estimated value
Note: All results are reported in ppm units except for water samples mg/L

Confirmation Samples Analytical Results Summary
Table 1

		25		26		27	
PAHs	Remediation Goal mg/Kg	CLJ-687-ET2C Wall, east trench	RL	CLJ-684-NT1C Floor, north trench	RL	CLJ-685-NT2C Wall, north trench	RL
Acenaphthene	37,000	ND	0.72	ND	0.72	ND	0.73
Anthracene	22,000	ND	0.36	ND	0.36	ND	0.36
Benzo (a) anthracene	0.62	0.364	0.36	0.197 J	0.36	0.624	0.36
Benzo (a) pyrene	0.06	0.291	0.072	0.147	0.072	0.508	0.073
Benzo b) fluoranthene	0.62	0.131	0.072	0.0719 J	0.072	0.23	0.073
Benzo (g,h,i) perylene	230	0.105	0.072	0.0626 J	0.072	0.187	0.073
Benzo (k) fluoranthene	6.2	0.125	0.072	0.0745	0.072	0.234	0.073
Chrysene	30	0.27 J	0.36	0.124	0.36	0.492	0.36
Dibenzo (a,h) anthracene	0.06	0.0297 J	0.072	ND	0.072	0.0837	0.073
Fluoranthene	2,300	0.555	0.36	0.329 J	0.36	1.17	0.36
Fluorene	2,600	ND	0.36	0.223 J	0.36	0.22 J	0.36
Indeno (1,2,3-cd) pyrene	0.62	0.203	0.072	0.104	0.072	0.367	0.073
Naphthalene	56	ND	0.36	ND	0.36	ND	0.36
Phenanthrene	2,300	0.493	0.36	0.251 J	0.36	0.976	0.36
Pyrene	2,300	0.373	0.36	0.206 J	0.36	1.13	0.36
1-Methylnaphthalene	1,600	ND	0.36	ND	0.36	ND	0.36
2-Methylnaphthalene	1,600	ND	0.36	ND	0.36	ND	0.36
TPHs							
GRO	10	ND	5.5	ND	5.4	ND	5.4
DRO	10	7.84	8.8	32.1	9.2	12.2	9.1
PCBs							
PCBs	1	ND	0.036	ND	0.19	ND	0.75

ND = Not Detected
RL = Reporting Limit

J = Indicates an estimated value
Note: All results are reported in ppm units except for water samples mg/L

Confirmation Samples Analytical Results Summary

		28	29		30		
PAHs	Remediation Goal mg/Kg	CLJ-688-WT1C Floor, west trench	RL	CLJ-689-WT2C Wall, west trench	RL	CLJ-680-S8C Wall, south	RL
Acenaphthene	37,000	ND	0.74	ND	0.81	ND	0.69
Anthracene	22,000	ND	0.37	ND	0.41	ND	0.35
Benzo (a) anthracene	0.62	ND	0.37	ND	0.41	ND	0.35
Benzo (a) pyrene	0.06	ND	0.074	0.0286 J	0.081	0.0708	0.069
Benzo b) fluoranthene	0.62	ND	0.074	ND	0.081	0.0308 J	0.069
Benzo (g,h,l) perylene	230	ND	0.074	ND	0.081	0.0575 J	0.069
Benzo (k) fluoranthene	6.2	ND	0.074	ND	0.081	0.0217 J	0.069
Chrysene	30	ND	0.37	ND	0.41	ND	0.35
Dibenzo (a,h) anthracene	0.06	ND	0.074	ND	0.081	ND	0.069
Fluoranthene	2,300	ND	0.37	ND	0.41	ND	0.35
Fluorene	2,600	ND	0.37	ND	0.41	ND	0.35
Indeno (1,2,3-cd) pyrene	0.62	ND	0.074	ND	0.081	0.0631 J	0.069
Naphthalene	56	ND	0.37	ND	0.41	ND	0.35
Phenanthrene	2,300	ND	0.37	ND	0.41	ND	0.35
Pyrene	2,300	ND	0.37	ND	0.41	ND	0.35
1-Methylnaphthalene	1,600	ND	0.37	ND	0.41	ND	0.35
2-Methylnaphthalene	1,600	ND	0.37	ND	0.41	ND	0.35
TPHs							
GRO	10	ND	5.3	ND	6.3	ND	5.7
DRO	10	13.9	10	ND	10	31.7	9.2
PCBs							
PCBs	1	ND	0.039	ND	0.041	0.0305 J	0.038

ND = Not Detected
RL = Reporting Limit

J = Indicates an estimated value
Note: All results are reported in ppm units except for water samples mg/L

Confirmation Samples Analytical Results Summary

		31		32		33	
PAHs	Remediation Goal mg/Kg	CLJ-733-WW1C Floor, west- west	RL	CLJ-734-WW2C Floor, west- west	RL	CLJ-735-WW3C Floor, west- west	RL
Acenaphthene	37,000	ND	0.69	ND	0.71	ND	0.69
Anthracene	22,000	ND	0.34	ND	0.35	ND	0.34
Benzo (a) anthracene	0.62	ND	0.34	ND	0.35	ND	0.34
Benzo (a) pyrene	0.06	ND	0.069	ND	0.071	ND	0.069
Benzo b) fluoranthene	0.62	ND	0.069	ND	0.071	ND	0.069
Benzo (g,h,i) perylene	230	ND	0.069	ND	0.071	ND	0.069
Benzo (k) fluoranthene	6.2	ND	0.069	ND	0.071	ND	0.069
Chrysene	30	ND	0.34	ND	0.35	ND	0.34
Dibenzo (a,h) anthracene	0.06	ND	0.069	ND	0.071	ND	0.069
Fluoranthene	2,300	ND	0.34	ND	0.35	ND	0.34
Fluorene	2,600	ND	0.34	ND	0.35	ND	0.34
Indeno (1,2,3-cd) pyrene	0.62	ND	0.069	ND	0.071	ND	0.069
Naphthalene	56	ND	0.34	ND	0.35	ND	0.34
Phenanthrene	2,300	ND	0.34	ND	0.35	ND	0.34
Pyrene	2,300	ND	0.34	ND	0.35	ND	0.34
1-Methylnaphthalene	1,600	ND	0.34	ND	0.35	ND	0.34
2-Methylnaphthalene	1,600	ND	0.34	ND	0.35	ND	0.34
TPHs							
GRO	10	ND	6.2	ND	5.9	ND	5.7
DRO	10	ND	8.7	ND	8.8	ND	8.6
PCBs							
PCBs	1	ND	0.035	ND	0.036	ND	0.035

ND = Not Detected
RL = Reporting Limit

J = Indicates an estimated value
Note: All results are reported in ppm units except for water samples mg/L

Confirmation Samples Analytical Results Summary
Table 1

34				35		36	
PAHs	Remediation Goal mg/Kg	CLJ-736-WW4C Floor, west- west	RL	CLJ-737-WW5C Floor, west- west	RL	CLJ-764-WW6C Wall, west-west	RL
Acenaphthene	37,000	ND	0.7	ND	0.7	ND	0.72
Anthracene	22,000	ND	0.35	ND	0.35	ND	0.36
Benzo (a) anthracene	0.62	ND	0.35	ND	0.35	ND	0.36
Benzo (a) pyrene	0.06	ND	0.07	ND	0.07	ND	0.072
Benzo b) fluoranthene	0.62	ND	0.07	ND	0.07	ND	0.072
Benzo (g,h,l) perylene	230	ND	0.07	ND	0.07	ND	0.072
Benzo (k) fluoranthene	6.2	ND	0.07	ND	0.07	ND	0.072
Chrysene	30	ND	0.35	ND	0.35	ND	0.36
Dibenzo (a,h) anthracene	0.06	ND	0.07	ND	0.07	ND	0.072
Fluoranthene	2,300	ND	0.35	ND	0.35	ND	0.36
Fluorene	2,600	ND	0.35	ND	0.35	ND	0.36
Indeno (1,2,3-cd) pyrene	0.62	ND	0.07	ND	0.07	ND	0.072
Naphthalene	56	ND	0.35	ND	0.35	ND	0.36
Phenanthrene	2,300	ND	0.35	ND	0.35	ND	0.36
Pyrene	2,300	ND	0.35	ND	0.35	ND	0.36
1-Methylnaphthalene	1,600	ND	0.35	ND	0.35	ND	0.36
2-Methylnaphthalene	1,600	ND	0.35	ND	0.35	ND	0.36
TPHs							
GRO	10	ND	5.6	ND	5.5	ND	6.5
DRO	10	109	8.9	96.6	8.8	ND	8.8
PCBs							
PCBs	1	0.0383	0.035	0.0752	0.036	0.0472	0.036

ND = Not Detected
RL = Reporting Limit

J = Indicates an estimated value
Note: All results are reported in ppm units except for water samples mg/L

Confirmation Samples Analytical Results Summary
Table 1

		37		38		39	
PAHs	Remediation Goal mg/Kg	CLJ-741-SS1C Floor, south- south	RL	CLJ-760-SS2C Floor, south- south	RL	CLJ-743-SS3C Floor, south- south	RL
Acenaphthene	37,000	ND	0.79	ND	0.81	ND	0.77
Anthracene	22,000	ND	0.4	ND	0.41	ND	0.39
Benzo (a) anthracene	0.62	ND	0.4	ND	0.41	ND	0.39
Benzo (a) pyrene	0.06	ND	0.079	ND	0.081	ND	0.077
Benzo b) fluoranthene	0.62	ND	0.079	ND	0.081	ND	0.077
Benzo (g,h,i) perylene	230	ND	0.079	ND	0.081	ND	0.077
Benzo (k) fluoranthene	6.2	ND	0.079	ND	0.081	ND	0.077
Chrysene	30	ND	0.4	ND	0.41	ND	0.39
Dibenzo (a,h) anthracene	0.06	ND	0.079	ND	0.081	ND	0.077
Fluoranthene	2,300	ND	0.4	ND	0.41	ND	0.39
Fluorene	2,600	ND	0.4	ND	0.41	ND	0.39
Indeno (1,2,3-cd) pyrene	0.62	ND	0.079	ND	0.081	ND	0.077
Naphthalene	56	ND	0.4	ND	0.41	ND	0.39
Phenanthrene	2,300	ND	0.4	ND	0.41	ND	0.39
Pyrene	2,300	ND	0.4	ND	0.41	ND	0.39
1-Methylnaphthalene	1,600	ND	0.4	ND	0.41	ND	0.39
2-Methylnaphthalene	1,600	ND	0.4	ND	0.41	ND	0.39
TPHs							
GRO	10	2.83	5.4	ND	5.2	ND	5.6
DRO	10	12.2	9.9	ND	10	280	50
PCBs							
PCBs	1	ND	0.04	ND	0.041	ND	0.2

ND = Not Detected
RL = Reporting Limit

J = Indicates an estimated value
Note: All results are reported in ppm units except for water samples mg/L

Confirmation Samples Analytical Results Summary

Table 1

		40	41	42		
PAHs	Remediation Goal mg/Kg	CLJ-761-SS4C		CLJ-762-SS5C		CLJ-763-SS6C
		Floor, south-south	RL	Floor, south-south	RL	Floor, south-south
Acenaphthene	37,000	ND	0.76	ND	0.74	ND
Anthracene	22,000	ND	0.38	ND	0.37	ND
Benzo (a) anthracene	0.62	ND	0.38	ND	0.37	ND
Benzo (a) pyrene	0.06	ND	0.076	ND	0.074	ND
Benzo b) fluoranthene	0.62	ND	0.076	ND	0.074	ND
Benzo (g,h,i) perylene	230	ND	0.076	ND	0.074	ND
Benzo (k) fluoranthene	6.2	ND	0.076	ND	0.074	ND
Chrysene	30	ND	0.38	ND	0.37	ND
Dibenzo (a,h) anthracene	0.06	ND	0.076	ND	0.074	ND
Fluoranthene	2,300	ND	0.38	0.11	0.37	ND
Fluorene	2,600	ND	0.38	ND	0.37	ND
Indeno (1,2,3-cd) pyrene	0.62	ND	0.076	ND	0.074	ND
Naphthalene	56	ND	0.38	ND	0.37	ND
Phenanthrene	2,300	ND	0.38	ND	0.37	ND
Pyrene	2,300	ND	0.38	ND	0.37	ND
1-Methylnaphthalene	1,600	ND	0.38	ND	0.37	ND
2-Methylnaphthalene	1,600	ND	0.38	ND	0.37	ND
TPHs						
GRO	10	ND	5.4	ND	6	ND
DRO	10	21	9.3	388	95	11.1
PCBs						
PCBs	1	0.0705	0.038	ND	0.19	0.0525

ND = Not Detected
RL = Reporting Limit

J = Indicates an estimated value
Note: All results are reported in ppm units except for water samples mg/L

**SOIL LABORATORY RESULTS FROM ADDITIONAL SOIL ASSESSMENT FROM
MAY 2006 SAMPLING EVENT**

206-009



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

Report Number: G128-1767

Client Project: Building 45

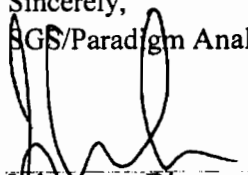
Dear Mr. Becken:

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

5/31/2006
Date



Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST45-SB01
Client Project ID: Building 45
Lab Sample ID: G128-1767-1H
Lab Project ID: G128-1767
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 5/5/2006 15:00
Date Received: 5/8/2006
Date Extracted: 5/15/2006
Matrix: Soil
% Solids: 82.79

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	0.347	0.050	1	5/19/2006	
Acenaphthylene	BQL	0.347	0.046	1	5/19/2006	
Anthracene	BQL	0.347	0.050	1	5/19/2006	
Benzo[a]anthracene	BQL	0.347	0.060	1	5/19/2006	
Benzo[a]pyrene	BQL	0.347	0.053	1	5/19/2006	
Benzo[b]fluoranthene	BQL	0.347	0.061	1	5/19/2006	
Benzo[g,h,i]perylene	BQL	0.347	0.094	1	5/19/2006	
Benzo[k]fluoranthene	BQL	0.347	0.067	1	5/19/2006	
Benzoic Acid	BQL	0.693	0.693	1	5/19/2006	
Bis(2-chloroethoxy)methane	BQL	0.347	0.052	1	5/19/2006	
Bis(2-chloroethyl)ether	BQL	0.347	0.042	1	5/19/2006	
Bis(2-chloroisopropyl)ether	BQL	0.347	0.043	1	5/19/2006	
Bis(2-ethylhexyl)phthalate	BQL	0.347	0.046	1	5/19/2006	
4-bromophenyl phenyl ether	BQL	0.347	0.059	1	5/19/2006	
Butylbenzylphthalate	BQL	0.347	0.053	1	5/19/2006	
2-Chloronaphthalene	BQL	0.347	0.054	1	5/19/2006	
2-Chlorophenol	BQL	0.347	0.108	1	5/19/2006	
4-Chloro-3-methylphenol	BQL	0.347	0.108	1	5/19/2006	
4-Chloroaniline	BQL	1.73	0.264	1	5/19/2006	
4-Chlorophenyl phenyl ether	BQL	0.347	0.051	1	5/19/2006	
Chrysene	BQL	0.347	0.037	1	5/19/2006	
Dibenzo[a,h]anthracene	BQL	0.347	0.097	1	5/19/2006	
Dibenzofuran	BQL	0.347	0.063	1	5/19/2006	
Di-n-Butylphthalate	BQL	0.347	0.041	1	5/19/2006	
1,2-Dichlorobenzene	BQL	0.347	0.039	1	5/19/2006	
1,3-Dichlorobenzene	BQL	0.347	0.038	1	5/19/2006	
1,4-Dichlorobenzene	BQL	0.347	0.039	1	5/19/2006	
3,3'-Dichlorobenzidine	BQL	0.693	0.087	1	5/19/2006	
2,4-Dichlorophenol	BQL	0.347	0.125	1	5/19/2006	
Diethylphthalate	BQL	0.347	0.045	1	5/19/2006	
Dimethylphthalate	BQL	0.347	0.042	1	5/19/2006	
2,4-Dimethylphenol	BQL	0.347	0.248	1	5/19/2006	
Di-n-octylphthalate	BQL	0.347	0.057	1	5/19/2006	
4,6-Dinitro-2-methylphenol	BQL	1.73	0.204	1	5/19/2006	
2,4-Dinitrophenol	BQL	1.73	0.763	1	5/19/2006	
2,4-Dinitrotoluene	BQL	0.347	0.045	1	5/19/2006	
2,6-Dinitrotoluene	BQL	0.347	0.063	1	5/19/2006	
Diphenylamine *	BQL	0.347	0.034	1	5/19/2006	
Fluoranthene	BQL	0.347	0.049	1	5/19/2006	
Fluorene	BQL	0.347	0.043	1	5/19/2006	
Hexachlorobenzene	BQL	0.347	0.053	1	5/19/2006	
Hexachlorobutadiene	BQL	0.347	0.056	1	5/19/2006	
Hexachlorocyclopentadiene	BQL	0.693	0.036	1	5/19/2006	
Hexachloroethane	BQL	0.347	0.031	1	5/19/2006	



Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST45-SB01
Client Project ID: Building 45
Lab Sample ID: G128-1767-1H
Lab Project ID: G128-1767
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 5/5/2006 15:00
Date Received: 5/8/2006
Date Extracted: 5/15/2006
Matrix: Soil
% Solids: 82.79

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Indeno(1,2,3-c,d)pyrene	BQL	0.347	0.089	1	5/19/2006	
Isophorone	BQL	0.347	0.051	1	5/19/2006	
2-Methylnaphthalene	BQL	0.347	0.101	1	5/19/2006	
2-Methylphenol	BQL	0.347	0.122	1	5/19/2006	
3- & 4-Methylphenol	BQL	0.347	0.117	1	5/19/2006	
Naphthalene	BQL	0.347	0.028	1	5/19/2006	
2-Nitroaniline	BQL	0.347	0.054	1	5/19/2006	
3-Nitroaniline	BQL	1.73	0.357	1	5/19/2006	
4-Nitroaniline	BQL	1.73	0.107	1	5/19/2006	
Nitrobenzene	BQL	0.347	0.047	1	5/19/2006	
2-Nitrophenol	BQL	0.347	0.107	1	5/19/2006	
4-Nitrophenol	BQL	1.73	0.096	1	5/19/2006	
N-Nitrosodi-n-propylamine	BQL	0.347	0.044	1	5/19/2006	
Pentachlorophenol	BQL	1.73	0.091	1	5/19/2006	
Phenanthrene	BQL	0.347	0.040	1	5/19/2006	
Phenol	BQL	0.347	0.095	1	5/19/2006	
Pyrene	BQL	0.347	0.067	1	5/19/2006	
1,2,4-Trichlorobenzene	BQL	0.347	0.043	1	5/19/2006	
2,4,5-Trichlorophenol	BQL	0.347	0.134	1	5/19/2006	
2,4,6-Trichlorophenol	BQL	0.347	0.123	1	5/19/2006	
		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	8.6	86		
2,4,6-Tribromophenol		10	6.7	67		
4-Terphenyl-d14		10	9.1	91		

Comments:

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

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: agd



Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST45-SB02
Client Project ID: Building 45
Lab Sample ID: G128-1767-2H
Lab Project ID: G128-1767
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 5/5/2006 15:00
Date Received: 5/8/2006
Date Extracted: 5/15/2006
Matrix: Soil
% Solids: 83.25

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	0.362	0.052	1	5/19/2006	
Acenaphthylene	BQL	0.362	0.048	1	5/19/2006	
Anthracene	BQL	0.362	0.053	1	5/19/2006	
Benzo[a]anthracene	BQL	0.362	0.063	1	5/19/2006	
Benzo[a]pyrene	BQL	0.362	0.055	1	5/19/2006	
Benzo[b]fluoranthene	BQL	0.362	0.063	1	5/19/2006	
Benzo[g,h,i]perylene	BQL	0.362	0.099	1	5/19/2006	
Benzo[k]fluoranthene	BQL	0.362	0.070	1	5/19/2006	
Benzoic Acid	BQL	0.725	0.725	1	5/19/2006	
Bis(2-chloroethoxy)methane	BQL	0.362	0.054	1	5/19/2006	
Bis(2-chloroethyl)ether	BQL	0.362	0.044	1	5/19/2006	
Bis(2-chloroisopropyl)ether	BQL	0.362	0.045	1	5/19/2006	
Bis(2-ethylhexyl)phthalate	BQL	0.362	0.049	1	5/19/2006	
4-bromophenyl phenyl ether	BQL	0.362	0.061	1	5/19/2006	
Butylbenzylphthalate	BQL	0.362	0.056	1	5/19/2006	
2-Chloronaphthalene	BQL	0.362	0.057	1	5/19/2006	
2-Chlorophenol	BQL	0.362	0.113	1	5/19/2006	
4-Chloro-3-methylphenol	BQL	0.362	0.113	1	5/19/2006	
4-Chloroaniline	BQL	1.81	0.276	1	5/19/2006	
4-Chlorophenyl phenyl ether	BQL	0.362	0.053	1	5/19/2006	
Chrysene	BQL	0.362	0.039	1	5/19/2006	
Dibenzo[a,h]anthracene	BQL	0.362	0.101	1	5/19/2006	
Dibenzofuran	BQL	0.362	0.066	1	5/19/2006	
Di-n-Butylphthalate	BQL	0.362	0.043	1	5/19/2006	
1,2-Dichlorobenzene	BQL	0.362	0.040	1	5/19/2006	
1,3-Dichlorobenzene	BQL	0.362	0.040	1	5/19/2006	
1,4-Dichlorobenzene	BQL	0.362	0.041	1	5/19/2006	
3,3'-Dichlorobenzidine	BQL	0.725	0.091	1	5/19/2006	
2,4-Dichlorophenol	BQL	0.362	0.130	1	5/19/2006	
Diethylphthalate	BQL	0.362	0.047	1	5/19/2006	
Dimethylphthalate	BQL	0.362	0.044	1	5/19/2006	
2,4-Dimethylphenol	BQL	0.362	0.259	1	5/19/2006	
Di-n-octylphthalate	BQL	0.362	0.060	1	5/19/2006	
4,6-Dinitro-2-methylphenol	BQL	1.81	0.213	1	5/19/2006	
2,4-Dinitrophenol	BQL	1.81	0.798	1	5/19/2006	
2,4-Dinitrotoluene	BQL	0.362	0.047	1	5/19/2006	
2,6-Dinitrotoluene	BQL	0.362	0.066	1	5/19/2006	
Diphenylamine *	BQL	0.362	0.036	1	5/19/2006	
Fluoranthene	BQL	0.362	0.051	1	5/19/2006	
Fluorene	BQL	0.362	0.045	1	5/19/2006	
Hexachlorobenzene	BQL	0.362	0.056	1	5/19/2006	
Hexachlorobutadiene	BQL	0.362	0.058	1	5/19/2006	
Hexachlorocyclopentadiene	BQL	0.725	0.037	1	5/19/2006	
Hexachloroethane	BQL	0.362	0.033	1	5/19/2006	



Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST45-SB02
Client Project ID: Building 45
Lab Sample ID: G128-1767-2H
Lab Project ID: G128-1767
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 5/5/2006 15:00
Date Received: 5/8/2006
Date Extracted: 5/15/2006
Matrix: Soil
% Solids: 83.25

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Indeno(1,2,3-c,d)pyrene	BQL	0.362	0.093	1	5/19/2006	
Isophorone	BQL	0.362	0.053	1	5/19/2006	
2-Methylnaphthalene	BQL	0.362	0.106	1	5/19/2006	
2-Methylphenol	BQL	0.362	0.128	1	5/19/2006	
3- & 4-Methylphenol	BQL	0.362	0.123	1	5/19/2006	
Naphthalene	BQL	0.362	0.029	1	5/19/2006	
2-Nitroaniline	BQL	0.362	0.057	1	5/19/2006	
3-Nitroaniline	BQL	1.81	0.373	1	5/19/2006	
4-Nitroaniline	BQL	1.81	0.112	1	5/19/2006	
Nitrobenzene	BQL	0.362	0.049	1	5/19/2006	
2-Nitrophenol	BQL	0.362	0.112	1	5/19/2006	
4-Nitrophenol	BQL	1.81	0.100	1	5/19/2006	
N-Nitrosodi-n-propylamine	BQL	0.362	0.046	1	5/19/2006	
Pentachlorophenol	BQL	1.81	0.095	1	5/19/2006	
Phenanthrene	BQL	0.362	0.041	1	5/19/2006	
Phenol	BQL	0.362	0.099	1	5/19/2006	
Pyrene	BQL	0.362	0.070	1	5/19/2006	
1,2,4-Trichlorobenzene	BQL	0.362	0.045	1	5/19/2006	
2,4,5-Trichlorophenol	BQL	0.362	0.140	1	5/19/2006	
2,4,6-Trichlorophenol	BQL	0.362	0.129	1	5/19/2006	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8.8	88
2-Fluorophenol	10	8.4	84
Nitrobenzene-d5	10	8.6	86
Phenol-d6	10	8.7	87
2,4,6-Tribromophenol	10	6.4	64
4-Terphenyl-d14	10	10	100

Comments:

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

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: veg d



Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST45-SB03
Client Project ID: Building 45
Lab Sample ID: G128-1767-3H
Lab Project ID: G128-1767
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 5/5/2006 15:00
Date Received: 5/8/2006
Date Extracted: 5/15/2006
Matrix: Soil
% Solids: 83.96

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	0.347	0.050	1	5/19/2006	
Acenaphthylene	BQL	0.347	0.046	1	5/19/2006	
Anthracene	BQL	0.347	0.050	1	5/19/2006	
Benzo[a]anthracene	BQL	0.347	0.060	1	5/19/2006	
Benzo[a]pyrene	BQL	0.347	0.053	1	5/19/2006	
Benzo[b]fluoranthene	BQL	0.347	0.061	1	5/19/2006	
Benzo[g,h,i]perylene	BQL	0.347	0.095	1	5/19/2006	
Benzo[k]fluoranthene	BQL	0.347	0.067	1	5/19/2006	
Benzoic Acid	BQL	0.694	0.694	1	5/19/2006	
Bis(2-chloroethoxy)methane	BQL	0.347	0.052	1	5/19/2006	
Bis(2-chloroethyl)ether	BQL	0.347	0.042	1	5/19/2006	
Bis(2-chloroisopropyl)ether	BQL	0.347	0.043	1	5/19/2006	
Bis(2-ethylhexyl)phthalate	BQL	0.347	0.047	1	5/19/2006	
4-bromophenyl phenyl ether	BQL	0.347	0.059	1	5/19/2006	
Butylbenzylphthalate	BQL	0.347	0.054	1	5/19/2006	
2-Chloronaphthalene	BQL	0.347	0.055	1	5/19/2006	
2-Chlorophenol	BQL	0.347	0.109	1	5/19/2006	
4-Chloro-3-methylphenol	BQL	0.347	0.108	1	5/19/2006	
4-Chloroaniline	BQL	1.74	0.265	1	5/19/2006	
4-Chlorophenyl phenyl ether	BQL	0.347	0.051	1	5/19/2006	
Chrysene	BQL	0.347	0.038	1	5/19/2006	
Dibenzo[a,h]anthracene	BQL	0.347	0.097	1	5/19/2006	
Dibenzofuran	0.844	0.347	0.063	1	5/19/2006	
Di-n-Butylphthalate	BQL	0.347	0.041	1	5/19/2006	
1,2-Dichlorobenzene	BQL	0.347	0.039	1	5/19/2006	
1,3-Dichlorobenzene	BQL	0.347	0.038	1	5/19/2006	
1,4-Dichlorobenzene	BQL	0.347	0.039	1	5/19/2006	
3,3'-Dichlorobenzidine	BQL	0.694	0.088	1	5/19/2006	
2,4-Dichlorophenol	BQL	0.347	0.125	1	5/19/2006	
Diethylphthalate	BQL	0.347	0.045	1	5/19/2006	
Dimethylphthalate	BQL	0.347	0.042	1	5/19/2006	
2,4-Dimethylphenol	BQL	0.347	0.248	1	5/19/2006	
Di-n-octylphthalate	BQL	0.347	0.057	1	5/19/2006	
4,6-Dinitro-2-methylphenol	BQL	1.74	0.205	1	5/19/2006	
2,4-Dinitrophenol	BQL	1.74	0.765	1	5/19/2006	
2,4-Dinitrotoluene	BQL	0.347	0.045	1	5/19/2006	
2,6-Dinitrotoluene	BQL	0.347	0.063	1	5/19/2006	
Diphenylamine *	BQL	0.347	0.034	1	5/19/2006	
Fluoranthene	BQL	0.347	0.049	1	5/19/2006	
Fluorene	1.34	0.347	0.043	1	5/19/2006	
Hexachlorobenzene	BQL	0.347	0.054	1	5/19/2006	
Hexachlorobutadiene	BQL	0.347	0.056	1	5/19/2006	
Hexachlorocyclopentadiene	BQL	0.694	0.036	1	5/19/2006	
Hexachloroethane	BQL	0.347	0.031	1	5/19/2006	



Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST45-SB03
Client Project ID: Building 45
Lab Sample ID: G128-1767-3H
Lab Project ID: G128-1767
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 5/5/2006 15:00
Date Received: 5/8/2006
Date Extracted: 5/15/2006
Matrix: Soil
% Solids: 83.96

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Indeno(1,2,3-c,d)pyrene	BQL	0.347	0.089	1	5/19/2006	
Isophorone	BQL	0.347	0.051	1	5/19/2006	
2-Methylnaphthalene	BQL	0.347	0.101	1	5/19/2006	
2-Methylphenol	BQL	0.347	0.122	1	5/19/2006	
3- & 4-Methylphenol	BQL	0.347	0.118	1	5/19/2006	
Naphthalene	0.128	0.347	0.028	1	5/19/2006	J
2-Nitroaniline	BQL	0.347	0.055	1	5/19/2006	
3-Nitroaniline	BQL	1.74	0.358	1	5/19/2006	
4-Nitroaniline	BQL	1.74	0.107	1	5/19/2006	
Nitrobenzene	BQL	0.347	0.047	1	5/19/2006	
2-Nitrophenol	BQL	0.347	0.108	1	5/19/2006	
4-Nitrophenol	BQL	1.74	0.096	1	5/19/2006	
N-Nitrosodi-n-propylamine	BQL	0.347	0.044	1	5/19/2006	
Pentachlorophenol	BQL	1.74	0.091	1	5/19/2006	
Phenanthrene	0.882	0.347	0.040	1	5/19/2006	
Phenol	BQL	0.347	0.095	1	5/19/2006	
Pyrene	BQL	0.347	0.067	1	5/19/2006	
1,2,4-Trichlorobenzene	BQL	0.347	0.043	1	5/19/2006	
2,4,5-Trichlorophenol	BQL	0.347	0.134	1	5/19/2006	
2,4,6-Trichlorophenol	BQL	0.347	0.124	1	5/19/2006	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	9.4	94
2-Fluorophenol	10	8	80
Nitrobenzene-d5	10	8.9	89
Phenol-d6	10	8.3	83
2,4,6-Tribromophenol	10	7.7	78
4-Terphenyl-d14	10	8.5	85

Comments:

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

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: agd



Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST45-SB04
Client Project ID: Building 45
Lab Sample ID: G128-1767-4H
Lab Project ID: G128-1767
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 5/5/2006 15:00
Date Received: 5/8/2006
Date Extracted: 5/15/2006
Matrix: Soil
% Solids: 88.5

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	0.317	0.045	1	5/20/2006	
Acenaphthylene	BQL	0.317	0.042	1	5/20/2006	
Anthracene	BQL	0.317	0.046	1	5/20/2006	
Benzo[a]anthracene	BQL	0.317	0.055	1	5/20/2006	
Benzo[a]pyrene	BQL	0.317	0.049	1	5/20/2006	
Benzo[b]fluoranthene	BQL	0.317	0.056	1	5/20/2006	
Benzo[g,h,i]perylene	BQL	0.317	0.086	1	5/20/2006	
Benzo[k]fluoranthene	BQL	0.317	0.061	1	5/20/2006	
Benzoic Acid	BQL	0.634	0.634	1	5/20/2006	
Bis(2-chloroethoxy)methane	BQL	0.317	0.047	1	5/20/2006	
Bis(2-chloroethyl)ether	BQL	0.317	0.038	1	5/20/2006	
Bis(2-chloroisopropyl)ether	BQL	0.317	0.040	1	5/20/2006	
Bis(2-ethylhexyl)phthalate	BQL	0.317	0.043	1	5/20/2006	
4-bromophenyl phenyl ether	BQL	0.317	0.054	1	5/20/2006	
Butylbenzylphthalate	BQL	0.317	0.049	1	5/20/2006	
2-Chloronaphthalene	BQL	0.317	0.050	1	5/20/2006	
2-Chlorophenol	BQL	0.317	0.099	1	5/20/2006	
4-Chloro-3-methylphenol	BQL	0.317	0.099	1	5/20/2006	
4-Chloroaniline	BQL	1.58	0.241	1	5/20/2006	
4-Chlorophenyl phenyl ether	BQL	0.317	0.047	1	5/20/2006	
Chrysene	BQL	0.317	0.034	1	5/20/2006	
Dibenzo[a,h]anthracene	BQL	0.317	0.089	1	5/20/2006	
Dibenzofuran	BQL	0.317	0.058	1	5/20/2006	
Di-n-Butylphthalate	BQL	0.317	0.038	1	5/20/2006	
1,2-Dichlorobenzene	BQL	0.317	0.035	1	5/20/2006	
1,3-Dichlorobenzene	BQL	0.317	0.035	1	5/20/2006	
1,4-Dichlorobenzene	BQL	0.317	0.036	1	5/20/2006	
3,3'-Dichlorobenzidine	BQL	0.634	0.080	1	5/20/2006	
2,4-Dichlorophenol	BQL	0.317	0.114	1	5/20/2006	
Diethylphthalate	BQL	0.317	0.041	1	5/20/2006	
Dimethylphthalate	BQL	0.317	0.038	1	5/20/2006	
2,4-Dimethylphenol	BQL	0.317	0.227	1	5/20/2006	
Di-n-octylphthalate	BQL	0.317	0.052	1	5/20/2006	
4,6-Dinitro-2-methylphenol	BQL	1.58	0.187	1	5/20/2006	
2,4-Dinitrophenol	BQL	1.58	0.698	1	5/20/2006	
2,4-Dinitrotoluene	BQL	0.317	0.041	1	5/20/2006	
2,6-Dinitrotoluene	BQL	0.317	0.058	1	5/20/2006	
Diphenylamine *	BQL	0.317	0.031	1	5/20/2006	
Fluoranthene	BQL	0.317	0.044	1	5/20/2006	
Fluorene	BQL	0.317	0.039	1	5/20/2006	
Hexachlorobenzene	BQL	0.317	0.049	1	5/20/2006	
Hexachlorobutadiene	BQL	0.317	0.051	1	5/20/2006	
Hexachlorocyclopentadiene	BQL	0.634	0.033	1	5/20/2006	
Hexachloroethane	BQL	0.317	0.029	1	5/20/2006	



Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST45-SB04
Client Project ID: Building 45
Lab Sample ID: G128-1767-4H
Lab Project ID: G128-1767
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 5/5/2006 15:00
Date Received: 5/8/2006
Date Extracted: 5/15/2006
Matrix: Soil
% Solids: 88.5

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Indeno(1,2,3-c,d)pyrene	BQL	0.317	0.081	1	5/20/2006	
Isophorone	BQL	0.317	0.047	1	5/20/2006	
2-Methylnaphthalene	BQL	0.317	0.093	1	5/20/2006	
2-Methylphenol	BQL	0.317	0.112	1	5/20/2006	
3- & 4-Methylphenol	BQL	0.317	0.107	1	5/20/2006	
Naphthalene	BQL	0.317	0.026	1	5/20/2006	
2-Nitroaniline	BQL	0.317	0.050	1	5/20/2006	
3-Nitroaniline	BQL	1.58	0.326	1	5/20/2006	
4-Nitroaniline	BQL	1.58	0.098	1	5/20/2006	
Nitrobenzene	BQL	0.317	0.043	1	5/20/2006	
2-Nitrophenol	BQL	0.317	0.098	1	5/20/2006	
4-Nitrophenol	BQL	1.58	0.088	1	5/20/2006	
N-Nitrosodi-n-propylamine	BQL	0.317	0.040	1	5/20/2006	
Pentachlorophenol	BQL	1.58	0.083	1	5/20/2006	
Phenanthrene	BQL	0.317	0.036	1	5/20/2006	
Phenol	BQL	0.317	0.087	1	5/20/2006	
Pyrene	BQL	0.317	0.061	1	5/20/2006	
1,2,4-Trichlorobenzene	BQL	0.317	0.040	1	5/20/2006	
2,4,5-Trichlorophenol	BQL	0.317	0.123	1	5/20/2006	
2,4,6-Trichlorophenol	BQL	0.317	0.113	1	5/20/2006	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8.7	87
2-Fluorophenol	10	8.2	82
Nitrobenzene-d5	10	8.5	85
Phenol-d6	10	8.5	85
2,4,6-Tribromophenol	10	7.9	79
4-Terphenyl-d14	10	9.9	99

Comments:

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

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: and



Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST45-SB05
Client Project ID: Building 45
Lab Sample ID: G128-1767-5H
Lab Project ID: G128-1767
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 5/5/2006 15:05
Date Received: 5/8/2006
Date Extracted: 5/15/2006
Matrix: Soil
% Solids: 89.9

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	0.348	0.050	1	5/20/2006	
Acenaphthylene	BQL	0.348	0.046	1	5/20/2006	
Anthracene	BQL	0.348	0.050	1	5/20/2006	
Benzo[a]anthracene	BQL	0.348	0.060	1	5/20/2006	
Benzo[a]pyrene	BQL	0.348	0.053	1	5/20/2006	
Benzo[b]fluoranthene	BQL	0.348	0.061	1	5/20/2006	
Benzo[g,h,i]perylene	BQL	0.348	0.095	1	5/20/2006	
Benzo[k]fluoranthene	BQL	0.348	0.067	1	5/20/2006	
Benzoic Acid	BQL	0.695	0.695	1	5/20/2006	
Bis(2-chloroethoxy)methane	BQL	0.348	0.052	1	5/20/2006	
Bis(2-chloroethyl)ether	BQL	0.348	0.042	1	5/20/2006	
Bis(2-chloroisopropyl)ether	BQL	0.348	0.044	1	5/20/2006	
Bis(2-ethylhexyl)phthalate	0.049	0.348	0.047	1	5/20/2006	J
4-bromophenyl phenyl ether	BQL	0.348	0.059	1	5/20/2006	
Butylbenzylphthalate	BQL	0.348	0.054	1	5/20/2006	
2-Chloronaphthalene	BQL	0.348	0.055	1	5/20/2006	
2-Chlorophenol	BQL	0.348	0.109	1	5/20/2006	
4-Chloro-3-methylphenol	BQL	0.348	0.108	1	5/20/2006	
4-Chloroaniline	BQL	1.74	0.265	1	5/20/2006	
4-Chlorophenyl phenyl ether	BQL	0.348	0.051	1	5/20/2006	
Chrysene	BQL	0.348	0.038	1	5/20/2006	
Dibenzo[a,h]anthracene	BQL	0.348	0.097	1	5/20/2006	
Dibenzofuran	BQL	0.348	0.063	1	5/20/2006	
Di-n-Butylphthalate	BQL	0.348	0.041	1	5/20/2006	
1,2-Dichlorobenzene	BQL	0.348	0.039	1	5/20/2006	
1,3-Dichlorobenzene	BQL	0.348	0.038	1	5/20/2006	
1,4-Dichlorobenzene	BQL	0.348	0.039	1	5/20/2006	
3,3'-Dichlorobenzidine	BQL	0.695	0.088	1	5/20/2006	
2,4-Dichlorophenol	BQL	0.348	0.125	1	5/20/2006	
Diethylphthalate	BQL	0.348	0.045	1	5/20/2006	
Dimethylphthalate	BQL	0.348	0.042	1	5/20/2006	
2,4-Dimethylphenol	BQL	0.348	0.249	1	5/20/2006	
Di-n-octylphthalate	BQL	0.348	0.057	1	5/20/2006	
4,6-Dinitro-2-methylphenol	BQL	1.74	0.205	1	5/20/2006	
2,4-Dinitrophenol	BQL	1.74	0.765	1	5/20/2006	
2,4-Dinitrotoluene	BQL	0.348	0.045	1	5/20/2006	
2,6-Dinitrotoluene	BQL	0.348	0.063	1	5/20/2006	
Diphenylamine *	BQL	0.348	0.034	1	5/20/2006	
Fluoranthene	BQL	0.348	0.049	1	5/20/2006	
Fluorene	BQL	0.348	0.043	1	5/20/2006	
Hexachlorobenzene	BQL	0.348	0.054	1	5/20/2006	
Hexachlorobutadiene	BQL	0.348	0.056	1	5/20/2006	
Hexachlorocyclopentadiene	BQL	0.695	0.036	1	5/20/2006	
Hexachloroethane	BQL	0.348	0.031	1	5/20/2006	



Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST45-SB05
Client Project ID: Building 45
Lab Sample ID: G128-1767-5H
Lab Project ID: G128-1767
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 5/5/2006 15:05
Date Received: 5/8/2006
Date Extracted: 5/15/2006
Matrix: Soil
% Solids: 89.9

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Indeno(1,2,3-c,d)pyrene	BQL	0.348	0.089	1	5/20/2006	
Isophorone	BQL	0.348	0.051	1	5/20/2006	
2-Methylnaphthalene	BQL	0.348	0.102	1	5/20/2006	
2-Methylphenol	BQL	0.348	0.122	1	5/20/2006	
3- & 4-Methylphenol	BQL	0.348	0.118	1	5/20/2006	
Naphthalene	BQL	0.348	0.028	1	5/20/2006	
2-Nitroaniline	BQL	0.348	0.055	1	5/20/2006	
3-Nitroaniline	BQL	1.74	0.358	1	5/20/2006	
4-Nitroaniline	BQL	1.74	0.107	1	5/20/2006	
Nitrobenzene	BQL	0.348	0.047	1	5/20/2006	
2-Nitrophenol	BQL	0.348	0.108	1	5/20/2006	
4-Nitrophenol	BQL	1.74	0.096	1	5/20/2006	
N-Nitrosodi-n-propylamine	BQL	0.348	0.044	1	5/20/2006	
Pentachlorophenol	BQL	1.74	0.091	1	5/20/2006	
Phenanthrene	BQL	0.348	0.040	1	5/20/2006	
Phenol	BQL	0.348	0.095	1	5/20/2006	
Pyrene	BQL	0.348	0.067	1	5/20/2006	
1,2,4-Trichlorobenzene	BQL	0.348	0.044	1	5/20/2006	
2,4,5-Trichlorophenol	BQL	0.348	0.135	1	5/20/2006	
2,4,6-Trichlorophenol	BQL	0.348	0.124	1	5/20/2006	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	9.2	92
2-Fluorophenol	10	8.5	85
Nitrobenzene-d5	10	8.9	89
Phenol-d6	10	8.8	88
2,4,6-Tribromophenol	10	7.6	76
4-Terphenyl-d14	10	10.4	104

Comments:

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

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: agd



Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST45-SB06
Client Project ID: Building 45
Lab Sample ID: G128-1767-6H
Lab Project ID: G128-1767
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 5/5/2006 15:05
Date Received: 5/8/2006
Date Extracted: 5/15/2006
Matrix: Soil
% Solids: 93.16

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	0.325	0.046	1	5/20/2006	
Acenaphthylene	BQL	0.325	0.043	1	5/20/2006	
Anthracene	BQL	0.325	0.047	1	5/20/2006	
Benzo[a]anthracene	BQL	0.325	0.056	1	5/20/2006	
Benzo[a]pyrene	BQL	0.325	0.050	1	5/20/2006	
Benzo[b]fluoranthene	BQL	0.325	0.057	1	5/20/2006	
Benzo[g,h,i]perylene	BQL	0.325	0.088	1	5/20/2006	
Benzo[k]fluoranthene	BQL	0.325	0.063	1	5/20/2006	
Benzoic Acid	BQL	0.649	0.649	1	5/20/2006	
Bis(2-chloroethoxy)methane	BQL	0.325	0.048	1	5/20/2006	
Bis(2-chloroethyl)ether	BQL	0.325	0.039	1	5/20/2006	
Bis(2-chloroisopropyl)ether	BQL	0.325	0.041	1	5/20/2006	
Bis(2-ethylhexyl)phthalate	BQL	0.325	0.044	1	5/20/2006	
4-bromophenyl phenyl ether	BQL	0.325	0.055	1	5/20/2006	
Butylbenzylphthalate	BQL	0.325	0.050	1	5/20/2006	
2-Chloronaphthalene	BQL	0.325	0.051	1	5/20/2006	
2-Chlorophenol	BQL	0.325	0.102	1	5/20/2006	
4-Chloro-3-methylphenol	BQL	0.325	0.101	1	5/20/2006	
4-Chloroaniline	BQL	1.62	0.247	1	5/20/2006	
4-Chlorophenyl phenyl ether	BQL	0.325	0.048	1	5/20/2006	
Chrysene	BQL	0.325	0.035	1	5/20/2006	
Dibenzo[a,h]anthracene	BQL	0.325	0.091	1	5/20/2006	
Dibenzofuran	BQL	0.325	0.059	1	5/20/2006	
Di-n-Butylphthalate	BQL	0.325	0.039	1	5/20/2006	
1,2-Dichlorobenzene	BQL	0.325	0.036	1	5/20/2006	
1,3-Dichlorobenzene	BQL	0.325	0.035	1	5/20/2006	
1,4-Dichlorobenzene	BQL	0.325	0.037	1	5/20/2006	
3,3'-Dichlorobenzidine	BQL	0.649	0.082	1	5/20/2006	
2,4-Dichlorophenol	BQL	0.325	0.117	1	5/20/2006	
Diethylphthalate	BQL	0.325	0.042	1	5/20/2006	
Dimethylphthalate	BQL	0.325	0.039	1	5/20/2006	
2,4-Dimethylphenol	BQL	0.325	0.232	1	5/20/2006	
Di-n-octylphthalate	BQL	0.325	0.054	1	5/20/2006	
4,6-Dinitro-2-methylphenol	BQL	1.62	0.191	1	5/20/2006	
2,4-Dinitrophenol	BQL	1.62	0.715	1	5/20/2006	
2,4-Dinitrotoluene	BQL	0.325	0.042	1	5/20/2006	
2,6-Dinitrotoluene	BQL	0.325	0.059	1	5/20/2006	
Diphenylamine *	BQL	0.325	0.032	1	5/20/2006	
Fluoranthene	BQL	0.325	0.046	1	5/20/2006	
Fluorene	BQL	0.325	0.040	1	5/20/2006	
Hexachlorobenzene	BQL	0.325	0.050	1	5/20/2006	
Hexachlorobutadiene	BQL	0.325	0.052	1	5/20/2006	
Hexachlorocyclopentadiene	BQL	0.649	0.033	1	5/20/2006	
Hexachloroethane	BQL	0.325	0.029	1	5/20/2006	



Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST45-SB06
Client Project ID: Building 45
Lab Sample ID: G128-1767-6H
Lab Project ID: G128-1767
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 5/5/2006 15:05
Date Received: 5/8/2006
Date Extracted: 5/15/2006
Matrix: Soil
% Solids: 93.16

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Indeno(1,2,3-c,d)pyrene	BQL	0.325	0.083	1	5/20/2006	
Isophorone	BQL	0.325	0.048	1	5/20/2006	
2-Methylnaphthalene	BQL	0.325	0.095	1	5/20/2006	
2-Methylphenol	BQL	0.325	0.114	1	5/20/2006	
3- & 4-Methylphenol	BQL	0.325	0.110	1	5/20/2006	
Naphthalene	BQL	0.325	0.026	1	5/20/2006	
2-Nitroaniline	BQL	0.325	0.051	1	5/20/2006	
3-Nitroaniline	BQL	1.62	0.334	1	5/20/2006	
4-Nitroaniline	BQL	1.62	0.100	1	5/20/2006	
Nitrobenzene	BQL	0.325	0.044	1	5/20/2006	
2-Nitrophenol	BQL	0.325	0.101	1	5/20/2006	
4-Nitrophenol	BQL	1.62	0.090	1	5/20/2006	
N-Nitrosodi-n-propylamine	BQL	0.325	0.041	1	5/20/2006	
Pentachlorophenol	BQL	1.62	0.085	1	5/20/2006	
Phenanthrene	BQL	0.325	0.037	1	5/20/2006	
Phenol	BQL	0.325	0.089	1	5/20/2006	
Pyrene	BQL	0.325	0.062	1	5/20/2006	
1,2,4-Trichlorobenzene	BQL	0.325	0.041	1	5/20/2006	
2,4,5-Trichlorophenol	BQL	0.325	0.126	1	5/20/2006	
2,4,6-Trichlorophenol	BQL	0.325	0.116	1	5/20/2006	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	9.3	93		
2-Fluorophenol		10	8.1	81		
Nitrobenzene-d5		10	8.8	88		
Phenol-d6		10	8.4	84		
2,4,6-Tribromophenol		10	7.5	75		
4-Terphenyl-d14		10	10.4	104		

Comments:

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

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: agf



Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST45-SB07
Client Project ID: Building 45
Lab Sample ID: G128-1767-7H
Lab Project ID: G128-1767
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 5/5/2006 15:10
Date Received: 5/8/2006
Date Extracted: 5/15/2006
Matrix: Soil
% Solids: 87.57

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	0.329	0.047	1	5/20/2006	
Acenaphthylene	BQL	0.329	0.044	1	5/20/2006	
Anthracene	BQL	0.329	0.048	1	5/20/2006	
Benzo[a]anthracene	BQL	0.329	0.057	1	5/20/2006	
Benzo[a]pyrene	BQL	0.329	0.050	1	5/20/2006	
Benzo[b]fluoranthene	BQL	0.329	0.058	1	5/20/2006	
Benzo[g,h,i]perylene	BQL	0.329	0.090	1	5/20/2006	
Benzo[k]fluoranthene	BQL	0.329	0.064	1	5/20/2006	
Benzoic Acid	BQL	0.659	0.659	1	5/20/2006	
Bis(2-chloroethoxy)methane	BQL	0.329	0.049	1	5/20/2006	
Bis(2-chloroethyl)ether	BQL	0.329	0.040	1	5/20/2006	
Bis(2-chloroisopropyl)ether	BQL	0.329	0.041	1	5/20/2006	
Bis(2-ethylhexyl)phthalate	BQL	0.329	0.044	1	5/20/2006	
4-bromophenyl phenyl ether	BQL	0.329	0.056	1	5/20/2006	
Butylbenzylphthalate	BQL	0.329	0.051	1	5/20/2006	
2-Chloronaphthalene	BQL	0.329	0.052	1	5/20/2006	
2-Chlorophenol	BQL	0.329	0.103	1	5/20/2006	
4-Chloro-3-methylphenol	BQL	0.329	0.103	1	5/20/2006	
4-Chloroaniline	BQL	1.65	0.251	1	5/20/2006	
4-Chlorophenyl phenyl ether	BQL	0.329	0.048	1	5/20/2006	
Chrysene	BQL	0.329	0.036	1	5/20/2006	
Dibenzo[a,h]anthracene	BQL	0.329	0.092	1	5/20/2006	
Dibenzofuran	BQL	0.329	0.060	1	5/20/2006	
Di-n-Butylphthalate	BQL	0.329	0.039	1	5/20/2006	
1,2-Dichlorobenzene	BQL	0.329	0.037	1	5/20/2006	
1,3-Dichlorobenzene	BQL	0.329	0.036	1	5/20/2006	
1,4-Dichlorobenzene	BQL	0.329	0.037	1	5/20/2006	
3,3'-Dichlorobenzidine	BQL	0.659	0.083	1	5/20/2006	
2,4-Dichlorophenol	BQL	0.329	0.119	1	5/20/2006	
Diethylphthalate	BQL	0.329	0.043	1	5/20/2006	
Dimethylphthalate	BQL	0.329	0.040	1	5/20/2006	
2,4-Dimethylphenol	BQL	0.329	0.236	1	5/20/2006	
Di-n-octylphthalate	BQL	0.329	0.054	1	5/20/2006	
4,6-Dinitro-2-methylphenol	BQL	1.65	0.194	1	5/20/2006	
2,4-Dinitrophenol	BQL	1.65	0.725	1	5/20/2006	
2,4-Dinitrotoluene	BQL	0.329	0.043	1	5/20/2006	
2,6-Dinitrotoluene	BQL	0.329	0.060	1	5/20/2006	
Diphenylamine *	BQL	0.329	0.032	1	5/20/2006	
Fluoranthene	BQL	0.329	0.046	1	5/20/2006	
Fluorene	BQL	0.329	0.041	1	5/20/2006	
Hexachlorobenzene	BQL	0.329	0.051	1	5/20/2006	
Hexachlorobutadiene	BQL	0.329	0.053	1	5/20/2006	
Hexachlorocyclopentadiene	BQL	0.659	0.034	1	5/20/2006	
Hexachloroethane	BQL	0.329	0.030	1	5/20/2006	



Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST45-SB07
Client Project ID: Building 45
Lab Sample ID: G128-1767-7H
Lab Project ID: G128-1767
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 5/5/2006 15:10
Date Received: 5/8/2006
Date Extracted: 5/15/2006
Matrix: Soil
% Solids: 87.57

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Indeno(1,2,3-c,d)pyrene	BQL	0.329	0.084	1	5/20/2006	
Isophorone	BQL	0.329	0.048	1	5/20/2006	
2-Methylnaphthalene	BQL	0.329	0.096	1	5/20/2006	
2-Methylphenol	BQL	0.329	0.116	1	5/20/2006	
3- & 4-Methylphenol	BQL	0.329	0.112	1	5/20/2006	
Naphthalene	BQL	0.329	0.027	1	5/20/2006	
2-Nitroaniline	BQL	0.329	0.052	1	5/20/2006	
3-Nitroaniline	BQL	1.65	0.339	1	5/20/2006	
4-Nitroaniline	BQL	1.65	0.101	1	5/20/2006	
Nitrobenzene	BQL	0.329	0.045	1	5/20/2006	
2-Nitrophenol	BQL	0.329	0.102	1	5/20/2006	
4-Nitrophenol	BQL	1.65	0.091	1	5/20/2006	
N-Nitrosodi-n-propylamine	BQL	0.329	0.042	1	5/20/2006	
Pentachlorophenol	BQL	1.65	0.086	1	5/20/2006	
Phenanthrene	BQL	0.329	0.038	1	5/20/2006	
Phenol	BQL	0.329	0.090	1	5/20/2006	
Pyrene	BQL	0.329	0.063	1	5/20/2006	
1,2,4-Trichlorobenzene	BQL	0.329	0.041	1	5/20/2006	
2,4,5-Trichlorophenol	BQL	0.329	0.127	1	5/20/2006	
2,4,6-Trichlorophenol	BQL	0.329	0.117	1	5/20/2006	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	8.7	87		
2-Fluorophenol		10	8.2	82		
Nitrobenzene-d5		10	8.4	84		
Phenol-d6		10	8.6	86		
2,4,6-Tribromophenol		10	7.4	74		
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: mgd



Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST45-SB08
Client Project ID: Building 45
Lab Sample ID: G128-1767-8H
Lab Project ID: G128-1767
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 5/5/2006 15:10
Date Received: 5/8/2006
Date Extracted: 5/15/2006
Matrix: Soil
% Solids: 88.66

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	3.40	0.486	10	5/22/2006	
Acenaphthylene	BQL	3.40	0.452	10	5/22/2006	
Anthracene	BQL	3.40	0.492	10	5/22/2006	
Benzo[a]anthracene	BQL	3.40	0.587	10	5/22/2006	
Benzo[a]pyrene	BQL	3.40	0.519	10	5/22/2006	
Benzo[b]fluoranthene	BQL	3.40	0.594	10	5/22/2006	
Benzo[g,h,i]perylene	BQL	3.40	0.924	10	5/22/2006	
Benzo[k]fluoranthene	BQL	3.40	0.655	10	5/22/2006	
Benzoic Acid	BQL	6.79	6.79	10	5/22/2006	
Bis(2-chloroethoxy)methane	BQL	3.40	0.506	10	5/22/2006	
Bis(2-chloroethyl)ether	BQL	3.40	0.411	10	5/22/2006	
Bis(2-chloroisopropyl)ether	BQL	3.40	0.424	10	5/22/2006	
Bis(2-ethylhexyl)phthalate	BQL	3.40	0.455	10	5/22/2006	
4-bromophenyl phenyl ether	BQL	3.40	0.574	10	5/22/2006	
Butylbenzylphthalate	BQL	3.40	0.523	10	5/22/2006	
2-Chloronaphthalene	BQL	3.40	0.533	10	5/22/2006	
2-Chlorophenol	BQL	3.40	1.06	10	5/22/2006	
4-Chloro-3-methylphenol	BQL	3.40	1.06	10	5/22/2006	
4-Chloroaniline	BQL	17.0	2.59	10	5/22/2006	
4-Chlorophenyl phenyl ether	BQL	3.40	0.499	10	5/22/2006	
Chrysene	BQL	3.40	0.367	10	5/22/2006	
Dibenzo[a,h]anthracene	BQL	3.40	0.951	10	5/22/2006	
Dibenzofuran	BQL	3.40	0.618	10	5/22/2006	
Di-n-Butylphthalate	BQL	3.40	0.404	10	5/22/2006	
1,2-Dichlorobenzene	BQL	3.40	0.377	10	5/22/2006	
1,3-Dichlorobenzene	BQL	3.40	0.370	10	5/22/2006	
1,4-Dichlorobenzene	BQL	3.40	0.384	10	5/22/2006	
3,3'-Dichlorobenzidine	BQL	6.79	0.856	10	5/22/2006	
2,4-Dichlorophenol	BQL	3.40	1.22	10	5/22/2006	
Diethylphthalate	BQL	3.40	0.438	10	5/22/2006	
Dimethylphthalate	BQL	3.40	0.411	10	5/22/2006	
2,4-Dimethylphenol	BQL	3.40	2.43	10	5/22/2006	
Di-n-octylphthalate	BQL	3.40	0.560	10	5/22/2006	
4,6-Dinitro-2-methylphenol	BQL	17.0	2.00	10	5/22/2006	
2,4-Dinitrophenol	BQL	17.0	7.48	10	5/22/2006	
2,4-Dinitrotoluene	BQL	3.40	0.441	10	5/22/2006	
2,6-Dinitrotoluene	BQL	3.40	0.618	10	5/22/2006	
Diphenylamine *	BQL	3.40	0.333	10	5/22/2006	
Fluoranthene	BQL	3.40	0.475	10	5/22/2006	
Fluorene	0.747	3.40	0.421	10	5/22/2006	J
Hexachlorobenzene	BQL	3.40	0.523	10	5/22/2006	
Hexachlorobutadiene	BQL	3.40	0.543	10	5/22/2006	
Hexachlorocyclopentadiene	BQL	6.79	0.350	10	5/22/2006	
Hexachloroethane	BQL	3.40	0.306	10	5/22/2006	



Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST45-SB08
Client Project ID: Building 45
Lab Sample ID: G128-1767-8H
Lab Project ID: G128-1767
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 5/5/2006 15:10
Date Received: 5/8/2006
Date Extracted: 5/15/2006
Matrix: Soil
% Solids: 88.66

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Indeno(1,2,3-c,d)pyrene	BQL	3.40	0.869	10	5/22/2006	
Isophorone	BQL	3.40	0.499	10	5/22/2006	
2-Methylnaphthalene	BQL	3.40	0.991	10	5/22/2006	
2-Methylphenol	BQL	3.40	1.20	10	5/22/2006	
3- & 4-Methylphenol	BQL	3.40	1.15	10	5/22/2006	
Naphthalene	BQL	3.40	0.275	10	5/22/2006	
2-Nitroaniline	BQL	3.40	0.533	10	5/22/2006	
3-Nitroaniline	BQL	17.0	3.50	10	5/22/2006	
4-Nitroaniline	BQL	17.0	1.05	10	5/22/2006	
Nitrobenzene	BQL	3.40	0.458	10	5/22/2006	
2-Nitrophenol	BQL	3.40	1.05	10	5/22/2006	
4-Nitrophenol	BQL	17.0	0.940	10	5/22/2006	
N-Nitrosodi-n-propylamine	BQL	3.40	0.431	10	5/22/2006	
Pentachlorophenol	BQL	17.0	0.886	10	5/22/2006	
Phenanthrene	1.05	3.40	0.387	10	5/22/2006	J
Phenol	BQL	3.40	0.930	10	5/22/2006	
Pyrene	BQL	3.40	0.652	10	5/22/2006	
1,2,4-Trichlorobenzene	BQL	3.40	0.424	10	5/22/2006	
2,4,5-Trichlorophenol	BQL	3.40	1.31	10	5/22/2006	
2,4,6-Trichlorophenol	BQL	3.40	1.21	10	5/22/2006	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	1	NA	NA
2-Fluorophenol	1	NA	NA
Nitrobenzene-d5	1	NA	NA
Phenol-d6	1	NA	NA
2,4,6-Tribromophenol	1	NA	NA
4-Terphenyl-d14	1	NA	NA

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.
Sample extract was diluted due to high concentrations of non-target matrix interferences.

Flags:

BQL = Below Quantitation Limits.
J = Detected below the quantitation limit.
NA = Not Applicable, surrogate diluted out

Reviewed By: agd



Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST45-SB09
Client Project ID: Building 45
Lab Sample ID: G128-1767-9H
Lab Project ID: G128-1767
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 5/5/2006 15:10
Date Received: 5/8/2006
Date Extracted: 5/15/2006
Matrix: Soil
% Solids: 87.11

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	0.350	0.050	1	5/22/2006	
Acenaphthylene	BQL	0.350	0.047	1	5/22/2006	
Anthracene	BQL	0.350	0.051	1	5/22/2006	
Benzo[a]anthracene	BQL	0.350	0.061	1	5/22/2006	
Benzo[a]pyrene	BQL	0.350	0.054	1	5/22/2006	
Benzo[b]fluoranthene	BQL	0.350	0.061	1	5/22/2006	
Benzo[g,h,i]perylene	BQL	0.350	0.095	1	5/22/2006	
Benzo[k]fluoranthene	BQL	0.350	0.068	1	5/22/2006	
Benzoic Acid	BQL	0.699	0.699	1	5/22/2006	
Bis(2-chloroethoxy)methane	BQL	0.350	0.052	1	5/22/2006	
Bis(2-chloroethyl)ether	BQL	0.350	0.042	1	5/22/2006	
Bis(2-chloroisopropyl)ether	BQL	0.350	0.044	1	5/22/2006	
Bis(2-ethylhexyl)phthalate	0.301	0.350	0.047	1	5/22/2006	J
4-bromophenyl phenyl ether	BQL	0.350	0.059	1	5/22/2006	
Butylbenzylphthalate	BQL	0.350	0.054	1	5/22/2006	
2-Chloronaphthalene	BQL	0.350	0.055	1	5/22/2006	
2-Chlorophenol	BQL	0.350	0.109	1	5/22/2006	
4-Chloro-3-methylphenol	BQL	0.350	0.109	1	5/22/2006	
4-Chloroaniline	BQL	1.75	0.266	1	5/22/2006	
4-Chlorophenyl phenyl ether	BQL	0.350	0.051	1	5/22/2006	
Chrysene	BQL	0.350	0.038	1	5/22/2006	
Dibenzo[a,h]anthracene	BQL	0.350	0.098	1	5/22/2006	
Dibenzofuran	BQL	0.350	0.064	1	5/22/2006	
Di-n-Butylphthalate	BQL	0.350	0.042	1	5/22/2006	
1,2-Dichlorobenzene	BQL	0.350	0.039	1	5/22/2006	
1,3-Dichlorobenzene	BQL	0.350	0.038	1	5/22/2006	
1,4-Dichlorobenzene	BQL	0.350	0.040	1	5/22/2006	
3,3'-Dichlorobenzidine	BQL	0.699	0.088	1	5/22/2006	
2,4-Dichlorophenol	BQL	0.350	0.126	1	5/22/2006	
Diethylphthalate	BQL	0.350	0.045	1	5/22/2006	
Dimethylphthalate	BQL	0.350	0.042	1	5/22/2006	
2,4-Dimethylphenol	BQL	0.350	0.250	1	5/22/2006	
Di-n-octylphthalate	BQL	0.350	0.058	1	5/22/2006	
4,6-Dinitro-2-methylphenol	BQL	1.75	0.206	1	5/22/2006	
2,4-Dinitrophenol	BQL	1.75	0.770	1	5/22/2006	
2,4-Dinitrotoluene	BQL	0.350	0.046	1	5/22/2006	
2,6-Dinitrotoluene	BQL	0.350	0.064	1	5/22/2006	
Diphenylamine *	BQL	0.350	0.034	1	5/22/2006	
Fluoranthene	BQL	0.350	0.049	1	5/22/2006	
Fluorene	BQL	0.350	0.043	1	5/22/2006	
Hexachlorobenzene	BQL	0.350	0.054	1	5/22/2006	
Hexachlorobutadiene	BQL	0.350	0.056	1	5/22/2006	
Hexachlorocyclopentadiene	BQL	0.699	0.036	1	5/22/2006	
Hexachloroethane	BQL	0.350	0.032	1	5/22/2006	



Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST45-SB09
Client Project ID: Building 45
Lab Sample ID: G128-1767-9H
Lab Project ID: G128-1767
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 5/5/2006 15:10
Date Received: 5/8/2006
Date Extracted: 5/15/2006
Matrix: Soil
% Solids: 87.11

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Indeno(1,2,3-c,d)pyrene	BQL	0.350	0.090	1	5/22/2006	
Isophorone	BQL	0.350	0.051	1	5/22/2006	
2-Methylnaphthalene	BQL	0.350	0.102	1	5/22/2006	
2-Methylphenol	BQL	0.350	0.123	1	5/22/2006	
3- & 4-Methylphenol	BQL	0.350	0.119	1	5/22/2006	
Naphthalene	BQL	0.350	0.028	1	5/22/2006	
2-Nitroaniline	BQL	0.350	0.055	1	5/22/2006	
3-Nitroaniline	BQL	1.75	0.360	1	5/22/2006	
4-Nitroaniline	BQL	1.75	0.108	1	5/22/2006	
Nitrobenzene	BQL	0.350	0.047	1	5/22/2006	
2-Nitrophenol	BQL	0.350	0.108	1	5/22/2006	
4-Nitrophenol	BQL	1.75	0.097	1	5/22/2006	
N-Nitrosodi-n-propylamine	BQL	0.350	0.044	1	5/22/2006	
Pentachlorophenol	BQL	1.75	0.091	1	5/22/2006	
Phenanthrene	BQL	0.350	0.040	1	5/22/2006	
Phenol	BQL	0.350	0.096	1	5/22/2006	
Pyrene	BQL	0.350	0.067	1	5/22/2006	
1,2,4-Trichlorobenzene	BQL	0.350	0.044	1	5/22/2006	
2,4,5-Trichlorophenol	BQL	0.350	0.135	1	5/22/2006	
2,4,6-Trichlorophenol	BQL	0.350	0.124	1	5/22/2006	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	8.3	83		
2-Fluorophenol		10	7.8	78		
Nitrobenzene-d5		10	8	80		
Phenol-d6		10	8	80		
2,4,6-Tribromophenol		10	7.9	79		
4-Terphenyl-d14		10	7.8	78		

Comments:

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

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: agj



Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST45-SB10
Client Project ID: Building 45
Lab Sample ID: G128-1767-10H
Lab Project ID: G128-1767
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 5/5/2006 15:10
Date Received: 5/8/2006
Date Extracted: 5/15/2006
Matrix: Soil
% Solids: 92.76

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	0.323	0.046	1	5/22/2006	
Acenaphthylene	BQL	0.323	0.043	1	5/22/2006	
Anthracene	BQL	0.323	0.047	1	5/22/2006	
Benzo[a]anthracene	BQL	0.323	0.056	1	5/22/2006	
Benzo[a]pyrene	BQL	0.323	0.049	1	5/22/2006	
Benzo[b]fluoranthene	BQL	0.323	0.057	1	5/22/2006	
Benzo[g,h,i]perylene	BQL	0.323	0.088	1	5/22/2006	
Benzo[k]fluoranthene	BQL	0.323	0.062	1	5/22/2006	
Benzoic Acid	BQL	0.646	0.646	1	5/22/2006	
Bis(2-chloroethoxy)methane	BQL	0.323	0.048	1	5/22/2006	
Bis(2-chloroethyl)ether	BQL	0.323	0.039	1	5/22/2006	
Bis(2-chloroisopropyl)ether	BQL	0.323	0.040	1	5/22/2006	
Bis(2-ethylhexyl)phthalate	BQL	0.323	0.043	1	5/22/2006	
4-bromophenyl phenyl ether	BQL	0.323	0.055	1	5/22/2006	
Butylbenzylphthalate	BQL	0.323	0.050	1	5/22/2006	
2-Chloronaphthalene	BQL	0.323	0.051	1	5/22/2006	
2-Chlorophenol	BQL	0.323	0.101	1	5/22/2006	
4-Chloro-3-methylphenol	BQL	0.323	0.101	1	5/22/2006	
4-Chloroaniline	BQL	1.61	0.246	1	5/22/2006	
4-Chlorophenyl phenyl ether	BQL	0.323	0.048	1	5/22/2006	
Chrysene	BQL	0.323	0.035	1	5/22/2006	
Dibenzo[a,h]anthracene	BQL	0.323	0.090	1	5/22/2006	
Dibenzofuran	BQL	0.323	0.059	1	5/22/2006	
Di-n-Butylphthalate	BQL	0.323	0.038	1	5/22/2006	
1,2-Dichlorobenzene	BQL	0.323	0.036	1	5/22/2006	
1,3-Dichlorobenzene	BQL	0.323	0.035	1	5/22/2006	
1,4-Dichlorobenzene	BQL	0.323	0.037	1	5/22/2006	
3,3'-Dichlorobenzidine	BQL	0.646	0.081	1	5/22/2006	
2,4-Dichlorophenol	BQL	0.323	0.116	1	5/22/2006	
Diethylphthalate	BQL	0.323	0.042	1	5/22/2006	
Dimethylphthalate	BQL	0.323	0.039	1	5/22/2006	
2,4-Dimethylphenol	BQL	0.323	0.231	1	5/22/2006	
Di-n-octylphthalate	BQL	0.323	0.053	1	5/22/2006	
4,6-Dinitro-2-methylphenol	BQL	1.61	0.190	1	5/22/2006	
2,4-Dinitrophenol	BQL	1.61	0.711	1	5/22/2006	
2,4-Dinitrotoluene	BQL	0.323	0.042	1	5/22/2006	
2,6-Dinitrotoluene	BQL	0.323	0.059	1	5/22/2006	
Diphenylamine *	BQL	0.323	0.032	1	5/22/2006	
Fluoranthene	BQL	0.323	0.045	1	5/22/2006	
Fluorene	BQL	0.323	0.040	1	5/22/2006	
Hexachlorobenzene	BQL	0.323	0.050	1	5/22/2006	
Hexachlorobutadiene	BQL	0.323	0.052	1	5/22/2006	
Hexachlorocyclopentadiene	BQL	0.646	0.033	1	5/22/2006	
Hexachloroethane	BQL	0.323	0.029	1	5/22/2006	



Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST45-SB10
Client Project ID: Building 45
Lab Sample ID: G128-1767-10H
Lab Project ID: G128-1767
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 5/5/2006 15:10
Date Received: 5/8/2006
Date Extracted: 5/15/2006
Matrix: Soil
% Solids: 92.76

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Indeno(1,2,3-c,d)pyrene	BQL	0.323	0.083	1	5/22/2006	
Isophorone	BQL	0.323	0.048	1	5/22/2006	
2-Methylnaphthalene	BQL	0.323	0.094	1	5/22/2006	
2-Methylphenol	BQL	0.323	0.114	1	5/22/2006	
3- & 4-Methylphenol	BQL	0.323	0.109	1	5/22/2006	
Naphthalene	BQL	0.323	0.026	1	5/22/2006	
2-Nitroaniline	BQL	0.323	0.051	1	5/22/2006	
3-Nitroaniline	BQL	1.61	0.333	1	5/22/2006	
4-Nitroaniline	BQL	1.61	0.100	1	5/22/2006	
Nitrobenzene	BQL	0.323	0.044	1	5/22/2006	
2-Nitrophenol	BQL	0.323	0.100	1	5/22/2006	
4-Nitrophenol	BQL	1.61	0.090	1	5/22/2006	
N-Nitrosodi-n-propylamine	BQL	0.323	0.041	1	5/22/2006	
Pentachlorophenol	BQL	1.61	0.084	1	5/22/2006	
Phenanthrene	BQL	0.323	0.037	1	5/22/2006	
Phenol	BQL	0.323	0.089	1	5/22/2006	
Pyrene	BQL	0.323	0.062	1	5/22/2006	
1,2,4-Trichlorobenzene	BQL	0.323	0.040	1	5/22/2006	
2,4,5-Trichlorophenol	BQL	0.323	0.125	1	5/22/2006	
2,4,6-Trichlorophenol	BQL	0.323	0.115	1	5/22/2006	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	8.9	88		
2-Fluorophenol		10	8.1	81		
Nitrobenzene-d5		10	8.5	85		
Phenol-d6		10	8.3	83		
2,4,6-Tribromophenol		10	8.4	84		
4-Terphenyl-d14		10	8.4	84		

Comments:

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

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: agd



Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST45-SB11
Client Project ID: Building 45
Lab Sample ID: G128-1767-11H
Lab Project ID: G128-1767
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 5/5/2006 15:10
Date Received: 5/8/2006
Date Extracted: 5/15/2006
Matrix: Soil
% Solids: 89.84

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	0.332	0.048	1	5/22/2006	
Acenaphthylene	BQL	0.332	0.044	1	5/22/2006	
Anthracene	BQL	0.332	0.048	1	5/22/2006	
Benzo[a]anthracene	BQL	0.332	0.058	1	5/22/2006	
Benzo[a]pyrene	BQL	0.332	0.051	1	5/22/2006	
Benzo[b]fluoranthene	BQL	0.332	0.058	1	5/22/2006	
Benzo[g,h,i]perylene	BQL	0.332	0.090	1	5/22/2006	
Benzo[k]fluoranthene	BQL	0.332	0.064	1	5/22/2006	
Benzoic Acid	BQL	0.664	0.664	1	5/22/2006	
Bis(2-chloroethoxy)methane	BQL	0.332	0.050	1	5/22/2006	
Bis(2-chloroethyl)ether	BQL	0.332	0.040	1	5/22/2006	
Bis(2-chloroisopropyl)ether	BQL	0.332	0.042	1	5/22/2006	
Bis(2-ethylhexyl)phthalate	0.060	0.332	0.045	1	5/22/2006	J
4-bromophenyl phenyl ether	BQL	0.332	0.056	1	5/22/2006	
Butylbenzylphthalate	BQL	0.332	0.051	1	5/22/2006	
2-Chloronaphthalene	BQL	0.332	0.052	1	5/22/2006	
2-Chlorophenol	BQL	0.332	0.104	1	5/22/2006	
4-Chloro-3-methylphenol	BQL	0.332	0.104	1	5/22/2006	
4-Chloroaniline	BQL	1.66	0.253	1	5/22/2006	
4-Chlorophenyl phenyl ether	BQL	0.332	0.049	1	5/22/2006	
Chrysene	0.040	0.332	0.036	1	5/22/2006	J
Dibenzo[a,h]anthracene	BQL	0.332	0.093	1	5/22/2006	
Dibenzofuran	BQL	0.332	0.061	1	5/22/2006	
Di-n-Butylphthalate	BQL	0.332	0.040	1	5/22/2006	
1,2-Dichlorobenzene	BQL	0.332	0.037	1	5/22/2006	
1,3-Dichlorobenzene	BQL	0.332	0.036	1	5/22/2006	
1,4-Dichlorobenzene	BQL	0.332	0.038	1	5/22/2006	
3,3'-Dichlorobenzidine	BQL	0.664	0.084	1	5/22/2006	
2,4-Dichlorophenol	BQL	0.332	0.120	1	5/22/2006	
Diethylphthalate	BQL	0.332	0.043	1	5/22/2006	
Dimethylphthalate	BQL	0.332	0.040	1	5/22/2006	
2,4-Dimethylphenol	BQL	0.332	0.237	1	5/22/2006	
Di-n-octylphthalate	BQL	0.332	0.055	1	5/22/2006	
4,6-Dinitro-2-methylphenol	BQL	1.66	0.196	1	5/22/2006	
2,4-Dinitrophenol	BQL	1.66	0.731	1	5/22/2006	
2,4-Dinitrotoluene	BQL	0.332	0.043	1	5/22/2006	
2,6-Dinitrotoluene	BQL	0.332	0.061	1	5/22/2006	
Diphenylamine *	BQL	0.332	0.033	1	5/22/2006	
Fluoranthene	0.066	0.332	0.047	1	5/22/2006	J
Fluorene	BQL	0.332	0.041	1	5/22/2006	
Hexachlorobenzene	BQL	0.332	0.051	1	5/22/2006	
Hexachlorobutadiene	BQL	0.332	0.053	1	5/22/2006	
Hexachlorocyclopentadiene	BQL	0.664	0.034	1	5/22/2006	
Hexachloroethane	BQL	0.332	0.030	1	5/22/2006	



Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST45-SB11
Client Project ID: Building 45
Lab Sample ID: G128-1767-11H
Lab Project ID: G128-1767
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 5/5/2006 15:10
Date Received: 5/8/2006
Date Extracted: 5/15/2006
Matrix: Soil
% Solids: 89.84

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Indeno(1,2,3-c,d)pyrene	BQL	0.332	0.085	1	5/22/2006	
Isophorone	BQL	0.332	0.049	1	5/22/2006	
2-Methylnaphthalene	BQL	0.332	0.097	1	5/22/2006	
2-Methylphenol	BQL	0.332	0.117	1	5/22/2006	
3- & 4-Methylphenol	BQL	0.332	0.113	1	5/22/2006	
Naphthalene	BQL	0.332	0.027	1	5/22/2006	
2-Nitroaniline	BQL	0.332	0.052	1	5/22/2006	
3-Nitroaniline	BQL	1.66	0.342	1	5/22/2006	
4-Nitroaniline	BQL	1.66	0.102	1	5/22/2006	
Nitrobenzene	BQL	0.332	0.045	1	5/22/2006	
2-Nitrophenol	BQL	0.332	0.103	1	5/22/2006	
4-Nitrophenol	BQL	1.66	0.092	1	5/22/2006	
N-Nitrosodi-n-propylamine	BQL	0.332	0.042	1	5/22/2006	
Pentachlorophenol	BQL	1.66	0.087	1	5/22/2006	
Phenanthrene	BQL	0.332	0.038	1	5/22/2006	
Phenol	BQL	0.332	0.091	1	5/22/2006	
Pyrene	0.110	0.332	0.064	1	5/22/2006	J
1,2,4-Trichlorobenzene	BQL	0.332	0.042	1	5/22/2006	
2,4,5-Trichlorophenol	BQL	0.332	0.129	1	5/22/2006	
2,4,6-Trichlorophenol	BQL	0.332	0.118	1	5/22/2006	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	7.9	79
2-Fluorophenol	10	9.8	98
Nitrobenzene-d5	10	10.2	102
Phenol-d6	10	10.6	106
2,4,6-Tribromophenol	10	4	40
4-Terphenyl-d14	10	7.7	77

Comments:

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

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: agj



Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST45-SB11 Dup
Client Project ID: Building 45
Lab Sample ID: G128-1767-12D
Lab Project ID: G128-1767
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 5/5/2006 15:30
Date Received: 5/8/2006
Date Extracted: 5/15/2006
Matrix: Soil
% Solids: 88.76

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	3.29	0.471	10	5/24/2006	
Acenaphthylene	BQL	3.29	0.438	10	5/24/2006	
Anthracene	BQL	3.29	0.478	10	5/24/2006	
Benzo[a]anthracene	BQL	3.29	0.570	10	5/24/2006	
Benzo[a]pyrene	BQL	3.29	0.504	10	5/24/2006	
Benzo[b]fluoranthene	BQL	3.29	0.576	10	5/24/2006	
Benzo[g,h,i]perylene	BQL	3.29	0.896	10	5/24/2006	
Benzo[k]fluoranthene	BQL	3.29	0.636	10	5/24/2006	
Benzoic Acid	BQL	6.59	6.59	10	5/24/2006	
Bis(2-chloroethoxy)methane	BQL	3.29	0.491	10	5/24/2006	
Bis(2-chloroethyl)ether	BQL	3.29	0.399	10	5/24/2006	
Bis(2-chloroisopropyl)ether	BQL	3.29	0.412	10	5/24/2006	
Bis(2-ethylhexyl)phthalate	BQL	3.29	0.441	10	5/24/2006	
4-bromophenyl phenyl ether	BQL	3.29	0.557	10	5/24/2006	
Butylbenzylphthalate	BQL	3.29	0.507	10	5/24/2006	
2-Chloronaphthalene	BQL	3.29	0.517	10	5/24/2006	
2-Chlorophenol	BQL	3.29	1.03	10	5/24/2006	
4-Chloro-3-methylphenol	BQL	3.29	1.03	10	5/24/2006	
4-Chloroaniline	BQL	16.5	2.51	10	5/24/2006	
4-Chlorophenyl phenyl ether	BQL	3.29	0.484	10	5/24/2006	
Chrysene	BQL	3.29	0.356	10	5/24/2006	
Dibenzo[a,h]anthracene	BQL	3.29	0.922	10	5/24/2006	
Dibenzofuran	BQL	3.29	0.600	10	5/24/2006	
Di-n-Butylphthalate	BQL	3.29	0.392	10	5/24/2006	
1,2-Dichlorobenzene	BQL	3.29	0.366	10	5/24/2006	
1,3-Dichlorobenzene	BQL	3.29	0.359	10	5/24/2006	
1,4-Dichlorobenzene	BQL	3.29	0.372	10	5/24/2006	
3,3'-Dichlorobenzidine	BQL	6.59	0.830	10	5/24/2006	
2,4-Dichlorophenol	BQL	3.29	1.19	10	5/24/2006	
Diethylphthalate	BQL	3.29	0.425	10	5/24/2006	
Dimethylphthalate	BQL	3.29	0.399	10	5/24/2006	
2,4-Dimethylphenol	BQL	3.29	2.36	10	5/24/2006	
Di-n-octylphthalate	BQL	3.29	0.544	10	5/24/2006	
4,6-Dinitro-2-methylphenol	BQL	16.5	1.94	10	5/24/2006	
2,4-Dinitrophenol	BQL	16.5	7.25	10	5/24/2006	
2,4-Dinitrotoluene	BQL	3.29	0.428	10	5/24/2006	
2,6-Dinitrotoluene	BQL	3.29	0.600	10	5/24/2006	
Diphenylamine *	BQL	3.29	0.323	10	5/24/2006	
Fluoranthene	BQL	3.29	0.461	10	5/24/2006	
Fluorene	BQL	3.29	0.408	10	5/24/2006	
Hexachlorobenzene	BQL	3.29	0.507	10	5/24/2006	
Hexachlorobutadiene	BQL	3.29	0.527	10	5/24/2006	
Hexachlorocyclopentadiene	BQL	6.59	0.339	10	5/24/2006	
Hexachloroethane	BQL	3.29	0.296	10	5/24/2006	



Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST45-SB11 Dup
Client Project ID: Building 45
Lab Sample ID: G128-1767-12D
Lab Project ID: G128-1767
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 5/5/2006 15:30
Date Received: 5/8/2006
Date Extracted: 5/15/2006
Matrix: Soil
% Solids: 88.76

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Indeno(1,2,3-c,d)pyrene	BQL	3.29	0.843	10	5/24/2006	
Isophorone	BQL	3.29	0.484	10	5/24/2006	
2-Methylnaphthalene	BQL	3.29	0.962	10	5/24/2006	
2-Methylphenol	BQL	3.29	1.16	10	5/24/2006	
3- & 4-Methylphenol	BQL	3.29	1.12	10	5/24/2006	
Naphthalene	BQL	3.29	0.267	10	5/24/2006	
2-Nitroaniline	BQL	3.29	0.517	10	5/24/2006	
3-Nitroaniline	BQL	16.5	3.39	10	5/24/2006	
4-Nitroaniline	BQL	16.5	1.01	10	5/24/2006	
Nitrobenzene	BQL	3.29	0.445	10	5/24/2006	
2-Nitrophenol	BQL	3.29	1.02	10	5/24/2006	
4-Nitrophenol	BQL	16.5	0.913	10	5/24/2006	
N-Nitrosodi-n-propylamine	BQL	3.29	0.418	10	5/24/2006	
Pentachlorophenol	BQL	16.5	0.860	10	5/24/2006	
Phenanthrene	BQL	3.29	0.376	10	5/24/2006	
Phenol	BQL	3.29	0.903	10	5/24/2006	
Pyrene	BQL	3.29	0.632	10	5/24/2006	
1,2,4-Trichlorobenzene	BQL	3.29	0.412	10	5/24/2006	
2,4,5-Trichlorophenol	BQL	3.29	1.27	10	5/24/2006	
2,4,6-Trichlorophenol	BQL	3.29	1.17	10	5/24/2006	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	1	NA	NA
2-Fluorophenol	1	NA	NA
Nitrobenzene-d5	1	NA	NA
Phenol-d6	1	NA	NA
2,4,6-Tribromophenol	1	NA	NA
4-Terphenyl-d14	1	NA	NA

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.
Sample was diluted due to high concentrations of non-target matrix interferences.

Flags:

BQL = Below Quantitation Limits.
J = Detected below the quantitation limit.
NA = Not Applicable, surrogate diluted out

Reviewed By: ayd



Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST45-SB12
Client Project ID: Building 45
Lab Sample ID: G128-1767-13H
Lab Project ID: G128-1767
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 5/5/2006 15:10
Date Received: 5/8/2006
Date Extracted: 5/15/2006
Matrix: Soil
% Solids: 90.4

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	0.320	0.046	1	5/23/2006	
Acenaphthylene	BQL	0.320	0.043	1	5/23/2006	
Anthracene	BQL	0.320	0.046	1	5/23/2006	
Benzo[a]anthracene	BQL	0.320	0.055	1	5/23/2006	
Benzo[a]pyrene	BQL	0.320	0.049	1	5/23/2006	
Benzo[b]fluoranthene	BQL	0.320	0.056	1	5/23/2006	
Benzo[g,h,i]perylene	BQL	0.320	0.087	1	5/23/2006	
Benzo[k]fluoranthene	BQL	0.320	0.062	1	5/23/2006	
Benzoic Acid	BQL	0.640	0.640	1	5/23/2006	
Bis(2-chloroethoxy)methane	BQL	0.320	0.048	1	5/23/2006	
Bis(2-chloroethyl)ether	BQL	0.320	0.039	1	5/23/2006	
Bis(2-chloroisopropyl)ether	BQL	0.320	0.040	1	5/23/2006	
Bis(2-ethylhexyl)phthalate	0.086	0.320	0.043	1	5/23/2006	J
4-bromophenyl phenyl ether	BQL	0.320	0.054	1	5/23/2006	
Butylbenzylphthalate	BQL	0.320	0.049	1	5/23/2006	
2-Chloronaphthalene	BQL	0.320	0.050	1	5/23/2006	
2-Chlorophenol	BQL	0.320	0.100	1	5/23/2006	
4-Chloro-3-methylphenol	BQL	0.320	0.100	1	5/23/2006	
4-Chloroaniline	BQL	1.60	0.244	1	5/23/2006	
4-Chlorophenyl phenyl ether	BQL	0.320	0.047	1	5/23/2006	
Chrysene	BQL	0.320	0.035	1	5/23/2006	
Dibenzo[a,h]anthracene	BQL	0.320	0.090	1	5/23/2006	
Dibenzofuran	BQL	0.320	0.058	1	5/23/2006	
Di-n-Butylphthalate	BQL	0.320	0.038	1	5/23/2006	
1,2-Dichlorobenzene	BQL	0.320	0.036	1	5/23/2006	
1,3-Dichlorobenzene	BQL	0.320	0.035	1	5/23/2006	
1,4-Dichlorobenzene	BQL	0.320	0.036	1	5/23/2006	
3,3'-Dichlorobenzidine	BQL	0.640	0.081	1	5/23/2006	
2,4-Dichlorophenol	BQL	0.320	0.115	1	5/23/2006	
Diethylphthalate	BQL	0.320	0.041	1	5/23/2006	
Dimethylphthalate	BQL	0.320	0.039	1	5/23/2006	
2,4-Dimethylphenol	BQL	0.320	0.229	1	5/23/2006	
Di-n-octylphthalate	BQL	0.320	0.053	1	5/23/2006	
4,6-Dinitro-2-methylphenol	BQL	1.60	0.189	1	5/23/2006	
2,4-Dinitrophenol	BQL	1.60	0.705	1	5/23/2006	
2,4-Dinitrotoluene	BQL	0.320	0.042	1	5/23/2006	
2,6-Dinitrotoluene	BQL	0.320	0.058	1	5/23/2006	
Diphenylamine *	BQL	0.320	0.031	1	5/23/2006	
Fluoranthene	BQL	0.320	0.045	1	5/23/2006	
Fluorene	BQL	0.320	0.040	1	5/23/2006	
Hexachlorobenzene	BQL	0.320	0.049	1	5/23/2006	
Hexachlorobutadiene	BQL	0.320	0.051	1	5/23/2006	
Hexachlorocyclopentadiene	BQL	0.640	0.033	1	5/23/2006	
Hexachloroethane	BQL	0.320	0.029	1	5/23/2006	



Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST45-SB12
Client Project ID: Building 45
Lab Sample ID: G128-1767-13H
Lab Project ID: G128-1767
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 5/5/2006 15:10
Date Received: 5/8/2006
Date Extracted: 5/15/2006
Matrix: Soil
% Solids: 90.4

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Indeno(1,2,3-c,d)pyrene	BQL	0.320	0.082	1	5/23/2006	
Isophorone	BQL	0.320	0.047	1	5/23/2006	
2-Methylnaphthalene	BQL	0.320	0.094	1	5/23/2006	
2-Methylphenol	BQL	0.320	0.113	1	5/23/2006	
3- & 4-Methylphenol	BQL	0.320	0.109	1	5/23/2006	
Naphthalene	BQL	0.320	0.026	1	5/23/2006	
2-Nitroaniline	BQL	0.320	0.050	1	5/23/2006	
3-Nitroaniline	BQL	1.60	0.330	1	5/23/2006	
4-Nitroaniline	BQL	1.60	0.099	1	5/23/2006	
Nitrobenzene	BQL	0.320	0.043	1	5/23/2006	
2-Nitrophenol	BQL	0.320	0.099	1	5/23/2006	
4-Nitrophenol	BQL	1.60	0.089	1	5/23/2006	
N-Nitrosodi-n-propylamine	BQL	0.320	0.041	1	5/23/2006	
Pentachlorophenol	BQL	1.60	0.084	1	5/23/2006	
Phenanthrene	BQL	0.320	0.037	1	5/23/2006	
Phenol	BQL	0.320	0.088	1	5/23/2006	
Pyrene	BQL	0.320	0.062	1	5/23/2006	
1,2,4-Trichlorobenzene	BQL	0.320	0.040	1	5/23/2006	
2,4,5-Trichlorophenol	BQL	0.320	0.124	1	5/23/2006	
2,4,6-Trichlorophenol	BQL	0.320	0.114	1	5/23/2006	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8.9	89
2-Fluorophenol	10	7.8	78
Nitrobenzene-d5	10	8.8	88
Phenol-d6	10	7.7	77
2,4,6-Tribromophenol	10	10	100
4-Terphenyl-d14	10	7.8	78

Comments:

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

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: ajl



Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST45-SB13
Client Project ID: Building 45
Lab Sample ID: G128-1767-14H
Lab Project ID: G128-1767
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 5/5/2006 15:20
Date Received: 5/8/2006
Date Extracted: 5/15/2006
Matrix: Soil
% Solids: 91.53

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	0.339	0.049	1	5/23/2006	
Acenaphthylene	BQL	0.339	0.045	1	5/23/2006	
Anthracene	BQL	0.339	0.049	1	5/23/2006	
Benzo[a]anthracene	BQL	0.339	0.059	1	5/23/2006	
Benzo[a]pyrene	BQL	0.339	0.052	1	5/23/2006	
Benzo[b]fluoranthene	BQL	0.339	0.059	1	5/23/2006	
Benzo[g,h,i]perylene	BQL	0.339	0.092	1	5/23/2006	
Benzo[k]fluoranthene	BQL	0.339	0.066	1	5/23/2006	
Benzoic Acid	BQL	0.678	0.678	1	5/23/2006	
Bis(2-chloroethoxy)methane	BQL	0.339	0.051	1	5/23/2006	
Bis(2-chloroethyl)ether	BQL	0.339	0.041	1	5/23/2006	
Bis(2-chloroisopropyl)ether	BQL	0.339	0.042	1	5/23/2006	
Bis(2-ethylhexyl)phthalate	BQL	0.339	0.046	1	5/23/2006	
4-bromophenyl phenyl ether	BQL	0.339	0.057	1	5/23/2006	
Butylbenzylphthalate	BQL	0.339	0.052	1	5/23/2006	
2-Chloronaphthalene	BQL	0.339	0.053	1	5/23/2006	
2-Chlorophenol	BQL	0.339	0.106	1	5/23/2006	
4-Chloro-3-methylphenol	BQL	0.339	0.106	1	5/23/2006	
4-Chloroaniline	BQL	1.70	0.258	1	5/23/2006	
4-Chlorophenyl phenyl ether	BQL	0.339	0.050	1	5/23/2006	
Chrysene	BQL	0.339	0.037	1	5/23/2006	
Dibenzo[a,h]anthracene	BQL	0.339	0.095	1	5/23/2006	
Dibenzofuran	BQL	0.339	0.062	1	5/23/2006	
Di-n-Butylphthalate	BQL	0.339	0.040	1	5/23/2006	
1,2-Dichlorobenzene	BQL	0.339	0.038	1	5/23/2006	
1,3-Dichlorobenzene	BQL	0.339	0.037	1	5/23/2006	
1,4-Dichlorobenzene	BQL	0.339	0.038	1	5/23/2006	
3,3'-Dichlorobenzidine	BQL	0.678	0.086	1	5/23/2006	
2,4-Dichlorophenol	BQL	0.339	0.122	1	5/23/2006	
Diethylphthalate	BQL	0.339	0.044	1	5/23/2006	
Dimethylphthalate	BQL	0.339	0.041	1	5/23/2006	
2,4-Dimethylphenol	BQL	0.339	0.243	1	5/23/2006	
Di-n-octylphthalate	BQL	0.339	0.056	1	5/23/2006	
4,6-Dinitro-2-methylphenol	BQL	1.70	0.200	1	5/23/2006	
2,4-Dinitrophenol	BQL	1.70	0.747	1	5/23/2006	
2,4-Dinitrotoluene	BQL	0.339	0.044	1	5/23/2006	
2,6-Dinitrotoluene	BQL	0.339	0.062	1	5/23/2006	
Diphenylamine *	BQL	0.339	0.033	1	5/23/2006	
Fluoranthene	BQL	0.339	0.048	1	5/23/2006	
Fluorene	BQL	0.339	0.042	1	5/23/2006	
Hexachlorobenzene	BQL	0.339	0.052	1	5/23/2006	
Hexachlorobutadiene	BQL	0.339	0.054	1	5/23/2006	
Hexachlorocyclopentadiene	BQL	0.678	0.035	1	5/23/2006	
Hexachloroethane	BQL	0.339	0.031	1	5/23/2006	



Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST45-SB13
Client Project ID: Building 45
Lab Sample ID: G128-1767-14H
Lab Project ID: G128-1767
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 5/5/2006 15:20
Date Received: 5/8/2006
Date Extracted: 5/15/2006
Matrix: Soil
% Solids: 91.53

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Indeno(1,2,3-c,d)pyrene	BQL	0.339	0.087	1	5/23/2006	
Isophorone	BQL	0.339	0.050	1	5/23/2006	
2-Methylnaphthalene	BQL	0.339	0.099	1	5/23/2006	
2-Methylphenol	BQL	0.339	0.119	1	5/23/2006	
3- & 4-Methylphenol	BQL	0.339	0.115	1	5/23/2006	
Naphthalene	BQL	0.339	0.028	1	5/23/2006	
2-Nitroaniline	BQL	0.339	0.053	1	5/23/2006	
3-Nitroaniline	BQL	1.70	0.349	1	5/23/2006	
4-Nitroaniline	BQL	1.70	0.104	1	5/23/2006	
Nitrobenzene	BQL	0.339	0.046	1	5/23/2006	
2-Nitrophenol	BQL	0.339	0.105	1	5/23/2006	
4-Nitrophenol	BQL	1.70	0.094	1	5/23/2006	
N-Nitrosodi-n-propylamine	BQL	0.339	0.043	1	5/23/2006	
Pentachlorophenol	BQL	1.70	0.089	1	5/23/2006	
Phenanthrene	BQL	0.339	0.039	1	5/23/2006	
Phenol	BQL	0.339	0.093	1	5/23/2006	
Pyrene	BQL	0.339	0.065	1	5/23/2006	
1,2,4-Trichlorobenzene	BQL	0.339	0.042	1	5/23/2006	
2,4,5-Trichlorophenol	BQL	0.339	0.131	1	5/23/2006	
2,4,6-Trichlorophenol	BQL	0.339	0.121	1	5/23/2006	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	9.3	93
2-Fluorophenol	10	8	80
Nitrobenzene-d5	10	8.5	85
Phenol-d6	10	8	80
2,4,6-Tribromophenol	10	9.3	93
4-Terphenyl-d14	10	8.1	81

Comments:

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

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: gjd



Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST45-SB14
Client Project ID: Building 45
Lab Sample ID: G128-1767-15H
Lab Project ID: G128-1767
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 5/5/2006 15:20
Date Received: 5/8/2006
Date Extracted: 5/15/2006
Matrix: Soil
% Solids: 83.35

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	0.350	0.050	1	5/23/2006	
Acenaphthylene	BQL	0.350	0.047	1	5/23/2006	
Anthracene	BQL	0.350	0.051	1	5/23/2006	
Benzo[a]anthracene	BQL	0.350	0.061	1	5/23/2006	
Benzo[a]pyrene	BQL	0.350	0.054	1	5/23/2006	
Benzo[b]fluoranthene	BQL	0.350	0.061	1	5/23/2006	
Benzo[g,h,i]perylene	BQL	0.350	0.095	1	5/23/2006	
Benzo[k]fluoranthene	BQL	0.350	0.068	1	5/23/2006	
Benzoic Acid	BQL	0.701	0.701	1	5/23/2006	
Bis(2-chloroethoxy)methane	BQL	0.350	0.052	1	5/23/2006	
Bis(2-chloroethyl)ether	BQL	0.350	0.042	1	5/23/2006	
Bis(2-chloroisopropyl)ether	BQL	0.350	0.044	1	5/23/2006	
Bis(2-ethylhexyl)phthalate	BQL	0.350	0.047	1	5/23/2006	
4-bromophenyl phenyl ether	BQL	0.350	0.059	1	5/23/2006	
Butylbenzylphthalate	BQL	0.350	0.054	1	5/23/2006	
2-Chloronaphthalene	BQL	0.350	0.055	1	5/23/2006	
2-Chlorophenol	BQL	0.350	0.110	1	5/23/2006	
4-Chloro-3-methylphenol	BQL	0.350	0.109	1	5/23/2006	
4-Chloroaniline	BQL	1.75	0.267	1	5/23/2006	
4-Chlorophenyl phenyl ether	BQL	0.350	0.052	1	5/23/2006	
Chrysene	BQL	0.350	0.038	1	5/23/2006	
Dibenzo[a,h]anthracene	BQL	0.350	0.098	1	5/23/2006	
Dibenzofuran	BQL	0.350	0.064	1	5/23/2006	
Di-n-Butylphthalate	BQL	0.350	0.042	1	5/23/2006	
1,2-Dichlorobenzene	BQL	0.350	0.039	1	5/23/2006	
1,3-Dichlorobenzene	BQL	0.350	0.038	1	5/23/2006	
1,4-Dichlorobenzene	BQL	0.350	0.040	1	5/23/2006	
3,3'-Dichlorobenzidine	BQL	0.701	0.088	1	5/23/2006	
2,4-Dichlorophenol	BQL	0.350	0.126	1	5/23/2006	
Diethylphthalate	BQL	0.350	0.045	1	5/23/2006	
Dimethylphthalate	BQL	0.350	0.042	1	5/23/2006	
2,4-Dimethylphenol	BQL	0.350	0.251	1	5/23/2006	
Di-n-octylphthalate	BQL	0.350	0.058	1	5/23/2006	
4,6-Dinitro-2-methylphenol	BQL	1.75	0.206	1	5/23/2006	
2,4-Dinitrophenol	BQL	1.75	0.772	1	5/23/2006	
2,4-Dinitrotoluene	BQL	0.350	0.046	1	5/23/2006	
2,6-Dinitrotoluene	BQL	0.350	0.064	1	5/23/2006	
Diphenylamine *	BQL	0.350	0.034	1	5/23/2006	
Fluoranthene	BQL	0.350	0.049	1	5/23/2006	
Fluorene	BQL	0.350	0.044	1	5/23/2006	
Hexachlorobenzene	BQL	0.350	0.054	1	5/23/2006	
Hexachlorobutadiene	BQL	0.350	0.056	1	5/23/2006	
Hexachlorocyclopentadiene	BQL	0.701	0.036	1	5/23/2006	
Hexachloroethane	BQL	0.350	0.032	1	5/23/2006	



Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST45-SB14
Client Project ID: Building 45
Lab Sample ID: G128-1767-15H
Lab Project ID: G128-1767
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 5/5/2006 15:20
Date Received: 5/8/2006
Date Extracted: 5/15/2006
Matrix: Soil
% Solids: 83.35

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Indeno(1,2,3-c,d)pyrene	BQL	0.350	0.090	1	5/23/2006	
Isophorone	BQL	0.350	0.052	1	5/23/2006	
2-Methylnaphthalene	BQL	0.350	0.102	1	5/23/2006	
2-Methylphenol	BQL	0.350	0.123	1	5/23/2006	
3- & 4-Methylphenol	BQL	0.350	0.119	1	5/23/2006	
Naphthalene	BQL	0.350	0.028	1	5/23/2006	
2-Nitroaniline	BQL	0.350	0.055	1	5/23/2006	
3-Nitroaniline	BQL	1.75	0.361	1	5/23/2006	
4-Nitroaniline	BQL	1.75	0.108	1	5/23/2006	
Nitrobenzene	BQL	0.350	0.047	1	5/23/2006	
2-Nitrophenol	BQL	0.350	0.109	1	5/23/2006	
4-Nitrophenol	BQL	1.75	0.097	1	5/23/2006	
N-Nitrosodi-n-propylamine	BQL	0.350	0.045	1	5/23/2006	
Pentachlorophenol	BQL	1.75	0.092	1	5/23/2006	
Phenanthrene	BQL	0.350	0.040	1	5/23/2006	
Phenol	BQL	0.350	0.096	1	5/23/2006	
Pyrene	BQL	0.350	0.067	1	5/23/2006	
1,2,4-Trichlorobenzene	BQL	0.350	0.044	1	5/23/2006	
2,4,5-Trichlorophenol	BQL	0.350	0.136	1	5/23/2006	
2,4,6-Trichlorophenol	BQL	0.350	0.125	1	5/23/2006	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8.7	87
2-Fluorophenol	10	7.9	79
Nitrobenzene-d5	10	8	80
Phenol-d6	10	7.9	79
2,4,6-Tribromophenol	10	8.5	85
4-Terphenyl-d14	10	7.7	77

Comments:

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

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: eqd



Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST45-SB15
Client Project ID: Building 45
Lab Sample ID: G128-1767-16H
Lab Project ID: G128-1767
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 5/5/2006 15:20
Date Received: 5/8/2006
Date Extracted: 5/15/2006
Matrix: Soil
% Solids: 83.92

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	0.336	0.048	1	5/23/2006	
Acenaphthylene	BQL	0.336	0.045	1	5/23/2006	
Anthracene	BQL	0.336	0.049	1	5/23/2006	
Benzo[a]anthracene	BQL	0.336	0.058	1	5/23/2006	
Benzo[a]pyrene	BQL	0.336	0.052	1	5/23/2006	
Benzo[b]fluoranthene	BQL	0.336	0.059	1	5/23/2006	
Benzo[g,h,i]perylene	BQL	0.336	0.092	1	5/23/2006	
Benzo[k]fluoranthene	BQL	0.336	0.065	1	5/23/2006	
Benzoic Acid	BQL	0.673	0.673	1	5/23/2006	
Bis(2-chloroethoxy)methane	BQL	0.336	0.050	1	5/23/2006	
Bis(2-chloroethyl)ether	BQL	0.336	0.041	1	5/23/2006	
Bis(2-chloroisopropyl)ether	BQL	0.336	0.042	1	5/23/2006	
Bis(2-ethylhexyl)phthalate	BQL	0.336	0.045	1	5/23/2006	
4-bromophenyl phenyl ether	BQL	0.336	0.057	1	5/23/2006	
Butylbenzylphthalate	BQL	0.336	0.052	1	5/23/2006	
2-Chloronaphthalene	BQL	0.336	0.053	1	5/23/2006	
2-Chlorophenol	BQL	0.336	0.105	1	5/23/2006	
4-Chloro-3-methylphenol	BQL	0.336	0.105	1	5/23/2006	
4-Chloroaniline	BQL	1.68	0.256	1	5/23/2006	
4-Chlorophenyl phenyl ether	BQL	0.336	0.050	1	5/23/2006	
Chrysene	BQL	0.336	0.036	1	5/23/2006	
Dibenzo[a,h]anthracene	BQL	0.336	0.094	1	5/23/2006	
Dibenzofuran	BQL	0.336	0.061	1	5/23/2006	
Di-n-Butylphthalate	BQL	0.336	0.040	1	5/23/2006	
1,2-Dichlorobenzene	BQL	0.336	0.037	1	5/23/2006	
1,3-Dichlorobenzene	BQL	0.336	0.037	1	5/23/2006	
1,4-Dichlorobenzene	BQL	0.336	0.038	1	5/23/2006	
3,3'-Dichlorobenzidine	BQL	0.673	0.085	1	5/23/2006	
2,4-Dichlorophenol	BQL	0.336	0.121	1	5/23/2006	
Diethylphthalate	BQL	0.336	0.043	1	5/23/2006	
Dimethylphthalate	BQL	0.336	0.041	1	5/23/2006	
2,4-Dimethylphenol	BQL	0.336	0.241	1	5/23/2006	
Di-n-octylphthalate	BQL	0.336	0.056	1	5/23/2006	
4,6-Dinitro-2-methylphenol	BQL	1.68	0.198	1	5/23/2006	
2,4-Dinitrophenol	BQL	1.68	0.741	1	5/23/2006	
2,4-Dinitrotoluene	BQL	0.336	0.044	1	5/23/2006	
2,6-Dinitrotoluene	BQL	0.336	0.061	1	5/23/2006	
Diphenylamine *	BQL	0.336	0.033	1	5/23/2006	
Fluoranthene	BQL	0.336	0.047	1	5/23/2006	
Fluorene	BQL	0.336	0.042	1	5/23/2006	
Hexachlorobenzene	BQL	0.336	0.052	1	5/23/2006	
Hexachlorobutadiene	BQL	0.336	0.054	1	5/23/2006	
Hexachlorocyclopentadiene	BQL	0.673	0.035	1	5/23/2006	
Hexachloroethane	BQL	0.336	0.030	1	5/23/2006	



Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST45-SB15
Client Project ID: Building 45
Lab Sample ID: G128-1767-16H
Lab Project ID: G128-1767
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 5/5/2006 15:20
Date Received: 5/8/2006
Date Extracted: 5/15/2006
Matrix: Soil
% Solids: 83.92

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Indeno(1,2,3-c,d)pyrene	BQL	0.336	0.086	1	5/23/2006	
Isophorone	BQL	0.336	0.050	1	5/23/2006	
2-Methylnaphthalene	BQL	0.336	0.098	1	5/23/2006	
2-Methylphenol	BQL	0.336	0.118	1	5/23/2006	
3- & 4-Methylphenol	BQL	0.336	0.114	1	5/23/2006	
Naphthalene	BQL	0.336	0.027	1	5/23/2006	
2-Nitroaniline	BQL	0.336	0.053	1	5/23/2006	
3-Nitroaniline	BQL	1.68	0.347	1	5/23/2006	
4-Nitroaniline	BQL	1.68	0.104	1	5/23/2006	
Nitrobenzene	BQL	0.336	0.045	1	5/23/2006	
2-Nitrophenol	BQL	0.336	0.104	1	5/23/2006	
4-Nitrophenol	BQL	1.68	0.093	1	5/23/2006	
N-Nitrosodi-n-propylamine	BQL	0.336	0.043	1	5/23/2006	
Pentachlorophenol	BQL	1.68	0.088	1	5/23/2006	
Phenanthrene	BQL	0.336	0.038	1	5/23/2006	
Phenol	BQL	0.336	0.092	1	5/23/2006	
Pyrene	BQL	0.336	0.065	1	5/23/2006	
1,2,4-Trichlorobenzene	BQL	0.336	0.042	1	5/23/2006	
2,4,5-Trichlorophenol	BQL	0.336	0.130	1	5/23/2006	
2,4,6-Trichlorophenol	BQL	0.336	0.120	1	5/23/2006	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	8.1	81		
2-Fluorophenol		10	8	80		
Nitrobenzene-d5		10	7.7	77		
Phenol-d6		10	7.9	79		
2,4,6-Tribromophenol		10	7.3	73		
4-Terphenyl-d14		10	7.5	75		

Comments:

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

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: agj



Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST45-SB16
Client Project ID: Building 45
Lab Sample ID: G128-1767-17H
Lab Project ID: G128-1767
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 5/5/2006 15:20
Date Received: 5/8/2006
Date Extracted: 5/15/2006
Matrix: Soil
% Solids: 90.65

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	0.344	0.049	1	5/18/2006	
Acenaphthylene	BQL	0.344	0.046	1	5/18/2006	
Anthracene	BQL	0.344	0.050	1	5/18/2006	
Benzo[a]anthracene	BQL	0.344	0.060	1	5/18/2006	
Benzo[a]pyrene	BQL	0.344	0.053	1	5/18/2006	
Benzo[b]fluoranthene	BQL	0.344	0.060	1	5/18/2006	
Benzo[g,h,i]perylene	BQL	0.344	0.094	1	5/18/2006	
Benzo[k]fluoranthene	BQL	0.344	0.066	1	5/18/2006	
Benzoic Acid	BQL	0.688	0.688	1	5/18/2006	
Bis(2-chloroethoxy)methane	BQL	0.344	0.051	1	5/18/2006	
Bis(2-chloroethyl)ether	BQL	0.344	0.042	1	5/18/2006	
Bis(2-chloroisopropyl)ether	BQL	0.344	0.043	1	5/18/2006	
Bis(2-ethylhexyl)phthalate	0.100	0.344	0.046	1	5/18/2006	J
4-bromophenyl phenyl ether	BQL	0.344	0.058	1	5/18/2006	
Butylbenzylphthalate	BQL	0.344	0.053	1	5/18/2006	
2-Chloronaphthalene	BQL	0.344	0.054	1	5/18/2006	
2-Chlorophenol	BQL	0.344	0.108	1	5/18/2006	
4-Chloro-3-methylphenol	BQL	0.344	0.107	1	5/18/2006	
4-Chloroaniline	BQL	1.72	0.262	1	5/18/2006	
4-Chlorophenyl phenyl ether	BQL	0.344	0.051	1	5/18/2006	
Chrysene	0.038	0.344	0.037	1	5/18/2006	J
Dibenzo[a,h]anthracene	BQL	0.344	0.096	1	5/18/2006	
Dibenzofuran	BQL	0.344	0.063	1	5/18/2006	
Di-n-Butylphthalate	BQL	0.344	0.041	1	5/18/2006	
1,2-Dichlorobenzene	BQL	0.344	0.038	1	5/18/2006	
1,3-Dichlorobenzene	BQL	0.344	0.038	1	5/18/2006	
1,4-Dichlorobenzene	BQL	0.344	0.039	1	5/18/2006	
3,3'-Dichlorobenzidine	BQL	0.688	0.087	1	5/18/2006	
2,4-Dichlorophenol	BQL	0.344	0.124	1	5/18/2006	
Diethylphthalate	BQL	0.344	0.044	1	5/18/2006	
Dimethylphthalate	BQL	0.344	0.042	1	5/18/2006	
2,4-Dimethylphenol	BQL	0.344	0.246	1	5/18/2006	
Di-n-octylphthalate	BQL	0.344	0.057	1	5/18/2006	
4,6-Dinitro-2-methylphenol	BQL	1.72	0.202	1	5/18/2006	
2,4-Dinitrophenol	BQL	1.72	0.757	1	5/18/2006	
2,4-Dinitrotoluene	BQL	0.344	0.045	1	5/18/2006	
2,6-Dinitrotoluene	BQL	0.344	0.063	1	5/18/2006	
Diphenylamine *	BQL	0.344	0.034	1	5/18/2006	
Fluoranthene	0.079	0.344	0.048	1	5/18/2006	J
Fluorene	BQL	0.344	0.043	1	5/18/2006	
Hexachlorobenzene	BQL	0.344	0.053	1	5/18/2006	
Hexachlorobutadiene	BQL	0.344	0.055	1	5/18/2006	
Hexachlorocyclopentadiene	BQL	0.688	0.035	1	5/18/2006	
Hexachloroethane	BQL	0.344	0.031	1	5/18/2006	



Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST45-SB16
Client Project ID: Building 45
Lab Sample ID: G128-1767-17H
Lab Project ID: G128-1767
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 5/5/2006 15:20
Date Received: 5/8/2006
Date Extracted: 5/15/2006
Matrix: Soil
% Solids: 90.65

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Indeno(1,2,3-c,d)pyrene	BQL	0.344	0.088	1	5/18/2006	
Isophorone	BQL	0.344	0.051	1	5/18/2006	
2-Methylnaphthalene	BQL	0.344	0.100	1	5/18/2006	
2-Methylphenol	BQL	0.344	0.121	1	5/18/2006	
3- & 4-Methylphenol	BQL	0.344	0.117	1	5/18/2006	
Naphthalene	BQL	0.344	0.028	1	5/18/2006	
2-Nitroaniline	BQL	0.344	0.054	1	5/18/2006	
3-Nitroaniline	BQL	1.72	0.354	1	5/18/2006	
4-Nitroaniline	BQL	1.72	0.106	1	5/18/2006	
Nitrobenzene	BQL	0.344	0.046	1	5/18/2006	
2-Nitrophenol	BQL	0.344	0.107	1	5/18/2006	
4-Nitrophenol	BQL	1.72	0.095	1	5/18/2006	
N-Nitrosodi-n-propylamine	BQL	0.344	0.044	1	5/18/2006	
Pentachlorophenol	BQL	1.72	0.090	1	5/18/2006	
Phenanthrene	0.058	0.344	0.039	1	5/18/2006	J
Phenol	BQL	0.344	0.094	1	5/18/2006	
Pyrene	BQL	0.344	0.066	1	5/18/2006	
1,2,4-Trichlorobenzene	BQL	0.344	0.043	1	5/18/2006	
2,4,5-Trichlorophenol	BQL	0.344	0.133	1	5/18/2006	
2,4,6-Trichlorophenol	BQL	0.344	0.122	1	5/18/2006	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	9.5	95		
2-Fluorophenol		10	9.3	93		
Nitrobenzene-d5		10	9.2	92		
Phenol-d6		10	9.9	99		
2,4,6-Tribromophenol		10	11.6	116		
4-Terphenyl-d14		10	8.4	84		

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

Flag BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: agf



Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST45-SB17
Client Project ID: Building 45
Lab Sample ID: G128-1767-18H
Lab Project ID: G128-1767
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 5/5/2006 15:20
Date Received: 5/8/2006
Date Extracted: 5/15/2006
Matrix: Soil
% Solids: 88.25

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	0.334	0.048	1	5/18/2006	
Acenaphthylene	BQL	0.334	0.044	1	5/18/2006	
Anthracene	0.057	0.334	0.048	1	5/18/2006	J
Benzo[a]anthracene	0.200	0.334	0.058	1	5/18/2006	J
Benzo[a]pyrene	0.174	0.334	0.051	1	5/18/2006	J
Benzo[b]fluoranthene	0.260	0.334	0.058	1	5/18/2006	J
Benzo[g,h,i]perylene	BQL	0.334	0.091	1	5/18/2006	
Benzo[k]fluoranthene	0.087	0.334	0.065	1	5/18/2006	J
Benzoic Acid	BQL	0.668	0.668	1	5/18/2006	
Bis(2-chloroethoxy)methane	BQL	0.334	0.050	1	5/18/2006	
Bis(2-chloroethyl)ether	BQL	0.334	0.040	1	5/18/2006	
Bis(2-chloroisopropyl)ether	BQL	0.334	0.042	1	5/18/2006	
Bis(2-ethylhexyl)phthalate	BQL	0.334	0.045	1	5/18/2006	
4-bromophenyl phenyl ether	BQL	0.334	0.056	1	5/18/2006	
Butylbenzylphthalate	BQL	0.334	0.051	1	5/18/2006	
2-Chloronaphthalene	BQL	0.334	0.052	1	5/18/2006	
2-Chlorophenol	BQL	0.334	0.105	1	5/18/2006	
4-Chloro-3-methylphenol	BQL	0.334	0.104	1	5/18/2006	
4-Chloroaniline	BQL	1.67	0.254	1	5/18/2006	
4-Chlorophenyl phenyl ether	BQL	0.334	0.049	1	5/18/2006	
Chrysene	0.207	0.334	0.036	1	5/18/2006	J
Dibenzo[a,h]anthracene	BQL	0.334	0.094	1	5/18/2006	
Dibenzofuran	BQL	0.334	0.061	1	5/18/2006	
Di-n-Butylphthalate	BQL	0.334	0.040	1	5/18/2006	
1,2-Dichlorobenzene	BQL	0.334	0.037	1	5/18/2006	
1,3-Dichlorobenzene	BQL	0.334	0.036	1	5/18/2006	
1,4-Dichlorobenzene	BQL	0.334	0.038	1	5/18/2006	
3,3'-Dichlorobenzidine	BQL	0.668	0.084	1	5/18/2006	
2,4-Dichlorophenol	BQL	0.334	0.120	1	5/18/2006	
Diethylphthalate	BQL	0.334	0.043	1	5/18/2006	
Dimethylphthalate	BQL	0.334	0.040	1	5/18/2006	
2,4-Dimethylphenol	BQL	0.334	0.239	1	5/18/2006	
Di-n-octylphthalate	BQL	0.334	0.055	1	5/18/2006	
4,6-Dinitro-2-methylphenol	BQL	1.67	0.197	1	5/18/2006	
2,4-Dinitrophenol	BQL	1.67	0.735	1	5/18/2006	
2,4-Dinitrotoluene	BQL	0.334	0.043	1	5/18/2006	
2,6-Dinitrotoluene	BQL	0.334	0.061	1	5/18/2006	
Diphenylamine *	BQL	0.334	0.033	1	5/18/2006	
Fluoranthene	0.454	0.334	0.047	1	5/18/2006	
Fluorene	BQL	0.334	0.041	1	5/18/2006	
Hexachlorobenzene	BQL	0.334	0.051	1	5/18/2006	
Hexachlorobutadiene	BQL	0.334	0.053	1	5/18/2006	
Hexachlorocyclopentadiene	BQL	0.668	0.034	1	5/18/2006	
Hexachloroethane	BQL	0.334	0.030	1	5/18/2006	



Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST45-SB17
Client Project ID: Building 45
Lab Sample ID: G128-1767-18H
Lab Project ID: G128-1767
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 5/5/2006 15:20
Date Received: 5/8/2006
Date Extracted: 5/15/2006
Matrix: Soil
% Solids: 88.25

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Indeno(1,2,3-c,d)pyrene	BQL	0.334	0.086	1	5/18/2006	
Isophorone	BQL	0.334	0.049	1	5/18/2006	
2-Methylnaphthalene	BQL	0.334	0.098	1	5/18/2006	
2-Methylphenol	BQL	0.334	0.118	1	5/18/2006	
3- & 4-Methylphenol	BQL	0.334	0.113	1	5/18/2006	
Naphthalene	BQL	0.334	0.027	1	5/18/2006	
2-Nitroaniline	BQL	0.334	0.052	1	5/18/2006	
3-Nitroaniline	BQL	1.67	0.344	1	5/18/2006	
4-Nitroaniline	BQL	1.67	0.103	1	5/18/2006	
Nitrobenzene	BQL	0.334	0.045	1	5/18/2006	
2-Nitrophenol	BQL	0.334	0.104	1	5/18/2006	
4-Nitrophenol	BQL	1.67	0.093	1	5/18/2006	
N-Nitrosodi-n-propylamine	BQL	0.334	0.042	1	5/18/2006	
Pentachlorophenol	BQL	1.67	0.087	1	5/18/2006	
Phenanthrene	0.291	0.334	0.038	1	5/18/2006	J
Phenol	BQL	0.334	0.092	1	5/18/2006	
Pyrene	0.334	0.334	0.064	1	5/18/2006	
1,2,4-Trichlorobenzene	BQL	0.334	0.042	1	5/18/2006	
2,4,5-Trichlorophenol	BQL	0.334	0.129	1	5/18/2006	
2,4,6-Trichlorophenol	BQL	0.334	0.119	1	5/18/2006	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8.9	89
2-Fluorophenol	10	7.9	79
Nitrobenzene-d5	10	8.7	87
Phenol-d6	10	9.3	93
2,4,6-Tribromophenol	10	10	100
4-Terphenyl-d14	10	7.9	79

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

Flag BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: Ged



Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST45-SB18
Client Project ID: Building 45
Lab Sample ID: G128-1767-19H
Lab Project ID: G128-1767
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 5/5/2006 15:20
Date Received: 5/8/2006
Date Extracted: 5/16/2006
Matrix: Soil
% Solids: 84.28

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	0.336	0.048	1	5/23/2006	
Acenaphthylene	BQL	0.336	0.045	1	5/23/2006	
Anthracene	BQL	0.336	0.049	1	5/23/2006	
Benzo[a]anthracene	BQL	0.336	0.058	1	5/23/2006	
Benzo[a]pyrene	BQL	0.336	0.051	1	5/23/2006	
Benzo[b]fluoranthene	BQL	0.336	0.059	1	5/23/2006	
Benzo[g,h,i]perylene	BQL	0.336	0.091	1	5/23/2006	
Benzo[k]fluoranthene	BQL	0.336	0.065	1	5/23/2006	
Benzoic Acid	BQL	0.671	0.671	1	5/23/2006	
Bis(2-chloroethoxy)methane	BQL	0.336	0.050	1	5/23/2006	
Bis(2-chloroethyl)ether	BQL	0.336	0.041	1	5/23/2006	
Bis(2-chloroisopropyl)ether	BQL	0.336	0.042	1	5/23/2006	
Bis(2-ethylhexyl)phthalate	BQL	0.336	0.045	1	5/23/2006	
4-bromophenyl phenyl ether	BQL	0.336	0.057	1	5/23/2006	
Butylbenzylphthalate	BQL	0.336	0.052	1	5/23/2006	
2-Chloronaphthalene	BQL	0.336	0.053	1	5/23/2006	
2-Chlorophenol	BQL	0.336	0.105	1	5/23/2006	
4-Chloro-3-methylphenol	BQL	0.336	0.105	1	5/23/2006	
4-Chloroaniline	BQL	1.68	0.256	1	5/23/2006	
4-Chlorophenyl phenyl ether	BQL	0.336	0.049	1	5/23/2006	
Chrysene	BQL	0.336	0.036	1	5/23/2006	
Dibenzo[a,h]anthracene	BQL	0.336	0.094	1	5/23/2006	
Dibenzofuran	BQL	0.336	0.061	1	5/23/2006	
Di-n-Butylphthalate	BQL	0.336	0.040	1	5/23/2006	
1,2-Dichlorobenzene	BQL	0.336	0.037	1	5/23/2006	
1,3-Dichlorobenzene	BQL	0.336	0.037	1	5/23/2006	
1,4-Dichlorobenzene	BQL	0.336	0.038	1	5/23/2006	
3,3'-Dichlorobenzidine	BQL	0.671	0.085	1	5/23/2006	
2,4-Dichlorophenol	BQL	0.336	0.121	1	5/23/2006	
Diethylphthalate	BQL	0.336	0.043	1	5/23/2006	
Dimethylphthalate	BQL	0.336	0.041	1	5/23/2006	
2,4-Dimethylphenol	BQL	0.336	0.240	1	5/23/2006	
Di-n-octylphthalate	BQL	0.336	0.055	1	5/23/2006	
4,6-Dinitro-2-methylphenol	BQL	1.68	0.198	1	5/23/2006	
2,4-Dinitrophenol	BQL	1.68	0.739	1	5/23/2006	
2,4-Dinitrotoluene	BQL	0.336	0.044	1	5/23/2006	
2,6-Dinitrotoluene	BQL	0.336	0.061	1	5/23/2006	
Diphenylamine *	BQL	0.336	0.033	1	5/23/2006	
Fluoranthene	BQL	0.336	0.047	1	5/23/2006	
Fluorene	BQL	0.336	0.042	1	5/23/2006	
Hexachlorobenzene	BQL	0.336	0.052	1	5/23/2006	
Hexachlorobutadiene	BQL	0.336	0.054	1	5/23/2006	
Hexachlorocyclopentadiene	BQL	0.671	0.035	1	5/23/2006	
Hexachloroethane	BQL	0.336	0.030	1	5/23/2006	



Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST45-SB18
Client Project ID: Building 45
Lab Sample ID: G128-1767-19H
Lab Project ID: G128-1767
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 5/5/2006 15:20
Date Received: 5/8/2006
Date Extracted: 5/16/2006
Matrix: Soil
% Solids: 84.28

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Indeno(1,2,3-c,d)pyrene	BQL	0.336	0.086	1	5/23/2006	
Isophorone	BQL	0.336	0.049	1	5/23/2006	
2-Methylnaphthalene	BQL	0.336	0.098	1	5/23/2006	
2-Methylphenol	BQL	0.336	0.118	1	5/23/2006	
3- & 4-Methylphenol	BQL	0.336	0.114	1	5/23/2006	
Naphthalene	BQL	0.336	0.027	1	5/23/2006	
2-Nitroaniline	BQL	0.336	0.053	1	5/23/2006	
3-Nitroaniline	BQL	1.68	0.346	1	5/23/2006	
4-Nitroaniline	BQL	1.68	0.103	1	5/23/2006	
Nitrobenzene	BQL	0.336	0.045	1	5/23/2006	
2-Nitrophenol	BQL	0.336	0.104	1	5/23/2006	
4-Nitrophenol	BQL	1.68	0.093	1	5/23/2006	
N-Nitrosodi-n-propylamine	BQL	0.336	0.043	1	5/23/2006	
Pentachlorophenol	BQL	1.68	0.088	1	5/23/2006	
Phenanthrene	BQL	0.336	0.038	1	5/23/2006	
Phenol	BQL	0.336	0.092	1	5/23/2006	
Pyrene	BQL	0.336	0.065	1	5/23/2006	
1,2,4-Trichlorobenzene	BQL	0.336	0.042	1	5/23/2006	
2,4,5-Trichlorophenol	BQL	0.336	0.130	1	5/23/2006	
2,4,6-Trichlorophenol	BQL	0.336	0.120	1	5/23/2006	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	9.2	92		
2-Fluorophenol		10	8.4	84		
Nitrobenzene-d5		10	8.4	84		
Phenol-d6		10	8.2	82		
2,4,6-Tribromophenol		10	7.7	77		
4-Terphenyl-d14		10	9	90		

Comments:

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

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: agd



Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST45-SB19
Client Project ID: Building 45
Lab Sample ID: G128-1767-201
Lab Project ID: G128-1767
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 5/5/2006 15:30
Date Received: 5/8/2006
Date Extracted: 5/17/2006
Matrix: Soil
% Solids: 86.31

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	0.349	0.050	1	5/23/2006	
Acenaphthylene	BQL	0.349	0.046	1	5/23/2006	
Anthracene	BQL	0.349	0.051	1	5/23/2006	
Benzo[a]anthracene	BQL	0.349	0.060	1	5/23/2006	
Benzo[a]pyrene	BQL	0.349	0.053	1	5/23/2006	
Benzo[b]fluoranthene	BQL	0.349	0.061	1	5/23/2006	
Benzo[g,h,i]perylene	BQL	0.349	0.095	1	5/23/2006	
Benzo[k]fluoranthene	BQL	0.349	0.067	1	5/23/2006	
Benzoic Acid	BQL	0.698	0.698	1	5/23/2006	
Bis(2-chloroethoxy)methane	BQL	0.349	0.052	1	5/23/2006	
Bis(2-chloroethyl)ether	BQL	0.349	0.042	1	5/23/2006	
Bis(2-chloroisopropyl)ether	BQL	0.349	0.044	1	5/23/2006	
Bis(2-ethylhexyl)phthalate	BQL	0.349	0.047	1	5/23/2006	
4-bromophenyl phenyl ether	BQL	0.349	0.059	1	5/23/2006	
Butylbenzylphthalate	BQL	0.349	0.054	1	5/23/2006	
2-Chloronaphthalene	BQL	0.349	0.055	1	5/23/2006	
2-Chlorophenol	BQL	0.349	0.109	1	5/23/2006	
4-Chloro-3-methylphenol	BQL	0.349	0.109	1	5/23/2006	
4-Chloroaniline	BQL	1.74	0.266	1	5/23/2006	
4-Chlorophenyl phenyl ether	BQL	0.349	0.051	1	5/23/2006	
Chrysene	BQL	0.349	0.038	1	5/23/2006	
Dibenzo[a,h]anthracene	BQL	0.349	0.098	1	5/23/2006	
Dibenzofuran	BQL	0.349	0.064	1	5/23/2006	
Di-n-Butylphthalate	BQL	0.349	0.042	1	5/23/2006	
1,2-Dichlorobenzene	BQL	0.349	0.039	1	5/23/2006	
1,3-Dichlorobenzene	BQL	0.349	0.038	1	5/23/2006	
1,4-Dichlorobenzene	BQL	0.349	0.039	1	5/23/2006	
3,3'-Dichlorobenzidine	BQL	0.698	0.088	1	5/23/2006	
2,4-Dichlorophenol	BQL	0.349	0.126	1	5/23/2006	
Diethylphthalate	BQL	0.349	0.045	1	5/23/2006	
Dimethylphthalate	BQL	0.349	0.042	1	5/23/2006	
2,4-Dimethylphenol	BQL	0.349	0.250	1	5/23/2006	
Di-n-octylphthalate	BQL	0.349	0.058	1	5/23/2006	
4,6-Dinitro-2-methylphenol	BQL	1.74	0.206	1	5/23/2006	
2,4-Dinitrophenol	BQL	1.74	0.768	1	5/23/2006	
2,4-Dinitrotoluene	BQL	0.349	0.045	1	5/23/2006	
2,6-Dinitrotoluene	BQL	0.349	0.064	1	5/23/2006	
Diphenylamine *	BQL	0.349	0.034	1	5/23/2006	
Fluoranthene	BQL	0.349	0.049	1	5/23/2006	
Fluorene	BQL	0.349	0.043	1	5/23/2006	
Hexachlorobenzene	BQL	0.349	0.054	1	5/23/2006	
Hexachlorobutadiene	BQL	0.349	0.056	1	5/23/2006	
Hexachlorocyclopentadiene	BQL	0.698	0.036	1	5/23/2006	
Hexachloroethane	BQL	0.349	0.031	1	5/23/2006	



Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST45-SB19
Client Project ID: Building 45
Lab Sample ID: G128-1767-201
Lab Project ID: G128-1767
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 5/5/2006 15:30
Date Received: 5/8/2006
Date Extracted: 5/17/2006
Matrix: Soil
% Solids: 86.31

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Indeno(1,2,3-c,d)pyrene	BQL	0.349	0.089	1	5/23/2006	
Isophorone	BQL	0.349	0.051	1	5/23/2006	
2-Methylnaphthalene	BQL	0.349	0.102	1	5/23/2006	
2-Methylphenol	BQL	0.349	0.123	1	5/23/2006	
3- & 4-Methylphenol	BQL	0.349	0.118	1	5/23/2006	
Naphthalene	BQL	0.349	0.028	1	5/23/2006	
2-Nitroaniline	BQL	0.349	0.055	1	5/23/2006	
3-Nitroaniline	BQL	1.74	0.359	1	5/23/2006	
4-Nitroaniline	BQL	1.74	0.107	1	5/23/2006	
Nitrobenzene	BQL	0.349	0.047	1	5/23/2006	
2-Nitrophenol	BQL	0.349	0.108	1	5/23/2006	
4-Nitrophenol	BQL	1.74	0.097	1	5/23/2006	
N-Nitrosodi-n-propylamine	BQL	0.349	0.044	1	5/23/2006	
Pentachlorophenol	BQL	1.74	0.091	1	5/23/2006	
Phenanthrene	BQL	0.349	0.040	1	5/23/2006	
Phenol	BQL	0.349	0.096	1	5/23/2006	
Pyrene	BQL	0.349	0.067	1	5/23/2006	
1,2,4-Trichlorobenzene	BQL	0.349	0.044	1	5/23/2006	
2,4,5-Trichlorophenol	BQL	0.349	0.135	1	5/23/2006	
2,4,6-Trichlorophenol	BQL	0.349	0.124	1	5/23/2006	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8.4	84
2-Fluorophenol	10	8.4	84
Nitrobenzene-d5	10	8.5	85
Phenol-d6	10	8.5	85
2,4,6-Tribromophenol	10	8	80
4-Terphenyl-d14	10	7.8	78

Comments:

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

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: agd



Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST45-SB20
Client Project ID: Building 45
Lab Sample ID: G128-1767-21J
Lab Project ID: G128-1767
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 5/5/2006 15:30
Date Received: 5/8/2006
Date Extracted: 5/17/2006
Matrix: Soil
% Solids: 88.83

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	0.330	0.047	1	5/23/2006	
Acenaphthylene	BQL	0.330	0.044	1	5/23/2006	
Anthracene	BQL	0.330	0.048	1	5/23/2006	
Benzo[a]anthracene	BQL	0.330	0.057	1	5/23/2006	
Benzo[a]pyrene	BQL	0.330	0.051	1	5/23/2006	
Benzo[b]fluoranthene	BQL	0.330	0.058	1	5/23/2006	
Benzo[g,h,i]perylene	BQL	0.330	0.090	1	5/23/2006	
Benzo[k]fluoranthene	BQL	0.330	0.064	1	5/23/2006	
Benzoic Acid	BQL	0.661	0.661	1	5/23/2006	
Bis(2-chloroethoxy)methane	BQL	0.330	0.049	1	5/23/2006	
Bis(2-chloroethyl)ether	BQL	0.330	0.040	1	5/23/2006	
Bis(2-chloroisopropyl)ether	BQL	0.330	0.041	1	5/23/2006	
Bis(2-ethylhexyl)phthalate	BQL	0.330	0.044	1	5/23/2006	
4-bromophenyl phenyl ether	BQL	0.330	0.056	1	5/23/2006	
Butylbenzylphthalate	BQL	0.330	0.051	1	5/23/2006	
2-Chloronaphthalene	BQL	0.330	0.052	1	5/23/2006	
2-Chlorophenol	BQL	0.330	0.103	1	5/23/2006	
4-Chloro-3-methylphenol	BQL	0.330	0.103	1	5/23/2006	
4-Chloroaniline	BQL	1.65	0.252	1	5/23/2006	
4-Chlorophenyl phenyl ether	BQL	0.330	0.049	1	5/23/2006	
Chrysene	BQL	0.330	0.036	1	5/23/2006	
Dibenzo[a,h]anthracene	BQL	0.330	0.093	1	5/23/2006	
Dibenzofuran	BQL	0.330	0.060	1	5/23/2006	
Di-n-Butylphthalate	BQL	0.330	0.039	1	5/23/2006	
1,2-Dichlorobenzene	BQL	0.330	0.037	1	5/23/2006	
1,3-Dichlorobenzene	BQL	0.330	0.036	1	5/23/2006	
1,4-Dichlorobenzene	BQL	0.330	0.037	1	5/23/2006	
3,3'-Dichlorobenzidine	BQL	0.661	0.083	1	5/23/2006	
2,4-Dichlorophenol	BQL	0.330	0.119	1	5/23/2006	
Diethylphthalate	BQL	0.330	0.043	1	5/23/2006	
Dimethylphthalate	BQL	0.330	0.040	1	5/23/2006	
2,4-Dimethylphenol	BQL	0.330	0.236	1	5/23/2006	
Di-n-octylphthalate	BQL	0.330	0.055	1	5/23/2006	
4,6-Dinitro-2-methylphenol	BQL	1.65	0.195	1	5/23/2006	
2,4-Dinitrophenol	BQL	1.65	0.727	1	5/23/2006	
2,4-Dinitrotoluene	BQL	0.330	0.043	1	5/23/2006	
2,6-Dinitrotoluene	BQL	0.330	0.060	1	5/23/2006	
Diphenylamine *	BQL	0.330	0.032	1	5/23/2006	
Fluoranthene	BQL	0.330	0.046	1	5/23/2006	
Fluorene	BQL	0.330	0.041	1	5/23/2006	
Hexachlorobenzene	BQL	0.330	0.051	1	5/23/2006	
Hexachlorobutadiene	BQL	0.330	0.053	1	5/23/2006	
Hexachlorocyclopentadiene	BQL	0.661	0.034	1	5/23/2006	
Hexachloroethane	BQL	0.330	0.030	1	5/23/2006	



Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST45-SB20
Client Project ID: Building 45
Lab Sample ID: G128-1767-21J
Lab Project ID: G128-1767
Report Basis: Dry weight

Analyzed By: MRC
Date Collected: 5/5/2006 15:30
Date Received: 5/8/2006
Date Extracted: 5/17/2006
Matrix: Soil
% Solids: 88.83

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Indeno(1,2,3-c,d)pyrene	BQL	0.330	0.085	1	5/23/2006	
Isophorone	BQL	0.330	0.049	1	5/23/2006	
2-Methylnaphthalene	BQL	0.330	0.097	1	5/23/2006	
2-Methylphenol	BQL	0.330	0.116	1	5/23/2006	
3- & 4-Methylphenol	BQL	0.330	0.112	1	5/23/2006	
Naphthalene	BQL	0.330	0.027	1	5/23/2006	
2-Nitroaniline	BQL	0.330	0.052	1	5/23/2006	
3-Nitroaniline	BQL	1.65	0.340	1	5/23/2006	
4-Nitroaniline	BQL	1.65	0.102	1	5/23/2006	
Nitrobenzene	BQL	0.330	0.045	1	5/23/2006	
2-Nitrophenol	BQL	0.330	0.102	1	5/23/2006	
4-Nitrophenol	BQL	1.65	0.092	1	5/23/2006	
N-Nitrosodi-n-propylamine	BQL	0.330	0.042	1	5/23/2006	
Pentachlorophenol	BQL	1.65	0.086	1	5/23/2006	
Phenanthrene	BQL	0.330	0.038	1	5/23/2006	
Phenol	BQL	0.330	0.091	1	5/23/2006	
Pyrene	BQL	0.330	0.063	1	5/23/2006	
1,2,4-Trichlorobenzene	BQL	0.330	0.041	1	5/23/2006	
2,4,5-Trichlorophenol	BQL	0.330	0.128	1	5/23/2006	
2,4,6-Trichlorophenol	BQL	0.330	0.118	1	5/23/2006	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	9.3	93
2-Fluorophenol	10	8.3	83
Nitrobenzene-d5	10	8.7	87
Phenol-d6	10	8.4	84
2,4,6-Tribromophenol	10	8.2	82
4-Terphenyl-d14	10	8.1	81

Comments:

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

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: ayl



Results for Semivolatiles
by GCMS 8270

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: PB5160
Lab Project ID:
Report Basis: Dry Weight

Analyzed By: MRC
Date Collected:
Date Received:
Date Extracted: 5/15/2006
Matrix: SOIL
% Solids: 100

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	0.313	0.045	1	5/18/2006	
Acenaphthylene	BQL	0.313	0.042	1	5/18/2006	
Anthracene	BQL	0.313	0.045	1	5/18/2006	
Benzo[a]anthracene	BQL	0.313	0.054	1	5/18/2006	
Benzo[a]pyrene	BQL	0.313	0.048	1	5/18/2006	
Benzo[b]fluoranthene	BQL	0.313	0.055	1	5/18/2006	
Benzo[g,h,i]perylene	BQL	0.313	0.085	1	5/18/2006	
Benzo[k]fluoranthene	BQL	0.313	0.060	1	5/18/2006	
Benzoic Acid	BQL	0.625	0.625	1	5/18/2006	
Bis(2-chloroethoxy)methane	BQL	0.313	0.047	1	5/18/2006	
Bis(2-chloroethyl)ether	BQL	0.313	0.038	1	5/18/2006	
Bis(2-chloroisopropyl)ether	BQL	0.313	0.039	1	5/18/2006	
Bis(2-ethylhexyl)phthalate	BQL	0.313	0.042	1	5/18/2006	
4-bromophenyl phenyl ether	BQL	0.313	0.053	1	5/18/2006	
Butylbenzylphthalate	BQL	0.313	0.048	1	5/18/2006	
2-Chloronaphthalene	BQL	0.313	0.049	1	5/18/2006	
2-Chlorophenol	BQL	0.313	0.098	1	5/18/2006	
4-Chloro-3-methylphenol	BQL	0.313	0.098	1	5/18/2006	
4-Chloroaniline	BQL	1.56	0.238	1	5/18/2006	
4-Chlorophenyl phenyl ether	BQL	0.313	0.046	1	5/18/2006	
Chrysene	BQL	0.313	0.034	1	5/18/2006	
Dibenzo[a,h]anthracene	BQL	0.313	0.088	1	5/18/2006	
Dibenzofuran	BQL	0.313	0.057	1	5/18/2006	
Di-n-Butylphthalate	BQL	0.313	0.037	1	5/18/2006	
1,2-Dichlorobenzene	BQL	0.313	0.035	1	5/18/2006	
1,3-Dichlorobenzene	BQL	0.313	0.034	1	5/18/2006	
1,4-Dichlorobenzene	BQL	0.313	0.035	1	5/18/2006	
3,3'-Dichlorobenzidine	BQL	0.625	0.079	1	5/18/2006	
2,4-Dichlorophenol	BQL	0.313	0.113	1	5/18/2006	
Diethylphthalate	BQL	0.313	0.040	1	5/18/2006	
Dimethylphthalate	BQL	0.313	0.038	1	5/18/2006	
2,4-Dimethylphenol	BQL	0.313	0.223	1	5/18/2006	
Di-n-octylphthalate	BQL	0.313	0.052	1	5/18/2006	
4,6-Dinitro-2-methylphenol	BQL	1.56	0.184	1	5/18/2006	
2,4-Dinitrophenol	BQL	1.56	0.688	1	5/18/2006	
2,4-Dinitrotoluene	BQL	0.313	0.041	1	5/18/2006	
2,6-Dinitrotoluene	BQL	0.313	0.057	1	5/18/2006	
Diphenylamine *	BQL	0.313	0.031	1	5/18/2006	
Fluoranthene	BQL	0.313	0.044	1	5/18/2006	
Fluorene	BQL	0.313	0.039	1	5/18/2006	
Hexachlorobenzene	BQL	0.313	0.048	1	5/18/2006	
Hexachlorobutadiene	BQL	0.313	0.050	1	5/18/2006	
Hexachlorocyclopentadiene	BQL	0.625	0.032	1	5/18/2006	
Hexachloroethane	BQL	0.313	0.028	1	5/18/2006	



Results for Semivolatiles
by GCMS 8270

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: PB5160
Lab Project ID:
Report Basis: Dry Weight

Analyzed By: MRC
Date Collected:
Date Received:
Date Extracted: 5/15/2006
Matrix: SOIL
% Solids: 100

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Indeno(1,2,3-c,d)pyrene	BQL	0.313	0.080	1	5/18/2006	
Isophorone	BQL	0.313	0.046	1	5/18/2006	
2-Methylnaphthalene	BQL	0.313	0.091	1	5/18/2006	
2-Methylphenol	BQL	0.313	0.110	1	5/18/2006	
3- & 4-Methylphenol	BQL	0.313	0.106	1	5/18/2006	
Naphthalene	BQL	0.313	0.025	1	5/18/2006	
2-Nitroaniline	BQL	0.313	0.049	1	5/18/2006	
3-Nitroaniline	BQL	1.56	0.322	1	5/18/2006	
4-Nitroaniline	BQL	1.56	0.096	1	5/18/2006	
Nitrobenzene	BQL	0.313	0.042	1	5/18/2006	
2-Nitrophenol	BQL	0.313	0.097	1	5/18/2006	
4-Nitrophenol	BQL	1.56	0.087	1	5/18/2006	
N-Nitrosodi-n-propylamine	BQL	0.313	0.040	1	5/18/2006	
Pentachlorophenol	BQL	1.56	0.082	1	5/18/2006	
Phenanthrene	BQL	0.313	0.036	1	5/18/2006	
Phenol	BQL	0.313	0.086	1	5/18/2006	
Pyrene	BQL	0.313	0.060	1	5/18/2006	
1,2,4-Trichlorobenzene	BQL	0.313	0.039	1	5/18/2006	
2,4,5-Trichlorophenol	BQL	0.313	0.121	1	5/18/2006	
2,4,6-Trichlorophenol	BQL	0.313	0.111	1	5/18/2006	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	9	90
2-Fluorophenol	10	8.6	86
Nitrobenzene-d5	10	8.7	87
Phenol-d6	10	9.2	92
2,4,6-Tribromophenol	10	10.7	107
4-Terphenyl-d14	10	8.3	83

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

Flag BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: agf



**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-5160-MS/MSD/LCS

Date Extracted: 05/15/06

Lab Project ID:

Date Analyzed: 05/18/06

Matrix: SOIL

Analyzed By: MRC

Prep Method: 3540

Dilution: 1

	Sample Amount (µg/kg)	MS Spike (µg/kg)	MS Conc. (µg/kg)	MS Spike % Rec.	MSD Spike (µg/kg)	MSD Conc. (µg/kg)	MSD Conc. % Rec.	QC Limits		
								RPD	RPD	% Rec.
Acenaphthylene	BQL	3300	3810	116	3350	3870	115.0	0.1	30	73.0-140
4-Chloro-3-methylphenol	BQL	3300	3690	112	3350	3770	113.0	0.445	30	80.0-115
2-Chlorophenol	BQL	3300	3380	103	3350	3370	101.0	2.07	30	77.1-111
1,4-Dichlorobenzene	BQL	3300	3550	108	3350	3520	105.0	2.45	30	70.6-117
2,4-Dinitrotoluene	BQL	3300	3960	120	3350	4060	121.0	0.912	30	67.6-136
N-Nitrosodi-n-propylamine	BQL	3300	4250	129	3350	4250	127.0	1.64	30	74.3-133
4-Nitrophenol	BQL	3300	4410	134*	3350	4500	134*	0.149	30	56.8-133
Pentachlorophenol	BQL	3300	3080	93.4	3350	3150	94.0	0.640	30	29.2-108
Phenol	BQL	3300	3500	106	3350	3530	105.0	0.946	30	71.2-120
Pyrene	BQL	3300	3580	109	3350	4030	120.0	10.1	30	68.5-140
1,2,4-Trichlorobenzene	BQL	3300	3500	106	3350	3550	106.0	0.283	30	68.9-119

	Spiked Amount (µg/kg)	LCS Conc. (µg/kg)	LCS Spike %	QC Limits % Rec.
Acenaphthylene	3125	3550	114	80.9-143
4-Chloro-3-methylphenol	3125	3490	112	83.9-124
2-Chlorophenol	3125	3140	100	80.3-119
1,4-Dichlorobenzene	3125	3310	106	76.3-118
2,4-Dinitrotoluene	3125	3710	119	80.6-126
N-Nitrosodi-n-propylamine	3125	3970	127	80.3-131
4-Nitrophenol	3125	4190	134	60.0-145
Pentachlorophenol	3125	2880	92.2	36.4-114
Phenol	3125	3270	105	74.3-117
Pyrene	3125	3290	105	74.7-141
1,2,4-Trichlorobenzene	3125	3300	106	74.1-120

Comments:

Concentrations reflect the spiked sample amounts.

Flags:

* = Out of limits.

NA = Not applicable.

Reviewed By: agel



Results for Semivolatiles
by GCMS 8270

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: PB5175
Lab Project ID:
Report Basis: Dry Weight

Analyzed By: MRC
Date Collected:
Date Received:
Date Extracted: 5/16/2006
Matrix: SOIL
% Solids: 100

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	0.313	0.045	1	5/22/2006	
Acenaphthylene	BQL	0.313	0.042	1	5/22/2006	
Anthracene	BQL	0.313	0.045	1	5/22/2006	
Benzo[a]anthracene	BQL	0.313	0.054	1	5/22/2006	
Benzo[a]pyrene	BQL	0.313	0.048	1	5/22/2006	
Benzo[b]fluoranthene	BQL	0.313	0.055	1	5/22/2006	
Benzo[g,h,i]perylene	BQL	0.313	0.085	1	5/22/2006	
Benzo[k]fluoranthene	BQL	0.313	0.060	1	5/22/2006	
Benzoic Acid	BQL	0.625	0.625	1	5/22/2006	
Bis(2-chloroethoxy)methane	BQL	0.313	0.047	1	5/22/2006	
Bis(2-chloroethyl)ether	BQL	0.313	0.038	1	5/22/2006	
Bis(2-chloroisopropyl)ether	BQL	0.313	0.039	1	5/22/2006	
Bis(2-ethylhexyl)phthalate	BQL	0.313	0.042	1	5/22/2006	
4-bromophenyl phenyl ether	BQL	0.313	0.053	1	5/22/2006	
Butylbenzylphthalate	BQL	0.313	0.048	1	5/22/2006	
2-Chloronaphthalene	BQL	0.313	0.049	1	5/22/2006	
2-Chlorophenol	BQL	0.313	0.098	1	5/22/2006	
4-Chloro-3-methylphenol	BQL	0.313	0.098	1	5/22/2006	
4-Chloroaniline	BQL	1.56	0.238	1	5/22/2006	
4-Chlorophenyl phenyl ether	BQL	0.313	0.046	1	5/22/2006	
Chrysene	BQL	0.313	0.034	1	5/22/2006	
Dibenzo[a,h]anthracene	BQL	0.313	0.088	1	5/22/2006	
Dibenzofuran	BQL	0.313	0.057	1	5/22/2006	
Di-n-Butylphthalate	BQL	0.313	0.037	1	5/22/2006	
1,2-Dichlorobenzene	BQL	0.313	0.035	1	5/22/2006	
1,3-Dichlorobenzene	BQL	0.313	0.034	1	5/22/2006	
1,4-Dichlorobenzene	BQL	0.313	0.035	1	5/22/2006	
3,3'-Dichlorobenzidine	BQL	0.625	0.079	1	5/22/2006	
2,4-Dichlorophenol	BQL	0.313	0.113	1	5/22/2006	
Diethylphthalate	BQL	0.313	0.040	1	5/22/2006	
Dimethylphthalate	BQL	0.313	0.038	1	5/22/2006	
2,4-Dimethylphenol	BQL	0.313	0.223	1	5/22/2006	
Di-n-octylphthalate	BQL	0.313	0.052	1	5/22/2006	
4,6-Dinitro-2-methylphenol	BQL	1.56	0.184	1	5/22/2006	
2,4-Dinitrophenol	BQL	1.56	0.688	1	5/22/2006	
2,4-Dinitrotoluene	BQL	0.313	0.041	1	5/22/2006	
2,6-Dinitrotoluene	BQL	0.313	0.057	1	5/22/2006	
Diphenylamine *	BQL	0.313	0.031	1	5/22/2006	
Fluoranthene	BQL	0.313	0.044	1	5/22/2006	
Fluorene	BQL	0.313	0.039	1	5/22/2006	
Hexachlorobenzene	BQL	0.313	0.048	1	5/22/2006	
Hexachlorobutadiene	BQL	0.313	0.050	1	5/22/2006	
Hexachlorocyclopentadiene	BQL	0.625	0.032	1	5/22/2006	
Hexachloroethane	BQL	0.313	0.028	1	5/22/2006	



Results for Semivolatiles
by GCMS 8270

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: PB5175
Lab Project ID:
Report Basis: Dry Weight

Analyzed By: MRC
Date Collected:
Date Received:
Date Extracted: 5/16/2006
Matrix: SOIL
% Solids: 100

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Indeno(1,2,3-c,d)pyrene	BQL	0.313	0.080	1	5/22/2006	
Isophorone	BQL	0.313	0.046	1	5/22/2006	
2-Methylnaphthalene	BQL	0.313	0.091	1	5/22/2006	
2-Methylphenol	BQL	0.313	0.110	1	5/22/2006	
3- & 4-Methylphenol	BQL	0.313	0.106	1	5/22/2006	
Naphthalene	BQL	0.313	0.025	1	5/22/2006	
2-Nitroaniline	BQL	0.313	0.049	1	5/22/2006	
3-Nitroaniline	BQL	1.56	0.322	1	5/22/2006	
4-Nitroaniline	BQL	1.56	0.096	1	5/22/2006	
Nitrobenzene	BQL	0.313	0.042	1	5/22/2006	
2-Nitrophenol	BQL	0.313	0.097	1	5/22/2006	
4-Nitrophenol	BQL	1.56	0.087	1	5/22/2006	
N-Nitrosodi-n-propylamine	BQL	0.313	0.040	1	5/22/2006	
Pentachlorophenol	BQL	1.56	0.082	1	5/22/2006	
Phenanthrene	BQL	0.313	0.036	1	5/22/2006	
Phenol	BQL	0.313	0.086	1	5/22/2006	
Pyrene	BQL	0.313	0.060	1	5/22/2006	
1,2,4-Trichlorobenzene	BQL	0.313	0.039	1	5/22/2006	
2,4,5-Trichlorophenol	BQL	0.313	0.121	1	5/22/2006	
2,4,6-Trichlorophenol	BQL	0.313	0.111	1	5/22/2006	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8.7	87
2-Fluorophenol	10	8	80
Nitrobenzene-d5	10	8.5	85
Phenol-d6	10	8.3	83
2,4,6-Tribromophenol	10	8.2	82
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: gcl



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

Client Sample ID: Batch QC

Client Project ID:

Lab Sample ID: Batch-5175-MS/MSD/LCS

Lab Project ID:

Matrix: SOIL

Prep Method: 3540

Date Collected:

Date Received:

Date Extracted: 05/16/06

Date Analyzed: 05/22/06

Analyzed By: MRC

Dilution: 1

	Sample Amount (µg/kg)	MS Spike (µg/kg)	MS Conc. (µg/kg)	MS Spike % Rec.	MSD Spike (µg/kg)	MSD Conc. (µg/kg)	MSD Conc. % Rec.	RPD	QC Limits	
									RPD	% Rec.
Acenaphthylene	BQL	6920	5730	82.7	6990	6400	91.6	10.2	30	73.0-140
4-Chloro-3-methylphenol	BQL	6920	5560	80.3	6990	5450	78.0*	2.91	30	80.0-115
2-Chlorophenol	BQL	6920	215	3.10*	6990	0.00	0.00*	200*	30	77.1-111
1,4-Dichlorobenzene	BQL	6920	4920	71.1	6990	5840	83.5	16.0	30	70.6-117
2,4-Dinitrotoluene	BQL	6920	5820	84.1	6990	6740	96.5	13.7	30	67.6-136
N-Nitrosodi-n-propylamine	BQL	6920	5630	81.3	6990	4890	70.0*	14.9	30	74.3-133
4-Nitrophenol	BQL	6920	0.00	0.00*	6990	0.00	0.00*	0.00*	30	56.8-133
Pentachlorophenol	BQL	6920	0.00	0.00*	6990	0.00	0.00*	0.00*	30	29.2-108
Phenol	BQL	6920	2330	33.7*	6990	1760	25.2*	28.9	30	71.2-120
Pyrene	1300.00	6920	5910	85.4	6990	7660	110.0	24.9	30	68.5-140
1,2,4-Trichlorobenzene	BQL	6920	5540	80.0	6990	6400	91.5	13.4	30	68.9-119

	Spiked Amount (µg/kg)	LCS Conc. (µg/kg)	LCS Spike %	QC Limits % Rec.
Acenaphthylene	3125	3250	104	80.9-143
4-Chloro-3-methylphenol	3125	3320	106	83.9-124
2-Chlorophenol	3125	2770	88.5	80.3-119
1,4-Dichlorobenzene	3125	2920	93.6	76.3-118
2,4-Dinitrotoluene	3125	3230	103	80.6-126
N-Nitrosodi-n-propylamine	3125	3540	113	80.3-131
4-Nitrophenol	3125	2840	90.9	60.0-145
Pentachlorophenol	3125	2060	65.9	36.4-114
Phenol	3125	2900	92.8	74.3-117
Pyrene	3125	3440	110	74.7-141
1,2,4-Trichlorobenzene	3125	3170	102	74.1-120

Comments:

Concentrations reflect the spiked sample amounts.

Flags:

* = Out of limits.

NA = Not applicable.

Reviewed By: WJL



Results for Volatiles
by GCMS 8260-5035

Client Sample ID: UST45-SB01
Client Project ID: Building 45
Lab Sample ID G128-1767-1A
Lab Project ID: G128-1767
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 05-05-2006 15:00
Date Received: 05/08/2006
Matrix: Soil
%Solids: 82.8

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
Acetone	0.116	0.0508	0.00298	1	05/11/2006	
Benzene	BQL	0.00508	0.00289	1	05/11/2006	
Bromobenzene	BQL	0.00508	0.00250	1	05/11/2006	
Bromochloromethane	BQL	0.00508	0.00296	1	05/11/2006	
Bromodichloromethane	BQL	0.00508	0.00288	1	05/11/2006	
Bromoform	BQL	0.00508	0.00246	1	05/11/2006	
Bromomethane	BQL	0.00508	0.00425	1	05/11/2006	
2-Butanone	BQL	0.0254	0.00292	1	05/11/2006	
n-Butylbenzene	0.0120	0.00508	0.00340	1	05/11/2006	
sec-Butylbenzene	0.00737	0.00508	0.00355	1	05/11/2006	
tert-Butylbenzene	BQL	0.00508	0.00352	1	05/11/2006	
Carbon disulfide	BQL	0.00508	0.00267	1	05/11/2006	
Carbon tetrachloride	BQL	0.00508	0.00351	1	05/11/2006	
Chlorobenzene	BQL	0.00508	0.00255	1	05/11/2006	
Chloroethane	BQL	0.00508	0.00319	1	05/11/2006	
Chloroform	BQL	0.00508	0.00255	1	05/11/2006	
Chloromethane	BQL	0.00508	0.00245	1	05/11/2006	
2-Chlorotoluene	BQL	0.00508	0.00302	1	05/11/2006	
4-Chlorotoluene	BQL	0.00508	0.00282	1	05/11/2006	
Dibromochloromethane	BQL	0.00508	0.00227	1	05/11/2006	
1,2-Dibromo-3-chloropropane	BQL	0.00508	0.0108	1	05/11/2006	
Dibromomethane	BQL	0.00508	0.00305	1	05/11/2006	
1,2-Dibromoethane (EDB)	BQL	0.00508	0.00236	1	05/11/2006	
1,2-Dichlorobenzene	BQL	0.00508	0.00245	1	05/11/2006	
1,3-Dichlorobenzene	BQL	0.00508	0.00238	1	05/11/2006	
1,4-Dichlorobenzene	BQL	0.00508	0.00250	1	05/11/2006	
trans-1,4-Dichloro-2-butene	BQL	0.00508	0.0109	1	05/11/2006	
1,1-Dichloroethane	BQL	0.00508	0.00292	1	05/11/2006	
1,1-Dichloroethene	BQL	0.00508	0.00391	1	05/11/2006	
1,2-Dichloroethane	BQL	0.00508	0.00291	1	05/11/2006	
cis-1,2-Dichloroethene	BQL	0.00508	0.00250	1	05/11/2006	
trans-1,2-dichloroethene	BQL	0.00508	0.00330	1	05/11/2006	
1,2-Dichloropropane	BQL	0.00508	0.00260	1	05/11/2006	
1,3-Dichloropropane	BQL	0.00508	0.00232	1	05/11/2006	
2,2-Dichloropropane	BQL	0.00508	0.00323	1	05/11/2006	
1,1-Dichloropropene	BQL	0.00508	0.00366	1	05/11/2006	
cis-1,3-Dichloropropene	BQL	0.00508	0.00282	1	05/11/2006	
trans-1,3-Dichloropropene	BQL	0.00508	0.00287	1	05/11/2006	
Dichlorodifluoromethane	BQL	0.00508	0.00379	1	05/11/2006	
Diisopropyl ether (DIPE)	BQL	0.00508	0.00241	1	05/11/2006	
Ethylbenzene	BQL	0.00508	0.00309	1	05/11/2006	
Hexachlorobutadiene	BQL	0.00508	0.00401	1	05/11/2006	



Results for Volatiles
by GCMS 8260-5035

Client Sample ID: UST45-SB01
Client Project ID: Building 45
Lab Sample ID: G128-1767-1A
Lab Project ID: G128-1767
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 05-05-2006 15:00
Date Received: 05/08/2006
Matrix: Soil
%Solids: 82.8

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
2-Hexanone	BQL	0.00508	0.00221	1	05/11/2006	
Iodomethane	BQL	0.00508	0.00472	1	05/11/2006	
Isopropylbenzene	BQL	0.00508	0.00327	1	05/11/2006	
4-Isopropyltoluene	0.00428	0.00508	0.00345	1	05/11/2006	J
Methylene chloride	0.00388	0.0203	0.00290	1	05/11/2006	J
4-Methyl-2-pentanone	BQL	0.00508	0.00234	1	05/11/2006	
Methyl-tert-butyl ether (MTBE)	BQL	0.00508	0.00258	1	05/11/2006	
Naphthalene	0.00739	0.00508	0.00204	1	05/11/2006	
n-Propyl benzene	0.00455	0.00508	0.00326	1	05/11/2006	J
Styrene	BQL	0.00508	0.00363	1	05/11/2006	
1,1,1,2-Tetrachloroethane	BQL	0.00508	0.00276	1	05/11/2006	
1,1,2,2-Tetrachloroethane	BQL	0.00508	0.00250	1	05/11/2006	
Tetrachloroethene	BQL	0.00508	0.00320	1	05/11/2006	
Toluene	BQL	0.00508	0.00300	1	05/11/2006	
1,2,3-Trichlorobenzene	BQL	0.00508	0.00222	1	05/11/2006	
1,2,4-Trichlorobenzene	BQL	0.00508	0.00227	1	05/11/2006	
Trichloroethene	BQL	0.00508	0.00317	1	05/11/2006	
1,1,1-Trichloroethane	BQL	0.00508	0.00350	1	05/11/2006	
1,1,2-Trichloroethane	BQL	0.00508	0.00262	1	05/11/2006	
Trichlorofluoromethane	BQL	0.00508	0.00419	1	05/11/2006	
1,2,3-Trichloropropane	BQL	0.00508	0.00269	1	05/11/2006	
1,2,4-Trimethylbenzene	BQL	0.00508	0.00284	1	05/11/2006	
1,3,5-Trimethylbenzene	BQL	0.00508	0.00302	1	05/11/2006	
Vinyl chloride	BQL	0.00508	0.00335	1	05/11/2006	
m-,p-Xylene	BQL	0.0102	0.00576	1	05/11/2006	
o-Xylene	BQL	0.00508	0.00284	1	05/11/2006	

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	0.05	0.0329	66
1,2-Dichloroethane-d4	0.05	0.074	148
Toluene-d8	0.05	0.0461	92

Comments:

Flags:

BQL = Below Quantitation Limits.

Reviewed By: agcl



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

Client Sample ID: UST45-SB02
Client Project ID: Building 45
Lab Sample ID G128-1767-2A
Lab Project ID: G128-1767
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 05-05-2006 15:00
Date Received: 5/8/2006
Matrix: Soil
%Solids: 83.3

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
Acetone	BQL	0.0512	0.00301	1	5/11/2006	
Benzene	BQL	0.00512	0.00292	1	5/11/2006	
Bromobenzene	BQL	0.00512	0.00252	1	5/11/2006	
Bromochloromethane	BQL	0.00512	0.00299	1	5/11/2006	
Bromodichloromethane	BQL	0.00512	0.00291	1	5/11/2006	
Bromoform	BQL	0.00512	0.00248	1	5/11/2006	
Bromomethane	BQL	0.00512	0.00429	1	5/11/2006	
2-Butanone	BQL	0.0256	0.00295	1	5/11/2006	
n-Butylbenzene	BQL	0.00512	0.00343	1	5/11/2006	
sec-Butylbenzene	BQL	0.00512	0.00359	1	5/11/2006	
tert-Butylbenzene	BQL	0.00512	0.00356	1	5/11/2006	
Carbon disulfide	BQL	0.00512	0.00270	1	5/11/2006	
Carbon tetrachloride	BQL	0.00512	0.00355	1	5/11/2006	
Chlorobenzene	BQL	0.00512	0.00257	1	5/11/2006	
Chloroethane	BQL	0.00512	0.00322	1	5/11/2006	
Chloroform	BQL	0.00512	0.00257	1	5/11/2006	
Chloromethane	BQL	0.00512	0.00247	1	5/11/2006	
2-Chlorotoluene	BQL	0.00512	0.00305	1	5/11/2006	
4-Chlorotoluene	BQL	0.00512	0.00285	1	5/11/2006	
Dibromochloromethane	BQL	0.00512	0.00230	1	5/11/2006	
1,2-Dibromo-3-chloropropane	BQL	0.00512	0.0109	1	5/11/2006	
Dibromomethane	BQL	0.00512	0.00307	1	5/11/2006	
1,2-Dibromoethane (EDB)	BQL	0.00512	0.00239	1	5/11/2006	
1,2-Dichlorobenzene	BQL	0.00512	0.00247	1	5/11/2006	
1,3-Dichlorobenzene	BQL	0.00512	0.00240	1	5/11/2006	
1,4-Dichlorobenzene	BQL	0.00512	0.00252	1	5/11/2006	
trans-1,4-Dichloro-2-butene	BQL	0.00512	0.0110	1	5/11/2006	
1,1-Dichloroethane	BQL	0.00512	0.00295	1	5/11/2006	
1,1-Dichloroethene	BQL	0.00512	0.00395	1	5/11/2006	
1,2-Dichloroethane	BQL	0.00512	0.00294	1	5/11/2006	
cis-1,2-Dichloroethene	BQL	0.00512	0.00252	1	5/11/2006	
trans-1,2-dichloroethene	BQL	0.00512	0.00333	1	5/11/2006	
1,2-Dichloropropane	BQL	0.00512	0.00262	1	5/11/2006	
1,3-Dichloropropane	BQL	0.00512	0.00235	1	5/11/2006	
2,2-Dichloropropane	BQL	0.00512	0.00326	1	5/11/2006	
1,1-Dichloropropene	BQL	0.00512	0.00370	1	5/11/2006	
cis-1,3-Dichloropropene	BQL	0.00512	0.00285	1	5/11/2006	
trans-1,3-Dichloropropene	BQL	0.00512	0.00290	1	5/11/2006	
Dichlorodifluoromethane	BQL	0.00512	0.00382	1	5/11/2006	
Diisopropyl ether (DIPE)	BQL	0.00512	0.00243	1	5/11/2006	
Ethylbenzene	BQL	0.00512	0.00312	1	5/11/2006	
Hexachlorobutadiene	BQL	0.00512	0.00405	1	5/11/2006	



Results for Volatiles
by GCMS 8260-5035

Client Sample ID: UST45-SB02
Client Project ID: Building 45
Lab Sample ID G128-1767-2A
Lab Project ID: G128-1767
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected: 05-05-2006 15:00
Date Received: 5/8/2006
Matrix: Soil
%Solids: 83.3

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
2-Hexanone	BQL	0.00512	0.00223	1	5/11/2006	
Iodomethane	BQL	0.00512	0.00477	1	5/11/2006	
Isopropylbenzene	BQL	0.00512	0.00330	1	5/11/2006	
4-Isopropyltoluene	BQL	0.00512	0.00348	1	5/11/2006	
Methylene chloride	0.141	0.0205	0.00293	1	5/11/2006	
4-Methyl-2-pentanone	BQL	0.00512	0.00237	1	5/11/2006	
Methyl-tert-butyl ether (MTBE)	BQL	0.00512	0.00260	1	5/11/2006	
Naphthalene	BQL	0.00512	0.00206	1	5/11/2006	
n-Propyl benzene	BQL	0.00512	0.00329	1	5/11/2006	
Styrene	BQL	0.00512	0.00367	1	5/11/2006	
1,1,1,2-Tetrachloroethane	BQL	0.00512	0.00279	1	5/11/2006	
1,1,2,2-Tetrachloroethane	BQL	0.00512	0.00252	1	5/11/2006	
Tetrachloroethene	BQL	0.00512	0.00323	1	5/11/2006	
Toluene	0.00306	0.00512	0.00303	1	5/11/2006	J
1,2,3-Trichlorobenzene	BQL	0.00512	0.00224	1	5/11/2006	
1,2,4-Trichlorobenzene	BQL	0.00512	0.00230	1	5/11/2006	
Trichloroethene	BQL	0.00512	0.00320	1	5/11/2006	
1,1,1-Trichloroethane	BQL	0.00512	0.00354	1	5/11/2006	
1,1,2-Trichloroethane	BQL	0.00512	0.00264	1	5/11/2006	
Trichlorofluoromethane	BQL	0.00512	0.00423	1	5/11/2006	
1,2,3-Trichloropropane	BQL	0.00512	0.00272	1	5/11/2006	
1,2,4-Trimethylbenzene	BQL	0.00512	0.00287	1	5/11/2006	
1,3,5-Trimethylbenzene	BQL	0.00512	0.00305	1	5/11/2006	
Vinyl chloride	BQL	0.00512	0.00338	1	5/11/2006	
m-,p-Xylene	BQL	0.0102	0.00581	1	5/11/2006	
o-Xylene	BQL	0.00512	0.00287	1	5/11/2006	
		Spike Added	Spike Result	Percent Recovered		
4-Bromofluorobenzene		0.05	0.0548	110		
1,2-Dichloroethane-d4		0.05	0.0743	149		
Toluene-d8		0.05	0.0489	98		

Comments:

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: ayd



**Results for Volatiles
by GCMS 8260B/5035**

Client Sample ID: UST45-SB03
Client Project ID: Building 45
Lab Sample ID: G128-1767-3D
Lab Project ID: G128-1767
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 5/5/2006 15:00
Date Received: 5/8/2006
Matrix: Soil
%Solids: 84.0

Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
Acetone	BQL	3.11	0.419	100	5/18/2006	
Benzene	BQL	0.124	0.0201	100	5/18/2006	
Bromobenzene	BQL	0.124	0.0278	100	5/18/2006	
Bromochloromethane	BQL	0.124	0.0388	100	5/18/2006	
Bromodichloromethane	BQL	0.124	0.0230	100	5/18/2006	
Bromoform	BQL	0.124	0.0119	100	5/18/2006	
Bromomethane	BQL	0.124	0.0129	100	5/18/2006	
2-Butanone	BQL	3.11	0.136	100	5/18/2006	
n-Butylbenzene	0.117	0.124	0.0338	100	5/18/2006	J
sec-Butylbenzene	0.0448	0.124	0.0292	100	5/18/2006	J
tert-Butylbenzene	BQL	0.124	0.0226	100	5/18/2006	
Carbon disulfide	BQL	0.124	0.0256	100	5/18/2006	
Carbon tetrachloride	BQL	0.124	0.0225	100	5/18/2006	
Chlorobenzene	BQL	0.124	0.0220	100	5/18/2006	
Chloroethane	BQL	0.124	0.0517	100	5/18/2006	
Chloroform	BQL	0.124	0.0274	100	5/18/2006	
Chloromethane	BQL	0.124	0.0351	100	5/18/2006	
2-Chlorotoluene	BQL	0.124	0.0255	100	5/18/2006	
4-Chlorotoluene	BQL	0.124	0.0256	100	5/18/2006	
Dibromochloromethane	BQL	0.124	0.0259	100	5/18/2006	
1,2-Dibromo-3-chloropropane	BQL	0.622	0.242	100	5/18/2006	
Dibromomethane	BQL	0.124	0.0342	100	5/18/2006	
1,2-Dibromoethane (EDB)	BQL	0.124	0.0328	100	5/18/2006	
1,2-Dichlorobenzene	BQL	0.124	0.0236	100	5/18/2006	
1,3-Dichlorobenzene	BQL	0.124	0.0291	100	5/18/2006	
1,4-Dichlorobenzene	BQL	0.124	0.0226	100	5/18/2006	
trans-1,4-Dichloro-2-butene	BQL	0.622	0.177	100	5/18/2006	
1,1-Dichloroethane	BQL	0.124	0.0267	100	5/18/2006	
1,1-Dichloroethene	BQL	0.124	0.0204	100	5/18/2006	
1,2-Dichloroethane	BQL	0.124	0.0303	100	5/18/2006	
cis-1,2-Dichloroethene	BQL	0.124	0.0219	100	5/18/2006	
trans-1,2-dichloroethene	BQL	0.124	0.0286	100	5/18/2006	
1,2-Dichloropropane	BQL	0.124	0.0206	100	5/18/2006	
1,3-Dichloropropane	BQL	0.124	0.0210	100	5/18/2006	
2,2-Dichloropropane	BQL	0.124	0.0297	100	5/18/2006	
1,1-Dichloropropene	BQL	0.124	0.0219	100	5/18/2006	
cis-1,3-Dichloropropene	BQL	0.124	0.0251	100	5/18/2006	
trans-1,3-Dichloropropene	BQL	0.124	0.0148	100	5/18/2006	
Dichlorodifluoromethane	BQL	0.622	0.0479	100	5/18/2006	
Diisopropyl ether (DIPE)	BQL	0.124	0.0292	100	5/18/2006	
Ethylbenzene	BQL	0.124	0.0256	100	5/18/2006	
Hexachlorobutadiene	BQL	0.124	0.0508	100	5/18/2006	
2-Hexanone	BQL	0.622	0.109	100	5/18/2006	
Iodomethane	BQL	0.124	0.0160	100	5/18/2006	



Results for Volatiles
by GCMS 8260B/5035

Client Sample ID: UST45-SB03
Client Project ID: Building 45
Lab Sample ID: G128-1767-3D
Lab Project ID: G128-1767
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 5/5/2006 15:00
Date Received: 5/8/2006
Matrix: Soil
%Solids: 84.0

Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
Isopropylbenzene	BQL	0.124	0.0215	100	5/18/2006	
4-Isopropyltoluene	0.0298	0.124	0.0249	100	5/18/2006	J
Methylene chloride	0.118	0.622	0.0234	100	5/18/2006	J
4-Methyl-2-pentanone	BQL	0.622	0.0615	100	5/18/2006	
Methyl-tert-butyl ether (MTBE)	BQL	0.124	0.0266	100	5/18/2006	
Naphthalene	BQL	0.124	0.0348	100	5/18/2006	
n-Propyl benzene	BQL	0.124	0.0262	100	5/18/2006	
Styrene	BQL	0.124	0.0297	100	5/18/2006	
1,1,1,2-Tetrachloroethane	BQL	0.124	0.0358	100	5/18/2006	
1,1,2,2-Tetrachloroethane	BQL	0.124	0.0318	100	5/18/2006	
Tetrachloroethene	BQL	0.124	0.0378	100	5/18/2006	
Toluene	BQL	0.124	0.0218	100	5/18/2006	
1,2,3-Trichlorobenzene	BQL	0.124	0.0247	100	5/18/2006	
1,2,4-Trichlorobenzene	BQL	0.124	0.0303	100	5/18/2006	
Trichloroethene	BQL	0.124	0.0260	100	5/18/2006	
1,1,1-Trichloroethane	BQL	0.124	0.0245	100	5/18/2006	
1,1,2-Trichloroethane	BQL	0.124	0.0332	100	5/18/2006	
Trichlorofluoromethane	BQL	0.124	0.0532	100	5/18/2006	
1,2,3-Trichloropropane	BQL	0.124	0.0291	100	5/18/2006	
1,2,4-Trimethylbenzene	BQL	0.124	0.0249	100	5/18/2006	
1,3,5-Trimethylbenzene	BQL	0.124	0.0232	100	5/18/2006	
Vinyl chloride	BQL	0.124	0.0497	100	5/18/2006	
m-,p-Xylene	BQL	0.249	0.0480	100	5/18/2006	
o-Xylene	BQL	0.124	0.0208	100	5/18/2006	
		Spike Added	Spike Result	Percent Recovered		
4-Bromofluorobenzene		0.01	0.0103	103		
1,2-Dichloroethane-d4		0.01	0.0106	106		
Toluene-d8		0.01	0.01	100		

Comments:

Sample diluted for high concentration of non-target compounds.

Flags:

Reviewed By: ugd



Results for Volatiles
by GCMS 8260-5035

Client Sample ID: UST45-SB04
Client Project ID: Building 45
Lab Sample ID G128-1767-4A
Lab Project ID: G128-1767
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 05-05-2006 15:00
Date Received: 5/8/2006
Matrix: Soil
%Solids: 88.5

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
Acetone	0.0330	0.0430	0.00253	1	5/18/2006	J
Benzene	BQL	0.00430	0.00245	1	5/18/2006	
Bromobenzene	BQL	0.00430	0.00212	1	5/18/2006	
Bromochloromethane	BQL	0.00430	0.00251	1	5/18/2006	
Bromodichloromethane	BQL	0.00430	0.00244	1	5/18/2006	
Bromoform	BQL	0.00430	0.00208	1	5/18/2006	
Bromomethane	BQL	0.00430	0.00360	1	5/18/2006	
2-Butanone	0.00260	0.0215	0.00248	1	5/18/2006	J
n-Butylbenzene	BQL	0.00430	0.00288	1	5/18/2006	
sec-Butylbenzene	BQL	0.00430	0.00301	1	5/18/2006	
tert-Butylbenzene	BQL	0.00430	0.00298	1	5/18/2006	
Carbon disulfide	BQL	0.00430	0.00226	1	5/18/2006	
Carbon tetrachloride	BQL	0.00430	0.00298	1	5/18/2006	
Chlorobenzene	BQL	0.00430	0.00216	1	5/18/2006	
Chloroethane	BQL	0.00430	0.00270	1	5/18/2006	
Chloroform	BQL	0.00430	0.00216	1	5/18/2006	
Chloromethane	BQL	0.00430	0.00207	1	5/18/2006	
2-Chlorotoluene	BQL	0.00430	0.00256	1	5/18/2006	
4-Chlorotoluene	BQL	0.00430	0.00239	1	5/18/2006	
Dibromochloromethane	BQL	0.00430	0.00193	1	5/18/2006	
1,2-Dibromo-3-chloropropane	BQL	0.00430	0.00912	1	5/18/2006	
Dibromomethane	BQL	0.00430	0.00258	1	5/18/2006	
1,2-Dibromoethane (EDB)	BQL	0.00430	0.00200	1	5/18/2006	
1,2-Dichlorobenzene	BQL	0.00430	0.00207	1	5/18/2006	
1,3-Dichlorobenzene	BQL	0.00430	0.00201	1	5/18/2006	
1,4-Dichlorobenzene	BQL	0.00430	0.00212	1	5/18/2006	
trans-1,4-Dichloro-2-butene	BQL	0.00430	0.00920	1	5/18/2006	
1,1-Dichloroethane	BQL	0.00430	0.00248	1	5/18/2006	
1,1-Dichloroethene	BQL	0.00430	0.00331	1	5/18/2006	
1,2-Dichloroethane	BQL	0.00430	0.00247	1	5/18/2006	
cis-1,2-Dichloroethene	BQL	0.00430	0.00212	1	5/18/2006	
trans-1,2-dichloroethene	BQL	0.00430	0.00279	1	5/18/2006	
1,2-Dichloropropane	BQL	0.00430	0.00220	1	5/18/2006	
1,3-Dichloropropane	BQL	0.00430	0.00197	1	5/18/2006	
2,2-Dichloropropane	BQL	0.00430	0.00273	1	5/18/2006	
1,1-Dichloropropene	BQL	0.00430	0.00310	1	5/18/2006	
cis-1,3-Dichloropropene	BQL	0.00430	0.00239	1	5/18/2006	
trans-1,3-Dichloropropene	BQL	0.00430	0.00243	1	5/18/2006	
Dichlorodifluoromethane	BQL	0.00430	0.00321	1	5/18/2006	
Diisopropyl ether (DIPE)	BQL	0.00430	0.00204	1	5/18/2006	
Ethylbenzene	BQL	0.00430	0.00261	1	5/18/2006	
Hexachlorobutadiene	BQL	0.00430	0.00340	1	5/18/2006	



Results for Volatiles
by GCMS 8260-5035

Client Sample ID: UST45-SB04
Client Project ID: Building 45
Lab Sample ID G128-1767-4A
Lab Project ID: G128-1767
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 05-05-2006 15:00
Date Received: 5/8/2006
Matrix: Soil
%Solids: 88.5

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
2-Hexanone	BQL	0.00430	0.00187	1	5/18/2006	
Iodomethane	BQL	0.00430	0.00400	1	5/18/2006	
Isopropylbenzene	BQL	0.00430	0.00277	1	5/18/2006	
4-Isopropyltoluene	BQL	0.00430	0.00292	1	5/18/2006	
Methylene chloride	BQL	0.0172	0.00246	1	5/18/2006	
4-Methyl-2-pentanone	BQL	0.00430	0.00199	1	5/18/2006	
Methyl-tert-butyl ether (MTBE)	BQL	0.00430	0.00218	1	5/18/2006	
Naphthalene	BQL	0.00430	0.00173	1	5/18/2006	
n-Propyl benzene	BQL	0.00430	0.00276	1	5/18/2006	
Styrene	BQL	0.00430	0.00308	1	5/18/2006	
1,1,1,2-Tetrachloroethane	BQL	0.00430	0.00234	1	5/18/2006	
1,1,2,2-Tetrachloroethane	BQL	0.00430	0.00212	1	5/18/2006	
Tetrachloroethene	BQL	0.00430	0.00271	1	5/18/2006	
Toluene	BQL	0.00430	0.00255	1	5/18/2006	
1,2,3-Trichlorobenzene	BQL	0.00430	0.00188	1	5/18/2006	
1,2,4-Trichlorobenzene	BQL	0.00430	0.00193	1	5/18/2006	
Trichloroethene	BQL	0.00430	0.00268	1	5/18/2006	
1,1,1-Trichloroethane	BQL	0.00430	0.00297	1	5/18/2006	
1,1,2-Trichloroethane	BQL	0.00430	0.00222	1	5/18/2006	
Trichlorofluoromethane	BQL	0.00430	0.00355	1	5/18/2006	
1,2,3-Trichloropropane	BQL	0.00430	0.00228	1	5/18/2006	
1,2,4-Trimethylbenzene	BQL	0.00430	0.00241	1	5/18/2006	
1,3,5-Trimethylbenzene	BQL	0.00430	0.00256	1	5/18/2006	
Vinyl chloride	BQL	0.00430	0.00284	1	5/18/2006	
m-,p-Xylene	BQL	0.00860	0.00488	1	5/18/2006	
o-Xylene	BQL	0.00430	0.00241	1	5/18/2006	

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	0.05	0.0482	96
1,2-Dichloroethane-d4	0.05	0.0531	106
Toluene-d8	0.05	0.042	84

Comments:

Flags:

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

Reviewed By: ayd



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

Client Sample ID: UST45-SB05
Client Project ID: Building 45
Lab Sample ID G128-1767-5A
Lab Project ID: G128-1767
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 05-05-2006 15:05
Date Received: 5/8/2006
Matrix: Soil
%Solids: 89.9

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
Acetone	0.00410	0.0460	0.00270	1	5/18/2006	J
Benzene	BQL	0.00460	0.00262	1	5/18/2006	
Bromobenzene	BQL	0.00460	0.00226	1	5/18/2006	
Bromochloromethane	BQL	0.00460	0.00268	1	5/18/2006	
Bromodichloromethane	BQL	0.00460	0.00261	1	5/18/2006	
Bromoform	BQL	0.00460	0.00222	1	5/18/2006	
Bromomethane	BQL	0.00460	0.00385	1	5/18/2006	
2-Butanone	BQL	0.0230	0.00265	1	5/18/2006	
n-Butylbenzene	BQL	0.00460	0.00308	1	5/18/2006	
sec-Butylbenzene	BQL	0.00460	0.00322	1	5/18/2006	
tert-Butylbenzene	BQL	0.00460	0.00319	1	5/18/2006	
Carbon disulfide	BQL	0.00460	0.00242	1	5/18/2006	
Carbon tetrachloride	BQL	0.00460	0.00318	1	5/18/2006	
Chlorobenzene	BQL	0.00460	0.00231	1	5/18/2006	
Chloroethane	BQL	0.00460	0.00289	1	5/18/2006	
Chloroform	BQL	0.00460	0.00231	1	5/18/2006	
Chloromethane	BQL	0.00460	0.00222	1	5/18/2006	
2-Chlorotoluene	BQL	0.00460	0.00274	1	5/18/2006	
4-Chlorotoluene	BQL	0.00460	0.00256	1	5/18/2006	
Dibromochloromethane	BQL	0.00460	0.00206	1	5/18/2006	
1,2-Dibromo-3-chloropropane	BQL	0.00460	0.00974	1	5/18/2006	
Dibromomethane	BQL	0.00460	0.00276	1	5/18/2006	
1,2-Dibromoethane (EDB)	BQL	0.00460	0.00214	1	5/18/2006	
1,2-Dichlorobenzene	BQL	0.00460	0.00222	1	5/18/2006	
1,3-Dichlorobenzene	BQL	0.00460	0.00215	1	5/18/2006	
1,4-Dichlorobenzene	BQL	0.00460	0.00226	1	5/18/2006	
trans-1,4-Dichloro-2-butene	BQL	0.00460	0.00984	1	5/18/2006	
1,1-Dichloroethane	BQL	0.00460	0.00265	1	5/18/2006	
1,1-Dichloroethene	BQL	0.00460	0.00354	1	5/18/2006	
1,2-Dichloroethane	BQL	0.00460	0.00264	1	5/18/2006	
cis-1,2-Dichloroethene	BQL	0.00460	0.00226	1	5/18/2006	
trans-1,2-dichloroethene	BQL	0.00460	0.00299	1	5/18/2006	
1,2-Dichloropropane	BQL	0.00460	0.00235	1	5/18/2006	
1,3-Dichloropropane	BQL	0.00460	0.00211	1	5/18/2006	
2,2-Dichloropropane	BQL	0.00460	0.00292	1	5/18/2006	
1,1-Dichloropropene	BQL	0.00460	0.00332	1	5/18/2006	
cis-1,3-Dichloropropene	BQL	0.00460	0.00256	1	5/18/2006	
trans-1,3-Dichloropropene	BQL	0.00460	0.00260	1	5/18/2006	
Dichlorodifluoromethane	BQL	0.00460	0.00343	1	5/18/2006	
Diisopropyl ether (DIPE)	BQL	0.00460	0.00218	1	5/18/2006	
Ethylbenzene	BQL	0.00460	0.00279	1	5/18/2006	
Hexachlorobutadiene	BQL	0.00460	0.00363	1	5/18/2006	



Results for Volatiles
by GCMS 8260-5035

Client Sample ID: UST45-SB05
Client Project ID: Building 45
Lab Sample ID G128-1767-5A
Lab Project ID: G128-1767
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 05-05-2006 15:05
Date Received: 5/8/2006
Matrix: Soil
%Solids: 89.9

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
2-Hexanone	BQL	0.00460	0.00200	1	5/18/2006	
Iodomethane	BQL	0.00460	0.00427	1	5/18/2006	
Isopropylbenzene	BQL	0.00460	0.00296	1	5/18/2006	
4-Isopropyltoluene	BQL	0.00460	0.00313	1	5/18/2006	
Methylene chloride	BQL	0.0184	0.00263	1	5/18/2006	
4-Methyl-2-pentanone	BQL	0.00460	0.00212	1	5/18/2006	
Methyl-tert-butyl ether (MTBE)	BQL	0.00460	0.00234	1	5/18/2006	
Naphthalene	BQL	0.00460	0.00185	1	5/18/2006	
n-Propyl benzene	BQL	0.00460	0.00295	1	5/18/2006	
Styrene	BQL	0.00460	0.00329	1	5/18/2006	
1,1,1,2-Tetrachloroethane	BQL	0.00460	0.00250	1	5/18/2006	
1,1,2,2-Tetrachloroethane	BQL	0.00460	0.00226	1	5/18/2006	
Tetrachloroethene	BQL	0.00460	0.00290	1	5/18/2006	
Toluene	BQL	0.00460	0.00272	1	5/18/2006	
1,2,3-Trichlorobenzene	BQL	0.00460	0.00201	1	5/18/2006	
1,2,4-Trichlorobenzene	BQL	0.00460	0.00206	1	5/18/2006	
Trichloroethene	BQL	0.00460	0.00287	1	5/18/2006	
1,1,1-Trichloroethane	BQL	0.00460	0.00317	1	5/18/2006	
1,1,2-Trichloroethane	BQL	0.00460	0.00237	1	5/18/2006	
Trichlorofluoromethane	BQL	0.00460	0.00380	1	5/18/2006	
1,2,3-Trichloropropane	BQL	0.00460	0.00244	1	5/18/2006	
1,2,4-Trimethylbenzene	BQL	0.00460	0.00257	1	5/18/2006	
1,3,5-Trimethylbenzene	BQL	0.00460	0.00274	1	5/18/2006	
Vinyl chloride	BQL	0.00460	0.00303	1	5/18/2006	
m-,p-Xylene	BQL	0.00919	0.00521	1	5/18/2006	
o-Xylene	BQL	0.00460	0.00257	1	5/18/2006	

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	0.05	0.048	96
1,2-Dichloroethane-d4	0.05	0.0599	120
Toluene-d8	0.05	0.0469	94

Comments:

Flags:

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

Reviewed By:



Results for Volatiles
by GCMS 8260-5035

Client Sample ID: UST45-SB06
Client Project ID: Building 45
Lab Sample ID G128-1767-6A
Lab Project ID: G128-1767
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 05-05-2006 15:05
Date Received: 5/8/2006
Matrix: Soil
%Solids: 93.2

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
Acetone	0.00865	0.0681	0.00400	1	5/18/2006	J
Benzene	BQL	0.00681	0.00388	1	5/18/2006	
Bromobenzene	BQL	0.00681	0.00335	1	5/18/2006	
Bromochloromethane	BQL	0.00681	0.00398	1	5/18/2006	
Bromodichloromethane	BQL	0.00681	0.00387	1	5/18/2006	
Bromoform	BQL	0.00681	0.00330	1	5/18/2006	
Bromomethane	BQL	0.00681	0.00571	1	5/18/2006	
2-Butanone	BQL	0.0341	0.00392	1	5/18/2006	
n-Butylbenzene	BQL	0.00681	0.00456	1	5/18/2006	
sec-Butylbenzene	BQL	0.00681	0.00477	1	5/18/2006	
tert-Butylbenzene	BQL	0.00681	0.00473	1	5/18/2006	
Carbon disulfide	BQL	0.00681	0.00358	1	5/18/2006	
Carbon tetrachloride	BQL	0.00681	0.00471	1	5/18/2006	
Chlorobenzene	BQL	0.00681	0.00342	1	5/18/2006	
Chloroethane	BQL	0.00681	0.00428	1	5/18/2006	
Chloroform	BQL	0.00681	0.00342	1	5/18/2006	
Chloromethane	BQL	0.00681	0.00328	1	5/18/2006	
2-Chlorotoluene	BQL	0.00681	0.00406	1	5/18/2006	
4-Chlorotoluene	BQL	0.00681	0.00379	1	5/18/2006	
Dibromochloromethane	BQL	0.00681	0.00305	1	5/18/2006	
1,2-Dibromo-3-chloropropane	BQL	0.00681	0.0144	1	5/18/2006	
Dibromomethane	BQL	0.00681	0.00409	1	5/18/2006	
1,2-Dibromoethane (EDB)	BQL	0.00681	0.00317	1	5/18/2006	
1,2-Dichlorobenzene	BQL	0.00681	0.00328	1	5/18/2006	
1,3-Dichlorobenzene	BQL	0.00681	0.00319	1	5/18/2006	
1,4-Dichlorobenzene	BQL	0.00681	0.00335	1	5/18/2006	
trans-1,4-Dichloro-2-butene	BQL	0.00681	0.0146	1	5/18/2006	
1,1-Dichloroethane	BQL	0.00681	0.00392	1	5/18/2006	
1,1-Dichloroethene	BQL	0.00681	0.00524	1	5/18/2006	
1,2-Dichloroethane	BQL	0.00681	0.00391	1	5/18/2006	
cis-1,2-Dichloroethene	BQL	0.00681	0.00335	1	5/18/2006	
trans-1,2-dichloroethene	BQL	0.00681	0.00443	1	5/18/2006	
1,2-Dichloropropane	BQL	0.00681	0.00349	1	5/18/2006	
1,3-Dichloropropane	BQL	0.00681	0.00312	1	5/18/2006	
2,2-Dichloropropane	BQL	0.00681	0.00433	1	5/18/2006	
1,1-Dichloropropene	BQL	0.00681	0.00492	1	5/18/2006	
cis-1,3-Dichloropropene	BQL	0.00681	0.00379	1	5/18/2006	
trans-1,3-Dichloropropene	BQL	0.00681	0.00386	1	5/18/2006	
Dichlorodifluoromethane	BQL	0.00681	0.00508	1	5/18/2006	
Diisopropyl ether (DIPE)	BQL	0.00681	0.00323	1	5/18/2006	
Ethylbenzene	BQL	0.00681	0.00414	1	5/18/2006	
Hexachlorobutadiene	BQL	0.00681	0.00538	1	5/18/2006	



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

Client Sample ID: UST45-SB06
Client Project ID: Building 45
Lab Sample ID G128-1767-6A
Lab Project ID: G128-1767
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 05-05-2006 15:05
Date Received: 5/8/2006
Matrix: Soil
%Solids: 93.2

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
2-Hexanone	BQL	0.00681	0.00297	1	5/18/2006	
Iodomethane	BQL	0.00681	0.00633	1	5/18/2006	
Isopropylbenzene	BQL	0.00681	0.00439	1	5/18/2006	
4-Isopropyltoluene	BQL	0.00681	0.00463	1	5/18/2006	
Methylene chloride	BQL	0.0272	0.00390	1	5/18/2006	
4-Methyl-2-pentanone	BQL	0.00681	0.00315	1	5/18/2006	
Methyl-tert-butyl ether (MTBE)	BQL	0.00681	0.00346	1	5/18/2006	
Naphthalene	BQL	0.00681	0.00274	1	5/18/2006	
n-Propyl benzene	BQL	0.00681	0.00437	1	5/18/2006	
Styrene	BQL	0.00681	0.00488	1	5/18/2006	
1,1,1,2-Tetrachloroethane	BQL	0.00681	0.00371	1	5/18/2006	
1,1,2,2-Tetrachloroethane	BQL	0.00681	0.00335	1	5/18/2006	
Tetrachloroethene	BQL	0.00681	0.00429	1	5/18/2006	
Toluene	BQL	0.00681	0.00403	1	5/18/2006	
1,2,3-Trichlorobenzene	BQL	0.00681	0.00298	1	5/18/2006	
1,2,4-Trichlorobenzene	BQL	0.00681	0.00305	1	5/18/2006	
Trichloroethene	BQL	0.00681	0.00425	1	5/18/2006	
1,1,1-Trichloroethane	BQL	0.00681	0.00470	1	5/18/2006	
1,1,2-Trichloroethane	BQL	0.00681	0.00351	1	5/18/2006	
Trichlorofluoromethane	BQL	0.00681	0.00563	1	5/18/2006	
1,2,3-Trichloropropane	BQL	0.00681	0.00361	1	5/18/2006	
1,2,4-Trimethylbenzene	BQL	0.00681	0.00381	1	5/18/2006	
1,3,5-Trimethylbenzene	BQL	0.00681	0.00406	1	5/18/2006	
Vinyl chloride	BQL	0.00681	0.00450	1	5/18/2006	
m-,p-Xylene	BQL	0.0136	0.00772	1	5/18/2006	
o-Xylene	BQL	0.00681	0.00381	1	5/18/2006	

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	0.05	0.048	96
1,2-Dichloroethane-d4	0.05	0.0619	124
Toluene-d8	0.05	0.0468	94

Comments:

Flags:

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

Reviewed By: ag



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

Client Sample ID: UST45-SB07
Client Project ID: Building 45
Lab Sample ID G128-1767-7A
Lab Project ID: G128-1767
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 05-05-2006 15:10
Date Received: 5/8/2006
Matrix: Soil
%Solids: 87.6

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
Acetone	0.00682	0.0555	0.00327	1	5/18/2006	J
Benzene	BQL	0.00555	0.00317	1	5/18/2006	
Bromobenzene	BQL	0.00555	0.00273	1	5/18/2006	
Bromochloromethane	BQL	0.00555	0.00324	1	5/18/2006	
Bromodichloromethane	BQL	0.00555	0.00315	1	5/18/2006	
Bromoform	BQL	0.00555	0.00269	1	5/18/2006	
Bromomethane	BQL	0.00555	0.00465	1	5/18/2006	
2-Butanone	BQL	0.0278	0.00320	1	5/18/2006	
n-Butylbenzene	BQL	0.00555	0.00372	1	5/18/2006	
sec-Butylbenzene	BQL	0.00555	0.00389	1	5/18/2006	
tert-Butylbenzene	BQL	0.00555	0.00385	1	5/18/2006	
Carbon disulfide	BQL	0.00555	0.00292	1	5/18/2006	
Carbon tetrachloride	BQL	0.00555	0.00384	1	5/18/2006	
Chlorobenzene	BQL	0.00555	0.00279	1	5/18/2006	
Chloroethane	BQL	0.00555	0.00349	1	5/18/2006	
Chloroform	BQL	0.00555	0.00279	1	5/18/2006	
Chloromethane	BQL	0.00555	0.00268	1	5/18/2006	
2-Chlorotoluene	BQL	0.00555	0.00331	1	5/18/2006	
4-Chlorotoluene	BQL	0.00555	0.00309	1	5/18/2006	
Dibromochloromethane	BQL	0.00555	0.00249	1	5/18/2006	
1,2-Dibromo-3-chloropropane	BQL	0.00555	0.0118	1	5/18/2006	
Dibromomethane	BQL	0.00555	0.00333	1	5/18/2006	
1,2-Dibromoethane (EDB)	BQL	0.00555	0.00259	1	5/18/2006	
1,2-Dichlorobenzene	BQL	0.00555	0.00268	1	5/18/2006	
1,3-Dichlorobenzene	BQL	0.00555	0.00260	1	5/18/2006	
1,4-Dichlorobenzene	BQL	0.00555	0.00273	1	5/18/2006	
trans-1,4-Dichloro-2-butene	BQL	0.00555	0.0119	1	5/18/2006	
1,1-Dichloroethane	BQL	0.00555	0.00320	1	5/18/2006	
1,1-Dichloroethene	BQL	0.00555	0.00428	1	5/18/2006	
1,2-Dichloroethane	BQL	0.00555	0.00319	1	5/18/2006	
cis-1,2-Dichloroethene	BQL	0.00555	0.00273	1	5/18/2006	
trans-1,2-dichloroethene	BQL	0.00555	0.00361	1	5/18/2006	
1,2-Dichloropropane	BQL	0.00555	0.00284	1	5/18/2006	
1,3-Dichloropropane	BQL	0.00555	0.00254	1	5/18/2006	
2,2-Dichloropropane	BQL	0.00555	0.00353	1	5/18/2006	
1,1-Dichloropropene	BQL	0.00555	0.00401	1	5/18/2006	
cis-1,3-Dichloropropene	BQL	0.00555	0.00309	1	5/18/2006	
trans-1,3-Dichloropropene	BQL	0.00555	0.00314	1	5/18/2006	
Dichlorodifluoromethane	BQL	0.00555	0.00414	1	5/18/2006	
Diisopropyl ether (DIPE)	BQL	0.00555	0.00263	1	5/18/2006	
Ethylbenzene	BQL	0.00555	0.00338	1	5/18/2006	
Hexachlorobutadiene	BQL	0.00555	0.00439	1	5/18/2006	



Results for Volatiles
by GCMS 8260-5035

Client Sample ID: UST45-SB07
Client Project ID: Building 45
Lab Sample ID G128-1767-7A
Lab Project ID: G128-1767
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 05-05-2006 15:10
Date Received: 5/8/2006
Matrix: Soil
%Solids: 87.6

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
2-Hexanone	BQL	0.00555	0.00242	1	5/18/2006	
Iodomethane	BQL	0.00555	0.00517	1	5/18/2006	
Isopropylbenzene	BQL	0.00555	0.00358	1	5/18/2006	
4-Isopropyltoluene	BQL	0.00555	0.00378	1	5/18/2006	
Methylene chloride	0.0113	0.0222	0.00318	1	5/18/2006	J
4-Methyl-2-pentanone	BQL	0.00555	0.00257	1	5/18/2006	
Methyl-tert-butyl ether (MTBE)	BQL	0.00555	0.00282	1	5/18/2006	
Naphthalene	BQL	0.00555	0.00223	1	5/18/2006	
n-Propyl benzene	BQL	0.00555	0.00357	1	5/18/2006	
Styrene	BQL	0.00555	0.00398	1	5/18/2006	
1,1,1,2-Tetrachloroethane	BQL	0.00555	0.00302	1	5/18/2006	
1,1,2,2-Tetrachloroethane	BQL	0.00555	0.00273	1	5/18/2006	
Tetrachloroethene	BQL	0.00555	0.00350	1	5/18/2006	
Toluene	BQL	0.00555	0.00329	1	5/18/2006	
1,2,3-Trichlorobenzene	BQL	0.00555	0.00243	1	5/18/2006	
1,2,4-Trichlorobenzene	BQL	0.00555	0.00249	1	5/18/2006	
Trichloroethene	BQL	0.00555	0.00347	1	5/18/2006	
1,1,1-Trichloroethane	BQL	0.00555	0.00383	1	5/18/2006	
1,1,2-Trichloroethane	BQL	0.00555	0.00287	1	5/18/2006	
Trichlorofluoromethane	BQL	0.00555	0.00459	1	5/18/2006	
1,2,3-Trichloropropane	BQL	0.00555	0.00294	1	5/18/2006	
1,2,4-Trimethylbenzene	BQL	0.00555	0.00311	1	5/18/2006	
1,3,5-Trimethylbenzene	BQL	0.00555	0.00331	1	5/18/2006	
Vinyl chloride	BQL	0.00555	0.00367	1	5/18/2006	
m-,p-Xylene	BQL	0.0111	0.00630	1	5/18/2006	
o-Xylene	BQL	0.00555	0.00311	1	5/18/2006	

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	0.05	0.0483	97
1,2-Dichloroethane-d4	0.05	0.0617	123
Toluene-d8	0.05	0.0474	95

Comments:

Flags:

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

Reviewed By: agf



**Results for Volatiles
by GCMS 8260B/5035**

Client Sample ID: UST45-SB08
Client Project ID: Building 45
Lab Sample ID: G128-1767-8D
Lab Project ID: G128-1767
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 5/5/2006 15:10
Date Received: 5/8/2006
Matrix: Soil
%Solids: 88.7

Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
Acetone	BQL	5.27	0.710	200	5/18/2006	
Benzene	BQL	0.211	0.0342	200	5/18/2006	
Bromobenzene	BQL	0.211	0.0472	200	5/18/2006	
Bromochloromethane	BQL	0.211	0.0658	200	5/18/2006	
Bromodichloromethane	BQL	0.211	0.0390	200	5/18/2006	
Bromoform	BQL	0.211	0.0202	200	5/18/2006	
Bromomethane	BQL	0.211	0.0219	200	5/18/2006	
2-Butanone	BQL	5.27	0.230	200	5/18/2006	
n-Butylbenzene	BQL	0.211	0.0573	200	5/18/2006	
sec-Butylbenzene	BQL	0.211	0.0495	200	5/18/2006	
tert-Butylbenzene	BQL	0.211	0.0384	200	5/18/2006	
Carbon disulfide	BQL	0.211	0.0434	200	5/18/2006	
Carbon tetrachloride	BQL	0.211	0.0382	200	5/18/2006	
Chlorobenzene	BQL	0.211	0.0373	200	5/18/2006	
Chloroethane	BQL	0.211	0.0877	200	5/18/2006	
Chloroform	BQL	0.211	0.0464	200	5/18/2006	
Chloromethane	BQL	0.211	0.0595	200	5/18/2006	
2-Chlorotoluene	BQL	0.211	0.0432	200	5/18/2006	
4-Chlorotoluene	BQL	0.211	0.0434	200	5/18/2006	
Dibromochloromethane	BQL	0.211	0.0439	200	5/18/2006	
1,2-Dibromo-3-chloropropane	BQL	1.05	0.411	200	5/18/2006	
Dibromomethane	BQL	0.211	0.0580	200	5/18/2006	
1,2-Dibromoethane (EDB)	BQL	0.211	0.0557	200	5/18/2006	
1,2-Dichlorobenzene	BQL	0.211	0.0401	200	5/18/2006	
1,3-Dichlorobenzene	BQL	0.211	0.0493	200	5/18/2006	
1,4-Dichlorobenzene	BQL	0.211	0.0384	200	5/18/2006	
trans-1,4-Dichloro-2-butene	BQL	1.05	0.299	200	5/18/2006	
1,1-Dichloroethane	BQL	0.211	0.0453	200	5/18/2006	
1,1-Dichloroethene	BQL	0.211	0.0346	200	5/18/2006	
1,2-Dichloroethane	BQL	0.211	0.0514	200	5/18/2006	
cis-1,2-Dichloroethene	BQL	0.211	0.0371	200	5/18/2006	
trans-1,2-dichloroethene	BQL	0.211	0.0485	200	5/18/2006	
1,2-Dichloropropane	BQL	0.211	0.0350	200	5/18/2006	
1,3-Dichloropropane	BQL	0.211	0.0356	200	5/18/2006	
2,2-Dichloropropane	BQL	0.211	0.0504	200	5/18/2006	
1,1-Dichloropropene	BQL	0.211	0.0371	200	5/18/2006	
cis-1,3-Dichloropropene	BQL	0.211	0.0426	200	5/18/2006	
trans-1,3-Dichloropropene	BQL	0.211	0.0251	200	5/18/2006	
Dichlorodifluoromethane	BQL	1.05	0.0812	200	5/18/2006	
Diisopropyl ether (DIPE)	BQL	0.211	0.0495	200	5/18/2006	
Ethylbenzene	BQL	0.211	0.0434	200	5/18/2006	
Hexachlorobutadiene	BQL	0.211	0.0862	200	5/18/2006	
2-Hexanone	BQL	1.05	0.184	200	5/18/2006	
Iodomethane	BQL	0.211	0.0272	200	5/18/2006	



Results for Volatiles
by GCMS 8260B/5035

Client Sample ID: UST45-SB08
Client Project ID: Building 45
Lab Sample ID: G128-1767-8D
Lab Project ID: G128-1767
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 5/5/2006 15:10
Date Received: 5/8/2006
Matrix: Soil
%Solids: 88.7

Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
Isopropylbenzene	BQL	0.211	0.0365	200	5/18/2006	
4-Isopropyltoluene	BQL	0.211	0.0422	200	5/18/2006	
Methylene chloride	BQL	1.05	0.0396	200	5/18/2006	
4-Methyl-2-pentanone	BQL	1.05	0.104	200	5/18/2006	
Methyl-tert-butyl ether (MTBE)	BQL	0.211	0.0451	200	5/18/2006	
Naphthalene	BQL	0.211	0.0590	200	5/18/2006	
n-Propyl benzene	BQL	0.211	0.0445	200	5/18/2006	
Styrene	BQL	0.211	0.0504	200	5/18/2006	
1,1,1,2-Tetrachloroethane	BQL	0.211	0.0607	200	5/18/2006	
1,1,2,2-Tetrachloroethane	BQL	0.211	0.0540	200	5/18/2006	
Tetrachloroethene	BQL	0.211	0.0641	200	5/18/2006	
Toluene	BQL	0.211	0.0369	200	5/18/2006	
1,2,3-Trichlorobenzene	BQL	0.211	0.0420	200	5/18/2006	
1,2,4-Trichlorobenzene	BQL	0.211	0.0514	200	5/18/2006	
Trichloroethene	BQL	0.211	0.0441	200	5/18/2006	
1,1,1-Trichloroethane	BQL	0.211	0.0415	200	5/18/2006	
1,1,2-Trichloroethane	BQL	0.211	0.0563	200	5/18/2006	
Trichlorofluoromethane	BQL	0.211	0.0902	200	5/18/2006	
1,2,3-Trichloropropane	BQL	0.211	0.0493	200	5/18/2006	
1,2,4-Trimethylbenzene	0.0843	0.211	0.0422	200	5/18/2006	J
1,3,5-Trimethylbenzene	0.0717	0.211	0.0394	200	5/18/2006	J
Vinyl chloride	BQL	0.211	0.0843	200	5/18/2006	
m-,p-Xylene	BQL	0.422	0.0814	200	5/18/2006	
o-Xylene	BQL	0.211	0.0352	200	5/18/2006	

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	0.01	0.0105	105
1,2-Dichloroethane-d4	0.01	0.0105	105
Toluene-d8	0.01	0.0101	101

Comments:

Sample diluted for high concentration of non-target compounds.

Flags:

Reviewed By: sgd



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

Client Sample ID: UST45-SB09
Client Project ID: Building 45
Lab Sample ID G128-1767-9A
Lab Project ID: G128-1767
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 05-05-2006 15:10
Date Received: 5/8/2006
Matrix: Soil
%Solids: 87.1

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
Acetone	0.0239	0.0547	0.00321	1	5/18/2006	J
Benzene	BQL	0.00547	0.00312	1	5/18/2006	
Bromobenzene	BQL	0.00547	0.00269	1	5/18/2006	
Bromochloromethane	BQL	0.00547	0.00319	1	5/18/2006	
Bromodichloromethane	BQL	0.00547	0.00310	1	5/18/2006	
Bromoform	BQL	0.00547	0.00265	1	5/18/2006	
Bromomethane	BQL	0.00547	0.00458	1	5/18/2006	
2-Butanone	BQL	0.0273	0.00315	1	5/18/2006	
n-Butylbenzene	BQL	0.00547	0.00366	1	5/18/2006	
sec-Butylbenzene	BQL	0.00547	0.00383	1	5/18/2006	
tert-Butylbenzene	BQL	0.00547	0.00379	1	5/18/2006	
Carbon disulfide	BQL	0.00547	0.00288	1	5/18/2006	
Carbon tetrachloride	BQL	0.00547	0.00378	1	5/18/2006	
Chlorobenzene	BQL	0.00547	0.00274	1	5/18/2006	
Chloroethane	BQL	0.00547	0.00343	1	5/18/2006	
Chloroform	BQL	0.00547	0.00274	1	5/18/2006	
Chloromethane	BQL	0.00547	0.00263	1	5/18/2006	
2-Chlorotoluene	BQL	0.00547	0.00326	1	5/18/2006	
4-Chlorotoluene	BQL	0.00547	0.00304	1	5/18/2006	
Dibromochloromethane	BQL	0.00547	0.00245	1	5/18/2006	
1,2-Dibromo-3-chloropropane	BQL	0.00547	0.0116	1	5/18/2006	
Dibromomethane	BQL	0.00547	0.00328	1	5/18/2006	
1,2-Dibromoethane (EDB)	BQL	0.00547	0.00255	1	5/18/2006	
1,2-Dichlorobenzene	BQL	0.00547	0.00263	1	5/18/2006	
1,3-Dichlorobenzene	BQL	0.00547	0.00256	1	5/18/2006	
1,4-Dichlorobenzene	BQL	0.00547	0.00269	1	5/18/2006	
trans-1,4-Dichloro-2-butene	BQL	0.00547	0.0117	1	5/18/2006	
1,1-Dichloroethane	BQL	0.00547	0.00315	1	5/18/2006	
1,1-Dichloroethene	BQL	0.00547	0.00421	1	5/18/2006	
1,2-Dichloroethane	BQL	0.00547	0.00314	1	5/18/2006	
cis-1,2-Dichloroethene	BQL	0.00547	0.00269	1	5/18/2006	
trans-1,2-dichloroethene	BQL	0.00547	0.00355	1	5/18/2006	
1,2-Dichloropropane	BQL	0.00547	0.00280	1	5/18/2006	
1,3-Dichloropropane	BQL	0.00547	0.00250	1	5/18/2006	
2,2-Dichloropropane	BQL	0.00547	0.00348	1	5/18/2006	
1,1-Dichloropropene	BQL	0.00547	0.00395	1	5/18/2006	
cis-1,3-Dichloropropene	BQL	0.00547	0.00304	1	5/18/2006	
trans-1,3-Dichloropropene	BQL	0.00547	0.00309	1	5/18/2006	
Dichlorodifluoromethane	BQL	0.00547	0.00408	1	5/18/2006	
Diisopropyl ether (DIPE)	BQL	0.00547	0.00259	1	5/18/2006	
Ethylbenzene	BQL	0.00547	0.00332	1	5/18/2006	
Hexachlorobutadiene	BQL	0.00547	0.00432	1	5/18/2006	



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

Client Sample ID: UST45-SB09
Client Project ID: Building 45
Lab Sample ID G128-1767-9A
Lab Project ID: G128-1767
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 05-05-2006 15:10
Date Received: 5/8/2006
Matrix: Soil
%Solids: 87.1

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
2-Hexanone	BQL	0.00547	0.00238	1	5/18/2006	
Iodomethane	BQL	0.00547	0.00508	1	5/18/2006	
Isopropylbenzene	BQL	0.00547	0.00352	1	5/18/2006	
4-Isopropyltoluene	BQL	0.00547	0.00372	1	5/18/2006	
Methylene chloride	BQL	0.0219	0.00313	1	5/18/2006	
4-Methyl-2-pentanone	BQL	0.00547	0.00253	1	5/18/2006	
Methyl-tert-butyl ether (MTBE)	BQL	0.00547	0.00278	1	5/18/2006	
Naphthalene	BQL	0.00547	0.00220	1	5/18/2006	
n-Propyl benzene	BQL	0.00547	0.00351	1	5/18/2006	
Styrene	BQL	0.00547	0.00391	1	5/18/2006	
1,1,1,2-Tetrachloroethane	BQL	0.00547	0.00297	1	5/18/2006	
1,1,2,2-Tetrachloroethane	BQL	0.00547	0.00269	1	5/18/2006	
Tetrachloroethene	BQL	0.00547	0.00344	1	5/18/2006	
Toluene	BQL	0.00547	0.00324	1	5/18/2006	
1,2,3-Trichlorobenzene	BQL	0.00547	0.00239	1	5/18/2006	
1,2,4-Trichlorobenzene	BQL	0.00547	0.00245	1	5/18/2006	
Trichloroethene	BQL	0.00547	0.00341	1	5/18/2006	
1,1,1-Trichloroethane	BQL	0.00547	0.00377	1	5/18/2006	
1,1,2-Trichloroethane	BQL	0.00547	0.00282	1	5/18/2006	
Trichlorofluoromethane	BQL	0.00547	0.00452	1	5/18/2006	
1,2,3-Trichloropropane	BQL	0.00547	0.00290	1	5/18/2006	
1,2,4-Trimethylbenzene	BQL	0.00547	0.00306	1	5/18/2006	
1,3,5-Trimethylbenzene	BQL	0.00547	0.00326	1	5/18/2006	
Vinyl chloride	BQL	0.00547	0.00361	1	5/18/2006	
m-,p-Xylene	BQL	0.0109	0.00620	1	5/18/2006	
o-Xylene	BQL	0.00547	0.00306	1	5/18/2006	
		Spike Added	Spike Result	Percent Recovered		
4-Bromofluorobenzene		0.05	0.0481	96		
1,2-Dichloroethane-d4		0.05	0.0636	127		
Toluene-d8		0.05	0.0483	97		

Comments:

Flags:

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

Reviewed By: cyd



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

Client Sample ID: UST45-SB10
Client Project ID: Building 45
Lab Sample ID G128-1767-10A
Lab Project ID: G128-1767
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 05-05-2006 15:10
Date Received: 5/8/2006
Matrix: Soil
%Solids: 92.8

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
Acetone	0.00524	0.0512	0.00301	1	5/18/2006	J
Benzene	BQL	0.00512	0.00292	1	5/18/2006	
Bromobenzene	BQL	0.00512	0.00252	1	5/18/2006	
Bromochloromethane	BQL	0.00512	0.00299	1	5/18/2006	
Bromodichloromethane	BQL	0.00512	0.00291	1	5/18/2006	
Bromoform	BQL	0.00512	0.00248	1	5/18/2006	
Bromomethane	BQL	0.00512	0.00429	1	5/18/2006	
2-Butanone	BQL	0.0256	0.00295	1	5/18/2006	
n-Butylbenzene	BQL	0.00512	0.00343	1	5/18/2006	
sec-Butylbenzene	BQL	0.00512	0.00359	1	5/18/2006	
tert-Butylbenzene	BQL	0.00512	0.00356	1	5/18/2006	
Carbon disulfide	BQL	0.00512	0.00270	1	5/18/2006	
Carbon tetrachloride	BQL	0.00512	0.00355	1	5/18/2006	
Chlorobenzene	BQL	0.00512	0.00257	1	5/18/2006	
Chloroethane	BQL	0.00512	0.00322	1	5/18/2006	
Chloroform	BQL	0.00512	0.00257	1	5/18/2006	
Chloromethane	BQL	0.00512	0.00247	1	5/18/2006	
2-Chlorotoluene	BQL	0.00512	0.00305	1	5/18/2006	
4-Chlorotoluene	BQL	0.00512	0.00285	1	5/18/2006	
Dibromochloromethane	BQL	0.00512	0.00230	1	5/18/2006	
1,2-Dibromo-3-chloropropane	BQL	0.00512	0.0109	1	5/18/2006	
Dibromomethane	BQL	0.00512	0.00307	1	5/18/2006	
1,2-Dibromoethane (EDB)	BQL	0.00512	0.00239	1	5/18/2006	
1,2-Dichlorobenzene	BQL	0.00512	0.00247	1	5/18/2006	
1,3-Dichlorobenzene	BQL	0.00512	0.00240	1	5/18/2006	
1,4-Dichlorobenzene	BQL	0.00512	0.00252	1	5/18/2006	
trans-1,4-Dichloro-2-butene	BQL	0.00512	0.0110	1	5/18/2006	
1,1-Dichloroethane	BQL	0.00512	0.00295	1	5/18/2006	
1,1-Dichloroethene	BQL	0.00512	0.00395	1	5/18/2006	
1,2-Dichloroethane	BQL	0.00512	0.00294	1	5/18/2006	
cis-1,2-Dichloroethene	BQL	0.00512	0.00252	1	5/18/2006	
trans-1,2-dichloroethene	BQL	0.00512	0.00333	1	5/18/2006	
1,2-Dichloropropane	BQL	0.00512	0.00262	1	5/18/2006	
1,3-Dichloropropane	BQL	0.00512	0.00235	1	5/18/2006	
2,2-Dichloropropane	BQL	0.00512	0.00326	1	5/18/2006	
1,1-Dichloropropene	BQL	0.00512	0.00370	1	5/18/2006	
cis-1,3-Dichloropropene	BQL	0.00512	0.00285	1	5/18/2006	
trans-1,3-Dichloropropene	BQL	0.00512	0.00290	1	5/18/2006	
Dichlorodifluoromethane	BQL	0.00512	0.00382	1	5/18/2006	
Diisopropyl ether (DIPE)	BQL	0.00512	0.00243	1	5/18/2006	
Ethylbenzene	BQL	0.00512	0.00312	1	5/18/2006	
Hexachlorobutadiene	BQL	0.00512	0.00405	1	5/18/2006	



Results for Volatiles
by GCMS 8260-5035

Client Sample ID: UST45-SB10
Client Project ID: Building 45
Lab Sample ID G128-1767-10A
Lab Project ID: G128-1767
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 05-05-2006 15:10
Date Received: 5/8/2006
Matrix: Soil
%Solids: 92.8

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
2-Hexanone	BQL	0.00512	0.00223	1	5/18/2006	
Iodomethane	BQL	0.00512	0.00477	1	5/18/2006	
Isopropylbenzene	BQL	0.00512	0.00330	1	5/18/2006	
4-Isopropyltoluene	BQL	0.00512	0.00348	1	5/18/2006	
Methylene chloride	BQL	0.0205	0.00293	1	5/18/2006	
4-Methyl-2-pentanone	BQL	0.00512	0.00237	1	5/18/2006	
Methyl-tert-butyl ether (MTBE)	BQL	0.00512	0.00260	1	5/18/2006	
Naphthalene	BQL	0.00512	0.00206	1	5/18/2006	
n-Propyl benzene	BQL	0.00512	0.00329	1	5/18/2006	
Styrene	BQL	0.00512	0.00367	1	5/18/2006	
1,1,1,2-Tetrachloroethane	BQL	0.00512	0.00279	1	5/18/2006	
1,1,2,2-Tetrachloroethane	BQL	0.00512	0.00252	1	5/18/2006	
Tetrachloroethene	BQL	0.00512	0.00323	1	5/18/2006	
Toluene	BQL	0.00512	0.00303	1	5/18/2006	
1,2,3-Trichlorobenzene	BQL	0.00512	0.00224	1	5/18/2006	
1,2,4-Trichlorobenzene	BQL	0.00512	0.00230	1	5/18/2006	
Trichloroethene	BQL	0.00512	0.00320	1	5/18/2006	
1,1,1-Trichloroethane	BQL	0.00512	0.00354	1	5/18/2006	
1,1,2-Trichloroethane	BQL	0.00512	0.00264	1	5/18/2006	
Trichlorofluoromethane	BQL	0.00512	0.00423	1	5/18/2006	
1,2,3-Trichloropropane	BQL	0.00512	0.00272	1	5/18/2006	
1,2,4-Trimethylbenzene	BQL	0.00512	0.00287	1	5/18/2006	
1,3,5-Trimethylbenzene	BQL	0.00512	0.00305	1	5/18/2006	
Vinyl chloride	BQL	0.00512	0.00338	1	5/18/2006	
m,p-Xylene	BQL	0.0102	0.00581	1	5/18/2006	
o-Xylene	BQL	0.00512	0.00287	1	5/18/2006	
		Spike Added	Spike Result	Percent Recovered		
4-Bromofluorobenzene		0.05	0.048	96		
1,2-Dichloroethane-d4		0.05	0.0628	126		
Toluene-d8		0.05	0.0483	97		

Comments:

Flags:

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

Reviewed By: agj



Results for Volatiles
by GCMS 8260B/5035

Client Sample ID: UST45-SB11
Client Project ID: Building 45
Lab Sample ID: G128-1767-11D
Lab Project ID: G128-1767
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 5/5/2006 15:10
Date Received: 5/8/2006
Matrix: Soil
%Solids: 89.8

Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
Acetone	BQL	5.00	0.675	200	5/18/2006	
Benzene	BQL	0.200	0.0324	200	5/18/2006	
Bromobenzene	BQL	0.200	0.0448	200	5/18/2006	
Bromochloromethane	BQL	0.200	0.0625	200	5/18/2006	
Bromodichloromethane	BQL	0.200	0.0370	200	5/18/2006	
Bromoform	BQL	0.200	0.0192	200	5/18/2006	
Bromomethane	BQL	0.200	0.0208	200	5/18/2006	
2-Butanone	BQL	5.00	0.218	200	5/18/2006	
n-Butylbenzene	BQL	0.200	0.0545	200	5/18/2006	
sec-Butylbenzene	BQL	0.200	0.0470	200	5/18/2006	
tert-Butylbenzene	BQL	0.200	0.0364	200	5/18/2006	
Carbon disulfide	BQL	0.200	0.0412	200	5/18/2006	
Carbon tetrachloride	BQL	0.200	0.0362	200	5/18/2006	
Chlorobenzene	BQL	0.200	0.0354	200	5/18/2006	
Chloroethane	BQL	0.200	0.0833	200	5/18/2006	
Chloroform	BQL	0.200	0.0440	200	5/18/2006	
Chloromethane	BQL	0.200	0.0565	200	5/18/2006	
2-Chlorotoluene	BQL	0.200	0.0410	200	5/18/2006	
4-Chlorotoluene	BQL	0.200	0.0412	200	5/18/2006	
Dibromochloromethane	BQL	0.200	0.0416	200	5/18/2006	
1,2-Dibromo-3-chloropropane	BQL	1.00	0.390	200	5/18/2006	
Dibromomethane	BQL	0.200	0.0551	200	5/18/2006	
1,2-Dibromoethane (EDB)	BQL	0.200	0.0529	200	5/18/2006	
1,2-Dichlorobenzene	BQL	0.200	0.0380	200	5/18/2006	
1,3-Dichlorobenzene	BQL	0.200	0.0468	200	5/18/2006	
1,4-Dichlorobenzene	BQL	0.200	0.0364	200	5/18/2006	
trans-1,4-Dichloro-2-butene	BQL	1.00	0.284	200	5/18/2006	
1,1-Dichloroethane	BQL	0.200	0.0430	200	5/18/2006	
1,1-Dichloroethene	BQL	0.200	0.0328	200	5/18/2006	
1,2-Dichloroethane	BQL	0.200	0.0488	200	5/18/2006	
cis-1,2-Dichloroethene	BQL	0.200	0.0352	200	5/18/2006	
trans-1,2-dichloroethene	BQL	0.200	0.0460	200	5/18/2006	
1,2-Dichloropropane	BQL	0.200	0.0332	200	5/18/2006	
1,3-Dichloropropane	BQL	0.200	0.0338	200	5/18/2006	
2,2-Dichloropropane	BQL	0.200	0.0478	200	5/18/2006	
1,1-Dichloropropene	BQL	0.200	0.0352	200	5/18/2006	
cis-1,3-Dichloropropene	BQL	0.200	0.0404	200	5/18/2006	
trans-1,3-Dichloropropene	BQL	0.200	0.0238	200	5/18/2006	
Dichlorodifluoromethane	BQL	1.00	0.0771	200	5/18/2006	
Diisopropyl ether (DIPE)	BQL	0.200	0.0470	200	5/18/2006	
Ethylbenzene	BQL	0.200	0.0412	200	5/18/2006	
Hexachlorobutadiene	BQL	0.200	0.0819	200	5/18/2006	
2-Hexanone	BQL	1.00	0.175	200	5/18/2006	
Iodomethane	BQL	0.200	0.0258	200	5/18/2006	



**Results for Volatiles
by GCMS 8260B/5035**

Client Sample ID: UST45-SB11
Client Project ID: Building 45
Lab Sample ID: G128-1767-11D
Lab Project ID: G128-1767
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 5/5/2006 15:10
Date Received: 5/8/2006
Matrix: Soil
%Solids: 89.8

Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
Isopropylbenzene	BQL	0.200	0.0346	200	5/18/2006	
4-Isopropyltoluene	BQL	0.200	0.0400	200	5/18/2006	
Methylene chloride	BQL	1.00	0.0376	200	5/18/2006	
4-Methyl-2-pentanone	BQL	1.00	0.0991	200	5/18/2006	
Methyl-tert-butyl ether (MTBE)	BQL	0.200	0.0428	200	5/18/2006	
Naphthalene	BQL	0.200	0.0561	200	5/18/2006	
n-Propyl benzene	BQL	0.200	0.0422	200	5/18/2006	
Styrene	BQL	0.200	0.0478	200	5/18/2006	
1,1,1,2-Tetrachloroethane	BQL	0.200	0.0577	200	5/18/2006	
1,1,2,2-Tetrachloroethane	BQL	0.200	0.0513	200	5/18/2006	
Tetrachloroethene	BQL	0.200	0.0609	200	5/18/2006	
Toluene	BQL	0.200	0.0350	200	5/18/2006	
1,2,3-Trichlorobenzene	BQL	0.200	0.0398	200	5/18/2006	
1,2,4-Trichlorobenzene	BQL	0.200	0.0488	200	5/18/2006	
Trichloroethene	BQL	0.200	0.0418	200	5/18/2006	
1,1,1-Trichloroethane	BQL	0.200	0.0394	200	5/18/2006	
1,1,2-Trichloroethane	BQL	0.200	0.0535	200	5/18/2006	
Trichlorofluoromethane	BQL	0.200	0.0857	200	5/18/2006	
1,2,3-Trichloropropane	BQL	0.200	0.0468	200	5/18/2006	
1,2,4-Trimethylbenzene	BQL	0.200	0.0400	200	5/18/2006	
1,3,5-Trimethylbenzene	BQL	0.200	0.0374	200	5/18/2006	
Vinyl chloride	BQL	0.200	0.0801	200	5/18/2006	
m-,p-Xylene	BQL	0.400	0.0773	200	5/18/2006	
o-Xylene	BQL	0.200	0.0334	200	5/18/2006	
		Spike Added	Spike Result	Percent Recovered		
4-Bromofluorobenzene		0.01	0.0107	107		
1,2-Dichloroethane-d4		0.01	0.0108	108		
Toluene-d8		0.01	0.0101	101		

Comments:

Sample diluted for high concentration of non-target compounds.

Flags:

Reviewed By: gjd



Results for Volatiles
by GCMS 8260B/5035

Client Sample ID: UST45-SB12
Client Project ID: Building 45
Lab Sample ID: G128-1767-13D
Lab Project ID: G128-1767
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 5/5/2006 15:10
Date Received: 5/8/2006
Matrix: Soil
%Solids: 90.4

Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
Acetone	0.233	1.20	0.162	50	5/18/2006	J
Benzene	BQL	0.0482	0.00781	50	5/18/2006	
Bromobenzene	BQL	0.0482	0.0108	50	5/18/2006	
Bromochloromethane	BQL	0.0482	0.0150	50	5/18/2006	
Bromodichloromethane	BQL	0.0482	0.00891	50	5/18/2006	
Bromoform	BQL	0.0482	0.00463	50	5/18/2006	
Bromomethane	BQL	0.0482	0.00501	50	5/18/2006	
2-Butanone	BQL	1.20	0.0525	50	5/18/2006	
n-Butylbenzene	BQL	0.0482	0.0131	50	5/18/2006	
sec-Butylbenzene	BQL	0.0482	0.0113	50	5/18/2006	
tert-Butylbenzene	BQL	0.0482	0.00877	50	5/18/2006	
Carbon disulfide	BQL	0.0482	0.00992	50	5/18/2006	
Carbon tetrachloride	BQL	0.0482	0.00872	50	5/18/2006	
Chlorobenzene	BQL	0.0482	0.00853	50	5/18/2006	
Chloroethane	BQL	0.0482	0.0200	50	5/18/2006	
Chloroform	BQL	0.0482	0.0106	50	5/18/2006	
Chloromethane	BQL	0.0482	0.0136	50	5/18/2006	
2-Chlorotoluene	BQL	0.0482	0.00988	50	5/18/2006	
4-Chlorotoluene	BQL	0.0482	0.00992	50	5/18/2006	
Dibromochloromethane	BQL	0.0482	0.0100	50	5/18/2006	
1,2-Dibromo-3-chloropropane	BQL	0.241	0.0939	50	5/18/2006	
Dibromomethane	BQL	0.0482	0.0132	50	5/18/2006	
1,2-Dibromoethane (EDB)	BQL	0.0482	0.0127	50	5/18/2006	
1,2-Dichlorobenzene	BQL	0.0482	0.00915	50	5/18/2006	
1,3-Dichlorobenzene	BQL	0.0482	0.0113	50	5/18/2006	
1,4-Dichlorobenzene	BQL	0.0482	0.00877	50	5/18/2006	
trans-1,4-Dichloro-2-butene	BQL	0.241	0.0684	50	5/18/2006	
1,1-Dichloroethane	BQL	0.0482	0.0104	50	5/18/2006	
1,1-Dichloroethene	BQL	0.0482	0.00790	50	5/18/2006	
1,2-Dichloroethane	BQL	0.0482	0.0118	50	5/18/2006	
cis-1,2-Dichloroethene	BQL	0.0482	0.00848	50	5/18/2006	
trans-1,2-dichloroethene	BQL	0.0482	0.0111	50	5/18/2006	
1,2-Dichloropropane	BQL	0.0482	0.00800	50	5/18/2006	
1,3-Dichloropropane	BQL	0.0482	0.00814	50	5/18/2006	
2,2-Dichloropropane	BQL	0.0482	0.0115	50	5/18/2006	
1,1-Dichloropropene	BQL	0.0482	0.00848	50	5/18/2006	
cis-1,3-Dichloropropene	BQL	0.0482	0.00973	50	5/18/2006	
trans-1,3-Dichloropropene	BQL	0.0482	0.00573	50	5/18/2006	
Dichlorodifluoromethane	BQL	0.241	0.0185	50	5/18/2006	
Diisopropyl ether (DIPE)	BQL	0.0482	0.0113	50	5/18/2006	
Ethylbenzene	BQL	0.0482	0.00992	50	5/18/2006	
Hexachlorobutadiene	BQL	0.0482	0.0197	50	5/18/2006	
2-Hexanone	BQL	0.241	0.0421	50	5/18/2006	
Iodomethane	BQL	0.0482	0.00622	50	5/18/2006	



Results for Volatiles
by GCMS 8260B/5035

Client Sample ID: UST45-SB12
Client Project ID: Building 45
Lab Sample ID: G128-1767-13D
Lab Project ID: G128-1767
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 5/5/2006 15:10
Date Received: 5/8/2006
Matrix: Soil
%Solids: 90.4

Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
Isopropylbenzene	BQL	0.0482	0.00834	50	5/18/2006	
4-Isopropyltoluene	BQL	0.0482	0.00964	50	5/18/2006	
Methylene chloride	0.0573	0.241	0.00906	50	5/18/2006	J
4-Methyl-2-pentanone	BQL	0.241	0.0238	50	5/18/2006	
Methyl-tert-butyl ether (MTBE)	BQL	0.0482	0.0103	50	5/18/2006	
Naphthalene	BQL	0.0482	0.0135	50	5/18/2006	
n-Propyl benzene	BQL	0.0482	0.0102	50	5/18/2006	
Styrene	BQL	0.0482	0.0115	50	5/18/2006	
1,1,1,2-Tetrachloroethane	BQL	0.0482	0.0139	50	5/18/2006	
1,1,2,2-Tetrachloroethane	BQL	0.0482	0.0123	50	5/18/2006	
Tetrachloroethene	BQL	0.0482	0.0146	50	5/18/2006	
Toluene	BQL	0.0482	0.00843	50	5/18/2006	
1,2,3-Trichlorobenzene	BQL	0.0482	0.00959	50	5/18/2006	
1,2,4-Trichlorobenzene	BQL	0.0482	0.0118	50	5/18/2006	
Trichloroethene	BQL	0.0482	0.0101	50	5/18/2006	
1,1,1-Trichloroethane	BQL	0.0482	0.00949	50	5/18/2006	
1,1,2-Trichloroethane	BQL	0.0482	0.0129	50	5/18/2006	
Trichlorofluoromethane	BQL	0.0482	0.0206	50	5/18/2006	
1,2,3-Trichloropropane	BQL	0.0482	0.0113	50	5/18/2006	
1,2,4-Trimethylbenzene	BQL	0.0482	0.00964	50	5/18/2006	
1,3,5-Trimethylbenzene	BQL	0.0482	0.00901	50	5/18/2006	
Vinyl chloride	BQL	0.0482	0.0193	50	5/18/2006	
m-,p-Xylene	BQL	0.0964	0.0186	50	5/18/2006	
o-Xylene	BQL	0.0482	0.00805	50	5/18/2006	

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	0.01	0.0106	106
1,2-Dichloroethane-d4	0.01	0.0107	107
Toluene-d8	0.01	0.00994	99

Comments:

Sample diluted for high concentration of non-target compounds.

Flags:

Reviewed By: agd



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

Client Sample ID: UST45-SB13
Client Project ID: Building 45
Lab Sample ID G128-1767-14A
Lab Project ID: G128-1767
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 05-05-2006 15:20
Date Received: 5/8/2006
Matrix: Soil
%Solids: 91.5

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
Acetone	0.00589	0.0535	0.00314	1	5/18/2006	J
Benzene	BQL	0.00535	0.00305	1	5/18/2006	
Bromobenzene	BQL	0.00535	0.00263	1	5/18/2006	
Bromochloromethane	BQL	0.00535	0.00312	1	5/18/2006	
Bromodichloromethane	BQL	0.00535	0.00304	1	5/18/2006	
Bromoform	BQL	0.00535	0.00259	1	5/18/2006	
Bromomethane	BQL	0.00535	0.00448	1	5/18/2006	
2-Butanone	BQL	0.0267	0.00308	1	5/18/2006	
n-Butylbenzene	BQL	0.00535	0.00358	1	5/18/2006	
sec-Butylbenzene	BQL	0.00535	0.00374	1	5/18/2006	
tert-Butylbenzene	BQL	0.00535	0.00371	1	5/18/2006	
Carbon disulfide	BQL	0.00535	0.00281	1	5/18/2006	
Carbon tetrachloride	BQL	0.00535	0.00370	1	5/18/2006	
Chlorobenzene	BQL	0.00535	0.00268	1	5/18/2006	
Chloroethane	BQL	0.00535	0.00336	1	5/18/2006	
Chloroform	BQL	0.00535	0.00268	1	5/18/2006	
Chloromethane	BQL	0.00535	0.00258	1	5/18/2006	
2-Chlorotoluene	BQL	0.00535	0.00319	1	5/18/2006	
4-Chlorotoluene	BQL	0.00535	0.00297	1	5/18/2006	
Dibromochloromethane	BQL	0.00535	0.00239	1	5/18/2006	
1,2-Dibromo-3-chloropropane	BQL	0.00535	0.0113	1	5/18/2006	
Dibromomethane	BQL	0.00535	0.00321	1	5/18/2006	
1,2-Dibromoethane (EDB)	BQL	0.00535	0.00249	1	5/18/2006	
1,2-Dichlorobenzene	BQL	0.00535	0.00258	1	5/18/2006	
1,3-Dichlorobenzene	BQL	0.00535	0.00250	1	5/18/2006	
1,4-Dichlorobenzene	BQL	0.00535	0.00263	1	5/18/2006	
trans-1,4-Dichloro-2-butene	BQL	0.00535	0.0114	1	5/18/2006	
1,1-Dichloroethane	BQL	0.00535	0.00308	1	5/18/2006	
1,1-Dichloroethene	BQL	0.00535	0.00412	1	5/18/2006	
1,2-Dichloroethane	BQL	0.00535	0.00307	1	5/18/2006	
cis-1,2-Dichloroethene	BQL	0.00535	0.00263	1	5/18/2006	
trans-1,2-dichloroethene	BQL	0.00535	0.00347	1	5/18/2006	
1,2-Dichloropropane	BQL	0.00535	0.00274	1	5/18/2006	
1,3-Dichloropropane	BQL	0.00535	0.00245	1	5/18/2006	
2,2-Dichloropropane	BQL	0.00535	0.00340	1	5/18/2006	
1,1-Dichloropropene	BQL	0.00535	0.00386	1	5/18/2006	
cis-1,3-Dichloropropene	BQL	0.00535	0.00297	1	5/18/2006	
trans-1,3-Dichloropropene	BQL	0.00535	0.00303	1	5/18/2006	
Dichlorodifluoromethane	BQL	0.00535	0.00399	1	5/18/2006	
Diisopropyl ether (DIPE)	BQL	0.00535	0.00253	1	5/18/2006	
Ethylbenzene	BQL	0.00535	0.00325	1	5/18/2006	
Hexachlorobutadiene	BQL	0.00535	0.00422	1	5/18/2006	



Results for Volatiles
by GCMS 8260-5035

Client Sample ID: UST45-SB13
Client Project ID: Building 45
Lab Sample ID G128-1767-14A
Lab Project ID: G128-1767
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 05-05-2006 15:20
Date Received: 5/8/2006
Matrix: Soil
%Solids: 91.5

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
2-Hexanone	BQL	0.00535	0.00233	1	5/18/2006	
Iodomethane	BQL	0.00535	0.00497	1	5/18/2006	
Isopropylbenzene	BQL	0.00535	0.00344	1	5/18/2006	
4-Isopropyltoluene	BQL	0.00535	0.00363	1	5/18/2006	
Methylene chloride	BQL	0.0214	0.00306	1	5/18/2006	
4-Methyl-2-pentanone	BQL	0.00535	0.00247	1	5/18/2006	
Methyl-tert-butyl ether (MTBE)	BQL	0.00535	0.00272	1	5/18/2006	
Naphthalene	BQL	0.00535	0.00215	1	5/18/2006	
n-Propyl benzene	BQL	0.00535	0.00343	1	5/18/2006	
Styrene	BQL	0.00535	0.00383	1	5/18/2006	
1,1,1,2-Tetrachloroethane	BQL	0.00535	0.00291	1	5/18/2006	
1,1,2,2-Tetrachloroethane	BQL	0.00535	0.00263	1	5/18/2006	
Tetrachloroethene	BQL	0.00535	0.00337	1	5/18/2006	
Toluene	BQL	0.00535	0.00316	1	5/18/2006	
1,2,3-Trichlorobenzene	BQL	0.00535	0.00234	1	5/18/2006	
1,2,4-Trichlorobenzene	BQL	0.00535	0.00239	1	5/18/2006	
Trichloroethene	BQL	0.00535	0.00334	1	5/18/2006	
1,1,1-Trichloroethane	BQL	0.00535	0.00369	1	5/18/2006	
1,1,2-Trichloroethane	BQL	0.00535	0.00276	1	5/18/2006	
Trichlorofluoromethane	BQL	0.00535	0.00442	1	5/18/2006	
1,2,3-Trichloropropane	BQL	0.00535	0.00283	1	5/18/2006	
1,2,4-Trimethylbenzene	BQL	0.00535	0.00299	1	5/18/2006	
1,3,5-Trimethylbenzene	BQL	0.00535	0.00319	1	5/18/2006	
Vinyl chloride	BQL	0.00535	0.00353	1	5/18/2006	
m-,p-Xylene	BQL	0.0107	0.00606	1	5/18/2006	
o-Xylene	BQL	0.00535	0.00299	1	5/18/2006	

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	0.05	0.0478	96
1,2-Dichloroethane-d4	0.05	0.0559	112
Toluene-d8	0.05	0.0362	72

Comments:

Flags:

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

Reviewed By: agj



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

Client Sample ID: UST45-SB14
Client Project ID: Building 45
Lab Sample ID G128-1767-15A
Lab Project ID: G128-1767
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 05-05-2006 15:20
Date Received: 5/8/2006
Matrix: Soil
%Solids: 83.4

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
Acetone	0.00506	0.0437	0.00257	1	5/19/2006	J
Benzene	BQL	0.00437	0.00249	1	5/19/2006	
Bromobenzene	BQL	0.00437	0.00215	1	5/19/2006	
Bromochloromethane	BQL	0.00437	0.00255	1	5/19/2006	
Bromodichloromethane	BQL	0.00437	0.00248	1	5/19/2006	
Bromoform	BQL	0.00437	0.00211	1	5/19/2006	
Bromomethane	BQL	0.00437	0.00366	1	5/19/2006	
2-Butanone	BQL	0.0218	0.00251	1	5/19/2006	
n-Butylbenzene	BQL	0.00437	0.00293	1	5/19/2006	
sec-Butylbenzene	BQL	0.00437	0.00306	1	5/19/2006	
tert-Butylbenzene	BQL	0.00437	0.00303	1	5/19/2006	
Carbon disulfide	BQL	0.00437	0.00230	1	5/19/2006	
Carbon tetrachloride	BQL	0.00437	0.00302	1	5/19/2006	
Chlorobenzene	BQL	0.00437	0.00219	1	5/19/2006	
Chloroethane	BQL	0.00437	0.00274	1	5/19/2006	
Chloroform	BQL	0.00437	0.00219	1	5/19/2006	
Chloromethane	BQL	0.00437	0.00210	1	5/19/2006	
2-Chlorotoluene	BQL	0.00437	0.00260	1	5/19/2006	
4-Chlorotoluene	BQL	0.00437	0.00243	1	5/19/2006	
Dibromochloromethane	BQL	0.00437	0.00196	1	5/19/2006	
1,2-Dibromo-3-chloropropane	BQL	0.00437	0.00926	1	5/19/2006	
Dibromomethane	BQL	0.00437	0.00262	1	5/19/2006	
1,2-Dibromoethane (EDB)	BQL	0.00437	0.00203	1	5/19/2006	
1,2-Dichlorobenzene	BQL	0.00437	0.00210	1	5/19/2006	
1,3-Dichlorobenzene	BQL	0.00437	0.00204	1	5/19/2006	
1,4-Dichlorobenzene	BQL	0.00437	0.00215	1	5/19/2006	
trans-1,4-Dichloro-2-butene	BQL	0.00437	0.00934	1	5/19/2006	
1,1-Dichloroethane	BQL	0.00437	0.00251	1	5/19/2006	
1,1-Dichloroethene	BQL	0.00437	0.00336	1	5/19/2006	
1,2-Dichloroethane	BQL	0.00437	0.00251	1	5/19/2006	
cis-1,2-Dichloroethene	BQL	0.00437	0.00215	1	5/19/2006	
trans-1,2-dichloroethene	BQL	0.00437	0.00284	1	5/19/2006	
1,2-Dichloropropane	BQL	0.00437	0.00224	1	5/19/2006	
1,3-Dichloropropane	BQL	0.00437	0.00200	1	5/19/2006	
2,2-Dichloropropane	BQL	0.00437	0.00278	1	5/19/2006	
1,1-Dichloropropene	BQL	0.00437	0.00315	1	5/19/2006	
cis-1,3-Dichloropropene	BQL	0.00437	0.00243	1	5/19/2006	
trans-1,3-Dichloropropene	BQL	0.00437	0.00247	1	5/19/2006	
Dichlorodifluoromethane	BQL	0.00437	0.00326	1	5/19/2006	
Diisopropyl ether (DIPE)	BQL	0.00437	0.00207	1	5/19/2006	
Ethylbenzene	BQL	0.00437	0.00265	1	5/19/2006	
Hexachlorobutadiene	BQL	0.00437	0.00345	1	5/19/2006	



Results for Volatiles
by GCMS 8260-5035

Client Sample ID: UST45-SB14
Client Project ID: Building 45
Lab Sample ID G128-1767-15A
Lab Project ID: G128-1767
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 05-05-2006 15:20
Date Received: 5/8/2006
Matrix: Soil
%Solids: 83.4

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
2-Hexanone	BQL	0.00437	0.00190	1	5/19/2006	
Iodomethane	BQL	0.00437	0.00406	1	5/19/2006	
Isopropylbenzene	BQL	0.00437	0.00281	1	5/19/2006	
4-Isopropyltoluene	BQL	0.00437	0.00297	1	5/19/2006	
Methylene chloride	0.0949	0.0175	0.00250	1	5/19/2006	
4-Methyl-2-pentanone	BQL	0.00437	0.00202	1	5/19/2006	
Methyl-tert-butyl ether (MTBE)	BQL	0.00437	0.00222	1	5/19/2006	
Naphthalene	BQL	0.00437	0.00176	1	5/19/2006	
n-Propyl benzene	BQL	0.00437	0.00280	1	5/19/2006	
Styrene	BQL	0.00437	0.00313	1	5/19/2006	
1,1,1,2-Tetrachloroethane	BQL	0.00437	0.00238	1	5/19/2006	
1,1,2,2-Tetrachloroethane	BQL	0.00437	0.00215	1	5/19/2006	
Tetrachloroethene	BQL	0.00437	0.00275	1	5/19/2006	
Toluene	BQL	0.00437	0.00258	1	5/19/2006	
1,2,3-Trichlorobenzene	BQL	0.00437	0.00191	1	5/19/2006	
1,2,4-Trichlorobenzene	BQL	0.00437	0.00196	1	5/19/2006	
Trichloroethene	BQL	0.00437	0.00272	1	5/19/2006	
1,1,1-Trichloroethane	BQL	0.00437	0.00301	1	5/19/2006	
1,1,2-Trichloroethane	BQL	0.00437	0.00225	1	5/19/2006	
Trichlorofluoromethane	BQL	0.00437	0.00361	1	5/19/2006	
1,2,3-Trichloropropane	BQL	0.00437	0.00231	1	5/19/2006	
1,2,4-Trimethylbenzene	BQL	0.00437	0.00244	1	5/19/2006	
1,3,5-Trimethylbenzene	BQL	0.00437	0.00260	1	5/19/2006	
Vinyl chloride	BQL	0.00437	0.00288	1	5/19/2006	
m-,p-Xylene	BQL	0.00873	0.00495	1	5/19/2006	
o-Xylene	BQL	0.00437	0.00244	1	5/19/2006	
		Spike Added	Spike Result	Percent Recovered		
4-Bromofluorobenzene		0.05	0.047	94		
1,2-Dichloroethane-d4		0.05	0.0559	112		
Toluene-d8		0.05	0.0363	72		

Comments:

Flags:

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

Reviewed By: ingl



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

Client Sample ID: UST45-SB15
Client Project ID: Building 45
Lab Sample ID G128-1767-16A
Lab Project ID: G128-1767
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 05-05-2006 15:20
Date Received: 5/8/2006
Matrix: Soil
%Solids: 83.9

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
Acetone	0.00820	0.0477	0.00281	1	5/19/2006	J
Benzene	BQL	0.00477	0.00272	1	5/19/2006	
Bromobenzene	BQL	0.00477	0.00235	1	5/19/2006	
Bromochloromethane	BQL	0.00477	0.00279	1	5/19/2006	
Bromodichloromethane	BQL	0.00477	0.00271	1	5/19/2006	
Bromoform	BQL	0.00477	0.00231	1	5/19/2006	
Bromomethane	BQL	0.00477	0.00400	1	5/19/2006	
2-Butanone	BQL	0.0239	0.00275	1	5/19/2006	
n-Butylbenzene	BQL	0.00477	0.00320	1	5/19/2006	
sec-Butylbenzene	BQL	0.00477	0.00334	1	5/19/2006	
tert-Butylbenzene	BQL	0.00477	0.00331	1	5/19/2006	
Carbon disulfide	BQL	0.00477	0.00251	1	5/19/2006	
Carbon tetrachloride	BQL	0.00477	0.00330	1	5/19/2006	
Chlorobenzene	BQL	0.00477	0.00240	1	5/19/2006	
Chloroethane	BQL	0.00477	0.00300	1	5/19/2006	
Chloroform	BQL	0.00477	0.00240	1	5/19/2006	
Chloromethane	BQL	0.00477	0.00230	1	5/19/2006	
2-Chlorotoluene	BQL	0.00477	0.00285	1	5/19/2006	
4-Chlorotoluene	BQL	0.00477	0.00265	1	5/19/2006	
Dibromochloromethane	BQL	0.00477	0.00214	1	5/19/2006	
1,2-Dibromo-3-chloropropane	BQL	0.00477	0.0101	1	5/19/2006	
Dibromomethane	BQL	0.00477	0.00286	1	5/19/2006	
1,2-Dibromoethane (EDB)	BQL	0.00477	0.00222	1	5/19/2006	
1,2-Dichlorobenzene	BQL	0.00477	0.00230	1	5/19/2006	
1,3-Dichlorobenzene	BQL	0.00477	0.00223	1	5/19/2006	
1,4-Dichlorobenzene	BQL	0.00477	0.00235	1	5/19/2006	
trans-1,4-Dichloro-2-butene	BQL	0.00477	0.0102	1	5/19/2006	
1,1-Dichloroethane	BQL	0.00477	0.00275	1	5/19/2006	
1,1-Dichloroethene	BQL	0.00477	0.00368	1	5/19/2006	
1,2-Dichloroethane	BQL	0.00477	0.00274	1	5/19/2006	
cis-1,2-Dichloroethene	BQL	0.00477	0.00235	1	5/19/2006	
trans-1,2-dichloroethene	BQL	0.00477	0.00310	1	5/19/2006	
1,2-Dichloropropane	BQL	0.00477	0.00244	1	5/19/2006	
1,3-Dichloropropane	BQL	0.00477	0.00219	1	5/19/2006	
2,2-Dichloropropane	BQL	0.00477	0.00304	1	5/19/2006	
1,1-Dichloropropene	BQL	0.00477	0.00345	1	5/19/2006	
cis-1,3-Dichloropropene	BQL	0.00477	0.00265	1	5/19/2006	
trans-1,3-Dichloropropene	BQL	0.00477	0.00270	1	5/19/2006	
Dichlorodifluoromethane	BQL	0.00477	0.00356	1	5/19/2006	
Diisopropyl ether (DIPE)	BQL	0.00477	0.00226	1	5/19/2006	
Ethylbenzene	BQL	0.00477	0.00290	1	5/19/2006	
Hexachlorobutadiene	BQL	0.00477	0.00377	1	5/19/2006	



Results for Volatiles
by GCMS 8260-5035

Client Sample ID: UST45-SB15
Client Project ID: Building 45
Lab Sample ID G128-1767-16A
Lab Project ID: G128-1767
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 05-05-2006 15:20
Date Received: 5/8/2006
Matrix: Soil
%Solids: 83.9

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
2-Hexanone	BQL	0.00477	0.00208	1	5/19/2006	
Iodomethane	BQL	0.00477	0.00444	1	5/19/2006	
Isopropylbenzene	BQL	0.00477	0.00307	1	5/19/2006	
4-Isopropyltoluene	BQL	0.00477	0.00325	1	5/19/2006	
Methylene chloride	BQL	0.0191	0.00273	1	5/19/2006	
4-Methyl-2-pentanone	BQL	0.00477	0.00221	1	5/19/2006	
Methyl-tert-butyl ether (MTBE)	BQL	0.00477	0.00243	1	5/19/2006	
Naphthalene	BQL	0.00477	0.00192	1	5/19/2006	
n-Propyl benzene	BQL	0.00477	0.00306	1	5/19/2006	
Styrene	BQL	0.00477	0.00342	1	5/19/2006	
1,1,1,2-Tetrachloroethane	BQL	0.00477	0.00260	1	5/19/2006	
1,1,2,2-Tetrachloroethane	BQL	0.00477	0.00235	1	5/19/2006	
Tetrachloroethene	BQL	0.00477	0.00301	1	5/19/2006	
Toluene	BQL	0.00477	0.00283	1	5/19/2006	
1,2,3-Trichlorobenzene	BQL	0.00477	0.00209	1	5/19/2006	
1,2,4-Trichlorobenzene	BQL	0.00477	0.00214	1	5/19/2006	
Trichloroethene	BQL	0.00477	0.00298	1	5/19/2006	
1,1,1-Trichloroethane	BQL	0.00477	0.00329	1	5/19/2006	
1,1,2-Trichloroethane	BQL	0.00477	0.00246	1	5/19/2006	
Trichlorofluoromethane	BQL	0.00477	0.00394	1	5/19/2006	
1,2,3-Trichloropropane	BQL	0.00477	0.00253	1	5/19/2006	
1,2,4-Trimethylbenzene	BQL	0.00477	0.00267	1	5/19/2006	
1,3,5-Trimethylbenzene	BQL	0.00477	0.00285	1	5/19/2006	
Vinyl chloride	BQL	0.00477	0.00315	1	5/19/2006	
m-,p-Xylene	BQL	0.00955	0.00541	1	5/19/2006	
o-Xylene	BQL	0.00477	0.00267	1	5/19/2006	
		Spike Added	Spike Result	Percent Recovered		
4-Bromofluorobenzene		0.05	0.049	98		
1,2-Dichloroethane-d4		0.05	0.0558	112		
Toluene-d8		0.05	0.0358	72		

Comments:

Flags:

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

Reviewed By: ujd



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

Client Sample ID: UST45-SB16
Client Project ID: Building 45
Lab Sample ID G128-1767-17A
Lab Project ID: G128-1767
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 05-05-2006 15:20
Date Received: 05/08/2006
Matrix: Soil
%Solids: 90.7

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
Acetone	0.00427	0.0430	0.00253	1	05/19/2006	J
Benzene	BQL	0.00430	0.00245	1	05/19/2006	
Bromobenzene	BQL	0.00430	0.00211	1	05/19/2006	
Bromochloromethane	BQL	0.00430	0.00251	1	05/19/2006	
Bromodichloromethane	BQL	0.00430	0.00244	1	05/19/2006	
Bromoform	BQL	0.00430	0.00208	1	05/19/2006	
Bromomethane	BQL	0.00430	0.00360	1	05/19/2006	
2-Butanone	BQL	0.0215	0.00247	1	05/19/2006	
n-Butylbenzene	BQL	0.00430	0.00288	1	05/19/2006	
sec-Butylbenzene	BQL	0.00430	0.00301	1	05/19/2006	
tert-Butylbenzene	BQL	0.00430	0.00298	1	05/19/2006	
Carbon disulfide	BQL	0.00430	0.00226	1	05/19/2006	
Carbon tetrachloride	BQL	0.00430	0.00297	1	05/19/2006	
Chlorobenzene	BQL	0.00430	0.00216	1	05/19/2006	
Chloroethane	BQL	0.00430	0.00270	1	05/19/2006	
Chloroform	BQL	0.00430	0.00216	1	05/19/2006	
Chloromethane	BQL	0.00430	0.00207	1	05/19/2006	
2-Chlorotoluene	BQL	0.00430	0.00256	1	05/19/2006	
4-Chlorotoluene	BQL	0.00430	0.00239	1	05/19/2006	
Dibromochloromethane	BQL	0.00430	0.00192	1	05/19/2006	
1,2-Dibromo-3-chloropropane	BQL	0.00430	0.00911	1	05/19/2006	
Dibromomethane	BQL	0.00430	0.00258	1	05/19/2006	
1,2-Dibromoethane (EDB)	BQL	0.00430	0.00200	1	05/19/2006	
1,2-Dichlorobenzene	BQL	0.00430	0.00207	1	05/19/2006	
1,3-Dichlorobenzene	BQL	0.00430	0.00201	1	05/19/2006	
1,4-Dichlorobenzene	BQL	0.00430	0.00211	1	05/19/2006	
trans-1,4-Dichloro-2-butene	BQL	0.00430	0.00919	1	05/19/2006	
1,1-Dichloroethane	BQL	0.00430	0.00247	1	05/19/2006	
1,1-Dichloroethene	BQL	0.00430	0.00331	1	05/19/2006	
1,2-Dichloroethane	BQL	0.00430	0.00247	1	05/19/2006	
cis-1,2-Dichloroethene	BQL	0.00430	0.00211	1	05/19/2006	
trans-1,2-dichloroethene	BQL	0.00430	0.00279	1	05/19/2006	
1,2-Dichloropropane	BQL	0.00430	0.00220	1	05/19/2006	
1,3-Dichloropropane	BQL	0.00430	0.00197	1	05/19/2006	
2,2-Dichloropropane	BQL	0.00430	0.00273	1	05/19/2006	
1,1-Dichloropropene	BQL	0.00430	0.00310	1	05/19/2006	
cis-1,3-Dichloropropene	BQL	0.00430	0.00239	1	05/19/2006	
trans-1,3-Dichloropropene	BQL	0.00430	0.00243	1	05/19/2006	
Dichlorodifluoromethane	BQL	0.00430	0.00320	1	05/19/2006	
Diisopropyl ether (DIPE)	BQL	0.00430	0.00204	1	05/19/2006	
Ethylbenzene	BQL	0.00430	0.00261	1	05/19/2006	
Hexachlorobutadiene	BQL	0.00430	0.00339	1	05/19/2006	



Results for Volatiles
by GCMS 8260-5035

Client Sample ID: UST45-SB16
Client Project ID: Building 45
Lab Sample ID G128-1767-17A
Lab Project ID: G128-1767
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 05-05-2006 15:20
Date Received: 05/08/2006
Matrix: Soil
%Solids: 90.7

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
2-Hexanone	BQL	0.00430	0.00187	1	05/19/2006	
Iodomethane	BQL	0.00430	0.00400	1	05/19/2006	
Isopropylbenzene	BQL	0.00430	0.00277	1	05/19/2006	
4-Isopropyltoluene	BQL	0.00430	0.00292	1	05/19/2006	
Methylene chloride	BQL	0.0172	0.00246	1	05/19/2006	
4-Methyl-2-pentanone	BQL	0.00430	0.00198	1	05/19/2006	
Methyl-tert-butyl ether (MTBE)	BQL	0.00430	0.00218	1	05/19/2006	
Naphthalene	BQL	0.00430	0.00173	1	05/19/2006	
n-Propyl benzene	BQL	0.00430	0.00276	1	05/19/2006	
Styrene	BQL	0.00430	0.00308	1	05/19/2006	
1,1,1,2-Tetrachloroethane	BQL	0.00430	0.00234	1	05/19/2006	
1,1,2,2-Tetrachloroethane	BQL	0.00430	0.00211	1	05/19/2006	
Tetrachloroethene	BQL	0.00430	0.00271	1	05/19/2006	
Toluene	BQL	0.00430	0.00254	1	05/19/2006	
1,2,3-Trichlorobenzene	BQL	0.00430	0.00188	1	05/19/2006	
1,2,4-Trichlorobenzene	BQL	0.00430	0.00192	1	05/19/2006	
Trichloroethene	BQL	0.00430	0.00268	1	05/19/2006	
1,1,1-Trichloroethane	BQL	0.00430	0.00296	1	05/19/2006	
1,1,2-Trichloroethane	BQL	0.00430	0.00222	1	05/19/2006	
Trichlorofluoromethane	BQL	0.00430	0.00355	1	05/19/2006	
1,2,3-Trichloropropane	BQL	0.00430	0.00228	1	05/19/2006	
1,2,4-Trimethylbenzene	BQL	0.00430	0.00241	1	05/19/2006	
1,3,5-Trimethylbenzene	BQL	0.00430	0.00256	1	05/19/2006	
Vinyl chloride	BQL	0.00430	0.00284	1	05/19/2006	
m-,p-Xylene	BQL	0.00859	0.00487	1	05/19/2006	
o-Xylene	BQL	0.00430	0.00241	1	05/19/2006	
		Spike Added	Spike Result	Percent Recovered		
4-Bromofluorobenzene		0.05	0.0485	97		
1,2-Dichloroethane-d4		0.05	0.0578	116		
Toluene-d8		0.05	0.0359	72		

Comments:

Flags:

BQL = Below Quantitation Limits.

Reviewed By: 84 cl



Results for Volatiles
by GCMS 8260-5035

Client Sample ID: UST45-SB17
Client Project ID: Building 45
Lab Sample ID G128-1767-18A
Lab Project ID: G128-1767
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 05-05-2006 15:20
Date Received: 05/08/2006
Matrix: Soil
%Solids: 88.3

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
Acetone	0.0105	0.0475	0.00279	1	05/19/2006	J
Benzene	BQL	0.00475	0.00271	1	05/19/2006	
Bromobenzene	BQL	0.00475	0.00234	1	05/19/2006	
Bromochloromethane	BQL	0.00475	0.00278	1	05/19/2006	
Bromodichloromethane	BQL	0.00475	0.00270	1	05/19/2006	
Bromoform	BQL	0.00475	0.00230	1	05/19/2006	
Bromomethane	BQL	0.00475	0.00398	1	05/19/2006	
2-Butanone	BQL	0.0238	0.00274	1	05/19/2006	
n-Butylbenzene	BQL	0.00475	0.00318	1	05/19/2006	
sec-Butylbenzene	BQL	0.00475	0.00333	1	05/19/2006	
tert-Butylbenzene	BQL	0.00475	0.00330	1	05/19/2006	
Carbon disulfide	BQL	0.00475	0.00250	1	05/19/2006	
Carbon tetrachloride	BQL	0.00475	0.00329	1	05/19/2006	
Chlorobenzene	BQL	0.00475	0.00239	1	05/19/2006	
Chloroethane	BQL	0.00475	0.00298	1	05/19/2006	
Chloroform	BQL	0.00475	0.00239	1	05/19/2006	
Chloromethane	BQL	0.00475	0.00229	1	05/19/2006	
2-Chlorotoluene	BQL	0.00475	0.00283	1	05/19/2006	
4-Chlorotoluene	BQL	0.00475	0.00264	1	05/19/2006	
Dibromochloromethane	BQL	0.00475	0.00213	1	05/19/2006	
1,2-Dibromo-3-chloropropane	BQL	0.00475	0.0101	1	05/19/2006	
Dibromomethane	BQL	0.00475	0.00285	1	05/19/2006	
1,2-Dibromoethane (EDB)	BQL	0.00475	0.00221	1	05/19/2006	
1,2-Dichlorobenzene	BQL	0.00475	0.00229	1	05/19/2006	
1,3-Dichlorobenzene	BQL	0.00475	0.00222	1	05/19/2006	
1,4-Dichlorobenzene	BQL	0.00475	0.00234	1	05/19/2006	
trans-1,4-Dichloro-2-butene	BQL	0.00475	0.0102	1	05/19/2006	
1,1-Dichloroethane	BQL	0.00475	0.00274	1	05/19/2006	
1,1-Dichloroethene	BQL	0.00475	0.00366	1	05/19/2006	
1,2-Dichloroethane	BQL	0.00475	0.00273	1	05/19/2006	
cis-1,2-Dichloroethene	BQL	0.00475	0.00234	1	05/19/2006	
trans-1,2-dichloroethene	BQL	0.00475	0.00309	1	05/19/2006	
1,2-Dichloropropane	BQL	0.00475	0.00243	1	05/19/2006	
1,3-Dichloropropane	BQL	0.00475	0.00218	1	05/19/2006	
2,2-Dichloropropane	BQL	0.00475	0.00302	1	05/19/2006	
1,1-Dichloropropene	BQL	0.00475	0.00343	1	05/19/2006	
cis-1,3-Dichloropropene	BQL	0.00475	0.00264	1	05/19/2006	
trans-1,3-Dichloropropene	BQL	0.00475	0.00269	1	05/19/2006	
Dichlorodifluoromethane	BQL	0.00475	0.00355	1	05/19/2006	
Diisopropyl ether (DIPE)	BQL	0.00475	0.00225	1	05/19/2006	
Ethylbenzene	BQL	0.00475	0.00289	1	05/19/2006	
Hexachlorobutadiene	BQL	0.00475	0.00375	1	05/19/2006	



Results for Volatiles
by GCMS 8260-5035

Client Sample ID: UST45-SB17
Client Project ID: Building 45
Lab Sample ID G128-1767-18A
Lab Project ID: G128-1767
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 05-05-2006 15:20
Date Received: 05/08/2006
Matrix: Soil
%Solids: 88.3

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
2-Hexanone	BQL	0.00475	0.00207	1	05/19/2006	
Iodomethane	BQL	0.00475	0.00442	1	05/19/2006	
Isopropylbenzene	BQL	0.00475	0.00306	1	05/19/2006	
4-Isopropyltoluene	BQL	0.00475	0.00323	1	05/19/2006	
Methylene chloride	BQL	0.0190	0.00272	1	05/19/2006	
4-Methyl-2-pentanone	BQL	0.00475	0.00220	1	05/19/2006	
Methyl-tert-butyl ether (MTBE)	BQL	0.00475	0.00241	1	05/19/2006	
Naphthalene	BQL	0.00475	0.00191	1	05/19/2006	
n-Propyl benzene	BQL	0.00475	0.00305	1	05/19/2006	
Styrene	BQL	0.00475	0.00340	1	05/19/2006	
1,1,1,2-Tetrachloroethane	BQL	0.00475	0.00259	1	05/19/2006	
1,1,2,2-Tetrachloroethane	BQL	0.00475	0.00234	1	05/19/2006	
Tetrachloroethene	BQL	0.00475	0.00299	1	05/19/2006	
Toluene	BQL	0.00475	0.00281	1	05/19/2006	
1,2,3-Trichlorobenzene	BQL	0.00475	0.00208	1	05/19/2006	
1,2,4-Trichlorobenzene	BQL	0.00475	0.00213	1	05/19/2006	
Trichloroethene	BQL	0.00475	0.00297	1	05/19/2006	
1,1,1-Trichloroethane	BQL	0.00475	0.00328	1	05/19/2006	
1,1,2-Trichloroethane	BQL	0.00475	0.00245	1	05/19/2006	
Trichlorofluoromethane	BQL	0.00475	0.00393	1	05/19/2006	
1,2,3-Trichloropropane	BQL	0.00475	0.00252	1	05/19/2006	
1,2,4-Trimethylbenzene	BQL	0.00475	0.00266	1	05/19/2006	
1,3,5-Trimethylbenzene	BQL	0.00475	0.00283	1	05/19/2006	
Vinyl chloride	BQL	0.00475	0.00314	1	05/19/2006	
m-,p-Xylene	BQL	0.00951	0.00539	1	05/19/2006	
o-Xylene	BQL	0.00475	0.00266	1	05/19/2006	
		Spike Added	Spike Result	Percent Recovered		
4-Bromofluorobenzene		0.05	0.0486	97		
1,2-Dichloroethane-d4		0.05	0.0567	114		
Toluene-d8		0.05	0.0357	71		

Comments:

Flags:

BQL = Below Quantitation Limits.

Reviewed By: SAJ



Results for Volatiles
by GCMS 8260-5035

Client Sample ID: UST45-SB18
Client Project ID: Building 45
Lab Sample ID G128-1767-19A
Lab Project ID: G128-1767
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 05-05-2006 15:20
Date Received: 5/8/2006
Matrix: Soil
%Solids: 84.3

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
Acetone	0.00533	0.0536	0.00315	1	5/19/2006	J
Benzene	BQL	0.00536	0.00306	1	5/19/2006	
Bromobenzene	BQL	0.00536	0.00264	1	5/19/2006	
Bromochloromethane	BQL	0.00536	0.00313	1	5/19/2006	
Bromodichloromethane	BQL	0.00536	0.00305	1	5/19/2006	
Bromoform	BQL	0.00536	0.00260	1	5/19/2006	
Bromomethane	BQL	0.00536	0.00450	1	5/19/2006	
2-Butanone	BQL	0.0268	0.00309	1	5/19/2006	
n-Butylbenzene	BQL	0.00536	0.00359	1	5/19/2006	
sec-Butylbenzene	BQL	0.00536	0.00375	1	5/19/2006	
tert-Butylbenzene	BQL	0.00536	0.00372	1	5/19/2006	
Carbon disulfide	BQL	0.00536	0.00282	1	5/19/2006	
Carbon tetrachloride	BQL	0.00536	0.00371	1	5/19/2006	
Chlorobenzene	BQL	0.00536	0.00269	1	5/19/2006	
Chloroethane	BQL	0.00536	0.00337	1	5/19/2006	
Chloroform	BQL	0.00536	0.00269	1	5/19/2006	
Chloromethane	BQL	0.00536	0.00259	1	5/19/2006	
2-Chlorotoluene	BQL	0.00536	0.00320	1	5/19/2006	
4-Chlorotoluene	BQL	0.00536	0.00298	1	5/19/2006	
Dibromochloromethane	BQL	0.00536	0.00240	1	5/19/2006	
1,2-Dibromo-3-chloropropane	BQL	0.00536	0.0114	1	5/19/2006	
Dibromomethane	BQL	0.00536	0.00322	1	5/19/2006	
1,2-Dibromoethane (EDB)	BQL	0.00536	0.00250	1	5/19/2006	
1,2-Dichlorobenzene	BQL	0.00536	0.00259	1	5/19/2006	
1,3-Dichlorobenzene	BQL	0.00536	0.00251	1	5/19/2006	
1,4-Dichlorobenzene	BQL	0.00536	0.00264	1	5/19/2006	
trans-1,4-Dichloro-2-butene	BQL	0.00536	0.0115	1	5/19/2006	
1,1-Dichloroethane	BQL	0.00536	0.00309	1	5/19/2006	
1,1-Dichloroethene	BQL	0.00536	0.00413	1	5/19/2006	
1,2-Dichloroethane	BQL	0.00536	0.00308	1	5/19/2006	
cis-1,2-Dichloroethene	BQL	0.00536	0.00264	1	5/19/2006	
trans-1,2-dichloroethene	BQL	0.00536	0.00349	1	5/19/2006	
1,2-Dichloropropane	BQL	0.00536	0.00275	1	5/19/2006	
1,3-Dichloropropane	BQL	0.00536	0.00246	1	5/19/2006	
2,2-Dichloropropane	BQL	0.00536	0.00341	1	5/19/2006	
1,1-Dichloropropene	BQL	0.00536	0.00387	1	5/19/2006	
cis-1,3-Dichloropropene	BQL	0.00536	0.00298	1	5/19/2006	
trans-1,3-Dichloropropene	BQL	0.00536	0.00304	1	5/19/2006	
Dichlorodifluoromethane	BQL	0.00536	0.00400	1	5/19/2006	
Diisopropyl ether (DIPE)	BQL	0.00536	0.00254	1	5/19/2006	
Ethylbenzene	BQL	0.00536	0.00326	1	5/19/2006	
Hexachlorobutadiene	BQL	0.00536	0.00424	1	5/19/2006	



Results for Volatiles
by GCMS 8260-5035

Client Sample ID: UST45-SB18
Client Project ID: Building 45
Lab Sample ID G128-1767-19A
Lab Project ID: G128-1767
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 05-05-2006 15:20
Date Received: 5/8/2006
Matrix: Soil
%Solids: 84.3

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
2-Hexanone	BQL	0.00536	0.00234	1	5/19/2006	
Iodomethane	BQL	0.00536	0.00499	1	5/19/2006	
Isopropylbenzene	BQL	0.00536	0.00345	1	5/19/2006	
4-Isopropyltoluene	BQL	0.00536	0.00365	1	5/19/2006	
Methylene chloride	BQL	0.0215	0.00307	1	5/19/2006	
4-Methyl-2-pentanone	BQL	0.00536	0.00248	1	5/19/2006	
Methyl-tert-butyl ether (MTBE)	BQL	0.00536	0.00272	1	5/19/2006	
Naphthalene	BQL	0.00536	0.00216	1	5/19/2006	
n-Propyl benzene	BQL	0.00536	0.00344	1	5/19/2006	
Styrene	BQL	0.00536	0.00384	1	5/19/2006	
1,1,1,2-Tetrachloroethane	BQL	0.00536	0.00292	1	5/19/2006	
1,1,2,2-Tetrachloroethane	BQL	0.00536	0.00264	1	5/19/2006	
Tetrachloroethene	BQL	0.00536	0.00338	1	5/19/2006	
Toluene	BQL	0.00536	0.00318	1	5/19/2006	
1,2,3-Trichlorobenzene	BQL	0.00536	0.00235	1	5/19/2006	
1,2,4-Trichlorobenzene	BQL	0.00536	0.00240	1	5/19/2006	
Trichloroethene	BQL	0.00536	0.00335	1	5/19/2006	
1,1,1-Trichloroethane	BQL	0.00536	0.00370	1	5/19/2006	
1,1,2-Trichloroethane	BQL	0.00536	0.00277	1	5/19/2006	
Trichlorofluoromethane	BQL	0.00536	0.00443	1	5/19/2006	
1,2,3-Trichloropropane	BQL	0.00536	0.00284	1	5/19/2006	
1,2,4-Trimethylbenzene	BQL	0.00536	0.00300	1	5/19/2006	
1,3,5-Trimethylbenzene	BQL	0.00536	0.00320	1	5/19/2006	
Vinyl chloride	BQL	0.00536	0.00354	1	5/19/2006	
m-,p-Xylene	BQL	0.0107	0.00608	1	5/19/2006	
o-Xylene	BQL	0.00536	0.00300	1	5/19/2006	
		Spike Added	Spike Result	Percent Recovered		
4-Bromofluorobenzene		0.05	0.0481	96		
1,2-Dichloroethane-d4		0.05	0.056	112		
Toluene-d8		0.05	0.0357	71		

Comments:

Flags:

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

Reviewed By: gjd



Results for Volatiles
by GCMS 8260-5035

Client Sample ID: UST45-SB19
Client Project ID: Building 45
Lab Sample ID G128-1767-20A
Lab Project ID: G128-1767
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 05-05-2006 15:30
Date Received: 5/8/2006
Matrix: Soil
%Solids: 86.3

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
Acetone	0.0217	0.0477	0.00281	1	5/19/2006	J
Benzene	BQL	0.00477	0.00272	1	5/19/2006	
Bromobenzene	BQL	0.00477	0.00235	1	5/19/2006	
Bromochloromethane	BQL	0.00477	0.00279	1	5/19/2006	
Bromodichloromethane	BQL	0.00477	0.00271	1	5/19/2006	
Bromoform	BQL	0.00477	0.00231	1	5/19/2006	
Bromomethane	BQL	0.00477	0.00400	1	5/19/2006	
2-Butanone	0.00335	0.0239	0.00275	1	5/19/2006	J
n-Butylbenzene	BQL	0.00477	0.00320	1	5/19/2006	
sec-Butylbenzene	BQL	0.00477	0.00334	1	5/19/2006	
tert-Butylbenzene	BQL	0.00477	0.00331	1	5/19/2006	
Carbon disulfide	BQL	0.00477	0.00251	1	5/19/2006	
Carbon tetrachloride	BQL	0.00477	0.00330	1	5/19/2006	
Chlorobenzene	BQL	0.00477	0.00240	1	5/19/2006	
Chloroethane	BQL	0.00477	0.00300	1	5/19/2006	
Chloroform	BQL	0.00477	0.00240	1	5/19/2006	
Chloromethane	BQL	0.00477	0.00230	1	5/19/2006	
2-Chlorotoluene	BQL	0.00477	0.00284	1	5/19/2006	
4-Chlorotoluene	BQL	0.00477	0.00265	1	5/19/2006	
Dibromochloromethane	BQL	0.00477	0.00214	1	5/19/2006	
1,2-Dibromo-3-chloropropane	BQL	0.00477	0.0101	1	5/19/2006	
Dibromomethane	BQL	0.00477	0.00286	1	5/19/2006	
1,2-Dibromoethane (EDB)	BQL	0.00477	0.00222	1	5/19/2006	
1,2-Dichlorobenzene	BQL	0.00477	0.00230	1	5/19/2006	
1,3-Dichlorobenzene	BQL	0.00477	0.00223	1	5/19/2006	
1,4-Dichlorobenzene	BQL	0.00477	0.00235	1	5/19/2006	
trans-1,4-Dichloro-2-butene	BQL	0.00477	0.0102	1	5/19/2006	
1,1-Dichloroethane	BQL	0.00477	0.00275	1	5/19/2006	
1,1-Dichloroethene	BQL	0.00477	0.00367	1	5/19/2006	
1,2-Dichloroethane	BQL	0.00477	0.00274	1	5/19/2006	
cis-1,2-Dichloroethene	BQL	0.00477	0.00235	1	5/19/2006	
trans-1,2-dichloroethene	BQL	0.00477	0.00310	1	5/19/2006	
1,2-Dichloropropane	BQL	0.00477	0.00244	1	5/19/2006	
1,3-Dichloropropane	BQL	0.00477	0.00219	1	5/19/2006	
2,2-Dichloropropane	BQL	0.00477	0.00303	1	5/19/2006	
1,1-Dichloropropene	BQL	0.00477	0.00345	1	5/19/2006	
cis-1,3-Dichloropropene	BQL	0.00477	0.00265	1	5/19/2006	
trans-1,3-Dichloropropene	BQL	0.00477	0.00270	1	5/19/2006	
Dichlorodifluoromethane	BQL	0.00477	0.00356	1	5/19/2006	
Diisopropyl ether (DIPE)	BQL	0.00477	0.00226	1	5/19/2006	
Ethylbenzene	BQL	0.00477	0.00290	1	5/19/2006	
Hexachlorobutadiene	BQL	0.00477	0.00377	1	5/19/2006	



Results for Volatiles
by GCMS 8260-5035

Client Sample ID: UST45-SB19
Client Project ID: Building 45
Lab Sample ID G128-1767-20A
Lab Project ID: G128-1767
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 05-05-2006 15:30
Date Received: 5/8/2006
Matrix: Soil
%Solids: 86.3

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
2-Hexanone	BQL	0.00477	0.00208	1	5/19/2006	
Iodomethane	BQL	0.00477	0.00444	1	5/19/2006	
Isopropylbenzene	BQL	0.00477	0.00307	1	5/19/2006	
4-Isopropyltoluene	BQL	0.00477	0.00324	1	5/19/2006	
Methylene chloride	0.0103	0.0191	0.00273	1	5/19/2006	J
4-Methyl-2-pentanone	BQL	0.00477	0.00220	1	5/19/2006	
Methyl-tert-butyl ether (MTBE)	BQL	0.00477	0.00242	1	5/19/2006	
Naphthalene	BQL	0.00477	0.00192	1	5/19/2006	
n-Propyl benzene	BQL	0.00477	0.00306	1	5/19/2006	
Styrene	BQL	0.00477	0.00342	1	5/19/2006	
1,1,1,2-Tetrachloroethane	BQL	0.00477	0.00260	1	5/19/2006	
1,1,2,2-Tetrachloroethane	BQL	0.00477	0.00235	1	5/19/2006	
Tetrachloroethene	BQL	0.00477	0.00301	1	5/19/2006	
Toluene	BQL	0.00477	0.00282	1	5/19/2006	
1,2,3-Trichlorobenzene	BQL	0.00477	0.00209	1	5/19/2006	
1,2,4-Trichlorobenzene	BQL	0.00477	0.00214	1	5/19/2006	
Trichloroethene	BQL	0.00477	0.00298	1	5/19/2006	
1,1,1-Trichloroethane	BQL	0.00477	0.00329	1	5/19/2006	
1,1,2-Trichloroethane	BQL	0.00477	0.00246	1	5/19/2006	
Trichlorofluoromethane	BQL	0.00477	0.00394	1	5/19/2006	
1,2,3-Trichloropropane	BQL	0.00477	0.00253	1	5/19/2006	
1,2,4-Trimethylbenzene	BQL	0.00477	0.00267	1	5/19/2006	
1,3,5-Trimethylbenzene	BQL	0.00477	0.00284	1	5/19/2006	
Vinyl chloride	BQL	0.00477	0.00315	1	5/19/2006	
m,p-Xylene	BQL	0.00954	0.00541	1	5/19/2006	
o-Xylene	BQL	0.00477	0.00267	1	5/19/2006	
		Spike Added	Spike Result	Percent Recovered		
4-Bromofluorobenzene		0.05	0.0478	96		
1,2-Dichloroethane-d4		0.05	0.0573	115		
Toluene-d8		0.05	0.0358	72		

Comments:

Flags:

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

Reviewed By: agj



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

Client Sample ID: UST45-SB20
Client Project ID: Building 45
Lab Sample ID G128-1767-21A
Lab Project ID: G128-1767
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 05-05-2006 15:30
Date Received: 5/8/2006
Matrix: Soil
%Solids: 88.8

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
Acetone	0.0163	0.0506	0.00298	1	5/19/2006	J
Benzene	BQL	0.00506	0.00289	1	5/19/2006	
Bromobenzene	BQL	0.00506	0.00249	1	5/19/2006	
Bromochloromethane	BQL	0.00506	0.00296	1	5/19/2006	
Bromodichloromethane	BQL	0.00506	0.00288	1	5/19/2006	
Bromoform	BQL	0.00506	0.00245	1	5/19/2006	
Bromomethane	BQL	0.00506	0.00424	1	5/19/2006	
2-Butanone	BQL	0.0253	0.00292	1	5/19/2006	
n-Butylbenzene	BQL	0.00506	0.00339	1	5/19/2006	
sec-Butylbenzene	BQL	0.00506	0.00354	1	5/19/2006	
tert-Butylbenzene	BQL	0.00506	0.00351	1	5/19/2006	
Carbon disulfide	BQL	0.00506	0.00266	1	5/19/2006	
Carbon tetrachloride	BQL	0.00506	0.00350	1	5/19/2006	
Chlorobenzene	BQL	0.00506	0.00254	1	5/19/2006	
Chloroethane	BQL	0.00506	0.00318	1	5/19/2006	
Chloroform	BQL	0.00506	0.00254	1	5/19/2006	
Chloromethane	BQL	0.00506	0.00244	1	5/19/2006	
2-Chlorotoluene	BQL	0.00506	0.00302	1	5/19/2006	
4-Chlorotoluene	BQL	0.00506	0.00281	1	5/19/2006	
Dibromochloromethane	BQL	0.00506	0.00227	1	5/19/2006	
1,2-Dibromo-3-chloropropane	BQL	0.00506	0.0107	1	5/19/2006	
Dibromomethane	BQL	0.00506	0.00304	1	5/19/2006	
1,2-Dibromoethane (EDB)	BQL	0.00506	0.00236	1	5/19/2006	
1,2-Dichlorobenzene	BQL	0.00506	0.00244	1	5/19/2006	
1,3-Dichlorobenzene	BQL	0.00506	0.00237	1	5/19/2006	
1,4-Dichlorobenzene	BQL	0.00506	0.00249	1	5/19/2006	
trans-1,4-Dichloro-2-butene	BQL	0.00506	0.0108	1	5/19/2006	
1,1-Dichloroethane	BQL	0.00506	0.00292	1	5/19/2006	
1,1-Dichloroethene	BQL	0.00506	0.00390	1	5/19/2006	
1,2-Dichloroethane	BQL	0.00506	0.00291	1	5/19/2006	
cis-1,2-Dichloroethene	BQL	0.00506	0.00249	1	5/19/2006	
trans-1,2-dichloroethene	BQL	0.00506	0.00329	1	5/19/2006	
1,2-Dichloropropane	BQL	0.00506	0.00259	1	5/19/2006	
1,3-Dichloropropane	BQL	0.00506	0.00232	1	5/19/2006	
2,2-Dichloropropane	BQL	0.00506	0.00322	1	5/19/2006	
1,1-Dichloropropene	BQL	0.00506	0.00365	1	5/19/2006	
cis-1,3-Dichloropropene	BQL	0.00506	0.00281	1	5/19/2006	
trans-1,3-Dichloropropene	BQL	0.00506	0.00286	1	5/19/2006	
Dichlorodifluoromethane	BQL	0.00506	0.00378	1	5/19/2006	
Diisopropyl ether (DIPE)	BQL	0.00506	0.00240	1	5/19/2006	
Ethylbenzene	BQL	0.00506	0.00308	1	5/19/2006	
Hexachlorobutadiene	BQL	0.00506	0.00400	1	5/19/2006	



Results for Volatiles
by GCMS 8260-5035

Client Sample ID: UST45-SB20
Client Project ID: Building 45
Lab Sample ID G128-1767-21A
Lab Project ID: G128-1767
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 05-05-2006 15:30
Date Received: 5/8/2006
Matrix: Soil
%Solids: 88.8

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
2-Hexanone	BQL	0.00506	0.00221	1	5/19/2006	
Iodomethane	BQL	0.00506	0.00471	1	5/19/2006	
Isopropylbenzene	BQL	0.00506	0.00326	1	5/19/2006	
4-Isopropyltoluene	BQL	0.00506	0.00344	1	5/19/2006	
Methylene chloride	BQL	0.0202	0.00290	1	5/19/2006	
4-Methyl-2-pentanone	BQL	0.00506	0.00234	1	5/19/2006	
Methyl-tert-butyl ether (MTBE)	BQL	0.00506	0.00257	1	5/19/2006	
Naphthalene	BQL	0.00506	0.00203	1	5/19/2006	
n-Propyl benzene	BQL	0.00506	0.00325	1	5/19/2006	
Styrene	BQL	0.00506	0.00362	1	5/19/2006	
1,1,1,2-Tetrachloroethane	BQL	0.00506	0.00275	1	5/19/2006	
1,1,2,2-Tetrachloroethane	BQL	0.00506	0.00249	1	5/19/2006	
Tetrachloroethene	BQL	0.00506	0.00319	1	5/19/2006	
Toluene	BQL	0.00506	0.00300	1	5/19/2006	
1,2,3-Trichlorobenzene	BQL	0.00506	0.00222	1	5/19/2006	
1,2,4-Trichlorobenzene	BQL	0.00506	0.00227	1	5/19/2006	
Trichloroethene	BQL	0.00506	0.00316	1	5/19/2006	
1,1,1-Trichloroethane	BQL	0.00506	0.00349	1	5/19/2006	
1,1,2-Trichloroethane	BQL	0.00506	0.00261	1	5/19/2006	
Trichlorofluoromethane	BQL	0.00506	0.00418	1	5/19/2006	
1,2,3-Trichloropropane	BQL	0.00506	0.00268	1	5/19/2006	
1,2,4-Trimethylbenzene	BQL	0.00506	0.00283	1	5/19/2006	
1,3,5-Trimethylbenzene	BQL	0.00506	0.00302	1	5/19/2006	
Vinyl chloride	BQL	0.00506	0.00334	1	5/19/2006	
m-,p-Xylene	BQL	0.0101	0.00574	1	5/19/2006	
o-Xylene	BQL	0.00506	0.00283	1	5/19/2006	
		Spike Added	Spike Result	Percent Recovered		
4-Bromofluorobenzene		0.05	0.0488	98		
1,2-Dichloroethane-d4		0.05	0.0577	115		
Toluene-d8		0.05	0.0362	72		

Comments:

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: sgd



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

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID VBLK3051106B
Lab Project ID:
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected:
Date Received:
Matrix: Soil
%Solids: 100.0

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	MDL UG/KG	Dilution Factor	Date Analyzed	Flag
Acetone	BQL	50.0	2.94	1	5/11/2006	
Benzene	BQL	5.00	2.85	1	5/11/2006	
Bromobenzene	BQL	5.00	2.46	1	5/11/2006	
Bromochloromethane	BQL	5.00	2.92	1	5/11/2006	
Bromodichloromethane	BQL	5.00	2.84	1	5/11/2006	
Bromoform	BQL	5.00	2.42	1	5/11/2006	
Bromomethane	BQL	5.00	4.19	1	5/11/2006	
2-Butanone	BQL	25.0	2.88	1	5/11/2006	
n-Butylbenzene	BQL	5.00	3.35	1	5/11/2006	
sec-Butylbenzene	BQL	5.00	3.50	1	5/11/2006	
tert-Butylbenzene	BQL	5.00	3.47	1	5/11/2006	
Carbon disulfide	BQL	5.00	2.63	1	5/11/2006	
Carbon tetrachloride	BQL	5.00	3.46	1	5/11/2006	
Chlorobenzene	BQL	5.00	2.51	1	5/11/2006	
Chloroethane	BQL	5.00	3.14	1	5/11/2006	
Chloroform	BQL	5.00	2.51	1	5/11/2006	
Chloromethane	BQL	5.00	2.41	1	5/11/2006	
2-Chlorotoluene	BQL	5.00	2.98	1	5/11/2006	
4-Chlorotoluene	BQL	5.00	2.78	1	5/11/2006	
Dibromochloromethane	BQL	5.00	2.24	1	5/11/2006	
1,2-Dibromo-3-chloropropane	BQL	5.00	10.6	1	5/11/2006	
Dibromomethane	BQL	5.00	3.00	1	5/11/2006	
1,2-Dibromoethane (EDB)	BQL	5.00	2.33	1	5/11/2006	
1,2-Dichlorobenzene	BQL	5.00	2.41	1	5/11/2006	
1,3-Dichlorobenzene	BQL	5.00	2.34	1	5/11/2006	
1,4-Dichlorobenzene	BQL	5.00	2.46	1	5/11/2006	
trans-1,4-Dichloro-2-butene	BQL	5.00	10.7	1	5/11/2006	
1,1-Dichloroethane	BQL	5.00	2.88	1	5/11/2006	
1,1-Dichloroethene	BQL	5.00	3.85	1	5/11/2006	
1,2-Dichloroethane	BQL	5.00	2.87	1	5/11/2006	
cis-1,2-Dichloroethene	BQL	5.00	2.46	1	5/11/2006	
trans-1,2-dichloroethene	BQL	5.00	3.25	1	5/11/2006	
1,2-Dichloropropane	BQL	5.00	2.56	1	5/11/2006	
1,3-Dichloropropane	BQL	5.00	2.29	1	5/11/2006	
2,2-Dichloropropane	BQL	5.00	3.18	1	5/11/2006	
1,1-Dichloropropene	BQL	5.00	3.61	1	5/11/2006	
cis-1,3-Dichloropropene	BQL	5.00	2.78	1	5/11/2006	
trans-1,3-Dichloropropene	BQL	5.00	2.83	1	5/11/2006	
Dichlorodifluoromethane	BQL	5.00	3.73	1	5/11/2006	
Diisopropyl ether (DIPE)	BQL	5.00	2.37	1	5/11/2006	
Ethylbenzene	BQL	5.00	3.04	1	5/11/2006	
Hexachlorobutadiene	BQL	5.00	3.95	1	5/11/2006	



Results for Volatiles
by GCMS 8260-5035

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID VBLK3051106B
Lab Project ID:
Report Basis: Dry Weight

Analyzed By: JTF
Date Collected:
Date Received:
Matrix: Soil
%Solids: 100.0

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	MDL UG/KG	Dilution Factor	Date Analyzed	Flag
2-Hexanone	BQL	5.00	2.18	1	5/11/2006	
Iodomethane	BQL	5.00	4.65	1	5/11/2006	
Isopropylbenzene	BQL	5.00	3.22	1	5/11/2006	
4-Isopropyltoluene	BQL	5.00	3.40	1	5/11/2006	
Methylene chloride	BQL	20.0	2.86	1	5/11/2006	
4-Methyl-2-pentanone	BQL	5.00	2.31	1	5/11/2006	
Methyl-tert-butyl ether (MTBE)	BQL	5.00	2.54	1	5/11/2006	
Naphthalene	BQL	5.00	2.01	1	5/11/2006	
n-Propyl benzene	BQL	5.00	3.21	1	5/11/2006	
Styrene	BQL	5.00	3.58	1	5/11/2006	
1,1,1,2-Tetrachloroethane	BQL	5.00	2.72	1	5/11/2006	
1,1,2,2-Tetrachloroethane	BQL	5.00	2.46	1	5/11/2006	
Tetrachloroethene	BQL	5.00	3.15	1	5/11/2006	
Toluene	BQL	5.00	2.96	1	5/11/2006	
1,2,3-Trichlorobenzene	BQL	5.00	2.19	1	5/11/2006	
1,2,4-Trichlorobenzene	BQL	5.00	2.24	1	5/11/2006	
Trichloroethene	BQL	5.00	3.12	1	5/11/2006	
1,1,1-Trichloroethane	BQL	5.00	3.45	1	5/11/2006	
1,1,2-Trichloroethane	BQL	5.00	2.58	1	5/11/2006	
Trichlorofluoromethane	BQL	5.00	4.13	1	5/11/2006	
1,2,3-Trichloropropane	BQL	5.00	2.65	1	5/11/2006	
1,2,4-Trimethylbenzene	BQL	5.00	2.80	1	5/11/2006	
1,3,5-Trimethylbenzene	BQL	5.00	2.98	1	5/11/2006	
Vinyl chloride	BQL	5.00	3.30	1	5/11/2006	
m-,p-Xylene	BQL	10.0	5.67	1	5/11/2006	
o-Xylene	BQL	5.00	2.80	1	5/11/2006	

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	50	53.6	107
1,2-Dichloroethane-d4	50	57.9	116
Toluene-d8	50	47.4	95

Comments:

Flags:

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

Reviewed By: cyj



Results for Laboratory Control Spike (LCS)
by GC/MS 8260/5035

Lab Sample ID: lcs3051106b
Analyst: JTF
Batch ID: 3051106

Date Analyzed: 11 May 2006 11:46 am
Matrix: Soil

compound	Spiked (µg/Kg)	Amount recovered	LCS (%)	Limits	
				Lower (%)	Upper (%)
benzene	50	47.90	95.8	77.6	122
chlorobenzene	50	48.38	96.8	75.3	125
1,1-dichloroethene	50	60.17	120.3	78.5	121
toluene	50	45.31	90.6	75.7	124
trichloroethene	50	48.01	96.0	60.8	139

Comments: Concentration values are on column amount.

Flags: * = Out of limits.
NA = Not applicable
NS = Not spiked

Reviewed by: agd



**Results for MS/MSD
by GC/MS 8260/5035**

Client Project ID: Batch QC
Lab Sample ID: g161-2386-11a
Batch ID: 3051106

Date Analyzed: 11 May 2006 9:31 pm
Matrix: Soil
Analyzed By: JTF

Compound	Unspiked Sample ug/L	Spike conc. ug/L	Recovered MS %	Recovered MSD %	Limits		RPD %	RPD Limit %
					Lower %	Upper %		
benzene	BQL	50	79.5	77.0	74.8	133	3.1	30
chlorobenzene	BQL	50	78.1	78.2	66.3	135	0.2	30
1,1-dichloroethene	BQL	50	100.6	102.2	72.0	135	1.5	30
toluene	BQL	50	77.5	75.4	70.5	138	2.7	30
trichloroethene	BQL	50	79.5	77.9	60.7	152	2.0	30

Comments:

Concentrations are on column amounts.
Concentration Units: ug/L

Flags:

* = Out of limits.
NA = Not applicable
BQL = Below quantitation limit.

Reviewed By: Sgd

VO41.072303.1



**Results for Volatiles
by GCMS 8260B/5035**

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: VBLK4051806B
Lab Project ID:
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected:
Date Received:
Matrix: Soil
%Solids: 100.0

Compound	Result mg/kg	Quantitation Limit mg/kg	MDL mg/kg	Dilution Factor	Date Analyzed	Flag
Acetone	BQL	1.25	0.168	50	5/18/2006	
Benzene	BQL	0.0500	0.00810	50	5/18/2006	
Bromobenzene	BQL	0.0500	0.0112	50	5/18/2006	
Bromochloromethane	BQL	0.0500	0.0156	50	5/18/2006	
Bromodichloromethane	BQL	0.0500	0.00925	50	5/18/2006	
Bromoform	BQL	0.0500	0.00480	50	5/18/2006	
Bromomethane	BQL	0.0500	0.00520	50	5/18/2006	
2-Butanone	BQL	1.25	0.0545	50	5/18/2006	
n-Butylbenzene	BQL	0.0500	0.0136	50	5/18/2006	
sec-Butylbenzene	BQL	0.0500	0.0117	50	5/18/2006	
tert-Butylbenzene	BQL	0.0500	0.00910	50	5/18/2006	
Carbon disulfide	BQL	0.0500	0.0103	50	5/18/2006	
Carbon tetrachloride	BQL	0.0500	0.00905	50	5/18/2006	
Chlorobenzene	BQL	0.0500	0.00885	50	5/18/2006	
Chloroethane	BQL	0.0500	0.0208	50	5/18/2006	
Chloroform	BQL	0.0500	0.0110	50	5/18/2006	
Chloromethane	BQL	0.0500	0.0141	50	5/18/2006	
2-Chlorotoluene	BQL	0.0500	0.0102	50	5/18/2006	
4-Chlorotoluene	BQL	0.0500	0.0103	50	5/18/2006	
Dibromochloromethane	BQL	0.0500	0.0104	50	5/18/2006	
1,2-Dibromo-3-chloropropane	BQL	0.250	0.0975	50	5/18/2006	
Dibromomethane	BQL	0.0500	0.0138	50	5/18/2006	
1,2-Dibromoethane (EDB)	BQL	0.0500	0.0132	50	5/18/2006	
1,2-Dichlorobenzene	BQL	0.0500	0.00950	50	5/18/2006	
1,3-Dichlorobenzene	BQL	0.0500	0.0117	50	5/18/2006	
1,4-Dichlorobenzene	BQL	0.0500	0.00910	50	5/18/2006	
trans-1,4-Dichloro-2-butene	BQL	0.250	0.0710	50	5/18/2006	
1,1-Dichloroethane	BQL	0.0500	0.0108	50	5/18/2006	
1,1-Dichloroethene	BQL	0.0500	0.00820	50	5/18/2006	
1,2-Dichloroethane	BQL	0.0500	0.0122	50	5/18/2006	
cis-1,2-Dichloroethene	BQL	0.0500	0.00880	50	5/18/2006	
trans-1,2-dichloroethene	BQL	0.0500	0.0115	50	5/18/2006	
1,2-Dichloropropane	BQL	0.0500	0.00830	50	5/18/2006	
1,3-Dichloropropane	BQL	0.0500	0.00845	50	5/18/2006	
2,2-Dichloropropane	BQL	0.0500	0.0120	50	5/18/2006	
1,1-Dichloropropene	BQL	0.0500	0.00880	50	5/18/2006	
cis-1,3-Dichloropropene	BQL	0.0500	0.0101	50	5/18/2006	
trans-1,3-Dichloropropene	BQL	0.0500	0.00595	50	5/18/2006	
Dichlorodifluoromethane	BQL	0.250	0.0193	50	5/18/2006	
Diisopropyl ether (DIPE)	BQL	0.0500	0.0117	50	5/18/2006	
Ethylbenzene	BQL	0.0500	0.0103	50	5/18/2006	
Hexachlorobutadiene	BQL	0.0500	0.0205	50	5/18/2006	
2-Hexanone	BQL	0.250	0.0437	50	5/18/2006	
Iodomethane	BQL	0.0500	0.00645	50	5/18/2006	



Results for Volatiles
by GCMS 8260B/5035

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: VBLK4051806B
Lab Project ID:
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected:
Date Received:
Matrix: Soil
%Solids: 100.0

Compound	Result mg/kg	Quantitation Limit mg/kg	MDL mg/kg	Dilution Factor	Date Analyzed	Flag
Isopropylbenzene	BQL	0.0500	0.00865	50	5/18/2006	
4-Isopropyltoluene	BQL	0.0500	0.0100	50	5/18/2006	
Methylene chloride	BQL	0.250	0.00940	50	5/18/2006	
4-Methyl-2-pentanone	BQL	0.250	0.0248	50	5/18/2006	
Methyl-tert-butyl ether (MTBE)	BQL	0.0500	0.0107	50	5/18/2006	
Naphthalene	BQL	0.0500	0.0140	50	5/18/2006	
n-Propyl benzene	BQL	0.0500	0.0105	50	5/18/2006	
Styrene	BQL	0.0500	0.0120	50	5/18/2006	
1,1,1,2-Tetrachloroethane	BQL	0.0500	0.0144	50	5/18/2006	
1,1,2,2-Tetrachloroethane	BQL	0.0500	0.0128	50	5/18/2006	
Tetrachloroethene	BQL	0.0500	0.0152	50	5/18/2006	
Toluene	BQL	0.0500	0.00875	50	5/18/2006	
1,2,3-Trichlorobenzene	BQL	0.0500	0.00995	50	5/18/2006	
1,2,4-Trichlorobenzene	BQL	0.0500	0.0122	50	5/18/2006	
Trichloroethene	BQL	0.0500	0.0105	50	5/18/2006	
1,1,1-Trichloroethane	BQL	0.0500	0.00985	50	5/18/2006	
1,1,2-Trichloroethane	BQL	0.0500	0.0134	50	5/18/2006	
Trichlorofluoromethane	BQL	0.0500	0.0214	50	5/18/2006	
1,2,3-Trichloropropane	BQL	0.0500	0.0117	50	5/18/2006	
1,2,4-Trimethylbenzene	BQL	0.0500	0.0100	50	5/18/2006	
1,3,5-Trimethylbenzene	BQL	0.0500	0.00935	50	5/18/2006	
Vinyl chloride	BQL	0.0500	0.0200	50	5/18/2006	
m-,p-Xylene	BQL	0.100	0.0193	50	5/18/2006	
o-Xylene	BQL	0.0500	0.00835	50	5/18/2006	
		Spike Added	Spike Result	Percent Recovered		
4-Bromofluorobenzene		0.01	0.00977	98		
1,2-Dichloroethane-d4		0.01	0.0112	112		
Toluene-d8		0.01	0.0101	101		

Comments:

Sample diluted for high concentration of non-target compounds.

Flags:

Reviewed By: 



**Results for MS/MSD
by GC/MS**

Client Project ID: Batch QC
Lab Sample ID: g311-201-2a x10
Batch ID: 4051106

Date Analyzed: 12 May 2006 4:18 am
Matrix: water
Analyzed By: JTF

Compound	Unspiked Sample ug/L	Spike conc. ug/L	Recovered MS %	Recovered MSD %	Limits		RPD %	RPD Limit %
					Lower %	Upper %		
benzene	BQL	5	99.9	99.4	61.6	135	0.6	30
chlorobenzene	BQL	5	95.7	95.6	77.2	118	0.1	30
1,1-dichloroethene	BQL	5	102.0	103.7	64.4	130	1.7	30
toluene	1.3	5	75.5	74.9	66.4	128	0.8	30
trichloroethene	BQL	5	98.5	99.7	84.9	136	1.2	30

Comments:

Concentrations are on column amounts.
Concentration Units: ug/L

Flags:

* = Out of limits.
NA = Not applicable
BQL = Below quantitation limit.

Reviewed By: agj

VO43.072303.1



**Results for Laboratory Control Spike (LCS)
by GC/MS**

Lab Sample ID: lcs4051806a
Analyst: MJC
Batch ID: 4051806

Date Analyzed: 18 May 2006 2:42 pm
Matrix: Water

Compound	Spiked ug/L	Amount recovered	LCS (%)	Limits	
				Lower (%)	Upper (%)
benzene	5.0	4.68	93.5	77.4	123
chlorobenzene	5.0	4.46	89.2	72.5	128
1,1-dichloroethene	5.0	4.55	91.1	71.7	128
toluene	5.0	4.80	96.0	75.9	124
trichloroethene	5.0	4.80	96.1	77.9	122

Comments:

Concentration values are on column amount.

Flags:

* = Out of limits.

NA = Not applicable

Reviewed By: sgd



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

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID VBLK8051906b
Lab Project ID:
Report Basis: Dry Weight

Analyzed By:
Date Collected:
Date Received:
Matrix: Soil
%Solids: 100.0

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	MDL UG/KG	Dilution Factor	Date Analyzed	Flag
Acetone	BQL	50.0	2.94	1	5/19/2006	
Benzene	BQL	5.00	2.85	1	5/19/2006	
Bromobenzene	BQL	5.00	2.46	1	5/19/2006	
Bromochloromethane	BQL	5.00	2.92	1	5/19/2006	
Bromodichloromethane	BQL	5.00	2.84	1	5/19/2006	
Bromoform	BQL	5.00	2.42	1	5/19/2006	
Bromomethane	BQL	5.00	4.19	1	5/19/2006	
2-Butanone	BQL	25.0	2.88	1	5/19/2006	
n-Butylbenzene	BQL	5.00	3.35	1	5/19/2006	
sec-Butylbenzene	BQL	5.00	3.50	1	5/19/2006	
tert-Butylbenzene	BQL	5.00	3.47	1	5/19/2006	
Carbon disulfide	BQL	5.00	2.63	1	5/19/2006	
Carbon tetrachloride	BQL	5.00	3.46	1	5/19/2006	
Chlorobenzene	BQL	5.00	2.51	1	5/19/2006	
Chloroethane	BQL	5.00	3.14	1	5/19/2006	
Chloroform	BQL	5.00	2.51	1	5/19/2006	
Chloromethane	BQL	5.00	2.41	1	5/19/2006	
2-Chlorotoluene	BQL	5.00	2.98	1	5/19/2006	
4-Chlorotoluene	BQL	5.00	2.78	1	5/19/2006	
Dibromochloromethane	BQL	5.00	2.24	1	5/19/2006	
1,2-Dibromo-3-chloropropane	BQL	5.00	10.6	1	5/19/2006	
Dibromomethane	BQL	5.00	3.00	1	5/19/2006	
1,2-Dibromoethane (EDB)	BQL	5.00	2.33	1	5/19/2006	
1,2-Dichlorobenzene	BQL	5.00	2.41	1	5/19/2006	
1,3-Dichlorobenzene	BQL	5.00	2.34	1	5/19/2006	
1,4-Dichlorobenzene	BQL	5.00	2.46	1	5/19/2006	
trans-1,4-Dichloro-2-butene	BQL	5.00	10.7	1	5/19/2006	
1,1-Dichloroethane	BQL	5.00	2.88	1	5/19/2006	
1,1-Dichloroethene	BQL	5.00	3.85	1	5/19/2006	
1,2-Dichloroethane	BQL	5.00	2.87	1	5/19/2006	
cis-1,2-Dichloroethene	BQL	5.00	2.46	1	5/19/2006	
trans-1,2-dichloroethene	BQL	5.00	3.25	1	5/19/2006	
1,2-Dichloropropane	BQL	5.00	2.56	1	5/19/2006	
1,3-Dichloropropane	BQL	5.00	2.29	1	5/19/2006	
2,2-Dichloropropane	BQL	5.00	3.18	1	5/19/2006	
1,1-Dichloropropene	BQL	5.00	3.61	1	5/19/2006	
cis-1,3-Dichloropropene	BQL	5.00	2.78	1	5/19/2006	
trans-1,3-Dichloropropene	BQL	5.00	2.83	1	5/19/2006	
Dichlorodifluoromethane	BQL	5.00	3.73	1	5/19/2006	
Diisopropyl ether (DIPE)	BQL	5.00	2.37	1	5/19/2006	
Ethylbenzene	BQL	5.00	3.04	1	5/19/2006	
Hexachlorobutadiene	BQL	5.00	3.95	1	5/19/2006	



Results for Volatiles
by GCMS 8260-5035

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID VBLK8051906b
Lab Project ID:
Report Basis: Dry Weight

Analyzed By:
Date Collected:
Date Received:
Matrix: Soil
%Solids: 100.0

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	MDL UG/KG	Dilution Factor	Date Analyzed	Flag
2-Hexanone	BQL	5.00	2.18	1	5/19/2006	
Iodomethane	BQL	5.00	4.65	1	5/19/2006	
Isopropylbenzene	BQL	5.00	3.22	1	5/19/2006	
4-Isopropyltoluene	BQL	5.00	3.40	1	5/19/2006	
Methylene chloride	BQL	20.0	2.86	1	5/19/2006	
4-Methyl-2-pentanone	BQL	5.00	2.31	1	5/19/2006	
Methyl-tert-butyl ether (MTBE)	BQL	5.00	2.54	1	5/19/2006	
Naphthalene	BQL	5.00	2.01	1	5/19/2006	
n-Propyl benzene	BQL	5.00	3.21	1	5/19/2006	
Styrene	BQL	5.00	3.58	1	5/19/2006	
1,1,1,2-Tetrachloroethane	BQL	5.00	2.72	1	5/19/2006	
1,1,2,2-Tetrachloroethane	BQL	5.00	2.46	1	5/19/2006	
Tetrachloroethene	BQL	5.00	3.15	1	5/19/2006	
Toluene	BQL	5.00	2.96	1	5/19/2006	
1,2,3-Trichlorobenzene	BQL	5.00	2.19	1	5/19/2006	
1,2,4-Trichlorobenzene	BQL	5.00	2.24	1	5/19/2006	
Trichloroethene	BQL	5.00	3.12	1	5/19/2006	
1,1,1-Trichloroethane	BQL	5.00	3.45	1	5/19/2006	
1,1,2-Trichloroethane	BQL	5.00	2.58	1	5/19/2006	
Trichlorofluoromethane	BQL	5.00	4.13	1	5/19/2006	
1,2,3-Trichloropropane	BQL	5.00	2.65	1	5/19/2006	
1,2,4-Trimethylbenzene	BQL	5.00	2.80	1	5/19/2006	
1,3,5-Trimethylbenzene	BQL	5.00	2.98	1	5/19/2006	
Vinyl chloride	BQL	5.00	3.30	1	5/19/2006	
m-,p-Xylene	BQL	10.0	5.67	1	5/19/2006	
o-Xylene	BQL	5.00	2.80	1	5/19/2006	

	Spike Added	Spike Result	Percent Recovered
4-Bromofluorobenzene	50	49.8	100
1,2-Dichloroethane-d4	50	49.6	99
Toluene-d8	50	46.8	94

Comments:

Flags:

BQL = Below Quantitation Limits.

Reviewed By: Qad



Results for Matrix Spike (MS)
by GC/MS 8260/5035

Lab Sample ID: G128-1767-7B MS

Analyst: MJC

Batch ID: 8051806

Date Analyzed: 19 May 2006 3:49 am

Matrix: Soil

compound	Spiked (µg/Kg)	Amount recovered	LCS (%)	Limits	
				Lower (%)	Upper (%)
benzene	30	27.75	92.5	74.8	133
chlorobenzene	30	26.21	87.4	66.3	135
1,1-dichloroethene	30	30.68	102.3	72.0	135
toluene	30	24.17	80.6	70.5	138
trichloroethene	30	29.09	97.0	60.7	152

Comments: Concentration values are on column amount.

Flags: * = Out of limits.

NA = Not applicable

NS = Not spiked

Reviewed by: sgd



Results for Laboratory Control Spike (LCS)
by GC/MS 8260/5035

Lab Sample ID: VLCS8051806A
Analyst: MJC
Batch ID: 8051806

Date Analyzed: 18 May 2006 7:15 pm
Matrix: Soil

compound	Spiked (µg/Kg)	Amount recovered	LCS (%)	Limits	
				Lower (%)	Upper (%)
benzene	30	31.29	104.3	77.6	122
chlorobenzene	30	30.04	100.1	75.3	125
1,1-dichloroethene	30	30.68	102.3	78.5	121
toluene	30	28.65	95.5	75.7	124
trichloroethene	30	26.35	87.8	60.8	139

Comments: Concentration values are on column amount.

Flags: * = Out of limits.

NA = Not applicable

NS = Not spiked

Reviewed by: agj



**Results for Laboratory Control Spike (LCS)
by GC/MS 8260/5035**

Lab Sample ID: VLCS8051806B

Analyst: MJC

Batch ID: 8051806

Date Analyzed: 18 May 2006 7:40 pm

Matrix: Soil

compound	Spiked (µg/Kg)	Amount recovered	LCS (%)	Limits	
				Lower (%)	Upper (%)
benzene	30	31.04	103.5	77.6	122
chlorobenzene	30	29.69	99.0	75.3	125
1,1-dichloroethene	30	31.01	103.4	78.5	121
toluene	30	27.66	92.2	75.7	124
trichloroethene	30	25.37	84.6	60.8	139

Comments: Concentration values are on column amount.

Flags: * = Out of limits.

NA = Not applicable

NS = Not spiked

Reviewed by: agil



VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: Building 45

Sample Information and Analytical Results	
Sample Identification	UST45-SB01
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	05/05/06
Date Received	05/08/06
Date Extracted	05/05/06
Date Analyzed	05/15/06
Dry Weight	83
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₂ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₀ Aromatics**	< 10 (mg/Kg)
Surrogate % Recovery - PID	92
Surrogate % Recovery - FID	94

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

** = Excludes any surrogates or internal standards.

Lab Info: G128-1767-1E

Reviewed By: agd



VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: Building 45

Sample Information and Analytical Results	
Sample Identification	UST45-SB02
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	05/05/06
Date Received	05/08/06
Date Extracted	05/05/06
Date Analyzed	05/15/06
Dry Weight	83
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₂ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₀ Aromatics**	< 10 (mg/Kg)
Surrogate % Recovery - PID	91
Surrogate % Recovery - FID	95

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

** = Excludes any surrogates or internal standards.

Lab Info: G128-1767-2E

Reviewed By: agf



VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: Building 45

Sample Information and Analytical Results	
Sample Identification	UST45-SB03
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	05/05/06
Date Received	05/08/06
Date Extracted	05/05/06
Date Analyzed	05/15/06
Dry Weight	84
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₂ Aliphatics**	10 (mg/Kg)
C ₉ -C ₁₀ Aromatics**	< 10 (mg/Kg)
Surrogate % Recovery - PID	100
Surrogate % Recovery - FID	110

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

** = Excludes any surrogates or internal standards.

Lab Info: G128-1767-3E

Reviewed By: agd



VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: Building 45

Sample Information and Analytical Results	
Sample Identification	UST45-SB04
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	05/05/06
Date Received	05/08/06
Date Extracted	05/05/06
Date Analyzed	05/15/06
Dry Weight	88
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₂ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₀ Aromatics**	< 10 (mg/Kg)
Surrogate % Recovery - PID	95
Surrogate % Recovery - FID	97

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

** = Excludes any surrogates or internal standards.

Lab Info: G128-1767-4E

Reviewed By: sgd



VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: Building 45

Sample Information and Analytical Results	
Sample Identification	UST45-SB05
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	05/05/06
Date Received	05/08/06
Date Extracted	05/05/06
Date Analyzed	05/15/06
Dry Weight	90
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₂ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₀ Aromatics**	< 10 (mg/Kg)
Surrogate % Recovery - PID	93
Surrogate % Recovery - FID	97

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

** = Excludes any surrogates or internal standards.

Lab Info: G128-1767-5E

Reviewed By: sgd



VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: Building 45

Sample Information and Analytical Results	
Sample Identification	UST45-SB06
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	05/05/06
Date Received	05/08/06
Date Extracted	05/05/06
Date Analyzed	05/15/06
Dry Weight	93
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₂ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₀ Aromatics**	< 10 (mg/Kg)
Surrogate % Recovery - PID	93
Surrogate % Recovery - FID	96

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

** = Excludes any surrogates or internal standards.

Lab Info: G128-1767-6E

Reviewed By: cyd



VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: Building 45

Sample Information and Analytical Results	
Sample Identification	UST45-SB07
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	05/05/06
Date Received	05/08/06
Date Extracted	05/05/06
Date Analyzed	05/16/06
Dry Weight	88
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₂ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₀ Aromatics**	< 10 (mg/Kg)
Surrogate % Recovery - PID	96
Surrogate % Recovery - FID	99

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

** = Excludes any surrogates or internal standards.

Lab Info: G128-1767-7E

Reviewed By: agd



VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: Building 45

Sample Information and Analytical Results	
Sample Identification	UST45-SB08
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	05/05/06
Date Received	05/08/06
Date Extracted	05/05/06
Date Analyzed	05/16/06
Dry Weight	89
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₂ Aliphatics**	44 (mg/Kg)
C ₉ -C ₁₀ Aromatics**	74 (mg/Kg)
Surrogate % Recovery - PID	130
Surrogate % Recovery - FID	160***

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

** = Excludes any surrogates or internal standards.

***= High surrogate recovery due to matrix interference

Lab Info: G128-1767-8E

Reviewed By: agd



VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: Building 45

Sample Information and Analytical Results	
Sample Identification	UST45-SB09
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	05/05/06
Date Received	05/08/06
Date Extracted	05/05/06
Date Analyzed	05/16/06
Dry Weight	87
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₂ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₀ Aromatics**	< 10 (mg/Kg)
Surrogate % Recovery - PID	100
Surrogate % Recovery - FID	100

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

** = Excludes any surrogates or internal standards.

Lab Info: G128-1767-9E

Reviewed By: sgd



VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: Building 45

Sample Information and Analytical Results	
Sample Identification	UST45-SB10
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	05/05/06
Date Received	05/08/06
Date Extracted	05/05/06
Date Analyzed	05/16/06
Dry Weight	93
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₂ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₀ Aromatics**	< 10 (mg/Kg)
Surrogate % Recovery - PID	100
Surrogate % Recovery - FID	110

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

** = Excludes any surrogates or internal standards.

Lab Info: G128-1767-10E

Reviewed By: agd



VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: Building 45

Sample Information and Analytical Results	
Sample Identification	UST45-SB11
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	05/05/06
Date Received	05/08/06
Date Extracted	05/05/06
Date Analyzed	05/16/06
Dry Weight	90
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₂ Aliphatics**	35 (mg/Kg)
C ₉ -C ₁₀ Aromatics**	42 (mg/Kg)
Surrogate % Recovery - PID	120
Surrogate % Recovery - FID	140***

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

** = Excludes any surrogates or internal standards.

***= High surrogate recovery due to matrix interference

Lab Info: G128-1767-11E

Reviewed By: agb



VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: Building 45

Sample Information and Analytical Results	
Sample Identification	UST45-SB11 Dup
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	05/05/06
Date Received	05/08/06
Date Extracted	05/05/06
Date Analyzed	05/16/06
Dry Weight	89
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₂ Aliphatics**	18 (mg/Kg)
C ₉ -C ₁₀ Aromatics**	20 (mg/Kg)
Surrogate % Recovery - PID	100
Surrogate % Recovery - FID	110

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

** = Excludes any surrogates or internal standards.

Lab Info: G128-1767-12A

Reviewed By: Q40



VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: Building 45

Sample Information and Analytical Results	
Sample Identification	UST45-SB12
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	05/05/06
Date Received	05/08/06
Date Extracted	05/05/06
Date Analyzed	05/16/06
Dry Weight	90
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₂ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₀ Aromatics**	< 10 (mg/Kg)
Surrogate % Recovery - PID	98
Surrogate % Recovery - FID	110

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

** = Excludes any surrogates or internal standards.

Lab Info: G128-1767-13E

Reviewed By: sgd



VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: Building 45

Sample Information and Analytical Results	
Sample Identification	UST45-SB13
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	05/05/06
Date Received	05/08/06
Date Extracted	05/05/06
Date Analyzed	05/16/06
Dry Weight	92
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₂ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₀ Aromatics**	< 10 (mg/Kg)
Surrogate % Recovery - PID	93
Surrogate % Recovery - FID	97

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

** = Excludes any surrogates or internal standards.

Lab Info: G128-1767-14E

Reviewed By: agv



VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: Building 45

Sample Information and Analytical Results	
Sample Identification	UST45-SB14
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	05/05/06
Date Received	05/08/06
Date Extracted	05/05/06
Date Analyzed	05/16/06
Dry Weight	83
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₂ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₀ Aromatics**	< 10 (mg/Kg)
Surrogate % Recovery - PID	93
Surrogate % Recovery - FID	97

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

** = Excludes any surrogates or internal standards.

Lab Info: G128-1767-15E

Reviewed By: agd



VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: Building 45

Sample Information and Analytical Results	
Sample Identification	UST45-SB15
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	05/05/06
Date Received	05/08/06
Date Extracted	05/05/06
Date Analyzed	05/16/06
Dry Weight	84
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₂ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₀ Aromatics**	< 10 (mg/Kg)
Surrogate % Recovery - PID	95
Surrogate % Recovery - FID	99

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

** = Excludes any surrogates or internal standards.

Lab Info: G128-1767-16E

Reviewed By: aad



VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: Building 45

Sample Information and Analytical Results	
Sample Identification	UST45-SB16
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	05/05/06
Date Received	05/08/06
Date Extracted	05/05/06
Date Analyzed	05/16/06
Dry Weight	91
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₂ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₀ Aromatics**	< 10 (mg/Kg)
Surrogate % Recovery - PID	95
Surrogate % Recovery - FID	99

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

** = Excludes any surrogates or internal standards.

Lab Info: G128-1767-17E

Reviewed By: agd



VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: Building 45

Sample Information and Analytical Results	
Sample Identification	UST45-SB17
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	05/05/06
Date Received	05/08/06
Date Extracted	05/05/06
Date Analyzed	05/16/06
Dry Weight	88
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₂ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₀ Aromatics**	< 10 (mg/Kg)
Surrogate % Recovery - PID	100
Surrogate % Recovery - FID	100

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

** = Excludes any surrogates or internal standards.

Lab Info: G128-1767-18E

Reviewed By: agd



VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: Building 45

Sample Information and Analytical Results	
Sample Identification	UST45-SB18
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	05/05/06
Date Received	05/08/06
Date Extracted	05/05/06
Date Analyzed	05/16/06
Dry Weight	84
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₂ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₀ Aromatics**	< 10 (mg/Kg)
Surrogate % Recovery - PID	95
Surrogate % Recovery - FID	99

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

** = Excludes any surrogates or internal standards.

Lab Info: G128-1767-19E

Reviewed By: agd



VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: Building 45

Sample Information and Analytical Results	
Sample Identification	UST45-SB19
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	05/05/06
Date Received	05/08/06
Date Extracted	05/05/06
Date Analyzed	05/16/06
Dry Weight	86
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₂ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₀ Aromatics**	< 10 (mg/Kg)
Surrogate % Recovery - PID	99
Surrogate % Recovery - FID	100

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

** = Excludes any surrogates or internal standards.

Lab Info: G128-1767-20E

Reviewed By: agd



VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: Building 45

Sample Information and Analytical Results	
Sample Identification	UST45-SB20
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	05/05/06
Date Received	05/08/06
Date Extracted	05/05/06
Date Analyzed	05/16/06
Dry Weight	89
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₂ Aliphatics**	< 10 (mg/Kg)
C ₉ -C ₁₀ Aromatics**	< 10 (mg/Kg)
Surrogate % Recovery - PID	99
Surrogate % Recovery - FID	100

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

** = Excludes any surrogates or internal standards.

Lab Info: G128-1767-21E

Reviewed By: agc



Attachment 2

VPH Laboratory Reporting Form

Calibration and QA/QC Information

FID Initial Calibration Date: 05/04/06

PID Initial Calibration Date: 05/04/06

Calibration Ranges and Limits

Range	MDL (07/15/2004) (µg/L)	ML (µg/L)	RL (µg/L) (mg/Kg)	
C ₅ -C ₈ Aliphatics	4.4	14	100	10
C ₉ -C ₁₂ Aliphatics	3.4	11	100	10
C ₉ -C ₁₀ Aromatics	0.13	0.41	100	10

Calibration Concentration Levels

Range	Levels (µg/L)	%RSD or CCC	Method of Quantitation
C ₅ -C ₈ Aliphatics	40	18.2	Calibration Factor
	1000		
	2000		
	3000		
	4000		
C ₉ -C ₁₂ Aliphatics	10	0.99	Linear Regression
	250		
	500		
	750		
	1000		
C ₉ -C ₁₀ Aromatics	10	18.50	Calibration Factor
	250		
	500		
	750		
	1000		

Calibration Check Date: 05/14/06

Calibration Check

Range	Levels (µg/L) (mg/Kg)		RPD
C ₅ -C ₈ Aliphatics	2000	200	3.8
C ₉ -C ₁₂ Aliphatics	500	50	-5.0
C ₉ -C ₁₀ Aromatics	500	50	-3.8

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

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



Attachment 2

VPH Laboratory Reporting Form

Calibration and QA/QC Information

FID Initial Calibration Date: 05/04/06

PID Initial Calibration Date: 05/04/06

Calibration Ranges and Limits

Range	MDL (07/15/2004) (µg/L)	ML (µg/L)	RL (µg/L) (mg/Kg)	
C ₅ -C ₈ Aliphatics	4.4	14	100	10
C ₉ -C ₁₂ Aliphatics	3.4	11	100	10
C ₉ -C ₁₀ Aromatics	0.13	0.41	100	10

Calibration Concentration Levels

Range	Levels (µg/L)	%RSD or CCC	Method of Quantitation
C ₅ -C ₈ Aliphatics	40	18.2	Calibration Factor
	1000		
	2000		
	3000		
	4000		
C ₉ -C ₁₂ Aliphatics	10	0.99	Linear Regression
	250		
	500		
	750		
	1000		
C ₉ -C ₁₀ Aromatics	10	18.50	Calibration Factor
	250		
	500		
	750		
	1000		

Calibration Check Date: 05/15/06

Calibration Check

Range	Levels (µg/L) (mg/Kg)		RPD
C ₅ -C ₈ Aliphatics	2000	200	-9.9
C ₉ -C ₁₂ Aliphatics	500	50	-6.8
C ₉ -C ₁₀ Aromatics	500	50	-2.5

MDL = Method Detection Limit

ML = Minimum Limit

RL = Reportable Limit

RPD = Relative Percent Difference

%RSD = Percent Relative Standard Deviation

CCC = Correlation Coefficient of Curve



Attachment 2

VPH Laboratory Reporting Form

Calibration and QA/QC Information

FID Initial Calibration Date:

05/04/06

PID Initial Calibration Date:

05/04/06

Calibration Ranges and Limits

Range	MDL (07/15/2004) (µg/L)	ML (µg/L)	RL (µg/L) (mg/Kg)	
C ₅ -C ₈ Aliphatics	4.4	14	100	10
C ₉ -C ₁₂ Aliphatics	3.4	11	100	10
C ₉ -C ₁₀ Aromatics	0.13	0.41	100	10

Calibration Concentration Levels

Range	Levels (µg/L)	%RSD or CCC	Method of Quantitation
C ₅ -C ₈ Aliphatics	40	18.2	Calibration Factor
	1000		
	2000		
	3000		
	4000		
C ₉ -C ₁₂ Aliphatics	10	0.99	Linear Regression
	250		
	500		
	750		
	1000		
C ₉ -C ₁₀ Aromatics	10	18.50	Calibration Factor
	250		
	500		
	750		
	1000		

Calibration Check Date:

05/16/06

Calibration Check

Range	Levels (µg/L) (mg/Kg)		RPD
C ₅ -C ₈ Aliphatics	2000	200	-9.9
C ₉ -C ₁₂ Aliphatics	500	50	-8.3
C ₉ -C ₁₀ Aromatics	500	50	0.7

MDL = Method Detection Limit

ML = Minimum Limit

RL = Reportable Limit

RPD = Relative Percent Difference

%RSD = Percent Relative Standard Deviation

CCC = Correlation Coefficient of Curve



EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: Building 45

Sample Information and Analytical Results	
Sample Identification	UST45-SB01
Sample Matrix	Soil
Date Collected	05/05/06
Date Received	05/08/06
Date Extracted	05/12/06
Date Analyzed	05/16/06
Dry Weight	82.8
Dilution Factor	1:1
C ₉ -C ₁₈ Aliphatics*	< 10 (mg/Kg)
C ₁₉ -C ₃₈ Aliphatics*	< 10 (mg/Kg)
C ₁₁ -C ₂₂ Aromatics*	< 10 (mg/Kg)
Aliphatic Surrogate % Recovery	100
Aromatic Surrogate % Recovery	79
Fractionation Surrogate 1 % Recovery	97

Comments:

* = Excludes any surrogates or internal standards.

Lab info: G128-1767-1G

Reviewed By: agd



EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: Building 45

Sample Information and Analytical Results	
Sample Identification	UST45-SB02
Sample Matrix	Soil
Date Collected	05/05/06
Date Received	05/08/06
Date Extracted	05/12/06
Date Analyzed	05/17/06
Dry Weight	83.3
Dilution Factor	1:1
C ₉ -C ₁₈ Aliphatics*	< 10 (mg/Kg)
C ₁₉ -C ₃₆ Aliphatics*	< 10 (mg/Kg)
C ₁₁ -C ₂₂ Aromatics*	< 10 (mg/Kg)
Aliphatic Surrogate % Recovery	98
Aromatic Surrogate % Recovery	70
Fractionation Surrogate 1 % Recovery	100

Comments:

* = Excludes any surrogates or internal standards.

Lab info: G128-1767-2G

Reviewed By: ayh



EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: Building 45

Sample Information and Analytical Results	
Sample Identification	UST45-SB03
Sample Matrix	Soil
Date Collected	05/05/06
Date Received	05/08/06
Date Extracted	05/12/06
Date Analyzed	05/17/06
Dry Weight	84
Dilution Factor	10:5
C ₉ -C ₁₈ Aliphatics*	1800 (mg/Kg)
C ₁₉ -C ₃₆ Aliphatics*	2400 (mg/Kg)
C ₁₁ -C ₂₂ Aromatics*	810 (mg/Kg)
Aliphatic Surrogate % Recovery	NA
Aromatic Surrogate % Recovery	NA
Fractionation Surrogate 1 % Recovery	NA

Comments:

* = Excludes any surrogates or internal standards.

NA = Non-applicable, surrogate diluted out.

Lab info: G128-1767-3G

Reviewed By: cyA



EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: Building 45

Sample Information and Analytical Results	
Sample Identification	UST45-SB04
Sample Matrix	Soil
Date Collected	05/05/06
Date Received	05/08/06
Date Extracted	05/12/06
Date Analyzed	05/18/06
Dry Weight	88.5
Dilution Factor	2:1
C ₈ -C ₁₈ Aliphatics*	< 20 (mg/Kg)
C ₁₈ -C ₃₆ Aliphatics*	230 (mg/Kg)
C ₁₁ -C ₂₂ Aromatics*	18 (mg/Kg)
Aliphatic Surrogate % Recovery	114
Aromatic Surrogate % Recovery	82
Fractionation Surrogate 1 % Recovery	100

Comments:

* = Excludes any surrogates or internal standards.

Duplicate analysis in progress to confirm low surrogates.

Lab info: G128-1767-4G

Reviewed By: ayh



EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: Building 45

Sample Information and Analytical Results	
Sample Identification	UST45-SB05
Sample Matrix	Soil
Date Collected	05/05/06
Date Received	05/08/06
Date Extracted	05/12/06
Date Analyzed	05/18/06
Dry Weight	89.9
Dilution Factor	1:1
C ₉ -C ₁₈ Aliphatics*	< 10 (mg/Kg)
C ₁₉ -C ₃₆ Aliphatics*	40 (mg/Kg)
C ₁₁ -C ₂₂ Aromatics*	< 10 (mg/Kg)
Aliphatic Surrogate % Recovery	91
Aromatic Surrogate % Recovery	83
Fractionation Surrogate 1 % Recovery	110

Comments:

* = Excludes any surrogates or internal standards.

Lab info: G128-1767-5G

Reviewed By: agd



EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: Building 45

Sample Information and Analytical Results	
Sample Identification	UST45-SB06
Sample Matrix	Soil
Date Collected	05/05/06
Date Received	05/08/06
Date Extracted	05/12/06
Date Analyzed	05/17/06
Dry Weight	93.2
Dilution Factor	1:1
C ₉ -C ₁₈ Aliphatics*	< 10 (mg/Kg)
C ₁₉ -C ₃₆ Aliphatics*	< 10 (mg/Kg)
C ₁₁ -C ₂₂ Aromatics*	< 10 (mg/Kg)
Aliphatic Surrogate % Recovery	100
Aromatic Surrogate % Recovery	76
Fractionation Surrogate 1 % Recovery	110

Comments:

* = Excludes any surrogates or internal standards.

Lab info: G128-1767-6G

Reviewed By: agd



EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: Building 45

Sample Information and Analytical Results	
Sample Identification	UST45-SB07
Sample Matrix	Soil
Date Collected	05/05/06
Date Received	05/08/06
Date Extracted	05/12/06
Date Analyzed	05/17/06
Dry Weight	87.6
Dilution Factor	1:1
C ₉ -C ₁₈ Aliphatics*	< 10 (mg/Kg)
C ₁₉ -C ₃₈ Aliphatics*	< 10 (mg/Kg)
C ₁₁ -C ₂₂ Aromatics*	< 10 (mg/Kg)
Aliphatic Surrogate % Recovery	95
Aromatic Surrogate % Recovery	75
Fractionation Surrogate 1 % Recovery	100

Comments:

* = Excludes any surrogates or internal standards.

Lab info: G128-1767-7G

Reviewed By: ayl



EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: Building 45

Sample Information and Analytical Results	
Sample Identification	UST45-SB08
Sample Matrix	Soil
Date Collected	05/05/06
Date Received	05/08/06
Date Extracted	05/12/06
Date Analyzed	05/19/06
Dry Weight	88.7
Dilution Factor	20:2
C ₉ -C ₁₈ Aliphatics*	7500 (mg/Kg)
C ₁₉ -C ₃₆ Aliphatics*	1100 (mg/Kg)
C ₁₁ -C ₂₂ Aromatics*	1500 (mg/Kg)
Aliphatic Surrogate % Recovery	NA
Aromatic Surrogate % Recovery	76
Fractionation Surrogate 1 % Recovery	100

Comments:

* = Excludes any surrogates or internal standards.

NA = Non-applicable, surrogate diluted out.

Lab info: G128-1767-8G

Reviewed By: ayd



EPH (Aliphatics/Aromatics) Results
by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: Building 45

Sample Information and Analytical Results	
Sample Identification	UST45-SB09
Sample Matrix	Soil
Date Collected	05/05/06
Date Received	05/08/06
Date Extracted	05/12/06
Date Analyzed	05/18/06
Dry Weight	87.1
Dilution Factor	1:1
C ₉ -C ₁₈ Aliphatics*	< 10 (mg/Kg)
C ₁₉ -C ₃₆ Aliphatics*	< 10 (mg/Kg)
C ₁₁ -C ₂₂ Aromatics*	< 10 (mg/Kg)
Aliphatic Surrogate % Recovery	100
Aromatic Surrogate % Recovery	81
Fractionation Surrogate 1 % Recovery	130

Comments:

* = Excludes any surrogates or internal standards.

Lab info: G128-1767-9G

Reviewed By: ayd



EPH (Aliphatics/Aromatics) Results
by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: Building 45

Sample Information and Analytical Results	
Sample Identification	UST45-SB10
Sample Matrix	Soil
Date Collected	05/05/06
Date Received	05/08/06
Date Extracted	05/12/06
Date Analyzed	05/19/06
Dry Weight	92.8
Dilution Factor	1:1
C ₉ -C ₁₈ Aliphatics*	< 10 (mg/Kg)
C ₁₉ -C ₃₈ Aliphatics*	< 10 (mg/Kg)
C ₁₁ -C ₂₂ Aromatics*	< 10 (mg/Kg)
Aliphatic Surrogate % Recovery	100
Aromatic Surrogate % Recovery	78
Fractionation Surrogate 1 % Recovery	110

Comments:

* = Excludes any surrogates or internal standards.

Lab info: G128-1767-10G

Reviewed By: egf



EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: Building 45

Sample Information and Analytical Results	
Sample Identification	UST45-SB11
Sample Matrix	Soil
Date Collected	05/05/06
Date Received	05/08/06
Date Extracted	05/12/06
Date Analyzed	05/19/06
Dry Weight	89.8
Dilution Factor	20:10
C ₉ -C ₁₈ Aliphatics*	6700 (mg/Kg)
C ₁₉ -C ₃₆ Aliphatics*	6700 (mg/Kg)
C ₁₁ -C ₂₂ Aromatics*	1300 (mg/Kg)
Aliphatic Surrogate % Recovery	NA
Aromatic Surrogate % Recovery	NA
Fractionation Surrogate 1 % Recovery	NA

Comments:

* = Excludes any surrogates or internal standards.

NA = Non-applicable, surrogate diluted out.

Lab info: G128-1767-11G

Reviewed By: ewj



EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: Building 45

Sample Information and Analytical Results	
Sample Identification	UST45-SB12
Sample Matrix	Soil
Date Collected	05/05/06
Date Received	05/08/06
Date Extracted	05/12/06
Date Analyzed	05/19/06
Dry Weight	90.4
Dilution Factor	1:1
C ₈ -C ₁₈ Aliphatics*	110 (mg/Kg)
C ₁₉ -C ₃₆ Aliphatics*	12 (mg/Kg)
C ₁₁ -C ₂₂ Aromatics*	13 (mg/Kg)
Aliphatic Surrogate % Recovery	95
Aromatic Surrogate % Recovery	79
Fractionation Surrogate 1 % Recovery	110

Comments:

* = Excludes any surrogates or internal standards.

Lab info: G128-1767-13G

Reviewed By: sgd



EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: Building 45

Sample Information and Analytical Results	
Sample Identification	UST45-SB13
Sample Matrix	Soil
Date Collected	05/05/06
Date Received	05/08/06
Date Extracted	05/12/06
Date Analyzed	05/17/06
Dry Weight	91.5
Dilution Factor	1:1
C ₉ -C ₁₈ Aliphatics*	< 10 (mg/Kg)
C ₁₉ -C ₃₈ Aliphatics*	< 10 (mg/Kg)
C ₁₁ -C ₂₂ Aromatics*	< 10 (mg/Kg)
Aliphatic Surrogate % Recovery	94
Aromatic Surrogate % Recovery	76
Fractionation Surrogate 1 % Recovery	110

Comments:

- * = Excludes any surrogates or internal standards.
Duplicate analysis in progress to confirm low surrogates.

Lab info: G128-1767-14G

Reviewed By: QYD



EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: Building 45

Sample Information and Analytical Results	
Sample Identification	UST45-SB14
Sample Matrix	Soil
Date Collected	05/05/06
Date Received	05/08/06
Date Extracted	05/12/06
Date Analyzed	05/17/06
Dry Weight	83.3
Dilution Factor	1:1
C ₈ -C ₁₈ Aliphatics*	< 10 (mg/Kg)
C ₁₉ -C ₃₆ Aliphatics*	< 10 (mg/Kg)
C ₁₁ -C ₂₂ Aromatics*	< 10 (mg/Kg)
Aliphatic Surrogate % Recovery	96
Aromatic Surrogate % Recovery	77
Fractionation Surrogate 1 % Recovery	120

Comments:

* = Excludes any surrogates or internal standards.

Lab info: G128-1767-15G

Reviewed By: and



EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: Building 45

Sample Information and Analytical Results	
Sample Identification	UST45-SB15
Sample Matrix	Soil
Date Collected	05/05/06
Date Received	05/08/06
Date Extracted	05/12/06
Date Analyzed	05/17/06
Dry Weight	83.9
Dilution Factor	1:1
C ₉ -C ₁₈ Aliphatics*	< 10 (mg/Kg)
C ₁₉ -C ₃₆ Aliphatics*	< 10 (mg/Kg)
C ₁₁ -C ₂₂ Aromatics*	< 10 (mg/Kg)
Aliphatic Surrogate % Recovery	100
Aromatic Surrogate % Recovery	76
Fractionation Surrogate 1 % Recovery	120

Comments:

* = Excludes any surrogates or internal standards.

Lab info: G128-1767-16G

Reviewed By: WJ



EPH (Aliphatics/Aromatics) Results
by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: Building 45

Sample Information and Analytical Results	
Sample Identification	UST45-SB16
Sample Matrix	Soil
Date Collected	05/05/06
Date Received	05/08/06
Date Extracted	05/12/06
Date Analyzed	05/17/06
Dry Weight	90.7
Dilution Factor	1:1
C ₉ -C ₁₈ Aliphatics*	< 10 (mg/Kg)
C ₁₉ -C ₃₈ Aliphatics*	< 10 (mg/Kg)
C ₁₁ -C ₂₂ Aromatics*	< 10 (mg/Kg)
Aliphatic Surrogate % Recovery	100
Aromatic Surrogate % Recovery	75
Fractionation Surrogate 1 % Recovery	110

Comments:

* = Excludes any surrogates or internal standards.

Lab info: G128-1767-17G

Reviewed By: agd



EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: Building 45

Sample Information and Analytical Results	
Sample Identification	UST45-SB17
Sample Matrix	Soil
Date Collected	05/05/06
Date Received	05/08/06
Date Extracted	05/12/06
Date Analyzed	05/17/06
Dry Weight	88.2
Dilution Factor	1:1
C ₉ -C ₁₈ Aliphatics*	< 10 (mg/Kg)
C ₁₉ -C ₃₆ Aliphatics*	< 10 (mg/Kg)
C ₁₁ -C ₂₂ Aromatics*	< 10 (mg/Kg)
Aliphatic Surrogate % Recovery	100
Aromatic Surrogate % Recovery	76
Fractionation Surrogate 1 % Recovery	110

Comments:

* = Excludes any surrogates or internal standards.

Lab info: G128-1767-18G

Reviewed By: agd



EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: Building 45

Sample Information and Analytical Results	
Sample Identification	UST45-SB18
Sample Matrix	Soil
Date Collected	05/05/06
Date Received	05/08/06
Date Extracted	05/12/06
Date Analyzed	05/17/06
Dry Weight	84.3
Dilution Factor	1:1
C ₉ -C ₁₈ Aliphatics*	< 10 (mg/Kg)
C ₁₉ -C ₃₆ Aliphatics*	< 10 (mg/Kg)
C ₁₁ -C ₂₂ Aromatics*	< 10 (mg/Kg)
Aliphatic Surrogate % Recovery	95
Aromatic Surrogate % Recovery	73
Fractionation Surrogate 1 % Recovery	120

Comments:

* = Excludes any surrogates or internal standards.

Lab info: G128-1767-19G

Reviewed By: ML



EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: Building 45

Sample Information and Analytical Results	
Sample Identification	UST45-SB19
Sample Matrix	Soil
Date Collected	05/05/06
Date Received	05/08/06
Date Extracted	05/12/06
Date Analyzed	05/17/06
Dry Weight	86.3
Dilution Factor	1:1
C ₉ -C ₁₈ Aliphatics*	< 10 (mg/Kg)
C ₁₉ -C ₃₆ Aliphatics*	< 10 (mg/Kg)
C ₁₁ -C ₂₂ Aromatics*	< 10 (mg/Kg)
Aliphatic Surrogate % Recovery	82
Aromatic Surrogate % Recovery	71
Fractionation Surrogate 1 % Recovery	110

Comments:

* = Excludes any surrogates or internal standards.

Lab info: G128-1767-20G

Reviewed By: aqd



EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: Building 45

Sample Information and Analytical Results	
Sample Identification	UST45-SB20
Sample Matrix	Soil
Date Collected	05/05/06
Date Received	05/08/06
Date Extracted	05/12/06
Date Analyzed	05/17/06
Dry Weight	88.8
Dilution Factor	1:1
C ₉ -C ₁₈ Aliphatics*	< 10 (mg/Kg)
C ₁₉ -C ₃₆ Aliphatics*	< 10 (mg/Kg)
C ₁₁ -C ₂₂ Aromatics*	< 10 (mg/Kg)
Aliphatic Surrogate % Recovery	98
Aromatic Surrogate % Recovery	70
Fractionation Surrogate 1 % Recovery	110

Comments:

* = Excludes any surrogates or internal standards.

Lab info: G128-1767-21G

Reviewed By: hw



EPH Laboratory Reporting Form

Calibration and QA/QC Information

Initial Calibration Date: 04/19/06

Calibration Ranges and Limits

Range	MDL (2/2004) (µg/L)	ML (µg/L)	RL (µg/L) (mg/Kg)	
C ₉ -C ₁₈ Aliphatics	3.84	12.2	100	10
C ₁₉ -C ₃₈ Aliphatics	0.57	1.8	100	10
C ₁₁ -C ₂₂ Aromatics	4.54	14.4	100	10

Calibration Concentration Levels

Range	Levels (µg/mL)	%RSD or CCC	Method of Quantitation
C ₉ -C ₁₈ Aliphatics	6	13.30	Calibration Factor
	30		
	60		
	120		
	240		
C ₁₉ -C ₃₈ Aliphatics	8	10.1	Calibration Factor
	40		
	80		
	160		
	320		
C ₁₁ -C ₂₂ Aromatics	17	4.5	Calibration Factor
	85		
	170		
	340		
	680		

Calibration Check Date: 04/19/06

Calibration Check

Range	Levels (µg/mL)	RPD
C ₉ -C ₁₈ Aliphatics	120	11.4
C ₁₉ -C ₃₈ Aliphatics	160	9.1
C ₁₁ -C ₂₂ Aromatics	340	1.8

MDL = Method Detection Limit

ML = Minimum Limit

RL = Reportable Limit

RPD = Relative Percent Difference

%RSD = Percent Relative Standard Deviation

CCC = Correlation Coefficient of Curve



EPH Laboratory Reporting Form

Calibration and QA/QC Information

Initial Calibration Date: 04/19/06

Calibration Ranges and Limits

Range	MDL (2/2004) (µg/L)	ML (µg/L)	RL (µg/L)	RL (mg/Kg)
C ₉ -C ₁₈ Aliphatics	3.84	12.2	100	10
C ₁₉ -C ₃₈ Aliphatics	0.57	1.8	100	10
C ₁₁ -C ₂₂ Aromatics	4.54	14.4	100	10

Calibration Concentration Levels

Range	Levels (µg/mL)	%RSD or CCC	Method of Quantitation
C ₉ -C ₁₈ Aliphatics	6	13.30	Calibration Factor
	30		
	60		
	120		
	240		
C ₁₉ -C ₃₈ Aliphatics	8	10.1	Calibration Factor
	40		
	80		
	160		
	320		
C ₁₁ -C ₂₂ Aromatics	17	4.5	Calibration Factor
	85		
	170		
	340		
	680		

Calibration Check Date: 05/16/06

Calibration Check

Range	Levels (µg/mL)	RPD
C ₉ -C ₁₈ Aliphatics	120	3.8
C ₁₉ -C ₃₈ Aliphatics	160	-2.6
C ₁₁ -C ₂₂ Aromatics	340	-12.3

MDL = Method Detection Limit

ML = Minimum Limit

RL = Reportable Limit

RPD = Relative Percent Difference

%RSD = Percent Relative Standard Deviation

CCC = Correlation Coefficient of Curve



EPH Laboratory Reporting Form

Calibration and QA/QC Information

Initial Calibration Date: 04/19/06

Calibration Ranges and Limits

Range	MDL (2/2004) ($\mu\text{g/L}$)	ML ($\mu\text{g/L}$)	RL ($\mu\text{g/L}$)	(mg/Kg)
C ₉ -C ₁₈ Aliphatics	3.84	12.2	100	10
C ₁₉ -C ₃₆ Aliphatics	0.57	1.8	100	10
C ₁₁ -C ₂₂ Aromatics	4.54	14.4	100	10

Calibration Concentration Levels

Range	Levels ($\mu\text{g/mL}$)	%RSD or CCC	Method of Quantitation
C ₉ -C ₁₈ Aliphatics	6	13.30	Calibration Factor
	30		
	60		
	120		
	240		
C ₁₉ -C ₃₆ Aliphatics	8	10.1	Calibration Factor
	40		
	80		
	160		
	320		
C ₁₁ -C ₂₂ Aromatics	17	4.5	Calibration Factor
	85		
	170		
	340		
	680		

Calibration Check Date: 05/17/06

Calibration Check

Range	Levels ($\mu\text{g/mL}$)	RPD
C ₉ -C ₁₈ Aliphatics	120	6.3
C ₁₉ -C ₃₆ Aliphatics	160	2.6
C ₁₁ -C ₂₂ Aromatics	340	-6.7

MDL = Method Detection Limit

ML = Minimum Limit

RL = Reportable Limit

RPD = Relative Percent Difference

%RSD = Percent Relative Standard Deviation

CCC = Correlation Coefficient of Curve



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.



CHAIN OF CUSTODY RECORD
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Locations Nationwide
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• New Jersey
• North Carolina
• West Virginia
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1 CLIENT: CATLIN Eng. & Scientists				SGS Reference: G128-1767				PAGE 1 OF 3		
CONTACT: Jeff Becken				PHONE NO: (910) 452-5861						
PROJECT: Building 45				SITE/PSID: 266-009						
REPORTS TO: Jeff Becken				FAX NO: (910) 452-7563						
INVOICE TO: CATLIN / SHELK				QUOTE # P0101						
				P.O. NUMBER 260502-34						
LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	NO CONTAINERS	SAMPLE TYPE	Preservation Unit	Seal, B1	Seal, B2	REMARKS
	US145-SB01	5/5/06	3:00	S	6	EA	8270	✓	✓	- Leave & Summary EDO format
	US145-SB02		3:00		6	EA	8260/5035	✓	✓	
	US145-SB03		3:00		6	EA	UPH	✓	✓	
	US145-SB04		3:00		6	EA	EPH	✓	✓	
	US145-SB05		3:05		6	EA		✓	✓	
	US145-SB06		3:05		6	EA		✓	✓	
	US145-SB07		3:10		6	EA		✓	✓	
	US145-SB08		3:10		6	EA		✓	✓	
	US145-SB09		3:10		6	EA		✓	✓	
	US145-SB10		3:10		6	EA		✓	✓	
5 Collected/Relinquished By: (1)		Date	Time	Received By:	4 Shipping Carrier:		Samples Received Cold? (Circle) YES NO			
Relinquished By: [Signature]		5/8/06	2:40	[Signature]	Shipping Ticket No:		Temperature (C): on ice 58.288			
Relinquished By: (2)		Date	Time	Received By:	Special Deliverable Requirements:		Chain of Custody Seal: (Circle)			
Relinquished By: [Signature]		5/8/06	3:20	[Signature]			INTACT BROKEN			
Relinquished By: (4)		Date	Time	Received By:	Requested Turnaround Time and Special Instructions:		ABSENT			



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1 CLIENT: **CATLIN**

CONTACT: **Jeff Becken** PHONE NO: **910 452-5861**

PROJECT: **Building 45** SITE/PM/SID: **206-009**

REPORTS TO: **Jeff Becken** FAX NO: **910 452-7563**

INVOICE TO: **CATLIN / SITE/EA** QUOTE # **DDP101**

P.O. NUMBER **260502-34**

SGS Reference: **G128-1767**

PAGE **2** OF **3**

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No Containers				SGS Reference				PAGE 2 OF 3			
					Containers	Sample Type	Analysis Required	Preserved	Used	Sal. Br.	Meat	Meat	REMARKS			
9F	US145-SB11	5/5/06	3:10	S	6	4	✓	✓	✓	✓	✓	✓	- Levene & Summary EDD format			
9C	US145-SB11 Dup		3:30		3	1	✓	✓	✓	✓	✓	✓				
9C	US145-SB12		3:10		6	1	✓	✓	✓	✓	✓	✓				
9C	US145-SB13		3:20		6	1	✓	✓	✓	✓	✓	✓				
9C	US145-SB14		3:20		6	1	✓	✓	✓	✓	✓	✓				
9C	US145-SB15		3:20		6	1	✓	✓	✓	✓	✓	✓				
9C	US145-SB16		3:20		6	1	✓	✓	✓	✓	✓	✓				
9C	US145-SB17		3:20		6	1	✓	✓	✓	✓	✓	✓				
9C	US145-SB18		3:20		6	1	✓	✓	✓	✓	✓	✓				
9C	US145-SB19		3:30		6	1	✓	✓	✓	✓	✓	✓				

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No Containers				SGS Reference				PAGE 2 OF 3			
					Containers	Sample Type	Analysis Required	Preserved	Used	Sal. Br.	Meat	Meat	REMARKS			
9C	US145-SB11	5/5/06	3:10	S	6	4	✓	✓	✓	✓	✓	✓	- Levene & Summary EDD format			
9C	US145-SB11 Dup		3:30		3	1	✓	✓	✓	✓	✓	✓				
9C	US145-SB12		3:10		6	1	✓	✓	✓	✓	✓	✓				
9C	US145-SB13		3:20		6	1	✓	✓	✓	✓	✓	✓				
9C	US145-SB14		3:20		6	1	✓	✓	✓	✓	✓	✓				
9C	US145-SB15		3:20		6	1	✓	✓	✓	✓	✓	✓				
9C	US145-SB16		3:20		6	1	✓	✓	✓	✓	✓	✓				
9C	US145-SB17		3:20		6	1	✓	✓	✓	✓	✓	✓				
9C	US145-SB18		3:20		6	1	✓	✓	✓	✓	✓	✓				
9C	US145-SB19		3:30		6	1	✓	✓	✓	✓	✓	✓				

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No Containers				SGS Reference				PAGE 2 OF 3			
					Containers	Sample Type	Analysis Required	Preserved	Used	Sal. Br.	Meat	Meat	REMARKS			
9C	US145-SB11	5/5/06	3:10	S	6	4	✓	✓	✓	✓	✓	✓	- Levene & Summary EDD format			
9C	US145-SB11 Dup		3:30		3	1	✓	✓	✓	✓	✓	✓				
9C	US145-SB12		3:10		6	1	✓	✓	✓	✓	✓	✓				
9C	US145-SB13		3:20		6	1	✓	✓	✓	✓	✓	✓				
9C	US145-SB14		3:20		6	1	✓	✓	✓	✓	✓	✓				
9C	US145-SB15		3:20		6	1	✓	✓	✓	✓	✓	✓				
9C	US145-SB16		3:20		6	1	✓	✓	✓	✓	✓	✓				
9C	US145-SB17		3:20		6	1	✓	✓	✓	✓	✓	✓				
9C	US145-SB18		3:20		6	1	✓	✓	✓	✓	✓	✓				
9C	US145-SB19		3:30		6	1	✓	✓	✓	✓	✓	✓				

200 W. Foster Drive Anchorage, AK 99518 Tel: (907) 582-2243 Fax: (907) 581-6301
5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557
1258 Greenbrier Street Charleston, WV 25311 Tel: (304) 346-0725 Fax: (304) 346-0761
White - Retained by Lab
Yellow - Returned with Report
Pink - Retained by Sampler

APPENDIX B

SUMMARY OF HISTORICAL GROUNDWATER LABORATORY RESULTS

CORRECTIVE ACTION PLAN

TABLE 1.2 (Page 1 of 3)
SUMMARY OF LABORATORY ANALYTICAL RESULTS; GROUNDWATER
CORRECTIVE ACTION PLAN
BUILDING 45, USTs S-941-1 AND 2, EQUIPMENT AND MAINTENANCE SHOP
MCB, CAMP LEJEUNE, NORTH CAROLINA
LAW ENGINEERING JOB NO. 30740-5-0500/PHASE 0033
Results are presented in µg/l

PARAMETER	WELL#	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	PW-1	N.C. GROUNDWATER STANDARDS
	SCREENED INTERVAL (FT.)	6 - 21	4.5 - 19.5	45 - 50	3 - 23	4 - 19	45 - 50	3 - 18	3 - 23	
	DATE SAMPLED	1/5/93	1/5/93	1/5/93	1/5/93	1/5/93	1/5/93	1/5/93	1/5/93	
Benzene		ND	ND	ND	ND	ND	ND	ND	87	1
Ethylbenzene		ND	ND	ND	ND	ND	ND	1.6	70	29
Toluene		ND	ND	ND	ND	ND	ND	ND	700	1000
Xylenes (Total)		ND	ND	ND	ND	ND	ND	1.6	1900	400
Methyl tert-butyl ether		ND	ND	ND	ND	ND	4.4	ND	ND	200

NOTES:

ND Not Detected; see laboratory reports for applicable detection limits.

Shaded Area = Concentrations detected above NC groundwater quality standards

* Numerical standard has not been established, therefore, the presence of these substances in groundwater is a violation of the North Carolina Groundwater Standards.

TABLE 1.2 (Page 2 of 3)
SUMMARY OF LABORATORY ANALYTICAL RESULTS: GROUNDWATER
CORRECTIVE ACTION PLAN
BUILDING 45, USTs S-941-1 AND 2, EQUIPMENT AND MAINTENANCE SHOP
MCB, CAMP LEJEUNE, NORTH CAROLINA
LAW ENGINEERING JOB NO. 30740-5-0500/PHASE 0033
Results are presented in µg/l

PARAMETER	WELL #	MW-11	MW-12	MW-13	MW-14	MW-14	MW-15	MW-16	MW-17	N.C. GROUNDWATER STANDARDS
	SCREENED INTERVAL (FT.)	5.5'-15.5'	6.0'-16.0'	6.0'-16.0'	6.0'-16.0'	6.0'-16.0' DUP	6.0'-16.0'	6.0'-16.0'	4.8'-14.8'	
	DATE SAMPLED	12/02/93	12/02/93	12/02/93	1/11/94	1/11/94	1/11/94	12/02/93	1/11/94	
EPA METHOD 602										
Benzene		ND	ND	ND	ND	--	3800	ND	ND	1
Toluene		ND	ND	ND	ND	--	1700	0.7	ND	1000
Ethylbenzene		ND	ND	ND	ND	--	800	ND	ND	29
Xylenes (Total)		ND	ND	ND	ND	--	3600	1.3	ND	530
EPA METHOD 610										
Naphthalene		ND	ND	ND	ND	ND	24	3.7	ND	21
Acenaphthene		ND	ND	ND	ND	ND	ND	ND	ND	80
Acenaphthylene		ND	ND	ND	ND	ND	5.0	ND	ND	210
Anthracene		ND	ND	ND	ND	ND	1.8	0.6	4.4	2100
Fluorene		ND	ND	ND	0.8	ND	ND	ND	ND	280
Phenanthrene		ND	ND	ND	ND	ND	ND	ND	1.6	210
Fluoranthene		ND	ND	ND	0.7	ND	2.2	ND	4.9	280
Pyrene		ND	ND	ND	1.9	ND	ND	ND	2.8	210
Chrysene		ND	ND	ND	2.5	ND	ND	ND	ND	4.79
Benzo (a) anthracene		ND	ND	ND	5.6	ND	ND	ND	7.1	0.0478

NOTES:

ND Not Detected; see laboratory reports for applicable detection limits.

-- Sample not analyzed for this parameter

Shaded Area = Concentrations detected above NC groundwater quality standards.

TABLE 1.2 (Page 3 of 3)
SUMMARY OF LABORATORY ANALYTICAL RESULTS; GROUNDWATER
CORRECTIVE ACTION PLAN
BUILDING 45, US7's S-941-1 AND 2, EQUIPMENT AND MAINTENANCE SHOP
MCB, CAMP LEJEUNE, NORTH CAROLINA
LAW ENGINEERING JOB NO. 30740-5-0500/PHASE 0033
Results are presented in µg/l

PARAMETER	WELL #	MW-18	MW-19	MW-20	MW-21	MW-22	MW-22	N.C. GROUNDWATER STANDARDS
	SCREENED INTERVAL (FT.)	6.0'-16.0'	3.5'-13.5'	4.5'-14.5'	45.0'-50.0'	45.7'-50.7'	45.7'-50.7'	
	DATE SAMPLED	1/11/94	1/11/94	1/11/94	1/11/94	1/11/94	DUP 1/11/94	
EPA METHOD 602								
Benzene		1200	ND	ND	ND	ND	ND	1
Toluene		74	ND	8.2	ND	ND	ND	1000
Ethylbenzene		84	ND	4.8	ND	ND	ND	29
Xylenes (Total)		230	ND	ND	ND	ND	ND	530
EPA METHOD 610								
Naphthalene		6.8	ND	ND	ND	1.3	ND	21
Acenaphthene		ND	ND	ND	ND	ND	ND	80
Acenaphthylene		ND	ND	ND	ND	ND	ND	210
Anthracene		0.7	ND	ND	1.2	2.4	ND	2100
Fluorene		ND	ND	ND	ND	ND	ND	280
Phenanthrene		ND	ND	ND	1.9	1.0	1.2	210
Fluoranthene		6.7	ND	ND	ND	4.5	ND	280
Pyrene		0.8	ND	ND	ND	2.2	ND	210
Chrysene		ND	ND	ND	ND	ND	ND	4.79
Benzo (a) anthracene		ND	ND	ND	ND	3.1	ND	0.0479

NOTES:

ND Not Detected; see laboratory reports for applicable detection limits.

Shaded Area = Concentrations detected above NC groundwater quality standards

TABLE 1.1
r.e. wright associates ANALYTICAL RESULTS (GROUNDWATER)
CORRECTIVE ACTION PLAN
BUILDING 45, USTs S-941-1 AND 2
MCB, CAMP LEJEUNE, NORTH CAROLINA
LAW ENGINEERING JOB NO. 30740-S-0500/PHASE 0033

Analysis	MCL	MW-1 (mg/l)	MW-2 (mg/l)	MW-2 Duplicate (mg/l)	MW-3 (mg/l)	MW-3 Duplicate (mg/l)	MW-4 (mg/l)	MW-5 (mg/l)	MW-6 (mg/l)
EPA Method 502.2 (VOCs)	--	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
Benzene	--	0.0054	BDL	BDL	BDL	BDL	BDL	BDL	BDL
EPA Method 625 (PAHs)	--	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
Naphthalene	--	BDL	0.008	0.010	BDL	BDL	BDL	BDL	BDL
TCLP 8 RCRA Metals	--	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*

MCL = EPA Maximum Contaminant Level for Compounds in Drinking Water
 EPA = United States Environmental Protection Agency
 VOCs = Volatile Organic Compounds
 -- = Not Applicable
 BDL = Below Detection Limits
 PAHs = Polynuclear Aromatic Hydrocarbons
 TCLP = Toxicity Characteristic Leaching Procedures
 RCRA = Resources Conservation and Recovery Act

The standard for benzene is .001 mg/l and the interim standard for naphthalene is 0.021 mg/l.

* All parameters of analysis method were BDL, except as noted (Appendix D).

REMEDIAL INVESTIGATION REPORT

TABLE 4-11
POSITIVE DETECTIONS IN GW SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT 19, SITE 84/BUILDING 45 AREA
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID SAMPLE DATE	AST781-GW03-98B 4/23/98	AST781-GW04-98B 4/23/98	ASI781-GW07-98B 4/22/98	AST781-GW08-98B 4/22/98	AST781-GW11-98B 4/23/98	AST781-GW12-98B 4/23/98
VOLATILES (ug/L)						
2-Butanone	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	3.4 J	1.5 J	10 U	10 U	10 U	10 U
Carbon disulfide	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	10 U	10 U	10 U	10 U	10 U	10 U
Chloromethane	10 U	10 U	10 U	10 U	16	16
Ethylbenzene	3.6 J	6.7 J	10 U	10 U	10 U	10 U
Methyl tert-butyl ether	10 U	10 U	10 U	10 U	10 U	10 U
Methylene chloride	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	10 U	10 U	10 U	10 U	10 U	10 U
Xylenes (total)	10 U	10 U	10 U	10 U	10 U	10 U
SEMIVOLATILES (ug/L)						
2-Methylnaphthalene	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA
PCBs (ug/L)						
4,4'-DDD	NA	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA
4,4'-DDT	NA	NA	NA	NA	NA	NA
Endosulfan I	NA	NA	NA	NA	NA	NA
Heptachlor epoxide	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA
HERBICIDES (ug/L)						
Dinoseb	NA	NA	NA	NA	NA	NA
MCPA	NA	NA	NA	NA	NA	NA

TABLE 4-11 (continued)
POSITIVE DETECTIONS IN GW SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT 19, SITE 84/BUILDING 45 AREA
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	AST781-GW03-98B	AST781-GW04-98B	ASI781-GW07-98B	AST781-GW08-98B	AST781-GW11-98B	AST781-GW12-98B
SAMPLE DATE	4/23/98	4/23/98	4/22/98	4/22/98	4/23/98	4/23/98
METALS (mg/L)						
Aluminum	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA
Calcium	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA

NOTES:

U = not detected at detection limit

J = value is estimated

ug/L = micrograms per liter

mg/L = micrograms per liter

NA = Not analyzed

TABLE 4-11 (continued)
POSITIVE DETECTIONS IN GW SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT 19, SITE 84/BUILDING 45 AREA
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID SAMPLE DATE	84-GW01-01 11/7/95	84-GW07-01 11/26/95	84-GW13-01 10/26/95	IR84-MW10-01C 08-05-2001	IR84-MW07-01C 08-06-2001	IR84-MW08-01C 08-06-2001	IR84-MW09-01C 08-05-2001
VOLATILES (ug/L)							
2-Butanone	NA	NA	NA	0.41 U	0.41 U	0.41 U	0.41 U
Benzene	NA	NA	NA	0.16 U	0.16 U	0.16 U	0.16 U
Carbon disulfide	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U
Chloroform	NA	NA	NA	0.14 U	0.14 U	0.14 U	0.14 U
Chloromethane	NA	NA	NA	0.13 U	0.13 U	0.13 U	0.13 U
Ethylbenzene	NA	NA	NA	0.12 U	0.12 U	0.12 U	0.12 U
Methyl tert-butyl ether	NA	NA	NA	0.13 U	0.13 U	0.13 U	0.13 U
Methylene chloride	NA	NA	NA	0.34 U	0.34 U	0.34 U	0.57 J
Trichloroethene	NA	NA	NA	0.14 U	0.14 U	0.14 U	0.14 U
Xylenes (total)	NA	NA	NA	0.33 U	0.33 U	0.33 U	0.33 U
SEMIVOLATILES (ug/L)							
2-Methylnaphthalene	NA	NA	NA	0.64 U	0.64 U	0.64 U	0.64 U
Naphthalene	NA	NA	NA	0.75 U	0.75 U	0.75 U	0.75 U
PCBs (ug/L)							
4,4'-DDD	NA	NA	NA	0.0064 U	0.0064 U	0.0064 U	0.0064 U
4,4'-DDE	NA	NA	NA	0.0074 U	0.0074 U	0.0074 U	0.0074 U
4,4'-DDT	NA	NA	NA	0.0072 U	0.0072 U	0.0072 U	0.0072 U
Endosulfan I	NA	NA	NA	0.0069 U	0.0069 U	0.0069 U	0.0069 U
Heptachlor epoxide	NA	NA	NA	0.0068 U	0.0068 U	0.0068 U	0.0068 U
beta-BHC	NA	NA	NA	0.0062 U	0.0062 U	0.0062 U	0.0062 U
gamma-Chlordane	NA	NA	NA	0.0065 U	0.0065 U	0.0065 U	0.0065 U
HERBICIDES (ug/L)							
Dinoseb	NA	NA	NA	0.013 U	0.015 J	0.013 U	0.013 U
MCPA	NA	NA	NA	8 U	8 U	8 U	8 U

TABLE 4-11 (continued)
 POSITIVE DETECTIONS IN GW SAMPLES
 REMEDIAL INVESTIGATION, CTO-0219
 OPERABLE UNIT 19, SITE 84/BUILDING 45 AREA
 MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID SAMPLE DATE	84-GW01-01 11/7/95	84-GW07-01 11/26/95	84-GW13-01 10/26/95	IR84-MW10-01C 08-05-2001	IR84-MW07-01C 08-06-2001	IR84-MW08-01C 08-06-2001	IR84-MW09-01C 08-05-2001
METALS (mg/L)							
Aluminum	NA	NA	NA	0.55	0.11 U	0.11 U	0.44
Antimony	NA	NA	NA	0.0022 U	0.0022 U	0.0022 U	0.0022 U
Arsenic	NA	NA	NA	0.0039 U	0.013	0.03	0.0039 U
Barium	NA	NA	NA	0.049 J	0.028 J	0.0036 J	0.014 J
Beryllium	NA	NA	NA	0.0011 J	0.00067 J	0.00067 J	0.00061 J
Cadmium	NA	NA	NA	0.00028 U	0.00028 U	0.00028 U	0.00028 U
Calcium	NA	NA	NA	10	106	49.1	1.4 J
Chromium	NA	NA	NA	0.0014 U	0.0014 U	0.0014 U	0.0014 U
Cobalt	NA	NA	NA	0.0022 J	0.0013 U	0.0013 U	0.0013 U
Iron	NA	NA	NA	0.088 U	51.1	67.7	0.74
Magnesium	NA	NA	NA	10	5.8	4.4 J	0.34 J
Manganese	NA	NA	NA	0.04	0.45	0.18	0.004 J
Mercury	NA	NA	NA	0.000069 U	0.000069 U	0.000069 U	0.000069 U
Nickel	NA	NA	NA	0.0022 U	0.0022 U	0.0022 U	0.0022 U
Potassium	NA	NA	NA	0.86 J	0.69 U	1.3 J	0.26 U
Sodium	NA	NA	NA	2.1 J	9.7	4.2 J	3.9 J
Thallium	NA	NA	NA	0.005 U	0.005 U	0.0057 J	0.005 U
Vanadium	NA	NA	NA	0.00082 U	0.0018 J	0.0016 J	0.0018 J
Zinc	NA	NA	NA	0.012 U	0.012 U	0.012 U	0.012 U

NOTES:

U = not detected at detection limit

J = value is estimated

ug/L = micrograms per liter

mg/L = micrograms per liter

NA = Not analyzed

TABLE 4-11 (continued)
POSITIVE DETECTIONS IN GW SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT 19, SITE 84/BUILDING 45 AREA
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID SAMPLE DATE	IR84-MW10-01C 08-05-2001	IR84-MW16-01C 08-04-2001	IR84-MW17-01C 08-06-2001	IR84-MW18-01C 08-04-2001	IR84-MW19-01C 08-04-2001	IR84-MW20-01C 08-05-2001
VOLATILES (ug/L)						
2-Butanone	0.41 U	0.41 U	0.41 U	0.53 J	0.41 U	0.41 U
Benzene	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Carbon disulfide	0.2 U	0.2 U	0.2 U	0.49 J	0.2 U	0.2 U
Chloroform	0.14 U	0.14 U	6.5 U	1 U	0.14 U	0.14 U
Chloromethane	0.13 U	0.17 J	0.13 U	0.62 J	0.13 U	0.13 U
Ethylbenzene	0.12 U	0.12 U	0.6 J	0.12 U	0.12 U	0.12 U
Methyl tert-butyl ether	0.13 U	0.52 J	0.13 U	0.13 U	0.13 U	0.13 U
Methylene chloride	0.34 U	0.34 U	1 U	0.34 U	0.34 U	0.34 U
Trichloroethene	0.14 U	0.14 U	0.19 J	0.14 U	0.14 U	0.14 U
Xylenes (total)	0.33 U	0.33 U	1.8	0.33 U	0.33 U	0.33 U
SEMIVOLATILES (ug/L)						
2-Methylnaphthalene	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U	1 J
Naphthalene	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U
PCBs (ug/L)						
4,4'-DDD	0.0064 U	0.0064 U	0.0064 UJ	0.044 J	0.0064 U	0.028 J
4,4'-DDE	0.0074 U	0.0074 U	0.0074 UJ	0.0074 U	0.0074 U	0.024 J
4,4'-DDT	0.0072 U	0.029 J	0.0072 UJ	0.0072 U	0.0072 U	0.042 J
Endosulfan I	0.0069 U	0.0069 U	0.0069 UJ	0.023 J	0.0069 U	0.0069 U
Heptachlor epoxide	0.0068 U	0.0068 U	0.0068 UJ	0.0068 U	0.0068 U	0.03 J
beta-BHC	0.0062 U	0.0062 U	0.021 J	0.026 J	0.0062 U	0.025 J
gamma-Chlordane	0.0065 U	0.0065 U	0.0065 UJ	0.04 J	0.0065 U	0.0065 U
HERBICIDES (ug/L)						
Dinoseb	0.013 U	0.13 U	1.5 J	0.013 U	0.057 J	0.013 U
MCPA	8 U	80 U	16 U	44 J	8 U	8 U

TABLE 4-11 (continued)
POSITIVE DETECTIONS IN GW SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT 19, SITE 84/BUILDING 45 AREA
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR84-MW10-01C	IR84-MW16-01C	IR84-MW17-01C	IR84-MW18-01C	IR84-MW19-01C	IR84-MW20-01C
SAMPLE DATE	08-05-2001	08-04-2001	08-06-2001	08-04-2001	08-04-2001	08-05-2001
METALS (mg/L)						
Aluminum	0.55	0.17 U	0.73	0.54	0.58	0.23 U
Antimony	0.0022 U	0.0024 J	0.011 J	0.0022 U	0.0022 U	0.0022 UJ
Arsenic	0.0039 U	0.0039 U	0.0039 U	0.0039 U	0.0039 U	0.0077 J
Barium	0.049 J	0.02 J	0.012 J	0.12 J	0.04 J	0.038 J
Beryllium	0.0011 J	0.00057 J	0.00067 J	0.00068 J	0.00057 J	0.00076 J
Cadmium	0.00028 U	0.00028 U	0.00028 U	0.00056 J	0.00028 U	0.00028 U
Calcium	10	32.8	34.5	63.8	44.7	72.5
Chromium	0.0014 U	0.0014 U	0.0014 U	0.0015 J	0.0022 J	0.0015 J
Cobalt	0.0022 J	0.0013 U	0.0013 U	0.0057 J	0.0013 U	0.0013 U
Iron	0.088 U	0.18	1	0.53	0.39	24.9
Magnesium	10	3.4 J	0.89 J	11.3	2.2 J	3.1 J
Manganese	0.04	0.008 J	0.0047 J	0.24	0.012 J	0.16
Mercury	0.000069 U	0.000069 U	0.000072 J	0.000069 U	0.000069 U	0.000069 U
Nickel	0.0022 U	0.0022 U	0.0022 U	0.011 J	0.0022 U	0.0022 U
Potassium	0.86 J	1.8 J	1.1 J	2.4 J	5.2	2 J
Sodium	2.1 J	5.9	9	8	22	8.7
Thallium	0.005 U	0.005 U	0.0054 J	0.005 U	0.005 U	0.005 U
Vanadium	0.00082 U	0.00082 U	0.0027 J	0.0011 J	0.00084 J	0.0029 J
Zinc	0.012 U	0.027 J	0.012 U	0.31	0.012 U	0.012 U

NOTES:

U = not detected at detection limit

J = value is estimated

ug/L = micrograms per liter

mg/L = micrograms per liter

NA = Not analyzed

TABLE 4-11 (continued)
POSITIVE DETECTIONS IN GW SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT 19, SITE 84/BUILDING 45 AREA
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID SAMPLE DATE	IR84-MW20-01CD 08-05-2001	IR84-MW21-01C 08-05-2001	IR84-MW22-01C 08-05-2001	IR84-MW23-01C 08-06-2001
VOLATILES (ug/L)				
2-Butanone	0.41 U	0.41 U	0.69 J	0.41 U
Benzene	0.16 U	0.16 U	0.16 U	0.16 U
Carbon disulfide	0.2 U	0.2 U	0.2 U	0.2 U
Chloroform	0.14 U	1 U	8.8 U	0.14 U
Chloromethane	0.13 U	0.13 U	0.13 U	0.13 U
Ethylbenzene	0.12 U	0.12 U	3.6	0.12 U
Methyl tert-butyl ether	0.13 U	0.13 U	0.13 U	0.13 U
Methylene chloride	1 U	0.37 J	0.7 J	0.34 U
Trichloroethene	0.14 U	0.14 U	0.14 U	0.14 U
Xylenes (total)	0.33 U	0.33 U	0.33 U	0.33 U
SEMIVOLATILES (ug/L)				
2-Methylnaphthalene	1.1 J	0.64 U	0.64 U	0.64 U
Naphthalene	0.75 U	0.75 U	2.2 J	0.75 U
PCBs (ug/L)				
4,4'-DDD	0.029 J	0.036 J	0.13 U	0.0064 U
4,4'-DDE	0.026 J	0.0074 U	0.15 U	0.0074 U
4,4'-DDT	0.047 J	0.046 J	0.14 U	0.0072 U
Endosulfan I	0.0069 U	0.0069 U	0.14 U	0.0069 U
Heptachlor epoxide	0.0068 U	0.0068 U	0.14 U	0.0068 U
beta-BHC	0.0062 U	0.029 J	0.12 U	0.0062 U
gamma-Chlordane	0.0065 U	0.0065 U	0.13 U	0.0065 U
HERBICIDES (ug/L)				
Dinoseb	0.013 U	0.16 J	0.026 UJ	0.013 U
MCPA	8 U	8 U	16 U	8 U

TABLE 4-11 (continued)
POSITIVE DETECTIONS IN GW SAMPLES
REMEDIAL INVESTIGATION, CTO-0219
OPERABLE UNIT 19, SITE 84/BUILDING 45 AREA
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR84-MW20-01CD	IR84-MW21-01C	IR84-MW22-01C	IR84-MW23-01C
SAMPLE DATE	08-05-2001	08-05-2001	08-05-2001	08-06-2001
METALS (mg/L)				
Aluminum	0.22 U	0.56	0.52	0.52
Antimony	0.0022 U	0.0022 J	0.0022 U	0.0022 U
Arsenic	0.0071 J	0.0039 U	0.0039 U	0.0039 U
Barium	0.037 J	0.11 J	0.033 J	0.0073 J
Beryllium	0.00068 J	0.0006 J	0.00089 J	0.00063 J
Cadmium	0.00028 U	0.00028 U	0.00028 U	0.00061 J
Calcium	70.3	87.8	49.7	34.6
Chromium	0.0014 U	0.0014 U	0.0014 U	0.0014 U
Cobalt	0.0013 U	0.0013 U	0.0013 U	0.0013 U
Iron	24.1	0.33	0.37	25.8
Magnesium	3 J	7.6	3.3 J	1.7 J
Manganese	0.16	0.069	0.022	0.066
Mercury	0.000069 U	0.000069 U	0.000069 U	0.000069 U
Nickel	0.0022 U	0.0027 J	0.0022 U	0.0022 U
Potassium	1.9 J	11	9.1	0.69 U
Sodium	8.4	13.9	17.6	3.2 J
Thallium	0.005 U	0.005 U	0.005 U	0.005 U
Vanadium	0.0026 J	0.0037 J	0.0012 J	0.00082 U
Zinc	0.012 U	0.013 J	0.012 U	0.012 U

NOTES:

U = not detected at detection limit

J = value is estimated

ug/L = micrograms per liter

mg/L = micrograms per liter

NA = Not analyzed

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Table B-1 Historical Groundwater Quality Data at Site Building 45 (Well MW2)

Sample Date	10/14/1998	1/4/1999	4/12/1999	7/12/1999	10/12/1999	2/1/2000	4/12/2000	7/18/2000	10/11/2000	1/31/2001	4/16/2001	7/17/2001	10/16/2001	1/16/2002	4/17/2002
Compound (ug/L) / Method	NCGWQS	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602
Benzene	1	100 / 130	100 / 130	100 / 1100	500 / 500	100 / 200	350 / 350	170 / 190	360 / 300	110 / 110	140 / 200	150 / 150	200 / 150	120 / 150	36 / 57
1,2-Dichlorobenzene	620	NR / NR	NR / NR	NR	NR	NR	NR / NR	NR / NR	NR	NR	NR / NR	NR / NR	NR	NR	NR
Ethylbenzene	29	53 / 29	ND / ND	100 / 610	120 / 110	350 / 400	100 / 130	31 / 36	290 / 180	61 / 59	78 / 82	100 / 64	13 / 20	4 / 4	3
Methyl Tert Butyl Ether	200	ND / ND	ND / ND	ND	ND	ND / ND	ND / ND	ND	ND	ND	ND / ND	ND / ND	3	8 / 8	3
Toluene	1000	ND / ND	56 / 50	37 / 590	100 / 92	81 / 49	ND / ND	ND / ND	60 / 40	9 / 30	12 / 12	13 / 14	31 / 32	3 / 7	2
Xylenes (total)	530	50 / 141	ND / ND	220 / 3700	90 / 73	150 / 78	ND / ND	63 / 69	635 / 500	24 / 36	171 / 161	41 / 43	240 / 95	11 / 16	ND
Compound (ug/L) / Method		EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610
Acenaphthene	80	ND / ND	ND / ND	ND	36 / 32	720 / 1500	110 / 99	1600 / ND	290 / 110	16 / 20	1200	ND / ND	ND	ND	ND
Acenaphthylene	210	ND / ND	ND / ND	ND	19	ND	ND / ND	ND / ND	ND	ND	ND	ND / ND	ND / ND	ND	ND
Anthracene	2100	ND / ND	17 / 22	ND	ND	ND	ND / ND	ND	ND	ND	ND	ND / ND	ND / ND	ND	29
Bis(2-Ethylhexyl)phthalate	3	NR / NR	NR / NR	NR	NR	NR	NR / NR	NR / NR	NR	NR	NR	NR / NR	NR / NR	NR	NR
Fluorene	280	71 / 76	14 / 13	90	66 / 59	ND / 2300	210 / 120	4700 / 1000	1000	35 / 44	3000 / 1500	14 / 12	120 / 800	72	17
Naphthalene	21	140 / 300	110 / 300	100 / 740	270 / 230	500 / 1500	110 / 150	5000 / 2200	3300 / 1500	83 / 110	8000 / 2400	60 / 30	540 / 1950	150	ND
1-Methylnaphthalene	RL	450 / 300	150 / 160	2500 / 12	175 / 350	12000 / 18000	1200 / 720	17000 / 9900	3200 / 1500	50 / 130	22000 / 11000	180 / 150	650 / 1700	210	41
2-Methylnaphthalene	14	370 / 370	60 / 37	3000 / 12	870 / 350	11000 / 18000	1000 / 500	5000 / 2500	2000 / 1000	180 / 220	17000 / 3000	50 / 150	900 / 2000	150	25
Phenanthrene	210	91 / 90	17 / 21	520	140 / 120	3100 / 1800	360 / 200	4900 / 2100	2000 / 1000	65 / 84	4400 / 2300	15 / 13	200 / 1400	140	ND
Pyrene	210	ND / ND	ND / ND	ND	20 / 15	ND / 890	55 / 27	ND / ND	ND	12 / 13	ND	ND / ND	ND / ND	ND	11

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

ND: Not Detected - compound not detected and reporting limit not specified in source document summary tables; NR: Not Reported - compound not reported in source document summary tables

ug/L: micrograms per liter

<#: not detected at the indicated reporting limit

J: estimated concentration less than reporting limit; B: compound detected in the sample and the laboratory blank; E: concentration exceeds the linear qualification range

Bold type indicates detectable concentrations.

Shaded cells indicate detectable concentration above the North Carolina Groundwater Quality Standards

Table B-1 Historical Groundwater Quality Data at Site Building 45 (Well MW3)

Sample Date	6/22/1998	7/17/1998	10/14/1998	1/14/1999	4/12/1999	7/12/1999	10/12/1999	2/1/2000	4/12/2000	7/18/2000	10/11/2000	1/31/2001	4/16/2001	7/17/2001	10/16/2001	1/16/2002	4/17/2002
Compound (ug/L) / Method	NCGWQS	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602
Benzene	1	14	17	59	61	390	59	13	17	23	17	21	28	44	150	11	13
1,2-Dichlorobenzene	620	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Ethylbenzene	29	7	8	ND	26	350	22	3	7	4	5	4	12	17	35	ND	1
Methyl Tert Butyl Ether	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1000	ND	ND	ND	ND	550	31	1	1	ND	2	2	13	16	7	ND	ND
Xylenes (total)	530	ND	8	ND	65	200	95	5	16	3	82	10	34	51	42	ND	ND
Compound (ug/L) / Method	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610
Acenaphthene	80	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	210	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	2100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-Ethylhexyl)phthalate	3	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Fluorene	280	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	21	ND	ND	ND	ND	350	13	ND	ND	ND	17	ND	ND	ND	ND	ND	ND
1-Methylnaphthalene	RL	ND	12	ND	ND	3500	28	ND	15	ND	7	14	ND	ND	ND	ND	ND
2-Methylnaphthalene	14	ND	11	ND	11	1000	42	ND	23	ND	15	15	ND	ND	ND	ND	ND
Phenanthrene	210	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	210	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

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

ND: Not Detected - compound not detected and reporting limit not specified in source document summary tables; NR: Not Reported - compound not reported in source document summary tables

ug/L: micrograms per liter

<#: not detected at the indicated reporting limit

J: estimated concentration less than reporting limit; B: compound detected in the sample and the laboratory blank; E: concentration exceeds the linear quantitation range

Bold type indicates detectable concentrations.

Shaded areas indicate concentration above the North Carolina Groundwater Quality Standards

B-1 Historical Groundwater Quality Data at Site Building 45 (Well MW5)

Sample Date		5/14/1998	6/22/1998	7/17/1998
Compound (ug/L) / Method	NCGWQS	EPA 602	EPA 602	EPA 602
Benzene	1	ND	ND	ND
1,2-Dichlorobenzene	620	NR	NR	NR
Ethylbenzene	29	ND	ND	ND
Methyl Tert Butyl Ether	200	ND	ND	ND
Toluene	1000	ND	ND	ND
Xylenes (total)	530	ND	ND	ND
Compound (ug/L) / Method		EPA 610	EPA 610	EPA 610
Acenaphthene	80	ND	ND	ND
Acenaphthylene	210	ND	ND	ND
Anthracene	2100	ND	ND	ND
Bis(2-Ethylhexyl)phthalate	3	NR	NR	NR
Fluorene	280	ND	ND	ND
Naphthalene	21	ND	ND	ND
1-Methylnaphthalene	RL	ND	ND	ND
2-Methylnaphthalene	14	ND	ND	ND
Phenanthrene	210	ND	ND	ND
Pyrene	210	ND	ND	ND

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

ND: Not Detected - compound not detected and reporting limit not specified in source document summary tables; NR: Not Reported - compound not reported in source document summary tables

ug/L : micrograms per liter

detected at the indicated reporting limit

J: estimated concentration less than reporting limit; B: compound detected in the sample and the laboratory blank; E: concentration exceeds the linear quantitation range

Bold type indicates detectable concentrations.

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

Table B-1 Historical Groundwater Quality Data at Site Building 45 (Well MW7)

Sample Date		7/14/2004	9/13/2004	12/21/2004	3/3/2005	6/14/2005
Compound (ug/L) / Method	NCGWQS	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602
Benzene	1	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	620	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	29	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl Tert Butyl Ether	200	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	1000	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	530	<3.0	<3.0	<3.0	<3.0	<3.0
Compound (ug/L) / Method		EPA 610	EPA 610	EPA 610	EPA 610	EPA 610
Acenaphthene	80	<4.8	<4.8	<4.8	<5.2	<4.8
Acenaphthylene	210	<4.8	<4.8	<4.8	<5.2	<4.8
Anthracene	2100	<4.8	<4.8	<4.8	<5.2	<4.8
Bis(2-Ethylhexyl)phthalate	3	NR	NR	NR	NR	NR
Fluorene	280	NR	NR	NR	NR	NR
Naphthalene	21	<4.8	<4.8	<4.8	<5.2	<4.8
1-Methylnaphthalene	RL	<4.8	<4.8	<4.8	<5.2	<4.8
2-Methylnaphthalene	14	<4.8	<4.8	<4.8	<5.2	<4.8
Phenanthrene	210	<4.8	<4.8	<4.8	<5.2	<4.8
Pyrene	210	<4.8	<4.8	<4.8	<5.2	<4.8

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

ND: Not Detected - compound not detected and reporting limit not specified in source document summary tables; NR: Not Reported - compound not reported in source document summary tables

ug/L: micrograms per liter

<#: not detected at the indicated reporting limit

J: estimated concentration less than reporting limit; B: compound detected in the sample and the laboratory blank; E: concentration exceeds the linear quantitation range

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

Table B-1 Historical Groundwater Quality Data at Site Building 45 (Well MW6)

Sample Date Compound (ug/L) / Method	NCGWQS	5/14/1998 EPA 602	6/22/1998 EPA 602	7/17/1998 EPA 602	10/14/1998 EPA 602	1/14/1999 EPA 602	4/12/1999 EPA 602	7/12/1999 EPA 602	10/12/1999 EPA 602	2/1/2000 EPA 602	4/12/2000 EPA 602	7/18/2000 EPA 602	10/11/2000 EPA 602	1/31/2001 EPA 602	4/16/2001 EPA 602	7/17/2001 EPA 602	10/16/2001 EPA 602	1/16/2002 EPA 602	4/17/2002 EPA 602
Benzene	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	620	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Ethylbenzene	29	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl Tert Butyl Ether	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (total)	530	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Compound (ug/L) / Method		EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610
Acenaphthene	80	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	210	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	2100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-Ethylhexyl)phthalate	3	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Fluorene	280	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1-Methylnaphthalene	RL	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	210	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	210	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Sample Date Compound (ug/L) / Method	NCGWQS	7/17/2002 EPA 602	3/21/2003 EPA 602	6/30/2003 EPA 602	9/29/2003 EPA 602	12/12/2003 EPA 602	3/8/2004 EPA 602	7/14/2004 EPA 602	9/22/2004 EPA 602	12/21/2004 EPA 602	3/4/2005 EPA 602	6/14/2005 EPA 602
Benzene	1	ND	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	620	NR	NR	NR	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	29	ND	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl Tert Butyl Ether	200	ND	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	1000	ND	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	530	ND	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Compound (ug/L) / Method		EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610
Acenaphthene	80	ND	<5.1	<5.1	<5.1	<5.0	<5.1	<4.9	<4.8	<4.8	<4.8	<5.2
Acenaphthylene	210	ND	<5.1	<5.1	<5.1	<5.0	<5.1	<4.9	<4.8	<4.8	<4.8	<5.2
Anthracene	2100	ND	<5.1	<5.1	<5.1	<5.0	<5.1	<4.9	<4.8	<4.8	<4.8	<5.2
Bis(2-Ethylhexyl)phthalate	3	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Fluorene	280	ND	<5.1	<5.1	<5.1	<5.0	<5.1	<4.9	<4.8	<4.8	<4.8	<5.2
Naphthalene	21	ND	<5.1	<5.1	<5.1	<5.0	<5.1	<4.9	<4.8	<4.8	<4.8	<5.2
1-Methylnaphthalene	RL	ND	NR	NR	<5.1	<5.0	<5.1	<4.9	<4.8	<4.8	<4.8	<5.2
2-Methylnaphthalene	14	ND	NR	NR	<5.1	<5.0	<5.1	<4.9	<4.8	<4.8	<4.8	<5.2
Phenanthrene	210	ND	<5.1	<5.1	<5.1	<5.0	<5.1	<4.9	<4.8	<4.8	<4.8	<5.2
Pyrene	210	ND	<5.1	<5.1	<5.1	<5.0	<5.1	<4.9	<4.8	<4.8	<4.8	<5.2

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

ND: Not Detected - compound not detected and reporting limit not specified in source document summary tables; NR: Not Reported - compound not reported in source document summary tables

ug/L: micrograms per liter

<R: not detected at the indicated reporting limit

J: estimated concentration less than reporting limit; B: compound detected in the sample and the laboratory blank; E: concentration exceeds the linear qualification range

Bold type indicates detectable concentrations.

Shaded areas indicate detectable concentration above the North Carolina Groundwater Quality Standards

Table B-1 Historical Groundwater Quality Data at Site Building 45 (Well MW9)

Sample Date	NCGWQS	10/14/1998 EPA 602	1/14/1999 EPA 602	4/12/1999 EPA 602	7/12/1999 EPA 602	10/12/1999 EPA 602	2/1/2000 EPA 602	4/12/2000 EPA 602	7/18/2000 EPA 602	10/11/2000 EPA 602	1/31/2001 EPA 602	4/16/2001 EPA 602	7/17/2001 EPA 602	10/16/2001 EPA 602	1/15/2002 EPA 602	4/17/2002 EPA 602	7/17/2002 EPA 602	3/21/2003 EPA 602	6/30/2003 EPA 602
Compound (ug/L) / Method																			
Benzene	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	620	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Ethylbenzene	29	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	ND	0.65 J	0.7
Methyl Tert Butyl Ether	200	16	45	45	45	5	6	7	17	28	15	11	4	7	9	10	12	18.8	16.7
Toluene	1000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0
Xylenes (total)	530	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<3.0	<3.0
Compound (ug/L) / Method		EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610
Acenaphthene	80	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	NR	NR	NR	<5.1	<5.1
Acenaphthylene	210	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	NR	NR	NR	<5.1	<5.1
Anthracene	2100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	NR	NR	NR	<5.1	<5.1
Bis(2-Ethylhexyl)phthalate	3	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Fluorene	280	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	NR	NR	NR	<5.1	<5.1
Naphthalene	21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	13	10	10	10	<5.1	<5.1
1-Methylnaphthalene	RL	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10	10	10	NR	NR
2-Methylnaphthalene	14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	12	12	12	NR	NR
Phenanthrene	210	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	NR	NR	NR	<5.1	<5.1
Pyrene	210	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	NR	NR	NR	<5.1	<5.1

Sample Date	NCGWQS	9/29/2003 EPA 602	12/15/2003 EPA 602	4/29/2004 EPA 602	7/14/2004 EPA 602	9/13/2004 EPA 602	12/21/2004 EPA 602	3/3/2005 EPA 602	6/14/2005 EPA 602
Compound (ug/L) / Method									
Benzene	1	16.6	16.4	12.4	4.1 / 6.9	4.2 / 6.9	6.7	8.5	4.6 / 14.5
1,2-Dichlorobenzene	620	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 / <1.0	<1.0
Ethylbenzene	29	0.72 J	0.78 J	2	<1.0	<1.0	<1.0	<1.0 / <1.0	<1.0
Methyl Tert Butyl Ether	200	15.2	17	22.7	21.7 / 22	20.2 / 21	21.6	20.2 / 20.2	13.9 / 13.5
Toluene	1000	<1.0	<1.0	0.57 J	<1.0	<1.0	<1.0	<1.0 / <1.0	<1.0
Xylenes (total)	530	<3.0	<3.0	3.3	<3.0	<3.0	<3.0	<3.0 / <3.0	<3.0
Compound (ug/L) / Method		EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610
Acenaphthene	80	<5.0	<5.0	<5.0	<4.8	<4.8	<4.8	<5.0 / <4.9	<5.1
Acenaphthylene	210	<5.0	<5.0	<5.0	<4.8	<4.8	<4.8	<5.0 / <4.9	<5.1
Anthracene	2100	<5.0	<5.0	<5.0	<4.8	<4.8	<4.8	<5.0 / <4.9	<5.1
Bis(2-Ethylhexyl)phthalate	3	NR	NR	NR	NR	NR	NR	NR / NR	NR
Fluorene	280	<5.0	<5.0	<5.0	<4.8	<4.8	<4.8	<5.0 / <4.9	<5.1
Naphthalene	21	<5.0	<5.0	<5.0	<4.8	<4.8	<4.8	<5.0 / <4.9	<5.1
1-Methylnaphthalene	RL	<5.0	<5.0	<5.0	<4.8	<4.8	<4.8	<5.0 / <4.9	<5.1
2-Methylnaphthalene	14	<5.0	<5.0	<5.0	<4.8	<4.8	<4.8	<5.0 / <4.9	<5.1
Phenanthrene	210	<5.0	<5.0	<5.0	<4.8	<4.8	<4.8	<5.0 / <4.9	<5.1
Pyrene	210	<5.0	<5.0	<5.0	<4.8	<4.8	<4.8	<5.0 / <4.9	<5.1

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

ND: Not Detected - compound not detected and reporting limit not specified in source document summary tables; NR: Not Reported - compound not reported in source document summary tables

ug/L: micrograms per liter

<#: not detected at the indicated reporting limit

J: estimated concentration less than reporting limit; B: compound detected in the sample and the laboratory blank; E: concentration exceeds the linear quantitation range

Bold type indicates detectable concentrations.

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

Table B-1 Historical Groundwater Quality Data at Site Building 45 (Well MW10)

Sample Date Compound (ug/L) / Method	NCGWQS	5/14/1998 EPA 602	6/22/1998 EPA 602	7/17/1998 EPA 602	10/14/1998 EPA 602	1/14/1999 EPA 602	4/12/1999 EPA 602	7/12/1999 EPA 602	10/12/1999 EPA 602	2/1/2000 EPA 602	4/12/2000 EPA 602	7/18/2000 EPA 602	10/11/2000 EPA 602	1/31/2001 EPA 602	4/16/2001 EPA 602	7/17/2001 EPA 602	10/16/2001 EPA 602	1/16/2002 EPA 602	4/17/2002 EPA 602
Benzene	1	ND	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	820	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Ethylbenzene	29	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl Tert Butyl Ether	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (total)	530	ND	ND	ND	ND	ND	ND	ND	ND	ND	4	ND	ND	ND	ND	ND	ND	ND	ND
Compound (ug/L) / Method		EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610
Acenaphthene	80	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	210	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	2100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-Ethylhexyl)phthalate	3	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Fluorene	280	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1-Methylnaphthalene	RL	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	210	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	210	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

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

ND: Not Detected - compound not detected and reporting limit not specified in source document summary tables; NR: Not Reported - compound not reported in source document summary tables

ug/L: micrograms per liter

<R: not detected at the indicated reporting limit

J: estimated concentration less than reporting limit; B: compound detected in the sample and the laboratory blank; E: concentration exceeds the linear quantitation range

Bold type indicates detectable concentrations.

ND: Not Detected - compound not detected and reporting limit not specified in source document summary tables

Table B-1 Historical Groundwater Quality Data at Site Building 45 (Well MW12)

Sample Date		4/14/1998	5/14/1998	6/22/1998	7/17/1998
Compound (ug/L) / Method	NCGWQS	EPA 602	EPA 602	EPA 602	EPA 602
Benzene	1	ND	ND	ND	ND
1,2-Dichlorobenzene	620	NR	NR	NR	NR
Ethylbenzene	29	ND	ND	ND	ND
Methyl Tert Butyl Ether	200	ND	ND	ND	ND
Toluene	1000	ND	ND	ND	ND
Xylenes (total)	530	ND	ND	ND	ND
Compound (ug/L) / Method		EPA 610	EPA 610	EPA 610	EPA 610
Acenaphthene	80	ND	ND	ND	ND
Acenaphthylene	210	ND	ND	ND	ND
Anthracene	2100	ND	ND	ND	ND
Bis(2-Ethylhexyl)phthalate	3	NR	NR	NR	NR
Fluorene	280	ND	ND	ND	ND
Naphthalene	21	ND	ND	ND	ND
1-Methylnaphthalene	RL	ND	ND	ND	ND
2-Methylnaphthalene	14	ND	ND	ND	ND
Phenanthrene	210	ND	ND	ND	ND
Pyrene	210	ND	ND	ND	ND

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

ND: Not Detected - compound not detected and reporting limit not specified in source document summary tables; NR: Not Reported - compound not reported in source document summary tables

ug/L: micrograms per liter

Not detected at the indicated reporting limit

Shaded area indicates concentration less than reporting limit; B: compound detected in the sample and the laboratory blank; E: concentration exceeds the linear quantitation range

Bold type indicates detectable concentrations.

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

Table B-1 Historical Groundwater Quality Data at Site Building 45 (Well MW13)

Sample Date		5/14/1998	6/22/1998	7/12/1999	10/12/1999	2/1/2000	4/12/2000	7/18/2000	10/11/2000	1/31/2001	4/16/2001	7/17/2001	10/16/2001	1/16/2002	4/17/2002	7/17/2002	3/21/2003	6/30/2003	9/30/2003
Compound (ug/L) / Method	NCGWQS	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602
Benzene	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	620	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	<1.0	<1.0	<1.0
Ethylbenzene	29	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0
Methyl Tert Butyl Ether	200	ND	ND	ND	8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0
Toluene	1000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0
Xylenes (total)	530	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<3.0	<3.0	<3.0
Compound (ug/L) / Method		EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610
Acenaphthene	80	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<5.1	<5.1	<5.0
Acenaphthylene	210	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<5.1	<5.1	<5.0
Anthracene	2100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<5.1	<5.1	<5.0
Bis(2-Ethylhexyl)phthalate	3	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Fluorene	280	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<5.1	<5.1	<5.0
Naphthalene	21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<5.1	<5.1	<5.0
1-Methylnaphthalene	RL	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	NR	<5.0
2-Methylnaphthalene	14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	NR	<5.0
Phenanthrene	210	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<5.1	<5.1	<5.0
Pyrene	210	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<5.1	<5.1	<5.0

Sample Date		12/12/2003	3/8/2004	7/15/2004	9/22/2004	12/29/2004	3/3/2005	6/14/2005
Compound (ug/L) / Method	NCGWQS	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602
Benzene	1	<1.0	<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	<1.0	<1.0
Ethylbenzene	29	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl Tert Butyl Ether	200	<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
Xylenes (total)	530	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Compound (ug/L) / Method		EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610
Acenaphthene	80	<5.0	<5.1	<4.8	<4.8	<5.2	<5.0	<5.0
Acenaphthylene	210	<5.0	<5.1	<4.8	<4.8	<5.2	<5.0	<5.0
Anthracene	2100	<5.0	<5.1	<4.8	<4.8	<5.2	<5.0	<5.0
Bis(2-Ethylhexyl)phthalate	3	NR	NR	NR	NR	NR	NR	NR
Fluorene	280	<5.0	<5.1	<4.8	<4.8	<5.2	<5.0	<5.0
Naphthalene	21	<5.0	<5.1	<4.8	<4.8	<5.2	<5.0	<5.0
1-Methylnaphthalene	RL	<5.0	<5.1	<4.8	<4.8	<5.2	<5.0	<5.0
2-Methylnaphthalene	14	<5.0	<5.1	<4.8	<4.8	<5.2	<5.0	<5.0
Phenanthrene	210	<5.0	<5.1	<4.8	<4.8	<5.2	<5.0	<5.0
Pyrene	210	<5.0	<5.1	<4.8	<4.8	<5.2	<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

ND: Not Detected - compound not detected and reporting limit not specified in source document summary tables; NR: Not Reported - compound not reported in source document summary tables

ug/L: micrograms per liter

<R: not detected at the indicated reporting limit

J: estimated concentration less than reporting limit; B: compound detected in the sample and the laboratory blank; E: concentration exceeds the linear quantitation range

Bold type indicates detectable concentrations.

Shaded areas indicate a detectable concentration above the North Carolina Groundwater Quality Standards

Table B-1 Historical Groundwater Quality Data at Site Building 45 (Well MW14)

Sample Date Compound (ug/L) / Method	NCGWQS	5/14/1998 EPA 602	6/22/1998 EPA 602	7/17/1998 EPA 602	10/14/1998 EPA 602	1/14/1999 EPA 602	4/12/1999 EPA 602	7/12/1999 EPA 602	10/12/1999 EPA 602	2/1/2000 EPA 602	4/12/2000 EPA 602	7/16/2000 EPA 602	10/11/2000 EPA 602	1/31/2001 EPA 602	4/16/2001 EPA 602	7/17/2001 EPA 602	4/17/2002 EPA 602	7/17/2002 EPA 602	3/21/2003 EPA 602
Benzene	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0
1,2-Dichlorobenzene	620	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Ethylbenzene	29	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.5
Methyl Tert Butyl Ether	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0
Toluene	1000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0
Xylenes (total)	530	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.5
Compound (ug/L) / Method		EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610
Acenaphthene	80	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<5.1
Acenaphthylene	210	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<5.1
Anthracene	2100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<5.1
Bis(2-Ethylhexyl)phthalate	3	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Fluorene	280	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<5.1
Naphthalene	21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<5.1
1-Methylnaphthalene	RL	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR
2-Methylnaphthalene	14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR
Phenanthrene	210	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<5.1
Pyrene	210	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<5.1

Sample Date Compound (ug/L) / Method	NCGWQS	6/30/2003 EPA 602	9/30/2003 EPA 602	12/15/2003 EPA 602	3/9/2004 EPA 602	7/15/2004 EPA 602	9/13/2004 EPA 602	12/20/2004 EPA 602	3/3/2005 EPA 602	6/14/2005 EPA 602
Benzene	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	620	NR	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	29	1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl Tert Butyl Ether	200	<1.0	<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	<1.0
Xylenes (total)	530	3.5	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Compound (ug/L) / Method		EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610
Acenaphthene	80	<5.1	<5.0	<5.0	<5.1	<4.9	<4.8	<5.5	<4.8	<5.0
Acenaphthylene	210	<5.1	<5.0	<5.0	<5.1	<4.9	<4.8	<5.5	<4.8	<5.0
Anthracene	2100	<5.1	<5.0	<5.0	<5.1	<4.9	<4.8	<5.5	<4.8	<5.0
Bis(2-Ethylhexyl)phthalate	3	NR	NR	NR	NR	NR	NR	NR	NR	NR
Fluorene	280	<5.1	<5.0	<5.0	<5.1	<4.9	<4.8	<5.5	<4.8	<5.0
Naphthalene	21	<5.1	<5.0	<5.0	<5.1	<4.9	<4.8	<5.5	<4.8	<5.0
1-Methylnaphthalene	RL	NR	<5.0	<5.0	<5.1	<4.9	<4.8	<5.5	<4.8	<5.0
2-Methylnaphthalene	14	NR	<5.0	<5.0	<5.1	<4.9	<4.8	<5.5	<4.8	<5.0
Phenanthrene	210	<5.1	<5.0	<5.0	<5.1	<4.9	<4.8	<5.5	<4.8	<5.0
Pyrene	210	<5.1	<5.0	<5.0	<5.1	<4.9	<4.8	<5.5	<4.8	<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

ND: Not Detected - compound not detected and reporting limit not specified in source document summary tables; NR: Not Reported - compound not reported in source document summary tables

ug/L: micrograms per liter

<#: not detected at the indicated reporting limit

J: estimated concentration less than reporting limit; B: compound detected in the sample and the laboratory blank; E: concentration exceeds the linear qualification range

Bold type indicates detectable concentrations.

Shaded area indicates concentration above the North Carolina Groundwater Quality Standards

Table B-1 Historical Groundwater Quality Data at Site Building 45 (Well MW15)

Sample Date	NCGWQS	5/14/1998	6/22/1998	7/17/1998	10/14/1998	1/14/1999	4/12/1999	7/28/1999	10/12/1999	3/7/2000	4/12/2000	7/18/2000	10/11/2000	1/31/2001	4/16/2001	7/17/2001	10/16/2001	11/5/2001	1/16/2002
Compound (ug/L) / Method		EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602
Benzene	1	2000 / 2000	1500 / 2000	1500 / 1500	1600	1500	170	890	1800	130	160	61	2	2	2	ND	ND	NR	ND
1,2-Dichlorobenzene	620	NR / NR	NR / NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Ethylbenzene	29	520 / 970	870 / 970	920 / 960	60	570	180	420	1000	180	250	25	ND	ND	2	ND	2	NR	5
Methyl Tert Butyl Ether	200	ND / ND	ND / ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND
Toluene	1000	1100 / 1700	1100 / 1700	870 / 1770	ND	ND	220	480	2200	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND
Xylenes (total)	530	3550 / 3580	4010 / 3680	4300 / 4210	3730	4400	800	3200	2410	100	140	ND	ND	ND	ND	ND	ND	NR	ND
Compound (ug/L) / Method		EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610
Acenaphthene	80	ND / ND	ND / ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
Acenaphthylene	210	ND / ND	ND / ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
Anthracene	2100	ND / ND	ND / ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
Bis(2-Ethylhexyl)phthalate	3	NR / NR	NR / NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Fluorene	280	ND / ND	ND / ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
Naphthalene	21	27 / 14	31 / 14	45 / 20	67	65	85	120	21	21	28	ND	ND	ND	ND	NR	ND	ND	ND
1-Methylnaphthalene	RL	ND / ND	ND / ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
2-Methylnaphthalene	14	ND / ND	ND / ND	ND	ND	75	14	12	25	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
Phenanthrene	210	ND / ND	ND / ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
Pyrene	210	ND / ND	ND / ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND

Sample Date	NCGWQS	4/17/2002	7/17/2002	3/21/2003	5/30/2003	9/30/2003	12/15/2003	3/9/2004	7/15/2004	9/22/2004	12/20/2004	3/3/2005	6/14/2005
Compound (ug/L) / Method		EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602
Benzene	1	NR	ND	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	620	NR	NR	NR	NR	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	29	ND	ND	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl Tert Butyl Ether	200	ND	ND	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	1000	ND	ND	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	530	ND	ND	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Compound (ug/L) / Method		EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610
Acenaphthene	80	ND	ND	<5.1	<5.1	<5.0	<5.0	<5.2	<5.1	<4.8	<4.8	<5.4	<5.0
Acenaphthylene	210	ND	ND	<5.1	<5.1	<5.0	<5.0	<5.2	<5.1	<4.8	<4.8	<5.4	<5.0
Anthracene	2100	ND	ND	<5.1	<5.1	<5.0	<5.0	<5.2	<5.1	<4.8	<4.8	<5.4	<5.0
Bis(2-Ethylhexyl)phthalate	3	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Fluorene	280	ND	ND	<5.1	<5.1	<5.0	<5.0	<5.2	<5.1	<4.8	<4.8	<5.4	<5.0
Naphthalene	21	ND	ND	<5.1	<5.1	<5.0	<5.0	<5.2	<5.1	<4.8	<4.8	<5.4	<5.0
1-Methylnaphthalene	RL	ND	ND	NR	NR	<5.0	<5.0	<5.2	<5.1	<4.8	<4.8	<5.4	<5.0
2-Methylnaphthalene	14	ND	ND	NR	NR	<5.0	<5.0	<5.2	<5.1	<4.8	<4.8	<5.4	<5.0
Phenanthrene	210	ND	ND	<5.1	<5.1	<5.0	<5.0	<5.2	<5.1	<4.8	<4.8	<5.4	<5.0
Pyrene	210	ND	ND	<5.1	<5.1	<5.0	<5.0	<5.2	<5.1	<4.8	<4.8	<5.4	<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

ND: Not Detected - compound not detected and reporting limit not specified in source document summary tables; NR: Not Reported - compound not reported in source document summary tables

ug/L: micrograms per liter

<#: not detected at the indicated reporting limit

J: estimated concentration less than reporting limit; B: compound detected in the sample and the laboratory blank; E: concentration exceeds the linear quantitation range

Bold type indicates detectable concentrations.

Shaded cells indicate concentration above the North Carolina Groundwater Quality Standards

Table B-1 Historical Groundwater Quality Data at Site Building 45 (Well MW16)

Sample Date	NCGWQS	4/14/1998 EPA 602	5/14/1998 EPA 602	7/17/1998 EPA 602	10/14/1998 EPA 602	1/14/1999 EPA 602	4/12/1999 EPA 602	7/12/1999 EPA 602	10/12/1999 EPA 602	3/7/2000 EPA 602	4/12/2000 EPA 602	7/18/2000 EPA 602	10/11/2000 EPA 602	1/31/2001 EPA 602	4/16/2001 EPA 602	7/17/2001 EPA 602	10/16/2001 EPA 602	11/5/2001 EPA 602	1/16/2002 EPA 602
Compound (ug/L) / Method																			
Benzene	1	1490	ND	ND	ND	ND	ND	ND	NR	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND
1,2-Dichlorobenzene	620	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Ethylbenzene	29	810	ND	ND	ND	ND	ND	ND	NR	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND
Methyl Tert Butyl Ether	200	ND	3	ND	ND	ND	ND	ND	NR	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND
Toluene	1000	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND
Xylenes (total)	530	2200	ND	ND	ND	ND	ND	ND	NR	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND
Compound (ug/L) / Method		EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610
Acenaphthene	80	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
Acenaphthylene	210	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
Anthracene	2100	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
Bis(2-Ethylhexyl)phthalate	3	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Fluorene	280	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
Naphthalene	21	30	ND	ND	ND	ND	ND	ND	NR	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
1-Methylnaphthalene	RL	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
2-Methylnaphthalene	14	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
Phenanthrene	210	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
Pyrene	210	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND

Sample Date	NCGWQS	4/17/2002 EPA 602	7/17/2002 EPA 602	3/21/2003 EPA 602	6/30/2003 EPA 602	9/30/2003 EPA 602
Compound (ug/L) / Method						
Benzene	1	ND	ND	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	620	NR	NR	NR	NR	<1.0
Ethylbenzene	29	ND	ND	<1.0	<1.0	<1.0
Methyl Tert Butyl Ether	200	ND	ND	<1.0	<1.0	<1.0
Toluene	1000	ND	ND	<1.0	<1.0	<1.0
Xylenes (total)	530	ND	ND	<3.0	<3.0	<3.0
Compound (ug/L) / Method		EPA 610	EPA 610	EPA 610	EPA 610	EPA 610
Acenaphthene	80	ND	ND	<5.1	<5.1	<5.0
Acenaphthylene	210	ND	ND	<5.1	<5.1	<5.0
Anthracene	2100	ND	ND	<5.1	<5.1	<5.0
Bis(2-Ethylhexyl)phthalate	3	NR	NR	NR	NR	NR
Fluorene	280	ND	ND	<5.1	<5.1	<5.0
Naphthalene	21	ND	ND	<5.1	<5.1	<5.0
1-Methylnaphthalene	RL	ND	ND	NR	NR	<5.0
2-Methylnaphthalene	14	ND	ND	NR	NR	<5.0
Phenanthrene	210	ND	ND	<5.1	<5.1	<5.0
Pyrene	210	ND	ND	<5.1	<5.1	<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

ND: Not Detected - compound not detected and reporting limit not specified in source document summary tables; NR: Not Reported - compound not reported in source document summary tables

ug/L: micrograms per liter

<R: not detected at the indicated reporting limit

J: estimated concentration less than reporting limit; S: compound detected in the sample and the laboratory blank; E: concentration exceeds the linear qualification range

Bold type indicates detectable concentrations.

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

Table B-1 Historical Groundwater Quality Data at Site Building 45 (Well MW17)

Sample Date	Compound (ug/L) / Method	4/14/1998	5/14/1998	5/22/1998	7/17/1998	10/14/1998	1/14/1999	4/12/1999	7/12/1999	10/12/1999	2/1/2000	4/12/2000	7/18/2000	10/11/2000	1/31/2001	4/16/2001	7/17/2001	10/16/2001	11/5/2001
Compound (ug/L) / Method	NCGWQS	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602
Benzene	1	ND	ND	ND	ND	ND	ND	ND	NR	NR	ND	ND	ND	ND	ND	ND	ND	ND	NR
1,2-Dichlorobenzene	620	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Ethylbenzene	29	ND	ND	ND	ND	ND	ND	ND	NR	NR	ND	ND	ND	ND	ND	ND	ND	ND	NR
Methyl Tert Butyl Ether	200	ND	ND	ND	ND	ND	ND	ND	NR	NR	ND	ND	ND	ND	ND	ND	ND	ND	NR
Toluene	1000	ND	ND	ND	ND	ND	ND	ND	NR	NR	ND	ND	ND	ND	ND	ND	ND	ND	NR
Xylenes (total)	530	ND	ND	ND	ND	ND	ND	ND	NR	NR	ND	ND	ND	ND	ND	ND	ND	ND	NR
Compound (ug/L) / Method		EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610
Acenaphthene	80	ND	ND	ND	ND	ND	ND	ND	NR	NR	ND	ND	ND	ND	ND	ND	ND	NR	ND
Acenaphthylene	210	ND	ND	ND	ND	ND	ND	ND	NR	NR	ND	ND	ND	ND	ND	ND	ND	NR	ND
Anthracene	2100	ND	ND	ND	ND	ND	ND	ND	NR	NR	ND	ND	ND	ND	ND	ND	ND	NR	ND
Bis(2-Ethylhexyl)phthalate	3	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Fluorene	280	ND	ND	ND	ND	ND	ND	ND	NR	NR	ND	ND	ND	ND	ND	ND	ND	NR	ND
Naphthalene	21	ND	ND	ND	ND	ND	ND	ND	NR	NR	ND	ND	ND	ND	ND	ND	ND	NR	ND
1-Methylnaphthalene	RL	ND	ND	ND	ND	ND	ND	ND	NR	NR	ND	ND	ND	ND	ND	ND	ND	NR	ND
2-Methylnaphthalene	14	ND	ND	ND	ND	ND	ND	ND	NR	NR	ND	ND	ND	ND	ND	ND	ND	NR	ND
Phenanthrene	210	ND	ND	ND	ND	ND	ND	ND	NR	NR	ND	ND	ND	ND	ND	ND	ND	NR	ND
Pyrene	210	ND	ND	ND	ND	ND	ND	ND	NR	NR	ND	ND	ND	ND	ND	ND	ND	NR	ND

Sample Date	Compound (ug/L) / Method	1/16/2002	4/17/2002	7/17/2002	3/21/2003	6/30/2003	9/29/2003	12/12/2003	3/9/2004	7/14/2004	9/13/2004	12/21/2004	3/3/2005	6/14/2005
Compound (ug/L) / Method	NCGWQS	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602
Benzene	1	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	620	NR	NR	NR	NR	NR	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	29	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl Tert Butyl Ether	200	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	1000	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	530	ND	ND	ND	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Compound (ug/L) / Method		EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610
Acenaphthene	80	ND	ND	ND	<5.1	<5.2	<5.0	<5.1	<5.0	<4.8	<5.1	<4.8	<4.8	<4.8
Acenaphthylene	210	ND	ND	ND	<5.1	<5.2	<5.0	<5.1	<5.0	<4.8	<5.1	<4.8	<4.8	<4.8
Anthracene	2100	ND	ND	ND	<5.1	<5.2	<5.0	<5.1	<5.0	<4.8	<5.1	<4.8	<4.8	<4.8
Bis(2-Ethylhexyl)phthalate	3	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Fluorene	280	ND	ND	ND	<5.1	<5.2	<5.0	<5.1	<5.0	<4.8	<5.1	<4.8	<4.8	<4.8
Naphthalene	21	ND	ND	ND	<5.1	<5.2	<5.0	<5.1	<5.0	<4.8	<5.1	<4.8	<4.8	<4.8
1-Methylnaphthalene	RL	ND	ND	ND	NR	NR	<5.0	<5.1	<5.0	<4.8	<5.1	<4.8	<4.8	<4.8
2-Methylnaphthalene	14	ND	ND	ND	NR	NR	<5.0	<5.1	<5.0	<4.8	<5.1	<4.8	<4.8	<4.8
Phenanthrene	210	ND	ND	ND	<5.1	<5.2	<5.0	<5.1	<5.0	<4.8	<5.1	<4.8	<4.8	<4.8
Pyrene	210	ND	ND	ND	<5.1	<5.2	<5.0	<5.1	<5.0	<4.8	<5.1	<4.8	<4.8	<4.8

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

ND: Not Detected - compound not detected and reporting limit not specified in source document summary tables; NR: Not Reported - compound not reported in source document summary tables

ug/L: micrograms per liter

<#: not detected at the indicated reporting limit

J: estimated concentration less than reporting limit; B: compound detected in the sample and the laboratory blank; E: concentration exceeds the linear quantitation range

Bold type indicates detectable concentrations.

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

Table B-1 Historical Groundwater Quality Data at Site Building 45 (Well MW18)

Sample Date Compound (ug/L) / Method	NCGWQS	5/14/1998 EPA 602	6/22/1998 EPA 602	7/17/1998 EPA 602	10/14/1998 EPA 602	1/14/1999 EPA 602	4/12/1999 EPA 602	7/12/1999 EPA 602	10/12/1999 EPA 602	3/7/2000 EPA 602	4/12/2000 EPA 602	7/18/2000 EPA 602	10/11/2000 EPA 602	1/31/2001 EPA 602	4/16/2001 EPA 602	7/17/2001 EPA 602	10/16/2001 EPA 602	11/5/2001 EPA 602	1/15/2002 EPA 602
Benzene	1	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND
1,2-Dichlorobenzene	620	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Ethylbenzene	29	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND
Methyl Tert Butyl Ether	200	ND	20	20	16	15	10	14	NR	5	8	6	4	5	5	5	5	NR	5
Toluene	1000	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND
Xylenes (total)	530	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND
Compound (ug/L) / Method		EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610
Acenaphthene	80	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
Acenaphthylene	210	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
Anthracene	2100	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
Bis(2-Ethylhexyl)phthalate	3	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Fluorene	280	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
Naphthalene	21	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
1-Methylnaphthalene	RL	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
2-Methylnaphthalene	14	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
Phenanthrene	210	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND	ND	ND	ND	ND	ND	NR	ND	18
Pyrene	210	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND	ND	ND	ND	ND	ND	NR	ND	21

Sample Date Compound (ug/L) / Method	NCGWQS	4/17/2002 EPA 602	7/17/2002 EPA 602	3/21/2003 EPA 602	6/30/2003 EPA 602	9/30/2003 EPA 602	12/12/2003 EPA 602	3/8/2004 EPA 602	7/15/2004 EPA 602	9/22/2004 EPA 602	12/20/2004 EPA 602	3/4/2005 EPA 602	6/14/2005 EPA 602
Benzene	1	ND	ND	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	620	NR	NR	NR	NR	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	29	ND	ND	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl Tert Butyl Ether	200	7	7	0.58 J	0.7 J	<1.0	<1.0	<1.0	0.8 J	1.1	1.1	1.1	1
Toluene	1000	ND	ND	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	530	ND	ND	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Compound (ug/L) / Method		EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610
Acenaphthene	80	ND	ND	<5.1	<5.1	<5.1	<5.0	<5.1	<4.9	<4.8	<5.6	<5.6	<5.0
Acenaphthylene	210	ND	ND	<5.1	<5.1	<5.1	<5.0	<5.1	<4.9	<4.8	<5.6	<5.6	<5.0
Anthracene	2100	ND	ND	<5.1	<5.1	<5.1	<5.0	<5.1	<4.9	<4.8	<5.6	<5.6	<5.0
Bis(2-Ethylhexyl)phthalate	3	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Fluorene	280	ND	ND	<5.1	<5.1	<5.1	<5.0	<5.1	<4.9	<4.8	<5.6	<5.6	<5.0
Naphthalene	21	ND	ND	<5.1	<5.1	<5.1	<5.0	<5.1	<4.9	<4.8	<5.6	<5.6	<5.0
1-Methylnaphthalene	RL	ND	ND	NR	NR	<5.1	<5.0	<5.1	<4.9	<4.8	<5.6	<5.6	<5.0
2-Methylnaphthalene	14	ND	ND	NR	NR	<5.1	<5.0	<5.1	<4.9	<4.8	<5.6	<5.6	<5.0
Phenanthrene	210	ND	ND	<5.1	<5.1	<5.1	<5.0	<5.1	<4.9	<4.8	<5.6	<5.6	<5.0
Pyrene	210	ND	ND	<5.1	<5.1	<5.1	<5.0	<5.1	<4.9	<4.8	<5.6	<5.6	<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

ND: Not Detected - compound not detected and reporting limit not specified in source document summary tables; NR: Not Reported - compound not reported in source document summary tables

ug/L: micrograms per liter

<#: not detected at the indicated reporting limit

J: estimated concentration less than reporting limit; B: compound detected in the sample and the laboratory blank; E: concentration exceeds the linear quantitation range

Bold type indicates detectable concentrations.

ND, NR, and E are not concentrations above the North Carolina Groundwater Quality Standards

Table B-1 Historical Groundwater Quality Data at Site Building 45 (Well MW19)

Sample Date	NCGWQS	5/14/1998 EPA 602	5/22/1998 EPA 602	7/17/1998 EPA 602	10/14/1998 EPA 602	1/14/1999 EPA 602	4/12/1999 EPA 602	7/12/1999 EPA 602	10/12/1999 EPA 602	2/1/2000 EPA 602	4/12/2000 EPA 602	7/18/2000 EPA 602	10/11/2000 EPA 602	1/31/2001 EPA 602	4/16/2001 EPA 602	7/17/2001 EPA 602	10/16/2001 EPA 602	11/5/2001 EPA 602	1/16/2002 EPA 602
Compound (ug/L) / Method																			
Benzene	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND
1,2-Dichlorobenzene	620	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Ethylbenzene	29	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND
Methyl Tert Butyl Ether	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND
Toluene	1000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND
Xylenes (total)	530	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND
Compound (ug/L) / Method		EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610
Acenaphthene	80	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
Acenaphthylene	210	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
Anthracene	2100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
Bis(2-Ethylhexyl)phthalate	3	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Fluorene	280	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
Naphthalene	21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
1-Methylnaphthalene	RL	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
2-Methylnaphthalene	14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
Phenanthrene	210	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
Pyrene	210	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND

Sample Date	NCGWQS	4/17/2002 EPA 602	7/17/2002 EPA 602	3/21/2003 EPA 602	6/30/2003 EPA 602	9/30/2003 EPA 602	12/12/2003 EPA 602	3/8/2004 EPA 602	7/15/2004 EPA 602	9/13/2004 EPA 602	12/29/2004 EPA 602	3/3/2005 EPA 602	6/14/2005 EPA 602
Compound (ug/L) / Method													
Benzene	1	ND	ND	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	620	NR	NR	NR	NR	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	29	ND	ND	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl Tert Butyl Ether	200	ND	ND	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	1000	ND	ND	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	530	ND	ND	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Compound (ug/L) / Method		EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610
Acenaphthene	80	ND	ND	<5.1	<5.1	<5.0	<5.3	<5.1	<4.8	<4.8	<5.9	<4.8	<5.1
Acenaphthylene	210	ND	ND	<5.1	<5.1	<5.0	<5.3	<5.1	<4.8	<4.8	<5.9	<4.8	<5.1
Anthracene	2100	ND	ND	<5.1	<5.1	<5.0	<5.3	<5.1	<4.8	<4.8	<5.9	<4.8	<5.1
Bis(2-Ethylhexyl)phthalate	3	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Fluorene	280	ND	ND	<5.1	<5.1	<5.0	<5.3	<5.1	<4.8	<4.8	<5.9	<4.8	<5.1
Naphthalene	21	ND	ND	<5.1	<5.1	<5.0	<5.3	<5.1	<4.8	<4.8	<5.9	<4.8	<5.1
1-Methylnaphthalene	RL	ND	ND	NR	NR	<5.0	<5.3	<5.1	<4.8	<4.8	<5.9	<4.8	<5.1
2-Methylnaphthalene	14	ND	ND	NR	NR	<5.0	<5.3	<5.1	<4.8	<4.8	<5.9	<4.8	<5.1
Phenanthrene	210	ND	ND	<5.1	<5.1	<5.0	<5.3	<5.1	<4.8	<4.8	<5.9	<4.8	<5.1
Pyrene	210	ND	ND	<5.1	<5.1	<5.0	<5.3	<5.1	<4.8	<4.8	<5.9	<4.8	<5.1

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

ND: Not Detected - compound not detected and reporting limit not specified in source document summary tables; NR: Not Reported - compound not reported in source document summary tables

ug/L: micrograms per liter

<E: not detected at the indicated reporting limit

J: estimated concentration less than reporting limit; B: compound detected in the sample and the laboratory blank; E: concentration exceeds the linear quantitation range

Bold type indicates detectable concentrations.

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

Table B-1 Historical Groundwater Quality Data at Site Building 45 (Well MW26)

Sample Date		5/14/1998	6/22/1998	7/17/1998	10/14/1998	1/14/1999	4/12/1999	7/12/1999	10/12/1999	2/1/2000	4/12/2000	7/18/2000	10/11/2000	1/31/2001	4/16/2001	7/17/2001	10/16/2001	11/5/2001	1/16/2002
Compound (ug/L) / Method	NCGWQS	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602
Benzene	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND
1,2-Dichlorobenzene	620	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Ethylbenzene	29	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND
Methyl Tert Butyl Ether	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND
Toluene	1000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND
Xylenes (total)	530	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND
Compound (ug/L) / Method		EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610
Acenaphthene	80	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
Acenaphthylene	210	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
Anthracene	2100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
Bis(2-Ethylhexyl)phthalate	3	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Fluorene	280	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
Naphthalene	21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
1-Methylnaphthalene	RL	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
2-Methylnaphthalene	14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
Phenanthrene	210	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
Pyrene	210	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND

Sample Date		4/17/2002	7/17/2002	3/21/2003	6/30/2003	9/30/2003	12/15/2003	3/8/2004	7/15/2004	9/13/2004	12/21/2004	3/3/2005	6/14/2005
Compound (ug/L) / Method	NCGWQS	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602
Benzene	1	ND	ND	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	620	NR	NR	NR	NR	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	29	ND	ND	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl Tert Butyl Ether	200	ND	ND	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	1000	ND	ND	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	530	ND	ND	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Compound (ug/L) / Method		EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610
Acenaphthene	80	ND	ND	<5.3	<5.1	<5.0	<5.0	<5.0	<4.8	<4.8	<4.8	<4.9	<5.0
Acenaphthylene	210	ND	ND	<5.3	<5.1	<5.0	<5.0	<5.0	<4.8	<4.8	<4.8	<4.9	<5.0
Anthracene	2100	ND	ND	<5.3	<5.1	<5.0	<5.0	<5.0	<4.8	<4.8	<4.8	<4.9	<5.0
Bis(2-Ethylhexyl)phthalate	3	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Fluorene	280	ND	ND	<5.3	<5.1	<5.0	<5.0	<5.0	<4.8	<4.8	<4.8	<4.9	<5.0
Naphthalene	21	ND	ND	<5.3	<5.1	<5.0	<5.0	<5.0	<4.8	<4.8	<4.8	<4.9	<5.0
1-Methylnaphthalene	RL	ND	ND	NR	NR	<5.0	<5.0	<5.0	<4.8	<4.8	<4.8	<4.9	<5.0
2-Methylnaphthalene	14	ND	ND	NR	NR	<5.0	<5.0	<5.0	<4.8	<4.8	<4.8	<4.9	<5.0
Phenanthrene	210	ND	ND	<5.3	<5.1	<5.0	<5.0	<5.0	<4.8	<4.8	<4.8	<4.9	<5.0
Pyrene	210	ND	ND	<5.3	<5.1	<5.0	<5.0	<5.0	<4.8	<4.8	<4.8	<4.9	<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

ND: Not Detected - compound not detected and reporting limit not specified in source document summary tables; NR: Not Reported - compound not reported in source document summary tables

ug/L: micrograms per liter

<#: not detected at the indicated reporting limit

J: estimated concentration less than reporting limit; B: compound detected in the sample and the laboratory blank; E: concentration exceeds the linear qualification range

Bold type indicates detectable concentrations.

Shaded cells indicate concentration above the North Carolina Groundwater Quality Standards

B-1 Historical Groundwater Quality Data at Site Building 45 (Well MW21)

Date		7/15/2004	9/13/2004	12/20/2004	3/3/2005	6/14/2005
Compound (ug/L) / Method	NCGWQS	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602
Benzene	1	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	620	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	29	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl Tert Butyl Ether	200	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	1000	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	530	<3.0	<3.0	<3.0	<3.0	<3.0
Compound (ug/L) / Method		EPA 610	EPA 610	EPA 610	EPA 610	EPA 610
Acenaphthene	80	<5.2	<5.0	<4.8	<4.8	<5.2
Acenaphthylene	210	<5.2	<5.0	<4.8	<4.8	<5.2
Anthracene	2100	<5.2	<5.0	<4.8	<4.8	<5.2
Bis(2-Ethylhexyl)phthalate	3	NR	NR	NR	NR	NR
Fluorene	280	<5.2	<5.0	<4.8	<4.8	<5.2
Naphthalene	21	<5.2	<5.0	<4.8	<4.8	<5.2
1-Methylnaphthalene	RL	<5.2	<5.0	<4.8	<4.8	<5.2
2-Methylnaphthalene	14	<5.2	<5.0	<4.8	<4.8	<5.2
Phenanthrene	210	<5.2	<5.0	<4.8	<4.8	<5.2
Pyrene	210	<5.2	<5.0	<4.8	<4.8	<5.2

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

ND: Not Detected - compound not detected and reporting limit not specified in source document summary tables; NR: Not Reported - compound not reported in source document summary tables
ug/L : micrograms per liter

detected at the indicated reporting limit

J: Estimated concentration less than reporting limit; B: compound detected in the sample and the laboratory blank; E: concentration exceeds the linear quantitation range

Bold type indicates detectable concentrations.

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

Table B-1 Historical Groundwater Quality Data at Site Building 45 (Well MW1_45)

Sample Date Compound (ug/L) / Method	NCGWQS	1/14/1999 EPA 602	4/12/1999 EPA 602	7/12/1999 EPA 602	10/12/1999 EPA 602	2/1/2000 EPA 602	4/12/2000 EPA 602	7/18/2000 EPA 602	10/11/2000 EPA 602	1/31/2001 EPA 602	4/16/2001 EPA 602	7/17/2001 EPA 602	10/16/2001 EPA 602	11/5/2001 EPA 602	1/19/2002 EPA 602	4/17/2002 EPA 602	7/17/2002 EPA 602	3/21/2003 EPA 602	6/30/2003 EPA 602
Benzene	1	NR	NR	1	ND	ND	NR	NR	ND	ND	ND	ND	ND	NR	ND	ND	ND	<1.0	<1.0
1,2-Dichlorobenzene	620	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Ethylbenzene	29	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND	ND	<1.0	<1.0
Methyl Tert Butyl Ether	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND	ND	<1.0	<1.0
Toluene	1000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND	ND	<1.0	<1.0
Xylenes (total)	530	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND	ND	<3.0	<3.0
Compound (ug/L) / Method		EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610
Acenaphthene	80	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND	ND	ND	<5.2	<5.1
Acenaphthylene	210	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND	ND	ND	<5.2	<5.1
Anthracene	2100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND	ND	ND	<5.2	<5.1
Bis(2-Ethylhexyl)phthalate	3	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Fluorene	280	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND	ND	ND	<5.2	<5.1
Naphthalene	21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND	ND	ND	<5.2	<5.1
1-Methylnaphthalene	RL	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND	ND	ND	NR	NR
2-Methylnaphthalene	14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND	ND	ND	NR	NR
Phenanthrene	210	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND	ND	ND	<5.2	<5.1
Pyrene	210	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND	ND	ND	<5.2	<5.1

Sample Date Compound (ug/L) / Method	NCGWQS	9/30/2003 EPA 602	12/15/2003 EPA 602	3/9/2004 EPA 602	7/15/2004 EPA 602	9/22/2004 EPA 602	12/20/2004 EPA 602	3/2/2005 EPA 602	6/14/2005 EPA 602
Benzene	1	<1.0	<1.0	<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	<1.0	<1.0	<1.0
Ethylbenzene	29	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl Tert Butyl Ether	200	<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
Compound (ug/L) / Method		EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610
Acenaphthene	80	<5.0	<5.0	<5.0	<5.3	<4.8	<5.0	<5.0	<5.0
Acenaphthylene	210	<5.0	<5.0	<5.0	<5.3	<4.8	<5.0	<5.0	<5.0
Anthracene	2100	<5.0	<5.0	<5.0	<5.3	<4.8	<5.0	<5.0	<5.0
Bis(2-Ethylhexyl)phthalate	3	NR	NR	NR	NR	NR	NR	NR	NR
Fluorene	280	<5.0	<5.0	<5.0	<5.3	<4.8	<5.0	<5.0	<5.0
Naphthalene	21	<5.0	<5.0	<5.0	<5.3	<4.8	<5.0	<5.0	<5.0
1-Methylnaphthalene	RL	<5.0	<5.0	<5.0	<5.3	<4.8	<5.0	<5.0	<5.0
2-Methylnaphthalene	14	<5.0	<5.0	<5.0	<5.3	<4.8	<5.0	<5.0	<5.0
Phenanthrene	210	<5.0	<5.0	<5.0	<5.3	<4.8	<5.0	<5.0	<5.0
Pyrene	210	<5.0	<5.0	<5.0	<5.3	<4.8	<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

ND: Not Detected - compound not detected and reporting limit not specified in source document summary tables; NR: Not Reported - compound not reported in source document summary tables

ug/L: micrograms per liter

<#: not detected at the indicated reporting limit

J: estimated concentration less than reporting limit; B: compound detected in the sample and the laboratory blank; E: concentration exceeds the linear quantification range

Bold type indicates detectable concentrations.

Standard state indicates concentration above the North Carolina Groundwater Quality Standards

Table B-1 Historical Groundwater Quality Data at Site Building 45 (Well MW4-45)

Sample Date		5/14/1998	6/22/1998	7/16/1998	10/14/1998	1/14/1999	4/12/1999	7/12/1999	10/12/1999	2/1/2000	4/12/2000	7/18/2000	10/11/2000	1/31/2001	4/16/2001	7/17/2001	10/16/2001	11/5/2001	1/16/2002
Compound (ug/L) / Method	NCGWQS	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602
Benzene	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND
1,2-Dichlorobenzene	620	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Ethylbenzene	29	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND
Methyl Tert Butyl Ether	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND
Toluene	1000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND
Xylenes (total)	530	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND
Compound (ug/L) / Method		EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610
Acenaphthene	80	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
Acenaphthylene	210	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
Anthracene	2100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
Bis(2-Ethylhexyl)phthalate	3	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Fluorene	280	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
Naphthalene	21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
1-Methylnaphthalene	RL	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
2-Methylnaphthalene	14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
Phenanthrene	210	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
Pyrene	210	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND

Sample Date		4/17/2002	7/17/2002	9/02/2003	12/15/2003	3/9/2004	7/15/2004	9/22/2004	12/21/2004	3/2/2005	6/14/2005
Compound (ug/L) / Method	NCGWQS	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602	EPA 602
Benzene	1	ND	ND	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	620	NR	NR	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	29	ND	ND	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl Tert Butyl Ether	200	ND	ND	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	1000	ND	ND	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	530	ND	ND	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Compound (ug/L) / Method		EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610
Acenaphthene	80	ND	ND	<5.1	<5.1	<5.2	<5.0	<5.0	<5.1	<4.9	<5.1
Acenaphthylene	210	ND	ND	<5.1	<5.1	<5.2	<5.0	<5.0	<5.1	<4.9	<5.1
Anthracene	2100	ND	ND	<5.1	<5.1	<5.2	<5.0	<5.0	<5.1	<4.9	<5.1
Bis(2-Ethylhexyl)phthalate	3	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Fluorene	280	ND	ND	NR	<5.1	<5.2	<5.0	<5.0	<5.1	<4.9	<5.1
Naphthalene	21	ND	ND	<5.1	<5.1	<5.2	<5.0	<5.0	<5.1	<4.9	<5.1
1-Methylnaphthalene	RL	ND	ND	<5.1	<5.1	<5.2	<5.0	<5.0	<5.1	<4.9	<5.1
2-Methylnaphthalene	14	ND	ND	<5.1	<5.1	<5.2	<5.0	<5.0	<5.1	<4.9	<5.1
Phenanthrene	210	ND	ND	<5.1	<5.1	<5.2	<5.0	<5.0	<5.1	<4.9	<5.1
Pyrene	210	ND	ND	<5.1	<5.1	<5.2	<5.0	<5.0	<5.1	<4.9	<5.1

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

ND: Not Detected - compound not detected and reporting limit not specified in source document summary tables; NR: Not Reported - compound not reported in source document summary tables

ug/L: micrograms per liter

<F: not detected at the indicated reporting limit

J: estimated concentration less than reporting limit; B: compound detected in the sample and the laboratory blank; E: concentration exceeds the linear quantitation range

Bold type indicates detectable concentrations.

3/9/2004 concentration above the North Carolina Groundwater Quality Standards

Table B-1 Historical Groundwater Quality Data at Site Building 45 (Well PW1)

Sample Date Compound (ug/L) / Method	NCGWQS	6/22/1998 EPA 602	7/17/1998 EPA 602	10/14/1998 EPA 602	1/4/1999 EPA 602	4/12/1999 EPA 602	7/12/1999 EPA 602	10/12/1999 EPA 602	2/1/2000 EPA 602	4/12/2000 EPA 602	7/18/2000 EPA 602	10/11/2000 EPA 602	1/31/2001 EPA 602	4/16/2001 EPA 602	7/17/2001 EPA 602	10/16/2001 EPA 602	1/16/2002 EPA 602	4/17/2002 EPA 602
Benzene	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	620	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Ethylbenzene	29	ND	ND	ND	ND	ND	14	ND	10	9	3	ND	5	7	22	2	ND	ND
Methyl Tert Butyl Ether	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1000	ND	ND	ND	ND	ND	17	13	3	2	ND	ND	ND	2	6	ND	ND	ND
Xylenes (total)	530	ND	ND	ND	ND	ND	11	ND	2	ND	2	ND	ND	5	13	ND	ND	ND
Compound (ug/L) / Method		EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610	EPA 610
Acenaphthene	80	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	210	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	2100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-Ethylhexyl)phthalate	3	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Fluorene	280	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	12	ND	ND	ND
1-Methylnaphthalene	RL	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	210	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	210	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

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

ND: Not Detected - compound not detected and reporting limit not specified in source document summary tables; NR: Not Reported - compound not reported in source document summary tables

ug/L: micrograms per liter

<#: not detected at the indicated reporting limit

J: estimated concentration less than reporting limit; B: compound detected in the sample and the laboratory blank; E: concentration exceeds the linear quantitation range

Bold type indicates detectable concentrations.

Shaded areas indicate concentrations above the North Carolina Groundwater Quality Standards

- Renamed as PW-1 R by Sovereign

Table B-1 Historical Groundwater Quality Data at Site Building 45 (Well PW2)

Sample Date		3/4/2005	6/14/2005
Compound (ug/L) / Method	NCGWQS	EPA 602	EPA 602
Benzene	1	<1.0	<1.0
1,2-Dichlorobenzene	620	<1.0	0.57 J
Ethylbenzene	29	<1.0	<1.0
Methyl Tert Butyl Ether	200	<1.0	<1.0
Toluene	1000	<1.0	<1.0
Xylenes (total)	530	<3.0	<3.0
Compound (ug/L) / Method		EPA 610	EPA 610
Acenaphthene	80	<5.0	<5.1
Acenaphthylene	210	<5.0	<5.1
Anthracene	2100	<5.0	<5.1
Bis(2-Ethylhexyl)phthalate	3	NR	NR
Fluorene	280	<5.0	<5.1
Naphthalene	21	<5.0	<5.1
1-Methylnaphthalene	RL	<5.0	<5.1
2-Methylnaphthalene	14	<5.0	<5.1
Phenanthrene	210	<5.0	<5.1
Pyrene	210	<5.0	<5.1

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

ND: Not Detected - compound not detected and reporting limit not specified in source document summary tables; NR: Not Reported - compound not reported in source document summary tables

ug/L: micrograms per liter

Not detected at the indicated reporting limit

Estimated concentration less than reporting limit; B: compound detected in the sample and the laboratory blank; E: concentration exceeds the linear quantitation range

Bold type indicates detectable concentrations.

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

Renamed MW2R by Sovereign

Table B-1 Historical Groundwater Quality Data at Site Building 45 (Well MW23)

Sample Date		3/4/2005	6/14/2005
Compound (ug/L) / Method	NCGWQS	EPA 602	EPA 602
Benzene	1	<1.0	<1.0
1,2-Dichlorobenzene	620	<1.0	0.54 J
Ethylbenzene	29	<1.0	<1.0
Methyl Tert Butyl Ether	200	<1.0	<1.0
Toluene	1000	<1.0	<1.0
Xylenes (total)	530	<3.0	<3.0
Compound (ug/L) / Method		EPA 610	EPA 610
Acenaphthene	80	<4.8	<4.9
Acenaphthylene	210	<4.8	<4.9
Anthracene	2100	<4.8	<4.9
Bis(2-Ethylhexyl)phthalate	3	NR	NR
Fluorene	280	<4.8	<4.9
Naphthalene	21	<4.8	<4.9
1-Methylnaphthalene	RL	<4.8	<4.9
2-Methylnaphthalene	14	<4.8	<4.9
Phenanthrene	210	<4.8	<4.9
Pyrene	210	<4.8	<4.9

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

ND: Not Detected - compound not detected and reporting limit not specified in source document summary tables; NR: Not Reported - compound not reported in source document summary table

ug/L: micrograms per liter

<#: not detected at the indicated reporting limit

J: estimated concentration less than reporting limit; B: compound detected in the sample and the laboratory blank; E: concentration exceeds the linear quantitation range

Bold type indicates detectable concentrations.

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

Renamed as MW3R by Sovereign

B-1 Historical Groundwater Quality Data at Site Building 45 (Well MW24)

Compound (ug/L) / Method	NCGWQS	3/4/2005 EPA 602	6/14/2005 EPA 602
Benzene	1	<1.0	<1.0
1,2-Dichlorobenzene	620	<1.0	<1.0
Ethylbenzene	29	<1.0	<1.0
Methyl Tert Butyl Ether	200	<1.0	<1.0
Toluene	1000	<1.0	<1.0
Xylenes (total)	530	<3.0	<3.0
Compound (ug/L) / Method		EPA 610	EPA 610
Acenaphthene	80	<5.0	<4.8
Acenaphthylene	210	<5.0	<4.8
Anthracene	2100	<5.0	<4.8
Bis(2-Ethylhexyl)phthalate	3	NR	NR
Fluorene	280	<5.0	<4.8
Naphthalene	21	<5.0	<4.8
1-Methylnaphthalene	RL	<5.0	<4.8
2-Methylnaphthalene	14	<5.0	<4.8
Phenanthrene	210	<5.0	<4.8
Pyrene	210	<5.0	<4.8

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

ND: Not Detected - compound not detected and reporting limit not specified in source document summary tables; NR: Not Reported - compound not reported in source document summary table

ug/L - micrograms per liter

detected at the indicated reporting limit

J: estimated concentration less than reporting limit; B: compound detected in the sample and the laboratory blank; E: concentration exceeds the linear quantitation range

Bold type indicates detectable concentrations.

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

**DATA OBTAINED FROM UST MANAGEMENT PROGRAM IN CAMP LEJEUNE
SECOND SEMESTER 2005/FIRST SEMESTER 2006**

TABLE 7.2B
SITE 45/S941
HISTORICAL GROUNDWATER LABORATORY ANALYTICAL RESULTS BEGINNING JULY 2005
EPA METHOD 602

Contaminant of Concern →			
Well ID	Date	Benzene	Methyl-tert butyl ether
2L GWQS		1	200
GCL		5000	200000
UST45/S941-MW01/45	10/27/2005	BQL	BQL
UST45/S941-MW01/45	4/6/2006	BQL	BQL
UST45/S941-MW02R	4/7/2006	BQL	BQL
UST45/S941-MW03R	4/6/2006	BQL	BQL
UST45/S941-MW04	11/4/2005	BQL	BQL
UST45/S941-MW04	4/6/2006	BQL	BQL
UST45/S941-MW04/45	10/27/2005	BQL	BQL
UST45/S941-MW04/45	4/6/2006	BQL	BQL
UST45/S941-MW05	11/4/2005	BQL	BQL
UST45/S941-MW05	4/6/2006	BQL	BQL

- Notes:
1. 2L GWQS = North Carolina groundwater quality standard 15A NCAC 2L .0202
 2. GCL = Gross Contamination Levels for ground water as defined in "Groundwater Section Guidelines for the Investigation and Remediation of Soil and Groundwater" Volume II January, 1998
 3. All units are in ug/L (Micrograms per Liter)
 4. BQL = Below Quantitation Limits
 5. A zero in the 2L GWQS column indicates the 2L Standard is equal to the laboratory detection limit
 6. A zero in the GCL column indicates a GCL has not been established
 7. Shaded concentrations indicate exceedance of the 2L GWQS
 8. Only compounds which were detected are shown on table. All other compounds were BQL

TABLE 7.2B
SITE 45/S941
HISTORICAL GROUNDWATER LABORATORY ANALYTICAL RESULTS BEGINNING JULY 2005
EPA METHOD 602

Contaminant of Concern →			
Well ID	Date	Benzene	Methyl-tert butyl ether
2L GWQS		1	200
GCL		5000	200000
UST45/S941-MW06	11/2/2005	BQL	BQL
UST45/S941-MW06	4/7/2006	BQL	BQL
UST45/S941-MW07	11/2/2005	BQL	BQL
UST45/S941-MW07	4/10/2006	BQL	BQL
UST45/S941-MW08	11/2/2005	BQL	BQL
UST45/S941-MW08	4/7/2006	BQL	BQL
UST45/S941-MW09	11/2/2005	4.00	4.00
UST45/S941-MW09	4/6/2006	5.87	4.46
UST45/S941-MW12	11/4/2005	BQL	BQL
UST45/S941-MW12	4/6/2006	BQL	BQL

- Notes:
1. 2L GWQS = North Carolina groundwater quality standard 15A NCAC 2L .0202
 2. GCL = Gross Contamination Levels for ground water as defined in "Groundwater Section Guidelines for the Investigation and Remediation of Soil and Groundwater" Volume II January, 1998
 3. All units are in ug/L (Micrograms per Liter)
 4. BQL = Below Quantitation Limits
 5. A zero in the 2L GWQS column indicates the 2L Standard is equal to the laboratory detection limit
 6. A zero in the GCL column indicates a GCL has not been established
 7. Shaded concentrations indicate exceedance of the 2L GWQS
 8. Only compounds which were detected are shown on table. All other compounds were BQL

TABLE 7.2B
SITE 45/S941
HISTORICAL GROUNDWATER LABORATORY ANALYTICAL RESULTS BEGINNING JULY 2005
EPA METHOD 602

Contaminant of Concern 			
<u>Well ID</u>	<u>Date</u>	Benzene	Methyl-tert butyl ether
2L GWQS		1	200
GCL		5000	200000
UST45/S941-MW13	10/27/2005	BQL	BQL
UST45/S941-MW13	4/6/2006	BQL	BQL
UST45/S941-MW14	10/28/2005	BQL	BQL
UST45/S941-MW14	4/6/2006	BQL	BQL
UST45/S941-MW15	10/28/2005	BQL	BQL
UST45/S941-MW15	4/6/2006	BQL	BQL
UST45/S941-MW17	11/4/2005	BQL	BQL
UST45/S941-MW17	4/7/2006	BQL	BQL
UST45/S941-MW18	11/3/2005	BQL	BQL
UST45/S941-MW18	4/6/2006	BQL	BQL

- Notes:
1. 2L GWQS = North Carolina groundwater quality standard 15A NCAC 2L .0202
 2. GCL = Gross Contamination Levels for ground water as defined in "Groundwater Section Guidelines for the Investigation and Remediation of Soil and Groundwater" Volume II January, 1998
 3. All units are in ug/L (Micrograms per Liter)
 4. BQL = Below Quantitation Limits
 5. A zero in the 2L GWQS column indicates the 2L Standard is equal to the laboratory detection limit
 6. A zero in the GCL column indicates a GCL has not been established
 7. Shaded concentrations indicate exceedance of the 2L GWQS
 8. Only compounds which were detected are shown on table. All other compounds were BQL

TABLE 7.2B
SITE 45/S941
HISTORICAL GROUNDWATER LABORATORY ANALYTICAL RESULTS BEGINNING JULY 2005
EPA METHOD 602

Contaminant of Concern 			
<u>Well ID</u>	<u>Date</u>	Benzene	Methyl-tert butyl ether
2L GWQS		1	200
GCL		5000	200000
UST45/S941-MW19	11/3/2005	BQL	BQL
UST45/S941-MW19	4/6/2006	BQL	BQL
UST45/S941-MW20	11/4/2005	BQL	BQL
UST45/S941-MW20	4/6/2006	BQL	BQL
UST45/S941-MW21	10/27/2005	BQL	BQL
UST45/S941-MW21	4/6/2006	BQL	BQL
UST45/S941-PW01R	4/6/2006	BQL	BQL

- Notes:
1. 2L GWQS = North Carolina groundwater quality standard 15A NCAC 2L .0202
 2. GCL = Gross Contamination Levels for ground water as defined in "Groundwater Section Guidelines for the Investigation and Remediation of Soil and Groundwater" Volume II January, 1998
 3. All units are in ug/L (Micrograms per Liter)
 4. BQL = Below Quantitation Limits
 5. A zero in the 2L GWQS column indicates the 2L Standard is equal to the laboratory detection limit
 6. A zero in the GCL column indicates a GCL has not been established
 7. Shaded concentrations indicate exceedance of the 2L GWQS
 8. Only compounds which were detected are shown on table. All other compounds were BQL

TABLE 7.3B
SITE 45/S941
HISTORICAL GROUNDWATER LABORATORY ANALYTICAL RESULTS BEGINNING JULY 2005
EPA METHOD 625

Contaminant of Concern →		
<u>Well ID</u>	<u>Date</u>	
2L GWQS		
GCL		
UST45/S941-MW01/45	10/27/2005	
UST45/S941-MW01/45	4/6/2006	
UST45/S941-MW02R	4/7/2006	
UST45/S941-MW03R	4/6/2006	
UST45/S941-MW04	11/4/2005	
UST45/S941-MW04	4/6/2006	
UST45/S941-MW04/45	10/27/2005	
UST45/S941-MW04/45	4/6/2006	
UST45/S941-MW05	11/4/2005	
UST45/S941-MW05	4/6/2006	

- Notes:
1. 2L GWQS = North Carolina groundwater quality standard 15A NCAC 2L .0202
 2. GCL = Gross Contamination Levels for ground water as defined in "Groundwater Section Guidelines for the Investigation and Remediation of Soil and Groundwater" Volume II January, 1998
 3. All units are in ug/L (Micrograms per Liter)
 4. BQL = Below Quantitation Limits
 5. A zero in the 2L GWQS column indicates the 2L Standard is equal to the laboratory detection limit
 6. A zero in the GCL column indicates a GCL has not been established
 7. Shaded concentrations indicate exceedance of the 2L GWQS
 8. Only compounds which were detected are shown on table. All other compounds were BQL

TABLE 7.3B
SITE 45/S941
HISTORICAL GROUNDWATER LABORATORY ANALYTICAL RESULTS BEGINNING JULY 2005
EPA METHOD 625

Contaminant of Concern 		
<u>Well ID</u>	<u>Date</u>	
2L GWQS		
GCL		
UST45/S941-MW06	11/2/2005	
UST45/S941-MW06	4/7/2006	
UST45/S941-MW07	11/2/2005	
UST45/S941-MW07	4/6/2006	
UST45/S941-MW08	11/2/2005	
UST45/S941-MW08	4/7/2006	
UST45/S941-MW09	11/2/2005	
UST45/S941-MW09	4/6/2006	
UST45/S941-MW12	11/4/2005	
UST45/S941-MW12	4/6/2006	

- Notes:
1. 2L GWQS = North Carolina groundwater quality standard 15A NCAC 2L .0202
 2. GCL = Gross Contamination Levels for ground water as defined in "Groundwater Section Guidelines for the Investigation and Remediation of Soil and Groundwater" Volume II January, 1998
 3. All units are in ug/L (Micrograms per Liter)
 4. BQL = Below Quantitation Limits
 5. A zero in the 2L GWQS column indicates the 2L Standard is equal to the laboratory detection limit
 6. A zero in the GCL column indicates a GCL has not been established
 7. Shaded concentrations indicate exceedance of the 2L GWQS
 8. Only compounds which were detected are shown on table. All other compounds were BQL

TABLE 7.3B
SITE 45/S941
HISTORICAL GROUNDWATER LABORATORY ANALYTICAL RESULTS BEGINNING JULY 2005
EPA METHOD 625

Contaminant of Concern →		
<u>Well ID</u>	<u>Date</u>	
2L GWQS		
GCL		
UST45/S941-MW13	10/27/2005	
UST45/S941-MW13	4/6/2006	
UST45/S941-MW14	10/28/2005	
UST45/S941-MW14	4/6/2006	
UST45/S941-MW15	10/28/2005	
UST45/S941-MW15	4/6/2006	
UST45/S941-MW17	11/4/2005	
UST45/S941-MW17	4/7/2006	
UST45/S941-MW18	11/3/2005	
UST45/S941-MW18	4/6/2006	

- Notes:
1. 2L GWQS = North Carolina groundwater quality standard 15A NCAC 2L .0202
 2. GCL = Gross Contamination Levels for ground water as defined in "Groundwater Section Guidelines for the Investigation and Remediation of Soil and Groundwater" Volume II January, 1998
 3. All units are in ug/L (Micrograms per Liter)
 4. BQL = Below Quantitation Limits
 5. A zero in the 2L GWQS column indicates the 2L Standard is equal to the laboratory detection limit
 6. A zero in the GCL column indicates a GCL has not been established
 7. Shaded concentrations indicate exceedance of the 2L GWQS
 8. Only compounds which were detected are shown on table. All other compounds were BQL

TABLE 7.3B
SITE 45/S941
HISTORICAL GROUNDWATER LABORATORY ANALYTICAL RESULTS BEGINNING JULY 2005
EPA METHOD 625

Contaminant of Concern 		
<u>Well ID</u>	<u>Date</u>	
2L GWQS		
GCL		
UST45/S941-MW19	11/3/2005	
UST45/S941-MW19	4/6/2006	
UST45/S941-MW20	11/4/2005	
UST45/S941-MW20	4/6/2006	
UST45/S941-MW21	10/27/2005	
UST45/S941-MW21	4/6/2006	
UST45/S941-PW01R	4/6/2006	

- Notes:
1. 2L GWQS = North Carolina groundwater quality standard 15A NCAC 2L .0202
 2. GCL = Gross Contamination Levels for ground water as defined in "Groundwater Section Guidelines for the Investigation and Remediation of Soil and Groundwater" Volume II January, 1998
 3. All units are in ug/L (Micrograms per Liter)
 4. BQL = Below Quantitation Limits
 5. A zero in the 2L GWQS column indicates the 2L Standard is equal to the laboratory detection limit
 6. A zero in the GCL column indicates a GCL has not been established
 7. Shaded concentrations indicate exceedance of the 2L GWQS
 8. Only compounds which were detected are shown on table. All other compounds were BQL

TABLE 7.4A

SITE 45/S941

GROUNDWATER LABORATORY ANALYTICAL RESULTS - SECOND SEMESTER 2005/FIRST SEMESTER 2006 EPA METHOD 6020

Contaminant of Concern →		
<u>Well ID</u>	<u>Date</u>	
2L GWQS		
GCL		
UST45/S941-MW01/45	10/27/2005	
UST45/S941-MW01/45	4/6/2006	
UST45/S941-MW02R	4/21/2006	
UST45/S941-MW03R	4/6/2006	
UST45/S941-MW04	4/6/2006	
UST45/S941-MW04/45	10/27/2005	
UST45/S941-MW04/45	4/6/2006	
UST45/S941-MW05	4/6/2006	
UST45/S941-MW06	4/21/2006	
UST45/S941-MW07	4/6/2006	
UST45/S941-MW08	4/21/2006	

- Notes:
1. 2L GWQS = North Carolina groundwater quality standard 15A NCAC 2L .0202
 2. GCL = Gross Contamination Levels for ground water as defined in "Groundwater Section Guidelines for the Investigation and Remediation of Soil and Groundwater" Volume II January, 1998
 3. All units are in ug/L (Micrograms per Liter)
 4. BQL = Below Quantitation Limits
 5. A zero in the 2L GWQS column indicates the 2L Standard is equal to the laboratory detection limit
 6. A zero in the GCL column indicates a GCL has not been established
 7. Shaded concentrations indicate exceedance of the 2L GWQS
 8. Only compounds which were detected are shown on table. All other compounds were BQL

TABLE 7.4A

SITE 45/S941

GROUNDWATER LABORATORY ANALYTICAL RESULTS - SECOND SEMESTER 2005/FIRST SEMESTER 2006

EPA METHOD 6020

Contaminant of Concern →		
<u>Well ID</u>	<u>Date</u>	
2L GWQS		
GCL		
UST45/S941-MW09	4/6/2006	
UST45/S941-MW12	4/6/2006	
UST45/S941-MW13	10/27/2005	
UST45/S941-MW13	4/6/2006	
UST45/S941-MW14	10/28/2005	
UST45/S941-MW14	4/6/2006	
UST45/S941-MW15	10/28/2005	
UST45/S941-MW15	4/6/2006	
UST45/S941-MW17	4/21/2006	
UST45/S941-MW18	4/6/2006	
UST45/S941-MW19	4/6/2006	

- Notes:
1. 2L GWQS = North Carolina groundwater quality standard 15A NCAC 2L .0202
 2. GCL = Gross Contamination Levels for ground water as defined in "Groundwater Section Guidelines for the Investigation and Remediation of Soil and Groundwater" Volume II January, 1998
 3. All units are in ug/L (Micrograms per Liter)
 4. BQL = Below Quantitation Limits
 5. A zero in the 2L GWQS column indicates the 2L Standard is equal to the laboratory detection limit
 6. A zero in the GCL column indicates a GCL has not been established
 7. Shaded concentrations indicate exceedance of the 2L GWQS
 8. Only compounds which were detected are shown on table. All other compounds were BQL

TABLE 7.4A**SITE 45/S941****GROUNDWATER LABORATORY ANALYTICAL RESULTS - SECOND SEMESTER 2005/FIRST SEMESTER 2006****EPA METHOD 6020**

Contaminant of Concern →		
<u>Well ID</u>	<u>Date</u>	
2L GWQS		
GCL		
UST45/S941-MW20	4/6/2006	
UST45/S941-MW21	10/27/2005	
UST45/S941-MW21	4/6/2006	
UST45/S941-PW01R	4/6/2006	

- Notes:
1. 2L GWQS = North Carolina groundwater quality standard 15A NCAC 2L .0202
 2. GCL = Gross Contamination Levels for ground water as defined in "Groundwater Section Guidelines for the Investigation and Remediation of Soil and Groundwater" Volume II January, 1998
 3. All units are in ug/L (Micrograms per Liter)
 4. BQL = Below Quantitation Limits
 5. A zero in the 2L GWQS column indicates the 2L Standard is equal to the laboratory detection limit
 6. A zero in the GCL column indicates a GCL has not been established
 7. Shaded concentrations indicate exceedance of the 2L GWQS
 8. Only compounds which were detected are shown on table. All other compounds were BQL

TABLE 7.4B
SITE 45/S941
HISTORICAL GROUNDWATER LABORATORY ANALYTICAL RESULTS BEGINNING JULY 2005
EPA METHOD 6020

Contaminant of Concern 		
<u>Well ID</u>	<u>Date</u>	
2L GWQS		
GCL		
UST45/S941-MW01/45	10/27/2005	
UST45/S941-MW01/45	4/6/2006	
UST45/S941-MW02R	4/21/2006	
UST45/S941-MW03R	4/6/2006	
UST45/S941-MW04	4/6/2006	
UST45/S941-MW04/45	10/27/2005	
UST45/S941-MW04/45	4/6/2006	
UST45/S941-MW05	4/6/2006	
UST45/S941-MW06	4/21/2006	
UST45/S941-MW07	4/6/2006	
UST45/S941-MW08	4/21/2006	

- Notes:
1. 2L GWQS = North Carolina groundwater quality standard 15A NCAC 2L .0202
 2. GCL = Gross Contamination Levels for ground water as defined in "Groundwater Section Guidelines for the Investigation and Remediation of Soil and Groundwater" Volume II January, 1998
 3. All units are in ug/L (Micrograms per Liter)
 4. BQL = Below Quantitation Limits
 5. A zero in the 2L GWQS column indicates the 2L Standard is equal to the laboratory detection limit
 6. A zero in the GCL column indicates a GCL has not been established
 7. Shaded concentrations indicate exceedance of the 2L GWQS
 8. Only compounds which were detected are shown on table. All other compounds were BQL

TABLE 7.4B
SITE 45/S941
HISTORICAL GROUNDWATER LABORATORY ANALYTICAL RESULTS BEGINNING JULY 2005
EPA METHOD 6020

Contaminant of Concern →		
<u>Well ID</u>	<u>Date</u>	
2L GWQS		
GCL		
UST45/S941-MW09	4/6/2006	
UST45/S941-MW12	4/6/2006	
UST45/S941-MW13	10/27/2005	
UST45/S941-MW13	4/6/2006	
UST45/S941-MW14	10/28/2005	
UST45/S941-MW14	4/6/2006	
UST45/S941-MW15	10/28/2005	
UST45/S941-MW15	4/6/2006	
UST45/S941-MW17	4/21/2006	
UST45/S941-MW18	4/6/2006	
UST45/S941-MW19	4/6/2006	

- Notes:
1. 2L GWQS = North Carolina groundwater quality standard 15A NCAC 2L .0202
 2. GCL = Gross Contamination Levels for ground water as defined in "Groundwater Section Guidelines for the Investigation and Remediation of Soil and Groundwater" Volume II January, 1998
 3. All units are in ug/L (Micrograms per Liter)
 4. BQL = Below Quantitation Limits
 5. A zero in the 2L GWQS column indicates the 2L Standard is equal to the laboratory detection limit
 6. A zero in the GCL column indicates a GCL has not been established
 7. Shaded concentrations indicate exceedance of the 2L GWQS
 8. Only compounds which were detected are shown on table. All other compounds were BQL

TABLE 7.4B
SITE 45/S941
HISTORICAL GROUNDWATER LABORATORY ANALYTICAL RESULTS BEGINNING JULY 2005
EPA METHOD 6020

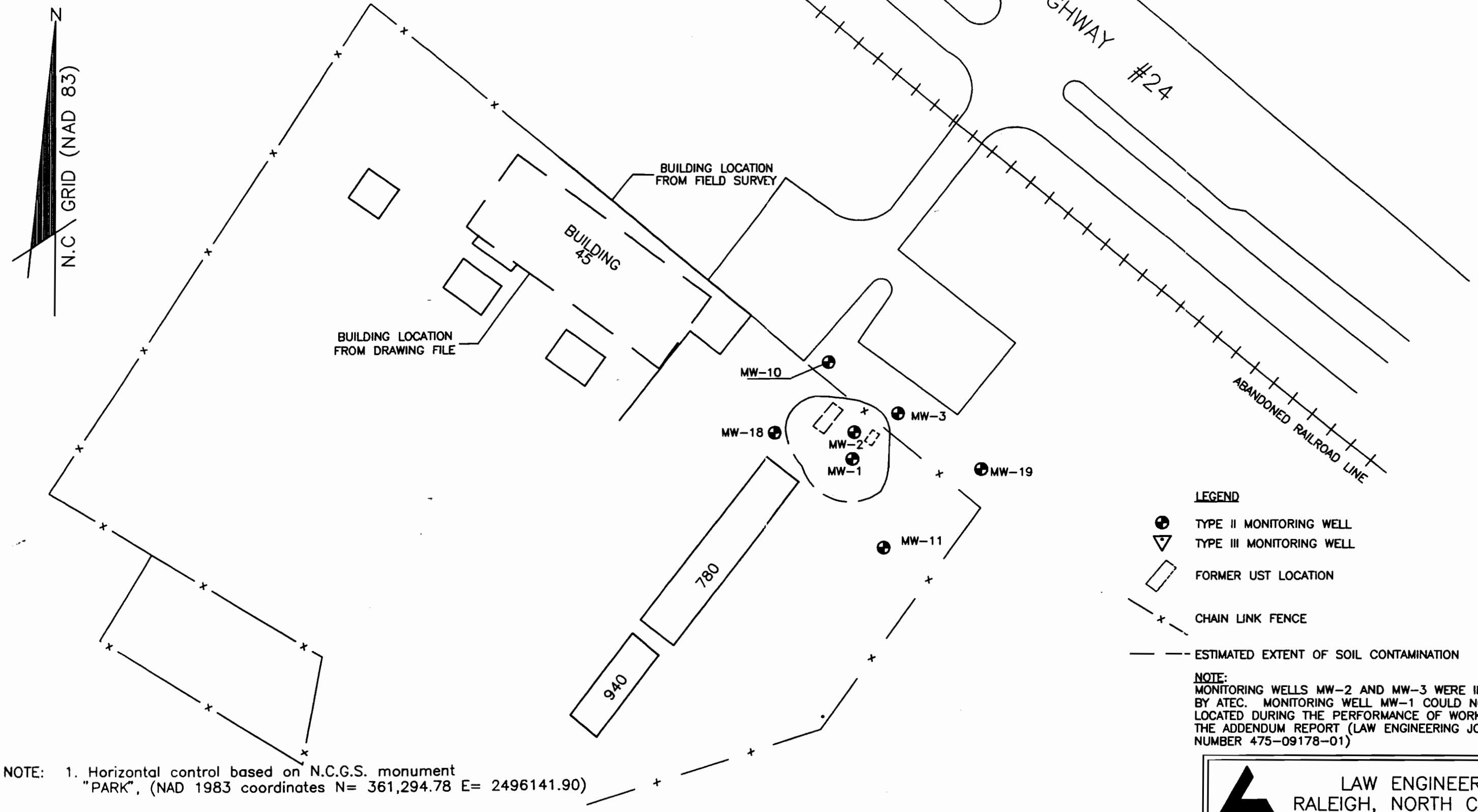
Contaminant of Concern →		
<u>Well ID</u>	<u>Date</u>	
2L GWQS		
GCL		
UST45/S941-MW20	4/6/2006	
UST45/S941-MW21	10/27/2005	
UST45/S941-MW21	4/6/2006	
UST45/S941-PW01R	4/6/2006	

- Notes:
1. 2L GWQS = North Carolina groundwater quality standard 15A NCAC 2L .0202
 2. GCL = Gross Contamination Levels for ground water as defined in "Groundwater Section Guidelines for the Investigation and Remediation of Soil and Groundwater" Volume II January, 1998
 3. All units are in ug/L (Micrograms per Liter)
 4. BQL = Below Quantitation Limits
 5. A zero in the 2L GWQS column indicates the 2L Standard is equal to the laboratory detection limit
 6. A zero in the GCL column indicates a GCL has not been established
 7. Shaded concentrations indicate exceedance of the 2L GWQS
 8. Only compounds which were detected are shown on table. All other compounds were BQL

APPENDIX C

SELECTED FIGURES FROM VARIOUS REPORTS

CORRECTIVE ACTION PLAN



LEGEND

- TYPE II MONITORING WELL
- TYPE III MONITORING WELL
- FORMER UST LOCATION
- CHAIN LINK FENCE
- ESTIMATED EXTENT OF SOIL CONTAMINATION

NOTE: MONITORING WELLS MW-2 AND MW-3 WERE INSTALLED BY ATEC. MONITORING WELL MW-1 COULD NOT BE LOCATED DURING THE PERFORMANCE OF WORK FOR THE ADDENDUM REPORT (LAW ENGINEERING JOB NUMBER 475-09178-01)

- NOTE:
- Horizontal control based on N.C.G.S. monument "PARK", (NAD 1983 coordinates N= 361,294.78 E= 2496141.90)
 - All locations of buildings, streets, and parking areas were taken from a Camp Lejeune base map AutoCad.dwg file supplied to Law Engineering by EMD/IRD unless otherwise noted.
 - The monitoring wells, pumping well and the corners of building 45 were the only points located in the field by this survey. All other locations were taken from above referenced file, and may or may not be shown correctly.
 - Vertical control is based of N.C.G.S Monument "Park" elevation 30.12'.

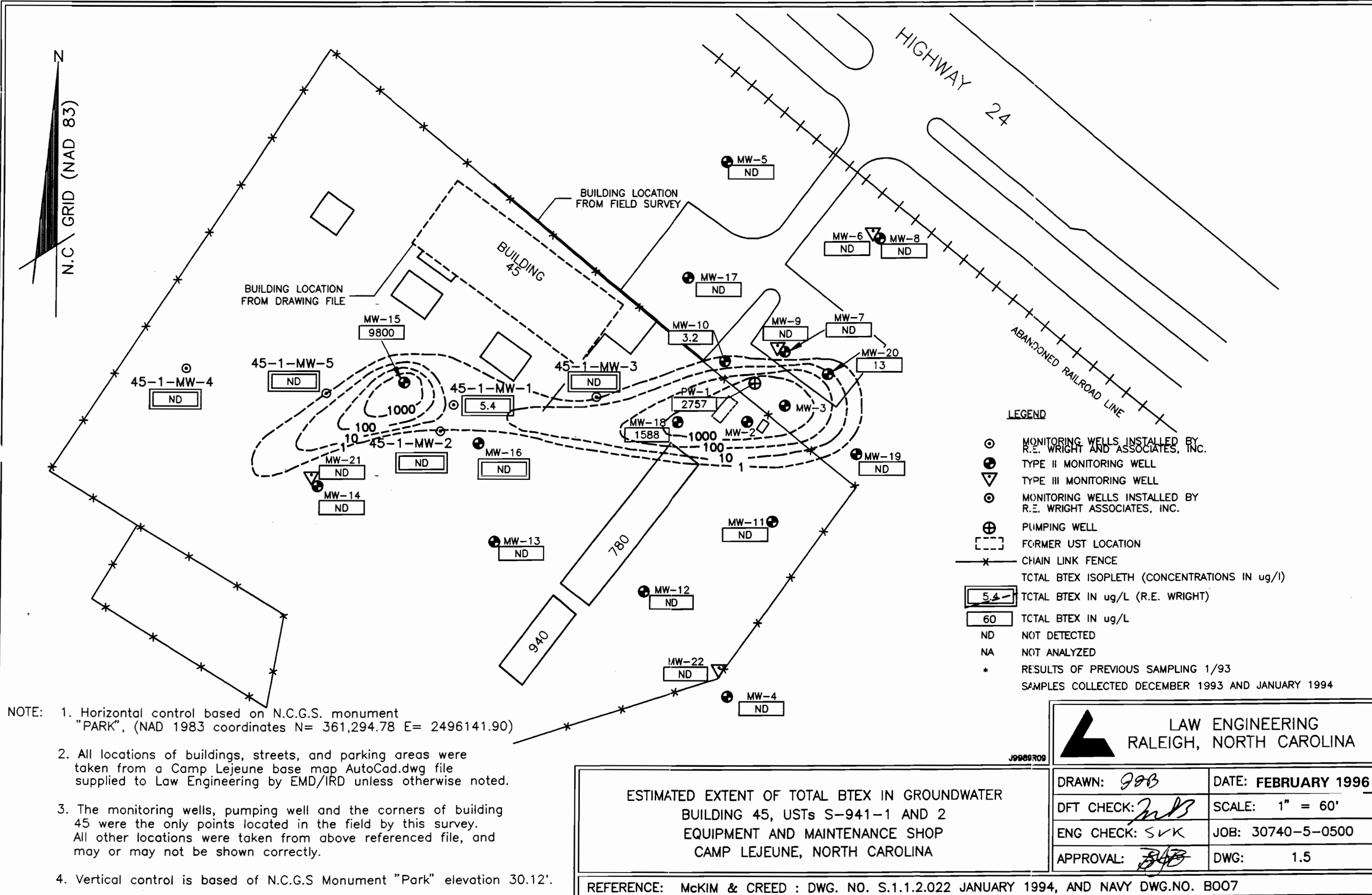
ESTIMATED EXTENT OF TPH CONTAMINATION
BUILDING 45, USTs S-941-1 AND 2
EQUIPMENT AND MAINTENANCE BUILDING
CAMP LEJEUNE, NORTH CAROLINA

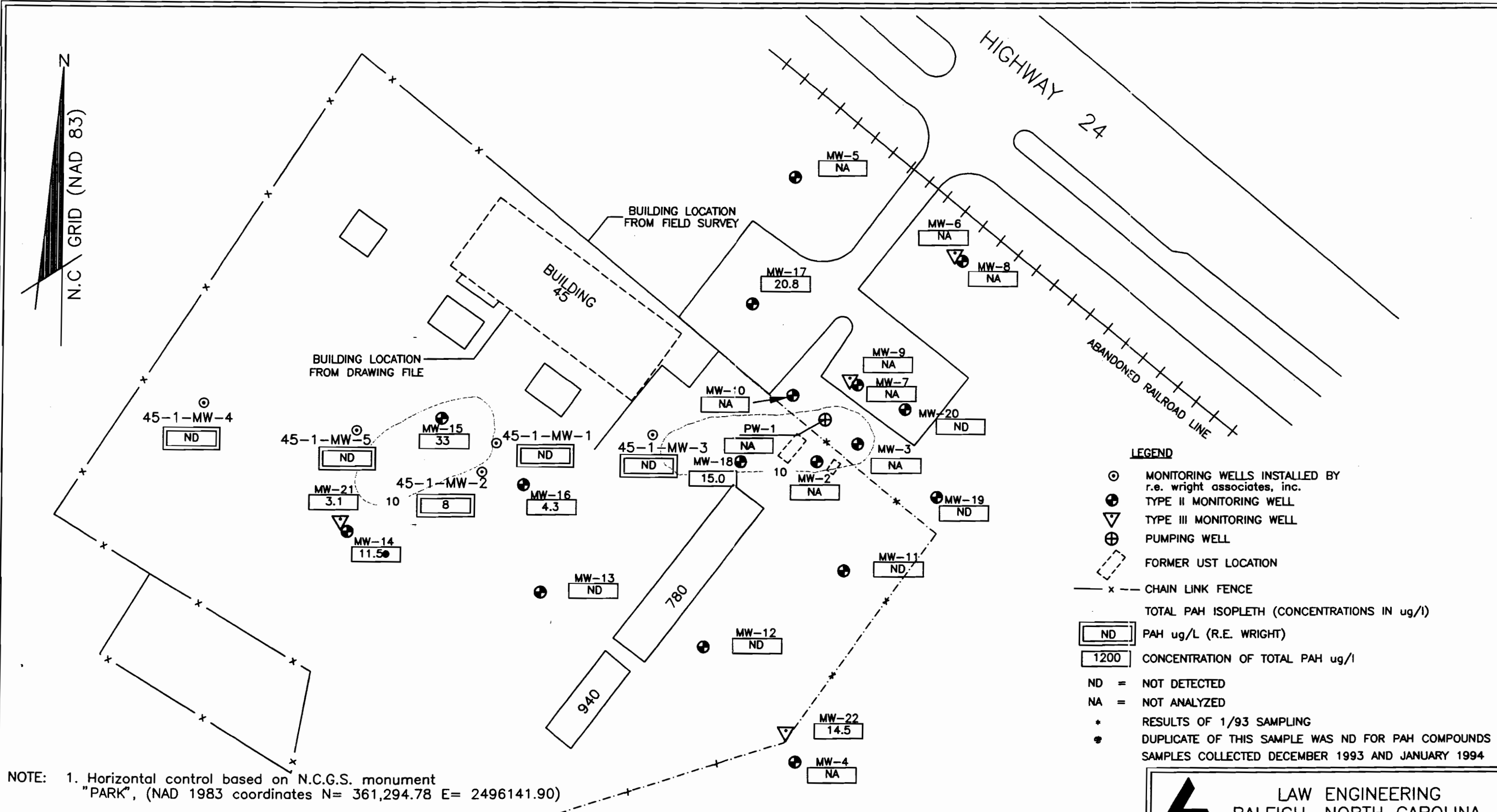
REFERENCE: McKIM & CREED : DWG. NO. S.1.1.2.022 JANUARY 1994, AND NAVY DWG.NO. B007



LAW ENGINEERING
RALEIGH, NORTH CAROLINA

DRAWN: RRF	DATE: FEBRUARY 1996
DFT CHECK: ggd	SCALE: 1" = 60'
ENG CHECK: suk	JOB: 30740-5-0500
APPROVAL: [Signature]	DWG: 1.4





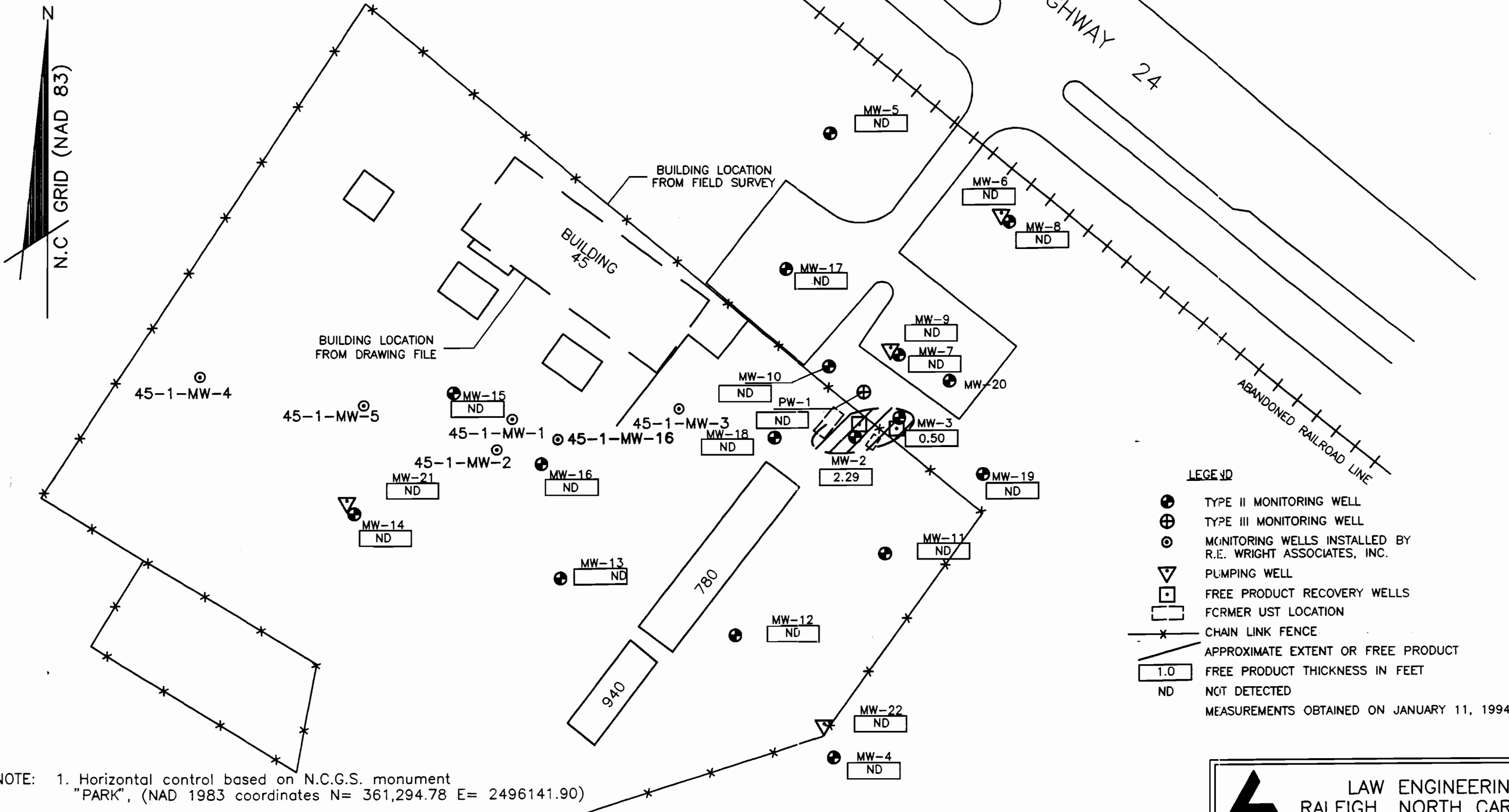
- NOTE: 1. Horizontal control based on N.C.G.S. monument "PARK", (NAD 1983 coordinates N= 361,294.78 E= 2496141.90)
2. All locations of buildings, streets, and parking areas were taken from a Camp Lejeune base map AutoCad.dwg file supplied to Law Engineering by EMD/IRD unless otherwise noted.
3. The monitoring wells (except 45-1-MW-5), pumping well and the corners of building 45 were the only points located in the field by this survey. All other locations were taken from above referenced file, and may or may not be shown correctly.
4. Vertical control is based of N.C.G.S Monument "Park" elevation 30.12'.

EXTIMATED EXTENT OF TOTAL PAH IN GROUND WATER
BUILDING 45, USTs S-941-1 AND 2
EQUIPMENT AND MAINTENANCE SHOP
CAMP LEJEUNE, NORTH CAROLINA

REFERENCE: McKIM & CREED : DWG. NO. S.1.1.2.022 JANUARY 1994, AND NAVY DWG.NO. B007

LAW ENGINEERING
RALEIGH, NORTH CAROLINA

DRAWN: <i>RR</i>	DATE: FEBRUARY 1996
DFT CHECK: <i>gg</i>	SCALE: 1" = 60'
ENG CHECK: <i>SL</i>	JOB: 30740-5-0500
APPROVAL: <i>B/B</i>	DWG: 1.6



LEGEND

- TYPE II MONITORING WELL
 - ⊕ TYPE III MONITORING WELL
 - ⊙ MONITORING WELLS INSTALLED BY R.E. WRIGHT ASSOCIATES, INC.
 - ▽ PUMPING WELL
 - FREE PRODUCT RECOVERY WELLS
 - FORMER UST LOCATION
 - *— CHAIN LINK FENCE
 - / — APPROXIMATE EXTENT OR FREE PRODUCT
 - 1.0 FREE PRODUCT THICKNESS IN FEET
 - ND NOT DETECTED
- MEASUREMENTS OBTAINED ON JANUARY 11, 1994

- NOTE:
1. Horizontal control based on N.C.G.S. monument "PARK", (NAD 1983 coordinates N= 361,294.78 E= 2496141.90)
 2. All locations of buildings, streets, and parking areas were taken from a Camp Lejeune base map AutoCad.dwg file supplied to Law Engineering by EMD/IRD unless otherwise noted.
 3. The monitoring wells, pumping well and the corners of building 45 were the only points located in the field by this survey. All other locations were taken from above referenced file, and may or may not be shown correctly.
 4. Vertical control is based of N.C.G.S Monument "Park" elevation 30.12'.

ESTIMATED EXTENT OF FREE PRODUCT
BUILDING 45, USTs S-941-1 AND 2
EQUIPMENT AND MAINTENANCE SHOP
CAMP LEJEUNE, NORTH CAROLINA

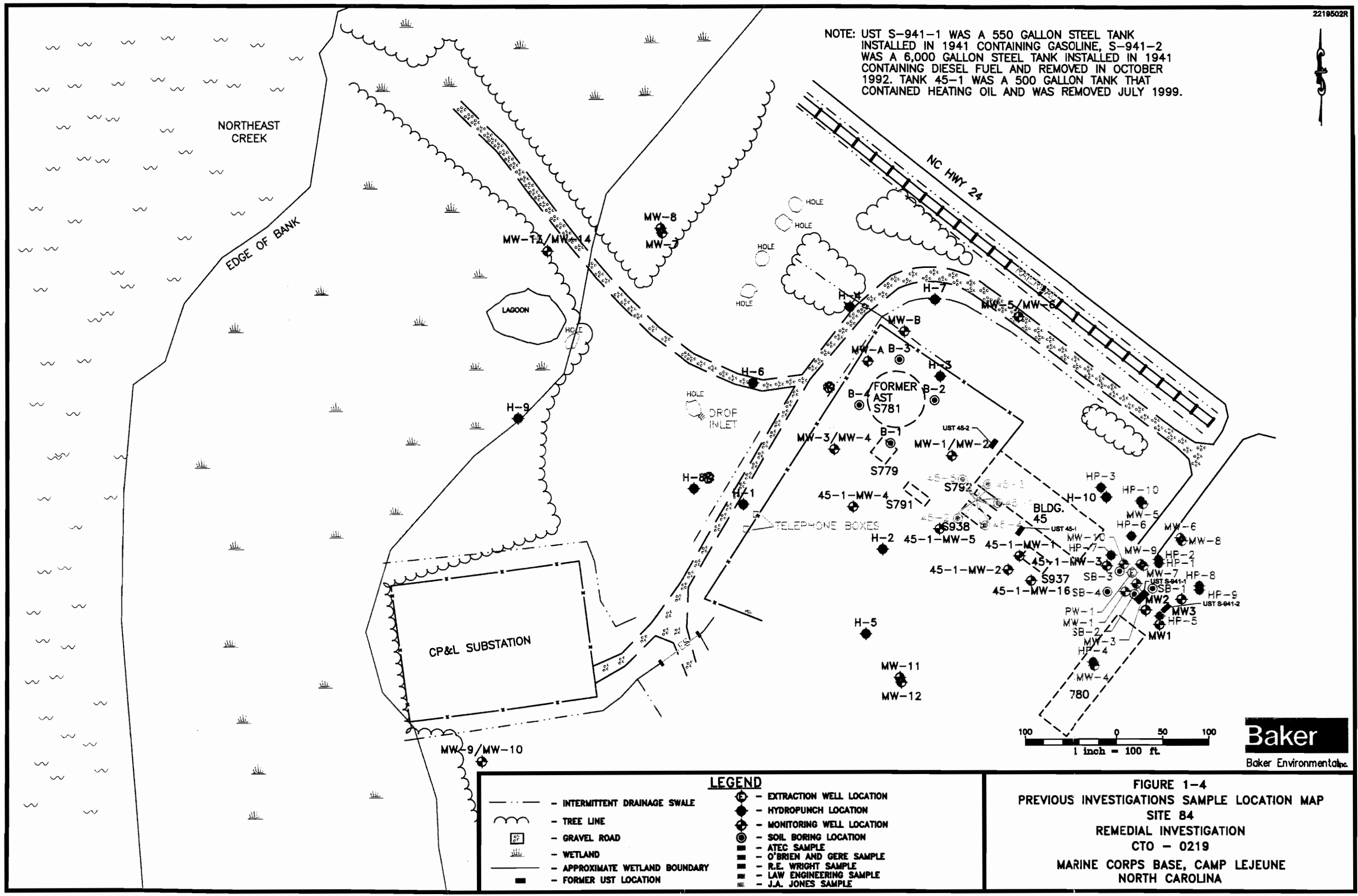
REFERENCE: McKIM & CREED : DWG. NO. S.1.1.2.022 JANUARY 1994, AND NAVY DWG.NO. BO07

 LAW ENGINEERING RALEIGH, NORTH CAROLINA	
DRAWN: <i>QJB</i>	DATE: FEBRUARY 1996
DFT CHECK: <i>MLB</i>	SCALE: 1" = 60'
ENG CHECK: <i>SLK</i>	JOB: 30740-5-0500
APPROVAL: <i>BJB</i>	DWG: 1.7

J9989R04

REMEDIAL INVESTIGATION REPORT

NOTE: UST S-941-1 WAS A 550 GALLON STEEL TANK
INSTALLED IN 1941 CONTAINING GASOLINE, S-941-2
WAS A 6,000 GALLON STEEL TANK INSTALLED IN 1941
CONTAINING DIESEL FUEL AND REMOVED IN OCTOBER
1992. TANK 45-1 WAS A 500 GALLON TANK THAT
CONTAINED HEATING OIL AND WAS REMOVED JULY 1999.



LEGEND	
	- INTERMITTENT DRAINAGE SWALE
	- TREE LINE
	- GRAVEL ROAD
	- WETLAND
	- APPROXIMATE WETLAND BOUNDARY
	- FORMER UST LOCATION
	- EXTRACTION WELL LOCATION
	- HYDROPUNCH LOCATION
	- MONITORING WELL LOCATION
	- SOIL BORING LOCATION
	- ATEC SAMPLE
	- O'BRIEN AND GERE SAMPLE
	- R.E. WRIGHT SAMPLE
	- LAW ENGINEERING SAMPLE
	- J.A. JONES SAMPLE

FIGURE 1-4
PREVIOUS INVESTIGATIONS SAMPLE LOCATION MAP
SITE 84
REMEDIAL INVESTIGATION
CTO - 0219
MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA

SAMPLE ID	IR84-DP84-00
DEPTH	0 - 1
SAMPLE DATE	08-03-2001
VOLATILES (ug/kg)	
Xylenes (total)	8.7 J

SAMPLE ID	IR84-DP84-00
DEPTH	0 - 1
SAMPLE DATE	08-03-2001
SEMIVOLATILES (ug/kg)	
2-Methylnaphthalene	92,000
Acenaphthene	2,800 J
Anthracene	4,100 J
Benzo(a)anthracene	1,800 J
Benzo(g,h)perylene	1,500 J
Chrysene	2,800 J
Fluoranthene	1,700 J
Fluorene	9,000 J
Phenanthrene	24,000
Pyrene	16,000

SAMPLE ID	IR84-DP82-00
DEPTH	0 - 1
SAMPLE DATE	08-05-2001
VOLATILES (ug/kg)	
Ethylbenzene	330 J
Xylenes (total)	120 J

SAMPLE ID	IR84-DP82-00
DEPTH	0 - 1
SAMPLE DATE	08-05-2001
SEMIVOLATILES (ug/kg)	
Fluorene	580 J
Phenanthrene	910 J

SAMPLE ID	IR84-DP48-00
DEPTH	0 - 1
SAMPLE DATE	07-21-2001
SEMIVOLATILES (ug/kg)	
Acenaphthene	20,000 J
Anthracene	58,000
Benzo(a)anthracene	190,000
Benzo(a)pyrene	150,000
Benzo(b)fluoranthene	170,000
Benzo(g,h)perylene	55,000
Benzo(k)fluoranthene	120,000
Carbazole	38,000 J
Chrysene	180,000
Dibenz(a,h)anthracene	17,000 J
Dibenzofuran	8,900 J
Fluoranthene	300,000
Fluorene	19,000 J
Indeno(1,2,3-cd)pyrene	59,000
Naphthalene	7,500 J
Phenanthrene	180,000
Pyrene	250,000

SAMPLE ID	IR84-DP47-00
DEPTH	0 - 1
SAMPLE DATE	07-21-2001
SEMIVOLATILES (ug/kg)	
2-Methylnaphthalene	120 J
Acenaphthene	910
Anthracene	1,100
Benzo(a)anthracene	2,500
Benzo(a)pyrene	2,300
Benzo(b)fluoranthene	2,200
Benzo(g,h)perylene	1,200
Benzo(k)fluoranthene	2,000
Carbazole	4,700 J
Chrysene	2,700
Dibenz(a,h)anthracene	4,000
Dibenzofuran	5,880
Fluoranthene	5,880
Fluorene	880
Hexachlorocyclopentadiene	410 J
Indeno(1,2,3-cd)pyrene	1,200
Naphthalene	240 J
Phenanthrene	5,300
Pyrene	3,200

SAMPLE ID	IR84-DP48-00
DEPTH	0 - 1
SAMPLE DATE	07-21-2001
SEMIVOLATILES (ug/kg)	
Acenaphthene	140 J
Anthracene	210 J
Benzo(a)anthracene	520
Benzo(a)pyrene	470
Benzo(b)fluoranthene	540
Benzo(g,h)perylene	280 J
Benzo(k)fluoranthene	340 J
Carbazole	130 J
Chrysene	580
Dibenz(a,h)anthracene	70 J
Dibenzofuran	84 J
Fluoranthene	1,200
Fluorene	130 J
Indeno(1,2,3-cd)pyrene	250 J
Naphthalene	950
Phenanthrene	780
Pyrene	

SAMPLE ID	IR84-DP49-00
DEPTH	0 - 1
SAMPLE DATE	07-21-2001
SEMIVOLATILES (ug/kg)	
Acenaphthene	890
Anthracene	1,100
Benzo(a)anthracene	3,100
Benzo(a)pyrene	3,000
Benzo(b)fluoranthene	3,600
Benzo(g,h)perylene	1,500
Benzo(k)fluoranthene	2,100
Carbazole	650 J
Chrysene	3,300
Dibenz(a,h)anthracene	460 J
Dibenzofuran	400 J
Fluoranthene	7,200
Fluorene	680 J
Indeno(1,2,3-cd)pyrene	1,500
Naphthalene	140 J
Phenanthrene	6,000
Pyrene	6,100

SAMPLE ID	84-MW17-00
DEPTH	0 - 1
SAMPLE DATE	07-31-2001
SEMIVOLATILES (ug/kg)	
2-Methylnaphthalene	350 J
Acenaphthene	2,300
Anthracene	3,500
Benzo(a)anthracene	5,900
Benzo(a)pyrene	5,800
Benzo(b)fluoranthene	7,100
Benzo(g,h)perylene	3,200
Benzo(k)fluoranthene	3,500
Carbazole	2,100
Chrysene	6,700
Dibenz(a,h)anthracene	1,260 J
Dibenzofuran	1,800
Fluoranthene	18,000
Fluorene	2,600
Indeno(1,2,3-cd)pyrene	3,200
Naphthalene	640 J
Phenanthrene	19,000
Pyrene	10,000

SAMPLE ID	IR84-DP53-00
DEPTH	0 - 1
SAMPLE DATE	07-21-2001
SEMIVOLATILES (ug/kg)	
Acenaphthene	1,100 J
Anthracene	1,500
Benzo(a)anthracene	3,600
Benzo(a)pyrene	3,300
Benzo(b)fluoranthene	4,400
Benzo(g,h)perylene	1,800
Benzo(k)fluoranthene	2,000
Carbazole	830 J
Chrysene	3,900
Dibenz(a,h)anthracene	570 J
Dibenzofuran	710 J
Fluoranthene	8,400
Fluorene	980 J
Indeno(1,2,3-cd)pyrene	1,600
Naphthalene	300 J
Phenanthrene	7,100
Pyrene	8,100 J

SAMPLE ID	IR84-DP45-00
DEPTH	0 - 1
SAMPLE DATE	07-21-2001
SEMIVOLATILES (ug/kg)	
Acenaphthene	480 J
Anthracene	910 J
Benzo(a)anthracene	3,800
Benzo(a)pyrene	3,300
Benzo(b)fluoranthene	4,300
Benzo(g,h)perylene	1,800
Benzo(k)fluoranthene	1,800
Carbazole	578 J
Chrysene	3,900
Dibenz(a,h)anthracene	530 J
Dibenzofuran	250 J
Fluoranthene	5,900
Fluorene	410 J
Indeno(1,2,3-cd)pyrene	1,500
Naphthalene	3,500
Phenanthrene	5,400
Pyrene	

SAMPLE ID	IR84-DP51-00
DEPTH	0 - 1
SAMPLE DATE	07-21-2001
VOLATILES (ug/kg)	
SEMIVOLATILES (ug/kg)	
Benzo(g,h)perylene	74 J

CONCENTRATIONS IN RED TYPE ARE EXCEEDANCES OF EPA REGION IX PRG RESIDENTIAL SOIL VALUES.

CONCENTRATIONS IN BLUE ARE EXCEEDANCES OF NC SOIL-TO-GROUNDWATER CONCENTRATION VALUES.

CONCENTRATIONS IN GREEN ARE EXCEEDANCES OF BOTH EPA REGION IX PRG RESIDENTIAL VALUES AND NC SOIL-TO-GROUNDWATER VALUES.

NOTE

- DP-05, DP-15, DP-22, DP-68, DP-73, TP-01, TP-02 ARE APPROXIMATE LOCATIONS NOT BASED ON SURVEY DATA
- MW-15 IS A SOIL BORING
- ug/kg = MICROGRAMS PER KILOGRAM (SAME AS PARTS PER BILLION)
- VOC AND SVOC ANALYSIS WAS NOT PERFORMED ON SAMPLES FROM GRAYED LOCATIONS

- #### LEGEND
- ◆ - DIRECT PUSH SOIL BORING (2001)
 - ⊕ - EXISTING MONITORING WELL (1992)
 - △ - TEST PIT (2001)
 - ⊙ - NEW MONITORING WELL (2001)
 - ⊙ - SOIL SAMPLING LOCATION (1998)
 - ⊙ - SOIL SAMPLING LOCATION (1995)

FIGURE 4-5
POSITIVE DETECTIONS OF VOCs AND SVOCs IN
SURFACE SOIL
SITE 84
REMEDIAL INVESTIGATION
CTO - 0219
MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA

120 0 60 120
1 inch = 120 ft.

Baker
Baker Environmental, Inc.

SAMPLE ID	IR84-MW23-01
DEPTH	1 - 3
SAMPLE DATE	08-03-2001
VOLATILES (ug/kg)	
Ethylbenzene	1 J
Styrene	2 J
Xylenes (total)	4 J

SAMPLE ID	IR84-DP15-03
DEPTH	5 - 7
SAMPLE DATE	07-18-2001
VOLATILES (ug/kg)	
Ethylbenzene	140 J
SEMIVOLATILES (ug/kg)	
2-Methylnaphthalene	9,100 J
Acenaphthene	950 J
Dibenzofuran	1,300 J
Fluorene	1,500 J
Naphthalene	2,000 J
Phenanthrene	3,400 J

SAMPLE ID	IR84-DP79-02
DEPTH	3 - 5
SAMPLE DATE	08-05-2001
SEMIVOLATILES (ug/kg)	
bis(2-Ethylhexyl) phthalate	730 J

SAMPLE ID	IR84-DP75-05
DEPTH	9 - 11
SAMPLE DATE	08-02-2001
VOLATILES (ug/kg)	
Benzene	120 J
Ethylbenzene	1,300 J
Toluene	75 J
Xylenes (total)	3,100 J
SEMIVOLATILES (ug/kg)	
2-Methylnaphthalene	1,000 J
Fluorene	80 J
Naphthalene	400 J
Phenanthrene	150 J

SAMPLE ID	IR84-DP47-01
DEPTH	1 - 3
SAMPLE DATE	07-21-2001
SEMIVOLATILES (ug/kg)	
Acenaphthene	230 J
Anthracene	320 J
Benzo(a)anthracene	640 J
Benzo(a)pyrene	590 J
Benzo(b)fluoranthene	720 J
Benzo(ghi)perylene	340 J
Benzo(k)fluoranthene	350 J
Carbazole	180 J
Chrysene	710 J
Dibenz(a,h)anthracene	100 J
Dibenzofuran	160 J
Fluoranthene	
Fluorene	230 J
Hexachlorocyclopentadiene	84 J
Indeno(1,2,3-cd)pyrene	350 J
Naphthalene	55 J
Phenanthrene	1,400 J
Pyrene	1,100 J

SAMPLE ID	IR84-DP80-02
DEPTH	3 - 5
SAMPLE DATE	08-05-2001
SEMIVOLATILES (ug/kg)	
bis(2-Ethylhexyl) phthalate	160 J

SAMPLE ID	IR84-DP52-01
DEPTH	1 - 3
SAMPLE DATE	07-21-2001
SEMIVOLATILES (ug/kg)	
Benzo(b)fluoranthene	77 J
Benzo(ghi)perylene	83 J
Chrysene	57 J
Fluoranthene	74 J
Pyrene	69 J

SAMPLE ID	IR84-DP51-01
DEPTH	1 - 3
SAMPLE DATE	07-21-2001
SEMIVOLATILES (ug/kg)	
Benzo(ghi)perylene	65 J

SAMPLE ID	IR84-SB01-02
DEPTH	3 - 5
SAMPLE DATE	08-02-2001
SEMIVOLATILES (ug/kg)	
Benzo(b)fluoranthene	68 J

SAMPLE ID	IR84-MW21-04
DEPTH	7 - 9
SAMPLE DATE	08-02-2001
SEMIVOLATILES (ug/kg)	
bis(2-Ethylhexyl) phthalate	150 J

SAMPLE ID	IR84-DP81-04
DEPTH	7 - 9
SAMPLE DATE	08-05-2001
SEMIVOLATILES (ug/kg)	
bis(2-Chloroethoxy)methane	54

SAMPLE ID	IR84-DP82-04
DEPTH	7 - 9
SAMPLE DATE	08-05-2001
VOLATILES (ug/kg)	
1,2-Dichloroethane (total)	91 J
Ethylbenzene	250 J
Xylenes (total)	95 J

SAMPLE ID	84-MW17-07
DEPTH	13 - 15
SAMPLE DATE	07-31-2001
SEMIVOLATILES (ug/kg)	
bis(2-Ethylhexyl) phthalate	91 J

SAMPLE ID	IR84-MW22-02
DEPTH	3 - 5
SAMPLE DATE	08-03-2001
SEMIVOLATILES (ug/kg)	
bis(2-Ethylhexyl) phthalate	1,800 J

SAMPLE ID	IR84-DP45-03
DEPTH	3 - 7
SAMPLE DATE	07-21-2001
SEMIVOLATILES (ug/kg)	
Acenaphthene	61 J
Anthracene	190 J
Benzo(a)anthracene	780 J
Benzo(a)pyrene	660 J
Benzo(b)fluoranthene	880 J
Benzo(ghi)perylene	350 J
Benzo(k)fluoranthene	280 J
Carbazole	110 J
Chrysene	750 J
Dibenz(a,h)anthracene	98 J
Fluoranthene	1,300 J
Fluorene	84 J
Indeno(1,2,3-cd)pyrene	340 J
Phenanthrene	610 J
Pyrene	900 J
bis(2-Ethylhexyl) phthalate	300 J

SAMPLE ID	IR84-DP46-02
DEPTH	3 - 5
SAMPLE DATE	07-31-2001
SEMIVOLATILES (ug/kg)	
Acenaphthene	370 J
Anthracene	830 J
Benzo(a)anthracene	3,000 J
Benzo(a)pyrene	2,600 J
Benzo(b)fluoranthene	2,800 J
Benzo(ghi)perylene	1,200 J
Benzo(k)fluoranthene	1,700 J
Carbazole	480 J
Chrysene	3,100 J
Dibenz(a,h)anthracene	430 J
Dibenzofuran	200 J
Fluoranthene	4,800 J
Fluorene	310 J
Indeno(1,2,3-cd)pyrene	1,200 J
Phenanthrene	3,100 J
Pyrene	4,100 J
bis(2-Ethylhexyl) phthalate	150 J

SAMPLE ID	84-MW15-04
DEPTH	7 - 9
SAMPLE DATE	07-31-2001
VOLATILES (ug/kg)	
Benzene	180 J
Ethylbenzene	1,000 J
Xylenes (total)	2,800 J
SEMIVOLATILES (ug/kg)	
2-Methylnaphthalene	27,000 J
Naphthalene	8,500 J
Phenanthrene	3,400 J

120 0 60 120
1 inch = 120 ft.

Baker

Baker Environmental Inc.

NOTE
- DP-05, DP-15, DP-22, DP-68, DP-73, TP-01, TP-02 ARE APPROXIMATE LOCATIONS NOT BASED ON SURVEY DATA
- MW-15 IS A SOIL BORING
- ug/kg = MICROGRAMS PER KILOGRAM (SAME AS PARTS PER BILLION)
- VOL & SVOC ANALYSIS NOT PERFORMED ON SAMPLES FROM GRAYED LOCATIONS
CONCENTRATIONS IN RED TYPE ARE EXCEEDANCES OF EPA REGION IX PRG RESIDENTIAL SOIL VALUES

LEGEND

- ◆ - DIRECT PUSH SOIL BORING (2001)
- ⊕ - EXISTING MONITORING WELL (1992)
- △ - TEST PIT (2001)
- ⊙ - NEW MONITORING WELL (2001)
- ⊙ - SOIL SAMPLING LOCATION (1998)
- ⊙ - SOIL SAMPLING LOCATION (1995)

FIGURE 4-10
POSITIVE DETECTIONS OF VOCs AND SVOCs
IN SUBSURFACE SOIL
SITE 84
REMEDIAL INVESTIGATION
CTO - 0219
MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA

SAMPLE ID	IR84-MW07-01C
SAMPLE DATE	08-06-2001
HERBICIDES (ug/L)	
MCPA	0.015 J

SAMPLE ID	IR84-MW20-01C
SAMPLE DATE	08-05-2001
SEMIVOLATILES (ug/L)	
2-Methylnaphthalene	1 J
PESTICIDES (ug/L)	
4,4'-DDE	0.028 J
4,4'-DDT	0.024 J
Endosulfan I	0.042 J
beta-BHC	0.03 J
gamma-Chlordane	0.025 J

SAMPLE ID	IR84-MW20-01CD
SAMPLE DATE	08-05-2001
SEMIVOLATILES (ug/L)	
2-Methylnaphthalene	1.1 J
PESTICIDES (ug/L)	
4,4'-DDE	0.029 J
4,4'-DDT	0.026 J
Endosulfan I	0.047 J

SAMPLE ID	IR84-MW17-01C
SAMPLE DATE	08-06-2001
VOLATILES (ug/L)	
Ethylbenzene	0.6 J
Trichloroethene	0.19 J
Xylenes (total)	1.8
PESTICIDES (ug/L)	
gamma-Chlordane	0.021 J
HERBICIDES (ug/L)	
MCPA	1.5 J

SAMPLE ID	AST781-GW03-98B
SAMPLE DATE	4/23/98
VOLATILES (ug/L)	
Benzene	3.4 J
Ethylbenzene	3.6 J

SAMPLE ID	AST781-GW04-98B
SAMPLE DATE	4/23/98
VOLATILES (ug/L)	
Benzene	1.5 J
Ethylbenzene	6.7 J

SAMPLE ID	IR84-MW19-01C
SAMPLE DATE	08-04-2001
HERBICIDES (ug/L)	
MCPA	0.057 J

SAMPLE ID	IR84-MW16-01C
SAMPLE DATE	08-04-2001
PESTICIDES (ug/L)	
Endosulfan I	0.029 J

SAMPLE ID	IR84-MW22-01C
SAMPLE DATE	08-05-2001
VOLATILES (ug/L)	
Ethylbenzene	3.6
SEMIVOLATILES (ug/L)	
Naphthalene	2.2 J

SAMPLE ID	AST781-GW11-98B
SAMPLE DATE	4/23/98
VOLATILES (ug/L)	
Chloroform	16

SAMPLE ID	IR84-MW21-01C
SAMPLE DATE	08-05-2001
PESTICIDES (ug/L)	
4,4'-DDE	0.036 J
Endosulfan	0.046 J
gamma-Chlordane	0.029 J
HERBICIDES (ug/L)	
MCPA	0.16 J

SAMPLE ID	IR84-MW18-01C
SAMPLE DATE	08-04-2001
VOLATILES (ug/L)	
Carbon disulfide	0.49 J
PESTICIDES (ug/L)	
4,4'-DDE	0.044 J
Heptachlor epoxide	0.023 J
gamma-Chlordane	0.026 J

SAMPLE ID	AST781-GW12-98B
SAMPLE DATE	4/23/98
VOLATILES (ug/L)	
Chloroform	16

LEGEND

- - - - - INTERMITTENT DRAINAGE SWELL
- - - - - TREE LINE
- - - - - GRAVEL ROAD
- - - - - MONITORING WELL (2001)
- - - - - MONITORING WELL (1992)

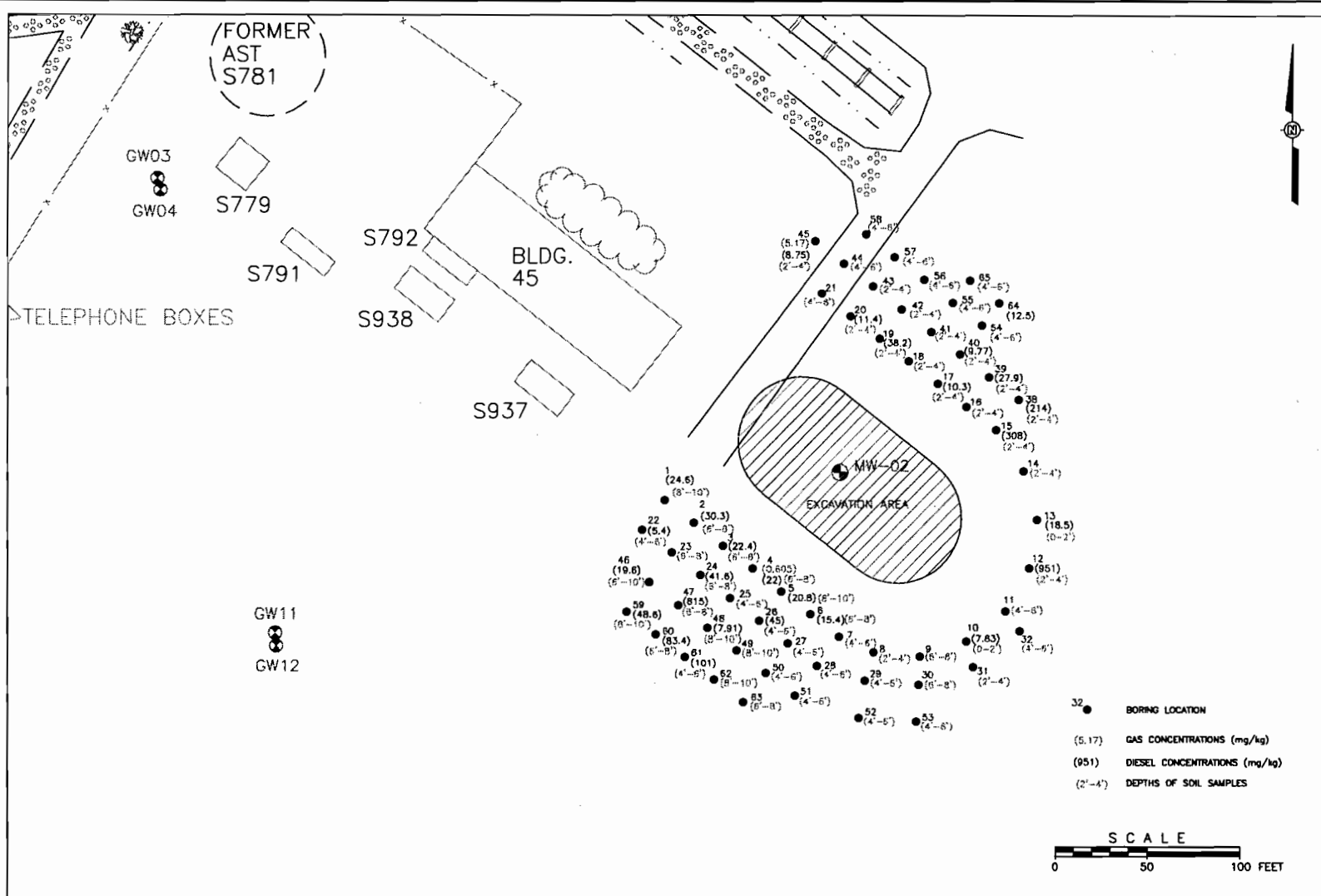
FIGURE 4-13
POSITIVE DETECTIONS OF ORGANIC COMPOUNDS IN GROUNDWATER
SITE 84
REMEDIAL INVESTIGATION
CTO - 0219
MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA

UNDERGROUND WIRES, LINES, PIPES AND OTHER UTILITIES
WERE NOT ATTEMPTED TO BE SURVEYED AT THIS TIME.
CONCENTRATIONS RED TEXT EXCEED THE FEDERAL MCL
CONCENTRATIONS GREEN TEXT EXCEED THE NC WQS.

Baker
Baker Environmental Inc.

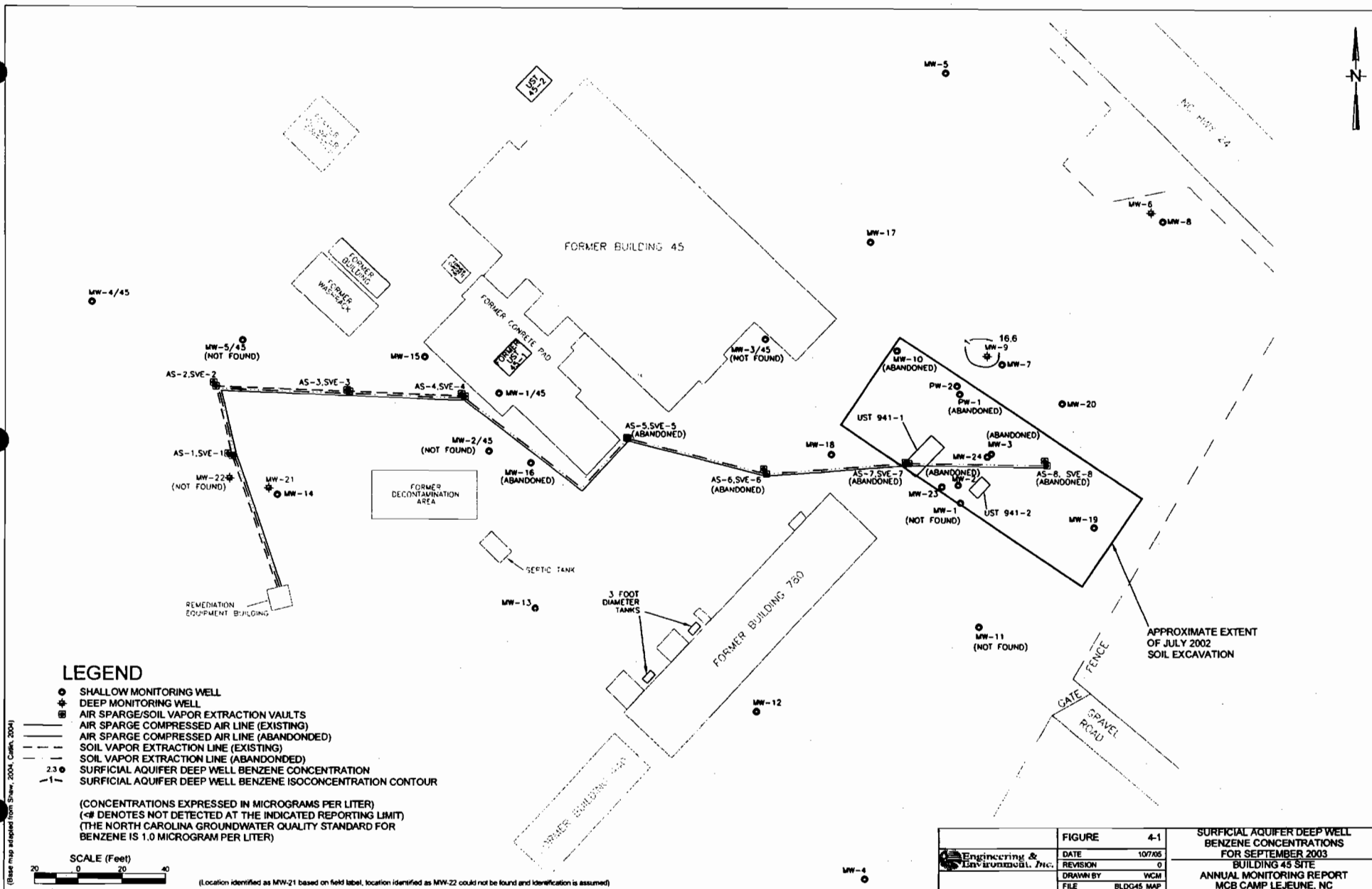
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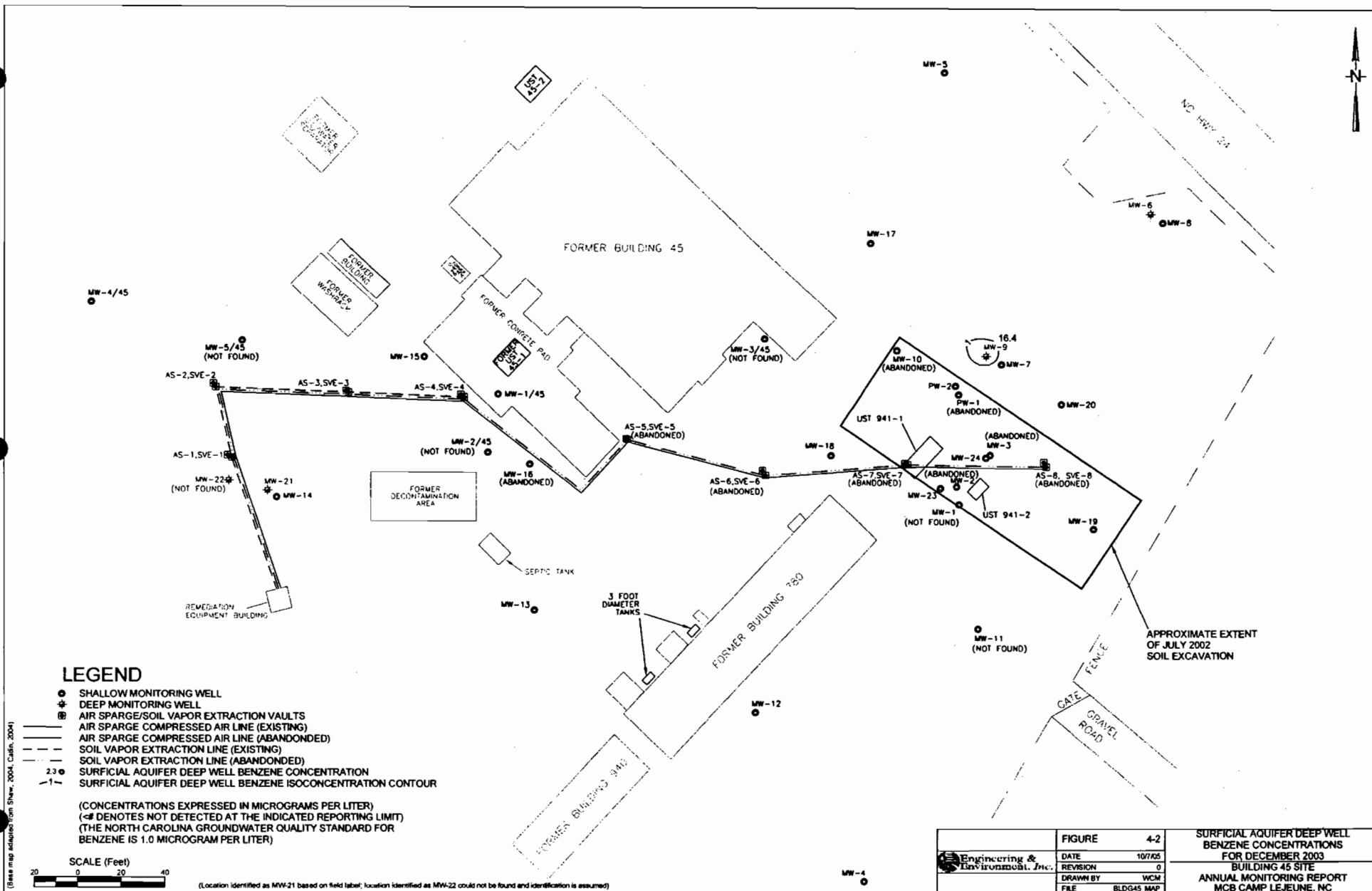
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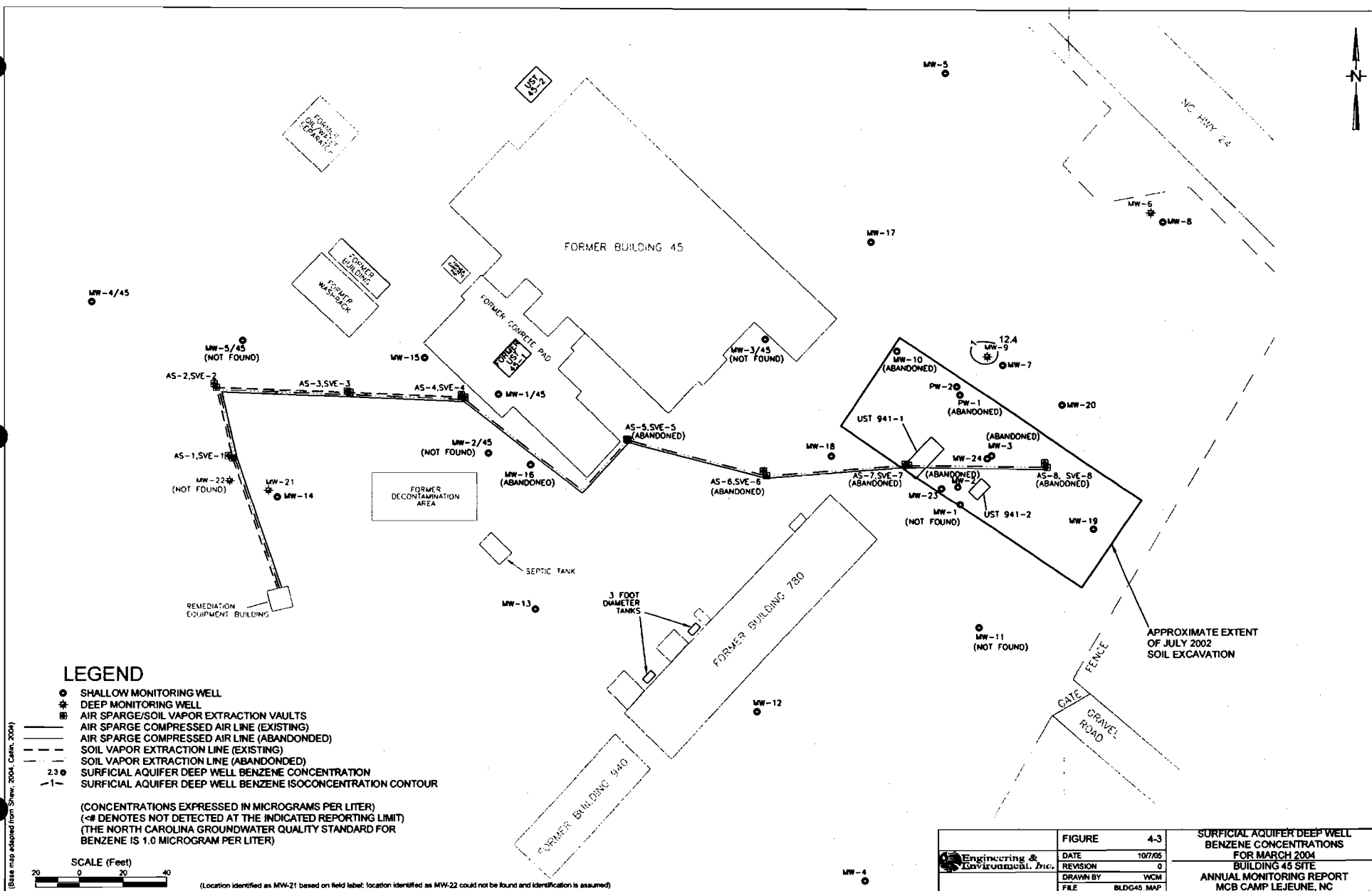


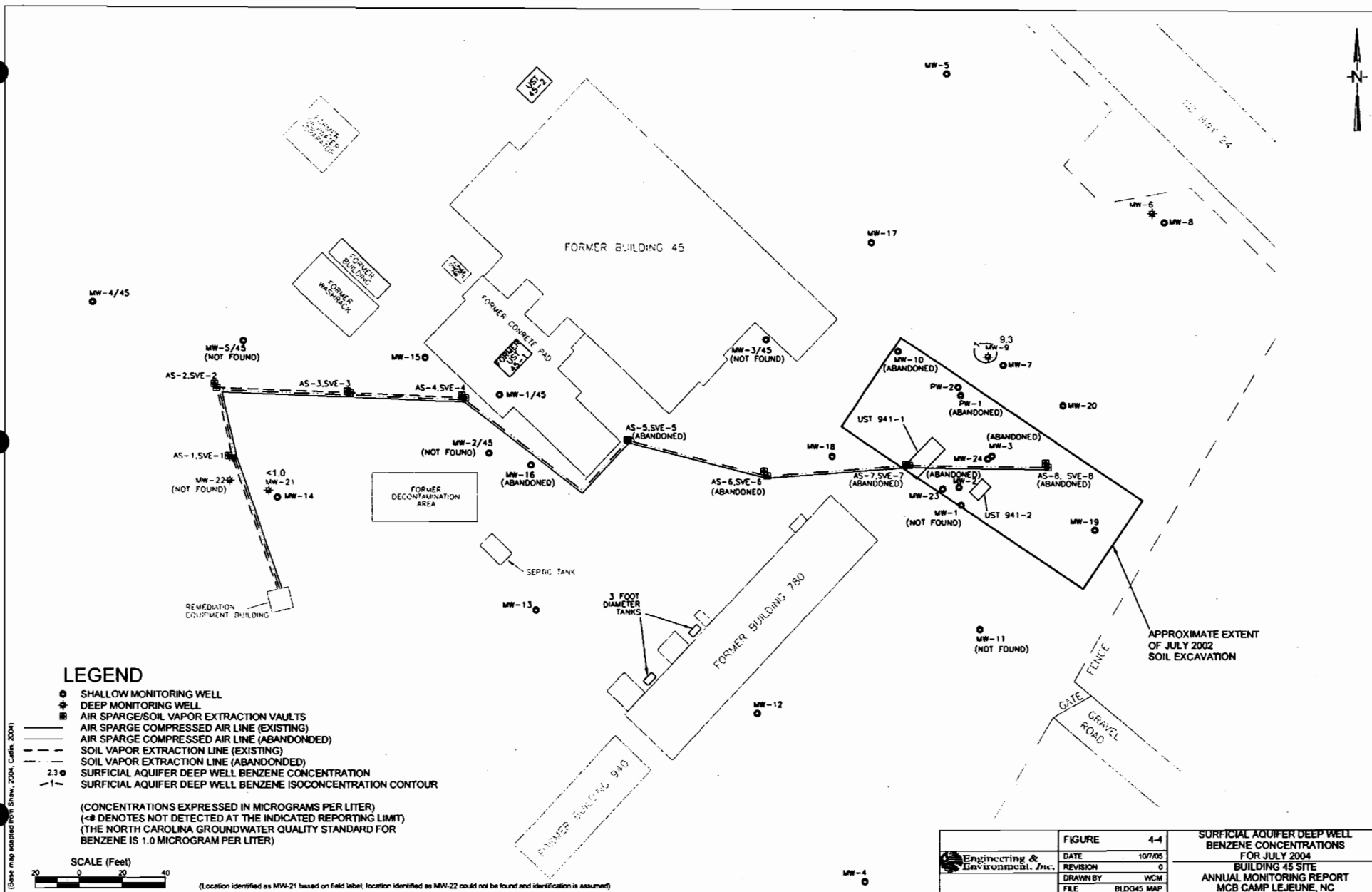
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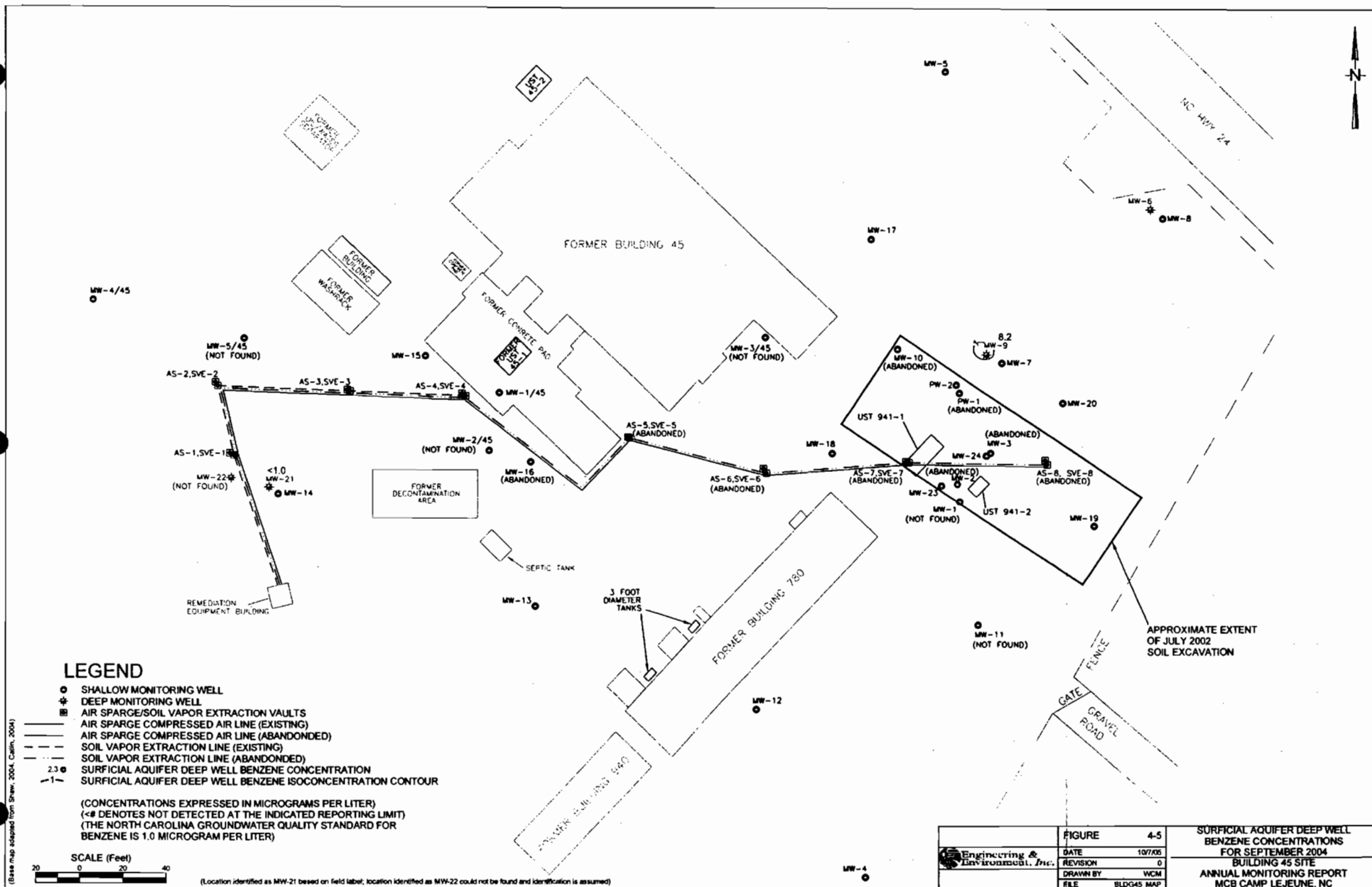
ANNUAL GROUNDWATER MONITORING REPORT 2003-2005

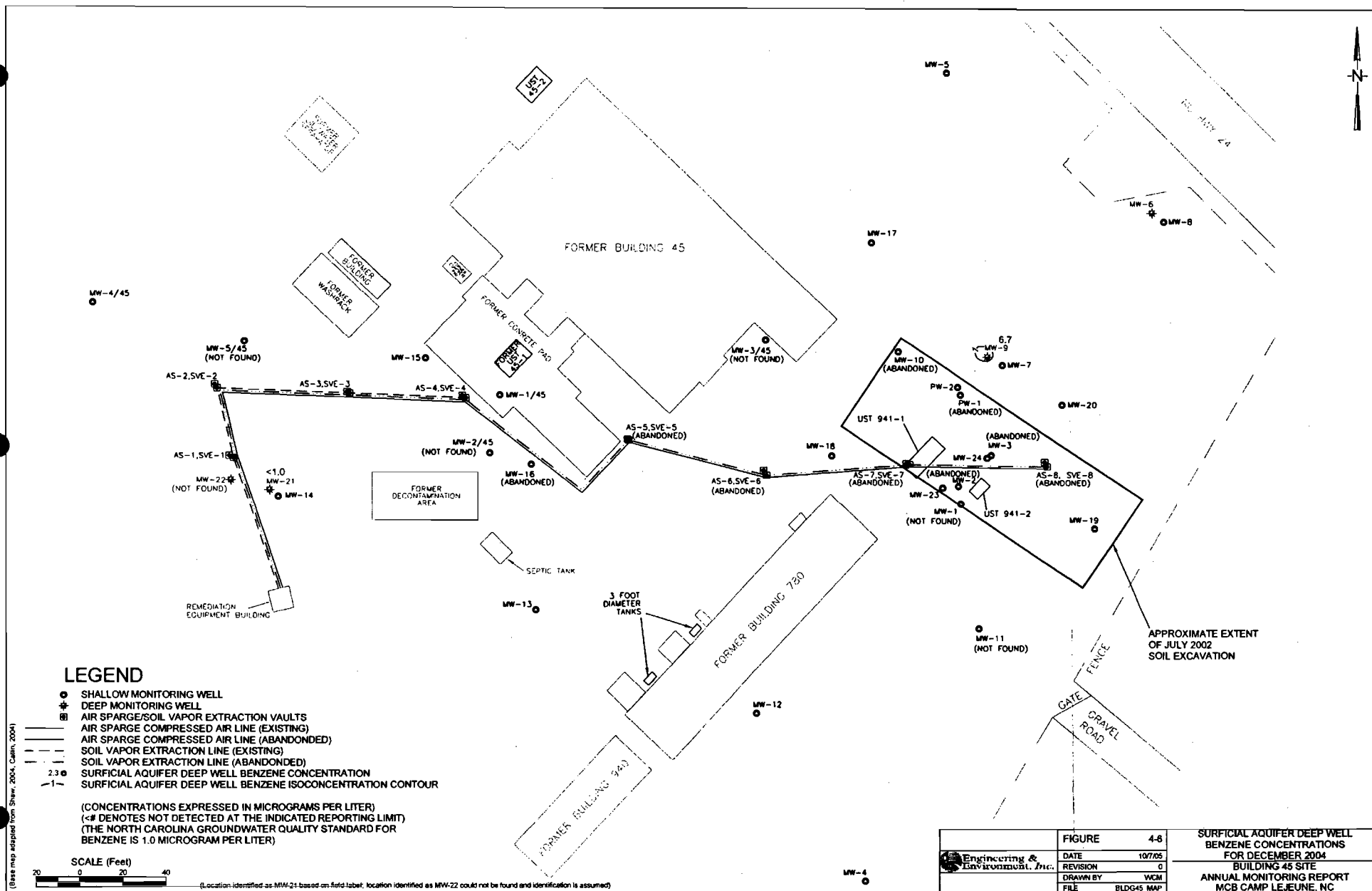


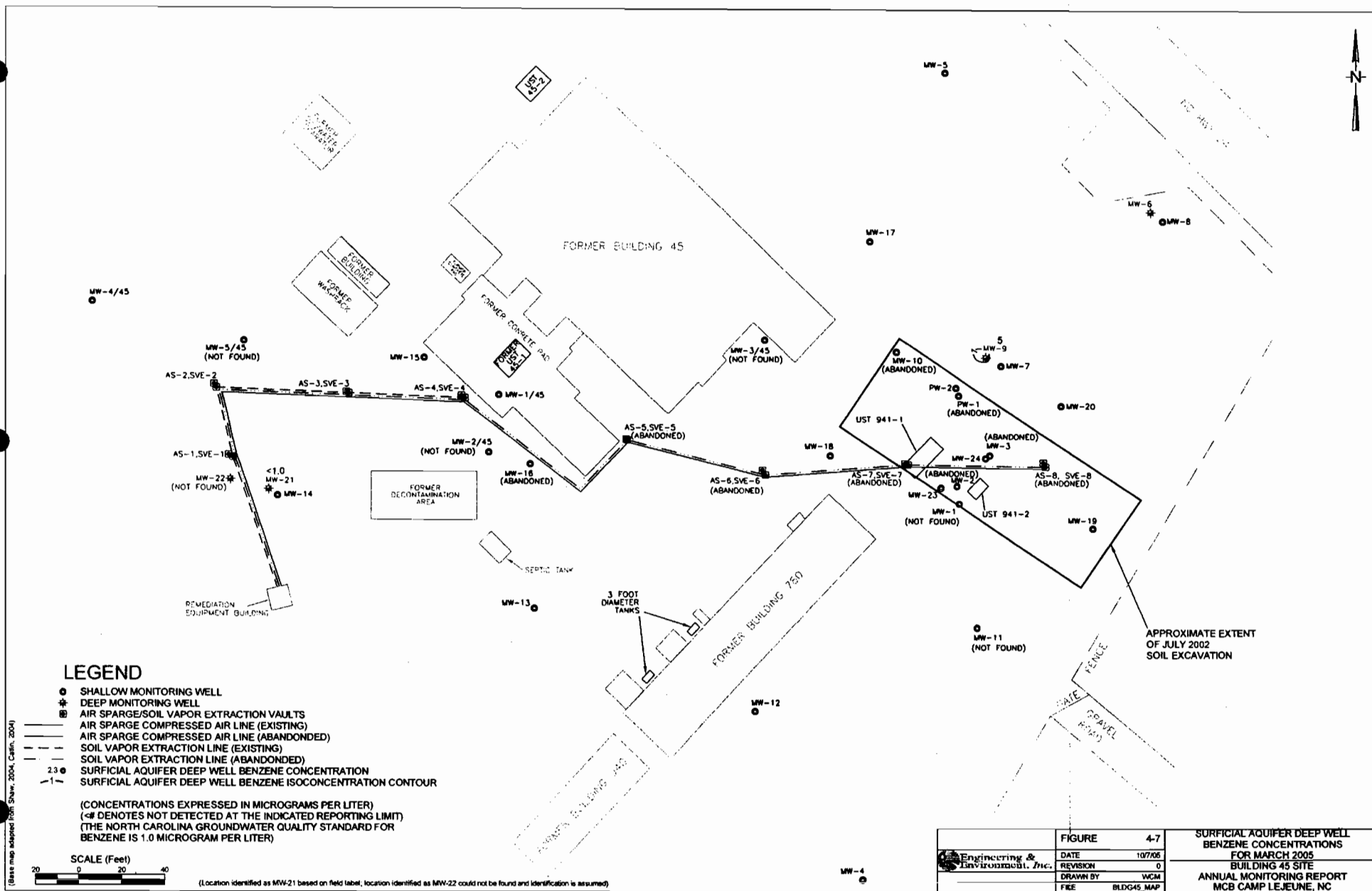


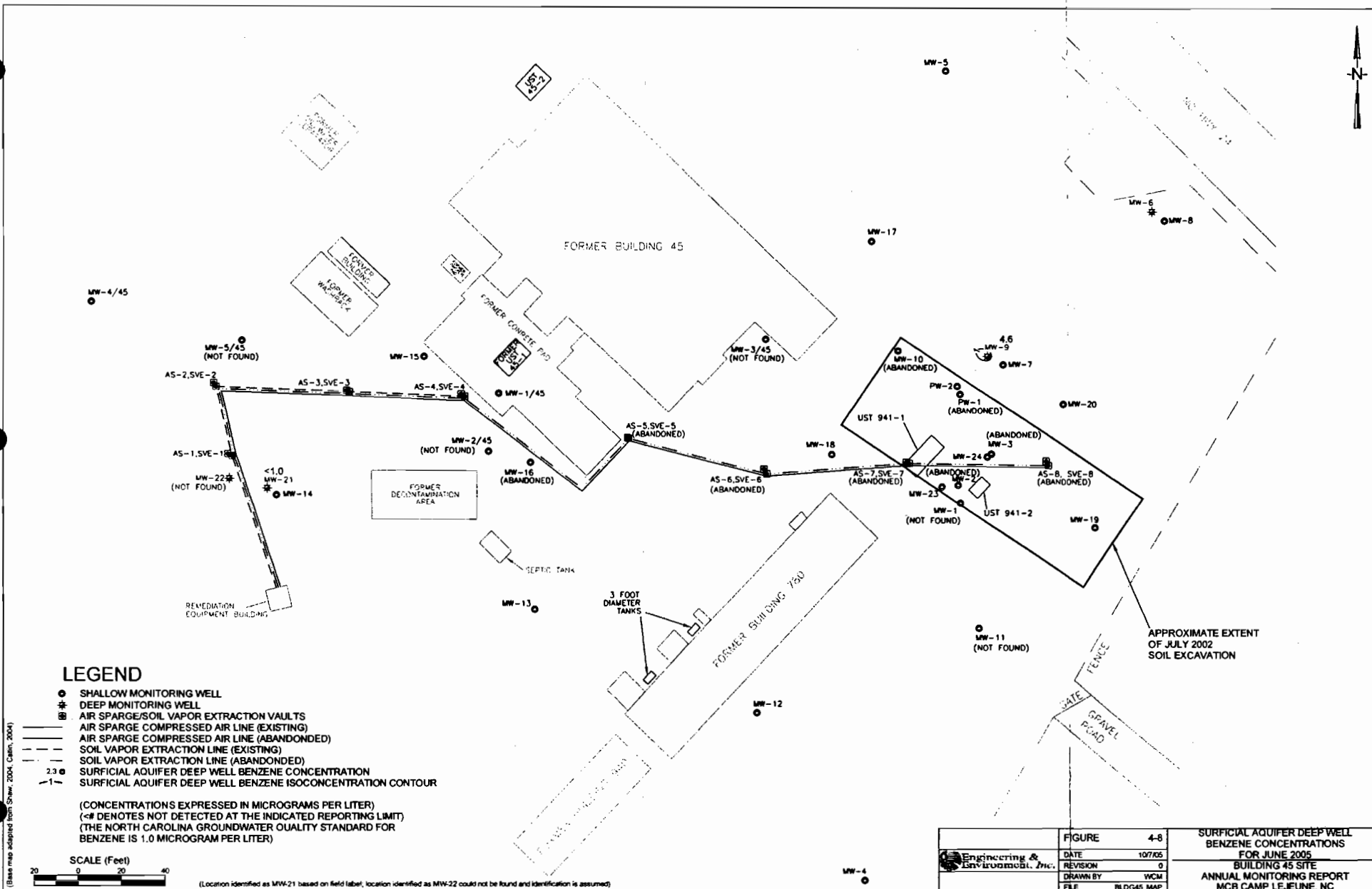












**FIGURES OBTAINED FROM UST MANAGEMENT PROGRAM IN CAMP LEJEUNE
SECOND SEMESTER 2005/FIRST SEMESTER 2006**

MCB CAMP LEJEUNE UST MANAGEMENT PROGRAM



LEGEND

Monitoring Wells	Free Product	Vegetation Cover
○ Type I	Free Product Detected	Forestland
⊕ Type II	No Measurable Thickness	Scrubland
⊙ Type III	Free Product Plume	Wetland
⊖ Pumping Well	Buildings and Structures	Airfield Pavement
⊗ Unknown Well Type	Demolished Structures	HELIPAD
● Water Supply Wells	Oil/Water Separators	RAMP
■ Above Ground Storage Tank	Slabs	RUNWAY
■ Underground Storage Tank	Roads	SHLDR_OVERRUN
— Railroad Tracks	Driveways	TAXIWAY
— FENCE	Parking Lots	
△ GATE	Surface Water Bodies	
— WALL	Creeks and Streams	
	Groundwater Flow Direction	

NOTES

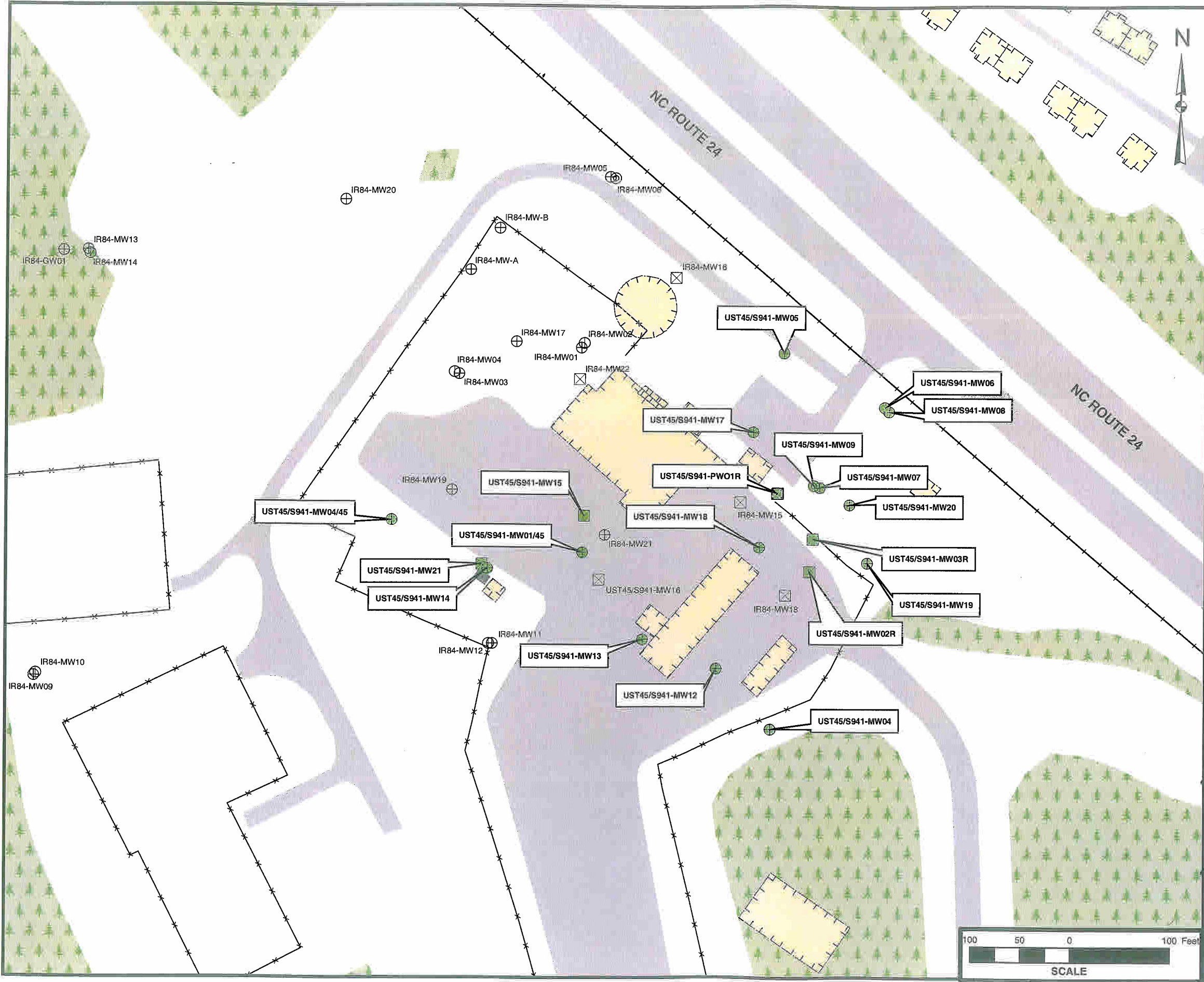
- Free Product was not detected at this site in any of the wells gauged during this monitoring event.

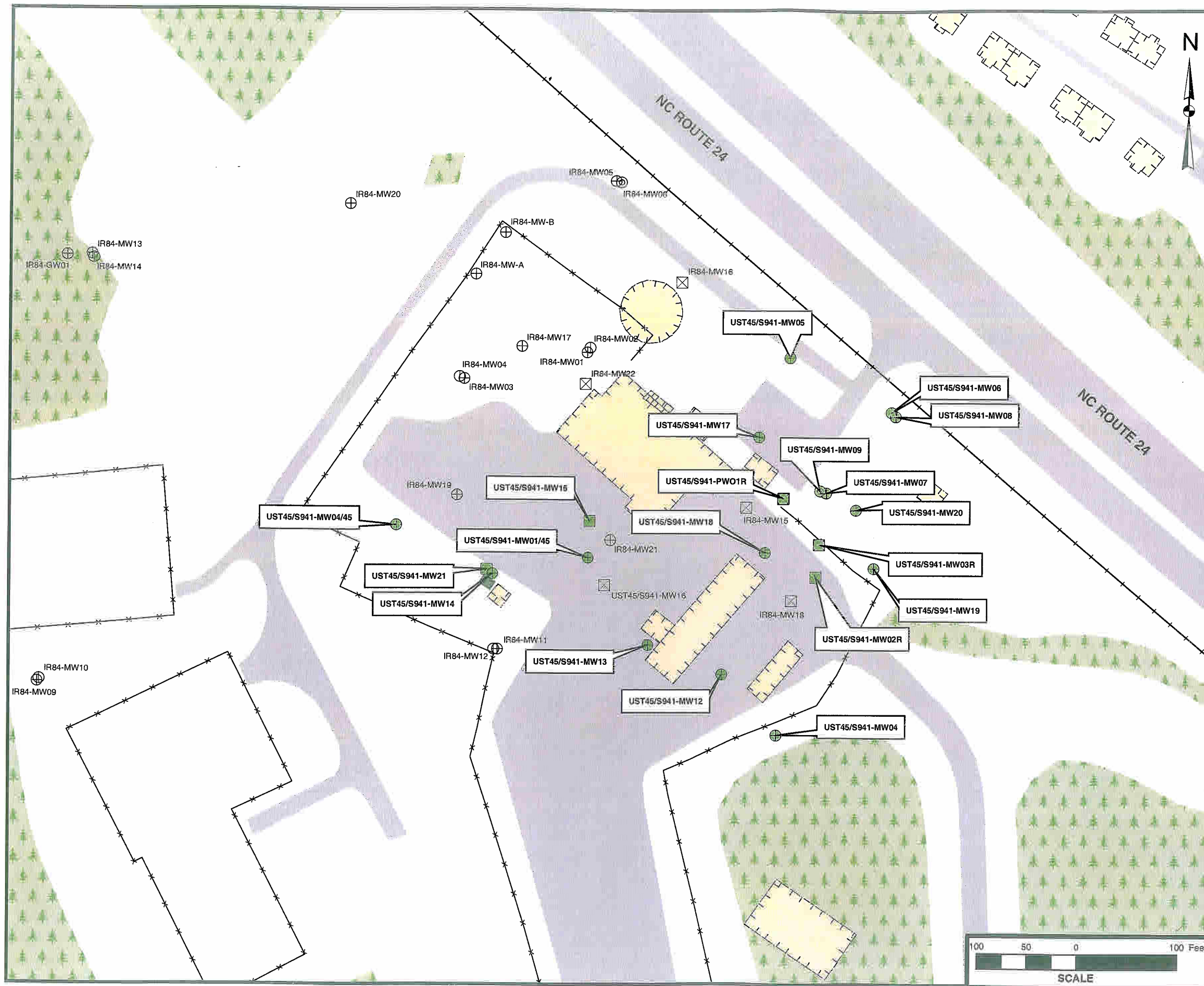
CATLIN
ENGINEERS and SCIENTISTS

SITE 45/S941
FREE PRODUCT PLUME MAP
FOURTH QUARTER 2005

FIGURE
7.1A

Job No.: 204-080	Date: JUNE 2006	Scale: AS SHOWN	Drawn By: SAC	Checked By: MEM





MCB CAMP LEJEUNE UST MANAGEMENT PROGRAM

LEGEND

Monitoring Wells - Type I - Type II - Type III - Pumping Well - Unknown Well Type - Water Supply Wells - Above Ground Storage Tank - Underground Storage Tank - Railroad Tracks	Free Product - Free Product Detected - No Measurable Thickness - Free Product Plume - Buildings and Structures - Demolished Structures - Oil/Water Separators - Slabs - Roads - Driveways - Parking Lots - Surface Water Bodies - Creeks and Streams	Vegetation Cover - Forestland - Scrubland - Wetland Airfield Pavement - HELIPAD - RAMP - RUNWAY - SHLDR_OVERRUN - TAXIWAY

Walls and Fences

- FENCE
- GATE
- WALL

Groundwater Flow Direction

NOTES

1. Free Product was not detected at this site in any of the wells gauged during this monitoring event.

**SITE 45/S941
FREE PRODUCT PLUME MAP
SECOND QUARTER 2006**

**FIGURE
7.1B**

Job No.: 204-080	Date: JUNE 2006	Scale: AS SHOWN	Drawn By: SAC	Checked By: MEM

MCB CAMP LEJEUNE
UST MANAGEMENT PROGRAM



LEGEND

- Monitoring Wells**
- Type I
 - Type II
 - Type III
 - Pumping Well
 - Unknown Well Type
 - Water Supply Wells
 - Above Ground Storage Tank
 - Underground Storage Tank
 - Railroad Tracks
 - FENCE
 - GATE
 - WALL
- Analytical Results**
- 2L Non-Compliant
 - 2L Compliant
 - EPA 602 Plume
 - Buildings and Structures
 - Demolished Structures
 - Oil/Water Separators
 - Slabs
 - Roads
 - Driveways
 - Parking Lots
 - Surface Water Bodies
 - Creeks and Streams
 - Groundwater Flow Direction
- Vegetation Cover**
- Forestland
 - Scrubland
 - Wetland
- Airfield Pavement**
- HELIPAD
 - RAMP
 - RUNWAY
 - SHLDR_OVERRUN
 - TAXIWAY

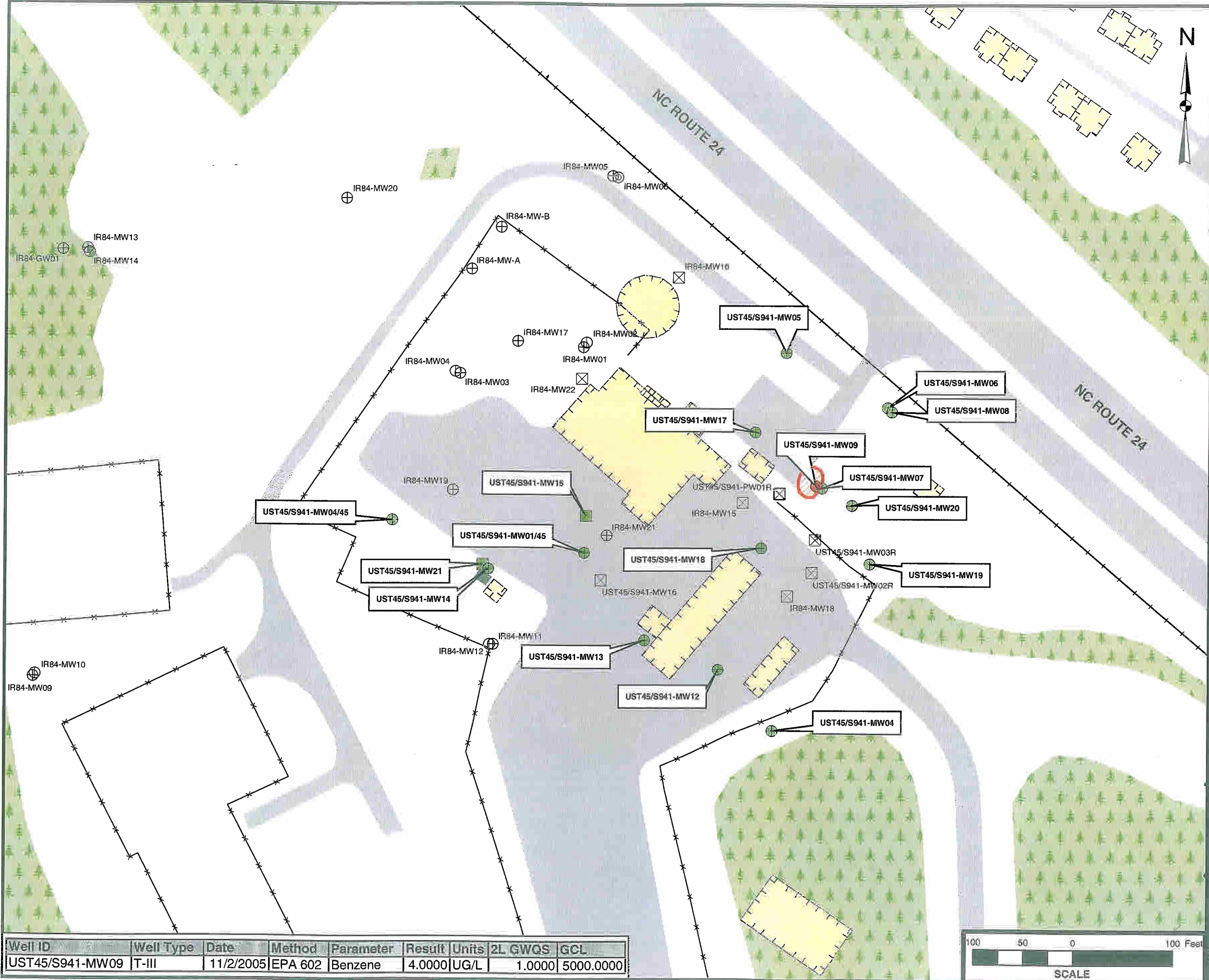
NOTES

- 2L Standard refers to North Carolina Groundwater Quality Standard 15A NCAC 2L.0202.
- GCL refers to Gross Contaminant Level as defined in Table 7 of "Groundwater Section Guidelines for the Investigation and Remediation of Soil and Ground Water", Volume II, dated January 2, 1998.
- A 2L Standard of "0.00" implies a standard has not been established. According to NCAC T15:02L, any compound found above laboratory detection limits is considered noncompliant unless otherwise specified by the NCDENR.



SITE 45/S941
EPA METHOD 602 COLORIMETRY
AND PLUME IN EXCESS OF 2L
FOURTH QUARTER 2005

FIGURE
7.2A



Well ID	Well Type	Date	Method	Parameter	Result	Units	2L GWQS	GCL
UST45/S941-MW09	T-III	11/2/2005	EPA 602	Benzene	4.0000	UG/L	1.0000	5000.0000

Job No.: 204-080	Date: JUNE 2006	Scale: AS SHOWN	Drawn By: SAC	Checked By: MEM

MCB CAMP LEJEUNE
UST MANAGEMENT PROGRAM



LEGEND

- Monitoring Wells**
- Type I
 - Type II
 - Type III
 - Pumping Well
 - Unknown Well Type
 - Water Supply Wells
 - Above Ground Storage Tank
 - Underground Storage Tank
 - Railroad Tracks
 - Walls and Fences
- Analytical Results**
- 2L Non-Compliant
 - 2L Compliant
 - EPA 602 Plume
 - Buildings and Structures
 - Demolished Structures
 - Oil/Water Separators
 - Slabs
 - Roads
 - Driveways
 - Parking Lots
 - Surface Water Bodies
 - Creeks and Streams
 - Groundwater Flow Direction
- Vegetation Cover**
- Forestland
 - Scrubland
 - Wetland
- Airfield Pavement**
- HELIPAD
 - RAMP
 - RUNWAY
 - SHLDR_OVERRUN
 - TAXIWAY

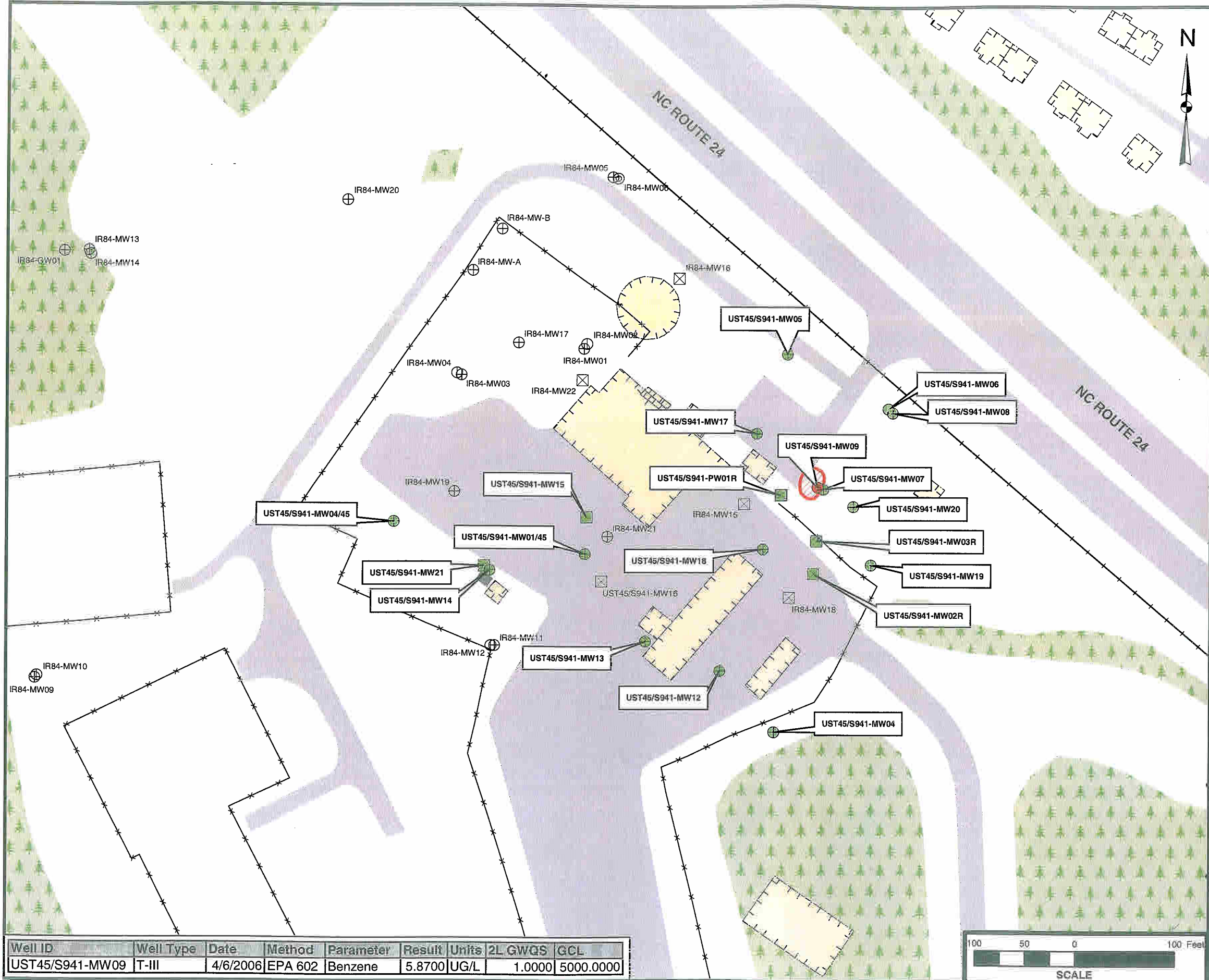
NOTES

- 2L Standard refers to North Carolina Groundwater Quality Standard 15A NCAC 2L.0202.
- GCL refers to Gross Contaminant Level as defined in Table 7 of "Groundwater Section Guidelines for the Investigation and Remediation of Soil and Ground Water", Volume II, dated January 2, 1998.
- A 2L Standard of "0.00" implies a standard has not yet been established. According to NCAC T15:02L, any compound found above laboratory detection limits is considered noncompliant unless otherwise specified by the NCDENR.

CATLIN
ENGINEERS and SCIENTISTS

SITE 45/S941
EPA METHOD 602 COLORIMETRY
AND PLUME IN EXCESS OF 2L
SECOND QUARTER 2006

FIGURE
7.2B



Well ID	Well Type	Date	Method	Parameter	Result	Units	2L GWQS	GCL
UST45/S941-MW09	T-III	4/6/2006	EPA 602	Benzene	5.8700	UG/L	1.0000	5000.0000



Job No.: 204-080	Date: JUNE 2006	Scale: AS SHOWN	Drawn By: SAC	Checked By: MEM

MCB CAMP LEJEUNE UST MANAGEMENT PROGRAM



LEGEND

Monitoring Wells	Analytical Results	Vegetation Cover
○ Type I	● 2L Non-Compliant	Forestland
⊕ Type II	● 2L Compliant	Scrubland
⊙ Type III	■ EPA 625 Plume	Wetland
⊗ Pumping Well	■ Buildings and Structures	Airfield Pavement
⊠ Unknown Well Type	■ Demolished Structures	HELIPAD
● Water Supply Wells	■ Oil/Water Separators	RAMP
■ Above Ground Storage Tank	■ Slabs	RUNWAY
■ Underground Storage Tank	■ Roads	SHLDR_OVERRUN
— Railroad Tracks	■ Driveways	TAXIWAY
Walls and Fences	■ Parking Lots	
⊗ FENCE	■ Surface Water Bodies	
△ GATE	■ Creeks and Streams	
— WALL	■ Groundwater Flow Direction	

NOTES

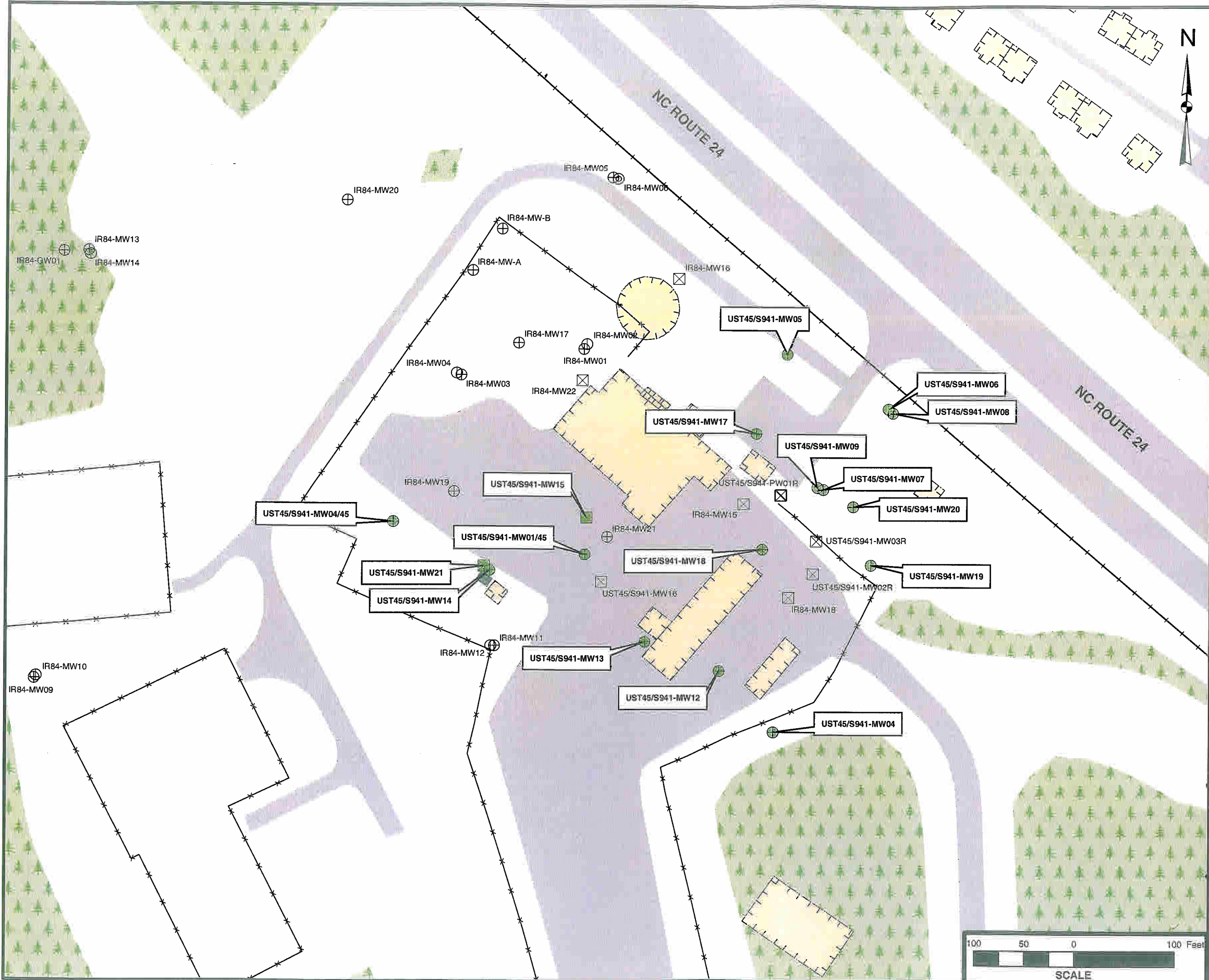
1. No EPA Method 625 compounds were detected above 2L Standards for any wells sampled during this monitoring event.

CATLIN
ENGINEERS and SCIENTISTS

SITE 45/S941
EPA METHOD 625 COLORIMETRY
AND PLUME IN EXCESS OF 2L
FOURTH QUARTER 2005

FIGURE
7.3A

Job No.: 204-080	Date: JUNE 2006	Scale: AS SHOWN	Drawn By: SAC	Checked By: MEM



MCB CAMP LEJEUNE
UST MANAGEMENT PROGRAM



LEGEND

Monitoring Wells	Analytical Results	Vegetation Cover
○ Type I	● 2L Non-Compliant	Forestland
⊕ Type II	● 2L Compliant	Scrubland
⊙ Type III	■ EPA 625 Plume	Wetland
⊗ Pumping Well	■ Buildings and Structures	Airfield Pavement
⊠ Unknown Well Type	■ Demolished Structures	HELIPAD
● Water Supply Wells	■ Oil/Water Separators	RAMP
■ Above Ground Storage Tank	■ Slabs	RUNWAY
■ Underground Storage Tank	■ Roads	SHLDR_OVERRUN
— Railroad Tracks	■ Driveways	TAXIWAY
— FENCE	■ Parking Lots	
△ GATE	■ Surface Water Bodies	
— WALL	■ Creeks and Streams	
	■ Groundwater Flow Direction	

NOTES

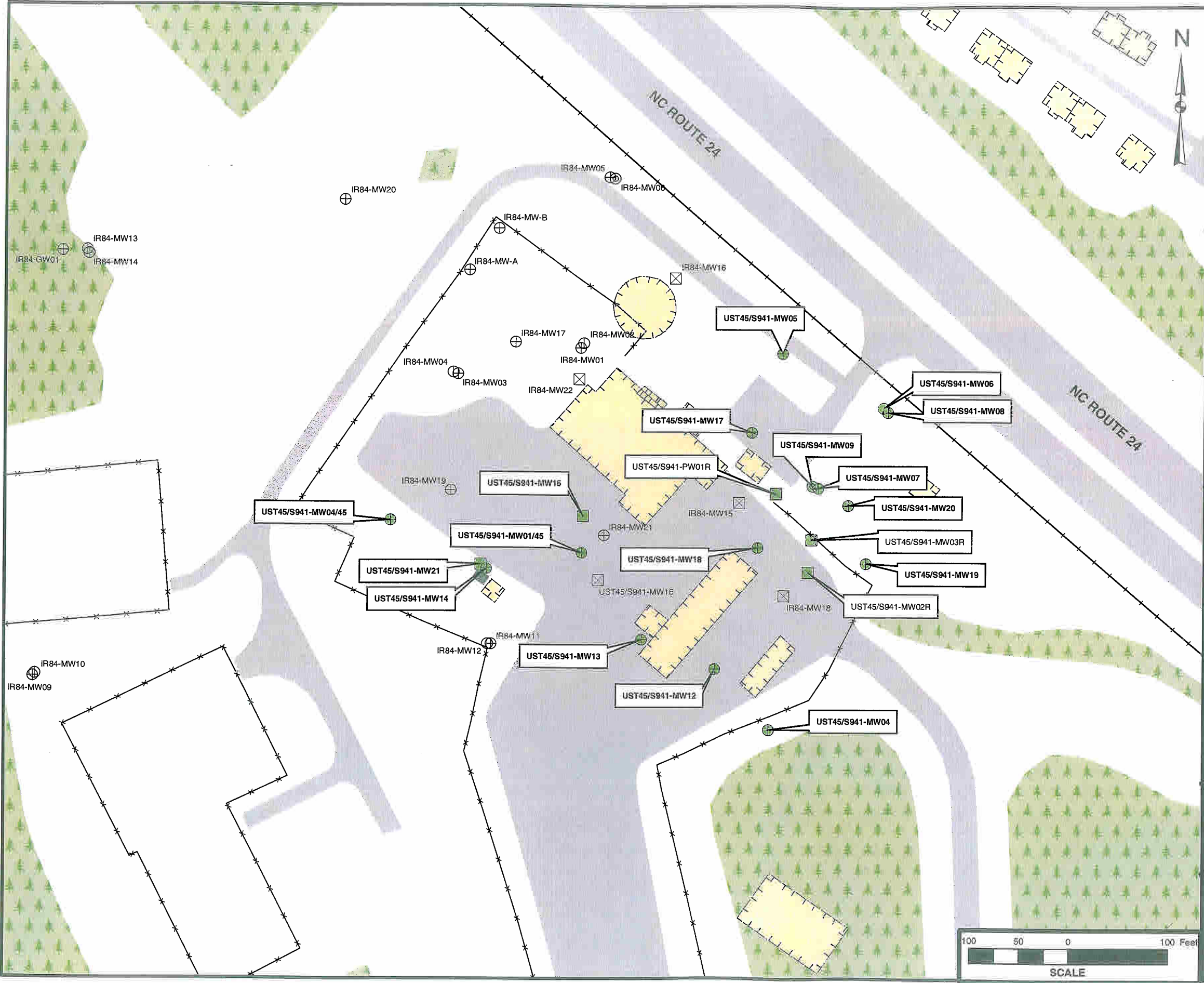
1. No EPA Method 625 compounds were detected above 2L Standards for any wells sampled during this monitoring event.



SITE 45/S941
EPA METHOD 625 COLORIMETRY
AND PLUME IN EXCESS OF 2L
SECOND QUARTER 2006

FIGURE
7.3B

Job No.: 204-080	Date: JUNE 2006	Scale: AS SHOWN	Drawn By: SAC	Checked By: MEM



MCB CAMP LEJEUNE UST MANAGEMENT PROGRAM



LEGEND

Monitoring Wells

- ⊕ Type I
- ⊕ Type II
- ⊕ Type III
- ⊕ Pumping Well
- ⊕ Unknown Well Type
- ⊕ Water Supply Wells
- ⊕ Above Ground Storage Tank
- ⊕ Underground Storage Tank
- ⊕ Railroad Tracks
- ⊕ FENCE
- ⊕ GATE
- ⊕ WALL

Analytical Results

- 2L Non-Compliant
- 2L Compliant
- ⬜ EPA 6020 Plume
- ⬜ Buildings and Structures
- ⬜ Demolished Structures
- ⬜ Oil/Water Separators
- ⬜ Slabs
- ⬜ Roads
- ⬜ Driveways
- ⬜ Parking Lots
- ⬜ Surface Water Bodies
- ⬜ Creeks and Streams
- ⬜ Groundwater Flow Direction

Vegetation Cover

- ⬜ Forestland
- ⬜ Scrubland
- ⬜ Wetland
- ⬜ Airfield Pavement
- ⬜ HELIPAD
- ⬜ RAMP
- ⬜ RUNWAY
- ⬜ SHLDR_OVERRUN
- ⬜ TAXIWAY

NOTES

1. No EPA Method 6020 compounds were detected above 2L Standards for any wells sampled during this monitoring event.

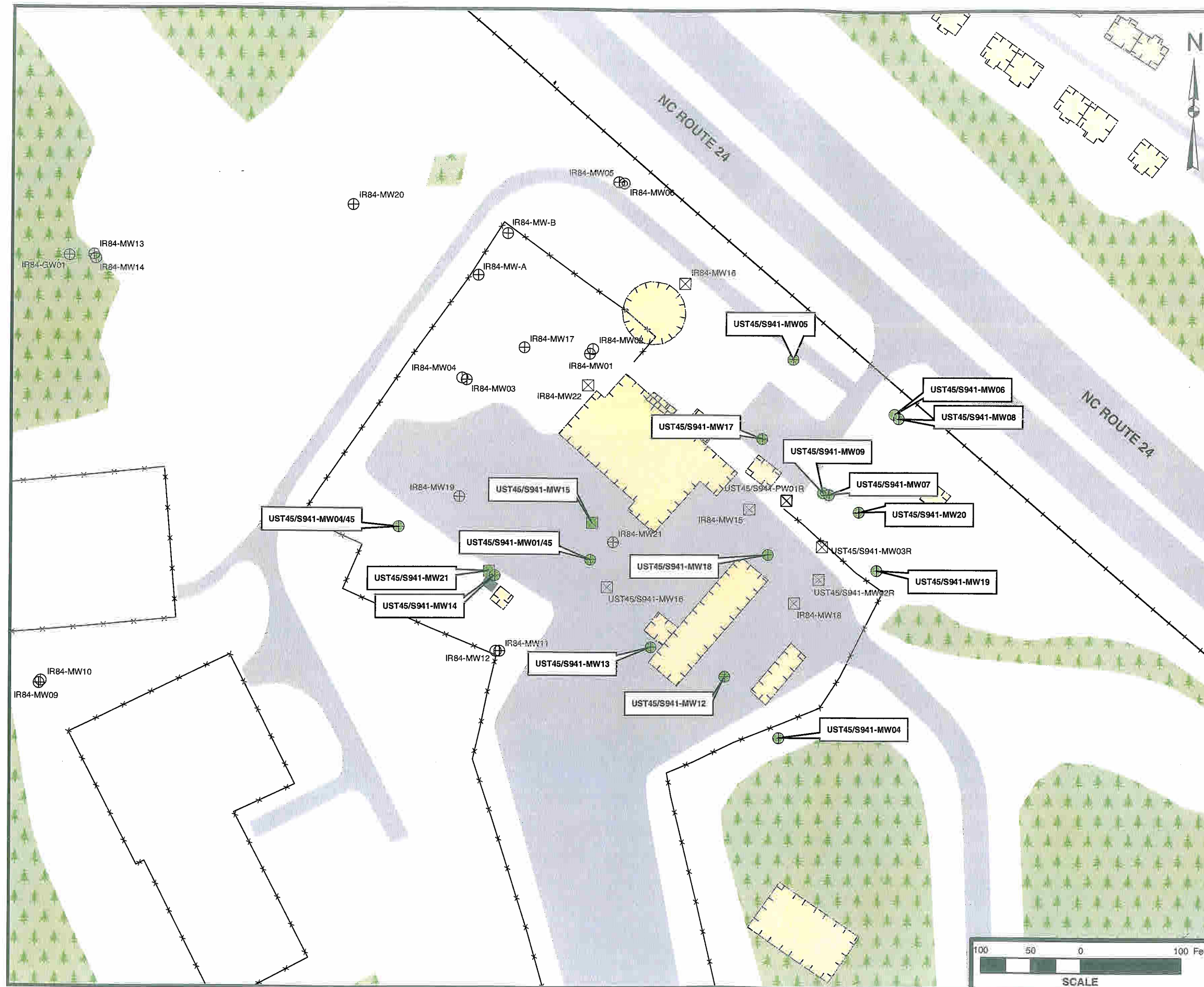


SITE 45/S941
EPA METHOD 6020 COLORIMETRY
AND PLUME IN EXCESS OF 2L
FOURTH QUARTER 2005

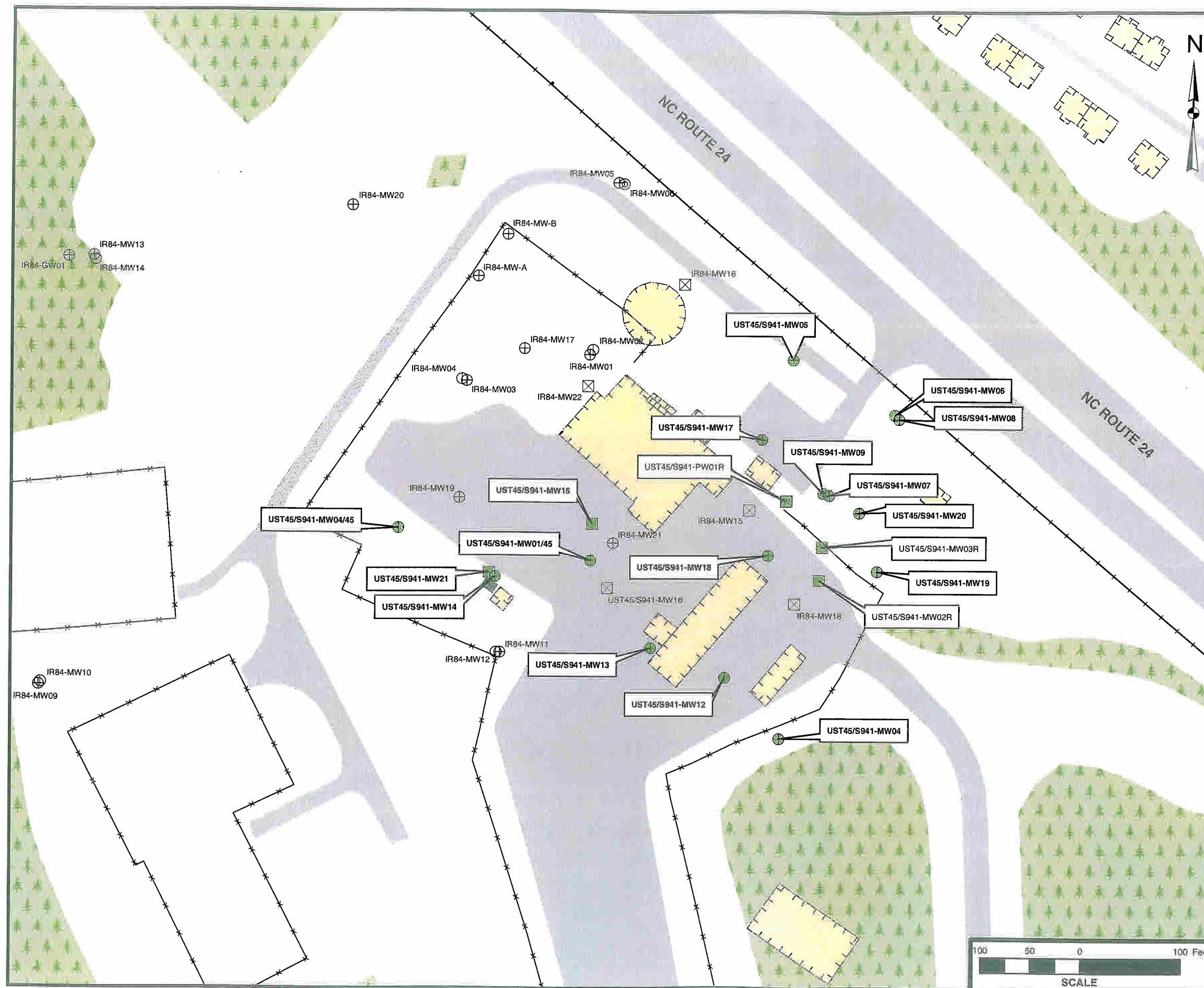
FIGURE

7.4A

Job No.: 204-080	Date: JUNE 2006	Scale: AS SHOWN	Drawn By: SAC	Checked By: MEM



Job No.: 204-080	Date: JUNE 2006	Scale: AS SHOWN	Drawn By: SAC	Checked By: MEM



APPENDIX D

RISK CLASSIFICATION AND LAND USE FORM

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 PSW-704 (approximately 1,850 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 currently an open field.

6. *Are there any other factors that would cause the discharge or release to pose an imminent danger to public health, public safety, or the environment?* YES NO
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 source area. The closest surface water body is Northeast Creek, located approximately 700 feet west of the site.

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 200h-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.

Groundwater samples collected from Type III monitoring well at the site were found to contain constituents above the 2L GWQS.

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

All contaminant levels from 2006 are below the current GCLs. However, contaminant levels of 1-methylnaphthalene have historically been identified at concentrations above laboratory detection limits. There is currently no GCL established for 1-methylnaphthalene.

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.

No, the property does not contain any of the above referenced public assembly places.

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.

The site is an inactive, abandoned, demolished former electric substation and equipment /maintenance shop. The property is currently undeveloped.

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

No, the property is currently undeveloped with a fence and gate at the Highway 24 access road.

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

Yes, the property is fenced with a gate at the Highway 24 access road.

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

No, the area that potentially has contaminated soil is an undeveloped open field area.

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?

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 a primary residence approximately 400 feet from the subject source area, across Highway 24.

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?*

A playground is located in the residential area across Highway 24, at approximately 500 feet from the subject source area.

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 surrounding area primarily consists of an undeveloped area to the south, east, and west. The area to the north is a residential development.

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 are no water supply wells 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 the Northeast Creek located at approximately 700 feet west of the source area.

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 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.

7. Property Owners and Occupants

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

APPENDIX E

GROUNDWATER ELEVATION DATA

ANNUAL GROUNDWATER MONITORING REPORT 2003-2005

TABLE 3-2 (page 1 of 5)
Groundwater Elevation Data Over Time
Building 45 Site

Location	Top of Casing Elevation ⁽¹⁾	Screen Zone	Groundwater Elevation (feet MSL)																							
			7/6/1998	7/16/1998	7/22/1998	8/11/1998	9/21/1998	10/14/1998	11/2/1998	12/8/1998	1/14/1999	2/8/1999	3/19/1999	4/9/1999	4/9/1999	4/13/1999	4/22/1999	4/22/1999	5/11/1999	5/11/1999	6/22/1999	6/22/1999	6/29/1999	6/29/1999	7/12/1999	7/19/1999
MW2	10.84	Shallow	4.87	4.43	4.11	5.03	6.06	4.77	4.43	3.64	4.73	5.73	5.58	5.48	NM	4.70	5.06	2.60	5.49	4.99	4.99	2.31	4.30	2.12	3.27	3.58
MW3	11.02	Shallow	4.75	4.29	3.69	4.11	5.52	4.70	4.00	3.14	4.18	5.38	5.35	3.91	0.78	4.06	NM	1.10	5.12	1.98	4.29	0.20	3.95	0.00	3.21	3.28
MW4	14.83	Shallow	5.88	5.19	0.03	5.50	8.42	9.94	5.91	4.79	6.65	8.08	7.27	7.52	7.51	7.25	6.97	6.96	7.61	7.61	6.45	6.48	5.97	5.96	5.02	4.83
MW5	9.73	Shallow	0.38	-0.09	-0.07	0.38	2.06	1.05	0.50	-0.26	0.67	1.68	1.24	1.06	1.05	0.95	0.94	0.92	1.58	1.57	1.08	1.08	0.76	0.76	0.28	-0.08
MW6	10.71	Deep	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW7	10.00	Shallow	4.77	4.35	4.28	4.65	5.85	4.80	4.46	3.85	4.93	5.80	5.63	5.47	4.78	-7.92	5.28	3.41	5.42	3.12	4.92	2.96	4.34	2.42	3.60	3.69
MW8	10.73	Shallow	4.50	4.07	4.10	4.28	5.77	5.06	4.51	4.32	5.15	5.78	5.55	5.16	5.14	4.77	4.10	5.03	5.53	5.50	5.29	5.23	4.70	4.69	4.16	4.43
MW9	10.27	Deep	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW10	11.49	Shallow	3.68	3.29	3.16	3.62	4.89	3.93	3.48	2.59	3.70	4.69	4.50	4.44	4.04	-6.98	4.06	2.57	4.50	3.29	3.88	2.45	3.36	2.21	2.76	2.66
MW12	InD	Shallow	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW13	8.32	Shallow	NM	1.83	1.84	1.51	3.08	2.72	1.89	-0.51	2.83	3.50	3.53	3.59	3.60	2.88	2.45	2.34	2.45	2.47	1.77	1.50	1.59	1.56	1.28	1.15
MW14	7.32	Shallow	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW15	8.26	Shallow	-0.04	-0.79	-0.50	-0.74	NM	-0.03	-0.10	-1.38	-0.88	0.02	0.29	-0.45	-0.41	-0.92	-0.06	-0.38	-0.06	-0.38	NM	NM	NM	NM	NM	NM
MW16	8.77	Shallow	NM	0.33	0.58	0.26	1.79	1.41	1.13	0.42	0.39	1.94	2.89	2.27	2.35	2.02	2.03	2.02	2.02	2.02	1.20	1.11	1.63	1.66	1.26	0.89
MW17	8.95	Shallow	NM	1.62	1.94	NM	3.22	2.40	1.94	1.06	2.00	2.76	3.77	2.63	2.63	2.37	2.27	2.25	2.72	2.70	2.05	2.04	1.81	1.84	1.50	1.48
MW18	10.80	Shallow	2.94	2.42	2.89	2.50	4.29	3.37	2.92	NM	2.64	3.88	3.90	3.99	3.70	3.72	3.60	3.25	3.89	3.56	2.73	2.27	2.88	2.65	2.31	NM
MW19	11.85	Shallow	5.70	5.14	5.14	5.71	7.18	6.22	5.51	4.93	6.36	7.11	6.73	6.72	6.66	5.95	6.25	6.06	6.71	6.50	6.16	5.91	5.58	5.35	4.72	4.77
MW20	10.64	Shallow	5.11	4.70	4.63	5.05	6.46	5.31	4.78	4.24	5.54	6.20	6.06	5.89	5.86	-4.96	5.32	3.88	5.91	4.33	5.47	4.05	4.86	3.50	4.02	4.17
MW21	7.13	Deep	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW22	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	NC
MW23	11.07	Shallow	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW24	12.17	Shallow	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
PW1	10.08	Shallow	NM	4.09	4.02	4.46	5.65	4.85	4.21	4.53	4.52	5.49	5.16	5.17	4.19	-15.26	4.77	1.05	4.89	2.03	3.85	0.53	3.51	-0.23	2.32	2.51
PW2	12.14	Shallow	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW145	11.43	Shallow	0.62	0.02	0.19	0.00	1.09	0.65	0.47	-0.27	-0.19	1.13	1.31	0.94	5.54	0.57	1.04	0.99	0.92	0.92	0.21	0.11	1.29	1.30	0.22	0.24
MW345	InD	Shallow	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC

Top of casing elevation expressed in feet above/below MSL.
MSL: mean sea level
Groundwater elevations corrected for free product as needed by adding (0.6 x product thickness) to uncorrected groundwater elevation

ABD: Abandoned; well abandoned at time of measurement
INA: Inaccessible; well inaccessible at time of measurement (under water, surrounded by water, or covered by soil)
NC: Insufficient data to calculate groundwater elevation or product thickness
NF: Not Found; well could not be found

NI: Not Installed; well not installed at the time of measurement
NL: Not Listed; well not listed in source document
NM: Not Measured; well not measured, reason not stated

TABLE 3-2 (page 2 of 5)
Groundwater Elevation Data Over Time
Building 45 Site

Location	Top of Casing Elevation ⁽¹⁾	Screen Zone	Groundwater Elevation (feet MSL)																						
			7/19/1999	7/27/1999	7/27/1999	8/18/1999	8/18/1999	8/26/1999	8/26/1999	9/2/1999	9/2/1999	10/12/1999	11/22/1999	1/26/2000	3/16/2000	4/7/2000	5/16/2000	6/15/2000	6/16/2000	6/19/2000	7/18/2000	7/19/2000	8/31/2000	8/31/2000	9/11/2000
MW2	10.84	Shallow	1.52	3.46	1.11	2.63	0.90	2.51	0.84	4.12	1.54	5.31	4.75	5.65	5.25	4.82	5.47	3.72	3.83	0.93	2.23	0.51	6.40	1.88	6.02
MW3	11.02	Shallow	1.48	3.05	0.10	2.28	-0.79	2.18	-0.59	3.67	0.48	4.36	4.87	NM	4.87	4.11	5.12	3.77	3.51	-0.11	1.77	-1.76	6.42	0.76	5.75
MW4	14.83	Shallow	4.80	4.52	4.48	3.75	3.73	3.73	3.63	5.67	5.68	6.00	8.63	7.83	7.12	8.19	7.25	5.21	5.03	5.01	3.68	3.65	7.10	7.14	7.99
MW5	9.73	Shallow	0.40	0.32	0.32	-0.40	-0.40	-0.27	-0.29	0.83	0.83	1.29	2.16	1.05	0.95	1.90	1.69	0.52	0.40	0.33	-0.51	-0.52	2.55	2.58	2.98
MW6	10.71	Deep	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW7	10.00	Shallow	2.76	3.56	1.95	2.69	1.41	2.60	1.30	4.12	2.30	5.47	5.40	NM	5.04	4.79	5.25	4.02	3.77	1.38	2.49	0.95	6.89	2.99	6.04
MW8	10.73	Shallow	4.34	4.35	4.31	3.48	3.46	3.63	3.62	4.92	4.88	5.83	5.58	5.99	5.12	4.80	5.22	4.33	4.09	4.06	3.20	3.10	6.55	6.48	6.13
MW9	10.27	Deep	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW10	11.49	Shallow	2.04	2.53	1.57	1.78	1.03	1.64	0.83	4.09	2.94	5.55	5.36	7.19	4.00	3.77	4.46	3.06	2.83	1.52	1.45	1.49	7.33	6.63	6.10
MW12	InD	Shallow	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW13	8.32	Shallow	1.11	1.01	1.00	0.53	0.43	0.47	0.47	1.57	1.57	3.52	1.90	1.32	1.90	1.70	2.85	1.70	1.57	1.52	0.50	0.35	NM	NM	3.59
MW14	7.32	Shallow	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW15	8.26	Shallow	NM	-0.98	NM	-1.00	-0.97	NM	NM	NM	NM	0.45	NM	NM	0.00	-0.93	0.70	-0.53	-0.84	-0.97	-2.08	-2.01	1.10	-0.68	0.95
MW16	8.77	Shallow	0.89	0.72	0.70	0.47	-0.57	0.27	0.37	1.49	1.48	NM	NM	NM	1.25	0.86	2.25	1.27	1.08	1.11	0.03	-0.63	NM	NM	NM
MW17	8.95	Shallow	1.35	1.37	1.25	0.66	0.65	0.75	0.69	2.17	2.05	NM	NM	NM	2.21	2.26	3.20	1.80	1.60	1.51	0.70	0.50	5.02	4.98	4.84
MW18	10.80	Shallow	NM	3.20	1.84	NM	NM	NM	NM	NM	NM	NM	NM	NM	3.74	3.29	4.30	3.01	2.60	2.14	1.30	0.77	4.55	4.10	5.17
MW19	11.85	Shallow	4.58	4.54	4.35	3.70	3.59	3.71	3.54	5.21	4.98	7.36	7.22	7.74	6.43	6.22	6.29	5.07	4.80	4.47	3.64	3.40	7.59	7.05	7.22
MW20	10.64	Shallow	3.43	4.03	2.88	3.14	2.28	3.15	2.21	4.59	3.33	6.13	6.04	NM	5.52	5.33	5.55	4.43	4.19	2.61	3.39	1.93	7.14	4.64	6.46
MW21	7.13	Deep	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW22	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
MW23	11.07	Shallow	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW24	12.17	Shallow	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
PW1	10.08	Shallow	1.08	2.53	-0.68	1.58	-0.97	0.99	-1.18	2.70	-0.58	4.16	4.12	NM	4.43	4.01	4.77	3.45	3.22	-0.51	1.38	-0.87	6.18	-0.22	4.66
PW2	12.14	Shallow	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW1/45	11.43	Shallow	0.30	0.14	0.14	-0.15	-0.15	-0.14	-0.14	1.82	1.81	1.86	1.20	-0.47	0.62	-0.08	1.36	0.30	0.09	0.10	-1.12	-1.12	1.28	1.28	1.98
MW3/45	InD	Shallow	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC

Top of casing elevation expressed in feet above/below MSL

MSL: mean sea level

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

ABD: Abandoned; well abandoned at time of measurement

INA: Inaccessible; well inaccessible at time of measurement (under water, surrounded by water, or covered by soil)

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TABLE 3-2 (page 3 of 5)
Groundwater Elevation Data Over Time
Building 45 Site

Location	Top of Casing Elevation ⁽¹⁾	Screen Zone	10/11/2000	11/13/2000	11/20/2000	12/5/2000	12/21/2000	12/21/2000	1/18/2001	1/18/2001	1/31/2001	2/20/2001	3/1/2001	3/1/2001	3/20/2001	4/16/2001	4/26/2001	4/26/2001	5/9/2001	5/9/2001	5/30/2001	5/30/2001	6/14/2001	6/14/2001	6/20/2001
MW2	10.84	Shallow	5.11	4.82	4.64	6.43	5.90	3.02	5.10	2.48	4.60	5.24	5.64	2.98	5.55	5.08	4.96	1.59	4.18	2.81	3.59	1.08	4.03	1.02	4.53
MW3	11.02	Shallow	4.65	4.26	4.72	6.58	5.66	0.90	5.12	-1.91	4.30	5.08	5.19	1.99	5.32	4.60	4.87	-2.28	3.76	-2.58	3.19	-3.68	3.61	-3.14	4.14
MW4	14.83	Shallow	8.61	6.79	6.59	8.99	8.79	8.86	7.80	7.79	7.41	7.67	7.88	7.91	8.20	7.29	NM	NM	NM	NM	5.67	5.68	5.46	5.48	6.41
MW5	9.73	Shallow	2.67	1.10	1.24	2.59	2.58	2.60	1.71	1.71	1.10	1.70	1.92	1.92	2.02	1.72	1.75	1.78	1.10	1.10	0.89	0.89	0.85	0.95	1.70
MW6	10.71	Deep	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW7	10.00	Shallow	5.28	4.53	5.05	7.11	6.02	3.98	5.49	2.97	4.98	5.45	5.93	3.88	5.72	5.34	5.27	3.02	4.18	1.64	3.66	1.57	4.15	2.02	4.93
MW8	10.73	Shallow	5.64	4.84	5.68	6.67	5.83	5.89	5.72	5.70	5.28	5.73	5.98	5.96	5.77	5.28	5.67	5.68	4.55	4.51	4.92	4.94	4.88	4.98	5.24
MW9	10.27	Deep	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW10	11.49	Shallow	4.24	3.51	3.56	7.26	5.04	4.10	4.06	2.87	3.56	4.12	4.47	4.23	4.61	4.37	4.19	NM	4.22	2.03	2.57	1.51	3.76	2.44	4.36
MW12	InD	Shallow	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW13	8.32	Shallow	3.28	2.11	1.86	NM	3.32	3.27	2.22	2.24	-4.76	2.10	2.20	2.20	2.72	2.94	3.07	2.52	3.02	2.05	1.57	1.49	NM	NM	2.10
MW14	7.32	Shallow	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW15	8.26	Shallow	3.22	-0.29	-0.27	1.18	0.43	0.07	-0.44	-0.70	-0.20	-0.56	-0.49	-0.89	0.24	-0.38	-0.04	-0.30	-0.36	-0.76	-0.41	-1.01	-0.16	-0.54	0.30
MW16	8.77	Shallow	2.59	2.01	1.98	NM	2.57	2.61	2.02	1.93	1.77	2.08	2.10	1.99	2.34	1.43	1.85	1.52	1.82	1.71	1.43	1.35	1.16	1.44	1.43
MW17	8.95	Shallow	4.02	2.18	2.11	5.09	3.78	3.80	2.41	2.38	2.00	2.30	2.53	2.57	3.01	3.19	2.70	2.65	2.03	2.02	1.47	1.47	2.10	2.13	3.20
MW18	10.80	Shallow	4.50	3.75	3.47	5.26	4.90	4.87	3.87	3.28	3.36	3.80	4.01	3.47	4.38	4.23	4.10	3.53	3.44	2.84	2.82	2.25	3.20	2.40	3.68
MW19	11.85	Shallow	6.93	5.90	6.65	8.40	7.52	7.16	7.07	6.13	6.67	6.94	7.47	7.00	7.17	6.82	6.87	6.39	5.74	5.30	5.31	4.98	5.27	4.92	6.05
MW20	10.64	Shallow	5.72	5.02	5.69	7.54	6.50	4.93	6.10	4.16	-4.38	5.99	6.60	4.92	6.23	5.79	5.81	4.14	4.78	2.82	4.33	2.84	4.64	3.09	5.38
MW21	7.13	Deep	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW22	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
MW23	11.07	Shallow	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW24	12.17	Shallow	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
PW1	10.08	Shallow	3.53	3.65	3.88	6.12	5.17	2.34	4.66	1.08	4.15	4.75	5.18	2.51	5.07	4.36	4.53	0.28	2.80	-0.62	2.38	-0.91	3.05	0.12	3.87
PW2	12.14	Shallow	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW1/45	11.43	Shallow	1.48	0.65	0.42	1.75	1.29	1.39	0.37	0.36	-0.06	0.30	0.28	0.33	0.79	0.73	1.31	0.93	0.33	0.37	0.03	0.03	-0.16	-0.21	0.28
MW3/45	InD	Shallow	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC

Top of casing elevation expressed in feet above/below MSL.
MSL: mean sea level
Groundwater elevations corrected for free product as needed by adding (0.8 x product thickness) to uncorrected groundwater elevation

ABD: Abandoned; well abandoned at time of measurement
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TABLE 3-2 (page 4 of 5)
Groundwater Elevation Data Over Time
Building 45 Site

Location	Top of Casing Elevation ⁽¹⁾	Screen Zone	6/26/2001	6/26/2001	7/17/2001	8/9/2001	8/16/2001	8/16/2001	8/29/2001	8/29/2001	9/10/2001	10/3/2001	10/3/2001	10/16/2001	10/30/2001	10/30/2001	11/5/2001	11/27/2001	11/27/2001	12/3/2001	12/13/2001	12/13/2001	1/16/2002	2/19/2002	3/21/2002
MW2	10.84	Shallow	4.32	1.92	3.75	2.94	2.95	0.36	2.58	1.34	3.81	2.57	2.19	2.05	1.92	2.24	1.44	1.26	0.34	1.00	0.96	0.29	1.04	2.78	4.40
MW3	11.02	Shallow	4.85	-3.11	3.28	2.62	2.62	-5.67	2.39	1.05	3.70	2.22	-4.80	1.46	1.62	-5.63	1.15	1.09	-3.29	0.95	1.01	-4.52	0.71	2.71	4.31
MW4	14.83	Shallow	6.43	6.43	5.20	4.27	NM	NM	NM	NM	3.87	3.39	3.39	3.12	2.85	2.82	2.71	2.46	2.46	2.41	NM	NM	3.63	3.41	5.46
MW5	9.73	Shallow	1.91	1.91	1.06	0.65	0.49	0.48	NM	0.09	0.63	-0.17	-0.22	1.30	-0.94	-0.95	-1.23	-1.42	-1.42	-1.55	NM	NM	-1.37	-0.12	0.95
MW6	10.71	Deep	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW7	10.00	Shallow	5.86	3.35	3.86	3.27	2.93	1.35	2.80	1.93	4.54	2.72	1.22	1.99	2.02	0.84	1.67	1.45	0.70	1.30	1.26	0.60	1.25	2.90	4.47
MW8	10.73	Shallow	5.13	5.58	4.26	3.98	4.03	3.99	3.85	3.83	4.66	3.28	3.26	2.76	2.62	2.60	2.31	2.13	2.13	2.02	NM	NM	2.08	3.41	4.66
MW9	10.27	Deep	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW10	11.49	Shallow	6.95	6.26	3.04	2.23	2.33	1.40	1.89	1.31	6.01	1.84	0.99	1.11	1.02	0.25	0.48	0.34	-0.07	0.20	0.12	-0.27	0.04	1.86	3.64
MW12	InD	Shallow	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW13	8.32	Shallow	NM	NM	1.74	1.00	NM	NM	NM	NM	0.82	NM	NM	-0.17	NM	NM	-0.62	-0.91	-0.88	-1.00	NM	NM	-1.64	2.69	1.40
MW14	7.32	Shallow	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW15	8.26	Shallow	0.38	-0.13	-0.18	-0.79	NM	NM	-0.75	-1.10	-0.82	NM	NM	-2.47	NM	NM	-2.99	-3.06	-2.99	-3.42	NM	NM	-4.12	-2.19	-0.34
MW16	8.77	Shallow	1.77	1.95	1.35	0.81	NM	NM	0.76	0.75	0.62	NM	NM	-0.53	NM	NM	-1.68	-1.68	-1.46	-1.76	NM	NM	-2.65	2.03	0.32
MW17	8.95	Shallow	5.00	4.63	2.17	1.46	1.32	1.28	0.85	0.80	3.31	0.75	0.65	-1.81	-0.12	-0.15	-0.39	-0.77	-0.75	-0.87	-0.95	-0.99	-0.89	0.54	2.17
MW18	10.80	Shallow	4.24	3.70	3.05	1.87	2.37	1.95	2.55	1.57	2.55	1.58	0.95	1.45	0.89	0.22	0.35	0.27	0.11	0.15	0.13	-0.26	-0.41	1.31	3.18
MW19	11.85	Shallow	6.54	6.01	4.96	4.32	4.06	3.79	3.81	3.57	4.59	3.54	3.33	3.16	2.89	2.80	2.70	2.35	2.31	2.31	2.21	2.12	2.36	3.63	5.31
MW20	10.64	Shallow	6.11	3.99	4.29	3.74	3.47	2.15	3.21	2.59	4.59	3.08	1.94	2.52	2.39	1.48	2.08	1.83	1.29	1.70	1.66	1.14	1.82	3.39	4.81
MW21	7.13	Deep	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW22	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
MW23	11.07	Shallow	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW24	12.17	Shallow	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
PW1	10.08	Shallow	4.98	1.88	2.89	2.28	2.28	-0.38	2.01	0.60	4.07	2.04	-0.03	1.40	1.49	-0.65	1.09	0.87	-0.26	0.78	0.70	-0.47	0.85	2.47	4.08
PW2	12.14	Shallow	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW1/45	11.43	Shallow	0.33	0.70	0.48	-0.28	NM	NM	-0.45	-0.12	-0.16	NM	NM	-1.41	NM	NM	-1.87	-1.61	-1.53	-1.95	NM	NM	-2.77	-1.08	0.14
MW3/45	InD	Shallow	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC

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

MSL: mean sea level

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TABLE 3-2 (page 5 of 5)
Groundwater Elevation Data Over Time
Building 45 Site

Location	Top of Casing Elevation ⁽¹⁾	Screen Zone	4/17/2002	5/15/2002	7/17/2002	9/29/2003	12/23/2003	1/15/2004	2/9/2004	3/8/2004	4/6/2004	5/3/2004	6/11/2004	7/14/2004	8/14/2004	9/13/2004	10/5/2004	12/20/2004	1/6/2005	2/1/2005	3/3/2005	4/22/2005	5/26/2005	6/14/2005	7/27/2005	8/4/2005
MW2	10.84	Shallow	3.57	3.33	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD
MW3	11.02	Shallow	3.48	3.22	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD
MW4	14.83	Shallow	5.25	4.27	3.67	NM	9.95	8.67	8.63	9.29	8.01	9.35	6.46	5.33	6.90	12.23	8.55	5.58	5.73	6.30	6.86	7.72	7.93	7.03	6.51	5.91
MW5	9.73	Shallow	0.28	0.18	0.89	NM	3.48	2.34	2.26	3.47	1.68	2.68	1.59	1.43	2.71	3.98	3.09	0.60	0.56	0.83	2.21	1.73	2.78	1.60	2.31	1.77
MW6	10.71	Deep	NL	NL	NL	NM	-5.19	-6.06	-6.51	-3.94	-6.86	-6.02	-6.74	-6.98	-6.55	-5.27	-5.72	-7.33	-7.31	-7.04	-6.91	-6.39	-6.48	-6.97	-6.75	-6.90
MW7	10.00	Shallow	3.60	3.42	4.68	NM	7.72	5.87	5.88	6.89	5.22	INA	5.17	5.00	6.48	7.62	6.08	4.13	4.28	4.70	5.10	5.34	5.99	5.20	5.43	4.82
MW8	10.73	Shallow	3.97	3.83	4.12	3.27	6.41	5.69	5.64	6.05	4.97	7.27	5.19	4.98	6.10	6.40	5.88	4.43	4.60	5.13	5.23	5.18	5.88	5.13	5.37	4.89
MW9	10.27	Deep	NL	NL	NL	-6.95	-5.13	-6.08	-6.59	-5.72	-6.93	INA	-6.78	-6.99	-6.59	-5.31	-5.74	-7.38	-7.38	-7.12	-6.93	-6.43	-6.53	-6.58	-6.76	-6.93
MW10	11.49	Shallow	2.46	2.34	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD
MW12	11.49	InD	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW13	8.32	Shallow	0.97	0.81	0.61	3.60	4.74	2.97	2.68	4.00	2.74	INA	INA	NM	INA	4.28	3.66	1.77	1.55	1.92	1.91	2.51	2.72	2.57	2.57	2.64
MW14	7.32	Shallow	NL	NL	NL	-1.50	-0.04	-1.20	-1.79	-0.61	-1.38	-0.79	-1.91	-4.18	-1.31	0.10	-0.63	-6.11	-6.30	-5.75	-5.58	-1.48	-0.94	-1.28	-1.29	-1.43
MW15	8.26	Shallow	-1.61	-1.01	-0.08	-0.21	0.88	0.38	-0.37	0.84	-0.57	INA	-0.66	-1.31	-0.59	0.86	0.74	-1.72	-1.76	-2.42	-1.89	-0.62	-0.22	-0.97	0.22	-0.71
MW16	8.77	Shallow	-0.24	0.19	-0.12	1.24	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD
MW17	8.95	Shallow	1.25	1.06	3.47	4.33	5.46	3.44	3.45	5.16	3.05	5.57	3.05	3.15	4.54	5.70	4.30	1.62	1.60	1.94	2.70	2.90	4.15	3.22	3.45	2.73
MW18	10.80	Shallow	2.10	2.10	3.19	5.05	6.52	4.65	4.51	6.15	4.22	5.48	4.15	3.50	4.47	6.58	5.38	2.48	2.40	2.66	3.20	4.11	4.88	4.30	4.45	3.80
MW19	11.85	Shallow	4.86	4.31	4.49	7.22	8.94	7.54	7.49	8.39	6.77	8.90	6.25	5.77	7.17	8.71	7.34	5.53	5.65	6.25	6.60	6.80	7.33	6.48	6.44	5.90
MW20	10.64	Shallow	4.17	3.78	4.69	6.59	8.13	6.44	6.48	7.38	5.81	INA	5.63	5.35	6.92	8.37	6.51	4.69	4.89	5.41	5.78	5.91	6.54	5.77	5.87	5.31
MW21	7.13	Deep	NL	NL	NL	NM	-5.39	-6.79	-6.90	-6.05	-7.07	-6.50	-7.15	-7.46	-6.87	-5.30	-5.88	-7.77	-7.79	-7.37	-7.39	-6.81	-6.63	-7.00	-6.97	-7.14
MW22	11.07	Deep	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW23	11.07	Shallow	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	4.74	5.37	6.06	5.37	5.44	4.83
MW24	12.17	Shallow	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	4.85	5.39	6.07	5.37	5.47	4.86
PW1	10.08	Shallow	2.15	2.94	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD
PW2	12.14	Shallow	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	4.64	5.08	5.84	5.11	5.14	4.54
MW1/45	11.43	Shallow	-0.48	0.27	0.11	0.73	2.06	0.97	0.51	1.18	0.90	1.33	0.63	-2.42	0.41	1.95	1.03	-0.77	-1.07	-0.75	-1.09	0.38	0.93	0.91	0.96	0.70
MW3/45	11.43	InD	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC

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

MSL = mean sea level

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

ABD: Abandoned; well abandoned at time of measurement

INA: Inaccessible; well inaccessible at time of measurement (under water, surrounded by water, or covered by soil)

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TABLE B-2 (page 1 of 5)
Product Thickness Data Over Time
Building 45 Site

Location	Top of Casing/ Elevation ⁽¹⁾	Screen Zone	Product Thickness (feet)																							
			7/6/1998	7/16/1998	7/22/1998	8/11/1998	9/21/1998	10/14/1998	11/2/1998	12/8/1998	1/14/1999	2/8/1999	3/19/1999	4/5/1999	4/9/1999	4/13/1999	4/22/1999	4/22/1999	5/11/1999	5/11/1999	6/22/1999	6/22/1999	6/29/1999	6/29/1999	7/12/1999	7/19/1999
MW2	10.84	Shallow	0.01	0.01	0.01	Trace	0.38	--	0.29	0.21	0.29	0.05	0.05	0.05	NM	0.08	0.25	Trace	0.01	--	0.93	--	0.50	--	0.34	0.23
MW3	11.02	Shallow	--	0.03	0.01	Trace	0.02	--	0.04	0.18	0.03	0.08	0.04	0.04	--	--	NM	0.03	0.19	--	0.24	--	0.10	--	0.12	0.10
MW4	14.83	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW5	9.73	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW6	10.71	Deep	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW7	10.00	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW8	10.73	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Trace	--	--	--	--	--	--	--	--
MW9	10.27	Deep	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW10	11.49	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	NC	0.04	--	--	--	--	--	--	--	--	--
MW12	InD	Shallow	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW13	8.32	Shallow	NM	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW14	7.32	Shallow	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW15	8.26	Shallow	--	--	--	--	NM	--	--	--	--	--	--	--	--	--	--	--	--	--	NM	NM	NM	NM	NM	NM
MW16	8.77	Shallow	NM	--	--	--	--	--	--	--	--	--	--	--	--	Trace	--	--	--	--	--	--	--	--	--	--
MW17	8.95	Shallow	NM	--	--	NM	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW18	10.80	Shallow	--	--	--	--	--	--	--	NM	--	--	--	--	--	--	--	0.01	--	--	--	--	--	--	--	NM
MW19	11.85	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW20	10.64	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW21	7.13	Deep	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW22	InD	Deep	--	--	--	--	--	--	--	--	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW23	11.07	Shallow	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW24	12.17	Shallow	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
PW1	10.08	Shallow	NM	--	--	--	--	0.02	--	--	0.01	--	0.08	--	--	0.22	0.05	--	--	--	--	--	--	--	--	--
PW2	12.14	Shallow	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW1/45	11.43	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW4/45	InD	Shallow	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL

Top of casing elevation expressed in feet above/below MSL.
 MSL - mean sea level
 "--" indicates no measurable product detected

ABD: Abandoned; well abandoned at time of measurement
 INA: Inaccessible; well inaccessible at time of measurement (under water, surrounded by water, or covered by soil)
 NC: Insufficient data to calculate groundwater elevation or product thickness
 NF: Not Found; well could not be found

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TABLE B-2 (page 2 of 5)
Product Thickness Data Over Time
Building 45 Site

	Top of Casing Elevation ⁽¹⁾	Screen Zone	Product Thickness (feet)																							
Location			7/19/1999	7/27/1999	7/27/1999	8/18/1999	8/18/1999	8/26/1999	8/26/1999	9/2/1999	9/2/1999	10/12/1999	11/22/1999	1/26/2000	3/16/2000	4/7/2000	5/16/2000	6/15/2000	6/16/2000	6/19/2000	7/18/2000	7/19/2000	8/31/2000	8/31/2000	9/11/2000	
MW2	10.84	Shallow	--	0.21	--	0.30	--	0.15	--	0.34	--	0.35	3.82	0.17	NC	0.50	0.04	--	0.30	--	--	--	0.18	--	--	
MW3	11.02	Shallow	--	0.09	--	0.03	--	0.01	--	Trace	--	1.28	0.09	NM	--	--	0.11	--	--	--	--	--	--	--		
MW4	14.83	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW5	9.73	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW6	10.71	Deep	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL		
MW7	10.00	Shallow	--	--	--	--	--	--	--	--	--	--	--	NM	--	--	--	--	--	--	--	--	--	--		
MW8	10.73	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW9	10.27	Deep	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL		
MW10	11.49	Shallow	--	--	--	--	--	--	--	--	--	0.10	1.06	--	--	--	--	--	--	--	--	--	--	--		
MW12	InD	Shallow	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL		
MW13	8.32	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	NM	NM		
MW14	7.32	Shallow	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL		
MW15	8.26	Shallow	NM	--	NM	--	--	NM	NM	NM	NM	--	NM	NM	--	--	--	--	--	--	--	--	--	--		
MW16	8.77	Shallow	--	--	--	--	--	--	--	--	--	NM	NM	NM	--	--	--	--	--	--	--	--	NM	NM		
MW17	8.95	Shallow	--	--	--	--	--	--	--	--	--	NM	NM	NM	--	--	--	--	--	--	--	--	--	--		
MW18	10.80	Shallow	NM	--	--	NM	NM	NM	NM	NM	NM	NM	NM	NM	--	--	--	--	--	--	--	--	--	--		
MW19	11.85	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW20	10.64	Shallow	--	--	--	--	--	--	--	--	--	--	--	NM	--	--	--	--	--	--	--	--	--	--		
MW21	7.13	Deep	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL		
MW22	InD	Deep	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM		
MW23	11.07	Shallow	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI		
MW24	12.17	Shallow	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI		
PW1	10.08	Shallow	--	--	--	--	--	--	--	--	--	--	--	NM	--	--	--	--	Trace	--	--	--	--	--		
PW2	12.14	Shallow	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI		
MW145	11.43	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW445	InD	Shallow	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL		

Top of casing elevation expressed in feet above/below MSL.
MSL - mean sea level
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NDM: Not Designated for Measurement; well not designated for measurement in the monitoring program

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TABLE B-2 (page 3 of 5)
Product Thickness Data Over Time
Building 45 Site

		Battery 10-010																							
Location	Top of Casing Elevation ⁽¹⁾	Screen Zone	10/11/2000	11/13/2000	11/20/2000	12/5/2000	12/21/2000	12/21/2000	1/18/2001	1/18/2001	1/31/2001	2/20/2001	3/1/2001	3/1/2001	3/20/2001	4/16/2001	4/26/2001	4/26/2001	5/9/2001	5/9/2001	5/30/2001	5/30/2001	6/14/2001	6/14/2001	6/20/2001
MW2	10.84	Shallow	0.11	0.22	0.06	0.11	0.11	--	0.36	--	0.11	0.17	--	--	0.29	0.18	0.15	--	0.32	--	0.04	--	0.05	--	0.04
MW3	11.02	Shallow	0.10	--	--	0.18	0.32	--	0.27	--	--	0.09	NC	--	0.08	0.11	--	--	0.05	--	0.02	--	--	--	--
MW4	14.83	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	NM	NM	NM	NM	--	--	--	--	--
MW5	9.73	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW6	10.71	Deep	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW7	10.00	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW8	10.73	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW9	10.27	Deep	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW10	11.49	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	NM	--	--	--	--	--	--	--
MW12	InD	Shallow	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW13	8.32	Shallow	--	--	--	NM	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	NM	NM	--
MW14	7.32	Shallow	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW15	8.26	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW16	8.77	Shallow	--	--	--	NM	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW17	8.95	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW18	10.80	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW19	11.85	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW20	10.64	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW21	7.13	Deep	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW22	InD	Deep	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW23	11.07	Shallow	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW24	12.17	Shallow	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
PW1	10.08	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PW2	12.14	Shallow	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW1/45	11.43	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW4/45	InD	Shallow	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL

⁽¹⁾ Top of casing elevation expressed in feet above/below MSL.
MSL - mean sea level
"--": Indicates no measurable product detected

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INA: Inaccessible; well inaccessible at time of measurement (under water, surrounded by water, or covered by soil)
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TABLE B-2 (page 4 of 5)
Product Thickness Data Over Time
Building 45 Site

Location	Top of Casing Elevation (1)	Screen Zone	6/26/2001	6/26/2001	7/17/2001	8/9/2001	8/16/2001	8/16/2001	8/29/2001	8/29/2001	9/10/2001	10/3/2001	10/3/2001	10/16/2001	10/30/2001	10/30/2001	11/5/2001	11/27/2001	11/27/2001	12/3/2001	12/13/2001	12/13/2001	1/16/2002	2/19/2002	3/21/2002
MW2	10.84	Shallow	NC	--	0.30	0.12	0.05	--	0.04	--	0.06	0.08	2.00	NC	0.12	1.76	Trace	Trace	--	--	--	--	--	--	--
MW3	11.02	Shallow	--	--	--	0.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW4	14.83	Shallow	--	--	--	--	NM	NM	NM	NM	--	--	--	--	--	--	--	--	--	--	NM	NM	--	--	--
MW5	9.73	Shallow	--	--	--	--	--	--	NM	--	--	--	--	--	--	--	--	--	--	--	NM	NM	--	--	--
MW6	10.71	Deep	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW7	10.00	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW8	10.73	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	NM	NM	--	--	--
MW9	10.27	Deep	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW10	11.49	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW12	InD	Shallow	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW13	8.32	Shallow	NM	NM	--	--	NM	NM	NM	NM	--	NM	NM	--	NM	NM	--	--	--	--	NM	NM	--	--	--
MW14	7.32	Shallow	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW15	8.26	Shallow	--	--	--	--	NM	NM	--	--	--	NM	NM	--	NM	NM	--	--	--	--	NM	NM	--	--	--
MW16	8.77	Shallow	--	--	--	--	NM	NM	--	--	--	NM	NM	--	NM	NM	--	--	--	--	NM	NM	--	--	--
MW17	8.95	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW18	10.80	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW19	11.85	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW20	10.64	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW21	7.13	Deep	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW22	InD	Deep	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW23	11.07	Shallow	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW24	12.17	Shallow	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
PW1	10.08	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PW2	12.14	Shallow	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW1/45	11.43	Shallow	--	--	--	--	NM	NM	--	--	--	NM	NM	--	NM	NM	--	--	--	--	NM	NM	--	--	--
MW4/45	InD	Shallow	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL

Top of casing elevation expressed in feet above/below MSL
MSL - mean sea level
"--": indicates no measurable product detected

ABD: Abandoned; well abandoned at time of measurement
INA: Inaccessible; well inaccessible at time of measurement (under water, surrounded by water, or covered by soil)
NC: Insufficient data to calculate groundwater elevation (e.g., top of casing elevation datum not available)
NDM: Not Designated for Measurement; well not designated for measurement in the monitoring program

NI: Not Installed; well not installed at the time of measurement
NL: Not Listed; well not listed in source document
NM: Not Measured; well not measured, reason not stated

TABLE B-2 (page 5 of 5)
Product Thickness Data Over Time
Building 45 Site

Location	Top of Casing Elevation ⁽¹⁾	Screen Zone	4/17/2002	5/15/2002	7/17/2002	9/29/2003	12/23/2003	1/15/2004	2/9/2004	3/8/2004	4/6/2004	5/3/2004	6/11/2004	7/14/2004	8/14/2004	9/13/2004	10/5/2004	12/20/2004	1/6/2005	2/1/2005	3/3/2005	4/22/2005	5/26/2005	6/14/2005	7/27/2005	8/4/2005
MW2	10.84	Shallow	--	--	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD
MW3	11.02	Shallow	--	--	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD
MW4	14.83	Shallow	--	--	--	NM	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW5	9.73	Shallow	--	--	--	NM	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW6	10.71	Deep	NL	NL	NL	NM	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW7	10.00	Shallow	--	--	--	NM	--	--	--	--	--	INA	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW8	10.73	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW9	10.27	Deep	NL	NL	NL	--	--	--	--	--	--	INA	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW10	11.49	Shallow	--	--	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD
MW12	InD	Shallow	NL	NL	NL	NM	NM	NM	NM	NM	--	INA	NM	NM	--	--	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD
MW13	8.32	Shallow	--	--	--	--	--	--	--	--	--	INA	INA	NM	INA	--	--	--	--	--	--	--	--	--	--	--
MW14	7.32	Shallow	NL	NL	NL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW15	8.26	Shallow	--	--	--	--	--	--	--	--	--	INA	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW16	8.77	Shallow	--	--	--	--	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD
MW17	8.95	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW18	10.80	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW19	11.85	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW20	10.64	Shallow	--	--	--	--	--	--	--	--	--	INA	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW21	7.13	Deep	NL	NL	NL	NM	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW22	InD	Deep	NM	--	NM	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF
MW23	11.07	Shallow	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	--	--	--	--	--
MW24	12.17	Shallow	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	--	--	--	--	--
PW1	10.08	Shallow	--	--	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD
PW2	12.14	Shallow	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	--	--	--	--	--
MW1/45	11.43	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW4/45	InD	Shallow	NL	NL	NL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

⁽¹⁾ Top of casing elevation expressed in feet above/below MSL.
MSL - mean sea level
"--": Indicates no measurable product detected

ABD: Abandoned; well abandoned at time of measurement
INA: Inaccessible; well inaccessible at time of measurement (under water, surrounded by water, or covered by soil)
NC: Insufficient data to calculate groundwater elevation (e.g., top of casing elevation datum not available)
NDM: Not Designated for Measurement; well not designated for measurement in the monitoring program

NI: Not Installed; well not installed at the time of measurement
NL: Not Listed; well not listed in source document
NM: Not Measured; well not measured, reason not stated

DATA PROVIDED BY SOVEREIGN CONSULTING, INC.

Groundwater Elevation Data - September 2005 to May 2005

Building 45 - Incident # 22890

Monitoring Well	Top of Casing Elevation (feet)	Groundwater Elevation (feet)								
		9/21/2005	10/28/2005	11/18/2005	12/06/2005	1/10/2006	2/22/2006	3/14/2006	4/05/2006	5/2/2006
UST45/S941-MW01/45	11.43	0.33	2.01	1.19	0.84	1.05	0.88	0.86	0.16	0.19
UST45/S941-MW04/45	7.11	-6.89	-5.14	-6.37	-6.69	-6.72	-7.16	-7.25	-7.53	-7.61
UST45/S941-PW01R ¹	12.14	5.14	7.38	5.26	5.74	5.84	5.25	5.10	4.55	4.59
UST45/S941-MW02R ²	11.07	6.46	7.49	5.56	6.00	6.24	5.61	5.49	4.76	4.92
UST45/S941-MW03R ³	12.17	5.31	7.56	5.57	7.03	6.25	5.63	5.48	12.17	4.96
UST45/S941-MW04	14.83	5.60	9.76	8.16	8.50	8.74	8.16	7.92	7.16	6.94
UST45/S941-MW05	9.73	1.98	3.96	2.25	2.76	2.91	2.18	1.76	1.22	1.30
UST45/S941-MW06	10.71	-6.64	-5.51	-6.31	-6.57	-6.21	-6.58	-6.58	-6.94	-6.91
UST45/S941-MW07	10.00	5.40	7.48	5.49	5.93	6.13	5.49	5.37	4.87	4.92
UST45/S941-MW08	10.73	5.53	7.02	5.59	5.85	5.99	5.63	5.45	5.04	5.19
UST45/S941-MW09	10.27	-6.65	-5.48	-6.31	-6.68	-6.21	-6.60	-6.60	-6.60	-6.60
UST45/S941-MW12	Not Available	Not Calculated	Not Calculated	Not Calculated	Not Calculated	Not Calculated	Not Calculated	Not Calculated	Not Calculated	Not Calculated
UST45/S941-MW13	8.32	1.90	4.07	2.92	3.02	3.38	-0.24	2.94	2.09	1.19
UST45/S941-MW14	7.32	-1.01	0.17	-0.83	-1.03	-1.26	-1.67	-1.78	-4.06	-4.56
UST45/S941-MW15	8.26	-0.16	1.70	0.13	-0.44	-0.19	-0.31	-0.44	-1.33	-1.61
UST45/S941-MW17	8.95	3.43	5.53	3.35	3.64	3.75	3.14	2.91	2.21	2.44
UST45/S941-MW18	10.80	4.04	6.33	4.48	4.75	5.44	4.36	4.24	3.54	3.51
UST45/S941-MW19	11.85	6.22	8.87	6.98	7.48	7.78	Not Calculated	7.08	6.49	6.31
UST45/S941-MW20	10.64	5.93	8.04	6.04	6.53	6.79	10.64	6.06	5.56	5.55
UST45/S941-MW21	7.13	-6.22	-5.27	-6.37	-6.67	-6.62	Not Calculated	-7.09	-7.50	-7.44

^{1,2,3} = Wells previously reported as PW2, MW23, and MW24.

NM = Well not measured; either not accessible or not designated as part of gauging program.

Not Calculated due to insufficient data or well not measured.

APPENDIX F

SOIL VAPOR EXTRACTION LABORATORY DATA

FINAL ANNUAL MONITORING REPORT – MARCH 2004

Table 3-2
Summary of Detected Concentrations
Treatment System Samples
Building 45 USTs S-941-1 and 2
Camp Lejeune, North Carolina

Parameter	Sample Location	SVE-1 ⁴					SVE-1 ²	
	Sample ID	UST45/S941-SVEI-03A	UST45/S941-SVEI-02D	UST45/S941-SVEI-02B	UST45/S941-SVEI-02A	UST45/S941-SVEI-01D	UST45/S941-SVEI-01C	UST45/S941-SVEI-01B
<i>Volatile Aromatic Hydrocarbons by USEPA Method 18, ppm</i>	Sample Date	1/9/2003	10/16/2002	4/10/2002	1/9/2002	10/8/2001	7/10/2001	4/12/2001
Benzene		BQL	BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene		BQL	BQL	BQL	BQL	BQL	BQL	BQL
Toluene		BQL	BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes		BQL	BQL	BQL	BQL	BQL	BQL	BQL

NOTE:

¹ Sample collected from Soil Vapor Extraction System Effluent

² Sample SVE-1 includes soil vapor extraction wells SVE-1 through SVE-4.

³ Sample SVE-2 includes soil vapor extraction wells SVE-5 through SVE-8.

⁴ Sample SVE-1 collected from Soil Vapor Extraction System Influent.

Shaded areas indicate detected concentrations above laboratory quantitation limits.

BQL = Below Laboratory Quantitation Limit

**Table 3-2
Summary of Detected Concentrations
Treatment System Samples
Building 45 USTs S-941-1 and 2
Camp Lejeune, North Carolina**

Parameter	Sample Location	SVE-2 ³		SVE-E ¹	
	Sample ID	UST45/S941-SVE2-01C	UST45/S941-SVE2-01B	UST45/S941-SVE-E-01A	UST45/S941-SVE-E-00D
<i>Volatile Aromatic Hydrocarbons by USEPA Method 18, ppm</i>	Sample Date	7/10/2001	4/12/2001	1/24/2001	10/3/2000
Benzene		BQL	BQL	BQL	BQL
Ethylbenzene		BQL	BQL	BQL	BQL
Toluene		BQL	BQL	BQL	BQL
Total Xylenes		BQL	BQL	BQL	BQL

NOTE:

¹ Sample collected from Soil Vapor Extraction System Effluent

² Sample SVE-1 includes soil vapor extraction wells SVE-1 through SVE-4.

³ Sample SVE-2 includes soil vapor extraction wells SVE-5 through SVE-8.

⁴ Sample SVE-1 collected from Soil Vapor Extraction System Influent.

Shaded areas indicate detected concentrations above laboratory quantitation limits.

BQL = Below Laboratory Quantitation Limit

Table 3-2
Summary of Detected Concentrations
Treatment System Samples
Building 45 USTs S-941-1 and 2
Camp Lejeune, North Carolina

Parameter	Sample Location	SVE-E ¹				
	Sample ID	UST45/S941-SVE-E-00C	UST45/S941-SVE-E-00B	UST45/S941-SVE-E-00A	UST45/S941-SVE-E-99D	UST45/S941-SVE-E-99C
<i>Volatile Aromatic Hydrocarbons by USEPA Method 18, ppm</i>	Sample Date	7/10/2000	4/4/2000	1/12/2000	10/5/1999	7/7/1999
Benzene		BQL	BQL	BQL	BQL	BQL
Ethylbenzene		BQL	BQL	BQL	BQL	BQL
Toluene		BQL	BQL	BQL	BQL	BQL
Total Xylenes		BQL	BQL	BQL	BQL	BQL

NOTE:

¹ Sample collected from Soil Vapor Extraction System Effluent

² Sample SVE-1 includes soil vapor extraction wells SVE-1 through SVE-4.

³ Sample SVE-2 includes soil vapor extraction wells SVE-5 through SVE-8.

⁴ Sample SVE-1 collected from Soil Vapor Extraction System Influent.

Shaded areas indicate detected concentrations above laboratory quantitation limits.

BQL= Below Laboratory Quantitation Limit

Table 3-2
Summary of Detected Concentrations
Treatment System Samples
Building 45 USTs S-941-1 and 2
Camp Lejeune, North Carolina

Parameter	Sample Location	SVE-E					SVE-E	
	Sample ID	UST45/S941-SVE-E-99B	UST45/S941-SVE-E-99A	UST45/S941-SVE-E-98D	UST45/S941-SVE-E-98C1	UST45/S941-SVE-E-98B3	UST45/S941-SVE-E-98B2	UST45/S941-SVE-E-98B1
<i>Volatile Aromatic Hydrocarbons by USEPA Method 18, ppm</i>	Sample Date	4/5/1999	1/6/1999	10/8/1998	7/8/1998	6/19/1998	5/8/1998	4/16/1998
Benzene		BQL	BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene		BQL	BQL	BQL	BQL	BQL	BQL	BQL
Toluene		BQL	BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes		BQL	BQL	BQL	BQL	0.3	BQL	17.9

NOTE:

¹ Sample collected from Soil Vapor Extraction System Effluent

² Sample SVE-1 includes soil vapor extraction wells SVE-1 through SVE-4.

³ Sample SVE-2 includes soil vapor extraction wells SVE-5 through SVE-8.

⁴ Sample SVE-1 collected from Soil Vapor Extraction System Influent.

Shaded areas indicate detected concentrations above laboratory quantitation limits.

BQL = Below Laboratory Quantitation Limit

APPENDIX G BORING LOGS

BORING LOG

CATLIN
ENGINEERS and SCIENTISTS

203-063/206-009
Wilmington, NC

SHEET 1 OF 1

PROJECT NO: 203-063/206-009	STATE: NC	COUNTY: Onslow	LOCATION: Jacksonville
PROJECT NAME: Building 45		LOGGED BY: Justin Heter	BORING ID: UST45-SB01
		DRILLER: Steve Tyler	
NORTHING: 3,845,894.8	EASTING: 284,636.0	CREW:	
SYSTEM: NCSP NAD 83 (ft)	BORING LOCATION: See Map		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 8.0
START DATE: 5/4/06	FINISH DATE: 5/4/06	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	OVA RESULTS (ppm)	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
0.0			0 1000 2000 3000 4000				0.0	LAND SURFACE	
	D P D P		▲0.6		SC			Light brown/tan v.f. to med. SAND with some clay with med. plasticity. Oderless. Dry.	
2.0	D P D P		▲2.5	Sampled	SM		2.0	Med. brown, well sorted, fine, loose SAND. Oderless. Dry.	
4.0	D P D P		▲0.9		SM		4.0	Light brown to tan, fine SAND with some silt. Oderless. Moist.	
6.0	D P D P		▲0.7		SP		6.0	Light gray, med., loose SAND. Dry.	
8.0							8.0	Boring Terminated at Depth 8.0 ft	

▽ = 0hr. DTW

▼ = 24hr. DTW

CATLIN ENVIRO. LOG 206-009 BUILDING45 GPL CATLIN GDT 7/6/06

BORING LOG

CATLIN

ENGINEERS and SCIENTISTS
203-063/206-009
Wilmington, NC

SHEET 1 OF 1

PROJECT NO: 203-063/206-009	STATE: NC	COUNTY: Onslow	LOCATION: Jacksonville
PROJECT NAME: Building 45		LOGGED BY: Justin Heter	BORING ID: UST45-SB02
		DRILLER: Steve Tyler	
NORTHING: 3,845,866.3	EASTING: 284,633.0	CREW:	
SYSTEM: NCSP NAD 83 (ft)		BORING LOCATION: See Map	
DRILL MACHINE: Power Probe		METHOD: Direct Push	0 HOUR DTW:
START DATE: 5/4/06		FINISH DATE: 5/4/06	24 HOUR DTW:
			ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	OVA RESULTS (ppm)	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
0.0			0 1000 2000 3000 4000				0.0	LAND SURFACE	
	D P D P		▲1.3		SM			Light brown, med. SAND. Dry.	
2.0							2.0		
	D P D P		▲1.2						
4.0					SP			Med. brown, f. to med. SAND. Oderless. Dry.	
	D P D P		▲1.4	Sampled					
6.0							6.0		
	D P D P		▲0		SP			S.A.A with lighter color.	
8.0							8.0		
								Boring Terminated at Depth 8.0 ft	

▽ = 0hr. DTW

▼ = 24hr. DTW

CATLIN ENVIRO. LOG 206-009 BUILDING45.GPJ CATLIN.GDT 7/6/06

BORING LOG

CATLIN
ENGINEERS and SCIENTISTS

203-063/206-009
Wilmington, NC

SHEET 1 OF 1

PROJECT NO: 203-063/206-009		STATE: NC	COUNTY: Onslow	LOCATION: Jacksonville
PROJECT NAME: Building 45		LOGGED BY: Justin Heter		BORING ID:
		DRILLER: Steve Tyler		UST45-SB03
NORTHING: 3,845,911.5	EASTING: 284,677.5	CREW:		
SYSTEM: NCSP NAD 83 (ft)	BORING LOCATION: See Map			LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 8.0	
START DATE: 5/4/06	FINISH DATE: 5/4/06	24 HOUR DTW:	ROCK DEPTH: --	

DEPTH	BLOW COUNT	MOI.	OVA RESULTS (ppm)	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
	0.5 0.5 0.5 0.5		0 1000 2000 3000 4000				0.0	LAND SURFACE	
0.0									
	D P D P		▲1.0		SM			Med. brown/tan, med. SAND with some silt and clay. Dry.	
2.0							2.0		
	D P D P		▲1.4		ML			Med. brown to dark brown, CLAYEY SILT. Some HCO. Moist near bottom.	
4.0							4.0		
	D P D P		▲12.1	Sampled					
6.0					SP			Med. SAND. Moist.	
	D P D P		▲2.5						
8.0							8.0		
								Boring Terminated at Depth 8.0 ft	

▽ = 0hr. DTW

▼ = 24hr. DTW

BORING LOG

CATLIN
ENGINEERS and SCIENTISTS
203-063/206-009
Wilmington, NC

SHEET 1 OF 1

PROJECT NO: 203-063/206-009	STATE: NC	COUNTY: Onslow	LOCATION: Jacksonville
PROJECT NAME: Building 45		LOGGED BY: Justin Heter	BORING ID: UST45-SB04
NORTHING: 3,845,867.1		EASTING: 284,660.6	CREW: Steve Tyler
SYSTEM: NCSP NAD 83 (ft)		BORING LOCATION: See Map	
DRILL MACHINE: Power Probe		METHOD: Direct Push	0 HOUR DTW: BORING DEPTH: 8.0
START DATE: 5/4/06		FINISH DATE: 5/4/06	24 HOUR DTW: ROCK DEPTH: --

DEPTH	BLOW COUNT	MOI.	OVA RESULTS (ppm)	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
	0.5 0.5 0.5 0.5		0 1000 2000 3000 4000				0.0	LAND SURFACE	
0.0									
	D P D P		▲1.8		SP			Med. brown, med. SAND. Dry.	
2.0							2.0		
	D P D P		▲2.2	Sampled	SM			Med. gray to dark gray, fine SAND with silt and wood fragments. Moist.	
4.0							4.0		
	D P D P		▲2.0		SC			Dark gray, fine SAND with silt and clay with high plasticity. Moist. No HCO.	
6.0							6.0		
	D P D P		▲1.9		SP			Med. gray, well sorted, med. SAND. Moist.	
8.0							8.0		
								Boring Terminated at Depth 8.0 ft	

CATLIN ENVIRO. LOG. 206-009 BUILDING45.GPJ CATLIN.GDT 7/6/06

▽ = 0hr. DTW

▼ = 24hr. DTW

BORING LOG

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203-063/206-009
Wilmington, NC

SHEET 1 OF 1

PROJECT NO: 203-063/206-009	STATE: NC	COUNTY: Onslow	LOCATION: Jacksonville
PROJECT NAME: Building 45		LOGGED BY: Justin Heter	BORING ID: UST45-SB05
		DRILLER: Steve Tyler	
NORTHING: 3,845,857.7	EASTING: 284,711.4	CREW:	
SYSTEM: NCSP NAD 83 (ft)	BORING LOCATION: See Map		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 8.0
START DATE: 5/4/06	FINISH DATE: 5/4/06	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	OVA RESULTS (ppm)	LAB.	U S C S	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
0.0			0 1000 2000 3000 4000				0.0	LAND SURFACE	
	D P D P		▲0.9		SP			Med. to dark brown, med. SAND with some qtz. rock fragments. Dry.	
2.0	D P D P		▲0.8				2.0		
					SP			Brown, med. SAND. No HCO. Dry.	
4.0	D P D P		▲1.3	Sampled					
6.0	D P D P		▲0.9		SP		6.0		
								S.A.A except med. to cse. SAND. Moist.	
8.0							8.0		
								Boring Terminated at Depth 8.0 ft	

CATLIN ENVIRO. LOG 206-009 BUILDING45.GPJ CATLIN.GDT 7/6/06

▽ = 0hr. DTW

▼ = 24hr. DTW

BORING LOG

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Wilmington, NC

SHEET 1 OF 1

PROJECT NO: 203-063/206-009	STATE: NC	COUNTY: Onslow	LOCATION: Jacksonville
PROJECT NAME: Building 45		LOGGED BY: Justin Heter	BORING ID: UST45-SB06
		DRILLER: Steve Tyler	
NORTHING: 3,845,831.7	EASTING: 284,691.2	CREW:	
SYSTEM: NCSP NAD 83 (ft)	BORING LOCATION: See Map		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 8.0
START DATE: 5/4/06	FINISH DATE: 5/4/06	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT	MOI.	OVA RESULTS (ppm)	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
	0.5 0.5 0.5 0.5		0 1000 2000 3000 4000				0.0	LAND SURFACE	
0.0									
	D P D P		▲0.5		SP			Brown SAND with grass and organic top layer. Dry.	
2.0							2.0		
	D P D P		▲0.5		SP			Med. gray, f. to med. SAND. Dry. No HCO.	
4.0							4.0		
	D P D P		▲2.7	Sampled					
6.0					SP			Brown to reddish, med. SAND.	
	D P D P		▲0.5						
8.0							8.0	Boring Terminated at Depth 8.0 ft	

CATLIN ENVIRO. LOG 206-009 BUILDING45.GPJ CATLIN.GDT 7/6/06

▽ = 0hr. DTW

▼ = 24hr. DTW

BORING LOG

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Wilmington, NC

SHEET 1 OF 1

PROJECT NO: 203-063/206-009	STATE: NC	COUNTY: Onslow	LOCATION: Jacksonville
PROJECT NAME: Building 45		LOGGED BY: Justin Heter	BORING ID: UST45-SB07
		DRILLER: Steve Tyler	
NORTHING: 3,845,833.4	EASTING: 284,662.5	CREW:	
SYSTEM: NCSP NAD 83 (ft)	BORING LOCATION: See Map		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 8.0
START DATE: 5/4/06	FINISH DATE: 5/4/06	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
0.0							0.0	LAND SURFACE	
	D P D P		▲0.5		SP			Tan to brown, med. SAND with some dark brown organics- peat. Dry.	
2.0							2.0		
	D P D P		▲0.8		SP			Med. brown, med. SAND with some organics. Dry.	
4.0							4.0		
	D P D P		▲1.0	Sampled	SP			Med. brown, med. SAND. Moist.	
6.0							6.0		
	D P D P		▲0.9		SC			Light grayish brown, fine SAND with silt and some clay and low plasticity. Moist.	
8.0							8.0		
								Boring Terminated at Depth 8.0 ft	

▽ = 0hr. DTW

▼ = 24hr. DTW

CATLIN ENVIRO. LOG 206-009, BUILDING45.GPJ CATLIN GDT 7/6/06

BORING LOG

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Wilmington, NC

SHEET 1 OF 1

PROJECT NO: 203-063/206-009	STATE: NC	COUNTY: Onslow	LOCATION: Jacksonville
PROJECT NAME: Building 45		LOGGED BY: Justin Heter	BORING ID: UST45-SB08
NORTHING: 3,845,822.6		EASTING: 284,712.1	CREW:
SYSTEM: NCSP NAD 83 (ft)		BORING LOCATION: See Map	
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 12.0
START DATE: 5/4/06	FINISH DATE: 5/4/06	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	OVA RESULTS (ppm)	LAB.	U S C S	L O G	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
0.0			0 1000 2000 3000 4000				0.0	LAND SURFACE	
	D P D P		▲5.5		SC			Med. brown, med. SAND with some silt and clay. Low plasticity. Mod. Hard.	
2.0	D P D P		▲2.4		SM		2.0	Brown, fine SAND with some silt. Dry.	
4.0	D P D P		▲1.3		SP		4.0	Gray, f. to med. SAND. No HCO. Dry.	
6.0	D P D P		▲5.5		SP		6.0	Dark brown, well sorted, med. SAND. Oderless.	
8.0	D P D P		▲5.5		SP		8.0		
10.0	D P D P		▲5.5	Sampled	SP			Black, med. SAND. HCO.	
	D P D P		▲5.3						
12.0							12.0	Boring Terminated at Depth 12.0 ft	

▽ = 0hr. DTW

▼ = 24hr. DTW

CATLIN ENVIRO. LOG. 206-009 BUILDING45.GPJ CATLIN.GDT 7/6/06

BORING LOG

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SHEET 1 OF 1

PROJECT NO: 203-063/206-009	STATE: NC	COUNTY: Onslow	LOCATION: Jacksonville
PROJECT NAME: Building 45		LOGGED BY: Justin Heter	BORING ID: UST45-SB09
		DRILLER: Steve Tyler	
NORTHING: 3,845,798.5	EASTING: 284,712.0	CREW:	
SYSTEM: NCSP NAD 83 (ft)	BORING LOCATION: See Map		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 12.0
START DATE: 5/4/06	FINISH DATE: 5/4/06	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT	MOI.	OVA RESULTS (ppm)	LAB.	U S C S	L O G	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
	0.5 0.5 0.5 0.5		0 1000 2000 3000 4000				0.0	LAND SURFACE	
0.0	D P D P		▲0.5		SP			Light brown, med. SAND with conglomerate pebbles. Dry.	
2.0	D P D P		▲0.9		SC		2.0	Brown to light gray, fine SAND with some clayey silt. Dry.	
4.0	D P D P		▲1.3		SP		4.0	Light brown with dark brown layers of med. SAND with conglomerate pebbles. Dry.	
6.0	D P D P		▲0.5		SP		6.0	Black med. SAND. HCO.	
8.0	D P D P		▲0.8		SP		8.0	Black to reddish f. to med. SAND. Oderless. Dry and hard.	
10.0	D P D P		▲2.8	Sampled	SP		10.0	Black, med. SAND with conglomerate pebbles. Minor HCO.	
12.0							12.0	Boring Terminated at Depth 12.0 ft	

CATLIN ENVIRO. LOG 206-009 BUILDING45.GPJ CATLIN.GDT 7/6/06

▽ = 0hr. DTW

▼ = 24hr. DTW

BORING LOG

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SHEET 1 OF 1

PROJECT NO: 203-063/206-009	STATE: NC	COUNTY: Onslow	LOCATION: Jacksonville
PROJECT NAME: Building 45		LOGGED BY: Justin Heter	BORING ID: UST45-SB10
		DRILLER: Steve Tyler	
NORTHING: 3,845,779.2	EASTING: 284,679.4	CREW:	
SYSTEM: NCSP NAD 83 (ft)	BORING LOCATION: See Map		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 12.0
START DATE: 5/5/06	FINISH DATE: 5/5/06	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	OVA RESULTS (ppm)	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
0.0			0 1000 2000 3000 4000				0.0	LAND SURFACE	
	D P D P		▲2.7		SP			Med. gray, med. SAND with conglomerate pebbles. Dry.	
2.0	D P D P		▲2.2		SP		2.0	Brown to dark brown, f. SAND. HCO.	
4.0	D P D P		▲3.5		SP		4.0	Light brown, f. SAND. Oderless. Dry.	
6.0	D P D P		▲2.1				6.0		
8.0	D P D P		▲5.2	Sampled	SM			Brown, f. SAND with some silt. Low plasticity. No odor. Moist.	
10.0	D P D P		▲4.6		SP		10.0	Light brown to tan, f. SAND. No odor. Moist.	
12.0							12.0	Boring Terminated at Depth 12.0 ft	

CATLIN ENVIRO. LOG 206-009 BUILDING45.GPJ CATLIN.GDT 7/6/06

▽ = 0hr. DTW

▼ = 24hr. DTW

BORING LOG

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SHEET 1 OF 1

PROJECT NO: 203-063/206-009	STATE: NC	COUNTY: Onslow	LOCATION: Jacksonville
PROJECT NAME: Building 45		LOGGED BY: Justin Heter	BORING ID: UST45-SB11
		DRILLER: Steve Tyler	
NORTHING: 3,845,785.8	EASTING: 284,728.8	CREW:	
SYSTEM: NCSP NAD 83 (ft)	BORING LOCATION: See Map		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 12.0
START DATE: 5/5/06	FINISH DATE: 5/5/06	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT	MOI.	OVA RESULTS (ppm)	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
	0.5 0.5 0.5 0.5		0 1000 2000 3000 4000				0.0	LAND SURFACE	
0.0									
	D P D P		▲1.0		SP			Black, organic soils to brown, med. SAND. Dry.	
2.0							2.0		
	D P D P		▲0.8						
4.0					SM			Light brown, f. SAND with some silt to clayey silt. No odor. Moist.	
	D P D P		▲0.8						
6.0							6.0		
	D P D P		▲0.2		SC			Brown to gray, f. to med. SAND with clayey silt and low plasticity. No odor.	
8.0							8.0		
	D P D P		▲1.1		SM			Brown to black, f. SAND with silt and some conglomerate pebbles. Low plasticity. Moist. HCO.	
10.0							10.0		
	D P D P		▲45	Sampled	SP			Dark brown to black, f. SAND with lesser silt. Compact. HCO. Moist.	
12.0							12.0		
								Boring Terminated at Depth 12.0 ft	

CATLIN ENVIRO. LOG 206-009 BUILDING45.GPJ CATLIN.GDT 7/6/06

▽ = 0hr. DTW

▼ = 24hr. DTW

BORING LOG

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SHEET 1 OF 1

PROJECT NO: 203-063/206-009	STATE: NC	COUNTY: Onslow	LOCATION: Jacksonville
PROJECT NAME: Building 45		LOGGED BY: Justin Heter	BORING ID: UST45-SB12
		DRILLER: Steve Tyler	
NORTHING: 3,845,815.7	EASTING: 284,738.5	CREW:	
SYSTEM: NCSP NAD 83 (ft)	BORING LOCATION: See Map		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 16.0
START DATE: 5/4/06	FINISH DATE: 5/4/06	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	OVA RESULTS (ppm)	LAB.	U S C S	L O G	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
0.0			0 1000 2000 3000 4000				0.0	LAND SURFACE	
	D P D P		▲2.8		SP			Black organic layers with brown, med. SAND. Dry.	
2.0	D P D P		▲3.1		SP		2.0	Light to med. brown, med. SAND with conglomerate pebbles. Dry.	
4.0	D P D P						4.0		
6.0	D P D P							No Return	
8.0	D P D P		▲1.5		SM		8.0	Brown, f. to med. SAND with some silt and pebbles. Low plasticity. Dry.	
10.0	D P D P		▲14.6	Sampled	SP		10.0	Brownish-orange med. SAND. Dry. Slight HCO.	
12.0	D P D P		▲2.7		SP		12.0	Light tan, med. SAND. Dry.	
14.0	D P D P		▲2.2		SP		14.0	S.A.A except slight more orange/light brown correlation.	
16.0							16.0	Boring Terminated at Depth 16.0 ft	

CATLIN ENVIRONMENTAL LOG 206-009 BUILDING 45.GPJ CATLIN.GDT 7/6/06

▽ = 0hr. DTW

▼ = 24hr. DTW

BORING LOG

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Wilmington, NC

SHEET 1 OF 1

PROJECT NO: 203-063/206-009	STATE: NC	COUNTY: Onslow	LOCATION: Jacksonville
PROJECT NAME: Building 45		LOGGED BY: Justin Heter	BORING ID: UST45-SB13
NORTHING: 3,845,803.2		EASTING: 284,753.0	DRILLER: Steve Tyler
SYSTEM: NCSP NAD 83 (ft)		BORING LOCATION: See Map	CREW:
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 12.0
START DATE: 5/4/06	FINISH DATE: 5/4/06	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	U S C S	LOG	SOIL AND ROCK DESCRIPTION	ELEVATION
0.0							LAND SURFACE	0.0
2.0	D P D P		▲2.1		SP		Black organics and med. SAND. Dry.	2.0
4.0	D P D P		▲1.6		SM		Brown, med. SAND with silt. Low plasticity.	4.0
6.0	D P D P		▲1.4		SP		Brown, med. SAND with conglomerate pebbles. Dry.	6.0
8.0	D P D P		▲2.1	Sampled	SP		Light brown, med. SAND. Oderless. Dry.	8.0
10.0	D P D P		▲1.5		SP		Light tan, med. SAND. Dry.	10.0
12.0	D P D P		▲1.1		SP		S.A.A except slightly darker color.	12.0
							Boring Terminated at Depth 12.0 ft	

▽ = 0hr. DTW

▼ = 24hr. DTW

CATLIN ENVIRO. LOG_206-009_BULIDING45.GPJ.CATLIN.GDT 7/6/06

BORING LOG

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203-063/206-009
Wilmington, NC

SHEET 1 OF 1

PROJECT NO: 203-063/206-009	STATE: NC	COUNTY: Onslow	LOCATION: Jacksonville
PROJECT NAME: Building 45		LOGGED BY: Justin Heter	BORING ID: UST45-SB14
		DRILLER: Steve Tyler	
NORTHING: 3,845,777.1	EASTING: 284,736.2	CREW:	
SYSTEM: NCSP NAD 83 (ft)	BORING LOCATION: See Map		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 12.0
START DATE: 5/5/06	FINISH DATE: 5/5/06	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT	MOI.	OVA RESULTS (ppm)	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
	0.5 0.5 0.5 0.5		0 1000 2000 3000 4000				0.0	LAND SURFACE	
0.0	D P D P		▲0.4		SM			Brown to dark brown, organic layer and med. SAND.	
2.0	D P D P		▲0.5				2.0		
4.0	D P D P		▲1.1	Sampled	SC			Light brown, f. to med. SAND with some clayey silt. Low plasticity. Moist.	
6.0	D P D P		▲0.5						
8.0	D P D P		▲0.8		SM		8.0	Brown, f. to med. SAND with some silt. Moist.	
10.0	D P D P				SC		10.0	Brown, f. to med. SAND with clayey silt and med. plasticity. Wet.	
12.0							12.0	Boring Terminated at Depth 12.0 ft	

CATLIN ENVIRO. LOG 206-009 BUILDING45.GPJ CATLIN.GDT 7/6/06

▽ = 0hr. DTW

▼ = 24hr. DTW

BORING LOG

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 203-063/206-009
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SHEET 1 OF 1

PROJECT NO: 203-063/206-009	STATE: NC	COUNTY: Onslow	LOCATION: Jacksonville
PROJECT NAME: Building 45		LOGGED BY: Justin Heter	BORING ID: UST45-SB15
NORTHING: 3,845,750.8		EASTING: 284,733.6	DRILLER: Steve Tyler
SYSTEM: NCSP NAD 83 (ft)		BORING LOCATION: See Map	CREW:
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 12.0
START DATE: 5/5/06	FINISH DATE: 5/5/06	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT	MOI.	OVA RESULTS (ppm)	LAB.	U S C S	L O G	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
	0.5 0.5 0.5 0.5		0 1000 2000 3000 4000				0.0	LAND SURFACE	
0.0	D P D P		▲0.5		SP			Med. gray, f. to med. SAND with conglomerate pebbles. Dry.	
2.0	D P D P		▲0.5		SP		2.0	Brown to dark brown, f. SAND with some conglomerate pebbles. Dry. No Odor.	
4.0	D P D P		▲0.5		SC		4.0	S.A.A with low plasticity.	
6.0	D P D P		▲0.7		SC		6.0	Brown, f. SAND with clayey silt and low plasticity. Moist. No Odor.	
8.0	D P D P		▲1.0	Sampled	SC		8.0	Light brown to tan, f. SAND with clayey silt. Moist.	
10.0	D P D P		▲0.8		SP		10.0	Tan to light brown, well sorted, med. SAND. Moist.	
12.0							12.0	Boring Terminated at Depth 12.0 ft	

▽ = 0hr. DTW

▼ = 24hr. DTW

CATLIN ENVIRO. LOG 206-009 BUILDING 45 G.P.I. CATLIN GDI 7/6/06

BORING LOG

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Wilmington, NC

SHEET 1 OF 1

PROJECT NO: 203-063/206-009	STATE: NC	COUNTY: Onslow	LOCATION: Jacksonville
PROJECT NAME: Building 45		LOGGED BY: Justin Heter	BORING ID: UST45-SB16
		DRILLER: Steve Tyler	
NORTHING: 3,845,777.5	EASTING: 284,758.8	CREW:	
SYSTEM: NCSP NAD 83 (ft)	BORING LOCATION: See Map		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 10.0
START DATE: 5/4/06	FINISH DATE: 5/4/06	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
0.0							0.0	LAND SURFACE	
	D P D P		▲1.4		SP			Dark brown, organic layer and med. SAND. Dry.	
2.0	D P D P		▲1.2		SC		2.0	light brown, med. SAND with some clayey silt with low plasticity. Dry.	
4.0	D P D P		▲1.4		SP		4.0	Brown, med. SAND. Dry.	
6.0	D P D P		▲1.9	Sampled	SP		6.0	S.A.A with slightly more silt.	
8.0	D P D P		▲1.5		SP		8.0	Gray, med. SAND. Moist. No odor.	
10.0							10.0	Boring Terminated at Depth 10.0 ft Refusal at 10'. Moved original position 10' south due to concrete slab 3' bls.	

CATLIN ENVIRO. LOG 206-009 BUILDING45.GPJ CATLIN.GDT 7/6/06

▽ = 0hr. DTW

▼ = 24hr. DTW

BORING LOG

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SHEET 1 OF 1

PROJECT NO: 203-063/206-009	STATE: NC	COUNTY: Onslow	LOCATION: Jacksonville
PROJECT NAME: Building 45		LOGGED BY: Justin Heter	BORING ID: UST45-SB17
		DRILLER: Steve Tyler	
NORTHING: 3,845,791.2	EASTING: 284,762.9	CREW:	
SYSTEM: NCSP NAD 83 (ft)	BORING LOCATION: See Map		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 12.0
START DATE: 5/4/06	FINISH DATE: 5/4/06	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT	MOI.	OVA RESULTS (ppm)	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
	0.5 0.5 0.5 0.5		0 1000 2000 3000 4000				0.0	LAND SURFACE	
0.0									
	D P D P		▲1.4		SP			Black organics and med. SAND. Dry.	
2.0							2.0		
	D P D P		▲2.1						
4.0					SM			Med. brown, med. SAND with some silt. Dry.	
	D P D P		▲2.2	Sampled					
6.0							6.0		
	D P D P				SC			Brown, med. SAND with clayey silt and some qtz. pebbles. Dry.	
8.0							8.0		
	D P D P		▲1.9		SP			Tan and brown, med. SAND with qtz. pebbles. Dry.	
10.0							10.0		
	D P D P		▲1.4		SP			Brown, med. SAND. Moist.	
12.0							12.0	Boring Terminated at Depth 12.0 ft	

CATLIN ENVIRO. LOG 206-009 BUILDING45.GPJ CATLIN.GDT 7/6/06

▽ = 0hr. DTW

▼ = 24hr. DTW

BORING LOG

CATLIN

ENGINEERS and SCIENTISTS

203-063/206-009
Wilmington, NC

SHEET 1 OF 1

PROJECT NO: 203-063/206-009	STATE: NC	COUNTY: Onslow	LOCATION: Jacksonville
PROJECT NAME: Building 45		LOGGED BY: Justin Heter	BORING ID: UST45-SB18
		DRILLER: Steve Tyler	
NORTHING: 3,845,776.7	EASTING: 284,804.0	CREW:	
SYSTEM: NCSP NAD 83 (ft)	BORING LOCATION: See Map		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 8.0
START DATE: 5/4/06	FINISH DATE: 5/4/06	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	OVA RESULTS (ppm)	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
0.0			0 1000 2000 3000 4000				0.0	LAND SURFACE	
	D P D P		▲1.0		SP			Black organic layer and med. SAND. Dry. No odor.	
2.0							2.0		
	D P D P		▲1.5		SP			Light to dark gray, med. SAND. Dry. Slight HCO.	
4.0							4.0		
	D P D P		▲1.8		OL			Black, CLAYEY SILT with some sand. Wet/Sat.. Slight HCO.	
6.0							6.0		
	D P D P		▲3.2	Sampled	SP			Light gray, med. SAND. Dry. HCO.	
8.0							8.0		
								Boring Terminated at Depth 8.0 ft	

▽ = 0hr. DTW

▼ = 24hr. DTW

CATLIN ENVIRO. LOG_206-009_BUILDING45.GPJ CATLIN.GDT 7/6/06

BORING LOG

CATLIN

ENGINEERS and SCIENTISTS
203-063/206-009
Wilmington, NC

SHEET 1 OF 1

PROJECT NO: 203-063/206-009	STATE: NC	COUNTY: Onslow	LOCATION: Jacksonville
PROJECT NAME: Building 45		LOGGED BY: Justin Heter	BORING ID: UST45-SB19
		DRILLER: Steve Tyler	
NORTHING: 3,845,768.2	EASTING: 284,798.6	CREW:	
SYSTEM: NCSP NAD 83 (ft)	BORING LOCATION: See Map		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 8.0
START DATE: 5/4/06	FINISH DATE: 5/4/06	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	OVA RESULTS (ppm)	LAB.	U S C S	L O G	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
0.0			0 1000 2000 3000 4000				0.0	LAND SURFACE	
	D P D P		▲2.0		SP			Brown to light gray, organic layers and med. SAND. Dry.	
2.0							2.0		
	D P D P		▲2.1		SP			Brown, med. SAND with some silt.. Dry. Oderless.	
4.0							4.0		
	D P D P		▲1.8		SC			Brown, f. SAND with clayey silt. Med. plasticity. No odor.	
6.0							6.0		
	D P D P		▲2.8	Sampled	SP			Light gray, med. SAND. Moist. No odor.	
8.0							8.0		
								Boring Terminated at Depth 8.0 ft	

▽ = 0hr. DTW

▼ = 24hr. DTW

CATLIN ENVIRO. LOG 206-009 BUILDING45.GPJ CATLIN.GDT 7/6/06

BORING LOG

CATLIN

ENGINEERS and SCIENTISTS
203-063/206-009
Wilmington, NC

SHEET 1 OF 1

PROJECT NO: 203-063/206-009	STATE: NC	COUNTY: Onslow	LOCATION: Jacksonville
PROJECT NAME: Building 45		LOGGED BY: Justin Heter	BORING ID: UST45-SB20
		DRILLER: Steve Tyler	
NORTHING: 3,845,757.4	EASTING: 284,801.1	CREW:	
SYSTEM: NCSP NAD 83 (ft)	BORING LOCATION: See Map		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 8.0
START DATE: 5/4/06	FINISH DATE: 5/4/06	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT	MOI.	OVA RESULTS (ppm)	LAB.	USCS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
	0.5 0.5 0.5 0.5		0 1000 2000 3000 4000				0.0	LAND SURFACE	
0.0									
	D P D P		▲2.4	Sampled	SP			Black, organic layer and med. SAND. Dry.	
2.0							2.0		
	D P D P		▲1.1		SC			Brown, med. SAND with some clayey silt. Low plasticity. Dry. Oderless.	
4.0							4.0		
	D P D P		▲1.9		SP			Light brown, med. SAND. Dry. Oderless.	
6.0							6.0		
	D P D P		▲1.4		SM			Brown, med. SAND with some silt and small amounts of clay. HCO.	
8.0							8.0		
								Boring Terminated at Depth 8.0 ft	

CATLIN ENVIRO. LOG 206-009 BUILDING45.GPJ CATLIN.GDT 7/6/06

▽ = 0hr. DTW

▼ = 24hr. DTW

APPENDIX H
CATLIN STANDARD METHODS OF INVESTIGATION

CATLIN STANDARD METHODS OF INVESTIGATION

(REVISED APRIL 2002)

1.0 DATA COLLECTION

1.1 BACKGROUND DATA

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

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

1.2 SURVEYS AND POTENTIAL RECEPTOR DATA

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

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

1.2.1 Horizontal Survey

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

1.2.2 Vertical Survey

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

1.3 DRILLING AND MONITORING WELL/PIEZOMETER INSTALLATION

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

1.3.1 Drilling Methods and Subsurface Data Collection

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

Auger Drilling

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

Hand Augering

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

Direct Push

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

Other Methods

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

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

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

1.3.2 Hydropunch Installation

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

1.3.3 Well Installation

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

1.3.4 Well Development

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

1.4 HYDROGEOLOGIC DATA COLLECTION

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

1.4.1 Regional Geology

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

1.4.2 Site Geology

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

1.4.3 Groundwater Occurrence and Characteristics

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

Well Water Levels

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

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

Aquifer Testing

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

Other Methods

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

1.5 PETROLEUM HYDROCARBON DATA COLLECTION

1.5.1 Collection Methods

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

Field Analysis

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

Laboratory Analysis

- Laboratory analysis of phase-separated products.

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

1.5.2 Field Sampling

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

Product Samples

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

Vapor Samples

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

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

Soil Samples

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

Groundwater Samples

Groundwater samples are collected in accordance with the following procedures:

- Creeks/Lakes/Etc.

Grab samples are obtained.

- Domestic Wells

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

- Monitoring Wells

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

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

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

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

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

Sampling records are field prepared.

Samples are labeled and proper chain of custody documents are maintained.

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

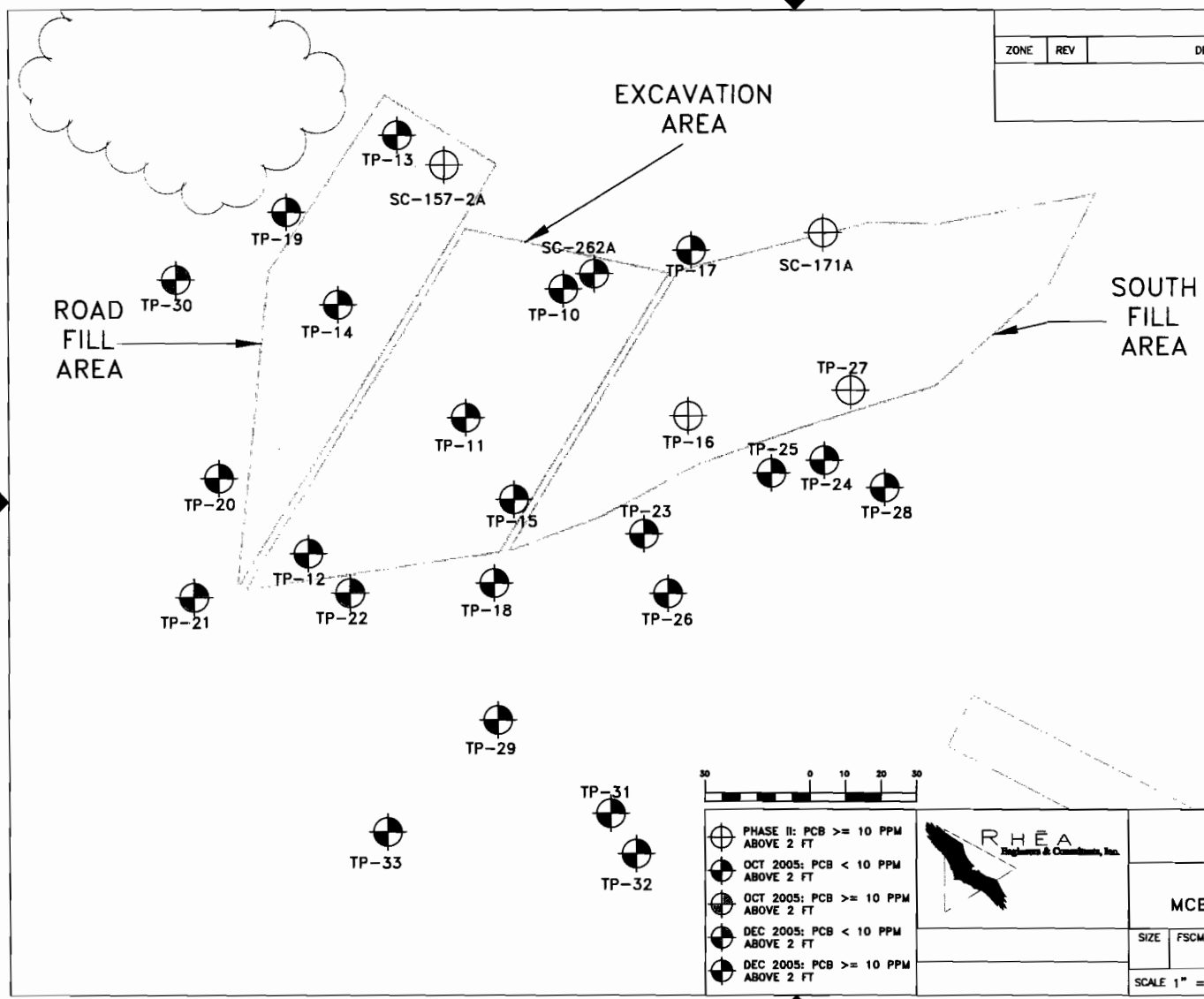
2.0 DATA EVALUATION

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

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

APPENDIX I
IR PROGRAM 2006 EXCAVATION AND ASSOCIATED DRAFT ANALYTICAL DATA

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED



- PHASE II: PCB $\geq$ 10 PPM ABOVE 2 FT
- OCT 2005: PCB < 10 PPM ABOVE 2 FT
- OCT 2005: PCB $\geq$ 10 PPM ABOVE 2 FT
- DEC 2005: PCB < 10 PPM ABOVE 2 FT
- DEC 2005: PCB $\geq$ 10 PPM ABOVE 2 FT

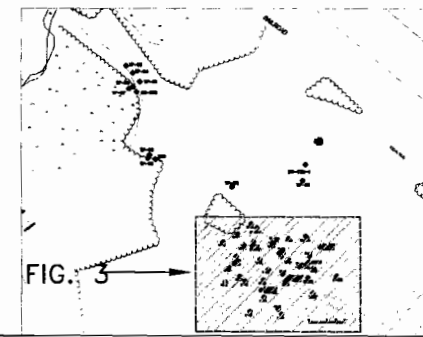


FIGURE 3: SOUTH SAMPLING POINTS

SITE 84 OPERABLE UNIT 19 MCB CAMP LEJEUNE, NORTH CAROLINA			
SIZE	FSCM NO.	DWG NO.	REV
		273-F3-B2	
SCALE 1" = 30'		SHEET	

TABLE 5
GRO and DRO Sampling Results - December 2005
Site 84 Operable Unit 19
MCB Camp Lejeune, North Carolina

Sample	GRO (mg/kg)	DRO (mg/kg)	Sample	GRO (mg/kg)	DRO (mg/kg)
TP-13-2.0	7.5	15	TP-24-2.0	6.8	160
TP-14-2.0	6.9	430	TP-25-2.0	8.1	19
TP-15-2.0	6.6	55	TP-26-2.0	7.4	47
TP-16-2.0	16	150	TP-27-2.0	7.3	250
TP-17-2.0	6.2	25	TP-28-2.0	7.4	20
TP-17-2.0-DUP	6.4	25	TP-29-2.0	7.2	37
TP-18-2.0	6.9	33	TP-30-2.0	6.9	13 U
TP-19-2.0	6.3	13 U	TP-31-2.0	7.2	52
TP-20-2.0	6.7	13 U	TP-32-2.0	6.5	22
TP-21-2.0	6.8	24	TP-33-2.0	7.0	22
TP-22-2.0	6.2	13 U			
TP-23-2.0	7.2	110			
TP-23-2.0-DUP	6.7	100			

Notes:

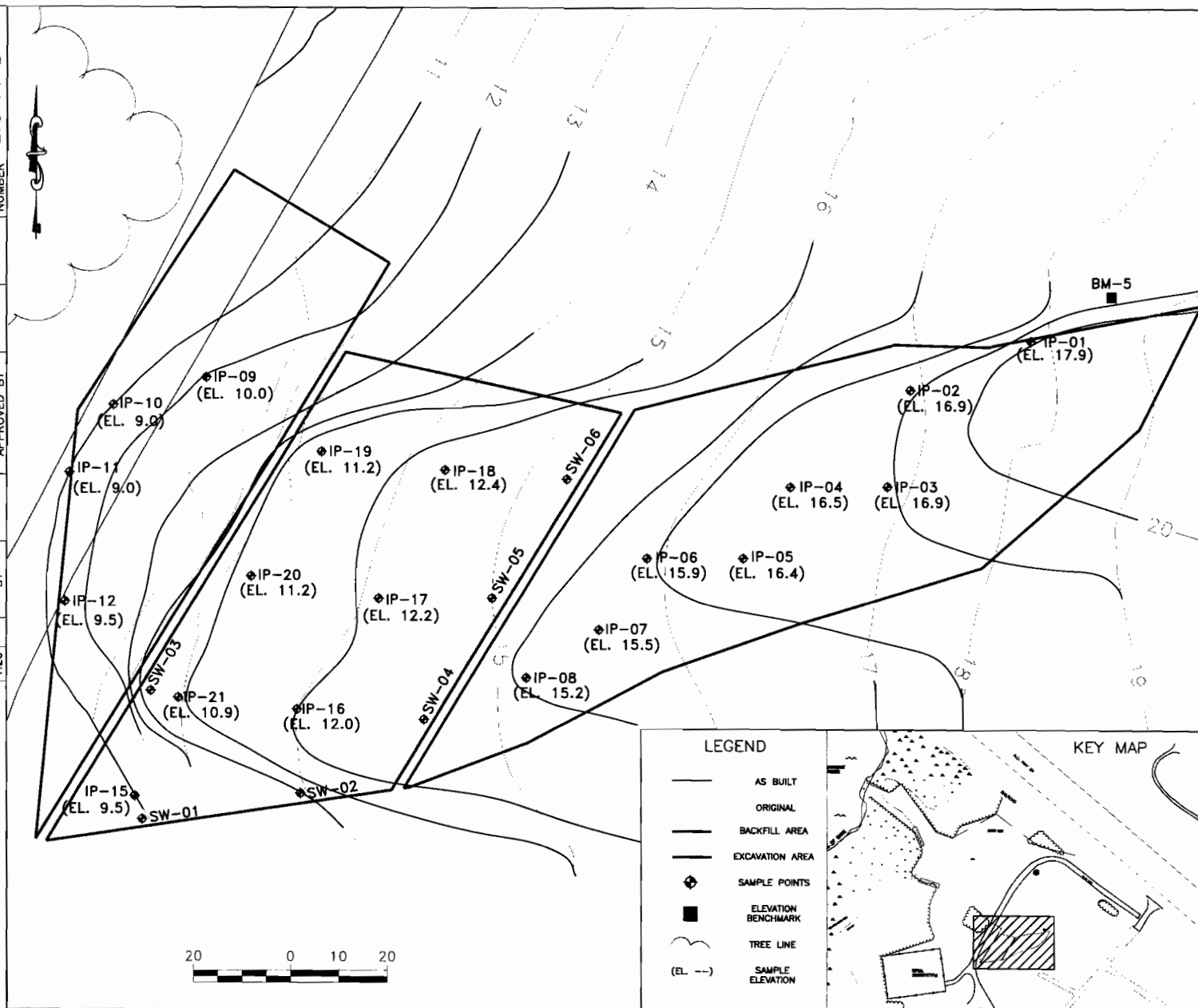
Red = GRO detected > 10 mg/kg

Blue = DRO detected > 40 mg/kg

U = Not detected at detection limit

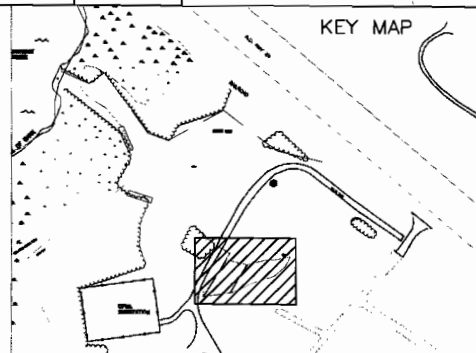
DRO results based on range of hydrocarbons between C9 and C36, broader than the range between C10 and C28 that is required by North Carolina.

Otherwise, GRO and DRO were analyzed by a qualified commercial laboratory using USEPA Method 8015B



LEGEND

- AS BUILT
- ORIGINAL
- BACKFILL AREA
- EXCAVATION AREA
- ◆ SAMPLE POINTS
- ELEVATION BENCHMARK
- TREE LINE
- (EL. ---) SAMPLE ELEVATION



Sample ID	PCB (ppm)	DRO (ppm)	GRO (ppm)	O&G (ppm)
IP-01	0.056	-	-	-
IP-02	0.44	-	-	-
IP-03	2.0	-	-	-
IP-03-DUP	1.9	-	-	-
IP-04	0.085	-	-	-
IP-05	0.44	-	-	-
IP-06	0.48	-	-	-
IP-07	0.8	-	-	-
IP-08	2.9	-	-	-
IP-09	1.4 E	-	-	-
IP-10		-	-	-
IP-10-DUP		-	-	-
IP-11	2.4	-	-	-
IP-12	4.2	-	-	-
IP-15	0.26	9.9 U	7.4 B	190 U
IP-16	0.84	28	6.5 B	130 J
IP-16-DUP	0.4	36	5.4 B	190 U
IP-17			6.6 B	
IP-18			7.1 B	
IP-19			7.1 B	
IP-20			6.6 B	
IP-21	3.5	16	6.6 B	180 U

Methods:
 PCB analysis by EPA Method 8082
 DRO analysis by EPA Method 8015B with extraction by Method 5030
 GRO analysis by EPA Method 8015B with extraction by Method 3550
 O&G analysis by EPA Method 9071

PCBs detected ≥ 10 ppm
 DROs detected ≥ 40 ppm
 GROs detected ≥ 10 ppm
 O&G detected ≥ 250 ppm

Qualifiers:
 "-" = Not analyzed
 "J" = Analyte detected below quantitation limits
 "B" = Analyte detected in the associated Method Blank
 "U" = Not detected at detection limit, detection limit shown
 "E" = Value above quantitation range

Benchmark	Eastings	Northings	Elevation
BM-5	2495308.77	361373.14	16.88
BM-6	2495055.32	361618.18	6.75

Note: Northing and Easting shown in North Carolina State Plane feet

DRAFT
FIGURE 1
 RECORD DRAWING REMEDIATION AREA
 CONCENTRATIONS LEFT IN PLACE
 SITE 84 OPERABLE UNIT 19
 MCB CAMP LEJEUNE, NORTH CAROLINA

PREPARED FOR
 NAVFAC MID-ATLANTIC

RHEA
 Remediation & Construction, Inc.
 4001 William Ryan Highway
 Orlando, FL 32834