



FINAL
2008-2009 ANNUAL MONITORING REPORT

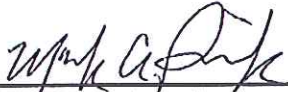
**SOIL AND GROUNDWATER REMEDIATION
BUILDING AS-4158
MARINE CORPS AIR STATION
NEW RIVER, NORTH CAROLINA**

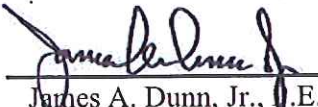
Contract No. N62470-02-D-3260

Prepared for:
DEPARTMENT OF THE NAVY
Naval Facilities Engineering Command, Mid-Atlantic
Marine Corps North Carolina IPT
Environmental Business Line
9742 Maryland Avenue
Norfolk, VA 23511-3095

Prepared by:
SHAW ENVIRONMENTAL, INC.
500 East Main Street, Suite 1630
Norfolk, Virginia 23510




Mark Pisarcik
Project Manager


James A. Dunn, Jr., J.E.
Program Manager

Task Order 81
Shaw Project No. 125709
June 2009

TABLE OF CONTENTS

1.0	INTRODUCTION	1-1
1.1	CAMP LEJEUNE LOCATION AND DESCRIPTION	1-1
1.2	AS-4158 SITE DESCRIPTION	1-2
2.0	CONTAMINATION INVESTIGATION HISTORY	2-1
2.1	SITE ASSESSMENT ACTIVITIES SUMMARY	2-4
3.0	AS REMEDIAL SYSTEM OPERATION AND RESULTS	3-1
3.1	AS/SVE SYSTEM OPERATION	3-1
3.2	AS/SVE MONITORING RESULTS	3-2
4.0	GROUNDWATER MONITORING METHODS AND RESULTS	4-1
4.1	GROUNDWATER ELEVATION MEASUREMENTS	4-1
4.2	FREE PHASE PRODUCT RECOVERY SUMMARY	4-2
4.3	ANALYTICAL SUMMARY	4-3
4.3.1	September 2008 Sampling Event	4-4
4.3.2	February 2009 Sampling Event	4-4
4.4	HISTORICAL GROUNDWATER SAMPLING (1998- 2008)	4-5
5.0	CONCLUSIONS AND RECOMMENDATIONS	5-1

FIGURES

- Figure 1.1: Site Vicinity Map
Figure 1.2: Site Location Map
Figure 2: Site Map Well Locations
Figure 4.1: Groundwater Elevation Contour Map, Shallow Wells, September 2008
Figure 4.2: Groundwater Elevation Contour Map, Shallow Wells, February 2009
Figure 4.3: Dissolved Groundwater Benzene Isoconcentration Map, September 2008
Figure 4.4: Dissolved Groundwater Benzene Isoconcentration Map, February 2009

TABLES

- Table 1.1: Water Level Measurement Summary
Table 3.1: Cumulative Mass of Hydrocarbons Recovery and Graph
Table 4.1: Groundwater Elevation Table for September 2008 and February 2009
Table 4.2: Field Data Summary September 2008
Table 4.3: Field Data Summary February 2009
Table 4.4: Analytical Data Summary, September 2008 and February 2009

APPENDICES

- Appendix A: Groundwater Sample Collection Field Logs
Appendix B: Groundwater Laboratory Analytical Reports
Appendix C: Historical Groundwater Analytical Data
Appendix D: Monthly Well Gauging Log Sheets

ACRONYMS AND ABBREVIATIONS

AFVR	Aggressive Fluid-Vapor Recovery
AMR	Annual Monitoring Report
AS	air sparge
AST	aboveground storage tank
bls	below land surface
CAP	Corrective Action Plan
CATLIN	CATLIN Engineers and Scientists
DRO	Diesel Range Organics
DWM	Division of Waste Management
EEI	Engineering and Environment, Inc.
EPA	Environmental Protection Agency
EPH	Extractable Petroleum Hydrocarbons
GRO	Gasoline Range Organics
GTGS	Groundwater Technology Government Services
J.A. Jones	J.A. Jones Environmental Services Company
LNAPL	light non-aqueous phase liquid
Law	Law Engineering and Environmental Services, Inc.
µg/L	micrograms per liter
mg/kg	milligrams per kilogram
MADEP	Massachusetts Department of the Environment
MCAS	Marine Corps Air Station
NAVFACµ	Naval Facilities Engineering Command
NCAC	North Carolina Administrative Code
NCDENR	North Carolina Department of Environment and Natural Resources
PAHs	Polyaromatic Hydrocarbons
NCGWQS	North Carolina Groundwater Quality Standards
RAO	Remedial Action Optimization
RCAP	Revised Corrective Action Plan
Shaw	Shaw Environmental, Inc.
SM	Standard Method
SVE	Soil Vapor Extraction
SVOCs	Semi-Volatile Organic Compounds
TPH	Total Petroleum Hydrocarbons
UST	underground storage tank
VPH	Volatile Petroleum Hydrocarbons
VOCs	Volatile Organic Compounds

1.0 INTRODUCTION

On behalf of the Department of the Navy Atlantic Division, Naval Facilities Engineering Command (NAVFAC), Shaw has prepared this AMR for the Building AS-4158 Site, MCAS New River, North Carolina (**Figure 1.1**). The purpose of this report is to present the findings and recommendations associated with the reporting period of May 2008 through April 2009, and the semi-annual groundwater monitoring and sampling activities in September 2008 and February 2009. This report and the methods used to acquire the data in support of this report have been prepared in accordance with the NCDENR, DWM, and UST Section guidelines.

The purpose of this report is to summarize data from the September 2008 and the February 2009 gauging and sampling events at Building AS-4158 remediation site aboard the MCAS New River, North Carolina. Semi-annual gauging and sampling was conducted on sixteen monitoring wells (MW-01 through MW-18), excluding MW-02 and MW-12. MW-02 was abandoned in 2008 and MW-12 has been covered with asphalt. Analysis run included Environmental Protection Agency (EPA) Methods 602 (targeting BTEX, MTBE, and trihalomethanes) 625 (SVOCS for PAHs), and 3030C for lead. The results of Shaw's 2008-2009 gauging and sampling events are presented in this report.

Shaw Environmental Inc, (Shaw) conducted monthly well gauging on sixteen site monitoring wells from May 2008 through April 2009 during the 2008-2009 monitoring period to check for the presence of free phase product at the site. Free phase product was present in monitoring well MW-16 at a thickness of 0.08 feet on June 6, 2008 and 0.06 feet on July 28, 2008 during the 2008-2009 monitoring period. **Table 1.1** depicts depth to hydrocarbon product and groundwater elevations for this reporting period. This 2008-2009 Annual Monitoring Report (AMR) documents the semi-annual gauging and sampling of sixteen monitoring wells.

1.1 CAMP LEJEUNE LOCATION AND DESCRIPTION

The site is located on Marine Corps Air Station (MCAS), New River, in Onslow County, North Carolina as shown in **Figure 1.1**. The Building AS-4158 site has been assigned incident number 10804 by the North Carolina Department of Environment and Natural Resources (NCDENR), Division of Waste Management (DWM). Previous investigations

indicated the site met criteria as a high risk site and for Industrial/Commercial land use. Due to the abandonment of potable well AS-4150 in 2008, the current site risk is low.

1.2 AS-4158 SITE DESCRIPTION

Building AS-4158 is located at the MCAS New River, North Carolina (**Figure 1.2**). **Figure 2** provides a site map and well locations for Building AS-4158. The facility is used to provide fuel and maintenance to vehicles at the MCAS. The site is located on Perimeter Street, west of the airfield. The site is generally flat, and most of the area is paved. Building AS-4158 is located at the north end of the site. Currently, two 10,000-gallon aboveground storage tanks (ASTs) used for diesel fuel storage are located towards the southern end of the site. Fuel is transported by way of an underground pipeline from the ASTs to the dispensers located adjacent to Building AS-4158. One 1,000-gallon used oil AST is also in use at the site on the northwest side of Building AS-4158. No permanent surface water bodies are present at the site. The nearest surface water body is Southwest Creek and associated marsh located approximately 1,000 feet west of the site. The nearest drinking water supply well (well AS-4150), was located approximately 650 feet east of the site, and was abandoned in 2008.

2.0 CONTAMINATION INVESTIGATION HISTORY

According to the Leaking UST Site Assessment Report, dated October 4, 1994, prepared by Law Engineering and Environmental Service, Inc. (Law), the presence of hydrocarbon material was identified by Environmental and Regulatory Consultants, Inc. during the removal of three 3,000-gallon USTs on August 18, 1992. One of the 3,000-gallon steel USTs supplied gasoline for MCAS vehicles. The other two 3,000-gallon steel USTs supplied diesel fuel for MCAS vehicles. No documentation was made of the age or condition of the USTs at the time of removal. The three USTs were replaced with two 10,000 gallon capacity ASTs, which currently store diesel fuel and are located adjacent to the location of the former USTs.

In 1993, Groundwater Technology Government Services (GTGS) performed a site assessment at Building AS-4158, which included the installation of three monitoring wells. An additional assessment was conducted by Law to evaluate the impact to the groundwater and vadose zone soil caused by the release of petroleum hydrocarbon contaminants from the former USTs. A summary of these site assessments are presented in **Section 2.1** Site Assessment Activities Summary.

A Corrective Action Plan (CAP) was prepared by CATLIN Engineers and Scientists (CATLIN) for the Building AS-4158 site in September 1995. The CAP indicated potential receptors were Southwest Creek and its associated marsh, and a drinking water supply well AS-4150 located approximately 650 feet from the site. The CAP recommended installing an air sparge/soil vapor extraction (AS/SVE) system to remediate soil and groundwater at the site. Initial remedial activities included the installation of a passive skimmer to recover free phase product from monitoring well MW-09. The skimmer is no longer present.

The AS/SVE system was installed and activated in April 1998. The system consists of two north-south oriented horizontal AS/SVE monitoring wells. **Figure 2** presents the AS/SVE system and monitoring wells at the subject site. The system remained operational through December 1999, as dissolved-phase constituent concentrations had decreased to very low concentrations, and measurable free phase product was no longer present at monitoring well MW-09. The system was restarted in February 2001 due to increasing dissolved-phase constituent concentrations.

To monitor the dissolved petroleum hydrocarbon constituents in groundwater, J.A. Jones collected groundwater samples during nineteen quarterly events (from April 1998 to January 2003) from the following monitoring wells; MW-01, MW-02, MW-03, MW-04, MW-05, MW-07, MW-08, MW-09, MW-10, MW-11, MW-13, MW-14, MW-15, MW-17 and MW-18.

In January 2002 a fuel leak from an underground fuel transfer line was suspected. The underground fuel line was tightness tested in April 2002. The results confirmed a leak, which was found to have occurred in the vicinity of monitoring well MW-09. The release was then reported to the NCDENR on April 30, 2002 and repairs were made in November 2002. During that reporting period, product thickness was measured on a regular basis in MW-09 and hand bailing was performed routinely to recover free phase product at this well. Between April 1998 and December 2002 a total of 110 gallons of free phase product was recovered from monitoring well MW-09. In September 2004, an additional soil assessment was conducted by CATLIN at the site. The investigation indicated that no additional soil remediation activities were needed.

In January 2003, J.A. Jones recommended shutting the AS/SVE system down and continued the removal of free phase product from MW-09 using absorbent hydrocarbon socks and manual bailing until product was not detected during four consecutive quarters. Following four consecutive quarters of no product, quarterly post-operation sampling would be initiated until dissolved petroleum related constituent concentrations consistently met the site rehabilitation concentrations established by the NCGWQS. However, in January 2003, free phased product was still present in MW-09. Therefore, the AS/SVE system remained in operation.

In January 2004, Shaw Environmental, Inc. submitted an AMR documenting remedial system operation and groundwater analytical results from April 1998 to January 2003 conducted by J.A. Jones.

A Remedial Action Optimization (RAO) and Revised Corrective Action Plan (RCAP) were prepared at the site by CATLIN in August 2005. The study indicated the site meets criteria for classification as Industrial/Commercial land use and high risk site, based on an inactive water supply well located within 1,000 feet of the site. The study recommended conducting free phase product delineation activities in the vicinity of monitoring well MW-09, deactivate the western AS/SVE line, and reduce the frequency and number of wells included in the groundwater monitoring programs.

In November 2005, Engineering and Environment, Inc. (EEI) submitted an AMR documenting groundwater remediation and monitoring activities from April 2004 to August 2005 conducted by EEI.

In December 2005, the NCDENR accepted alternative recommendations for the RAO and RCAP proposed by MCB Camp Lejeune. The changes included foregoing the free phase product delineation activities in the vicinity of monitoring well MW-09 and instead conducting a risk-based sampling event as an alternative since no free phase product had been present in monitoring well MW-09 since January 2005 (0.02 feet). In addition, MCB requested that the whole AS/SVE system be shut down in January 2006 since sampling data from 2005 indicated that contaminant levels decreased significantly enough to warrant deactivation. All groundwater well concentrations from the last sampling event in July 2005 were below the North Carolina Groundwater Quality Standards (NCGWQS). Recommendation was also made to reduce the site-risk level from high to low since the drinking water supply well AS-4150 was taken offline and shut down. Finally, conduct gauging of site wells for a period of twelve months followed by a groundwater sampling event of select wells based on historical data to monitor post operational performance.

In January 2006, the AS/SVE system was shut down because sampling data from 2005 indicated that contaminant levels of the dissolved phase petroleum hydrocarbon constituents had decreased significantly enough to warrant deactivation and all groundwater monitoring well concentrations were below the NCGWQS during the last sampling event conducted in August 2005. In addition, no free phase product was present in monitoring well MW-09 since January 2005 (0.02 feet) and the drinking water supply well AS-4150 was taken offline and shut down.

Shaw conducted well gauging at ten site monitoring wells from January 2006 through March 2008 to check for the presence of free phase product at the site. On January 9 and March 26, 2008, free phase product was present in monitoring well MW-09 at a thickness of 0.01 feet for the first time since January 2005. In June 2007, October 2007, January 2008, and March 2008, monitoring well gauging and groundwater sampling of ten select monitoring wells based on historical data were initiated to monitor post operational performance.

Groundwater monitoring well sample results from March and June 2007 indicated contaminant levels above 2L. As a result, the Partnering Team agreed to restart the system in August 2007 and it remains in operation to date.

2.1 SITE ASSESSMENT ACTIVITIES SUMMARY

In March and April of 1993, GTGS performed a three well site check, which involved the advancement of three soil borings that were converted to monitoring wells MW-01, MW-02, and MW-03. Each of the monitoring wells was installed to a depth of approximately 17 feet below land surface (bls) and completed using 15 feet of screened section. Groundwater samples were collected from each of the three monitoring wells and were analyzed for volatile aromatic hydrocarbons using EPA Method 602. Dissolved hydrocarbons were detected in each of the three groundwater samples.

In December 1993 and January 1994, as part of the site assessment activities, Law installed fifteen hydro-punch penetrometers, twelve Type II groundwater monitoring wells, three Type III groundwater monitoring wells, and one 6-inch diameter recovery well to evaluate site geology and determine the extent of petroleum-impacted groundwater and unsaturated soil. The monitoring wells and recovery well were designated as MW-04 through MW-18 and PW-01, respectively.

During field investigation work documented by the Site Assessment Report, Law collected soil samples from the sixteen borings advanced for the installation of the Type II and Type III groundwater monitoring wells and the recovery well.

- Two soil samples were collected from each soil boring for MW-04, MW-05, MW-07 through MW-18 and PW-01. The samples were analyzed for Total Petroleum Hydrocarbons (TPH) Gasoline Range Organics (GRO) and Diesel Range Organics (DRO) using EPA Methods Modified 8015/5030 and 8015/3550, respectively.
- Three soil samples were collected from the soil boring for MW-06 and analyzed for TPH-GRO and TPH-DRO using EPA Method Modified 8015/5030 and 8015/3550, respectively.

Two soil samples were retained from each soil boring for either on-site or off-site laboratory analysis. The on-site laboratory was owned and operated by Geochem, Incorporated located in Morrisville, North Carolina. All off-site samples were submitted to Law Environmental National Laboratories in Pensacola, Florida. The laboratory results are summarized below:

- TPH-GRO was detected in MW-04 (1.2 milligrams per kilogram [mg/kg]), MW-09 (180 mg/kg), and MW-13 (0.87 mg/kg). All except for MW-09 were below the NCDENR action levels of 10 mg/kg for TPH-gasoline.
- TPH-DRO was detected in MW-09 (3,400 mg/kg), MW-11 (17 mg/kg), MW-15 (3.3 mg/kg), and MW-17 (5.7 mg/kg). All except for MW-09 were below the NCDENR action levels of 40 mg/kg for TPH-DRO.

Type II groundwater monitoring wells, designated MW-04, MW-05, MW-06, MW-07, MW-10, MW-12, MW-14 were installed to a depth of 16.5 feet-bls completed with a 10-foot section of well screen. Type II groundwater monitoring wells, designated MW-08, MW-09 (product recovery well), MW-11, MW-13, and MW-15 were installed to a depth of 17 feet- bls completed with a 10 foot section of well screen. Type III groundwater monitoring wells, designated MW-16 through MW-18 were installed to a depth of 50.5 feet bls completed with a 5 foot section of well screen. In addition, the pumping well, designated PW-01 was installed to a depth of 30 feet-bls completed with a 20 foot section of well screen set at the well completion depth.

In December 1993, ten groundwater samples were collected using a Hydro punch sampling probe to provide delineation information concerning the dissolved petroleum hydrocarbon constituents and light non-aqueous phase liquid (LNAPL) plume at Building AS-4158. Groundwater samples were collected by driving the Hydro punch probe through the unsaturated zone into the water bearing zone and then opening the Hydro punch to allow groundwater to enter the sample chamber. A small-diameter, decontaminated Teflon bailer was then lowered into the chamber to collect the samples. In addition, during December 1993 and January 1994, groundwater samples were collected from monitoring wells MW-01 through MW-18 and PW-01. The samples were analyzed for volatile aromatic hydrocarbons using EPA Method 601/602 and EPA Method 625 (reporting Method 610 analyte list).

3.0 AS REMEDIAL SYSTEM OPERATION AND RESULTS

3.1 AS/SVE SYSTEM OPERATION

The AS/SVE system was designed to reduce the dissolved phase petroleum hydrocarbon constituents in the groundwater to site rehabilitation levels regulated by the NCDENR. These site rehabilitation levels are provided in the NCAC Title 15A Subchapter 2L.

The system was started April 4, 1998 and operated continuously until it was shut down on December 29, 1999. The system was shut down because a measurable volume of free phase product had not been detected in recovery well MW-09 since December 10, 1998, and dissolved concentrations of petroleum related constituents had remained at very low concentrations. Beginning in October 2000, review of analytical results from groundwater samples collected during the quarterly post-operation monitoring well sampling event indicated that benzene was detected in samples from monitoring wells MW-09, MW-11, and MW-13 at slightly higher concentrations than those detected during the previous quarter (July 2000). Overall, the concentration of benzene in MW-09 (17 micrograms per liter [$\mu\text{g/L}$], January 2000; to 100 $\mu\text{g/L}$, October 2000) had increased by an order of magnitude since the system's shut down. Concentrations of benzene (BQL to 300 $\mu\text{g/L}$), ethylbenzene (BQL to 550 $\mu\text{g/L}$), and total xylenes (BQL to 1,280 $\mu\text{g/L}$) detected in MW-13 had increased several orders of magnitude since the remedial system was shutdown. The system was restarted in February 2001 due to these increasing dissolved-phase constituent concentrations.

To monitor the effectiveness of the AS/SVE system in the reduction of dissolved petroleum hydrocarbon constituents in groundwater, J.A. Jones collected quarterly groundwater samples from the site monitoring wells from March 1998 to January 2003. Subsequently, EEI collected quarterly groundwater samples from the site monitoring wells from April 2004 to August 2005. These monitoring wells were used to evaluate the migration of dissolved petroleum hydrocarbon constituents from the former UST basin. Review of the analytical results from these quarterly groundwater samples indicate that five monitoring wells (MW-02, MW-09, MW-10, MW-11 and MW-13) exceeded NCGWQS in March 1998, four monitoring wells (MW-02, MW-09, MW-11 and MW-13) exceeded NCGWQS in May 1998, and only three monitoring wells (MW-09, MW-11 and MW-13) exceeded NCGWQS from June 1998 through January 2005, with the exception of monitoring well MW-01 exceeding NCGWQS during the October 1998

event only. Only monitoring well MW-09 exceeded the NCGWQS in April 2005 and none of the monitoring wells exceeded the NCGWQS in July 2005. All groundwater samples were delivered to Paradigm and Accutest laboratories, respectively, for J.A. Jones and EEI, and analyzed for volatile aromatic hydrocarbons using EPA Method 602 and EPA Method 625 (reporting Method 610 analyte list).

The AS/SVE system was started April 4, 1998 and operated continuously until it was shut down on December 29, 1999. The AS/SVE system was operational again from February 2001 to March 2004. The AS/SVE system was down for repairs for two months and operational again from May 2004 to December 2005. The AS/SVE system was shut down on January 9, 2006 since results from the sampling data in 2005 indicated that dissolved phase petroleum hydrocarbon contaminant levels decreased significantly enough to warrant deactivation. An additional sampling event was in July 2005 for validation of the contaminant levels before system deactivation. All groundwater well concentrations were below the NCGWQS during this last sampling event.

The AS/SVE system returned to operation in August 2007 and has been operating continuously to the present time. However, the system air sparge compressor went down in December 2008 and only the SVE system has been in operation since.

3.2 AS/SVE MONITORING RESULTS

Within this reporting period, system operation data was collected from September 2008 through May 2009. During this period, the system recovered a cumulative mass of 956 pounds of Hydrocarbons and had an operational efficiency of 85%. Hydrocarbon vapor recovery data is provided as well as graphically represented in Table 3.1. During system operation, hydrocarbon recovery rates ranged from 93.7 pounds per day (lbs/day) to <1 lbs/day. The average recovery rate was 4.7 lbs/day observed in 2008-2009.

4.0 GROUNDWATER MONITORING METHODS AND RESULTS

This section contains the summaries of the groundwater monitoring and free phase product recovery during the 2008-2009 monitoring period.

4.1 GROUNDWATER ELEVATION MEASUREMENTS

Groundwater measurements were taken in September 2008 from sixteen monitoring wells (USTAS4158-MW01 through USTAS4158-MW18). Groundwater measurements were not obtained from monitoring well USTAS4158-MW02 since it was abandoned and monitoring well USTAS4158-MW12 had been covered with asphalt. In September 2008, depth to the shallow groundwater ranged from 8.09 feet-bls (MW-01) to 11.86 feet-bls (MW-10). **Figure 4.1** presents the groundwater elevation contour map for September 2008 from the Type II (shallow) monitoring wells. Groundwater elevations for the shallow wells ranged from 10.57 feet bls in monitoring well MW-10 to 12.87 feet bls in monitoring well MW-06. The September 2008 shallow groundwater flows from the west to the east at a hydraulic gradient of 0.005 ft/ft (**Figure 4.1**).

Groundwater measurements were also taken in February 2009 from 16 monitoring wells (USTAS4158-MW01 through USTAS4158-MW18). Groundwater measurements were not obtained from monitoring well USTAS4158-MW02 since it was abandoned and monitoring well USTAS4158-MW12 had been covered with asphalt. In February 2009, depth to the shallow groundwater ranged from 9.04 feet-bls (MW-01) to 12.16 feet-bls (MW-13). **Figure 4.2** presents the groundwater elevation contour map for February 2009 from the Type II (shallow) monitoring wells. Groundwater elevations for the shallow wells ranged from 11.04 feet bls in monitoring well MW-10 to 12.38 feet bls in monitoring well MW-11. The February 2009 shallow groundwater flows from the west to the east at a hydraulic gradient of 0.003 ft/ft (**Figure 4.2**).

Table 4.1 provides the depth to water for AS-4158. The monitoring wells at the site were resurveyed in August 2006 and the groundwater elevations were calculated for the new survey data. The groundwater sample collection field logs for the two groundwater sampling events (September 2008 and February 2009) are provided in **Appendix A**, and the monthly well gauging log sheets are provided in **Appendix D**.

4.2 FREE PHASE PRODUCT RECOVERY SUMMARY

Free phase product recovery was initially recommended during the Site Assessment and initiated in April 1995. According to the CAP prepared by CATLIN, from April 1995 to July 1995, 3.51 gallons of free phase product had been recovered from MW-09 using a passive skimmer. Free phase product gauging activities conducted July 13, 1995 indicated that product thickness in MW-09 had decreased from 6.03 feet to 0.02 feet. Measurable free phase product thickness was not identified in any other on-site monitoring well during site assessment and corrective action activities.

Free phase product was monitored on a monthly basis starting in April 1998 when the AS/SVE system was installed. Free phase product was detected in monitoring well MW-09 at the following thicknesses during system operation: 0.38 feet in June 1998, 0.34 feet in July 1998, 0.03 feet in August 1998, 0.02 feet in September 1998, 0.09 feet in October 1998, and 0.02 feet in December 1998. No free phase product was present in monitoring well MW-09 during all of 1999 and the AS/SVE system was shut down on December 29, 1999.

No free phase product was present in monitoring well MW-09 during all of 2000, however, due to increasing dissolved-phase constituent concentrations in monitoring wells MW-09 and MW-13, an aggressive fluid-vapor recovery (AFVR) event was conducted on monitoring wells MW-09 and MW-13 on December 14, 2000. This AFVR event recovered 10 gallons of free phase product and 1.73 gallons of Volatile Organic Compounds (VOCs) as gasoline and diesel. Based on the increases in concentrations of volatile and Semi-Volatile Organic Compounds (SVOCs) in groundwater samples collected from monitoring wells MW-09, MW-11, and MW-13, the AS/SVE system was re-started on February 13, 2001. On February 2, 2001, 0.2 gallons of free phase product was recovered from passive skimmers in monitoring wells MW-02 and MW-03. No free phase product was present during the rest of the year 2001 in any monitoring wells.

During the January 2002 quarterly sampling event, free phase product was discovered in MW-09 at a thickness of 2.9 feet. This was the first time free phase product had been detected in this well since December 1998. Tightness testing completed in April 2002 confirmed a leak in the underground transfer lines from an active AST system located adjacent to MW-09. Subsequent repairs were made once funding was received in November 2002.

Free phase product was detected in monitoring well MW-09 at the following thicknesses during 2002-2003: 2.9 feet in January 2002, 2.5 feet in February 2002, 1.53 feet in March 2002, 0.80 feet in April 2002, 0.69 feet in July 2002, 1.08 feet in August 2002, 0.15 feet in September 2002, 1.03 feet in October 2002, 1.21 feet in November 2002, and 2.37 feet in January 2003.

Approximately 67.03 gallons of product was removed from MW-09 in the period from January to December 2002 via hand bailing, and 5 gallons of free phase product was removed via vacuum truck. The total amount of free phase product recovered from the site from April 1998 to December 2002 was 110 gallons.

Free phase product was detected in monitoring well MW-09 at the following thicknesses during 2004-2005: 0.01 feet in May 2004, 0.10 feet in July 2004, and 0.02 feet in January 2005. The AS/SVE system was shut down in January 2006 since no free phase product was present at the subject site and all groundwater well concentrations were below the NCGWQS during the last sampling event before deactivation in July 2005.

Free phase product was detected in monitoring well MW-09 at the following thicknesses during 2007-2008: 0.01 feet in January 2008 and 0.01 feet in March 2008. The reappearance of free phase product was probably due to the 0.5 to 1.0 feet lower water table in 2007-2008 from 2006-2007 which may have released small pockets of product trapped under the previously higher water table.

Free phase product was detected in monitoring well MW-16 at the following thicknesses during 2008-2009: 0.08 feet in June 2008 and 0.06 feet in July 2008. A vacuum truck was used to remove the free product detected with no free product recovery. It appears that the interface probe used during those two gauging events was malfunctioning since this well has never had free product and it is a deep well with screen below the water table.

4.3 ANALYTICAL SUMMARY

Prior to sampling, monitoring wells were purged a minimum of one casing volume, until water quality parameters (pH, temperature, conductivity, oxidation-reduction potential, dissolved oxygen, and turbidity) stabilized and were measured and recorded. Sampling was conducted using a peristaltic pump with connected polyethylene discharge tubing and a low flow purging and sampling procedure. If a monitoring well purged to dryness,

the monitoring well was allowed to recharge before sampling. Samples were collected using laboratory-prepared sample bottles, placed on ice, and shipped under proper chain of custody to Accutest Laboratories Inc., located in Orlando, Florida (NC Certification Number 573). Analyses run included EPA Method 602 + Xylenes, 625 + ten largest non-target peaks, and 6010B for lead. The groundwater sample laboratory analytical reports are provided in **Appendix B**. Copies of the groundwater sample collection field logs are provided in **Appendix A**.

4.3.1 September 2008 Sampling Event

Groundwater samples were collected in September 2008 from sixteen monitoring wells (USTAS4158-MW01 through USTAS4158-MW18). Groundwater samples were not collected from monitoring well USTAS4158-MW02 since it was abandoned and monitoring well USTAS4158-MW12 had been covered with asphalt. Two compounds were detected above NCGWQS, lead and benzene.

Lead concentrations were detected in monitoring wells MW-04, MW-05, MW-06, and MW-16. Lead concentrations above NCGWQS ranged from 15.4 µg/L in MW-16 to 77.8 µg/L in MW-05. Benzene concentrations were detected in monitoring wells MW-09, and MW-13 at concentrations of 7.3 µg/L, and 18.4 µg/L, respectively. September 2008 groundwater sample analytical results are provided in **Table 4.4**. Water quality parameters (pH, temperature, conductivity, oxidation-reduction potential, dissolved oxygen, and turbidity) are presented in **Table 4.2**. **Figure 4.3** depicts groundwater VOC contaminants isoconcentration map.

4.3.2 February 2009 Sampling Event

Groundwater samples were also collected in February 2009 from sixteen monitoring wells (USTAS4158-MW01 through USTAS4158-MW18). Groundwater samples were not collected from monitoring well USTAS4158-MW02 since it was abandoned and monitoring well USTAS4158-MW12 had been covered with asphalt. Benzene was the only compound detected above NCGWQS. Benzene concentrations were detected in monitoring wells MW-11 and MW-13 at concentrations of 6.9 µg/L and 22.1 µg/L, respectively. February 2009 groundwater sample analytical results are provided in **Table 4.4** and **Table 4.5**. Water quality parameters (pH, temperature, conductivity, oxidation-

reduction potential, dissolved oxygen, and turbidity) are presented in **Table 4.3**. **Figure 4.4** depicts groundwater VOC contaminants isoconcentration map.

4.4 HISTORICAL GROUNDWATER SAMPLING (1998- 2008)

Historical information, coupled with recent (2008-2009) of detected contaminant concentrations in the groundwater samples collected from the on-site groundwater monitoring wells is presented in **Appendix C**.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Shaw conducted monthly monitoring well gauging and semi-annual sampling and gauging in September 2008 and February 2009 from sixteen groundwater monitoring wells to check for the presence of free phase product. Free phase product was detected in monitoring well MW-16 at the following thicknesses during 2008-2009: 0.08 feet in June 2008 and 0.06 feet in July 2008. A vacuum truck was utilized to vacuum MW-16 following each occurrence and no significant volume of free product was recovered for either event. Also, product has not been detected since. These may have been false readings caused by interface probe malfunction.

During the semi-annual groundwater sampling events in September 2008 and February 2009, all of the monitoring well concentrations were below the 15A NCAC 2L groundwater quality standards with the exception of benzene in September 2008 was detected in monitoring wells MW-09 and MW-13. In September lead was also detected in monitoring wells MW-04, MW-05, MW-06, and MW-16. In February 2009 benzene was detected in monitoring wells MW-11 and MW-13.

It is recommended that the site be classified as low risk due to free-phase product not being detected at the site since March 2008 in well USTAS4158-MW09. Also, it is recommended that the remediation be shut down immediately. However, quarterly well gauging and two bi-annual sampling events are recommended to confirm that product does not reappear in USTAS4158-MW09 and that contaminant concentrations do not significantly rebound. The following wells shall be sampled during the bi-annual sampling events: USTAS4158-MW01, USTAS4158-MW07, USTAS4158-MW08, USTAS4158-MW09, USTAS4158-MW10, USTAS4158-MW11, USTAS4158-MW13, USTAS4158-MW14, USTAS4158-MW15 and USTAS4158-MW17. The samples should be analyzed for Standard Method SM6200B, EPA 625 (polyaromatic hydrocarbons [PAHs]), Massachusetts Department of the Environment (MADEP) volatile petroleum hydrocarbons (VPH)/ extractable petroleum hydrocarbons (EPH) and 3030C for lead. The samples should be collected using low-flow to reduce turbidity and potential for false-positives for lead.

TABLES

\

TABLE 1.1
2008-2009 AMR
Building AS-4158
MCAS New River, NC

Sample Point	Top of Casing Elevation (ft., msl)	5/22/2009			3/25/2009		
		Depth to Hydrocarbon Product (ft. below toc)	Depth to Groundwater (ft. below toc)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toc)	Depth to Groundwater (ft. below toc)	Groundwater Elevation (ft., msl)
MW-1	20.54		8.10	12.44		8.72	11.82
MW-2	21.30		well abandoned 2008			well abandoned 2008	
MW-3	20.86		5.90	14.96		9.25	11.61
MW-4	21.54		8.62	12.92		10.23	11.31
MW-5	20.55		9.75	10.80		9.52	11.03
MW-6	22.03		9.10	12.93		9.80	12.23
MW-7	21.36		8.35	13.01		9.26	12.10
MW-8	22.17		10.05	12.12		10.45	11.72
MW-9 (Prod. Recovery Well)	22.02		9.50	12.52		9.55	12.47
MW-10	22.42		Not Measured			11.10	11.32
MW-11	23.10		11.15	11.95		11.60	11.50
MW-12	22.03		covered			covered	
MW-13	23.23		11.50	11.73		11.55	11.68
MW-14	22.53		10.10	12.43		10.48	12.05
MW-15	23.25		11.30	11.95		11.78	11.47
MW-16	21.33		9.70	11.63		10.20	11.13
MW-17	22.66		10.65	12.01		11.13	11.53
MW-18	23.15		11.45	11.70		11.15	12.00
PW-1	22.80		Not Measured			Not Measured	

Notes:

Gauging was not conducted in August 2008 and April 2009

¹ wells (TOC) resurveyed in August 2006

² System not operational during water level survey

ft = feet

toc = top of casing elevation

msl = mean sea level

* Indicates that the depth to hydrocarbon product could not be measured. The product-water interface probe was being repaired.

TABLE 1.1
2008-2009 AMR
Building AS-4158
MCAS New River, NC

		2/20/2009			1/30/2009			12/29/2008		
Sample Point	Top of Casing Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toc)	Depth to Groundwater (ft. below toc)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toc)	Depth to Groundwater (ft. below toc)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toc)	Depth to Groundwater (ft. below toc)	Groundwater Elevation (ft., msl)
MW-1	20.54		9.04	11.50		7.51	13.03		8.36	12.18
MW-2	21.30		well abandoned 2008		well abandoned 2008			well abandoned 2008		
MW-3	20.86		9.24	11.62		7.23	13.63		8.63	12.23
MW-4	21.54		9.73	11.81		9.00	12.54		9.08	12.46
MW-5	20.55		9.99	10.56		9.52	11.03		9.37	11.18
MW-6	22.03		9.97	12.06		9.70	12.33		9.31	12.72
MW-7	21.36		10.22	11.14		9.74	11.62		9.56	11.80
MW-8	22.17		10.69	11.48		10.40	11.77		9.99	12.18
MW-9 (Prod. Recovery Well)	22.02		10.38	11.64		9.72	12.30		9.65	12.37
MW-10	22.42		11.39	11.03		11.16	11.26		10.62	11.80
MW-11	23.10		10.72	12.38		11.61	11.49		10.00	13.10
MW-12	22.03		covered			covered			covered	
MW-13	23.23		12.16	11.07		12.00	11.23		11.59	11.64
MW-14	22.53		10.68	11.85		11.47	11.06		10.12	12.41
MW-15	23.25		11.80	11.45		11.80	11.45		11.21	12.04
MW-16	21.33		10.62	10.71		10.25	11.08		10.00	11.33
MW-17	22.66		11.36	11.30		11.14	11.52		10.79	11.87
MW-18	23.15		12.15	11.00		11.88	11.27		11.43	11.72
PW-1	22.80		Not Measured			Not Measured			Not Measured	

Notes:

Gauging was not conducted in August 2008 and April 2009

¹ wells (TOC) resurveyed in August 2006

² System not operational during water level survey

ft = feet

toc = top of casing elevation

msl = mean sea level

* Indicates that the depth to hydrocarbon product could not be measured.

TABLE 1.1
2008-2009 AMR
Building AS-4158
MCAS New River, NC

Sample Point	Top of Casing Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toc)	11/25/2008	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toc)	10/25/2008	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toc)	9/28/2008	Groundwater Elevation (ft., msl)
			Depth to Groundwater (ft. below toc)			Depth to Groundwater (ft. below toc)			Depth to Groundwater (ft. below toc)	
MW-1	20.54		8.84	11.70		8.01	12.53		8.09	12.45
MW-2	21.30	well abandoned 2008			well abandoned 2008			well abandoned 2008		
MW-3	20.86		9.06	11.80		8.23	12.63		8.31	12.55
MW-4	21.54		9.56	11.98		8.96	12.58		9.04	12.50
MW-5	20.55		9.89	10.66		9.03	11.52		9.14	11.41
MW-6	22.03		9.86	12.17		9.06	12.97		9.17	12.86
MW-7	21.36		10.02	11.34		9.80	11.56		9.89	11.47
MW-8	22.17		10.50	11.67		10.37	11.80		10.46	11.71
MW-9 (Prod. Recovery Well)	22.02		10.10	11.92		10.48	11.54		10.57	11.45
MW-10	22.42		11.20	11.22		11.75	10.67		11.86	10.56
MW-11	23.10		10.59	12.51		11.69	11.41		11.75	11.35
MW-12	22.03		covered			covered			covered	
MW-13	23.23		11.91	11.32		11.76	11.47		11.86	11.37
MW-14	22.53		10.53	12.00		10.22	12.31		10.33	12.20
MW-15	23.25		11.63	11.62		11.47	11.78		11.57	11.68
MW-16	21.33		10.41	10.92		9.99	11.34		10.07	11.26
MW-17	22.66		11.18	11.48		11.13	11.53		11.28	11.38
MW-18	23.15		12.08	11.07		11.78	11.37		11.87	11.28
PW-1	22.80		Not Measured			Not Measured			Not Measured	

Notes:

Gauging was not conducted in August 2008 and April 2009

¹ wells (TOC) resurveyed in August 2006

² System not operational during water level survey

ft = feet

toc = top of casing elevation

msl = mean sea level

* Indicates that the depth to hydrocarbon product could not be measured.

TABLE 1.1
2008-2009 AMR
Building AS-4158
MCAS New River, NC

Sample Point	Top of Casing Elevation (ft., msl)	7/28/2008		Groundwater Elevation (ft., msl)	6/6/2008		Groundwater Elevation (ft., msl)
		Depth to Hydrocarbon Product (ft. below toc)	Depth to Groundwater (ft. below toc)		Depth to Hydrocarbon Product (ft. below toc)	Depth to Groundwater (ft. below toc)	
MW-1	20.54		8.46	12.08		8.13	12.41
MW-2	21.30	well abandoned 2008			well abandoned 2008		
MW-3	20.86		8.71	12.15		8.30	12.56
MW-4	21.54		7.85	13.69		8.84	12.70
MW-5	20.55		9.30	11.25		8.93	11.62
MW-6	22.03		8.38	13.65		9.24	12.79
MW-7	21.36		9.68	11.68		9.20	12.16
MW-8	22.17		10.33	11.84		9.68	12.49
MW-9 (Prod. Recovery Well)	22.02		10.29	11.73		9.12	12.90
MW-10	22.42		9.98	12.44		9.52	12.90
MW-11	23.10		11.44	11.66		10.85	12.25
MW-12	22.03		covered			covered	
MW-13	23.23		11.76	11.47		11.21	12.02
MW-14	22.53		10.36	12.17		10.17	12.36
MW-15	23.25		11.52	11.73		11.18	12.07
MW-16	21.33	9.85	9.91	11.42	9.60	9.68	11.65
MW-17	22.66		10.97	11.69		10.66	12.00
MW-18	23.15		11.79	11.36		11.64	11.51
PW-1	22.80		Not Measured			Not Measured	

Notes:

Gauging was not conducted in August 2008 and April 2009

¹ wells (TOC) resurveyed in August 2006

² System not operational during water level survey

ft = feet

toc = top of casing elevation

msl = mean sea level

* Indicates that the depth to hydrocarbon product could not be measured.

TABLE 3.1
Cumulative Mass of Volatile Hydrocarbons Recovered
Air Sparging (AS) / Soil Vapor Extraction (SVE) System
Data and Graph
MCB CAMP LEJEUNE - Building AS 4158
SVE Stack

Date	Time	SVE Valve Hour Meter (Hrs)	TH Conc (PPM _{measured}) (PPMv)	Vapor Velocity (V) (ft/min)	Absolute Pressure (^o Hg)	Absolute Temperature (^o Rankine)	Calculated Vapor Flowrate (Q) (SCFM)	TH Conc (C) (mg/l)	TH Recovery Rate (M) (lb/day)	Cumulative Mass of Hydrocarbons Recovered (lbs)	Comments
09/03/08	11:30	1662	0	2500	300.92	555	1293	0.000	0.0	0.0	no readings 11/10
09/10/08	11:20	1830	0	2600	300.92	557	1340	0.000	0.0	0.0	
09/17/08	13:50	1998	0	2600	300.92	556	1343	0.000	0.0	0.0	
09/24/08	13:50	2166	0	2500	300.92	557	1289	0.000	0.0	0.0	
09/30/08	16:30	2310	0	2000	300.92	558	1029	0.000	0.0	0.0	
10/09/08	13:45	2523	0	1500	300.92	560	769	0.000	0.0	0.0	
10/17/08	14:00	2715	195	2000	300.92	569	1010	1.037	93.7	374.9	
10/21/08	13:00	2810	0	1400	300.92	561	716	0.000	0.0	560.4	
10/30/08	14:40	3026	0	1400	300.92	553	726	0.000	0.0	560.4	
11/07/08	17:00	3218	79	2000	300.92	567	1012	0.420	38.1	712.6	
11/20/08	13:20	3525	0	2000	300.92	555	1035	0.000	0.0	956.0	
11/24/08	11:40	3619	0	1500	300.92	552	780	0.000	0.0	956.0	
12/04/08	14:20	3859	0	7258	300.92	547	3811	0.000	0.0	956.0	
12/12/08	14:50	4048	0	7229	300.92	551	3768	0.000	0.0	956.0	
12/19/08	15:33	4216	0	9575	300.92	566	4858	0.000	0.0	956.0	
12/30/08	11:20	4473	0	8500	300.92	552	4420	0.000	0.0	956.0	
01/07/09	12:35	4664	0	8800	300.92	561	4505	0.000	0.0	956.0	1/16 no readings velocity meter down 01/28
01/22/09	11:30	5024	0	1100	300.92	540	585	0.000	0.0	956.0	
01/28/09	13:20	5163	0	0	300.92	555	0	0.000	0.0	956.0	
02/06/09	11:30	5379	0	8899	300.92	534	4783	0.000	0.0	956.0	
02/13/09	11:20	5547	0	2000	300.92	551	1043	0.000	0.0	956.0	
02/19/09	13:30	5688	0	8800	300.92	545	4636	0.000	0.0	956.0	
02/27/09	14:15	5881	0	8700	300.92	545	4583	0.000	0.0	956.0	

TABLE 3.1
Cumulative Mass of Volatile Hydrocarbons Recovered
Air Sparging (AS) / Soil Vapor Extraction (SVE) System
Data and Graph
MCB CAMP LEJEUNE - Building AS 4158
SVE Stack

Date	Time	SVE Valve Hour Meter (Hrs)	TH Conc (PPM _{measured}) (PPMv)	Vapor Velocity (V) (ft/min)	Absolute Pressure (ⁱⁿ Hg)	Absolute Temperature (degrees Rankine)	Calculated Vapor Flowrate (Q) (SCFM)	TH Conc (C) (mg/l)	TH Recovery Rate (M) (lb/day)	Cumulative Mass of Hydrocarbons Recovered (lbs)	Comments
03/06/09	10:00	6049	0	8500	300.92	547	4462	0.000	0.0	956.0	Extrapolated Data
03/12/09	10:30	6193	0	960	300.92	546	505	0.000	0.0	956.0	
03/19/09	10:00	6360	0	1000	300.92	546	526	0.000	0.0	956.0	
03/27/09	13:00	6550	0	1000	300.92	547	525	0.000	0.0	956.0	
04/06/09	8:30	6790	0	2100	300.92	549	1098	0.000	0.0	956.0	
04/23/09	13:30	7198	0	8900	300.92	545	4689	0.000	0.0	956.0	
04/30/09	13:30	9377	0	2865	300.92	547	1505	0.000	0.0	956.0	

Notes:

$C = (PPM_{measured}) \times K \times (M_g/K_g) / 1000$

C: vapor concentration (mg/l)

PPM_{measured}: FID reading (PPM)

K: number of carbon atoms in calibration gas
(1 in methane)

TH: total hydrocarbons calculated as gasoline
(GRO)

percent water vapor by volume 0.003

SVE Stack pipe diameter 10

$Q = (1-B) \times V \times A \times (P/P_{std}) \times (T_{std}/T)$

Q: vapor flowrate (SCFM)

B: percent water vapor in flowstream

V: vapor velocity (ft/min)

A: cross-sectional area (sq. ft)

P: absolute pressure of flowstream (ⁱⁿ Hg)

P_{std}: standard pressure (29.92ⁱⁿ Hg)

T: absolute temperature of flowstream (degrees Rankine)

T_{std}: standard temperature (528 degrees Rankine)

at 68 degrees F (from Perry's handbook)

* Estimated value due to malfunctioning instrument

$M = Q \times C \times 0.0895$

M: hydrocarbon recovery rate (lb/day)

Assumptions:

Mg = 128 mg/mg-mole

Kg = 24.07 dsm³/10⁶ gm -mole

B = 0.003 from Perry's Chemical Handbook

A = 0.545 sq. ft

TABLE 3.1
Cumulative Mass of Volatile Hydrocarbons Recovered
Air Sparging (AS) / Soil Vapor Extraction (SVE) System
Data and Graph
MCAS New River - Building AS-4158
SVE Stack

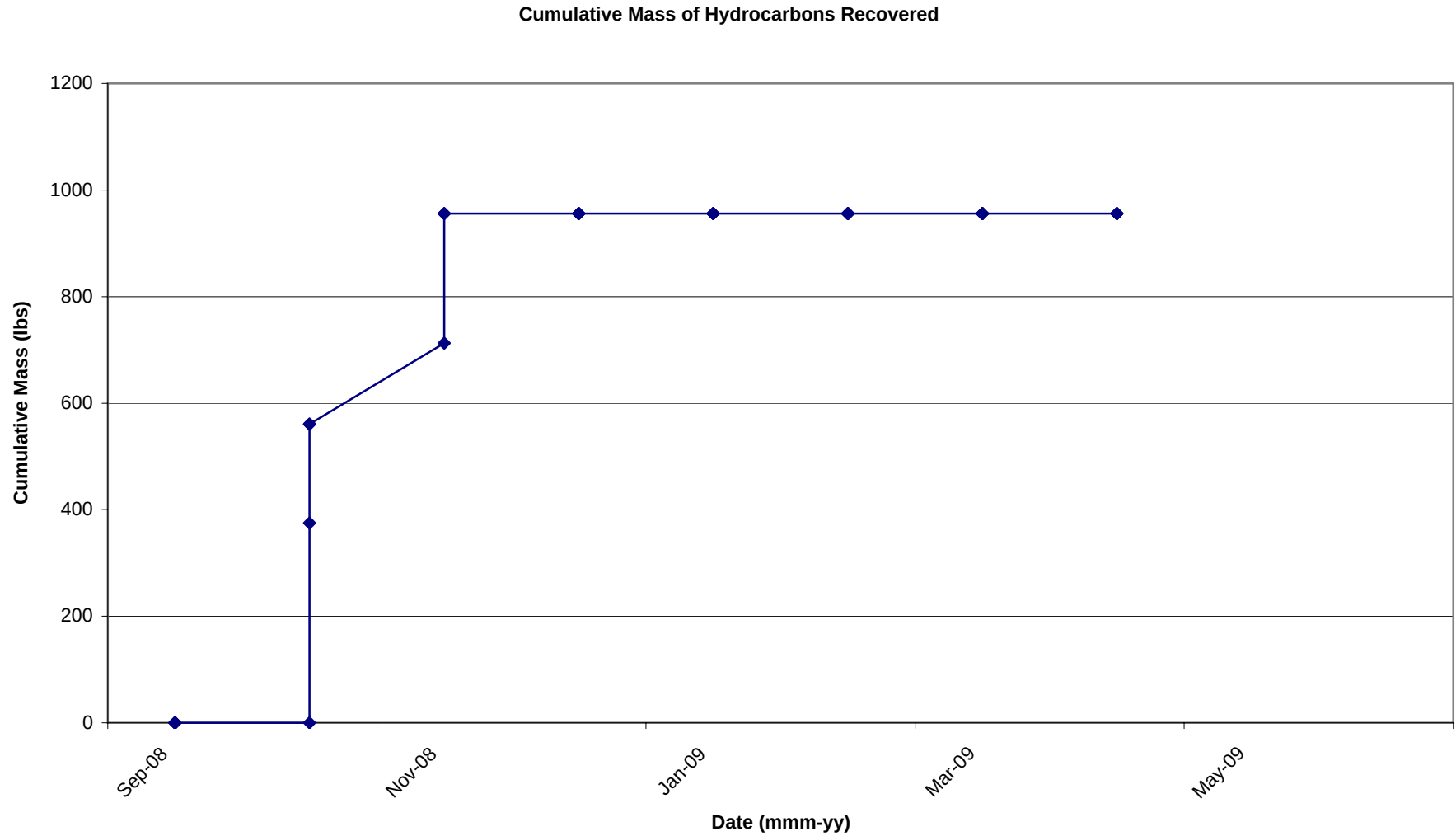


Table 4.1
Groundwater Elevations Table
September 2008 and February 2009
AS-4158
MCAS New River, North Carolina

		Date: 2/20/2009		Date: 9/28/2008	
Sample Point	Top of Casing Elevation (ft., msl)	Depth to Groundwater (ft. below toc)	Groundwater Elevation (ft., msl)	Depth to Groundwater (ft. below toc)	Groundwater Elevation (ft., msl)
USTAS4158-MW-1	20.54	9.04	11.50	8.09	12.45
USTAS4158-MW-3	20.86	9.24	11.62	8.31	12.55
USTAS4158-MW-4	21.54	9.73	11.81	9.04	12.50
USTAS4158-MW-5	20.55	9.99	10.56	9.14	11.41
USTAS4158-MW-6	22.03	9.97	12.06	9.17	12.86
USTAS4158-MW-7	21.36	10.22	11.14	9.89	11.47
USTAS4158-MW-8	22.17	10.69	11.48	10.46	11.71
USTAS4158-MW-9	22.02	10.38	11.64	10.57	11.45
USTAS4158-MW-10	22.42	11.39	11.03	11.86	10.56
USTAS4158-MW-11	23.10	10.72	12.38	11.75	11.35
USTAS4158-MW-13	23.23	12.16	11.07	11.86	11.37
USTAS4158-MW-14	22.53	10.68	11.85	10.33	12.20
USTAS4158-MW-15	23.25	11.80	11.45	11.57	11.68
USTAS4158-MW-16	21.33	10.62	10.71	10.07	11.26
USTAS4158-MW-17	22.66	11.36	11.30	11.28	11.38
USTAS4158-MW-18	23.15	12.15	11.00	11.87	11.28

Table 4.2
Field Data Summary
MCAS New River, North Carolina
 AS4158 Annual
September 2008 Field Data

Client Sample ID:		USTAS4158-MW01	USTAS4158-MW03	USTAS4158-MW04	USTAS4158-MW05	USTAS4158-MW06	USTAS4158-MW07	USTAS4158-MW08	USTAS4158-MW09
Date Sampled:		09/29/08	9/29/08	09/30/08	09/30/08	09/29/08	09/28/08	09/28/08	9/30/08
Analyte	Unit	Result	Result	Result	Result	Result	Result	Result	Result
Field Parameters									
Depth to Water	feet	8.09	8.31	9.04	9.14	9.17	9.89	10.46	10.57
pH	-	7.16	5.45	6.63	6.53	5.71	6.98	6.39	5.93
Conductivity	mS/m	0.308	0.248	0.359	0.381	0.345	0.376	0.186	0.326
Turbidity	NTU	179.8	27.6	663.1	662.9	136.4	129.4	117.1	310.4
Dissolved Oxygen	mg/L	1.47	1.79	2.41	2.21	1.37	6.35	1.37	5.97
Temperature	°C	24.28	24.52	24.68	24.61	26.01	24.68	29.36	28.48
Oxidation-Reduction Potential	mV	113.8	41.2	111.1	131.5	-33.9	132.4	207.1	-

Table 4.2
Field Data Summary
MCAS New River, North Carolina
 AS4158 Annual
September 2008 Field Data

Client Sample ID:		USTAS4158-MW10	USTAS4158-MW11	USTAS4158-MW13	USTAS4158-MW14	USTAS4158-MW15	USTAS4158-MW16	USTAS4158-MW17	USTAS4158-MW18
Date Sampled:		09/28/08	09/28/08	09/28/08	09/28/08	09/28/08	09/30/08	09/30/08	09/28/08
Analyte	Unit	Result	Result	Result	Result	Result	Result	Result	Result
Field Parameters									
Depth to Water	feet	11.86	11.75	11.86	10.33	11.57	10.07	11.28	11.87
pH	-	3.60	4.62	3.01	3.90	3.65	6.24	7.13	5.66
Conductivity	mS/m	0.278	1.033	0.595	0.38	0.283	0.978	0.452	0.111
Turbidity	NTU	9.9	0.0	8.2	7.8	4.9	0.0	0.0	0.0
Dissolved Oxygen	mg/L	7.74	0.37	2.76	2.74	0.43	2.27	0.63	4.06
Temperature	°C	28.58	28.26	27.46	28.28	22.98	25.83	25.42	26.56
Oxidation-Reduction Potential	mV	370.2	429.9	272.6	323.3	275.8	109.8	237.6	176.9

Table 4.3
Field Data Summary
MCAS New River, North Carolina
 AS4158 Annual
February 2009 Field Data

Client Sample ID:		USTAS4158-MW01	USTAS4158-MW03	USTAS4158-MW04	USTAS4158-MW05	USTAS4158-MW06	USTAS4158-MW07	USTAS4158-MW08	USTAS4158-MW09
Date Sampled:		02/25/09	2/25/09	02/25/09	02/25/09	02/25/09	02/24/09	02/25/09	2/26/09
Analyte	Unit	Result	Result	Result	Result	Result	Result	Result	Result
Field Parameters									
Depth to Water	feet	9.04	9.24	9.73	9.99	9.97	10.22	10.69	10.38
pH	-	7.08	6.08	7.13	6.46	5.99	5.39	5.07	4.52
Conductivity	mS/m	0.379	0.219	0.162	0.129	0.359	0.117	0.087	1.317
Turbidity	NTU	764.0	225.2	2.9	37.0	3.7	27.6	34.3	34.4
Dissolved Oxygen	mg/L	4.87	0.41	0.90	1.94	0.33	8.1	0.68	0.77
Temperature	°C	15.49	16.82	19.10	15.82	18.68	16.5	19.47	20.42
Oxidation-Reduction Potential	mV	-33.3	-29.1	-147.0	-49.0	28.2	99.4	125.1	-40.4

Table 4.3
Field Data Summary
MCAS New River, North Carolina
 AS4158 Annual
February 2009 Field Data

Client Sample ID:		USTAS4158-MW10	USTAS4158-MW11	USTAS4158-MW13	USTAS4158-MW14	USTAS4158-MW15	USTAS4158-MW16	USTAS4158-MW17	USTAS4158-MW18
Date Sampled:		02/26/09	02/26/09	02/24/09	03/04/09	02/24/09	02/25/09	02/26/09	02/24/09
Analyte	Unit	Result	Result	Result	Result	Result	Result	Result	Result
Field Parameters									
Depth to Water	feet	11.39	10.72	12.16	10.68	11.8	10.62	11.36	12.15
pH	-	4.23	3.54	3.39	4.53	3.59	6.82	6.86	6.03
Conductivity	mS/m	0.240	0.513	0.667	0.384	8.418	1.143	0.664	0.092
Turbidity	NTU	67.3	0.1	5.8	97.9	48.3	40.6	1.6	0.9
Dissolved Oxygen	mg/L	8.48	0.34	0.61	7.46	8.3	0.35	0.43	0.89
Temperature	°C	20.19	20.83	19.97	19.2	18.48	20.28	21.94	21.29
Oxidation-Reduction Potential	mV	176.5	-15.0	112.1	98.3	295.7	-125.7	-111	64.9

Table 4.4
Building AS-4158
MCAS New River, North Carolina
Groundwater Analytical Results
VOC, SVOC (PAHs Only) and Lead

Date: 5/13/2009			Incident Number and Name: 125709 AS4158 Wells																		
Analytical Method:			601/602 analytes by EPA 624																		
Contaminant of Concern			Benzene	Bromodichloromethane	Bromoform	Chlorobenzene	Chloroethane	Chloroform	2-Chloroethyl vinyl ether	Carbon tetrachloride	1,1-Dichloroethane	1,1-Dichloroethene	1,2-Dichloroethane	1,2-Dichloropropane	Dibromochloromethane	Dichlorodifluoromethane	cis-1,2-Dichloroethene	trans-1,3-Dichloropropene	m-Dichlorobenzene	o-Dichlorobenzene	p-Dichlorobenzene
Sample ID	Date Collected	Sample Depth (ft bgs)																			
USTAS4158-MW01	9/29/2008	N/A	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0
	2/25/2009	N/A	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0
USTAS4158-MW03	9/29/2008	N/A	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0
	2/25/2009	N/A	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0
USTAS4158-MW04	9/30/2008	N/A	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0
	2/25/2009	N/A	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0
USTAS4158-MW05	9/30/2008	N/A	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0
	2/25/2009	N/A	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0
USTAS4158-MW06	9/29/2008	N/A	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0
	2/25/2009	N/A	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0
USTAS4158-MW07	9/28/2008	N/A	0.55 J	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0
	2/24/2009	N/A	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0
USTAS4158-MW08	9/28/2008	N/A	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0
	2/25/2009	N/A	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0
USTAS4158-MW09	9/30/2008	N/A	7.3	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0
	2/26/2009	N/A	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0
USTAS4158-MW10	9/28/2008	N/A	0.56 J	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0
	2/26/2009	N/A	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0
USTAS4158-MW11	9/28/2008	N/A	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0
	2/26/2009	N/A	6.9	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0
USTAS4158-MW13	9/28/2008	N/A	18.4	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0
	2/24/2009	N/A	22.1	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0
USTAS4158-MW14	3/26/2008	N/A	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0
	9/28/2008	N/A	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0
USTAS4158-MW15	9/28/2008	N/A	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0
	2/24/2009	N/A	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0
USTAS4158-MW16	9/30/2008	N/A	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0
	2/25/2009	N/A	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0
USTAS4158-MW17	9/30/2008	N/A	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0
	2/26/2009	N/A	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0
USTAS4158-MW18	9/28/2008	N/A	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0
	2/24/2009	N/A	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0
GWQS (ug/L)			1	NS	0.19	50	NS	70	NS	NS	70	7	0.38	0.51	0.41	1400	70	0.19	NS	NS	NS
GCL (ug/L)			5000	NS	190	50000	NS	70000	NS	NS	700000	7000	380	510	410	140000	70000	190	NS	NS	NS

Indicate method detection limit for contaminants when analyzed but not detected (i.e., <1.0)

List any contaminant detected above the method detection limit

Detectable concentration exceeds GWQS

GWQS = Groundwater Quality Standard NC Administrative Code Title 15A Subchapter 2L - Groundwater Classifications and Standards 04/01/05

GCL = Gross Contamination Level

Results must be reported in ug/L

ug/L = micrograms per liter

NA = not applicable

NS = no standard

J Numerical value is an estimate between laboratory reporting limit and laboratory method detection limit

Table 4.4
Building AS-4158
MCAS New River, North Carolina
Groundwater Analytical Results
VOC, SVOC (PAHs Only) and Lead

Date: 5/13/2009			Incident Number and Name: 125709 AS4158 Wells															
Analytical Method:			601/602 analytes by EPA 624															
Contaminant of Concern			trans-1,2-Dichloroethylen	trans-1,3-Dichloropropen	Ethylbenzene	Methyl bromide	Methyl chloride	Methylene chloride	Methyl Tert Butyl Ether	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethan	1,1,2-Trichloroethane	Tetrachloroethene	Toluene	Trichloroethene	Trichlorofluoroethene	Vinyl chloride	Xylenes (total)
Sample ID	Date Collected	Sample Depth (ft bgs)																
USTAS4158-MW01	9/29/2008	N/A	<1.0	<1.0	<1.0	<2.0	<2.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
	2/25/2009	N/A	<1.0	<1.0	<1.0	<2.0	<2.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
USTAS4158-MW03	9/29/2008	N/A	<1.0	<1.0	<1.0	<2.0	<2.0	1.3 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
	2/25/2009	N/A	<1.0	<1.0	<1.0	<2.0	<2.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
USTAS4158-MW04	9/30/2008	N/A	<1.0	<1.0	<1.0	<2.0	<2.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
	2/25/2009	N/A	<1.0	<1.0	<1.0	<2.0	<2.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
USTAS4158-MW05	9/30/2008	N/A	<1.0	<1.0	<1.0	<2.0	<2.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
	2/25/2009	N/A	<1.0	<1.0	<1.0	<2.0	<2.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
USTAS4158-MW06	9/29/2008	N/A	<1.0	<1.0	<1.0	<2.0	<2.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
	2/25/2009	N/A	<1.0	<1.0	<1.0	<2.0	<2.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
USTAS4158-MW07	9/28/2008	N/A	<1.0	<1.0	<1.0	<2.0	<2.0	<5.0	0.42 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
	2/24/2009	N/A	<1.0	<1.0	<1.0	<2.0	<2.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
USTAS4158-MW08	9/28/2008	N/A	<1.0	<1.0	<1.0	<2.0	<2.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
	2/25/2009	N/A	<1.0	<1.0	<1.0	<2.0	<2.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
USTAS4158-MW09	9/30/2008	N/A	<1.0	<1.0	<1.0	<2.0	<2.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
	2/26/2009	N/A	<1.0	<1.0	<1.0	<2.0	<2.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.55 J	<1.0	<2.0	<1.0	2.2 J
USTAS4158-MW10	9/28/2008	N/A	<1.0	<1.0	<1.0	<2.0	<2.0	<5.0	0.43 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
	2/26/2009	N/A	<1.0	<1.0	<1.0	<2.0	<2.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
USTAS4158-MW11	9/28/2008	N/A	<1.0	<1.0	<1.0	<2.0	<2.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
	2/26/2009	N/A	<1.0	<1.0	<1.0	<2.0	<2.0	<5.0	6.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
USTAS4158-MW13	9/28/2008	N/A	<1.0	<1.0	<1.0	<2.0	<2.0	<5.0	75.7 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
	2/24/2009	N/A	<1.0	<1.0	<1.0	<2.0	<2.0	<5.0	156	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
USTAS4158-MW14	3/26/2008	N/A	<1.0	<1.0	<1.0	<2.0	<2.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
	9/28/2008	N/A	<1.0	<1.0	<1.0	<2.0	<2.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
USTAS4158-MW15	9/28/2008	N/A	<1.0	<1.0	<1.0	<2.0	<2.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
	2/24/2009	N/A	<1.0	<1.0	<1.0	<2.0	<2.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
USTAS4158-MW16	9/30/2008	N/A	<1.0	<1.0	<1.0	<2.0	<2.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
	2/25/2009	N/A	<1.0	<1.0	<1.0	<2.0	<2.0	<5.0	0.6 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
USTAS4158-MW17	9/30/2008	N/A	<1.0	<1.0	<1.0	<2.0	<2.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
	2/26/2009	N/A	<1.0	<1.0	<1.0	<2.0	<2.0	<5.0	5.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
USTAS4158-MW18	9/28/2008	N/A	<1.0	<1.0	<1.0	<2.0	<2.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
	2/24/2009	N/A	<1.0	<1.0	<1.0	<2.0	<2.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
GWQS (ug/L)			100	0.19	550	NS	2.6	4.6	200	200	0.17	NS	0.7	1000	2.8	21000	0.015	530
GCL (ug/L)			100000	190	84500	NS	2600	4600	200000	200000	170	NS	700	257500	2800	210000	15	87500

Indicate method detection limit for contaminants when analyzed
but not detected (i.e., <1.0)

List any contaminant detected above the method detection limit

Detectable concentration exceeds GWQS

GWQS = Groundwater Quality Standard NC Administrative Code Title 15A Subchapter 2L - Groundwater Classifications and Standards 04/01/05

GCL = Gross Contamination Level

Results must be reported in ug/L

ug/L = micrograms per liter

NA = not applicable

NS = no standard

J Numerical value is an estimate between laboratory reporting limit and laboratory method detection limit

Table 4.4
Building AS-4158
MCAS New River, North Carolina
Groundwater Analytical Results
VOC, SVOC (PAHs Only) and Lead

Date: 5/13/2009			Incident Number and Name: 125709 AS4158 Wells																			
Analytical Method:			6010B	625 PAHs																		
Contaminant of Concern			Lead	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene	Phenanthrene	Pyrene	
				Sample ID	Date Collected	Sample Depth (ft bgs)	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene
USTAS4158-MW01	9/29/2008	N/A	3.5 B	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	
	2/25/2009	N/A	5.4 B	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	
USTAS4158-MW03	9/29/2008	N/A	4.1 B	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	
	2/25/2009	N/A	5.5 B	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	
USTAS4158-MW04	9/30/2008	N/A	15.7	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	
	2/25/2009	N/A	2.3 B	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	
USTAS4158-MW05	9/30/2008	N/A	77.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	
	2/25/2009	N/A	<2.0	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	
USTAS4158-MW06	9/29/2008	N/A	42.4	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	
	2/25/2009	N/A	3.9 B	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	
USTAS4158-MW07	9/28/2008	N/A	<2.0	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	
	2/24/2009	N/A	2.4 B	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	
USTAS4158-MW08	9/28/2008	N/A	6.4	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	
	2/25/2009	N/A	2.2 B	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	
USTAS4158-MW09	9/30/2008	N/A	14.5	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	
	2/26/2009	N/A	2.4 B	<19	<19	<19	<19	<19	<19	<19	<19	<19	<19	<19	<19	<19	<19	<19	<19	<19	<19	
USTAS4158-MW10	9/28/2008	N/A	2.5 B	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	
	2/26/2009	N/A	2.3 B	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	
USTAS4158-MW11	9/28/2008	N/A	5.0	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	
	2/26/2009	N/A	<2.0	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	
USTAS4158-MW13	9/28/2008	N/A	6.1	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	
	2/24/2009	N/A	7.6 B	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	
USTAS4158-MW14	9/28/2008	N/A	11.6	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	
	2/24/2009	N/A	23.3	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	
USTAS4158-MW15	9/28/2008	N/A	14.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	
	2/25/2009	N/A	5.6 B	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	
USTAS4158-MW16	9/30/2008	N/A	15.4	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	
	2/25/2009	N/A	6.8 B	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	
USTAS4158-MW17	9/30/2008	N/A	14.2	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	
	2/26/2009	N/A	<2.0	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	
USTAS4158-MW18	9/28/2008	N/A	<2.0	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	
	2/24/2009	N/A	<2.0	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	
GWQS (ug/L)				15	80	210	2100	0.0479	0.0479	0.0479	210	0.479	4.79	0.0047	280	280	0.047	NS	14	21	210	210
GCL (ug/L)				15000	2120	1965	2000000	22	1.5	0.6	210	0.4	0.8	0.25	280	950	31	NS	12500	15500	410	210

Indicate method detection limit for contaminants when analyzed but not detected (i.e., <1.0)

List any contaminant detected above the method detection limit

Detectable concentration exceeds GWOS

GWOS = Groundwater Quality Standard NC Administrative Code Title 15A Subchapter 2L - Groundwater Classifications and Standards 04/01/05

GCL = Gross Contamination Level

Results must be reported in ug/L

ug/L = micrograms per liter

NA = not applicable

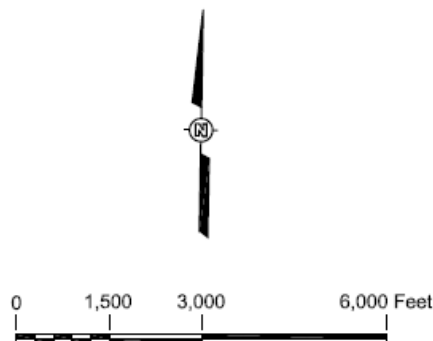
NS = no standard

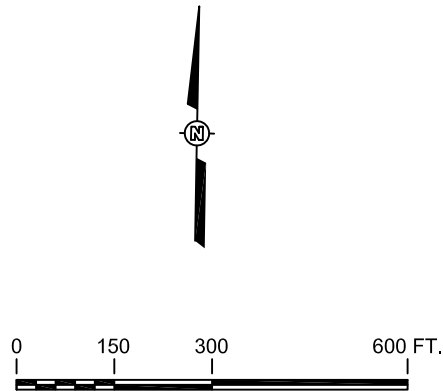
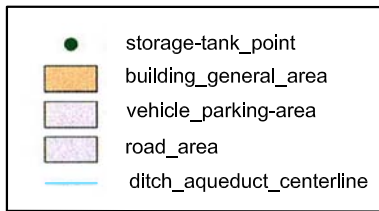
J Numerical value is an estimate between laboratory reporting limit and laboratory method detection limit

B Indicates a result $\geq$ Instrument detection limit but $<$ reporting limit

FIGURES

The map displays the AS-4158 site, a large yellow-shaded area, situated in the City of Marietta, Georgia. The site is bordered by White Street to the north, White Street to the east, and White Street to the south. To the west of the site is the city center, featuring streets such as Church Street, A Street, B Street, C Street, D Street, E Street, and F Street. The city center is also bordered by White Street to the north, White Street to the east, and White Street to the south. The city center is situated along the New River, which flows through the city. The map includes a north arrow and a scale bar from 0 to 6,000 feet. A callout box points to the site with the text 'BUILDING AS-4158 SITE'.

[illegible]



**BUILDING
AS-4158
SITE**

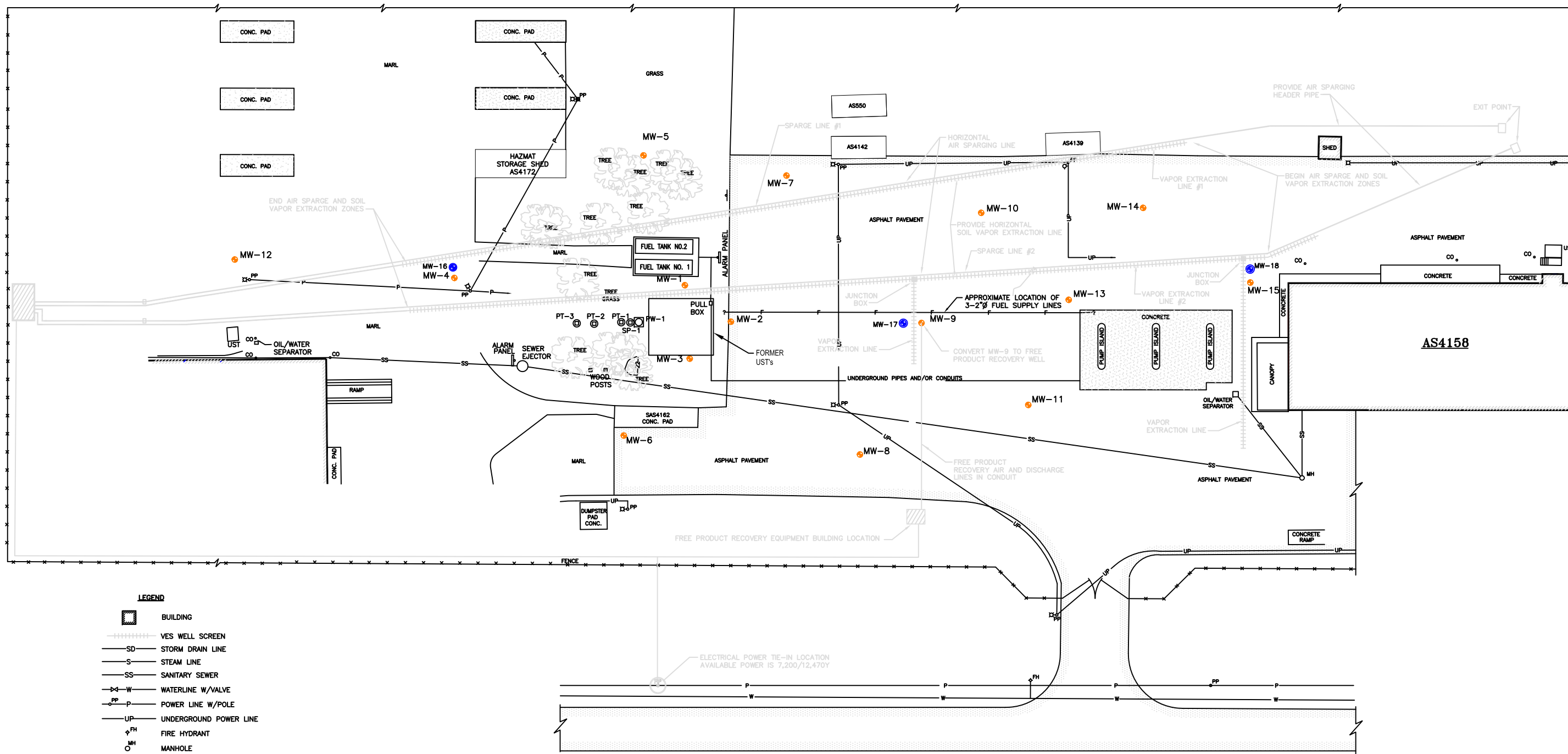
DEPARTMENT OF THE NAVY		NAVAL FACILITIES ENGINEERING COMMAND		PROJECT NO. 120985	
NAVAL STATION		ATLANTIC DIVISION		DESIGNED BY	
MCB CAMP LEJEUNE		NORFOLK, VIRGINIA		CHECKED BY	
		JACKSONVILLE, N.C.		APPROVED BY	
		BUILDING AS-4158		REV	
		ANNUAL REPORT 2008-2009		DATE	
		SITE LOCATION MAP		BY	
				CHK'D	
				APPROV'D	
				REVISIONS	
				DESCRIPTION/ISSUE	



Shaw Environmental, Inc.		PROJECT NO. 120985	
DESIGNED BY		CHECKED BY	
DRAWN BY		APPROVED BY	
		REV	
		DATE	
		BY	
		CHK'D	
		APPROV'D	

DEPARTMENT OF THE NAVY		NAVAL FACILITIES ENGINEERING COMMAND	
ATLANTIC DIVISION		NORFOLK, VIRGINIA	
NAVAL STATION		JACKSONVILLE, N.C.	
MCB CAMP LEJEUNE		BUILDING AS-4158	
		ANNUAL REPORT 2008-2009	
SCALE: AS SHOWN		SITE LOCATION MAP	
SIZE: A			
DELIVERY ORDER NO.			
CONSTR. CONTRACT NO.			
NAVFAC DRAWING NO. 1			
SHEET I.D.			
FIGURE 1.2			

File: McCamp Lejeune - Jacksonville N.C. (Site 4158) Figure 2 - Site Map and Well Location.dwg
Plot Date/Time: May 20, 2009 - 9:40am
Plotted By: Thomas.A. Johnson



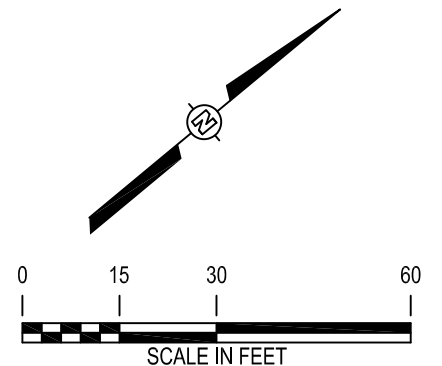
LEGEND	
	BUILDING
	VES WELL SCREEN
	SD STORM DRAIN LINE
	S STEAM LINE
	SS SANITARY SEWER
	W WATERLINE W/VALVE
	P POWER LINE W/POLE
	UP UNDERGROUND POWER LINE
	FH FIRE HYDRANT
	MH MANHOLE
	Δ POWER TRANSFORMER
	□ AREA LIGHT
	○ TYPE II MONITORING WELL
	○ TYPE III MONITORING WELL
	○ HYDRO-PUNCH
	○ BORING
	○ PUMPING WELL
	○ PILOT TEST WELL
	□ FORMER UST LOCATION

SITE PLAN

SURVEY NOTES:

- VERTICAL DATUM IS BASED ON EXISTING MILITARY CONTROL MONUMENT PW-4 WITH A LISTED ELEVATION OF 21.75 FEET (MSL); NORTH CAROLINA STATE COORDINATES FOR PW-4 ARE 352,078.63(M) NORTH AND 2,463,421.81(M) EAST. STATION PW-4 IS A 2" BRASS DISK SET IN 10" DIAMETER CONCRETE FLUSH WITH THE GROUND. THE STATION IS LOCATED AT THE SOUTHWEST CORNER OF THE INTERSECTION OF PERIMETER ROAD AND THE OLD RAILROAD BED, 35.0 FEET SOUTH OF THE EDGE OF PERIMETER ROAD AND 20.0 FEET WEST OF THE EDGE OF THE OLD RAILROAD BED.
- SURVEY CONTROL POINTS ARE BASED ON AN ASSUMED DATUM AND MAGNETIC NORTH. THE COORDINATES AND THEIR RESPECTIVE ELEVATIONS ARE AS FOLLOWS:

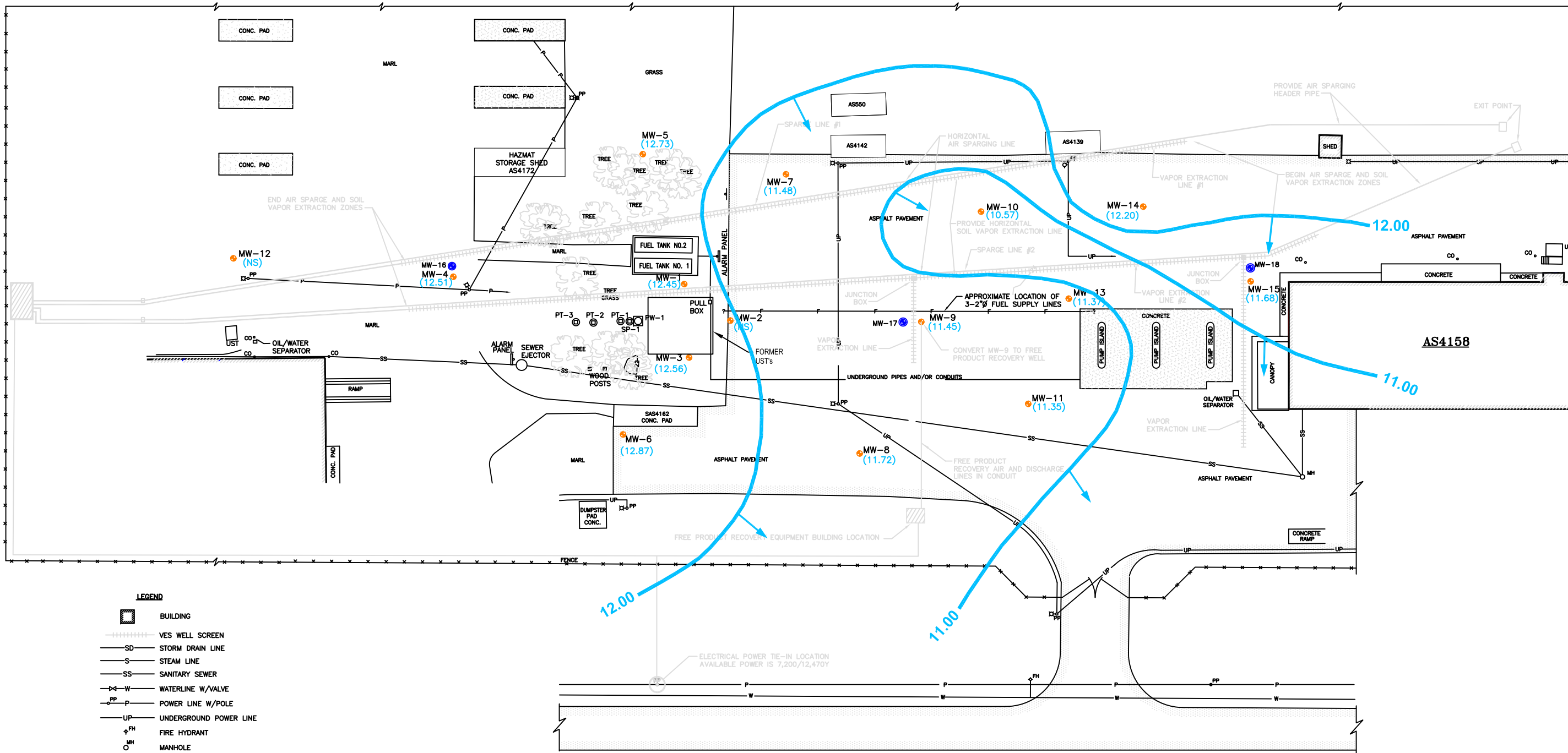
POINT	NORTH	EAST	ELEVATION (MSL)	DESCRIPTION
1.	5000.00	5000.00	23.93	Pk NAIL
2.	4837.34	4906.09	23.98	Pk NAIL
3.	4722.30	4839.67	23.35	Pk NAIL
4.	4634.21	4788.81	22.75	#120 NAIL
5.	4504.84	4706.91	22.44	#120 NAIL



REFERENCE: J. A. JONES MONITORING REPORT.

DEPARTMENT OF THE NAVY		NAVAL FACILITIES ENGINEERING COMMAND																									
NAVAL STATION		ATLANTIC DIVISION		NORFOLK, VIRGINIA																							
MCB CAMP LEJEUNE				JACKSONVILLE N.C.																							
SCALE: AS SHOWN				PROJECT NO. 125709																							
DELIVERY ORDER NO.				DESIGNED BY		BR		5/20/09		CHECKED BY		BR		5/20/09		REV		DATE		BY		CHK'D		APR'VD		DESCRIPTION/ISSUE	
CONSTR. CONTRACT NO.				DRAWN BY		TR		5/20/09		APPROVED BY		MP		5/20/09												REVISIONS	
NAVFAC DRAWING NO.				BUILDING AS-4158																							
SHEET I.D.				ANNUAL RPT REPORT 2008-2009																							
FIGURE 2				SITE MAP WELL LOCATIONS																							

File: N:\Camp Lejeune - Jacksonville N.C\Site 4158\Figure 4.1_GW Elev Contour Map_Shallow Wells_Sept. 2008.dwg
Plot Date/Time: May 21, 2009 - 9:58am
Created By: Thomas, Brandon
Image: 20090520 12:24:05:00
Xref: 20090520 12:24:05:00



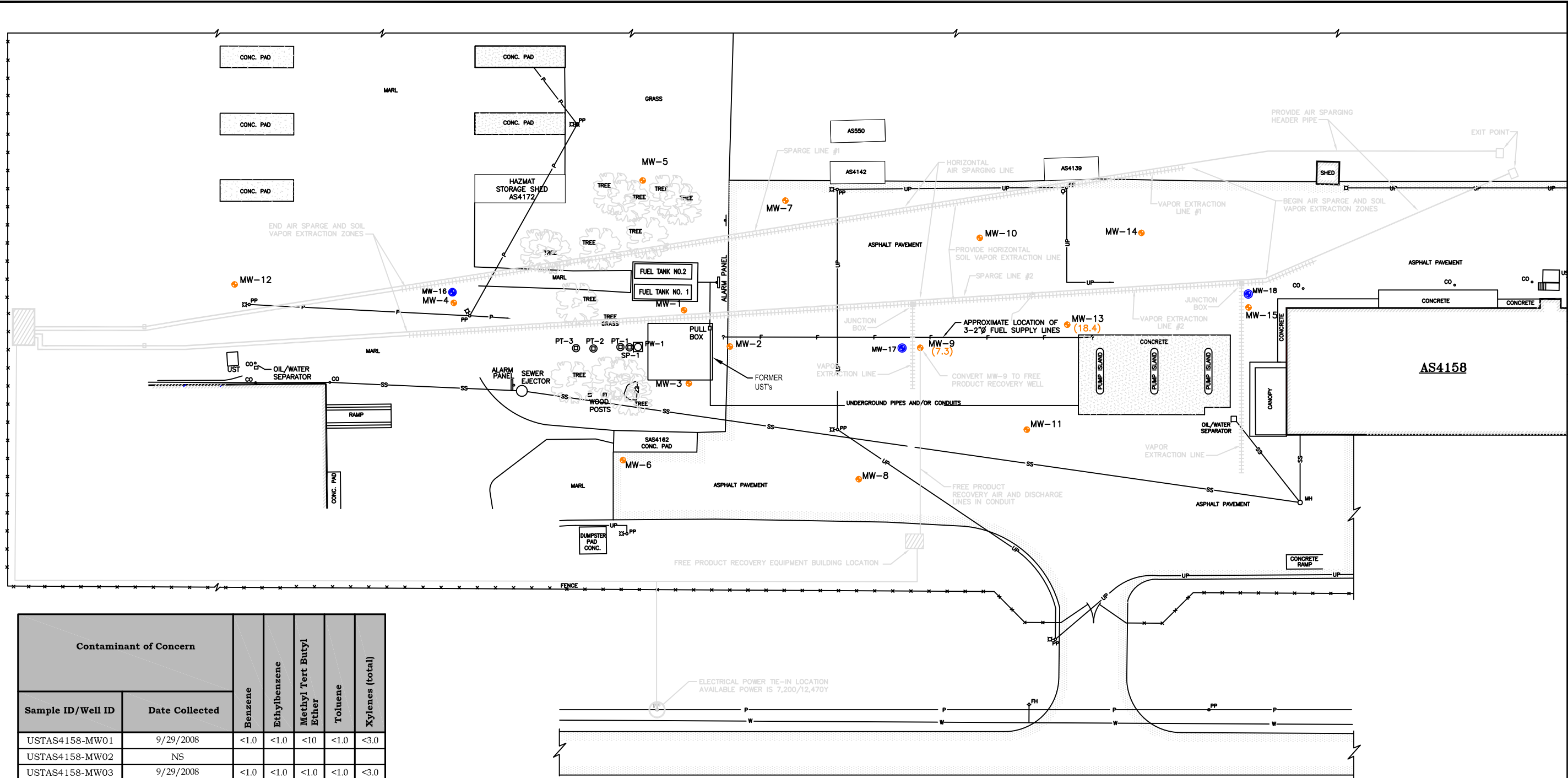
REFERENCE: J. A. JONES MONITORING REPORT.

DEPARTMENT OF THE NAVY		NAVAL FACILITIES ENGINEERING COMMAND		ATLANTIC DIVISION		NAVJAG DIVISION		NORFOLK, VIRGINIA		JACKSONVILLE N.C.		PROJECT NO. 125709		REV		DATE		BY		CHK'D/APP'D		REVISIONS	
NAVAL STATION		MCR CAMP LEJEUNE		BUILDING AS-4158		ANNUAL REPORT 2008-2009		GROUNDWATER ELEVATION CONTOUR MAP, SHALLOW WELLS		SEPTEMBER 2008		DRAWN BY		TR		5/20/09		APPROVED BY		MP		5/20/09	
SCALE:		AS SHOWN		SIZE:		B		DELIVERY ORDER NO.		CONSTR. CONTRACT NO.		NAVFAC DRAWING NO.		SHEET I.D.		FIGURE 4.1							

File: N:\Camp Lejeune_Jacksonville N.C.\Site 4158\Figure 4.3_Dissolved GW Benzene Isoconcentration Map_Sept. 2008.dwg
Plot Date/Time: May 26, 2009 - 7:11am
Plotted By: Thomas Richardson

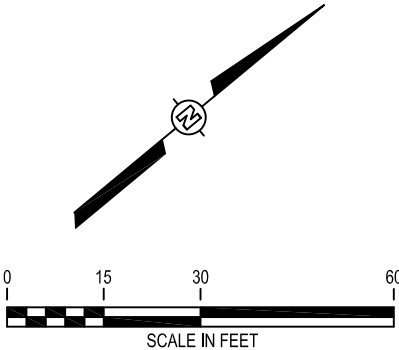
Contaminant of Concern		Benzene	Ethylbenzene	Methyl Tert Butyl Ether	Toluene	Xylenes (total)
Sample ID/Well ID	Date Collected					
USTAS4158-MW01	9/29/2008	<1.0	<1.0	<1.0	<1.0	<3.0
USTAS4158-MW02	NS					
USTAS4158-MW03	9/29/2008	<1.0	<1.0	<1.0	<1.0	<3.0
USTAS4158-MW04	9/30/2008	<1.0	<1.0	<1.0	<1.0	<3.0
USTAS4158-MW05	9/30/2008	<1.0	<1.0	<1.0	<1.0	<3.0
USTAS4158-MW06	9/29/2008	<1.0	<1.0	<1.0	<1.0	<3.0
USTAS4158-MW07	9/28/2008	0.55J	<1.0	<1.0	0.42J	<3.0
USTAS4158-MW08	9/28/2008	<1.0	<1.0	<1.0	<1.0	<3.0
USTAS4158-MW09	9/30/2008	7.3	<1.0	<1.0	<1.0	<3.0
USTAS4158-MW10	9/28/2008	<1.0	<1.0	<1.0	<1.0	<3.0
USTAS4158-MW11	9/28/2008	<1.0	<1.0	<1.0	<2.0	<3.0
USTAS4158-MW12	NS					
USTAS4158-MW13	9/28/2008	18.4	<1.0	75.7J	<1.0	<3.0
USTAS4158-MW14	9/28/2008	<1.0	<1.0	<1.0	<1.0	<3.0
USTAS4158-MW15	9/28/2008	<1.0	<1.0	<1.0	<1.0	<3.0
USTAS4158-MW16	9/30/2008	<1.0	<1.0	<1.0	<1.0	<3.0
USTAS4158-MW17	9/30/2008	<1.0	<1.0	<1.0	<1.0	<3.0
USTAS4158-MW18	9/28/2008	<1.0	<1.0	<1.0	<1.0	<3.0

- All results reported in ug/l; ug/l-micrograms per liter
- J - Estimated concentration; below calibration range and above MDL.
- NS - not sampled
- BQL - Below Quantitation Limits (Method Detection Limit (MDL).
- Bold - Detected concentration.
- Bold and shaded - detected concentration above 2L Standards.



LEGEND	
	BUILDING
	VES WELL SCREEN
	SD STORM DRAIN LINE
	S STEAM LINE
	SS SANITARY SEWER
	W WATERLINE W/VALVE
	P POWER LINE W/POLE
	UP UNDERGROUND POWER LINE
	FH FIRE HYDRANT
	MH MANHOLE
	Δ POWER TRANSFORMER
	□ AREA LIGHT
	● TYPE II MONITORING WELL
	○ TYPE III MONITORING WELL
	⊕ HYDROPUNCH
	⊖ BORING
	⊗ PUMPING WELL
	⊙ PILOT TEST WELL
	□ FORMER UST LOCATION

SURVEY NOTES:				
1. VERTICAL DATUM IS BASED ON EXISTING MILITARY CONTROL MONUMENT PW-4 WITH A LISTED ELEVATION OF 21.75 FEET (MSL); NORTH CAROLINA STATE COORDINATES FOR PW-4 ARE 352,078.63(M) NORTH AND 2,463,421.81(M) EAST. STATION PW-4 IS A 2" BRASS DISK SET IN 10" DIAMETER CONCRETE FLUSH WITH THE GROUND. THE STATION IS LOCATED AT THE SOUTHWEST CORNER OF THE INTERSECTION OF PERIMETER ROAD AND THE OLD RAILROAD BED, 35.0 FEET SOUTH OF THE EDGE OF PERIMETER ROAD AND 20.0 FEET WEST OF THE EDGE OF THE OLD RAILROAD BED.				
2. SURVEY CONTROL POINTS ARE BASED ON AN ASSUMED DATUM AND MAGNETIC NORTH. THE COORDINATES AND THEIR RESPECTIVE ELEVATIONS ARE AS FOLLOWS:				
POINT	NORTH	EAST	ELEVATION (MSL)	DESCRIPTION
1.	5000.00	5000.00	23.93	Pk NAIL
2.	4837.34	4906.09	23.98	Pk NAIL
3.	4722.30	4839.67	23.35	Pk NAIL
4.	4634.21	4788.81	22.75	#120 NAIL
5.	4504.84	4706.91	22.44	#120 NAIL



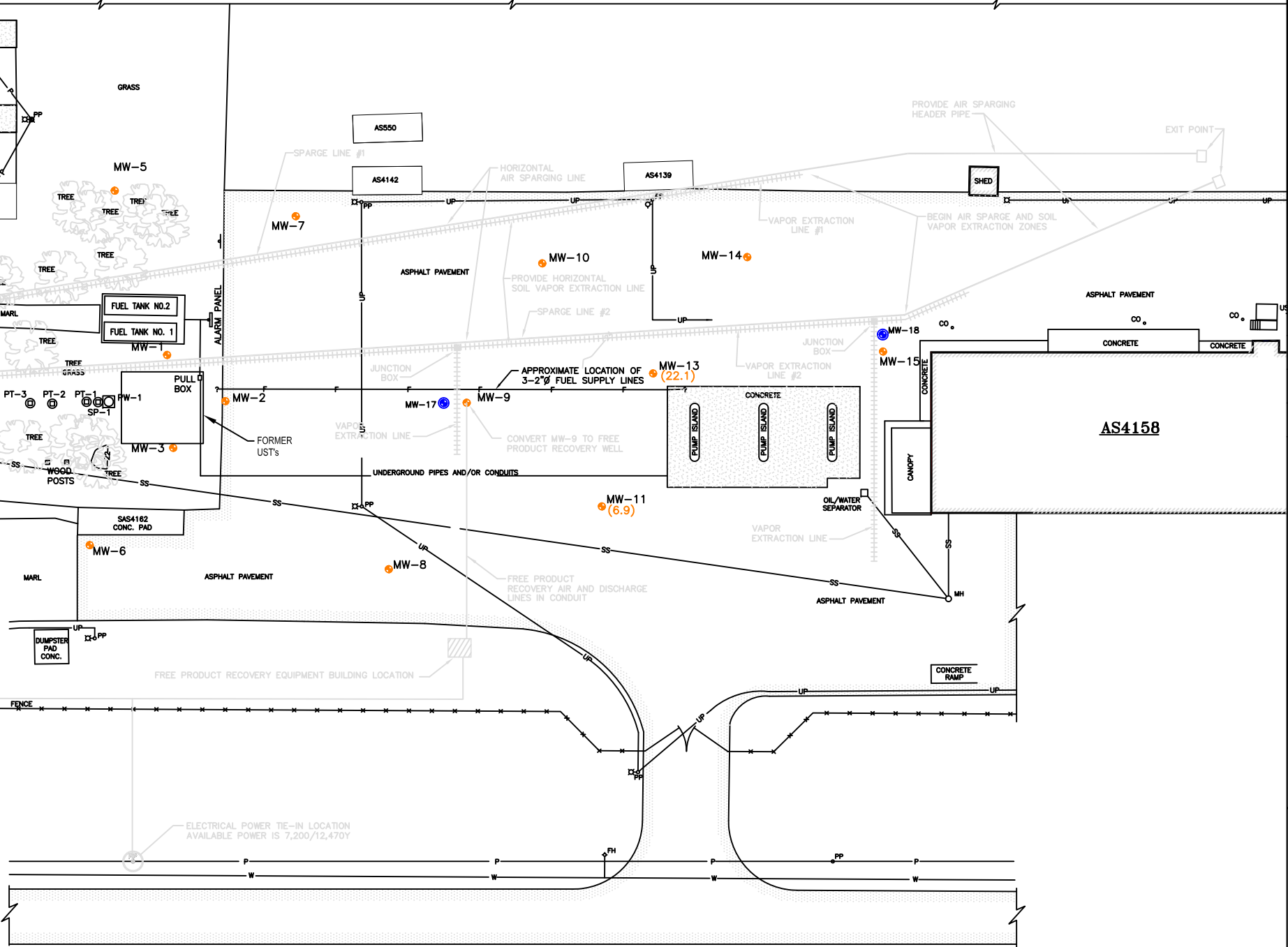
REFERENCE: J. A. JONES MONITORING REPORT.

DEPARTMENT OF THE NAVY		NAVAL FACILITIES ENGINEERING COMMAND		PROJECT NO. 125709	
ATLANTIC DIVISION		NORFOLK, VIRGINIA		DESIGNED BY	
NAVAL STATION		JACKSONVILLE N.C.		BR	
MCB CAMP LEJEUNE		BUILDING AS-4158		CHECKED BY	
		ANNUAL RPT REPORT 2008-2009		5/20/09	
		DISSOLVED GROUNDWATER BENZENE		APPROVED BY	
		ISOCONCENTRATION MAP, SEPTEMBER 2008		5/20/09	
SCALE:		AS SHOWN		REV	
DELIVERY ORDER NO.				DATE	
CONSTR. CONTRACT NO.				BY	
NAVFAC DRAWING NO.				CHK'D	
SHEET I.D.				DESCRIPTION/ISSUE	
FIGURE 4.3				REVISIONS	

File: N:\Camp Lejeune_Jacksonville N.C\Site 4158\Figure 4.4_Dissolved GW Benzene Isoconcentration Map_Feb. 2009.dwg
Plot Date/Time: May 26, 2009 - 7:18am
Xref :
Image : 200905201124009.tif
Plotted By: thomas.richardson

Contaminant of Concern		Benzene	Ethylbenzene	Methyl Tert Butyl Ether	Toluene	Xylenes (total)
Sample ID/Well ID	Date Collected					
USTAS4158-MW01	2/25/2009	<1.0	<1.0	<1.0	<1.0	<3.0
USTAS4158-MW02	NS					
USTAS4158-MW03	2/25/2009	<1.0	<1.0	<1.0	<1.0	<3.0
USTAS4158-MW04	2/25/2009	<1.0	<1.0	<1.0	<1.0	<3.0
USTAS4158-MW05	2/25/2009	<1.0	<1.0	<1.0	<1.0	<3.0
USTAS4158-MW06	2/25/2009	<1.0	<1.0	<1.0	<1.0	<3.0
USTAS4158-MW07	2/24/2009	<1.0	<1.0	<1.0	<1.0	<3.0
USTAS4158-MW08	2/25/2009	<1.0	<1.0	<1.0	<1.0	<3.0
USTAS4158-MW09	2/26/2009	<1.0	<1.0	<1.0	0.55J	2.2J
USTAS4158-MW10	2/26/2009	<1.0	<1.0	<1.0	<1.0	<3.0
USTAS4158-MW11	2/26/2009	6.9	<1.0	6.6	<2.0	<3.0
USTAS4158-MW12	NS					
USTAS4158-MW13	2/24/2009	22.1	<1.0	156	<1.0	<3.0
USTAS4158-MW14	NS					
USTAS4158-MW15	2/24/2009	<1.0	<1.0	<1.0	<1.0	<3.0
USTAS4158-MW16	2/25/2009	<1.0	<1.0	0.6J	<1.0	<3.0
USTAS4158-MW17	2/26/2009	<1.0	<1.0	5.1	<1.0	<3.0
USTAS4158-MW18	2/24/2009	<1.0	<1.0	<1.0	<1.0	<3.0

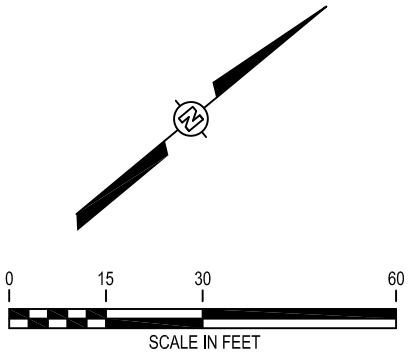
- All results reported in ug/l; ug/l-micrograms per liter
- J - Estimated concentration; below calibration range and above MDL.
- NS - not sampled
- BQL - Below Quantitation Limits (Method Detection Limit (MDL).
- Bold - Detected concentration.
- Bold and shaded - detected concentration above 2L Standards.



- LEGEND
- BUILDING
 - YES WELL SCREEN
 - SD - STORM DRAIN LINE
 - S - STEAM LINE
 - SS - SANITARY SEWER
 - W - WATERLINE W/VALVE
 - P - POWER LINE W/POLE
 - UP - UNDERGROUND POWER LINE
 - FH - FIRE HYDRANT
 - MH - MANHOLE
 - Δ - POWER TRANSFORMER
 - - AREA LIGHT
 - - TYPE II MONITORING WELL
 - - TYPE III MONITORING WELL
 - ⊕ - HYDROPUNCH
 - ⊕ - BORING
 - ⊕ - PUMPING WELL
 - ⊕ - PILOT TEST WELL
 - - FORMER UST LOCATION

SURVEY NOTES:
1. VERTICAL DATUM IS BASED ON EXISTING MILITARY CONTROL MONUMENT PW-4 WITH A LISTED ELEVATION OF 21.75 FEET (MSL). NORTH CAROLINA STATE COORDINATES FOR PW-4 ARE 352,078.63(M) NORTH AND 2,463,421.81(M) EAST. STATION PW-4 IS A 2" BRASS DISK SET IN 10" DIAMETER CONCRETE FLUSH WITH THE GROUND. THE STATION IS LOCATED AT THE SOUTHWEST CORNER OF THE INTERSECTION OF PERIMETER ROAD AND THE OLD RAILROAD BED, 35.0 FEET SOUTH OF THE EDGE OF PERIMETER ROAD AND 20.0 FEET WEST OF THE EDGE OF THE OLD RAILROAD BED.
2. SURVEY CONTROL POINTS ARE BASED ON AN ASSUMED DATUM AND MAGNETIC NORTH. THE COORDINATES AND THEIR RESPECTIVE ELEVATIONS ARE AS FOLLOWS:

POINT	NORTH	EAST	ELEVATION (MSL)	DESCRIPTION
1.	5000.00	5000.00	23.93	Pk NAIL
2.	4837.34	4906.09	23.98	Pk NAIL
3.	4722.30	4839.67	23.35	Pk NAIL
4.	4634.21	4788.81	22.75	#120 NAIL
5.	4504.84	4706.91	22.44	#120 NAIL



REFERENCE: J. A. JONES MONITORING REPORT.

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND NAVAL STATION MCB CAMP LEJEUNE		ATLANTIC DIVISION NORFOLK, VIRGINIA JACKSONVILLE N.C.		BUILDING AS-4158 ANNUAL RTEPORT 2008-2009		PROJECT NO. 125709																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									

APPENDIX A

GROUNDWATER SAMPLE COLLECTION FIELD LOGS

Well ID	DTW
USTAS4158-MW01	8.09
USTAS4158-MW03	8.31
USTAS4158-MW04	9.04
USTAS4158-MW05	9.14
USTAS4158-MW06	9.17
USTAS4158-MW07	9.89
USTAS4158-MW08	10.46
USTAS4158-MW09	10.57
USTAS4158-MW10	11.86
USTAS4158-MW11	11.75
USTAS4158-MW13	11.86
USTAS4158-MW14	10.33
USTAS4158-MW15	11.57
USTAS4158-MW16	10.07
USTAS4158-MW17	11.28
USTAS4158-MW18	11.87

 Shaw Environmental & Infrastructure, Inc.	WELL OR GROUND WATER DATA SHEET		PROJECT NUMBER: 125709
			PROJECT NAME: AS 4158
			WELL NO. USTAS4158-MW01
			SAMPLE NO. USTAS4158-MW 01
PROJECT LOCATION: Camp Lejeune		LOGGER: Mark Martin	DATE 9/29/08
PROJECT CONTACT: Mark Martin		SAMPLER: Mark Martin	TIME 1000
PHONE: 910-451-2390		WEATHER: Sunny 80's	
LEL:			Well Locked: [X] Yes
PID:		Sampling Device: Bailer	☐ No

FIELD MEASUREMENTS						
	1	2	3	4	Avg	
PH	7.35	7.16				(STD)
Specific Conductivity	0.313	0.308				(m S/cm ^o)
Turbidity (Turb)	227.6	179.8				(NTU)
Dissolved Oxygen (DO)	6.39	1.47				(mg/l)
Temperature (Temp)	24.42	24.28				(°C)
ORP	99.7	113.8				

Depth to Bottom	125.96	(In) (Minus)	Depth to Water	97.08	(In) =	98.88	HT (in)
Depth to Bottom	16.33	(Ft) (Minus)	Depth to Water	8.09	(Ft) =	8.24	HT (ft)

d = 2	MEASUREMENTS (IN INCHES)									
r = 1	Multiply Together					Vol.				
d/2 = 1	BOTTOM	TOP	Layer Thickness	r ²	Π	Cubic in.	Conversion Factor	EST. GALLONS	Purge Vol.	Vol. Purged
	TOP		98.88	1	3.14	310	.0043	1.3	4	2
	Middle				3.14		.0043			
	Bottom				3.14		.0043			
	Total				3.14		.0043			

ANALYTE	CONTAINER NUMBER	SIZE	PRESERVATIVE
VOC 602	USTAS4158-MW01	3 X 40 ml	HCL
PAH 610	USTAS4158-MW01	2 X 1 L Amber	4 deg. C.
Lead 6010	USTAS4158-MW01	1 X 500ml Poly	HN03

COMMENTS: Purged Dry 1 1/2 x vol. Allowed To Recharge AND SAMPLED

PURGE DISCHARGED:	DRUM: ☐	DRUM#	SITE TREATMENT: [X]
OTHER: ☐			

 Shaw Environmental & Infrastructure, Inc.	WELL OR GROUND WATER DATA SHEET		PROJECT NUMBER: 125709
			PROJECT NAME: AS 4158
			WELL NO. USTAS4158-MW02
			SAMPLE NO. USTAS4158-MW02
PROJECT LOCATION: Camp Lejeune		LOGGER: Mark Martin	DATE 9/28/08
PROJECT CONTACT: Mark Martin		SAMPLER: Mark Martin	TIME
PHONE: 910-451-2390		WEATHER:	
LEL:			Well Locked: [X] Yes
PID:		Sampling Device: Bailer	☐ No

FIELD MEASUREMENTS						
	1	2	3	4	Avg.	
PH						(STD)
Specific Conductivity						(m S/cm ^o)
Turbidity (Turb)						(NTU)
Dissolved Oxygen (DO)						(mg/l)
Temperature (Temp)						(°C)
ORP						

Depth to Bottom		(In) (Minus)	Depth to Water		(In)	=		HT (in)
Depth to Bottom		(Ft) (Minus)	Depth to Water		(Ft)	=		HT (ft)

d = 2	MEASUREMENTS (IN INCHES)									
r = 1	Multiply Together									
d/2 = 1	BOTTOM	TOP	Layer Thickness	r ²	π	Cubic	Conversion Factor	EST. GALLONS	Purge Vol.	Vol. Purged
	TOP			1	3.14		.0043			
	Middle				3.14		.0043			
	Bottom				3.14		.0043			
	Total				3.14		.0043			

ANALYTE	CONTAINER NUMBER	SIZE	PRESERVATIVE
VOC 602	USTAS4158-MW	3 X 40 ml	HCL
PAH 610	USTAS4158-MW	2 X 1 L Amber	4 deg. C.
Lead 6010	USTAS4158-MW	1 X 500ml Poly	HN03
COMMENTS:			
PURGE DISCHARGED:	DRUM: ☐	DRUM#	SITE TREATMENT: [X]
OTHER: ☐			

 Shaw Environmental & Infrastructure, Inc.	WELL OR GROUND WATER DATA SHEET		PROJECT NUMBER: 125709
			PROJECT NAME: AS 4158
			WELL NO. USTAS4158-MW03
			SAMPLE NO. USTAS4158-MW03
PROJECT LOCATION: Camp Lejeune		LOGGER: Mark Martin	DATE 2/28/08
PROJECT CONTACT: Mark Martin		SAMPLER: Mark Martin	TIME 0900
PHONE: 910-451-2390		WEATHER: Sunny 70-80	
LEL:			Well Locked: [X] Yes
PID:		Sampling Device: Bailer	☐ No

FIELD MEASUREMENTS						
	1	2	3	4	AVE.	
PH	5.88	5.64	5.46	5.45		(STD)
Specific Conductivity	~~33.9~~ 0.255	0.271	0.248	0.248		(m S/cm ^o)
Turbidity (Turb)	33.9	46.9	33.1	27.6		(NTU)
Dissolved Oxygen (DO)	6.10	4.76	2.16	1.79		(mg/l)
Temperature (Temp)	24.24	23.98	24.47	24.52		(°C)
ORP	44.0	39.7	40.7	41.2		

Depth to Bottom	211.80	(In) (Minus)	Depth to Water	99.72	(In)	=	112.08	HT (in)
Depth to Bottom	17.68	(Ft) (Minus)	Depth to Water	8.31	(Ft)	=	9.34	HT (ft)

d = 2 MEASUREMENTS (IN INCHES)										
r = 1 Multiply Together						Vol.				
d/2 = 1	BOTTOM	TOP	Layer Thickness	r ²	II	Cubic in.	Conversion Factor	EST. GALLONS	Purge Vol.	Vol. Purged
TOP			112.08	1	3.14	352	.0043	1.5	4.5	5
Middle					3.14		.0043			
Bottom					3.14		.0043			
Total					3.14		.0043			

ANALYTE	CONTAINER NUMBER	SIZE	PRESERVATIVE
VOC 602	USTAS4158-MW03	3 X 40 ml	HCL
PAH 610	USTAS4158-MW03	2 X 1 L Amber	4 deg. C.
Lead 6010	USTAS4158-MW03	1 X 500ml Poly	HN03
COMMENTS:			
PURGE DISCHARGED:	DRUM: ☐	DRUM#	SITE TREATMENT: [X]
OTHER: ☐			

 Shaw Environmental & Infrastructure, Inc.	WELL OR GROUND WATER DATA SHEET		PROJECT NUMBER: 125709
			PROJECT NAME: AS 4158
			WELL NO. USTAS4158-MW04
			SAMPLE NO. USTAS4158-MW04
PROJECT LOCATION: Camp Lejeune		LOGGER: Mark Martin	DATE 7/30/09
PROJECT CONTACT: Mark Martin		SAMPLER: Mark Martin	TIME 0800
PHONE: 910-451-2390		WEATHER: Cloudy 70'	
LEL:			Well Locked: [X] Yes
PID:		Sampling Device: Bailer	☐ No

FIELD MEASUREMENTS						
	1	2	3	4	Avg.	
PH	6.75	6.63				(STD)
Specific Conductivity	0.357	0.359				(m S/cm°)
Turbidity (Turb)	829.4	643.1				(NTU)
Dissolved Oxygen (DO)	6.29	2.41				(mg/l)
Temperature (Temp)	24.52	24.68				(°C)
ORP	89.9	111.1				

Depth to Bottom	193.32	(In) (Minus)	Depth to Water	108.48	(In) =	84.84	HT (in)
Depth to Bottom	16.11	(Ft) (Minus)	Depth to Water	9.04	(Ft) =	7.07	HT (ft)

d = 2	MEASUREMENTS (IN INCHES)									
r = 1	Multiply Together					Vol.				
d/2 = 1	BOTTOM	TOP	Layer Thickness	r ²	Π	Cubic in.	Conversion Factor	EST. GALLONS	Purge Vol.	Vol. Purged
TOP			84.84	1	3.14	266	.0043	1.1	3.4	2
Middle					3.14		.0043			
Bottom					3.14		.0043			
Total					3.14		.0043			

ANALYTE	CONTAINER NUMBER	SIZE	PRESERVATIVE
VOC 602	USTAS4158-MW04	3 X 40 ml	HCL
PAH 610	USTAS4158-MW04	2 X 1 L Amber	4 deg. C.
Lead 6010	USTAS4158-MW04	1 X 500ml Poly	HN03

COMMENTS: Purged Dry 2x Vol Allowed To Recharge AND SAMPLED			
PURGE DISCHARGED:	DRUM: ☐	DRUM#	SITE TREATMENT: [X]
OTHER: ☐			

 Shaw Environmental & Infrastructure, Inc.	WELL OR GROUND WATER DATA SHEET		PROJECT NUMBER: 125709
			PROJECT NAME: AS 4158
			WELL NO. USTAS4158-MW05
			SAMPLE NO. USTAS4158-MW05
PROJECT LOCATION: Camp Lejeune		LOGGER: Mark Martin	DATE 9/30/08
PROJECT CONTACT: Mark Martin		SAMPLER: Mark Martin	TIME 0700
PHONE: 910-451-2390		WEATHER: Cloudy 70	
LEL:			Well Locked: [X] Yes
PID:		Sampling Device: Bailer	☐ No

FIELD MEASUREMENTS						
	1	2	3	4	Avg.	
PH	6.98	6.53				(STD)
Specific Conductivity	0.375	0.381				(m S/cm ^o)
Turbidity (Turb)	1296.1	662.9				(NTU)
Dissolved Oxygen (DO)	5.39	2.21				(mg/l)
Temperature (Temp)	24.39	24.61				(°C)
ORP	127.4	131.5				

Depth to Bottom	180.96	(In) (Minus)	Depth to Water	109.68	(In)	=	71.28	HT (in)
Depth to Bottom	15.08	(Ft) (Minus)	Depth to Water	9.14	(Ft)	=	5.94	HT (ft)

d = 2	MEASUREMENTS (IN INCHES)									
r = 1	Multiply Together					Vol.				
d/2 = 1	BOTTOM	TOP	Layer Thickness	r ²	Π	Cubic in.	Conversion Factor	EST. GALLONS	Purge Vol.	Vol. Purged
	TOP		71.28	1	3.14	224	.0043	1.0	2.9	1.5
	Middle				3.14		.0043			
	Bottom				3.14		.0043			
	Total				3.14		.0043			

ANALYTE	CONTAINER NUMBER	SIZE	PRESERVATIVE
VOC 602	USTAS4158-MW05	3 X 40 ml	HCL
PAH 610	USTAS4158-MW05	2 X 1 L Amber	4 deg. C.
Lead 6010	USTAS4158-MW05	1 X 500ml Poly	HN03

COMMENTS: Purge water very dirty purged cleaner.			
Purged Day 1 1/2 x vol.			
PURGE DISCHARGED:	DRUM: ☐	DRUM#	SITE TREATMENT: [X]
OTHER: ☐			

 Shaw Environmental & Infrastructure, Inc.	WELL OR GROUND WATER DATA SHEET		PROJECT NUMBER: 125709
			PROJECT NAME: AS 4158
			WELL NO. USTAS4158-MW 06
			SAMPLE NO. USTAS4158-MW 06
PROJECT LOCATION: Camp Lejeune		LOGGER: Mark Martin	DATE 9/29/08
PROJECT CONTACT: Mark Martin		SAMPLER: Mark Martin	TIME 0800
PHONE: 910-451-2390		WEATHER: Sunny 70's.	
LEL:			Well Locked: [X] Yes
PID:		Sampling Device: Bailer	☐ No

FIELD MEASUREMENTS						
	1	2	3	4	Avg.	
PH	5.70	5.76	5.70	5.71		(STD)
Specific Conductivity	0.405	0.403	0.349	0.345		(m S/cm ^o)
Turbidity (Turb)	608.5	628.5	527.6	136.4		(NTU)
Dissolved Oxygen (DO)	1.77	1.55	1.40	1.37		(mg/l)
Temperature (Temp)	24.47	25.12	25.93	26.01		(°C)
ORP	2.4	-20.5	-27.2	-33.9		

Depth to Bottom	188.16	(In) (Minus)	Depth to Water	110.04	(In) =	78.12	HT (in)
Depth to Bottom	15.68	(Ft) (Minus)	Depth to Water	9.17	(Ft) =	6.51	HT (ft)

d = 2 MEASUREMENTS (IN INCHES)									
r = 1 Multiply Together					Vol.				
d/2 = 1	BOTTOM	TOP	Layer Thickness	r ²	Π	Cubic in.	Conversion Factor	EST. GALLONS	Purge Vol.
TOP			78.12	1	3.14	245	.0043	1.1	3.2
Middle					3.14		.0043		
Bottom					3.14		.0043		
Total					3.14		.0043		

ANALYTE	CONTAINER NUMBER	SIZE	PRESERVATIVE
VOC 602	USTAS4158-MW 06	3 X 40 ml	HCL
PAH 610	USTAS4158-MW 06	2 X 1 L Amber	4 deg. C.
Lead 6010	USTAS4158-MW 06	1 X 500ml Poly	HN03

COMMENTS: Purge water started Dirty (silty) purged & CLEARED.			
PURGE DISCHARGED:	DRUM: ☐	DRUM#	SITE TREATMENT: [X]
OTHER: ☐			

 Shaw Environmental & Infrastructure, Inc.	WELL OR GROUND WATER DATA SHEET		PROJECT NUMBER: 125709
			PROJECT NAME: AS 4158
			WELL NO. USTAS4158-MW 07
			SAMPLE NO. USTAS4158-MW 07
PROJECT LOCATION: Camp Lejeune		LOGGER: Mark Martin	DATE 9/28/09
PROJECT CONTACT: Mark Martin		SAMPLER: Mark Martin	TIME 1200
PHONE: 910-451-2390		WEATHER: PC 80'S	
LEL:			Well Locked: [X] Yes
PID:		Sampling Device: Bailer	☐ No

FIELD MEASUREMENTS						
	1	2	3	4	Ave	
PH	6.98					(STD)
Specific Conductivity	0.376					(m S/cm°)
Turbidity (Turb)	125.4					(NTU)
Dissolved Oxygen (DO)	6.35					(mg/l)
Temperature (Temp)	24.68					(°C)
ORP	132.4					

Depth to Bottom	176.52	(In) (Minus)	Depth to Water	118.68	(In) =	57.84	HT (in)
Depth to Bottom	1471	(Ft) (Minus)	Depth to Water	9.89	(Ft) =	4.82	HT (ft)

d = 2	MEASUREMENTS (IN INCHES)										
r = 1	Multiply Together					Vol.					
d/2 = 1	BOTTOM	TOP	Layer Thickness	r ²	Π	Cubic in.	Conversion Factor	EST. GALLONS		Purge Vol.	Vol. Purged
	TOP		57.84	1	3.14	182	.0043	0.8		2.3	1
	Middle				3.14		.0043				
	Bottom				3.14		.0043				
	Total				3.14		.0043				

ANALYTE	CONTAINER NUMBER	SIZE	PRESERVATIVE
VOC 602	USTAS4158-MW 07	3 X 40 ml	HCL
PAH 610	USTAS4158-MW 07	2 X 1 L Amber	4 deg. C.
Lead 6010	USTAS4158-MW 07	1 X 500ml Poly	HN03

COMMENTS: Purged Dry 1 x vol. allowed to rehydrate and sampled			
PURGE DISCHARGED:	DRUM: ☐	DRUM#	SITE TREATMENT: [X]
OTHER: ☐			

	WELL OR GROUND WATER DATA SHEET		PROJECT NUMBER: 125709
			PROJECT NAME: AS 4158
			WELL NO. USTAS4158-MW 08
			SAMPLE NO. USTAS4158-MW 08
PROJECT LOCATION: Camp Lejeune		LOGGER: Mark Martin	DATE 9/29/08
PROJECT CONTACT: Mark Martin		SAMPLER: Mark Martin	TIME 1300
PHONE: 910-451-2390		WEATHER: PC 70-80	
LEL:			Well Locked: [X] Yes
PID:		Sampling Device: Bailer	☐ No

FIELD MEASUREMENTS

	1	2	3	4	Avg	
PH	6.79	6.63	6.38	6.39		(STD)
Specific Conductivity	6.201	0.186	0.186	0.186		(m S/cm ^o)
Turbidity (Turb)	786.1	662.9	221.0	117.1		(NTU)
Dissolved Oxygen (DO)	6.35	2.57	1.38	1.37		(mg/l)
Temperature (Temp)	32.91	29.47	29.36	29.36		(°C)
ORP	229.4	216.1	208.4	207.1		

Depth to Bottom	195.84	(In) (Minus)	Depth to Water	125.52	(In)	=	70.32	HT (in)
Depth to Bottom	16.32	(Ft) (Minus)	Depth to Water	10.46	(Ft)	=	5.86	HT (ft)

d = 2	MEASUREMENTS (IN INCHES)									
r = 1	Multiply Together					Vol.				
d/2 = 1	BOTTOM	TOP	Layer Thickness	r ²	Π	Cubic in.	Conversion Factor	EST. GALLONS	Purge Vol.	Vol. Purged
TOP			70.32	1	3.14	221	.0043	0.9	2.8	3
Middle					3.14		.0043			
Bottom					3.14		.0043			
Total					3.14		.0043			

ANALYTE	CONTAINER NUMBER	SIZE	PRESERVATIVE
VOC 602	USTAS4158-MW 08	3 X 40 ml	HCL
PAH 610	USTAS4158-MW 08	2 X 1 L Amber	4 deg. C.
Lead 6010	USTAS4158-MW 08	1 X 500ml Poly	HN03

COMMENTS:			
PURGE DISCHARGED:	DRUM: ☐	DRUM#	SITE TREATMENT: [X]
OTHER: ☐			

 Shaw Environmental & Infrastructure, Inc.	WELL OR GROUND WATER DATA SHEET		PROJECT NUMBER: 125709
			PROJECT NAME: AS 4158
			WELL NO. USTAS4158-MW09
			SAMPLE NO. USTAS4158-MW09
PROJECT LOCATION: Camp Lejeune		LOGGER: Mark Martin	DATE 9/30/08
PROJECT CONTACT: Mark Martin		SAMPLER: Mark Martin	TIME 1030
PHONE: 910-451-2390		WEATHER: Cloudy 70'S	
LEL:			Well Locked: [X] Yes
PID:		Sampling Device: Bailer	☐ No

FIELD MEASUREMENTS						
	1	2	3	4	Avg.	
PH	6.46	6.01	5.85	5.93		(STD)
Specific Conductivity	0.374	0.355	0.337	0.326		(m S/cm°)
Turbidity (Turb)	327.1	320.1	311.6	310.4		(NTU)
Dissolved Oxygen (DO)	8.17	7.63	5.89	5.77		(mg/l)
Temperature (Temp)	28.31	28.57	28.49	28.48		(°C)
ORP						

Depth to Bottom	196.52	(In) (Minus)	Depth to Water	126.84	(In)	=	69.72	HT (in)
Depth to Bottom	16.38	(Ft) (Minus)	Depth to Water	10.57	(Ft)	=	5.81	HT (ft)

d = 2 MEASUREMENTS (IN INCHES)											
r = 1		Multiply Together				Vol.					
d/2 = 1	BOTTOM	TOP	Layer Thickness	r ²	Π	Cubic in.	Conversion Factor	EST. GALLONS		Purge Vol.	Vol. Purged
TOP			69.72	1	3.14	219	.0043	0.9		2.8	3
Middle					3.14		.0043				
Bottom					3.14		.0043				
Total					3.14		.0043				

ANALYTE	CONTAINER NUMBER	SIZE	PRESERVATIVE
VOC 602	USTAS4158-MW 09	3 X 40 ml	HCL
PAH 610	USTAS4158-MW 09	2 X 1 L Amber	4 deg. C.
Lead 6010	USTAS4158-MW 09	1 X 500ml Poly	HN03

COMMENTS:			
PURGE DISCHARGED:	DRUM: ☐	DRUM#	SITE TREATMENT: [X]
OTHER: ☐			

 Shaw Environmental & Infrastructure, Inc.	WELL OR GROUND WATER DATA SHEET		PROJECT NUMBER: 125709
			PROJECT NAME: AS 4158
			WELL NO. USTAS4158-MW 10
			SAMPLE NO. USTAS4158-MW 10
PROJECT LOCATION: Camp Lejeune		LOGGER: Mark Martin	DATE 9/28/08
PROJECT CONTACT: Mark Martin		SAMPLER: Mark Martin	TIME 1100
PHONE: 910-451-2390		WEATHER: pc 80°	
LEL:			Well Locked: [X] Yes
PID:		Sampling Device: Bailor	☐ No

FIELD MEASUREMENTS

	1	2	3	4	Avg	
PH	3.52	3.60				(STD)
Specific Conductivity	0.352	0.278				(m S/cm ^o)
Turbidity (Turb)	13.6	9.9				(NTU)
Dissolved Oxygen (DO)	8.02	7.74				(mg/l)
Temperature (Temp)	28.60	28.58				(°C)
ORP	354.4	370.2				

Depth to Bottom	190.68	(In) (Minus)	Depth to Water	142.32	(In)	=	48.36	HT (in)
Depth to Bottom	15.87	(Ft) (Minus)	Depth to Water	11.86	(Ft)	=	4.03	HT (ft)

d = 2	MEASUREMENTS (IN INCHES)									
r = 1	Multiply Together					Vol.				
d/2 = 1	BOTTOM	TOP	Layer Thickness	r ²	Π	Cubic in.	Conversion Factor	EST. GALLONS	Purge Vol.	Vol. Purged
	TOP		48.36	1	3.14	152	.0043	0.7	2.0	1
	Middle				3.14		.0043			
	Bottom				3.14		.0043			
	Total				3.14		.0043			

ANALYTE	CONTAINER NUMBER	SIZE	PRESERVATIVE
VOC 602	USTAS4158-MW 10	3 X 40 ml	HCL
PAH 610	USTAS4158-MW 10	2 X 1 L Amber	4 deg. C.
Lead 6010	USTAS4158-MW 10	1 X 500ml Poly	HN03

COMMENTS: Purged Dry 1x VOC allowed To Recharge AND sample

PURGE DISCHARGED:	DRUM: ☐	DRUM#	SITE TREATMENT: [X]
OTHER: ☐			

 Shaw Environmental & Infrastructure, Inc.	WELL OR GROUND WATER DATA SHEET		PROJECT NUMBER: 125709
			PROJECT NAME: AS 4158
			WELL NO. USTAS4158-MW //
			SAMPLE NO. USTAS4158-MW //
PROJECT LOCATION: Camp Lejeune		LOGGER: Mark Martin	DATE 9/29/08
PROJECT CONTACT: Mark Martin		SAMPLER: Mark Martin	TIME 1400
PHONE: 910-451-2390		WEATHER: PC 80	
LEL:			Well Locked: ☒ Yes
PID:		Sampling Device: Bailer	☐ No

FIELD MEASUREMENTS						
	1	2	3	4	Avg	
PH	5.38	4.87	4.77	4.62		(STD)
Specific Conductivity	1.029	1.033	1.032	1.033		(m S/cm ^c)
Turbidity (Turb)	16.1	0.0	0.0	0.0		(NTU)
Dissolved Oxygen (DO)	4.79	2.22	1.08	0.37		(mg/l)
Temperature (Temp)	28.41	28.29	28.27	28.26		(°C)
ORP	444.4	438.1	432.7	429.9		

Depth to Bottom	197.40	(In) (Minus)	Depth to Water	141.00	(In)	=	56.40	HT (in)
Depth to Bottom	16.45	(Ft) (Minus)	Depth to Water	11.75	(Ft)	=	4.70	HT (ft)

d = 2 MEASUREMENTS (IN INCHES)											
r = 1 Multiply Together						Vol.					
d/2 = 1	BOTTOM	TOP	Layer Thickness	r ²	Π	Cubic in.	Conversion Factor	EST. GALLONS			
TOP			56.40	1	3.14	177	.0043	0.8	Purge Vol.	2.3	Vol. Purged 2.5
Middle					3.14		.0043				
Bottom					3.14		.0043				
Total					3.14		.0043				

ANALYTE	CONTAINER NUMBER	SIZE	PRESERVATIVE
VOC 602	USTAS4158-MW //	3 X 40 ml	HCL
PAH 610	USTAS4158-MW //	2 X 1 L Amber	4 deg. C.
Lead 6010	USTAS4158-MW //	1 X 500ml Poly	HN03

COMMENTS:			
PURGE DISCHARGED:	DRUM: ☐	DRUM#	SITE TREATMENT: ☒ [X]
OTHER: ☐			

 Shaw Environmental & Infrastructure, Inc.	WELL OR GROUND WATER DATA SHEET		PROJECT NUMBER: 125709
			PROJECT NAME: AS 4158
			WELL NO. USTAS4158-MW/2
			SAMPLE NO. USTAS4158-MW/2
PROJECT LOCATION: Camp Lejeune		LOGGER: Mark Martin	DATE 9/29/06
PROJECT CONTACT: Mark Martin		SAMPLER: Mark Martin	TIME
PHONE: 910-451-2390		WEATHER:	
LEL:			Well Locked: ☒ Yes
PID:		Sampling Device: Bailor	☐ No

FIELD MEASUREMENTS

	1	2	3	4	Avg.		
PH							(STD)
Specific Conductivity							(m S/cm ^o)
Turbidity (Turb)							(NTU)
Dissolved Oxygen (DO)							(mg/l)
Temperature (Temp)							(°C)
ORP							

Depth to Bottom		(In) (Minus)	Depth to Water		(In)	=		HT (in)
Depth to Bottom		(Ft) (Minus)	Depth to Water		(Ft)	=		HT (ft)

d = 2	MEASUREMENTS (IN INCHES)										
r = 1	Multiply Together					Vol.					
d/2 = 1	BOTTOM	TOP	Layer Thickness	r ²	Π	Cubic in.	Conversion Factor	EST. GALLONS		Purge Vol.	Vol. Purged
	TOP			1	3.14		.0043				
	Middle				3.14		.0043				
	Bottom				3.14		.0043				
	Total				3.14		.0043				

ANALYTE	CONTAINER NUMBER	SIZE	PRESERVATIVE
VOC 602	USTAS4158-MW	3 X 40 ml	HCL
PAH 610	USTAS4158-MW	2 X 1 L Amber	4 deg. C.
Lead 6010	USTAS4158-MW	1 X 500ml Poly	HN03

COMMENTS: Well NOT located MISSING			
PURGE DISCHARGED:	DRUM: ☐	DRUM#	SITE TREATMENT: ☒
OTHER: ☐			

 Shaw Environmental & Infrastructure, Inc.	WELL OR GROUND WATER DATA SHEET		PROJECT NUMBER: 125709
			PROJECT NAME: AS 4158
			WELL NO. USTAS4158-MW ~~14~~ 13
			SAMPLE NO. USTAS4158-MW ~~14~~ 13
PROJECT LOCATION: Camp Lejeune		LOGGER: Mark Martin	DATE 9/28/08
PROJECT CONTACT: Mark Martin		SAMPLER: Mark Martin	TIME 1000
PHONE: 910-451-2390		WEATHER: PC 70-80	
LEL:			Well Locked: [X] Yes
PID:		Sampling Device: Bailer	☐ No

FIELD MEASUREMENTS						
	1	2	3	4	Avg.	
PH	3.13	3.10	3.04	3.01		(STD)
Specific Conductivity	0.580	0.590	0.595	0.595		(m S/cm ²)
Turbidity (Turb)	14.9	10.9	8.3	8.2		(NTU)
Dissolved Oxygen (DO)	4.74	3.29	2.75	2.76		(mg/l)
Temperature (Temp)	28.36	28.20	27.92	27.46		(°C)
ORP	366.4	295.6	272.5	272.6		

Depth to Bottom	201.00	(In) (Minus)	Depth to Water	142.32	(In)	=	58.68	HT (in)
Depth to Bottom	16.75	(Ft) (Minus)	Depth to Water	11.84	(Ft)	=	4.89	HT (ft)

d = 2	MEASUREMENTS (IN INCHES)									
r = 1	Multiply Together					Vol.				
d/2 = 1	BOTTOM	TOP	Layer Thickness	r ²	Π	Cubic in.	Conversion Factor	EST. GALLONS	Purge Vol.	Vol. Purged
	TOP		1.84	1	3.14	184	.0043	0.8	2.4	2.5
	Middle		58.68		3.14		.0043			
	Bottom				3.14		.0043			
	Total				3.14		.0043			

ANALYTE	CONTAINER NUMBER	SIZE	PRESERVATIVE
VOC 602	USTAS4158-MW ~~14~~ 13	3 X 40 ml	HCL
PAH 610	USTAS4158-MW ~~14~~ 13	2 X 1 L Amber	4 deg. C.
Lead 6010	USTAS4158-MW ~~14~~ 13	1 X 500ml Poly	HN03
COMMENTS:			
PURGE DISCHARGED:	DRUM: ☐	DRUM#	SITE TREATMENT: [X]
OTHER: ☐			

 Shaw Environmental & Infrastructure, Inc.	WELL OR GROUND WATER DATA SHEET		PROJECT NUMBER: 125709
			PROJECT NAME: AS 4158
			WELL NO. USTAS4158-MW/4
			SAMPLE NO. USTAS4158-MW/4
PROJECT LOCATION: Camp Lejeune		LOGGER: Mark Martin	DATE 0900 9/28/08
PROJECT CONTACT: Mark Martin		SAMPLER: Mark Martin	TIME 0900
PHONE: 910-451-2390		WEATHER: Sunny 70's	
LEL:			Well Locked: [X] Yes
PID:		Sampling Device: Bailer	☐ No

FIELD MEASUREMENTS						
	1	2	3	4	Avg.	
PH	5.19	4.53	4.22	3.90		(STD)
Specific Conductivity	0.434	0.403	0.387	0.380		(m S/cm ^o)
Turbidity (Turb)	112.0	96.6	27.5	7.8		(NTU)
Dissolved Oxygen (DO)	5.03	5.00	4.58	2.74		(mg/l)
Temperature (Temp)	28.23	28.43	28.52	28.28		(°C)
ORP	250.6	300.9	311.2	323.3		

Depth to Bottom	177.60	(In) (Minus)	Depth to Water	123.96	(In) =	53.64	HT (in)
Depth to Bottom	1480	(Ft) (Minus)	Depth to Water	10.33	(Ft) =	4.47	HT (ft)

d = 2	MEASUREMENTS (IN INCHES)											
r = 1	Multiply Together						Vol.					
d/2 = 1	BOTTOM	TOP	Layer Thickness	r ²	Π	Cubic in.	Conversion Factor	EST. GALLONS		Purge Vol.	Vol. Purged	
TOP			53.64	1	3.14	168	.0043	0.7		2.2	2.5	
Middle					3.14		.0043					
Bottom					3.14		.0043					
Total					3.14		.0043					

ANALYTE	CONTAINER NUMBER	SIZE	PRESERVATIVE
VOC 602	USTAS4158-MW 14	3 X 40 ml	HCL
PAH 610	USTAS4158-MW 14	2 X 1 L Amber	4 deg. C.
Lead 6010	USTAS4158-MW 14	1 X 500ml Poly	HN03

COMMENTS:			
PURGE DISCHARGED:	DRUM: ☐	DRUM#	SITE TREATMENT: [X]
OTHER: ☐			

 Shaw Environmental & Infrastructure, Inc.	WELL OR GROUND WATER DATA SHEET		PROJECT NUMBER: 125709
			PROJECT NAME: AS 4158
			WELL NO. USTAS4158-MW/15
			SAMPLE NO. USTAS4158-MW/15
PROJECT LOCATION: Camp Lejeune		LOGGER: Mark Martin	DATE 9/28/08
PROJECT CONTACT: Mark Martin		SAMPLER: Mark Martin	TIME 0700
PHONE: 910-451-2390		WEATHER: Clear 70 F 95	
LEL:			Well Locked: [X] Yes
PID:		Sampling Device: Bailer	☐ No

FIELD MEASUREMENTS						
	1	2	3	4		
PH	4.03	3.70	3.66	3.65		(STD)
Specific Conductivity	0.278	0.283	0.283	0.283		(m S/cm ²)
Turbidity (Turb)	1046.1	374.5	76.5	4.9		(NTU)
Dissolved Oxygen (DO)	4.34	1.39	1.01	0.43		(mg/l)
Temperature (Temp)	26.66	26.93	27.01	27.98		(°C)
ORP	263.4	315.4	298.1	275.8		

Depth to Bottom	197.40	(In) (Minus)	Depth to Water	138.84	(In) =	58.56	HT (in)
Depth to Bottom	16.45	(Ft) (Minus)	Depth to Water	11.57	(Ft) =	4.88	HT (ft)

d = 2	MEASUREMENTS (IN INCHES)										
r = 1	Multiply Together					Vol.					
d/2 = 1	BOTTOM	TOP	Layer Thickness	r ²	Π	Cubic in.	Conversion Factor	EST. GALLONS		Purge Vol.	Vol. Purged
	TOP		58.56	1	3.14	184	.0043	0.8		2.4	2.5
	Middle				3.14		.0043				
	Bottom				3.14		.0043				
	Total				3.14		.0043				

ANALYTE	CONTAINER NUMBER	SIZE	PRESERVATIVE
VOC 602	USTAS4158-MW/15	3 X 40 ml	HCL
PAH 610	USTAS4158-MW/15	2 X 1 L Amber	4 deg. C.
Lead 6010	USTAS4158-MW/15	1 X 500ml Poly	HN03

COMMENTS:			
PURGE DISCHARGED:	DRUM: ☐	DRUM#	SITE TREATMENT: [X]
OTHER: ☐			

 Shaw Environmental & Infrastructure, Inc.	WELL OR GROUND WATER DATA SHEET		PROJECT NUMBER: 125709
			PROJECT NAME: AS 4158
			WELL NO. USTAS4158-MW 16
			SAMPLE NO. USTAS4158-MW 16
PROJECT LOCATION: Camp Lejeune		LOGGER: Mark Martin	DATE 9/30/08
PROJECT CONTACT: Mark Martin		SAMPLER: Mark Martin	TIME 0930
PHONE: 910-451-2390		WEATHER: PC 70-80	
LEL:			Well Locked: [X] Yes
PID:		Sampling Device: Bailer	☐ No

FIELD MEASUREMENTS						
	1	2	3	4	Avg.	
PH	6.39	6.25	6.24	6.24		(STD)
Specific Conductivity	0.986	0.980	0.978	0.979		(m S/cm ²)
Turbidity (Turb)	0.0	0.0	0.0	0.0		(NTU)
Dissolved Oxygen (DO)	6.41	5.27	3.18	2.27		(mg/l)
Temperature (Temp)	25.56	25.78	25.83	25.83		(°C)
ORP	129.8	120.4	110.7	109.8		

Depth to Bottom	587.40	(In) (Minus)	Depth to Water	120.84	(In)	=	466.56	HT (in)
Depth to Bottom	48.95	(Ft) (Minus)	Depth to Water	10.07	(Ft)	=	38.88	HT (ft)

d = 2	MEASUREMENTS (IN INCHES)									
r = 1	Multiply Together					Vol.				
d/2 = 1	BOTTOM	TOP	Layer Thickness	r ²	Π	Cubic in.	Conversion Factor	EST. GALLONS	Purge Vol.	Vol. Purged
	TOP		466.56	1	3.14	1465	.0043	6.3	18.9	20
	Middle				3.14		.0043			
	Bottom				3.14		.0043			
	Total				3.14		.0043			

ANALYTE	CONTAINER NUMBER	SIZE	PRESERVATIVE
VOC 602	USTAS4158-MW 16	3 X 40 ml	HCL
PAH 610	USTAS4158-MW 16	2 X 1 L Amber	4 deg. C.
Lead 6010	USTAS4158-MW 16	1 X 500ml Poly	HN03
COMMENTS:			
PURGE DISCHARGED:	DRUM: ☐	DRUM#	SITE TREATMENT: [X]
OTHER: ☐			

 Shaw Environmental & Infrastructure, Inc.	WELL OR GROUND WATER DATA SHEET		PROJECT NUMBER: 125709
			PROJECT NAME: AS 4158
			WELL NO. USTAS4158-MW 17
			SAMPLE NO. USTAS4158-MW 17
PROJECT LOCATION: Camp Lejeune		LOGGER: Mark Martin	DATE 9/30/08
PROJECT CONTACT: Mark Martin		SAMPLER: Mark Martin	TIME 1100
PHONE: 910-451-2390		WEATHER:	
LEL:			Well Locked: [X] Yes
PID:		Sampling Device: Bailer	☐ No

FIELD MEASUREMENTS						
	1	2	3	4	Avg.	
PH	6.69	6.93	7.13	7.13		(STD)
Specific Conductivity	0.418	0.453	0.452	0.452		(m S/cm ^o)
Turbidity (Turb)	0.0	0.0	0.0	0.0		(NTU)
Dissolved Oxygen (DO)	3.89	1.23	0.76	0.63		(mg/l)
Temperature (Temp)	25.38	25.41	25.41	25.42		(°C)
ORP	256.1	247.1	238.8	237.6		

Depth to Bottom	603.60	(In) (Minus)	Depth to Water	135.36	(In)	=	468.24	HT (in)
Depth to Bottom	50.30	(Ft) (Minus)	Depth to Water	11.28	(Ft)	=	39.02	HT (ft)

d= 2	MEASUREMENTS (IN INCHES)										
r= 1	Multiply Together					Vol.					
d/2= 1	BOTTOM	TOP	Layer Thickness	r ²	Π	Cubic in.	Conversion Factor	EST. GALLONS		Purge Vol.	Vol. Purged
TOP			468.24	1	3.14	1470	.0043	6.3		19	20
Middle					3.14		.0043				
Bottom					3.14		.0043				
Total					3.14		.0043				

ANALYTE	CONTAINER NUMBER	SIZE	PRESERVATIVE
VOC 602	USTAS4158-MW 17	3 X 40 ml	HCL
PAH 610	USTAS4158-MW 17	2 X 1 L Amber	4 deg. C.
Lead 6010	USTAS4158-MW 17	1 X 500ml Poly	HN03
COMMENTS:			
PURGE DISCHARGED:	DRUM: ☐	DRUM#	SITE TREATMENT: [X]
OTHER: ☐			

 Shaw Environmental & Infrastructure, Inc.	WELL OR GROUND WATER DATA SHEET		PROJECT NUMBER: 125709
			PROJECT NAME: AS 4158
			WELL NO. USTAS4158-MW/18
			SAMPLE NO. USTAS4158-MW/18
PROJECT LOCATION: Camp Lejeune		LOGGER: Mark Martin	DATE 9/28/08
PROJECT CONTACT: Mark Martin		SAMPLER: Mark Martin	TIME 0800
PHONE: 910-451-2390		WEATHER: 70's Clear Fog	
LEL:			Well Locked: [X] Yes
PID:		Sampling Device: Bailer	☐ No

FIELD MEASUREMENTS						
	1	2	3	4	Avg.	
PH	5.31	5.56	5.66	5.66		(STD)
Specific Conductivity	6003	0.072	0.110	0.111		(m S/cm°)
Turbidity (Turb)	123.9	0.0	0.0	0.0		(NTU)
Dissolved Oxygen (DO)	5.37	5.01	4.21	4.06		(mg/l)
Temperature (Temp)	26.70	27.12	26.55	26.58		(°C)
ORP	160.2	154.4	172.9	176.9		

Depth to Bottom	598.20	(In) (Minus)	Depth to Water	142.44	(In)	=	455.76	HT (in)
Depth to Bottom	49.85	(Ft) (Minus)	Depth to Water	11.87	(Ft)	=	37.98	HT (ft)

d = 2	MEASUREMENTS (IN INCHES)									
r = 1	Multiply Together					Vol.				
d/2 = 1	BOTTOM	TOP	Layer Thickness	r ²	Π	Cubic in.	Conversion Factor	EST. GALLONS	Purge Vol.	Vol. Purged
	TOP		455.76	1	3.14	1431	.0043	6.2	18.5	19
	Middle				3.14		.0043			
	Bottom				3.14		.0043			
	Total				3.14		.0043			

ANALYTE	CONTAINER NUMBER	SIZE	PRESERVATIVE
VOC 602	USTAS4158-MW 18	3 X 40 ml	HCL
PAH 610	USTAS4158-MW 18	2 X 1 L Amber	4 deg. C.
Lead 6010	USTAS4158-MW 18	1 X 500ml Poly	HN03

COMMENTS:			
PURGE DISCHARGED:	DRUM: ☐	DRUM#	SITE TREATMENT: [X]
OTHER: ☐			

Well ID	DTW
USTAS4158-MW01	9.04
USTAS4158-MW03	9.24
USTAS4158-MW04	9.73
USTAS4158-MW05	9.99
USTAS4158-MW06	9.97
USTAS4158-MW07	10.22
USTAS4158-MW08	10.69
USTAS4158-MW09	10.38
USTAS4158-MW10	11.39
USTAS4158-MW11	10.72
USTAS4158-MW13	12.16
USTAS4158-MW14	10.68
USTAS4158-MW15	11.80
USTAS4158-MW16	10.62
USTAS4158-MW17	11.36
USTAS4158-MW18	12.15



WELL OR GROUND WATER DATA SHEET

PROJECT NUMBER: 125709

PROJECT NAME: AS-4158

WELL NO.: USTAS4158-MW01

SAMPLE NO.: USTAS4158-MW01

PROJECT LOCATION: Camp Lejeune, NC

LOGGER: Mark Martin/John MacLeod

DATE: 02/25/09
(month/day/year)

PROJECT CONTACT: Mark Martin

SAMPLER: Mark Martin/John MacLeod

TIME: 1200
(military time)

PHONE: 910-451-2390

WEATHER: ☒ Sunny ☐ Cloudy ☐ Rainy ☐ Snow Temperature: 50 °F

LEL:

Well Locked: ☒ Yes ☐ No

PID:

Sampling Device: Bailer

FIELD MEASUREMENTS

	1	2	3	4		
pH	6.98	6.95	7.05	7.08		(STD)
Specific Conductivity	0.360	0.367	0.374	0.379		(m S/cm)
Turbidity (Turb)	487.9	1203.4	876.6	764.0		(NTU)
Dissolved Oxygen (DO)	2.26	4.33	4.66	4.87		(mg/l)
Temperature (Temp)	15.54	15.49	15.37	15.49		(°C)
ORP	-9.6	-25.2	-32.0	-33.3		

Depth to Bottom	195.96	(In) (Minus)	Depth to Water	108.48	(In)	=	87.48	HT (in)
Depth to Bottom	16.33	(Ft) (Minus)	Depth to Water	9.04	(Ft)	=	7.29	HT (ft)
Product in Well? ☐ Yes ☒ No								
Depth to Water		(Ft) (Minus)	Depth to Product		(Ft)	=		Product Thickness HT (ft)

d = 2		MEASUREMENTS (IN INCHES)									
r = 1		Multiply Together				Vol.					
d/2 = 1	BOTTOM	TOP	Layer Thickness	r ²	II	Cubic in.	Conversion Factor	EST. GALLONS		Purge Vol.	Vol. Purged
TOP				1	3.14	275	.0043	1.2		3.5	4.0
Middle					3.14		.0043				
Bottom					3.14		.0043				
Total					3.14		.0043				

ANALYTE	CONTAINER NUMBER	SIZE	PRESERVATIVE
VOC 8260	USTAS4158-MW01	3-40ml	HCL, 4°C
PAH	USTAS4158-MW01	2-1 Liter Amber	4°C

COMMENTS:

Well went dry during purging, and did not recharge? ☐ Yes ☒ NoBubbles in purge water? ☒ Yes ☐ No Organic Matter in Sample? ☒ Yes ☐ NoColor of Water: ☐ Clear ☒ Cloudy ☐ Rusty ☐ Black ☐ Other _____ If not clear, did water change to clear prior to sampling?
☐ Yes ☒ NoOdor? ☐ Yes ☒ No If yes, describe: _____Duplicate in Sample taken? ☐ Yes ☒ No

PURGE DISCHARGED:

DRUM: ☐

DRUM#

SITE TREATMENT: [X]

OTHER: ☐



WELL OR GROUND WATER DATA SHEET

PROJECT NUMBER: 125709

PROJECT NAME: AS-4158

WELL NO.: USTAS4158-MW 03

SAMPLE NO.: USTAS4158-MW03

PROJECT LOCATION: Camp Lejeune, NC

LOGGER: Mark Martin/John MacLeod

DATE: 02/25/09
(month/day/year)

PROJECT CONTACT: Mark Martin

SAMPLER: Mark Martin/John MacLeod

TIME: 1250
(military time)

PHONE: 910-451-2390

WEATHER: ☒ Sunny ☐ Cloudy ☐ Rainy ☐ Snow Temperature: 50°F

LEL:

Well Locked: ☒ Yes ☐ No

PID:

Sampling Device: Bailer

FIELD MEASUREMENTS

	1	2	3	4		
pH	6.96	6.08				(STD)
Specific Conductivity	0.231	0.219				(m S/cm)
Turbidity (Turb)	297.3	225.2				(NTU)
Dissolved Oxygen (DO)	3.25	0.41				(mg/l)
Temperature (Temp)	16.66	16.82				(°C)
ORP	-13.0	-29.1				

Depth to Bottom	207.00	(In) (Minus)	Depth to Water	110.88	(In)	=	96.12	HT (in)
Depth to Bottom	17.65	(Ft) (Minus)	Depth to Water	9.24	(Ft)	=	8.01	HT (ft)
Product in Well? ☐ Yes ☒ No								
Depth to Water		(Ft) (Minus)	Depth to Product		(Ft)	=		Product Thickness HT (ft)

d = 2 MEASUREMENTS (IN INCHES)											
r = 1 Multiply Together						Vol.					
d/2 = 1	BOTTOM	TOP	Layer Thickness	r ²	Π	Cubic in.	Conversion Factor	EST. GALLONS		Purge Vol.	Vol. Purged
TOP				1	3.14	302	.0043	1.3		3.9	2.0
Middle					3.14		.0043				
Bottom					3.14		.0043				
Total					3.14		.0043				

ANALYTE	CONTAINER NUMBER	SIZE	PRESERVATIVE
VOC 8260	USTAS4158-MW 03	3-40ml	HCL, 4°C
PAH	USTAS4158-MW 03	2-1 Liter Amber	4°C

COMMENTS:

Well went dry during purging, and did not recharge? ☐ Yes ☒ No Purged Dry 2x Vol.Bubbles in purge water? ☐ Yes ☒ No Organic Matter in Sample? ☐ Yes ☒ NoColor of Water: ☐ Clear ☒ Cloudy ☐ Rusty ☐ Black ☒ Other Brown If not clear, did water change to clear prior to sampling?
☒ Yes ☐ NoOdor? ☐ Yes ☒ No If yes, describe: _____Duplicate in Sample taken? ☐ Yes ☒ No

PURGE DISCHARGED:

DRUM: ☐

DRUM#

SITE TREATMENT: [X]

OTHER: ☐



WELL OR GROUND WATER DATA SHEET

PROJECT NUMBER: 125709

PROJECT NAME: AS-4158

WELL NO.: USTAS4158-MW04

SAMPLE NO.: USTAS4158-MW04

PROJECT LOCATION: Camp Lejeune, NC

LOGGER: Mark Martin/John MacLeod

DATE: 6/25/09
(month/day/year)

PROJECT CONTACT: Mark Martin

SAMPLER: Mark Martin/John MacLeod

TIME: 1000
(military time)

PHONE: 910-451-2390

WEATHER: ☒ Sunny ☐ Cloudy ☐ Rainy ☐ Snow Temperature: 50 °F

LEL:

Well Locked: ☒ Yes ☐ No

PID:

Sampling Device: Bailer

FIELD MEASUREMENTS

	1	2	3	4		
pH	7.48	7.35	7.27	7.13		(STD)
Specific Conductivity	0.192	0.182	0.168	0.162		(m S/cm)
Turbidity (Turb)	7.4	5.2	4.0	2.9		(NTU)
Dissolved Oxygen (DO)	1.83	0.76	0.92	0.90		(mg/l)
Temperature (Temp)	17.28	18.48	19.04	19.10		(°C)
ORP	-166.2	-156.2	-158.8	-147.0		

Depth to Bottom	193.32	(In) (Minus)	Depth to Water	116.76	(In)	=	76.56	HT (in)
Depth to Bottom	16.11	(Ft) (Minus)	Depth to Water	9.73	(Ft)	=	6.38	HT (ft)
Product in Well? ☐ Yes ☒ No								
Depth to Water		(Ft) (Minus)	Depth to Product		(Ft)	=		Product Thickness HT (ft)

d = 2 MEASUREMENTS (IN INCHES)

r = 1

Multiply Together

Vol.

d/2 = 1	BOTTOM	TOP	Layer Thickness	r ²	Π	Cubic in.	Conversion Factor	EST. GALLONS		Purge Vol.	Vol. Purged
TOP				1	3.14	240	.0043	1.0		3.1	3.5
Middle					3.14		.0043				
Bottom					3.14		.0043				
Total					3.14		.0043				

ANALYTE	CONTAINER NUMBER	SIZE	PRESERVATIVE
VOC 8260	USTAS4158-MW04	3-40ml	HCL, 4°C
PAH	USTAS4158-MW04	2-1 Liter Amber	4°C

COMMENTS:

Well went dry during purging, and did not recharge? ☐ Yes ☒ NoBubbles in purge water? ☒ Yes ☐ No Organic Matter in Sample? ☐ Yes ☒ NoColor of Water: ☒ Clear ☐ Cloudy ☐ Rusty ☐ Black ☐ Other _____ If not clear, did water change to clear prior to sampling?
☐ Yes ☐ NoOdor? ☐ Yes ☒ No If yes, describe: _____Duplicate in Sample taken? ☐ Yes ☒ No

PURGE DISCHARGED:

DRUM: ☐

DRUM#

SITE TREATMENT: [X]

OTHER: ☐

	WELL OR GROUND WATER DATA SHEET		PROJECT NUMBER: 125709
			PROJECT NAME: AS-4158
			WELL NO.: USTAS4158-MW05
			SAMPLE NO.: USTAS4158-MW 05
PROJECT LOCATION: Camp Lejeune, NC		LOGGER: Mark Martin/John MacLeod	DATE: 02/25/09 (month/day/year)
PROJECT CONTACT: Mark Martin		SAMPLER: Mark Martin/John MacLeod	TIME: 1100 (military time)
PHONE: 910-451-2390		WEATHER: ☒ Sunny ☐ Cloudy ☐ Rainy ☐ Snow Temperature: 50°F	
LEL:		Well Locked: ☒ Yes ☐ No	
PID:		Sampling Device: Bailor	

FIELD MEASUREMENTS						
	1	2	3	4		
pH	6.88	6.50	6.51	6.46		(STD)
Specific Conductivity	0.112	0.124	0.130	0.129		(m S/cm)
Turbidity (Turb)	129.6	160.3	51.8	37.0		(NTU)
Dissolved Oxygen (DO)	1.99	2.84	2.39	1.94		(mg/l)
Temperature (Temp)	15.08	14.72	15.39	15.82		(°C)
ORP	-57.6	-32.6	-37.0	-49.0		

Depth to Bottom	198.00	(In) (Minus)	Depth to Water	119.88	(In)	=	78.12	HT (in)
Depth to Bottom	16.50	(Ft) (Minus)	Depth to Water	9.99	(Ft)	=	6.51	HT (ft)
Product in Well? ☐ Yes ☒ No								
Depth to Water		(Ft) (Minus)	Depth to Product		(Ft)	=		Product Thickness HT (ft)

d = 2 MEASUREMENTS (IN INCHES)											
r = 1 Multiply Together											
d/2 = 1	BOTTOM	TOP	Layer Thickness	r ²	Π	Cubic in.	Conversion Factor	EST. GALLONS	Purge Vol.	Vol. Purged	
TOP				1	3.14	245	.0043	1.1	3.2	3.5	
Middle					3.14		.0043				
Bottom					3.14		.0043				
Total					3.14		.0043				

ANALYTE	CONTAINER NUMBER	SIZE	PRESERVATIVE
VOC 8260	USTAS4158-MW 05	3-40ml	HCL, 4°C
PAH	USTAS4158-MW 05	2-1 Liter Amber	4°C
COMMENTS:			
Well went dry during purging, and did not recharge? ☐ Yes ☒ No			
Bubbles in purge water? ☒ Yes ☐ No Organic Matter in Sample? ☐ Yes ☒ No			
Color of Water: ☐ Clear ☐ Cloudy ☐ Rusty ☐ Black ☒ Other <u>Brown</u> If not clear, did water change to clear prior to sampling? ☐ Yes ☒ No			
Odor? ☐ Yes ☒ No If yes, describe: _____			
Duplicate in Sample taken? ☐ Yes ☒ No			
PURGE DISCHARGED: DRUM: ☐ DRUM# SITE TREATMENT: [X]			
OTHER: ☐			



WELL OR GROUND WATER DATA SHEET

PROJECT NUMBER: 125709
PROJECT NAME: AS-4158
WELL NO.: USTAS4158-MW66
SAMPLE NO.: USTAS4158-MW 66

PROJECT LOCATION: Camp Lejeune, NC	LOGGER: Mark Martin/John MacLeod	DATE: 02/25/09 (month/day/year)
PROJECT CONTACT: Mark Martin	SAMPLER: Mark Martin/John MacLeod	TIME: 1415 (military time)
PHONE: 910-451-2390	WEATHER: ☒ Sunny ☐ Cloudy ☐ Rainy ☐ Snow Temperature: 50 °F	
LEL:	Well Locked: ☒ Yes ☐ No	
PID:	Sampling Device: Bailer	

FIELD MEASUREMENTS

	1	2	3	4	
pH	6.10	5.99	5.98	5.99	(STD)
Specific Conductivity	0.335	0.344	0.338	0.359	(m S/cm)
Turbidity (Turb)	20.7	3.7	3.6	3.7	(NTU)
Dissolved Oxygen (DO)	1.63	0.52	0.42	0.33	(mg/l)
Temperature (Temp)	17.42	17.78	18.10	18.68	(°C)
ORP	45.1	42.4	40.1	28.2	

Depth to Bottom	188.16	(In) (Minus)	Depth to Water	119.64	(In)	=	68.52	HT (in)
Depth to Bottom	15.68	(Ft) (Minus)	Depth to Water	9.97	(Ft)	=	5.71	HT (ft)
Product in Well? ☐ Yes ☒ No								
Depth to Water		(Ft) (Minus)	Depth to Product		(Ft)	=		Product Thickness HT (ft)

d = 2 MEASUREMENTS (IN INCHES)											
r = 1 Multiply Together											
d/2 = 1	BOTTOM	TOP	Layer Thickness	r ²	Π	Vol. Cubic in.	Conversion Factor	EST. GALLONS	Purge Vol.	Vol. Purged	
TOP				1	3.14	215	.0043	0.9	2.8	3.0	
Middle					3.14		.0043				
Bottom					3.14		.0043				
Total					3.14		.0043				

ANALYTE	CONTAINER NUMBER	SIZE	PRESERVATIVE
VOC 8260	USTAS4158-MW06	3-40ml	HCL, 4°C
PAH	USTAS4158-MW06	2-1 Liter Amber	4°C

COMMENTS:

Well went dry during purging, and did not recharge? ☐ Yes ☒ No
Bubbles in purge water? ☒ Yes ☐ No Organic Matter in Sample? ☐ Yes ☒ No
Color of Water: ☒ Clear ☐ Cloudy ☐ Rusty ☐ Black ☐ Other _____ If not clear, did water change to clear prior to sampling?
☐ Yes ☐ No
Odor? ☐ Yes ☒ No If yes, describe: _____
Duplicate in Sample taken? ☐ Yes ☒ No

PURGE DISCHARGED:	DRUM: ☐	DRUM#	SITE TREATMENT: [X]
OTHER: ☐			



WELL OR GROUND WATER DATA SHEET

PROJECT NUMBER: 125709

PROJECT NAME: AS-4158

WELL NO.: USTAS4158-MW 07

SAMPLE NO.: USTAS4158-MW 07

PROJECT LOCATION: Camp Lejeune, NC

LOGGER: Mark Martin/John MacLeod

DATE: 02/24/09
(month/day/year)

PROJECT CONTACT: Mark Martin

SAMPLER: Mark Martin/John MacLeod

TIME: 1500
(military time)

PHONE: 910-451-2390

WEATHER: ☒ Sunny ☐ Cloudy ☐ Rainy ☐ Snow Temperature: 40°F

LEL:

Well Locked: ☒ Yes ☐ No

PID:

Sampling Device: Bailer

FIELD MEASUREMENTS

	1	2	3	4		
pH	5.28	5.42	5.39	5.39		(STD)
Specific Conductivity	0.124	0.119	0.116	0.117		(m S/cm)
Turbidity (Turb)	911.0	129.4	33.0	27.6		(NTU)
Dissolved Oxygen (DO)	8.61	8.41	8.10	8.10		(mg/l)
Temperature (Temp)	16.07	16.01	16.53	16.50		(°C)
ORP	105.9	103.5	100.6	99.4		

Depth to Bottom	176.52	(In) (Minus)	Depth to Water	122.64	(In) =	53.88	HT (in)
Depth to Bottom	14.71	(Ft) (Minus)	Depth to Water	10.22	(Ft) =	4.49	HT (ft)
Product in Well? ☐ Yes ☒ No							
Depth to Water		(Ft) (Minus)	Depth to Product		(Ft) =		Product Thickness HT (ft)

d = 2 MEASUREMENTS (IN INCHES)											
r = 1 Multiply Together						Vol.					
d/2 = 1	BOTTOM	TOP	Layer Thickness	r ²	Π	Cubic in.	Conversion Factor	EST. GALLONS		Purge Vol.	Vol. Purged
	TOP			1	3.14	169	.0043	0.7		2.2	2.5
	Middle				3.14		.0043				
	Bottom				3.14		.0043				
	Total				3.14		.0043				

ANALYTE	CONTAINER NUMBER	SIZE	PRESERVATIVE
VOC 8260	USTAS4158-MW 07	3-40ml	HCL, 4°C
PAH	USTAS4158-MW 07	2-1 Liter Amber	4°C

COMMENTS:

Well went dry during purging, and did not recharge? ☐ Yes ☒ NoBubbles in purge water? ☒ Yes ☐ NoOrganic Matter in Sample? ☐ Yes ☒ NoColor of Water: ☐ Clear ☐ Cloudy ☐ Rusty ☐ Black ☒ Other opaque brown If not clear, did water change to clear prior to sampling?
☒ Yes ☐ NoOdor? ☐ Yes ☒ No If yes, describe: _____Duplicate in Sample taken? ☐ Yes ☒ No

PURGE DISCHARGED:

DRUM: ☐

DRUM#

SITE TREATMENT: [X]

OTHER: ☐



WELL OR GROUND WATER DATA SHEET

PROJECT NUMBER: 125709
PROJECT NAME: AS-4158
WELL NO.: USTAS4158-MW08
SAMPLE NO.: USTAS4158-MW08

PROJECT LOCATION: Camp Lejeune, NC	LOGGER: Mark Martin/John MacLeod	DATE: 02/25/09 (month/day/year)
PROJECT CONTACT: Mark Martin	SAMPLER: Mark Martin/John MacLeod	TIME: 1500 (military time)
PHONE: 910-451-2390	WEATHER: ☒ Sunny ☐ Cloudy ☐ Rainy ☐ Snow Temperature: 50°F	
LEL:	Well Locked: ☒ Yes ☐ No	
PID:	Sampling Device: Bailer	

FIELD MEASUREMENTS

	1	2	3	4		
pH	6.01	5.21	5.10	5.07		(STD)
Specific Conductivity	0.085	0.084	0.085	0.087		(m S/cm)
Turbidity (Turb)	29.8	25.9	33.7	34.3		(NTU)
Dissolved Oxygen (DO)	3.33	1.77	1.04	0.68		(mg/l)
Temperature (Temp)	18.45	18.94	19.17	19.47		(°C)
ORP	80.7	119.2	126.3	125.1		

Depth to Bottom	195.89	(In) (Minus)	Depth to Water	128.28	(In)	=	67.56	HT (in)
Depth to Bottom	16.32	(Ft) (Minus)	Depth to Water	10.69	(Ft)	=	5.63	HT (ft)
Product in Well? ☐ Yes ☒ No								
Depth to Water		(Ft) (Minus)	Depth to Product		(Ft)	=		Product Thickness HT (ft)

d = 2 MEASUREMENTS (IN INCHES)											
r = 1 Multiply Together											
d/2 = 1	BOTTOM	TOP	Layer Thickness	r ²	Π	Cubic in.	Conversion Factor	EST. GALLONS		Purge Vol.	Vol. Purged
TOP				1	3.14	212	.0043	0.9		2.7	3.0
Middle					3.14		.0043				
Bottom					3.14		.0043				
Total					3.14		.0043				

ANALYTE	CONTAINER NUMBER	SIZE	PRESERVATIVE
VOC 8260	USTAS4158-MW08	3-40ml	HCL, 4°C
PAH	USTAS4158-MW08	2-1 Liter Amber	4°C
COMMENTS:			
Well went dry during purging, and did not recharge? ☐ Yes ☒ No			
Bubbles in purge water? ☒ Yes ☐ No Organic Matter in Sample? ☐ Yes ☒ No			
Color of Water: ☒ Clear ☐ Cloudy ☐ Rusty ☐ Black ☐ Other _____ If not clear, did water change to clear prior to sampling? ☐ Yes ☐ No			
Odor? ☐ Yes ☒ No If yes, describe: _____			
Duplicate in Sample taken? ☐ Yes ☒ No			
PURGE DISCHARGED:	DRUM: ☐	DRUM#	SITE TREATMENT: [X]
OTHER: ☐			



WELL OR GROUND WATER DATA SHEET

PROJECT NUMBER: 125709
PROJECT NAME: AS-4158
WELL NO.: USTAS4158-MW09
SAMPLE NO.: USTAS4158-MW09

PROJECT LOCATION: Camp Lejeune, NC	LOGGER: Mark Martin/John MacLeod	DATE: 02/26/09 (month/day/year)
PROJECT CONTACT: Mark Martin	SAMPLER: Mark Martin/John MacLeod	TIME: 1215 (military time)
PHONE: 910-451-2390	WEATHER: ☒ Sunny ☐ Cloudy ☐ Rainy ☐ Snow Temperature: 50°F	
LEL:	Well Locked: ☒ Yes ☐ No	
PID:	Sampling Device: Bailer	

FIELD MEASUREMENTS

	1	2	3	4	
pH	4.52				(STD)
Specific Conductivity	1.317				(m S/cm)
Turbidity (Turb)	34.4				(NTU)
Dissolved Oxygen (DO)	0.77				(mg/l)
Temperature (Temp)	20.42				(°C)
ORP	-40.4				

Depth to Bottom	189.84	(In) (Minus)	Depth to Water	124.56	(In)	=	65.28	HT (in)
Depth to Bottom	15.82	(Ft) (Minus)	Depth to Water	10.38	(Ft)	=	5.44	HT (ft)
Product in Well? ☒ Yes ☐ No								
Depth to Water		(Ft) (Minus)	Depth to Product		(Ft)	=		Product Thickness HT (ft)

d = 2 MEASUREMENTS (IN INCHES)											
r = 1 Multiply Together						Vol.					
d/2 = 1	BOTTOM	TOP	Layer Thickness	r ²	Π	Cubic in.	Conversion Factor	EST. GALLONS		Purge Vol.	Vol. Purged
TOP				1	3.14	205	.0043	0.9		2.6	3.0
Middle					3.14		.0043				
Bottom					3.14		.0043				
Total					3.14		.0043				

ANALYTE	CONTAINER NUMBER	SIZE	PRESERVATIVE
VOC 8260	USTAS4158-MW09	3-40ml	HCL, 4°C
PAH	USTAS4158-MW09	2-1 Liter Amber	4°C

COMMENTS:

Well went dry during purging, and did not recharge? ☒ Yes ☐ No Purged Dry 1x Vol.

Bubbles in purge water? ☒ Yes ☐ No Organic Matter in Sample? ☐ Yes ☐ No

Color of Water: ☒ Clear ☐ Cloudy ☐ Rusty ☐ Black ☐ Other _____ If not clear, did water change to clear prior to sampling?
☐ Yes ☐ No

Odor? ☒ Yes ☐ No If yes, describe: Sulphur (Rotten Eggs)

Duplicate in Sample taken? ☐ Yes ☒ No

PURGE DISCHARGED: DRUM: ☐ DRUM# SITE TREATMENT: [X]

OTHER: ☐



WELL OR GROUND WATER DATA SHEET

PROJECT NUMBER: 125709

PROJECT NAME: AS-4158

WELL NO.: USTAS4158-MW 10

SAMPLE NO.: USTAS4158-MW 10

PROJECT LOCATION: Camp Lejeune, NC

LOGGER: Mark Martin/John MacLeod

DATE: 02/26/09

PROJECT CONTACT: Mark Martin

SAMPLER: Mark Martin/John MacLeod

TIME: 0845 1045

PHONE: 910-451-2390

WEATHER: ☒ Sunny ☐ Cloudy ☐ Rainy ☐ Snow Temperature: 50°F

LEL:

Well Locked: ☒ Yes ☐ No

PID:

Sampling Device: Bailer

FIELD MEASUREMENTS

	1	2	3	4	
pH	6.00	4.31	4.25	4.23	(STD)
Specific Conductivity	0.236	0.240	0.241	0.240	(m S/cm)
Turbidity (Turb)	67.8	63.9	76.8	67.3	(NTU)
Dissolved Oxygen (DO)	9.04	8.68	8.60	8.48	(mg/l)
Temperature (Temp)	19.82	19.97	20.13	20.19	(°C)
ORP	104.3	166.7	172.1	176.5	

Depth to Bottom	190.49	(In) (Minus)	Depth to Water	136.68	(In)	=	53.76	HT (in)
Depth to Bottom	15.87	(Ft) (Minus)	Depth to Water	11.39	(Ft)	=	4.48	HT (ft)
Product in Well? ☐ Yes ☒ No								
Depth to Water		(Ft) (Minus)	Depth to Product		(Ft)	=		Product Thickness HT (ft)

d = 2	MEASUREMENTS (IN INCHES)									
r = 1	Multiply Together					Vol.				
d/2 = 1	BOTTOM	TOP	Layer Thickness	r ²	Π	Cubic in.	Conversion Factor	EST. GALLONS	Purge Vol.	Vol. Purged
TOP				1	3.14	169	.0043	0.7	2.2	2.5
Middle					3.14		.0043			
Bottom					3.14		.0043			
Total					3.14		.0043			

ANALYTE	CONTAINER NUMBER	SIZE	PRESERVATIVE
VOC 8260	USTAS4158-MW10	3-40ml	HCL, 4°C
PAH	USTAS4158-MW10	2-1 Liter Amber	4°C

COMMENTS:

Well went dry during purging, and did not recharge? ☐ Yes ☒ NoBubbles in purge water? ☒ Yes ☐ No Organic Matter in Sample? ☐ Yes ☒ NoColor of Water: ☐ Clear ☒ Cloudy ☐ Rusty ☐ Black ☐ Other _____ If not clear, did water change to clear prior to sampling? ☐ Yes ☒ NoOdor? ☐ Yes ☒ No If yes, describe: _____Duplicate in Sample taken? ☐ Yes ☒ No

PURGE DISCHARGED:

DRUM: ☐

DRUM#

SITE TREATMENT: [X]

OTHER: ☐



WELL OR GROUND WATER DATA SHEET

PROJECT NUMBER: 125709
PROJECT NAME: AS-4158
WELL NO.: USTAS4158-MW 11
SAMPLE NO.: USTAS4158-MW 11

PROJECT LOCATION: Camp Lejeune, NC	LOGGER: Mark Martin/John MacLeod	DATE: 02/26/09 (month/day/year)
PROJECT CONTACT: Mark Martin	SAMPLER: Mark Martin/John MacLeod	TIME: 1315 (military time)
PHONE: 910-451-2390	WEATHER: ☒ Sunny ☐ Cloudy ☐ Rainy ☐ Snow Temperature: 50°F	
LEL:	Well Locked: ☒ Yes ☐ No	
PID:	Sampling Device: Bailor	

FIELD MEASUREMENTS

	1	2	3	4	
pH	3.44	3.53	3.55	3.54	(STD)
Specific Conductivity	0.578	0.531	0.514	0.513	(m S/cm)
Turbidity (Turb)	0.1	0.5	0.2	0.1	(NTU)
Dissolved Oxygen (DO)	2.41	0.50	0.36	0.34	(mg/l)
Temperature (Temp)	20.21	20.10	20.30	20.38	(°C)
ORP	32.0	2.4	-11.3	-15.0	

Depth to Bottom	197.40	(In) (Minus)	Depth to Water	128.64	(In)	=	68.76	HT (in)
Depth to Bottom	16.45	(Ft) (Minus)	Depth to Water	10.72	(Ft)	=	5.73	HT (ft)
Product in Well? ☐ Yes ☒ No								
Depth to Water		(Ft) (Minus)	Depth to Product		(Ft)	=		Product Thickness HT (ft)

d = 2 MEASUREMENTS (IN INCHES)											
r = 1 Multiply Together											
d/2 = 1	BOTTOM	TOP	Layer Thickness	r ²	Π	Cubic in.	Conversion Factor	EST. GALLONS		Purge Vol.	Vol. Purged
TOP				1	3.14	216	.0043	0.9		2.8	3.0
Middle					3.14		.0043				
Bottom					3.14		.0043				
Total					3.14		.0043				

ANALYTE	CONTAINER NUMBER	SIZE	PRESERVATIVE
VOC 8260	USTAS4158-MW 11	3-40ml	HCL, 4°C
PAH	USTAS4158-MW 11	2-1 Liter Amber	4°C
COMMENTS:			
Well went dry during purging, and did not recharge? ☐ Yes ☒ No			
Bubbles in purge water? ☒ Yes ☐ No Organic Matter in Sample? ☐ Yes ☒ No			
Color of Water: ☒ Clear ☐ Cloudy ☐ Rusty ☐ Black ☐ Other _____ If not clear, did water change to clear prior to sampling? ☐ Yes ☐ No			
Odor? ☐ Yes ☐ No If yes, describe: _____			
Duplicate in Sample taken? ☐ Yes ☒ No			
PURGE DISCHARGED:	DRUM: ☐	DRUM#	SITE TREATMENT: [X]
OTHER: ☐			



WELL OR GROUND WATER DATA SHEET

PROJECT NUMBER: 125709
PROJECT NAME: AS-4158
WELL NO.: USTAS4158-MW13
SAMPLE NO.: USTAS4158-MW13

PROJECT LOCATION: Camp Lejeune, NC	LOGGER: Mark Martin/John MacLeod	DATE: 02/24/09 (month/day/year)
PROJECT CONTACT: Mark Martin	SAMPLER: Mark Martin/John MacLeod	TIME: 1415 (military time)
PHONE: 910-451-2390	WEATHER: ☒ Sunny ☐ Cloudy ☐ Rainy ☐ Snow Temperature: 40°F	
LEL:	Well Locked: ☒ Yes ☐ No	
PID:	Sampling Device: Bailor	

FIELD MEASUREMENTS

	1	2	3	4		
pH	3.43	3.37	3.38	3.39		(STD)
Specific Conductivity	0.637	0.652	0.662	0.667		(m S/cm)
Turbidity (Turb)	38.8	27.3	8.0	5.8		(NTU)
Dissolved Oxygen (DO)	5.12	3.33	3.39	0.61		(mg/l)
Temperature (Temp)	18.97	19.53	19.89	19.97		(°C)
ORP	140.6	141.9	119.1	112.1		

Depth to Bottom	201.00	(In) (Minus)	Depth to Water	145.92	(In)	=	55.08	HT (in)
Depth to Bottom	16.75	(Ft) (Minus)	Depth to Water	12.16	(Ft)	=	4.59	HT (ft)
Product in Well? ☐ Yes ☒ No								
Depth to Water		(Ft) (Minus)	Depth to Product		(Ft)	=		Product Thickness HT (ft)

d = 2	MEASUREMENTS (IN INCHES)									
r = 1	Multiply Together						Vol.			
d/2 = 1	BOTTOM	TOP	Layer Thickness	r ²	Π	Cubic in.	Conversion Factor	EST. GALLONS	Purge Vol.	Vol. Purged
TOP				1	3.14	173	.0043	0.7	2.2	2.5
Middle					3.14		.0043			
Bottom					3.14		.0043			
Total					3.14		.0043			

ANALYTE	CONTAINER NUMBER	SIZE	PRESERVATIVE
VOC 8260	USTAS4158-MW13	3-40ml	HCL, 4°C
PAH	USTAS4158-MW13	2-1 Liter Amber	4°C

COMMENTS:

Well went dry during purging, and did not recharge? ☐ Yes ☒ No

Bubbles in purge water? ☒ Yes ☐ No Organic Matter in Sample? ☐ Yes ☒ No

Color of Water: ☐ Clear ☒ Cloudy ☐ Rusty ☐ Black ☐ Other _____ If not clear, did water change to clear prior to sampling?
☐ Yes ☒ No

Odor? ☐ Yes ☒ No If yes, describe: _____

Duplicate in Sample taken? ☐ Yes ☒ No

PURGE DISCHARGED: DRUM: ☐ DRUM# SITE TREATMENT: [X]

OTHER: ☐

	WELL OR GROUND WATER DATA SHEET		PROJECT NUMBER: 125709
			PROJECT NAME: AS-4158
			WELL NO.: USTAS4158-MW 14
			SAMPLE NO.: USTAS4158-MW 14
PROJECT LOCATION: Camp Lejeune, NC		LOGGER: Mark Martin/John MacLeod	DATE: 03/04/09 (month/day/year)
PROJECT CONTACT: Mark Martin		SAMPLER: Mark Martin/John MacLeod	TIME: 0820 (military time)
PHONE: 910-451-2390		WEATHER: ☒ Sunny ☐ Cloudy ☐ Rainy ☐ Snow Temperature: 40°F	
LEL:		Well Locked: ☒ Yes ☐ No	
PID:		Sampling Device: Bailor	

FIELD MEASUREMENTS						
	1	2	3	4		
pH	4.53					(STD)
Specific Conductivity	0.384					(m S/cm)
Turbidity (Turb)	97.9					(NTU)
Dissolved Oxygen (DO)	7.46					(mg/l)
Temperature (Temp)	19.2					(°C)
ORP	98.3					

Depth to Bottom	189.60	(In) (Minus)	Depth to Water	128.16	(In)	=	61.44	HT (in)
Depth to Bottom	15.80	(Ft) (Minus)	Depth to Water	10.68	(Ft)	=	5.12	HT (ft)
Product in Well? ☐ Yes ☒ No								
Depth to Water		(Ft) (Minus)	Depth to Product		(Ft)	=		Product Thickness HT (ft)

d = 2 MEASUREMENTS (IN INCHES)											
r = 1 Multiply Together											
d/2 = 1	BOTTOM	TOP	Layer Thickness	r ²	Π	Cubic in.	Conversion Factor	EST. GALLONS	Purge Vol.	Vol. Purged	
TOP				1	3.14	143	.0043	0.8	2.5	0.5	
Middle					3.14		.0043				
Bottom					3.14		.0043				
Total					3.14		.0043				

ANALYTE	CONTAINER NUMBER	SIZE	PRESERVATIVE
VOC 8260	USTAS4158-MW14	3-40ml	HCL, 4°C
PAH	USTAS4158-MW14	2-1Liter Amber	4°C

COMMENTS:			
Well went dry during purging, and did not recharge? ☐ Yes ☒ No Purged dry 1x Volume, then recharged			
Bubbles in purge water? ☒ Yes ☐ No Organic Matter in Sample? ☐ Yes ☒ No			
Color of Water: ☐ Clear ☐ Cloudy ☐ Rusty ☐ Black ☒ Other Brown If not clear, did water change to clear prior to sampling? ☐ Yes ☒ No			
Odor? ☐ Yes ☒ No If yes, describe: _____			
Duplicate in Sample taken? ☐ Yes ☒ No			
PURGE DISCHARGED:	DRUM: ☐	DRUM#	SITE TREATMENT: [X]
OTHER: ☐			



WELL OR GROUND WATER DATA SHEET

PROJECT NUMBER: 125709
PROJECT NAME: AS-4158
WELL NO.: USTAS4158-MW15
SAMPLE NO.: USTAS4158-MW15

PROJECT LOCATION: Camp Lejeune, NC	LOGGER: Mark Martin/John MacLeod	DATE: 02/24/09
PROJECT CONTACT: Mark Martin	SAMPLER: Mark Martin/John MacLeod	TIME: 10:30
PHONE: 910-451-2390	WEATHER: ☒ Sunny ☐ Cloudy ☐ Rainy ☐ Snow Temperature: 40°F	
LEL:	Well Locked: ☒ Yes ☐ No	
PID:	Sampling Device: Bailor	

FIELD MEASUREMENTS

	1	2	3	4	
pH	4.08	3.84	3.59		(STD)
Specific Conductivity	0.286	0.370	0.415		(m S/cm)
Turbidity (Turb)	14.6	11.3	48.3		(NTU)
Dissolved Oxygen (DO)	9.22	8.22	8.30		(mg/l)
Temperature (Temp)	17.47	18.65	18.45		(°C)
ORP	200.6	261.1	295.7		

Depth to Bottom	197.40	(In) (Minus)	Depth to Water	141.60	(In)	=	55.80	HT (in)
Depth to Bottom	16.45	(Ft) (Minus)	Depth to Water	11.80	(Ft)	=	4.65	HT (ft)
Product in Well? ☐ Yes ☒ No								
Depth to Water		(Ft) (Minus)	Depth to Product		(Ft)	=		Product Thickness HT (ft)

d = 2 MEASUREMENTS (IN INCHES)											
r = 1 Multiply Together											
d/2 = 1	BOTTOM	TOP	Layer Thickness	r ²	Π	Cubic in.	Conversion Factor	EST. GALLONS	Purge Vol.	Vol. Purged	
TOP				1	3.14	175	.0043	0.8	2.3	2.5	
Middle					3.14		.0043				
Bottom					3.14		.0043				
Total					3.14		.0043				

ANALYTE	CONTAINER NUMBER	SIZE	PRESERVATIVE
VOC 8260	USTAS4158-MW15	3-40ml	HCL, 4°C
PAH	USTAS4158-MW15	2-1 Liter Amber	4°C

COMMENTS:

Well went dry during purging, and did not recharge? ☐ Yes ☒ No *Well Recharged.*

Bubbles in purge water? ☐ Yes ☒ No Organic Matter in Sample? ☐ Yes ☒ No

Color of Water: ☒ Clear ☐ Cloudy ☐ Rusty ☐ Black ☐ Other _____ If not clear, did water change to clear prior to sampling? ☐ Yes ☐ No

Odor? ☐ Yes ☒ No If yes, describe: _____

Duplicate in Sample taken? ☐ Yes ☒ No

PURGE DISCHARGED:	DRUM: ☐	DRUM#	SITE TREATMENT: [X]
OTHER: ☐			

	WELL OR GROUND WATER DATA SHEET		PROJECT NUMBER: 125709	
			PROJECT NAME: AS-4158	
			WELL NO.: USTAS4158-MW 16	
			SAMPLE NO.: USTAS4158-MW 16	
PROJECT LOCATION: Camp Lejeune, NC		LOGGER: Mark Martin/John MacLeod		DATE: 02/25/09 (month/day/year)
PROJECT CONTACT: Mark Martin		SAMPLER: Mark Martin/John MacLeod		TIME: 0900 (military time)
PHONE: 910-451-2390		WEATHER: ☒ Sunny ☐ Cloudy ☐ Rainy ☐ Snow Temperature: 50 °F		
LEL:				Well Locked: ☒ Yes ☐ No
PID:		Sampling Device: Bailer		

FIELD MEASUREMENTS						
	1	2	3	4		
pH	6.82	6.81	6.87	6.82		(STD)
Specific Conductivity	0.100	1.156	1.116	1.143		(m S/cm)
Turbidity (Turb)	36.3	28.4	30.2	40.6		(NTU)
Dissolved Oxygen (DO)	0.31	0.39	0.52	0.35		(mg/l)
Temperature (Temp)	19.62	20.37	19.44	20.28		(°C)
ORP	-61.9	-127.7	-118.0	-125.7		

Depth to Bottom	587.16	(In) (Minus)	Depth to Water	127.44	(In)	=	459.72	HT (in)
Depth to Bottom	48.93	(Ft) (Minus)	Depth to Water	10.62	(Ft)	=	38.31	HT (ft)
Product in Well? ☐ Yes ☒ No								
Depth to Water		(Ft) (Minus)	Depth to Product		(Ft)	=		Product Thickness HT (ft)

d = 2 MEASUREMENTS (IN INCHES)											
r = 1											
Multiply Together											
d/2 = 1	BOTTOM	TOP	Layer Thickness	r ²	Π	Cubic in.	Conversion Factor	EST. GALLONS	Purge Vol.	Vol. Purged	
TOP				1	3.14	1444	.0043	6.2	18.6	19.0	
Middle					3.14		.0043				
Bottom					3.14		.0043				
Total					3.14		.0043				

ANALYTE	CONTAINER NUMBER	SIZE	PRESERVATIVE
VOC 8260	USTAS4158-MW 16	3-40ml	HCL, 4°C
PAH	USTAS4158-MW 16	2-1 Liter Amber	4°C

COMMENTS:			
Well went dry during purging, and did not recharge? ☐ Yes ☒ No			
Bubbles in purge water? ☒ Yes ☐ No Organic Matter in Sample? ☒ Yes ☐ No			
Color of Water: ☒ Clear ☐ Cloudy ☐ Rusty ☐ Black ☐ Other _____ If not clear, did water change to clear prior to sampling? ☐ Yes ☐ No			
Odor? ☐ Yes ☒ No If yes, describe: _____			
Duplicate in Sample taken? ☐ Yes ☒ No			
PURGE DISCHARGED:	DRUM: ☐	DRUM#	SITE TREATMENT: [X]
OTHER: ☐			



WELL OR GROUND WATER DATA SHEET

PROJECT NUMBER: 125709

PROJECT NAME: AS-4158

WELL NO.: USTAS4158-MW17

SAMPLE NO.: USTAS4158-MW17

PROJECT LOCATION: Camp Lejeune, NC

LOGGER: Mark Martin/John MacLeod

DATE: 6/26/09

PROJECT CONTACT: Mark Martin

SAMPLER: Mark Martin/John MacLeod

TIME: 11:30

PHONE: 910-451-2390

WEATHER: ☒ Sunny ☐ Cloudy ☐ Rainy ☐ Snow Temperature: 50°F

LEL:

Well Locked: ☒ Yes ☐ No

PID:

Sampling Device: Bailer

FIELD MEASUREMENTS

	1	2	3	4		
pH	6.51	7.08	6.89	6.86		(STD)
Specific Conductivity	0.448	0.589	0.641	0.664		(m S/cm)
Turbidity (Turb)	6.6	0.5	0.2	1.6		(NTU)
Dissolved Oxygen (DO)	7.03	0.86	0.50	0.93		(mg/l)
Temperature (Temp)	22.46	22.47	21.97	21.99		(°C)
ORP	69.2	9.8	-107.9	-111.0		

Depth to Bottom	595.80	(In) (Minus)	Depth to Water	136.32	(In)	=	459.48	HT (in)
Depth to Bottom	49.65	(Ft) (Minus)	Depth to Water	11.36	(Ft)	=	38.29	HT (ft)
Product in Well? ☐ Yes ☒ No								
Depth to Water		(Ft) (Minus)	Depth to Product		(Ft)	=		Product Thickness HT (ft)

d = 2 MEASUREMENTS (IN INCHES)

r = 1

Multiply Together

Vol.

d/2 = 1	BOTTOM	TOP	Layer Thickness	r ²	Π	Cubic in.	Conversion Factor	EST. GALLONS	Purge Vol.	Vol. Purged
TOP				1	3.14	1443	.0043	6.2	18.6	19.0
Middle					3.14		.0043			
Bottom					3.14		.0043			
Total					3.14		.0043			

ANALYTE	CONTAINER NUMBER	SIZE	PRESERVATIVE
VOC 8260	USTAS4158-MW17	3-40ml	HCL, 4°C
PAH	USTAS4158-MW17	2-1 Liter Amber	4°C
COMMENTS:			
Well went dry during purging, and did not recharge? ☐ Yes ☒ No			
Bubbles in purge water? ☒ Yes ☐ No Organic Matter in Sample? ☐ Yes ☒ No			
Color of Water: ☒ Clear ☐ Cloudy ☐ Rusty ☐ Black ☐ Other _____ If not clear, did water change to clear prior to sampling? ☐ Yes ☐ No			
Odor? ☐ Yes ☒ No If yes, describe: _____			
Duplicate in Sample taken? ☐ Yes ☒ No			
PURGE DISCHARGED:	DRUM: ☐	DRUM#	SITE TREATMENT: [X]
OTHER: ☐			

	WELL OR GROUND WATER DATA SHEET		PROJECT NUMBER: 125709
			PROJECT NAME: AS-4158
			WELL NO.: USTAS4158-MW18
			SAMPLE NO.: USTAS4158-MW18
PROJECT LOCATION: Camp Lejeune, NC		LOGGER: Mark Martin/John MacLeod	DATE: 02/29/09 (month/day/year)
PROJECT CONTACT: Mark Martin		SAMPLER: Mark Martin/John MacLeod	TIME: 1300 (military time)
PHONE: 910-451-2390		WEATHER: ☒ Sunny ☐ Cloudy ☐ Rainy ☐ Snow Temperature: 40°F	
LEL:		Well Locked: ☒ Yes ☐ No	
PID:		Sampling Device: Bailor	

FIELD MEASUREMENTS						
	1	2	3	4		
pH	6.39	6.28	6.06	6.03		(STD)
Specific Conductivity	0.117	0.104	0.096	0.092		(m S/cm)
Turbidity (Turb)	0.3	0.5	0.6	0.9		(NTU)
Dissolved Oxygen (DO)	6.67	2.65	1.03	0.89		(mg/l)
Temperature (Temp)	21.08	21.66	21.39	21.29		(°C)
ORP	124.9	111.7	76.7	64.9		

Depth to Bottom	598.20	(In) (Minus)	Depth to Water	145.80	(In)	=	452.40	HT (in)
Depth to Bottom	49.85	(Ft) (Minus)	Depth to Water	12.15	(Ft)	=	37.70	HT (ft)
Product in Well? ☐ Yes ☒ No								
Depth to Water		(Ft) (Minus)	Depth to Product		(Ft)	=		Product Thickness HT (ft)

d = 2	MEASUREMENTS (IN INCHES)									
r = 1	Multiply Together					Vol.				
d/2 = 1	BOTTOM	TOP	Layer Thickness	r ²	Π	Cubic in.	Conversion Factor	EST. GALLONS	Purge Vol.	Vol. Purged
TOP				1	3.14	1421	.0043	6.1	18.3	19.0
Middle					3.14		.0043			
Bottom					3.14		.0043			
Total					3.14		.0043			

ANALYTE	CONTAINER NUMBER	SIZE	PRESERVATIVE
VOC 8260	USTAS4158-MW 18	3-40ml	HCL, 4°C
PAH	USTAS4158-MW 18	2-1 Liter Amber	4°C
COMMENTS:			
Well went dry during purging, and did not recharge? ☐ Yes ☒ No			
Bubbles in purge water? ☒ Yes ☐ No Organic Matter in Sample? ☐ Yes ☒ No			
Color of Water: ☒ Clear ☐ Cloudy ☐ Rusty ☐ Black ☐ Other _____ If not clear, did water change to clear prior to sampling? ☐ Yes ☒ No			
Odor? ☐ Yes ☒ No If yes, describe: _____			
Duplicate in Sample taken? ☐ Yes ☒ No			
PURGE DISCHARGED: DRUM: ☐ DRUM# SITE TREATMENT: [X]			
OTHER: ☐			

APPENDIX B

GROUNDWATER LABORATORY ANALYTICAL REPORTS



IT'S ALL IN THE CHEMISTRY

10/08/08

Technical Report for

Shaw E & I, Inc.

Camp Lejeune-AS-4158

125709

Accutest Job Number: F60430

Sampling Dates: 09/28/08 - 09/29/08

Report to:

Shaw E & I, Inc.
500 E Main St Suite 1630
Norfolk, VA 23510
natasha.sullivan@shawgrp.com

ATTN: Natasha Sullivan

Total number of pages in report: **68**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.


Harry Behzadi, Ph.D.
Laboratory Director

Client Service contact: Heather Wandrey 407-425-6700

Certifications: FL (DOH E83510), NC (573), NJ (FL002), MA (FL946), IA (366), LA (03051), KS (E-10327), SC, AK
This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.

Table of Contents

-1-

Section 1: Sample Summary	3
Section 2: Sample Results	4
2.1: F60430-1: USTAS4158-MW01	5
2.2: F60430-2: USTAS4158-MW03	9
2.3: F60430-3: USTAS4158-MW06	13
2.4: F60430-4: USTAS4158-MW07	17
2.5: F60430-5: USTAS4158-MW08	21
2.6: F60430-6: USTAS4158-MW10	25
2.7: F60430-7: USTAS4158-MW11	29
2.8: F60430-8: USTAS4158-MW13	33
2.9: F60430-9: USTAS4158-MW14	37
2.10: F60430-10: USTAS4158-MW15	41
2.11: F60430-11: USTAS4158-MW18	45
Section 3: Misc. Forms	49
3.1: Chain of Custody	50
Section 4: GC/MS Volatiles - QC Data Summaries	52
4.1: Method Blank Summary	53
4.2: Blank Spike Summary	55
4.3: Matrix Spike/Matrix Spike Duplicate Summary	57
Section 5: GC/MS Semi-volatiles - QC Data Summaries	59
5.1: Method Blank Summary	60
5.2: Blank Spike Summary	61
5.3: Matrix Spike/Matrix Spike Duplicate Summary	62
Section 6: Metals Analysis - QC Data Summaries	63
6.1: Prep QC MP15211: Pb	64



Sample Summary

Shaw E & I, Inc.

Job No: F60430

Camp Lejeune-AS-4158
Project No: 125709

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
F60430-1	09/29/08	10:00 MM	09/30/08	AQ	Ground Water	USTAS4158-MW01
F60430-2	09/29/08	09:00 MM	09/30/08	AQ	Ground Water	USTAS4158-MW03
F60430-3	09/29/08	08:00 MM	09/30/08	AQ	Ground Water	USTAS4158-MW06
F60430-4	09/28/08	12:00 MM	09/30/08	AQ	Ground Water	USTAS4158-MW07
F60430-5	09/28/08	13:00 MM	09/30/08	AQ	Ground Water	USTAS4158-MW08
F60430-6	09/28/08	11:00 MM	09/30/08	AQ	Ground Water	USTAS4158-MW10
F60430-7	09/28/08	14:00 MM	09/30/08	AQ	Ground Water	USTAS4158-MW11
F60430-8	09/28/08	10:00 MM	09/30/08	AQ	Ground Water	USTAS4158-MW13
F60430-9	09/28/08	09:00 MM	09/30/08	AQ	Ground Water	USTAS4158-MW14
F60430-10	09/28/08	07:00 MM	09/30/08	AQ	Ground Water	USTAS4158-MW15
F60430-11	09/28/08	08:00 MM	09/30/08	AQ	Ground Water	USTAS4158-MW18



Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: USTAS4158-MW01
Lab Sample ID: F60430-1
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 09/29/08
Date Received: 09/30/08
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J041630.D	1	10/02/08	KW	n/a	n/a	VJ2605
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.40	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	2.0	0.48	ug/l	
67-66-3	Chloroform	ND	1.0	0.28	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.54	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.43	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.61	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.26	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.32	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW01
Lab Sample ID: F60430-1
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 09/29/08
Date Received: 09/30/08
Percent Solids: n/a

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	3.0	1.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		87-116%
17060-07-0	1,2-Dichloroethane-D4	96%		76-127%
2037-26-5	Toluene-D8	104%		86-112%
460-00-4	4-Bromofluorobenzene	100%		84-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW01
Lab Sample ID: F60430-1
Matrix: AQ - Ground Water
Method: EPA 625 EPA 625
Project: Camp Lejeune-AS-4158

Date Sampled: 09/29/08
Date Received: 09/30/08
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X003273.D	1	10/06/08	NAF	10/03/08	OP26697	SX178
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	0.96	ug/l	
208-96-8	Acenaphthylene	ND	4.8	0.96	ug/l	
120-12-7	Anthracene	ND	4.8	0.96	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.96	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.96	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.96	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	0.96	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	0.96	ug/l	
218-01-9	Chrysene	ND	4.8	0.96	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	0.96	ug/l	
206-44-0	Fluoranthene	ND	4.8	0.96	ug/l	
86-73-7	Fluorene	ND	4.8	0.96	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.1	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	0.96	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	0.96	ug/l	
91-20-3	Naphthalene	ND	4.8	0.96	ug/l	
85-01-8	Phenanthrene	ND	4.8	0.96	ug/l	
129-00-0	Pyrene	ND	4.8	0.96	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	61%		42-108%
321-60-8	2-Fluorobiphenyl	64%		40-106%
1718-51-0	Terphenyl-d14	61%		39-121%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	USTAS4158-MW01	Date Sampled:	09/29/08
Lab Sample ID:	F60430-1	Date Received:	09/30/08
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-AS-4158		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	3.5 B	5.0	2.0	ug/l	1	09/30/08	10/01/08 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA6768
(2) Prep QC Batch: MP15211

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: USTAS4158-MW03
Lab Sample ID: F60430-2
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 09/29/08
Date Received: 09/30/08
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J041631.D	1	10/02/08	KW	n/a	n/a	VJ2605
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.40	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	2.0	0.48	ug/l	
67-66-3	Chloroform	ND	1.0	0.28	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.54	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.43	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.61	ug/l	
75-09-2	Methylene chloride	1.3	5.0	1.0	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.26	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.32	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW03
Lab Sample ID: F60430-2
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 09/29/08
Date Received: 09/30/08
Percent Solids: n/a

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	3.0	1.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		87-116%
17060-07-0	1,2-Dichloroethane-D4	98%		76-127%
2037-26-5	Toluene-D8	103%		86-112%
460-00-4	4-Bromofluorobenzene	101%		84-120%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW03
Lab Sample ID: F60430-2
Matrix: AQ - Ground Water
Method: EPA 625 EPA 625
Project: Camp Lejeune-AS-4158

Date Sampled: 09/29/08
Date Received: 09/30/08
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X003274.D	1	10/06/08	NAF	10/03/08	OP26697	SX178
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	0.96	ug/l	
208-96-8	Acenaphthylene	ND	4.8	0.96	ug/l	
120-12-7	Anthracene	ND	4.8	0.96	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.96	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.96	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.96	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	0.96	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	0.96	ug/l	
218-01-9	Chrysene	ND	4.8	0.96	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	0.96	ug/l	
206-44-0	Fluoranthene	ND	4.8	0.96	ug/l	
86-73-7	Fluorene	ND	4.8	0.96	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.1	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	0.96	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	0.96	ug/l	
91-20-3	Naphthalene	ND	4.8	0.96	ug/l	
85-01-8	Phenanthrene	ND	4.8	0.96	ug/l	
129-00-0	Pyrene	ND	4.8	0.96	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	53%		42-108%
321-60-8	2-Fluorobiphenyl	54%		40-106%
1718-51-0	Terphenyl-d14	60%		39-121%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	USTAS4158-MW03	Date Sampled:	09/29/08
Lab Sample ID:	F60430-2	Date Received:	09/30/08
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-AS-4158		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	4.1 B	5.0	2.0	ug/l	1	09/30/08	10/01/08 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA6768
(2) Prep QC Batch: MP15211

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: USTAS4158-MW06
Lab Sample ID: F60430-3
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 09/29/08
Date Received: 09/30/08
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J041632.D	1	10/02/08	KW	n/a	n/a	VJ2605
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.40	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	2.0	0.48	ug/l	
67-66-3	Chloroform	ND	1.0	0.28	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.54	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.43	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.61	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.26	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.32	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	USTAS4158-MW06	Date Sampled:	09/29/08
Lab Sample ID:	F60430-3	Date Received:	09/30/08
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 624		
Project:	Camp Lejeune-AS-4158		

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	3.0	1.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		87-116%
17060-07-0	1,2-Dichloroethane-D4	97%		76-127%
2037-26-5	Toluene-D8	103%		86-112%
460-00-4	4-Bromofluorobenzene	99%		84-120%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	USTAS4158-MW06	Date Sampled:	09/29/08
Lab Sample ID:	F60430-3	Date Received:	09/30/08
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 625 EPA 625		
Project:	Camp Lejeune-AS-4158		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X003275.D	1	10/06/08	NAF	10/03/08	OP26697	SX178
Run #2							

	Initial Volume	Final Volume
Run #1	1030 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.9	0.97	ug/l	
208-96-8	Acenaphthylene	ND	4.9	0.97	ug/l	
120-12-7	Anthracene	ND	4.9	0.97	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.9	0.97	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.9	0.97	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.9	0.97	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.9	0.97	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.9	0.97	ug/l	
218-01-9	Chrysene	ND	4.9	0.97	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.9	0.97	ug/l	
206-44-0	Fluoranthene	ND	4.9	0.97	ug/l	
86-73-7	Fluorene	ND	4.9	0.97	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.9	1.1	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.9	0.97	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.9	0.97	ug/l	
91-20-3	Naphthalene	ND	4.9	0.97	ug/l	
85-01-8	Phenanthrene	ND	4.9	0.97	ug/l	
129-00-0	Pyrene	ND	4.9	0.97	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	69%		42-108%
321-60-8	2-Fluorobiphenyl	71%		40-106%
1718-51-0	Terphenyl-d14	63%		39-121%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	USTAS4158-MW06	Date Sampled:	09/29/08
Lab Sample ID:	F60430-3	Date Received:	09/30/08
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-AS-4158		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	42.4	5.0	2.0	ug/l	1	09/30/08	10/01/08 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA6768
(2) Prep QC Batch: MP15211

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: USTAS4158-MW07
Lab Sample ID: F60430-4
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 09/28/08
Date Received: 09/30/08
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J041633.D	1	10/02/08	KW	n/a	n/a	VJ2605
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.55	1.0	0.40	ug/l	J
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	2.0	0.48	ug/l	
67-66-3	Chloroform	ND	1.0	0.28	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.54	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.43	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.61	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether ^a	0.42	1.0	0.26	ug/l	J
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.26	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.32	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	USTAS4158-MW07	Date Sampled:	09/28/08
Lab Sample ID:	F60430-4	Date Received:	09/30/08
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 624		
Project:	Camp Lejeune-AS-4158		

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	3.0	1.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		87-116%
17060-07-0	1,2-Dichloroethane-D4	99%		76-127%
2037-26-5	Toluene-D8	104%		86-112%
460-00-4	4-Bromofluorobenzene	101%		84-120%

(a) Associated BS recovery outside control limits.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW07
Lab Sample ID: F60430-4
Matrix: AQ - Ground Water
Method: EPA 625 EPA 625
Project: Camp Lejeune-AS-4158

Date Sampled: 09/28/08
Date Received: 09/30/08
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X003276.D	1	10/06/08	NAF	10/03/08	OP26697	SX178
Run #2							

	Initial Volume	Final Volume
Run #1	1030 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.9	0.97	ug/l	
208-96-8	Acenaphthylene	ND	4.9	0.97	ug/l	
120-12-7	Anthracene	ND	4.9	0.97	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.9	0.97	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.9	0.97	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.9	0.97	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.9	0.97	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.9	0.97	ug/l	
218-01-9	Chrysene	ND	4.9	0.97	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.9	0.97	ug/l	
206-44-0	Fluoranthene	ND	4.9	0.97	ug/l	
86-73-7	Fluorene	ND	4.9	0.97	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.9	1.1	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.9	0.97	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.9	0.97	ug/l	
91-20-3	Naphthalene	ND	4.9	0.97	ug/l	
85-01-8	Phenanthrene	ND	4.9	0.97	ug/l	
129-00-0	Pyrene	ND	4.9	0.97	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	69%		42-108%
321-60-8	2-Fluorobiphenyl	71%		40-106%
1718-51-0	Terphenyl-d14	72%		39-121%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	USTAS4158-MW07	Date Sampled:	09/28/08
Lab Sample ID:	F60430-4	Date Received:	09/30/08
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-AS-4158		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	2.0 U	5.0	2.0	ug/l	1	09/30/08	10/01/08 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA6768
(2) Prep QC Batch: MP15211

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: USTAS4158-MW08
Lab Sample ID: F60430-5
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 09/28/08
Date Received: 09/30/08
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J041634.D	1	10/02/08	KW	n/a	n/a	VJ2605
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.40	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	2.0	0.48	ug/l	
67-66-3	Chloroform	ND	1.0	0.28	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.54	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.43	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.61	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.26	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.32	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	USTAS4158-MW08	Date Sampled:	09/28/08
Lab Sample ID:	F60430-5	Date Received:	09/30/08
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 624		
Project:	Camp Lejeune-AS-4158		

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	3.0	1.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		87-116%
17060-07-0	1,2-Dichloroethane-D4	99%		76-127%
2037-26-5	Toluene-D8	102%		86-112%
460-00-4	4-Bromofluorobenzene	99%		84-120%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW08
Lab Sample ID: F60430-5
Matrix: AQ - Ground Water
Method: EPA 625 EPA 625
Project: Camp Lejeune-AS-4158

Date Sampled: 09/28/08
Date Received: 09/30/08
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X003277.D	1	10/06/08	NAF	10/03/08	OP26697	SX178
Run #2							

	Initial Volume	Final Volume
Run #1	1020 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.9	0.98	ug/l	
208-96-8	Acenaphthylene	ND	4.9	0.98	ug/l	
120-12-7	Anthracene	ND	4.9	0.98	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.9	0.98	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.9	0.98	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.9	0.98	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.9	0.98	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.9	0.98	ug/l	
218-01-9	Chrysene	ND	4.9	0.98	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.9	0.98	ug/l	
206-44-0	Fluoranthene	ND	4.9	0.98	ug/l	
86-73-7	Fluorene	ND	4.9	0.98	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.9	1.1	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.9	0.98	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.9	0.98	ug/l	
91-20-3	Naphthalene	ND	4.9	0.98	ug/l	
85-01-8	Phenanthrene	ND	4.9	0.98	ug/l	
129-00-0	Pyrene	ND	4.9	0.98	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	63%		42-108%
321-60-8	2-Fluorobiphenyl	64%		40-106%
1718-51-0	Terphenyl-d14	66%		39-121%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	USTAS4158-MW08	Date Sampled:	09/28/08
Lab Sample ID:	F60430-5	Date Received:	09/30/08
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-AS-4158		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	6.4	5.0	2.0	ug/l	1	09/30/08	10/01/08 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA6768
(2) Prep QC Batch: MP15211

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: USTAS4158-MW10
Lab Sample ID: F60430-6
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 09/28/08
Date Received: 09/30/08
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J041635.D	1	10/02/08	KW	n/a	n/a	VJ2605
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.56	1.0	0.40	ug/l	J
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	2.0	0.48	ug/l	
67-66-3	Chloroform	ND	1.0	0.28	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.54	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.43	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.61	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether ^a	0.43	1.0	0.26	ug/l	J
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.26	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.32	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW10
Lab Sample ID: F60430-6
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 09/28/08
Date Received: 09/30/08
Percent Solids: n/a

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	3.0	1.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		87-116%
17060-07-0	1,2-Dichloroethane-D4	100%		76-127%
2037-26-5	Toluene-D8	104%		86-112%
460-00-4	4-Bromofluorobenzene	100%		84-120%

(a) Associated BS recovery outside control limits.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW10
Lab Sample ID: F60430-6
Matrix: AQ - Ground Water
Method: EPA 625 EPA 625
Project: Camp Lejeune-AS-4158

Date Sampled: 09/28/08**Date Received:** 09/30/08**Percent Solids:** n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X003278.D	1	10/06/08	NAF	10/03/08	OP26697	SX178
Run #2							

	Initial Volume	Final Volume
Run #1	1030 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.9	0.97	ug/l	
208-96-8	Acenaphthylene	ND	4.9	0.97	ug/l	
120-12-7	Anthracene	ND	4.9	0.97	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.9	0.97	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.9	0.97	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.9	0.97	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.9	0.97	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.9	0.97	ug/l	
218-01-9	Chrysene	ND	4.9	0.97	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.9	0.97	ug/l	
206-44-0	Fluoranthene	ND	4.9	0.97	ug/l	
86-73-7	Fluorene	ND	4.9	0.97	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.9	1.1	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.9	0.97	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.9	0.97	ug/l	
91-20-3	Naphthalene	ND	4.9	0.97	ug/l	
85-01-8	Phenanthrene	ND	4.9	0.97	ug/l	
129-00-0	Pyrene	ND	4.9	0.97	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	68%		42-108%
321-60-8	2-Fluorobiphenyl	71%		40-106%
1718-51-0	Terphenyl-d14	66%		39-121%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	USTAS4158-MW10	Date Sampled:	09/28/08
Lab Sample ID:	F60430-6	Date Received:	09/30/08
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-AS-4158		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	2.5 B	5.0	2.0	ug/l	1	09/30/08	10/01/08 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA6768
(2) Prep QC Batch: MP15211

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: USTAS4158-MW11
Lab Sample ID: F60430-7
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 09/28/08
Date Received: 09/30/08
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J041636.D	1	10/02/08	KW	n/a	n/a	VJ2605
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.40	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	2.0	0.48	ug/l	
67-66-3	Chloroform	ND	1.0	0.28	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.54	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.43	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.61	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.26	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.32	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW11
Lab Sample ID: F60430-7
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 09/28/08
Date Received: 09/30/08
Percent Solids: n/a

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	3.0	1.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		87-116%
17060-07-0	1,2-Dichloroethane-D4	100%		76-127%
2037-26-5	Toluene-D8	102%		86-112%
460-00-4	4-Bromofluorobenzene	101%		84-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW11
Lab Sample ID: F60430-7
Matrix: AQ - Ground Water
Method: EPA 625 EPA 625
Project: Camp Lejeune-AS-4158

Date Sampled: 09/28/08

Date Received: 09/30/08

Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X003281.D	1	10/06/08	NAF	10/03/08	OP26697	SX178
Run #2							

	Initial Volume	Final Volume
Run #1	1030 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.9	0.97	ug/l	
208-96-8	Acenaphthylene	ND	4.9	0.97	ug/l	
120-12-7	Anthracene	ND	4.9	0.97	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.9	0.97	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.9	0.97	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.9	0.97	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.9	0.97	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.9	0.97	ug/l	
218-01-9	Chrysene	ND	4.9	0.97	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.9	0.97	ug/l	
206-44-0	Fluoranthene	ND	4.9	0.97	ug/l	
86-73-7	Fluorene	ND	4.9	0.97	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.9	1.1	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.9	0.97	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.9	0.97	ug/l	
91-20-3	Naphthalene	ND	4.9	0.97	ug/l	
85-01-8	Phenanthrene	ND	4.9	0.97	ug/l	
129-00-0	Pyrene	ND	4.9	0.97	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	63%		42-108%
321-60-8	2-Fluorobiphenyl	64%		40-106%
1718-51-0	Terphenyl-d14	65%		39-121%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	USTAS4158-MW11	Date Sampled:	09/28/08
Lab Sample ID:	F60430-7	Date Received:	09/30/08
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-AS-4158		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	5.0	5.0	2.0	ug/l	1	09/30/08	10/01/08 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA6768
(2) Prep QC Batch: MP15211

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: USTAS4158-MW13
Lab Sample ID: F60430-8
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 09/28/08
Date Received: 09/30/08
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J041637.D	1	10/02/08	KW	n/a	n/a	VJ2605
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	18.4	1.0	0.40	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	2.0	0.48	ug/l	
67-66-3	Chloroform	ND	1.0	0.28	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.54	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.43	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.61	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether ^a	75.7	1.0	0.26	ug/l	J
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.26	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.32	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW13
Lab Sample ID: F60430-8
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 09/28/08
Date Received: 09/30/08
Percent Solids: n/a

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	3.0	1.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		87-116%
17060-07-0	1,2-Dichloroethane-D4	98%		76-127%
2037-26-5	Toluene-D8	104%		86-112%
460-00-4	4-Bromofluorobenzene	100%		84-120%

(a) Associated BS recovery outside control limits.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW13
Lab Sample ID: F60430-8
Matrix: AQ - Ground Water
Method: EPA 625 EPA 625
Project: Camp Lejeune-AS-4158

Date Sampled: 09/28/08
Date Received: 09/30/08
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X003282.D	1	10/06/08	NAF	10/03/08	OP26697	SX178
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	0.96	ug/l	
208-96-8	Acenaphthylene	ND	4.8	0.96	ug/l	
120-12-7	Anthracene	ND	4.8	0.96	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.96	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.96	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.96	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	0.96	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	0.96	ug/l	
218-01-9	Chrysene	ND	4.8	0.96	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	0.96	ug/l	
206-44-0	Fluoranthene	ND	4.8	0.96	ug/l	
86-73-7	Fluorene	ND	4.8	0.96	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.1	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	0.96	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	0.96	ug/l	
91-20-3	Naphthalene	ND	4.8	0.96	ug/l	
85-01-8	Phenanthrene	ND	4.8	0.96	ug/l	
129-00-0	Pyrene	ND	4.8	0.96	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	61%		42-108%
321-60-8	2-Fluorobiphenyl	63%		40-106%
1718-51-0	Terphenyl-d14	64%		39-121%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	USTAS4158-MW13	Date Sampled:	09/28/08
Lab Sample ID:	F60430-8	Date Received:	09/30/08
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-AS-4158		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	6.1	5.0	2.0	ug/l	1	09/30/08	10/01/08 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA6768
(2) Prep QC Batch: MP15211

RL = Reporting Limit
MDL = Method Detection Limit
U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: USTAS4158-MW14
Lab Sample ID: F60430-9
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 09/28/08
Date Received: 09/30/08
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J041638.D	1	10/02/08	KW	n/a	n/a	VJ2605
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.40	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	2.0	0.48	ug/l	
67-66-3	Chloroform	ND	1.0	0.28	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.54	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.43	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.61	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.26	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.32	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW14
Lab Sample ID: F60430-9
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 09/28/08
Date Received: 09/30/08
Percent Solids: n/a

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	3.0	1.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		87-116%
17060-07-0	1,2-Dichloroethane-D4	102%		76-127%
2037-26-5	Toluene-D8	105%		86-112%
460-00-4	4-Bromofluorobenzene	101%		84-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW14
Lab Sample ID: F60430-9
Matrix: AQ - Ground Water
Method: EPA 625 EPA 625
Project: Camp Lejeune-AS-4158

Date Sampled: 09/28/08
Date Received: 09/30/08
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X003283.D	1	10/06/08	NAF	10/03/08	OP26697	SX178
Run #2							

	Initial Volume	Final Volume
Run #1	1030 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.9	0.97	ug/l	
208-96-8	Acenaphthylene	ND	4.9	0.97	ug/l	
120-12-7	Anthracene	ND	4.9	0.97	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.9	0.97	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.9	0.97	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.9	0.97	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.9	0.97	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.9	0.97	ug/l	
218-01-9	Chrysene	ND	4.9	0.97	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.9	0.97	ug/l	
206-44-0	Fluoranthene	ND	4.9	0.97	ug/l	
86-73-7	Fluorene	ND	4.9	0.97	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.9	1.1	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.9	0.97	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.9	0.97	ug/l	
91-20-3	Naphthalene	ND	4.9	0.97	ug/l	
85-01-8	Phenanthrene	ND	4.9	0.97	ug/l	
129-00-0	Pyrene	ND	4.9	0.97	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	71%		42-108%
321-60-8	2-Fluorobiphenyl	72%		40-106%
1718-51-0	Terphenyl-d14	68%		39-121%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	USTAS4158-MW14	Date Sampled:	09/28/08
Lab Sample ID:	F60430-9	Date Received:	09/30/08
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-AS-4158		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	11.6	5.0	2.0	ug/l	1	09/30/08	10/01/08 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA6768
(2) Prep QC Batch: MP15211

RL = Reporting Limit
MDL = Method Detection Limit
U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	USTAS4158-MW15	Date Sampled:	09/28/08
Lab Sample ID:	F60430-10	Date Received:	09/30/08
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 624		
Project:	Camp Lejeune-AS-4158		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J041639.D	1	10/02/08	KW	n/a	n/a	VJ2605
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.40	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	2.0	0.48	ug/l	
67-66-3	Chloroform	ND	1.0	0.28	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.54	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.43	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.61	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.26	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.32	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	USTAS4158-MW15	Date Sampled:	09/28/08
Lab Sample ID:	F60430-10	Date Received:	09/30/08
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 624		
Project:	Camp Lejeune-AS-4158		

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	3.0	1.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		87-116%
17060-07-0	1,2-Dichloroethane-D4	104%		76-127%
2037-26-5	Toluene-D8	104%		86-112%
460-00-4	4-Bromofluorobenzene	98%		84-120%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	USTAS4158-MW15	Date Sampled:	09/28/08
Lab Sample ID:	F60430-10	Date Received:	09/30/08
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 625 EPA 625		
Project:	Camp Lejeune-AS-4158		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X003284.D	1	10/06/08	NAF	10/03/08	OP26697	SX178
Run #2							

	Initial Volume	Final Volume
Run #1	1030 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.9	0.97	ug/l	
208-96-8	Acenaphthylene	ND	4.9	0.97	ug/l	
120-12-7	Anthracene	ND	4.9	0.97	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.9	0.97	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.9	0.97	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.9	0.97	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.9	0.97	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.9	0.97	ug/l	
218-01-9	Chrysene	ND	4.9	0.97	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.9	0.97	ug/l	
206-44-0	Fluoranthene	ND	4.9	0.97	ug/l	
86-73-7	Fluorene	ND	4.9	0.97	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.9	1.1	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.9	0.97	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.9	0.97	ug/l	
91-20-3	Naphthalene	ND	4.9	0.97	ug/l	
85-01-8	Phenanthrene	ND	4.9	0.97	ug/l	
129-00-0	Pyrene	ND	4.9	0.97	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	70%		42-108%
321-60-8	2-Fluorobiphenyl	73%		40-106%
1718-51-0	Terphenyl-d14	70%		39-121%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW15
Lab Sample ID: F60430-10
Matrix: AQ - Ground Water
Project: Camp Lejeune-AS-4158

Date Sampled: 09/28/08
Date Received: 09/30/08
Percent Solids: n/a

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	14.9	5.0	2.0	ug/l	1	09/30/08	10/01/08 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA6768

(2) Prep QC Batch: MP15211

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	USTAS4158-MW18	Date Sampled:	09/28/08
Lab Sample ID:	F60430-11	Date Received:	09/30/08
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 624		
Project:	Camp Lejeune-AS-4158		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J041640.D	1	10/02/08	KW	n/a	n/a	VJ2605
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.40	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	2.0	0.48	ug/l	
67-66-3	Chloroform	ND	1.0	0.28	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.54	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.43	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.61	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.26	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.32	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW18
Lab Sample ID: F60430-11
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 09/28/08
Date Received: 09/30/08
Percent Solids: n/a

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	3.0	1.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		87-116%
17060-07-0	1,2-Dichloroethane-D4	102%		76-127%
2037-26-5	Toluene-D8	102%		86-112%
460-00-4	4-Bromofluorobenzene	101%		84-120%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	USTAS4158-MW18	Date Sampled:	09/28/08
Lab Sample ID:	F60430-11	Date Received:	09/30/08
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 625 EPA 625		
Project:	Camp Lejeune-AS-4158		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X003285.D	1	10/06/08	NAF	10/03/08	OP26697	SX178
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	0.96	ug/l	
208-96-8	Acenaphthylene	ND	4.8	0.96	ug/l	
120-12-7	Anthracene	ND	4.8	0.96	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.96	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.96	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.96	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	0.96	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	0.96	ug/l	
218-01-9	Chrysene	ND	4.8	0.96	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	0.96	ug/l	
206-44-0	Fluoranthene	ND	4.8	0.96	ug/l	
86-73-7	Fluorene	ND	4.8	0.96	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.1	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	0.96	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	0.96	ug/l	
91-20-3	Naphthalene	ND	4.8	0.96	ug/l	
85-01-8	Phenanthrene	ND	4.8	0.96	ug/l	
129-00-0	Pyrene	ND	4.8	0.96	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	67%		42-108%
321-60-8	2-Fluorobiphenyl	70%		40-106%
1718-51-0	Terphenyl-d14	70%		39-121%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW18
Lab Sample ID: F60430-11
Matrix: AQ - Ground Water
Project: Camp Lejeune-AS-4158

Date Sampled: 09/28/08
Date Received: 09/30/08
Percent Solids: n/a

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	2.0 U	5.0	2.0	ug/l	1	09/30/08	10/01/08 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA6768

(2) Prep QC Batch: MP15211

RL = Reporting Limit
 MDL = Method Detection Limit

U = Indicates a result < MDL
 B = Indicates a result > = MDL but < RL



Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Chain of Custody

CHAIN-OF-CUSTODY RECORD

COC Number:
125709-USTAS4158-092809



Shaw Environmental & Infrastructure, Inc.

F60430

Shaw E & I - Piney Green Rd. Lot 203 Bld 626 - 910-451-2390										Receiving LAB: Accutest										
Project Name					Project Location					Analysis Desired										
CAMP LEJEUNE -AS-4158					CAMP LEJEUNE, NC															
Project Number		Contact			P.O. Number			Reviewed by												
125709		Mark Martin																		
Client Rep					Project Manager															
US NAVY - LANTDIV					Joe Colella															
Item No.	Sample Number	Date	Time	Comp	Grab	Sample Description	Number of Containers	601/602	625 SVOCs for PAH	3030C Lead										
1	USTAS4158-MW01	9/29/08	10:00		X	USTAS4158-MW01	6	X	X	X										
2	USTAS4158-MW03	9/29/08	9:00		X	USTAS4158-MW02	6	X	X	X										
3	USTAS4158-MW06	9/29/08	8:00		X	USTAS4158-MW05	6	X	X	X										
4	USTAS4158-MW07	9/28/08	12:00		X	USTAS4158-MW06	6	X	X	X										
5	USTAS4158-MW08	9/28/08	13:00		X	USTAS4158-MW07	6	X	X	X										
6	USTAS4158-MW10	9/28/08	11:00		X	USTAS4158-MW09	6	X	X	X										
7	USTAS4158-MW11	9/28/08	14:00		X	USTAS4158-MW10	6	X	X	X										
8	USTAS4158-MW13	9/28/08	10:00		X	USTAS4158-MW01	6	X	X	X										
9	USTAS4158-MW14	9/28/08	9:00		X	USTAS4158-MW02	6	X	X	X										
10	USTAS4158-MW15	9/28/08	7:00		X	USTAS4158-MW03	6	X	X	X										
11	USTAS4158-MW18	9/28/08	8:00		X	USTAS4158-MW06	6	X	X	X										

Transfer Number	Item Number	Transfers Relinquished By	Transfers Accepted By	Date	Time	Remarks
1	1 -- 11	<i>[Signature]</i>	FedEx 8860 0185 8341, 8860 0185 8352	9/29/08	16:00	14 DAY TAT
2		<i>[Signature]</i> F X	<i>[Signature]</i> 9.30.08	9.30		
3						

1.2 1.6

F60430: Chain of Custody

Page 1 of 2

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F60430 CLIENT: Shaw PROJECT: Camp LeDeune
 DATE/TIME RECEIVED: 9.30.08 9:30 # OF COOLERS RECEIVED: 2 COOLER TEMPS: 1.2 1.6
 METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER
 AIRBILL NUMBERS: 8660 0185 8341

COOLER INFORMATION

- ☐ CUSTODY SEAL NOT PRESENT OR NOT INTACT
- ☐ CHAIN OF CUSTODY NOT RECEIVED (COC)
- ☐ ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- ☐ SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- ☐ TEMPERATURE CRITERIA NOT MET
- ☐ WET ICE RECEIVED IN COOLER

TRIP BLANK INFORMATION

- ☒ TRIP BLANK PROVIDED
- ☐ TRIP BLANK NOT PROVIDED
- ☒ TRIP BLANK NOT ON COC
- ☐ TRIP BLANK INTACT
- ☒ TRIP BLANK NOT INTACT
- ☒ RECEIVED WATER TRIP BLANK
- ☐ RECEIVED SOIL TRIP BLANK

SAMPLE INFORMATION

- ☐ SAMPLE LABELS NOT PRESENT ON ALL BOTTLES
- ☐ CORRECT NUMBER OF CONTAINERS USED
- ☐ SAMPLE RECEIVED IMPROPERLY PRESERVED
- ☐ INSUFFICIENT VOLUME FOR ANALYSIS
- ☐ TIMES ON COC DOES NOT MATCH LABEL(S)
- ☐ ID'S ON COC DOES NOT MATCH LABEL(S)
- ☐ VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- ☐ BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- ☐ NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- ☐ UNCLEAR FILTERING INSTRUCTIONS
- ☐ UNCLEAR COMPOSITING INSTRUCTIONS
- ☒ SAMPLE CONTAINER(S) RECEIVED BROKEN
- ☐ % SOLIDS JAR NOT RECEIVED
- ☐ 5035 FIELD KIT NOT FROZEN WITHIN 48 HOURS
- ☐ RESIDUAL CHLORINE PRESENT

(APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS)

MISC. INFORMATION

NUMBER OF ENCORES ? _____
 NUMBER OF 5035 FIELD KITS ? _____
 NUMBER OF LAB FILTERED METALS ? _____

SUMMARY OF COMMENTS: Sample number 3 (mw06) recieved two viles broken,
Sample #4 (mw07) recieved 1 vile broken, Sample #6 (mw10) recieved 1 vile broken

TECHNICIAN SIGNATURE/DATE Chris Kah 9.30.08 TECHNICIAN SIGNATURE/DATE E.T. 9.30.08 ASBD 12/17/07

F60430: Chain of Custody

Page 2 of 2



GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 2

Job Number: F60430
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ2605-MB	J041621.D	1	10/01/08	KW	n/a	n/a	VJ2605

The QC reported here applies to the following samples:

Method: EPA 624

F60430-1, F60430-2, F60430-3, F60430-4, F60430-5, F60430-6, F60430-7, F60430-8, F60430-9, F60430-10, F60430-11

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.40	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	2.0	0.48	ug/l	
67-66-3	Chloroform	ND	1.0	0.28	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.54	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.43	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.61	ug/l	
75-09-2	Methylene chloride	3.2	5.0	1.0	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.26	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.32	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	3.0	1.2	ug/l	

Method Blank Summary

Job Number: F60430
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ2605-MB	J041621.D	1	10/01/08	KW	n/a	n/a	VJ2605

The QC reported here applies to the following samples: Method: EPA 624

F60430-1, F60430-2, F60430-3, F60430-4, F60430-5, F60430-6, F60430-7, F60430-8, F60430-9, F60430-10, F60430-11

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	98% 87-116%
17060-07-0	1,2-Dichloroethane-D4	93% 76-127%
2037-26-5	Toluene-D8	106% 86-112%
460-00-4	4-Bromofluorobenzene	111% 84-120%

Blank Spike Summary

Page 1 of 2

Job Number: F60430
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ2605-BS	J041620.D	1	10/01/08	KW	n/a	n/a	VJ2605

The QC reported here applies to the following samples:

Method: EPA 624

F60430-1, F60430-2, F60430-3, F60430-4, F60430-5, F60430-6, F60430-7, F60430-8, F60430-9, F60430-10, F60430-11

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	22.4	90	83-124
75-27-4	Bromodichloromethane	25	20.5	82	76-116
75-25-2	Bromoform	25	24.5	98	68-128
108-90-7	Chlorobenzene	25	26.6	106	87-115
75-00-3	Chloroethane	25	26.8	107	54-166
67-66-3	Chloroform	25	22.3	89	85-123
110-75-8	2-Chloroethyl vinyl ether	125	110	88	63-125
56-23-5	Carbon tetrachloride	25	23.4	94	74-139
75-34-3	1,1-Dichloroethane	25	23.3	93	82-127
75-35-4	1,1-Dichloroethylene	25	28.8	115	75-133
107-06-2	1,2-Dichloroethane	25	21.1	84	76-122
78-87-5	1,2-Dichloropropane	25	22.7	91	81-120
124-48-1	Dibromochloromethane	25	24.1	96	74-116
75-71-8	Dichlorodifluoromethane	25	18.5	74	34-158
156-59-2	cis-1,2-Dichloroethylene	25	21.0	84	81-114
10061-01-5	cis-1,3-Dichloropropene	25	21.2	85	83-119
541-73-1	m-Dichlorobenzene	25	26.5	106	86-115
95-50-1	o-Dichlorobenzene	25	25.8	103	85-115
106-46-7	p-Dichlorobenzene	25	26.0	104	87-113
156-60-5	trans-1,2-Dichloroethylene	25	22.1	88	82-126
10061-02-6	trans-1,3-Dichloropropene	25	24.7	99	87-123
100-41-4	Ethylbenzene	25	25.2	101	87-118
74-83-9	Methyl bromide	25	22.0	88	55-151
74-87-3	Methyl chloride	25	22.0	88	55-173
75-09-2	Methylene chloride	25	24.8	99	69-125
1634-04-4	Methyl Tert Butyl Ether	25	18.4	74*	75-116
71-55-6	1,1,1-Trichloroethane	25	22.3	89	79-133
79-34-5	1,1,2,2-Tetrachloroethane	25	24.1	96	71-120
79-00-5	1,1,2-Trichloroethane	25	23.6	94	80-114
127-18-4	Tetrachloroethylene	25	25.5	102	80-131
108-88-3	Toluene	25	24.6	98	86-116
79-01-6	Trichloroethylene	25	24.0	96	85-124
75-69-4	Trichlorofluoromethane	25	25.1	100	66-156
75-01-4	Vinyl chloride	25	18.9	76	57-153
1330-20-7	Xylene (total)	75	75.5	101	86-120

Blank Spike Summary

Job Number: F60430
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ2605-BS	J041620.D	1	10/01/08	KW	n/a	n/a	VJ2605

The QC reported here applies to the following samples: Method: EPA 624

F60430-1, F60430-2, F60430-3, F60430-4, F60430-5, F60430-6, F60430-7, F60430-8, F60430-9, F60430-10, F60430-11

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	98%	87-116%
17060-07-0	1,2-Dichloroethane-D4	98%	76-127%
2037-26-5	Toluene-D8	99%	86-112%
460-00-4	4-Bromofluorobenzene	98%	84-120%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 2

Job Number: F60430
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F60246-1MS	J041623.D	5	10/01/08	KW	n/a	n/a	VJ2605
F60246-1MSD	J041624.D	5	10/01/08	KW	n/a	n/a	VJ2605
F60246-1	J041622.D	5	10/01/08	KW	n/a	n/a	VJ2605

The QC reported here applies to the following samples:

Method: EPA 624

F60430-1, F60430-2, F60430-3, F60430-4, F60430-5, F60430-6, F60430-7, F60430-8, F60430-9, F60430-10, F60430-11

CAS No.	Compound	F60246-1 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	10.1	125	128	94	126	93	2	83-124/11
75-27-4	Bromodichloromethane	5.0 U	125	107	86	103	82	4	76-116/10
75-25-2	Bromoform	5.0 U	125	122	98	124	99	2	68-128/11
108-90-7	Chlorobenzene	5.0 U	125	135	108	135	108	0	87-115/9
75-00-3	Chloroethane	10 U	125	133	106	129	103	3	54-166/20
67-66-3	Chloroform	5.0 U	125	112	90	111	89	1	85-123/10
110-75-8	2-Chloroethyl vinyl ether	25 U	625	ND	0*	ND	0*	nc	63-125/24
56-23-5	Carbon tetrachloride	5.0 U	125	124	99	123	98	1	74-139/13
75-34-3	1,1-Dichloroethane	5.0 U	125	121	97	119	95	2	82-127/10
75-35-4	1,1-Dichloroethylene	5.0 U	125	146	117	136	109	7	75-133/13
107-06-2	1,2-Dichloroethane	5.0 U	125	107	86	106	85	1	76-122/11
78-87-5	1,2-Dichloropropane	5.0 U	125	113	90	113	90	0	81-120/11
124-48-1	Dibromochloromethane	5.0 U	125	122	98	125	100	2	74-116/11
75-71-8	Dichlorodifluoromethane	10 U	125	88.4	71	102	82	14	34-158/22
156-59-2	cis-1,2-Dichloroethylene	33.6	125	147	91	146	90	1	81-114/10
10061-01-5	cis-1,3-Dichloropropene	5.0 U	125	104	83	102	82*	2	83-119/10
541-73-1	m-Dichlorobenzene	5.0 U	125	133	106	134	107	1	86-115/9
95-50-1	o-Dichlorobenzene	5.0 U	125	131	105	131	105	0	85-115/9
106-46-7	p-Dichlorobenzene	5.0 U	125	131	105	130	104	1	87-113/10
156-60-5	trans-1,2-Dichloroethylene	5.0 U	125	117	94	120	96	3	82-126/10
10061-02-6	trans-1,3-Dichloropropene	5.0 U	125	125	100	128	102	2	87-123/10
100-41-4	Ethylbenzene	5.0 U	125	127	102	129	103	2	87-118/10
74-83-9	Methyl bromide	10 U	125	117	94	120	96	3	55-151/21
74-87-3	Methyl chloride	10 U	125	108	86	120	96	11	55-173/22
75-09-2	Methylene chloride	17.9	I 125	129	89	125	86	3	69-125/11
1634-04-4	Methyl Tert Butyl Ether	5.0 U	125	97.0	78	98.3	79	1	75-116/10
71-55-6	1,1,1-Trichloroethane	5.0 U	125	115	92	113	90	2	79-133/11
79-34-5	1,1,2,2-Tetrachloroethane	5.0 U	125	129	103	130	104	1	71-120/11
79-00-5	1,1,2-Trichloroethane	5.0 U	125	120	96	124	99	3	80-114/11
127-18-4	Tetrachloroethylene	5.0 U	125	131	105	128	102	2	80-131/12
108-88-3	Toluene	5.0 U	125	126	101	129	103	2	86-116/10
79-01-6	Trichloroethylene	5.0 U	125	116	93	112	90	4	85-124/10
75-69-4	Trichlorofluoromethane	10 U	125	129	103	127	102	2	66-156/15
75-01-4	Vinyl chloride	268	125	352	67	384	93	9	57-153/22
1330-20-7	Xylene (total)	15 U	375	382	102	384	102	1	86-120/10

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F60430
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F60246-1MS	J041623.D	5	10/01/08	KW	n/a	n/a	VJ2605
F60246-1MSD	J041624.D	5	10/01/08	KW	n/a	n/a	VJ2605
F60246-1	J041622.D	5	10/01/08	KW	n/a	n/a	VJ2605

The QC reported here applies to the following samples:

Method: EPA 624

F60430-1, F60430-2, F60430-3, F60430-4, F60430-5, F60430-6, F60430-7, F60430-8, F60430-9, F60430-10, F60430-11

CAS No.	Surrogate Recoveries	MS	MSD	F60246-1	Limits
1868-53-7	Dibromofluoromethane	101%	99%	100%	87-116%
17060-07-0	1,2-Dichloroethane-D4	98%	98%	95%	76-127%
2037-26-5	Toluene-D8	99%	102%	106%	86-112%
460-00-4	4-Bromofluorobenzene	98%	98%	110%	84-120%



GC/MS Semi-volatiles

5

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 1

Job Number: F60430

Account: ITVAVAB Shaw E & I, Inc.

Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP26697-MB	X003272.D	1	10/06/08	NAF	10/03/08	OP26697	SX178

The QC reported here applies to the following samples:

Method: EPA 625

F60430-1, F60430-2, F60430-3, F60430-4, F60430-5, F60430-6, F60430-7, F60430-8, F60430-9, F60430-10, F60430-11

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	1.0	ug/l	
208-96-8	Acenaphthylene	ND	5.0	1.0	ug/l	
120-12-7	Anthracene	ND	5.0	1.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	1.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	1.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	1.0	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	1.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	1.0	ug/l	
218-01-9	Chrysene	ND	5.0	1.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	1.0	ug/l	
206-44-0	Fluoranthene	ND	5.0	1.0	ug/l	
86-73-7	Fluorene	ND	5.0	1.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	1.1	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	1.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	1.0	ug/l	
129-00-0	Pyrene	ND	5.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Limits
4165-60-0	Nitrobenzene-d5	61% 42-108%
321-60-8	2-Fluorobiphenyl	61% 40-106%
1718-51-0	Terphenyl-d14	64% 39-121%

Blank Spike Summary

Page 1 of 1

Job Number: F60430
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP26697-BS	X003271.D	1	10/06/08	NAF	10/03/08	OP26697	SX178

The QC reported here applies to the following samples:

Method: EPA 625

F60430-1, F60430-2, F60430-3, F60430-4, F60430-5, F60430-6, F60430-7, F60430-8, F60430-9, F60430-10, F60430-11

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	38.5	77	58-106
208-96-8	Acenaphthylene	50	37.5	75	58-105
120-12-7	Anthracene	50	37.4	75	65-108
56-55-3	Benzo(a)anthracene	50	38.9	78	63-111
50-32-8	Benzo(a)pyrene	50	38.5	77	62-106
205-99-2	Benzo(b)fluoranthene	50	40.0	80	63-109
191-24-2	Benzo(g,h,i)perylene	50	40.5	81	61-111
207-08-9	Benzo(k)fluoranthene	50	40.8	82	64-111
218-01-9	Chrysene	50	39.8	80	64-111
53-70-3	Dibenzo(a,h)anthracene	50	38.8	78	62-112
206-44-0	Fluoranthene	50	38.7	77	65-114
86-73-7	Fluorene	50	39.4	79	61-106
193-39-5	Indeno(1,2,3-cd)pyrene	50	39.4	79	61-113
90-12-0	1-Methylnaphthalene	50	35.9	72	52-102
91-57-6	2-Methylnaphthalene	50	35.5	71	56-112
91-20-3	Naphthalene	50	33.8	68	50-104
85-01-8	Phenanthrene	50	39.7	79	65-108
129-00-0	Pyrene	50	39.7	79	60-113

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	69%	42-108%
321-60-8	2-Fluorobiphenyl	69%	40-106%
1718-51-0	Terphenyl-d14	72%	39-121%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F60430
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP26697-MS	X003279.D	1	10/06/08	NAF	10/03/08	OP26697	SX178
OP26697-MSD	X003280.D	1	10/06/08	NAF	10/03/08	OP26697	SX178
F60430-6	X003278.D	1	10/06/08	NAF	10/03/08	OP26697	SX178

The QC reported here applies to the following samples:

Method: EPA 625

F60430-1, F60430-2, F60430-3, F60430-4, F60430-5, F60430-6, F60430-7, F60430-8, F60430-9, F60430-10, F60430-11

CAS No.	Compound	F60430-6 ug/l	Spike Q	ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND	96.2	73.0	76	81.9	85	11	58-106/21	
208-96-8	Acenaphthylene	ND	96.2	70.7	74	80.5	84	13	58-105/21	
120-12-7	Anthracene	ND	96.2	71.9	75	82.1	85	13	65-108/19	
56-55-3	Benzo(a)anthracene	ND	96.2	74.6	78	87.2	91	16	63-111/19	
50-32-8	Benzo(a)pyrene	ND	96.2	73.2	76	85.2	89	15	62-106/20	
205-99-2	Benzo(b)fluoranthene	ND	96.2	75.9	79	88.9	92	16	63-109/20	
191-24-2	Benzo(g,h,i)perylene	ND	96.2	80.3	84	91.2	95	13	61-111/21	
207-08-9	Benzo(k)fluoranthene	ND	96.2	76.6	80	86.4	90	12	64-111/20	
218-01-9	Chrysene	ND	96.2	75.9	79	87.9	91	15	64-111/19	
53-70-3	Dibenzo(a,h)anthracene	ND	96.2	74.2	77	86.4	90	15	62-112/20	
206-44-0	Fluoranthene	ND	96.2	76.0	79	85.7	89	12	65-114/21	
86-73-7	Fluorene	ND	96.2	74.9	78	83.6	87	11	61-106/19	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	96.2	77.0	80	89.6	93	15	61-113/20	
90-12-0	1-Methylnaphthalene	ND	96.2	67.8	71	78.4	82	15	52-102/25	
91-57-6	2-Methylnaphthalene	ND	96.2	66.2	69	77.5	81	16	56-112/26	
91-20-3	Naphthalene	ND	96.2	64.5	67	75.7	79	16	50-104/28	
85-01-8	Phenanthrene	ND	96.2	75.3	78	85.8	89	13	65-108/20	
129-00-0	Pyrene	ND	96.2	75.5	79	87.9	91	15	60-113/20	

CAS No.	Surrogate Recoveries	MS	MSD	F60430-6	Limits
4165-60-0	Nitrobenzene-d5	64%	75%	68%	42-108%
321-60-8	2-Fluorobiphenyl	68%	77%	71%	40-106%
1718-51-0	Terphenyl-d14	70%	83%	66%	39-121%



Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F60430
Account: ITVAVAB - Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

QC Batch ID: MP15211
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 09/30/08

Metal	RL	IDL	MB raw	final
Aluminum	200	11		
Antimony	6.0	4.5		
Arsenic	10	3.6		
Barium	200	5		
Beryllium	4.0	1		
Cadmium	5.0	1		
Calcium	1000	100		
Chromium	10	1.6		
Cobalt	50	.83		
Copper	25	2.1		
Iron	300	23		
Lead	5.0	2	0.060	<5.0
Magnesium	5000	100		
Manganese	15	.5		
Molybdenum	50	2.8		
Nickel	40	2.3		
Potassium	10000	100		
Selenium	10	3.1		
Silver	10	1.2		
Sodium	10000	500		
Thallium	10	3.4		
Tin	50	2.8		
Vanadium	50	.66		
Zinc	20	3.8		

Associated samples MP15211: F60430-1, F60430-2, F60430-3, F60430-4, F60430-5, F60430-6, F60430-7, F60430-8, F60430-9, F60430-10, F60430-11

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F60430
 Account: ITVAVAB - Shaw E & I, Inc.
 Project: Camp Lejeune-AS-4158

QC Batch ID: MP15211
 Matrix Type: AQUEOUS

Methods: SW846 6010B
 Units: ug/l

Prep Date: 09/30/08 09/30/08

Metal	F60430-1 Original	DUP	RPD	QC Limits	F60430-1 Original	MS	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead	3.5	3.4	2.9	0-20	3.5	497	500	98.7	80-120
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Tin									
Vanadium									
Zinc									

Associated samples MP15211: F60430-1, F60430-2, F60430-3, F60430-4, F60430-5, F60430-6, F60430-7, F60430-8, F60430-9, F60430-10, F60430-11

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F60430
 Account: ITVAVAB - Shaw E & I, Inc.
 Project: Camp Lejeune-AS-4158

QC Batch ID: MP15211
 Matrix Type: AQUEOUS

Methods: SW846 6010B
 Units: ug/l

Prep Date: 09/30/08

Metal	F60430-1 Original	MSD	Spike lot MPFLICP1	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic						
Barium						
Beryllium						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron						
Lead	3.5	505	500	100.3	1.6	20
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium						
Silver						
Sodium						
Thallium						
Tin						
Vanadium						
Zinc						

Associated samples MP15211: F60430-1, F60430-2, F60430-3, F60430-4, F60430-5, F60430-6, F60430-7, F60430-8, F60430-9, F60430-10, F60430-11

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F60430
 Account: ITVAVAB - Shaw E & I, Inc.
 Project: Camp Lejeune-AS-4158

QC Batch ID: MP15211
 Matrix Type: AQUEOUS

Methods: SW846 6010B
 Units: ug/l

Prep Date: 09/30/08

Metal	BSP Result	Spike lot MPFLICP1	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead	520	500	104.0	80-120
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Thallium				
Tin				
Vanadium				
Zinc				

Associated samples MP15211: F60430-1, F60430-2, F60430-3, F60430-4, F60430-5, F60430-6, F60430-7, F60430-8, F60430-9, F60430-10, F60430-11

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: F60430
 Account: ITVAVAB - Shaw E & I, Inc.
 Project: Camp Lejeune-AS-4158

QC Batch ID: MP15211
 Matrix Type: AQUEOUS

Methods: SW846 6010B
 Units: ug/l

Prep Date: 09/30/08

Metal	F60430-1 Original	SDL 1:5	RPD	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead	3.49	0.00	100.0(a)	0-10
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Thallium				
Tin				
Vanadium				
Zinc				

Associated samples MP15211: F60430-1, F60430-2, F60430-3, F60430-4, F60430-5, F60430-6, F60430-7, F60430-8, F60430-9, F60430-10, F60430-11

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).



10/08/08

Technical Report for

Shaw E & I, Inc.

Camp Lejeune-AS-4158

125709

Accutest Job Number: F60473

Sampling Date: 09/30/08

Report to:

Shaw E & I, Inc.
500 E Main St Suite 1630
Norfolk, VA 23510
natasha.sullivan@shawgrp.com

ATTN: Natasha Sullivan

Total number of pages in report: **45**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.


Harry Behzadi, Ph.D.
Laboratory Director

Client Service contact: Heather Wandrey 407-425-6700

Certifications: FL (DOH E83510), NC (573), NJ (FL002), MA (FL946), IA (366), LA (03051), KS (E-10327), SC, AK
This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.

Table of Contents

-1-

Section 1: Sample Summary	3
Section 2: Sample Results	4
2.1: F60473-1: USTAS4158-MW04	5
2.2: F60473-2: USTAS4158-MW05	9
2.3: F60473-3: USTAS4158-MW09	13
2.4: F60473-4: USTAS4158-MW16	17
2.5: F60473-5: USTAS4158-MW17	21
2.6: F60473-6: USTAS4158-TB	25
Section 3: Misc. Forms	27
3.1: Chain of Custody	28
Section 4: GC/MS Volatiles - QC Data Summaries	30
4.1: Method Blank Summary	31
4.2: Blank Spike Summary	33
4.3: Matrix Spike/Matrix Spike Duplicate Summary	35
Section 5: GC/MS Semi-volatiles - QC Data Summaries	37
5.1: Method Blank Summary	38
5.2: Blank Spike Summary	39
5.3: Matrix Spike/Matrix Spike Duplicate Summary	40
Section 6: Metals Analysis - QC Data Summaries	41
6.1: Prep QC MP15222: Pb	42



Sample Summary

Shaw E & I, Inc.

Job No: F60473

Camp Lejeune-AS-4158
Project No: 125709

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
F60473-1	09/30/08	08:00 MM	10/01/08	AQ	Ground Water	USTAS4158-MW04
F60473-2	09/30/08	07:00 MM	10/01/08	AQ	Ground Water	USTAS4158-MW05
F60473-3	09/30/08	10:30 MM	10/01/08	AQ	Ground Water	USTAS4158-MW09
F60473-4	09/30/08	09:30 MM	10/01/08	AQ	Ground Water	USTAS4158-MW16
F60473-5	09/30/08	11:00 MM	10/01/08	AQ	Ground Water	USTAS4158-MW17
F60473-6	09/30/08	00:00 MM	10/01/08	AQ	Trip Blank Water	USTAS4158-TB



Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: USTAS4158-MW04
Lab Sample ID: F60473-1
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 09/30/08
Date Received: 10/01/08
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J041709.D	1	10/04/08	RA	n/a	n/a	VJ2610
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.40	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	2.0	0.48	ug/l	
67-66-3	Chloroform	ND	1.0	0.28	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.54	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.43	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.61	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.26	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.32	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	USTAS4158-MW04	Date Sampled:	09/30/08
Lab Sample ID:	F60473-1	Date Received:	10/01/08
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 624		
Project:	Camp Lejeune-AS-4158		

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	3.0	1.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		87-116%
17060-07-0	1,2-Dichloroethane-D4	97%		76-127%
2037-26-5	Toluene-D8	104%		86-112%
460-00-4	4-Bromofluorobenzene	102%		84-120%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW04
Lab Sample ID: F60473-1
Matrix: AQ - Ground Water
Method: EPA 625 EPA 625
Project: Camp Lejeune-AS-4158

Date Sampled: 09/30/08
Date Received: 10/01/08
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X003286.D	1	10/06/08	NAF	10/03/08	OP26697	SX178
Run #2							

	Initial Volume	Final Volume
Run #1	1020 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.9	0.98	ug/l	
208-96-8	Acenaphthylene	ND	4.9	0.98	ug/l	
120-12-7	Anthracene	ND	4.9	0.98	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.9	0.98	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.9	0.98	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.9	0.98	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.9	0.98	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.9	0.98	ug/l	
218-01-9	Chrysene	ND	4.9	0.98	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.9	0.98	ug/l	
206-44-0	Fluoranthene	ND	4.9	0.98	ug/l	
86-73-7	Fluorene	ND	4.9	0.98	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.9	1.1	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.9	0.98	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.9	0.98	ug/l	
91-20-3	Naphthalene	ND	4.9	0.98	ug/l	
85-01-8	Phenanthrene	ND	4.9	0.98	ug/l	
129-00-0	Pyrene	ND	4.9	0.98	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	57%		42-108%
321-60-8	2-Fluorobiphenyl	61%		40-106%
1718-51-0	Terphenyl-d14	60%		39-121%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	USTAS4158-MW04	Date Sampled:	09/30/08
Lab Sample ID:	F60473-1	Date Received:	10/01/08
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-AS-4158		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	15.7	5.0	2.0	ug/l	1	10/01/08	10/02/08 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA6771
(2) Prep QC Batch: MP15222

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: USTAS4158-MW05
Lab Sample ID: F60473-2
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 09/30/08
Date Received: 10/01/08
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J041710.D	1	10/04/08	RA	n/a	n/a	VJ2610
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.40	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	2.0	0.48	ug/l	
67-66-3	Chloroform	ND	1.0	0.28	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.54	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.43	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.61	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.26	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.32	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW05
Lab Sample ID: F60473-2
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 09/30/08
Date Received: 10/01/08
Percent Solids: n/a

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	3.0	1.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		87-116%
17060-07-0	1,2-Dichloroethane-D4	96%		76-127%
2037-26-5	Toluene-D8	104%		86-112%
460-00-4	4-Bromofluorobenzene	106%		84-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW05
Lab Sample ID: F60473-2
Matrix: AQ - Ground Water
Method: EPA 625 EPA 625
Project: Camp Lejeune-AS-4158

Date Sampled: 09/30/08
Date Received: 10/01/08
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X003287.D	1	10/06/08	NAF	10/03/08	OP26697	SX178
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	0.95	ug/l	
208-96-8	Acenaphthylene	ND	4.8	0.95	ug/l	
120-12-7	Anthracene	ND	4.8	0.95	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.95	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.95	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.95	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	0.95	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	0.95	ug/l	
218-01-9	Chrysene	ND	4.8	0.95	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	0.95	ug/l	
206-44-0	Fluoranthene	ND	4.8	0.95	ug/l	
86-73-7	Fluorene	ND	4.8	0.95	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	0.95	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	0.95	ug/l	
91-20-3	Naphthalene	ND	4.8	0.95	ug/l	
85-01-8	Phenanthrene	ND	4.8	0.95	ug/l	
129-00-0	Pyrene	ND	4.8	0.95	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	63%		42-108%
321-60-8	2-Fluorobiphenyl	63%		40-106%
1718-51-0	Terphenyl-d14	50%		39-121%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	USTAS4158-MW05	Date Sampled:	09/30/08
Lab Sample ID:	F60473-2	Date Received:	10/01/08
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-AS-4158		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	77.8	5.0	2.0	ug/l	1	10/01/08	10/02/08 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA6771
(2) Prep QC Batch: MP15222

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: USTAS4158-MW09
Lab Sample ID: F60473-3
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 09/30/08
Date Received: 10/01/08
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J041711.D	1	10/04/08	RA	n/a	n/a	VJ2610
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.40	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	2.0	0.48	ug/l	
67-66-3	Chloroform	ND	1.0	0.28	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.54	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.43	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.61	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.26	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.32	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	USTAS4158-MW09	Date Sampled:	09/30/08
Lab Sample ID:	F60473-3	Date Received:	10/01/08
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 624		
Project:	Camp Lejeune-AS-4158		

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	3.0	1.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		87-116%
17060-07-0	1,2-Dichloroethane-D4	97%		76-127%
2037-26-5	Toluene-D8	106%		86-112%
460-00-4	4-Bromofluorobenzene	100%		84-120%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW09
Lab Sample ID: F60473-3
Matrix: AQ - Ground Water
Method: EPA 625 EPA 625
Project: Camp Lejeune-AS-4158

Date Sampled: 09/30/08
Date Received: 10/01/08
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X003288.D	1	10/06/08	NAF	10/03/08	OP26697	SX178
Run #2							

	Initial Volume	Final Volume
Run #1	1030 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.9	0.97	ug/l	
208-96-8	Acenaphthylene	ND	4.9	0.97	ug/l	
120-12-7	Anthracene	ND	4.9	0.97	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.9	0.97	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.9	0.97	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.9	0.97	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.9	0.97	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.9	0.97	ug/l	
218-01-9	Chrysene	ND	4.9	0.97	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.9	0.97	ug/l	
206-44-0	Fluoranthene	ND	4.9	0.97	ug/l	
86-73-7	Fluorene	ND	4.9	0.97	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.9	1.1	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.9	0.97	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.9	0.97	ug/l	
91-20-3	Naphthalene	ND	4.9	0.97	ug/l	
85-01-8	Phenanthrene	ND	4.9	0.97	ug/l	
129-00-0	Pyrene	ND	4.9	0.97	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	59%		42-108%
321-60-8	2-Fluorobiphenyl	60%		40-106%
1718-51-0	Terphenyl-d14	55%		39-121%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	USTAS4158-MW09	Date Sampled:	09/30/08
Lab Sample ID:	F60473-3	Date Received:	10/01/08
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-AS-4158		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	14.5	5.0	2.0	ug/l	1	10/01/08	10/02/08 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA6771
(2) Prep QC Batch: MP15222

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: USTAS4158-MW16
Lab Sample ID: F60473-4
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 09/30/08
Date Received: 10/01/08
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J041712.D	1	10/04/08	RA	n/a	n/a	VJ2610
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.40	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	2.0	0.48	ug/l	
67-66-3	Chloroform	ND	1.0	0.28	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.54	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.43	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.61	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.26	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.32	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	USTAS4158-MW16	Date Sampled:	09/30/08
Lab Sample ID:	F60473-4	Date Received:	10/01/08
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 624		
Project:	Camp Lejeune-AS-4158		

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	3.0	1.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		87-116%
17060-07-0	1,2-Dichloroethane-D4	98%		76-127%
2037-26-5	Toluene-D8	104%		86-112%
460-00-4	4-Bromofluorobenzene	102%		84-120%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW16
Lab Sample ID: F60473-4
Matrix: AQ - Ground Water
Method: EPA 625 EPA 625
Project: Camp Lejeune-AS-4158

Date Sampled: 09/30/08
Date Received: 10/01/08
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X003289.D	1	10/06/08	NAF	10/03/08	OP26697	SX178
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	0.96	ug/l	
208-96-8	Acenaphthylene	ND	4.8	0.96	ug/l	
120-12-7	Anthracene	ND	4.8	0.96	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.96	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.96	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.96	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	0.96	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	0.96	ug/l	
218-01-9	Chrysene	ND	4.8	0.96	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	0.96	ug/l	
206-44-0	Fluoranthene	ND	4.8	0.96	ug/l	
86-73-7	Fluorene	ND	4.8	0.96	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.1	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	0.96	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	0.96	ug/l	
91-20-3	Naphthalene	ND	4.8	0.96	ug/l	
85-01-8	Phenanthrene	ND	4.8	0.96	ug/l	
129-00-0	Pyrene	ND	4.8	0.96	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	63%		42-108%
321-60-8	2-Fluorobiphenyl	65%		40-106%
1718-51-0	Terphenyl-d14	67%		39-121%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	USTAS4158-MW16	Date Sampled:	09/30/08
Lab Sample ID:	F60473-4	Date Received:	10/01/08
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-AS-4158		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	15.4	5.0	2.0	ug/l	1	10/01/08	10/02/08 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA6771
(2) Prep QC Batch: MP15222

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: USTAS4158-MW17
Lab Sample ID: F60473-5
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 09/30/08
Date Received: 10/01/08
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J041713.D	1	10/04/08	RA	n/a	n/a	VJ2610
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.40	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	2.0	0.48	ug/l	
67-66-3	Chloroform	ND	1.0	0.28	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.54	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.43	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.61	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.26	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.32	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW17
Lab Sample ID: F60473-5
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 09/30/08
Date Received: 10/01/08
Percent Solids: n/a

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	3.0	1.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		87-116%
17060-07-0	1,2-Dichloroethane-D4	96%		76-127%
2037-26-5	Toluene-D8	103%		86-112%
460-00-4	4-Bromofluorobenzene	103%		84-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW17
Lab Sample ID: F60473-5
Matrix: AQ - Ground Water
Method: EPA 625 EPA 625
Project: Camp Lejeune-AS-4158

Date Sampled: 09/30/08
Date Received: 10/01/08
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X003290.D	1	10/06/08	NAF	10/03/08	OP26697	SX178
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	0.96	ug/l	
208-96-8	Acenaphthylene	ND	4.8	0.96	ug/l	
120-12-7	Anthracene	ND	4.8	0.96	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.96	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.96	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.96	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	0.96	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	0.96	ug/l	
218-01-9	Chrysene	ND	4.8	0.96	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	0.96	ug/l	
206-44-0	Fluoranthene	ND	4.8	0.96	ug/l	
86-73-7	Fluorene	ND	4.8	0.96	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.1	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	0.96	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	0.96	ug/l	
91-20-3	Naphthalene	ND	4.8	0.96	ug/l	
85-01-8	Phenanthrene	ND	4.8	0.96	ug/l	
129-00-0	Pyrene	ND	4.8	0.96	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	67%		42-108%
321-60-8	2-Fluorobiphenyl	68%		40-106%
1718-51-0	Terphenyl-d14	75%		39-121%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	USTAS4158-MW17	Date Sampled:	09/30/08
Lab Sample ID:	F60473-5	Date Received:	10/01/08
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-AS-4158		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	14.2	5.0	2.0	ug/l	1	10/01/08	10/02/08 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA6771
(2) Prep QC Batch: MP15222

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	USTAS4158-TB	Date Sampled:	09/30/08
Lab Sample ID:	F60473-6	Date Received:	10/01/08
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	EPA 624		
Project:	Camp Lejeune-AS-4158		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J041714.D	1	10/04/08	RA	n/a	n/a	VJ2610
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.40	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	2.0	0.48	ug/l	
67-66-3	Chloroform	ND	1.0	0.28	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.54	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.43	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.61	ug/l	
75-09-2	Methylene chloride	1.1	5.0	1.0	ug/l	JB
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.26	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.32	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	USTAS4158-TB	Date Sampled:	09/30/08
Lab Sample ID:	F60473-6	Date Received:	10/01/08
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	EPA 624		
Project:	Camp Lejeune-AS-4158		

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	3.0	1.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		87-116%
17060-07-0	1,2-Dichloroethane-D4	101%		76-127%
2037-26-5	Toluene-D8	104%		86-112%
460-00-4	4-Bromofluorobenzene	105%		84-120%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound



Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Chain of Custody

CHAIN-OF-CUSTODY RECORD

COC Number:
125709-USTAS4158-093008

Shaw Environmental & Infrastructure, Inc.

F60473

Shaw E & I - Piney Green Rd. Lot 203 Bld 626 - 910-451-2390										Receiving LAB: Accutest										
Project Name				Project Location						Analysis Desired										
CAMP LEJEUNE -AS-4158				CAMP LEJEUNE, NC																
Project Number		Contact		P.O. Number		Reviewed by														
125709		Mark Martin																		
Client Rep				Project Manager																
US NAVY - LANTDIV				Joe Colella																
Item No.	Sample Number	Date	Time	Comp	Grab	Sample Description	Number of Containers	601/602	625 SVOCs for PAH	3030C Lead										
1	USTAS4158-MW04	9/30/08	8:00		X	USTAS4158-MW04	6	X	X	X										
2	USTAS4158-MW05	9/30/08	7:00		X	USTAS4158-MW05	6	X	X	X										
3	USTAS4158-MW09	9/30/08	10:30		X	USTAS4158-MW09	6	X	X	X										
4	USTAS4158-MW16	9/30/08	9:30		X	USTAS4158-MW04	6	X	X	X										
5	USTAS4158-MW17	9/30/08	11:00		X	USTAS4158-MW05	6	X	X	X										
6	USTAS4158-TB	9/30/08			X	Trip Blank	2	X												
7																				
8																				
9																				
10																				

Transfer Number	Item Number	Transfers Relinquished By	Transfers Accepted By	Date	Time	Remarks
1	1 - 6		FedEx 8660 0185 8076	9/30/08	16:00	14 DAY TAT FedEx
2		FX		9-1-08	09:00	
3						

2-4

F60473: Chain of Custody

Page 1 of 2

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F60473 CLIENT: Shaw PROJECT: Camp Wayne
 DATE/TIME RECEIVED: 10-01-08 09:00 # OF COOLERS RECEIVED: 1 COOLER TEMPS: 2.4
 METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER
 AIRBILL NUMBERS: 8600 827 7324 8600 0185 8076

COOLER INFORMATION

- ☐ CUSTODY SEAL NOT PRESENT OR NOT INTACT
- ☐ CHAIN OF CUSTODY NOT RECEIVED (COC)
- ☐ ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- ☐ SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- ☐ TEMPERATURE CRITERIA NOT MET
- ☐ WET ICE RECEIVED IN COOLER

TRIP BLANK INFORMATION

- ☒ TRIP BLANK PROVIDED
- ☐ TRIP BLANK NOT PROVIDED
- ☐ TRIP BLANK NOT ON COC
- ☒ TRIP BLANK INTACT
- ☐ TRIP BLANK NOT INTACT
- ☒ RECEIVED WATER TRIP BLANK
- ☐ RECEIVED SOIL TRIP BLANK

SAMPLE INFORMATION

- ☐ SAMPLE LABELS NOT PRESENT ON ALL BOTTLES
- ☐ CORRECT NUMBER OF CONTAINERS USED
- ☐ SAMPLE RECEIVED IMPROPERLY PRESERVED
- ☐ INSUFFICIENT VOLUME FOR ANALYSIS
- ☐ TIMES ON COC DOES NOT MATCH LABEL(S)
- ☐ ID'S ON COC DOES NOT MATCH LABEL(S)
- ☐ VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- ☐ BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- ☐ NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- ☐ UNCLEAR FILTERING INSTRUCTIONS
- ☐ UNCLEAR COMPOSITING INSTRUCTIONS
- ☒ SAMPLE CONTAINER(S) RECEIVED BROKEN
- ☐ % SOLIDS JAR NOT RECEIVED
- ☐ 5035 FIELD KIT NOT FROZEN WITHIN 48 HOURS
- ☐ RESIDUAL CHLORINE PRESENT

MISC. INFORMATION

NUMBER OF ENCORES ? 0
 NUMBER OF 5035 FIELD KITS ? 0
 NUMBER OF LAB FILTERED METALS ? 0

SUMMARY OF COMMENTS: Sample 2 (mms) 1 vial received broken

TECHNICIAN SIGNATURE/DATE E.T. 10-1-08 TECHNICIAN SIGNATURE/DATE 10-1-08 ASD 12/17/07

F60473: Chain of Custody

Page 2 of 2



GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 2

Job Number: F60473
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ2610-MB	J041704.D	1	10/03/08	RA	n/a	n/a	VJ2610

The QC reported here applies to the following samples:

Method: EPA 624

F60473-1, F60473-2, F60473-3, F60473-4, F60473-5, F60473-6

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.40	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	2.0	0.48	ug/l	
67-66-3	Chloroform	ND	1.0	0.28	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.54	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.43	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.61	ug/l	
75-09-2	Methylene chloride	1.1	5.0	1.0	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.26	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.32	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	3.0	1.2	ug/l	

Method Blank Summary

Job Number: F60473
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ2610-MB	J041704.D	1	10/03/08	RA	n/a	n/a	VJ2610

The QC reported here applies to the following samples: Method: EPA 624

F60473-1, F60473-2, F60473-3, F60473-4, F60473-5, F60473-6

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	103% 87-116%
17060-07-0	1,2-Dichloroethane-D4	98% 76-127%
2037-26-5	Toluene-D8	104% 86-112%
460-00-4	4-Bromofluorobenzene	105% 84-120%

Blank Spike Summary

Page 1 of 2

Job Number: F60473
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ2610-BS	J041703.D	1	10/03/08	RA	n/a	n/a	VJ2610

The QC reported here applies to the following samples:

Method: EPA 624

F60473-1, F60473-2, F60473-3, F60473-4, F60473-5, F60473-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	23.4	94	83-124
75-27-4	Bromodichloromethane	25	21.2	85	76-116
75-25-2	Bromoform	25	23.1	92	68-128
108-90-7	Chlorobenzene	25	26.1	104	87-115
75-00-3	Chloroethane	25	24.5	98	54-166
67-66-3	Chloroform	25	22.7	91	85-123
110-75-8	2-Chloroethyl vinyl ether	125	113	90	63-125
56-23-5	Carbon tetrachloride	25	25.6	102	74-139
75-34-3	1,1-Dichloroethane	25	24.1	96	82-127
75-35-4	1,1-Dichloroethylene	25	26.6	106	75-133
107-06-2	1,2-Dichloroethane	25	21.8	87	76-122
78-87-5	1,2-Dichloropropane	25	22.4	90	81-120
124-48-1	Dibromochloromethane	25	24.5	98	74-116
75-71-8	Dichlorodifluoromethane	25	21.1	84	34-158
156-59-2	cis-1,2-Dichloroethylene	25	21.3	85	81-114
10061-01-5	cis-1,3-Dichloropropene	25	21.6	86	83-119
541-73-1	m-Dichlorobenzene	25	26.0	104	86-115
95-50-1	o-Dichlorobenzene	25	26.6	106	85-115
106-46-7	p-Dichlorobenzene	25	25.8	103	87-113
156-60-5	trans-1,2-Dichloroethylene	25	23.1	92	82-126
10061-02-6	trans-1,3-Dichloropropene	25	24.8	99	87-123
100-41-4	Ethylbenzene	25	25.3	101	87-118
74-83-9	Methyl bromide	25	22.5	90	55-151
74-87-3	Methyl chloride	25	23.0	92	55-173
75-09-2	Methylene chloride	25	23.9	96	69-125
1634-04-4	Methyl Tert Butyl Ether	25	19.5	78	75-116
71-55-6	1,1,1-Trichloroethane	25	23.9	96	79-133
79-34-5	1,1,2,2-Tetrachloroethane	25	22.3	89	71-120
79-00-5	1,1,2-Trichloroethane	25	23.8	95	80-114
127-18-4	Tetrachloroethylene	25	25.5	102	80-131
108-88-3	Toluene	25	25.1	100	86-116
79-01-6	Trichloroethylene	25	25.2	101	85-124
75-69-4	Trichlorofluoromethane	25	25.6	102	66-156
75-01-4	Vinyl chloride	25	20.3	81	57-153
1330-20-7	Xylene (total)	75	76.6	102	86-120

Blank Spike Summary

Job Number: F60473
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ2610-BS	J041703.D	1	10/03/08	RA	n/a	n/a	VJ2610

The QC reported here applies to the following samples: Method: EPA 624

F60473-1, F60473-2, F60473-3, F60473-4, F60473-5, F60473-6

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	101%	87-116%
17060-07-0	1,2-Dichloroethane-D4	102%	76-127%
2037-26-5	Toluene-D8	101%	86-112%
460-00-4	4-Bromofluorobenzene	97%	84-120%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 2

Job Number: F60473
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F60535-2MS	J041707.D	1	10/03/08	RA	n/a	n/a	VJ2610
F60535-2MSD	J041708.D	1	10/03/08	RA	n/a	n/a	VJ2610
F60535-2	J041705.D	1	10/03/08	RA	n/a	n/a	VJ2610

The QC reported here applies to the following samples:

Method: EPA 624

F60473-1, F60473-2, F60473-3, F60473-4, F60473-5, F60473-6

CAS No.	Compound	F60535-2 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	1.0 U	25	23.5	94	23.3	93	1	83-124/11
75-27-4	Bromodichloromethane	1.0 U	25	21.4	86	21.3	85	0	76-116/10
75-25-2	Bromoform	1.0 U	25	23.2	93	22.9	92	1	68-128/11
108-90-7	Chlorobenzene	1.0 U	25	25.7	103	26.0	104	1	87-115/9
75-00-3	Chloroethane	2.0 U	25	25.9	104	25.9	104	0	54-166/20
67-66-3	Chloroform	1.0 U	25	23.4	94	22.8	91	3	85-123/10
110-75-8	2-Chloroethyl vinyl ether	5.0 U	125	ND	0*	ND	0*	nc	63-125/24
56-23-5	Carbon tetrachloride	1.0 U	25	25.3	101	25.6	102	1	74-139/13
75-34-3	1,1-Dichloroethane	1.0 U	25	23.5	94	23.9	96	2	82-127/10
75-35-4	1,1-Dichloroethylene	1.0 U	25	26.1	104	26.4	106	1	75-133/13
107-06-2	1,2-Dichloroethane	1.0 U	25	22.5	90	21.7	87	4	76-122/11
78-87-5	1,2-Dichloropropane	1.0 U	25	22.4	90	23.1	92	3	81-120/11
124-48-1	Dibromochloromethane	1.0 U	25	24.7	99	24.7	99	0	74-116/11
75-71-8	Dichlorodifluoromethane	2.0 U	25	20.1	80	22.8	91	13	34-158/22
156-59-2	cis-1,2-Dichloroethylene	1.0 U	25	21.4	86	21.6	86	1	81-114/10
10061-01-5	cis-1,3-Dichloropropene	1.0 U	25	20.5	82*	19.9	80*	3	83-119/10
541-73-1	m-Dichlorobenzene	1.0 U	25	24.0	96	24.1	96	0	86-115/9
95-50-1	o-Dichlorobenzene	1.0 U	25	24.2	97	24.1	96	0	85-115/9
106-46-7	p-Dichlorobenzene	1.0 U	25	23.5	94	24.0	96	2	87-113/10
156-60-5	trans-1,2-Dichloroethylene	1.0 U	25	22.4	90	22.8	91	2	82-126/10
10061-02-6	trans-1,3-Dichloropropene	1.0 U	25	24.5	98	24.5	98	0	87-123/10
100-41-4	Ethylbenzene	1.0 U	25	24.4	98	24.5	98	0	87-118/10
74-83-9	Methyl bromide	2.0 U	25	22.8	91	24.3	97	6	55-151/21
74-87-3	Methyl chloride	2.0 U	25	23.2	93	26.2	105	12	55-173/22
75-09-2	Methylene chloride	5.0 U	25	22.8	91	22.5	90	1	69-125/11
1634-04-4	Methyl Tert Butyl Ether	1.0 U	25	18.9	76	19.5	78	3	75-116/10
71-55-6	1,1,1-Trichloroethane	1.0 U	25	24.1	96	23.2	93	4	79-133/11
79-34-5	1,1,2,2-Tetrachloroethane	1.0 U	25	24.6	98	26.1	104	6	71-120/11
79-00-5	1,1,2-Trichloroethane	1.0 U	25	23.6	94	24.4	98	3	80-114/11
127-18-4	Tetrachloroethylene	1.0 U	25	24.7	99	25.2	101	2	80-131/12
108-88-3	Toluene	1.0 U	25	25.1	100	25.1	100	0	86-116/10
79-01-6	Trichloroethylene	1.0 U	25	22.9	92	23.3	93	2	85-124/10
75-69-4	Trichlorofluoromethane	2.0 U	25	22.8	91	26.1	104	13	66-156/15
75-01-4	Vinyl chloride	1.0 U	25	20.4	82	22.6	90	10	57-153/22
1330-20-7	Xylene (total)	3.0 U	75	73.8	98	73.5	98	0	86-120/10

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F60473
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F60535-2MS	J041707.D	1	10/03/08	RA	n/a	n/a	VJ2610
F60535-2MSD	J041708.D	1	10/03/08	RA	n/a	n/a	VJ2610
F60535-2	J041705.D	1	10/03/08	RA	n/a	n/a	VJ2610

The QC reported here applies to the following samples: Method: EPA 624

F60473-1, F60473-2, F60473-3, F60473-4, F60473-5, F60473-6

CAS No.	Surrogate Recoveries	MS	MSD	F60535-2	Limits
1868-53-7	Dibromofluoromethane	101%	100%	101%	87-116%
17060-07-0	1,2-Dichloroethane-D4	102%	99%	99%	76-127%
2037-26-5	Toluene-D8	100%	101%	105%	86-112%
460-00-4	4-Bromofluorobenzene	97%	99%	104%	84-120%



GC/MS Semi-volatiles

5

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 1

Job Number: F60473

Account: ITVAVAB Shaw E & I, Inc.

Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP26697-MB	X003272.D	1	10/06/08	NAF	10/03/08	OP26697	SX178

The QC reported here applies to the following samples:

Method: EPA 625

F60473-1, F60473-2, F60473-3, F60473-4, F60473-5

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	1.0	ug/l	
208-96-8	Acenaphthylene	ND	5.0	1.0	ug/l	
120-12-7	Anthracene	ND	5.0	1.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	1.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	1.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	1.0	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	1.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	1.0	ug/l	
218-01-9	Chrysene	ND	5.0	1.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	1.0	ug/l	
206-44-0	Fluoranthene	ND	5.0	1.0	ug/l	
86-73-7	Fluorene	ND	5.0	1.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	1.1	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	1.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	1.0	ug/l	
129-00-0	Pyrene	ND	5.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Limits
4165-60-0	Nitrobenzene-d5	61% 42-108%
321-60-8	2-Fluorobiphenyl	61% 40-106%
1718-51-0	Terphenyl-d14	64% 39-121%

Blank Spike Summary

Page 1 of 1

Job Number: F60473
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP26697-BS	X003271.D	1	10/06/08	NAF	10/03/08	OP26697	SX178

The QC reported here applies to the following samples:

Method: EPA 625

F60473-1, F60473-2, F60473-3, F60473-4, F60473-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	38.5	77	58-106
208-96-8	Acenaphthylene	50	37.5	75	58-105
120-12-7	Anthracene	50	37.4	75	65-108
56-55-3	Benzo(a)anthracene	50	38.9	78	63-111
50-32-8	Benzo(a)pyrene	50	38.5	77	62-106
205-99-2	Benzo(b)fluoranthene	50	40.0	80	63-109
191-24-2	Benzo(g,h,i)perylene	50	40.5	81	61-111
207-08-9	Benzo(k)fluoranthene	50	40.8	82	64-111
218-01-9	Chrysene	50	39.8	80	64-111
53-70-3	Dibenzo(a,h)anthracene	50	38.8	78	62-112
206-44-0	Fluoranthene	50	38.7	77	65-114
86-73-7	Fluorene	50	39.4	79	61-106
193-39-5	Indeno(1,2,3-cd)pyrene	50	39.4	79	61-113
90-12-0	1-Methylnaphthalene	50	35.9	72	52-102
91-57-6	2-Methylnaphthalene	50	35.5	71	56-112
91-20-3	Naphthalene	50	33.8	68	50-104
85-01-8	Phenanthrene	50	39.7	79	65-108
129-00-0	Pyrene	50	39.7	79	60-113

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	69%	42-108%
321-60-8	2-Fluorobiphenyl	69%	40-106%
1718-51-0	Terphenyl-d14	72%	39-121%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F60473
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP26697-MS	X003279.D	1	10/06/08	NAF	10/03/08	OP26697	SX178
OP26697-MSD	X003280.D	1	10/06/08	NAF	10/03/08	OP26697	SX178
F60430-6	X003278.D	1	10/06/08	NAF	10/03/08	OP26697	SX178

The QC reported here applies to the following samples:

Method: EPA 625

F60473-1, F60473-2, F60473-3, F60473-4, F60473-5

CAS No.	Compound	F60430-6 ug/l	Spike Q	ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND	96.2	73.0	76	81.9	85	11	58-106/21	
208-96-8	Acenaphthylene	ND	96.2	70.7	74	80.5	84	13	58-105/21	
120-12-7	Anthracene	ND	96.2	71.9	75	82.1	85	13	65-108/19	
56-55-3	Benzo(a)anthracene	ND	96.2	74.6	78	87.2	91	16	63-111/19	
50-32-8	Benzo(a)pyrene	ND	96.2	73.2	76	85.2	89	15	62-106/20	
205-99-2	Benzo(b)fluoranthene	ND	96.2	75.9	79	88.9	92	16	63-109/20	
191-24-2	Benzo(g,h,i)perylene	ND	96.2	80.3	84	91.2	95	13	61-111/21	
207-08-9	Benzo(k)fluoranthene	ND	96.2	76.6	80	86.4	90	12	64-111/20	
218-01-9	Chrysene	ND	96.2	75.9	79	87.9	91	15	64-111/19	
53-70-3	Dibenzo(a,h)anthracene	ND	96.2	74.2	77	86.4	90	15	62-112/20	
206-44-0	Fluoranthene	ND	96.2	76.0	79	85.7	89	12	65-114/21	
86-73-7	Fluorene	ND	96.2	74.9	78	83.6	87	11	61-106/19	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	96.2	77.0	80	89.6	93	15	61-113/20	
90-12-0	1-Methylnaphthalene	ND	96.2	67.8	71	78.4	82	15	52-102/25	
91-57-6	2-Methylnaphthalene	ND	96.2	66.2	69	77.5	81	16	56-112/26	
91-20-3	Naphthalene	ND	96.2	64.5	67	75.7	79	16	50-104/28	
85-01-8	Phenanthrene	ND	96.2	75.3	78	85.8	89	13	65-108/20	
129-00-0	Pyrene	ND	96.2	75.5	79	87.9	91	15	60-113/20	

CAS No.	Surrogate Recoveries	MS	MSD	F60430-6	Limits
4165-60-0	Nitrobenzene-d5	64%	75%	68%	42-108%
321-60-8	2-Fluorobiphenyl	68%	77%	71%	40-106%
1718-51-0	Terphenyl-d14	70%	83%	66%	39-121%



Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F60473
Account: ITVAVAB - Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

QC Batch ID: MP15222
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 10/01/08

Metal	RL	IDL	MB raw	final
Aluminum	200	11		
Antimony	6.0	4.5		
Arsenic	10	3.6		
Barium	200	5		
Beryllium	4.0	1		
Cadmium	5.0	1		
Calcium	1000	100		
Chromium	10	1.6		
Cobalt	50	.83		
Copper	25	2.1		
Iron	300	23		
Lead	5.0	2	1.2	<5.0
Magnesium	5000	100		
Manganese	15	.5		
Molybdenum	50	2.8		
Nickel	40	2.3		
Potassium	10000	100		
Selenium	10	3.1		
Silver	10	1.2		
Sodium	10000	500		
Thallium	10	3.4		
Tin	50	2.8		
Vanadium	50	.66		
Zinc	20	3.8		

Associated samples MP15222: F60473-1, F60473-2, F60473-3, F60473-4, F60473-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F60473
 Account: ITVAVAB - Shaw E & I, Inc.
 Project: Camp Lejeune-AS-4158

QC Batch ID: MP15222
 Matrix Type: AQUEOUS

Methods: SW846 6010B
 Units: ug/l

Prep Date: 10/01/08 10/01/08

Metal	F60473-1 Original	DUP	RPD	QC Limits	F60473-1 Original	MS	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead	15.7	16.2	3.1	0-20	15.7	485	500	93.9	80-120
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Tin									
Vanadium									
Zinc									

Associated samples MP15222: F60473-1, F60473-2, F60473-3, F60473-4, F60473-5

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

673

Prep Date: 10/01/08

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: F60473
 Account: ITVAVAB - Shaw E & I, Inc.
 Project: Camp Lejeune-AS-4158

QC Batch ID: MP15222
 Matrix Type: AQUEOUS

Methods: SW846 6010B
 Units: ug/l

Prep Date: 10/01/08

Metal	F60473-1 Original	SDL 1:5	RPD	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead	15.7	24.2	54.7 (a)	0-10
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Thallium				
Tin				
Vanadium				
Zinc				

Associated samples MP15222: F60473-1, F60473-2, F60473-3, F60473-4, F60473-5

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).



03/05/09

Technical Report for

Shaw E & I, Inc.

Camp Lejeune-AS-4158

125709

Accutest Job Number: F63559

Sampling Date: 02/24/09

Report to:

Shaw E & I, Inc.
500 E Main St Suite 1630
Norfolk, VA 23510
natasha.sullivan@shawgrp.com

ATTN: Natasha Sullivan

Total number of pages in report: **44**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.


Harry Behzadi, Ph.D.
Laboratory Director

Client Service contact: Heather Wandrey 407-425-6700

Certifications: FL (DOH E83510), NC (573), NJ (FL002), MA (FL946), IA (366), LA (03051), KS (E-10327), SC, AK
This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.

Table of Contents

-1-

Section 1: Sample Summary 3

Section 2: Sample Results 4

2.1: F63559-1: USTAS4158-MW07 5

2.2: F63559-2: USTAS4158-MW13 9

2.3: F63559-3: USTAS4158-MW14 13

2.4: F63559-4: USTAS4158-MW15 15

2.5: F63559-5: USTAS4158-MW18 19

Section 3: Misc. Forms 23

3.1: Chain of Custody 24

Section 4: GC/MS Volatiles - QC Data Summaries 26

4.1: Method Blank Summary 27

4.2: Blank Spike Summary 30

4.3: Matrix Spike/Matrix Spike Duplicate Summary 33

Section 5: GC/MS Semi-volatiles - QC Data Summaries 36

5.1: Method Blank Summary 37

5.2: Blank Spike Summary 38

5.3: Matrix Spike/Matrix Spike Duplicate Summary 39

Section 6: Metals Analysis - QC Data Summaries 40

6.1: Prep QC MP15943: Pb 41



Sample Summary

Shaw E & I, Inc.

Job No: F63559

Camp Lejeune-AS-4158
Project No: 125709

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
F63559-1	02/24/09	15:00 MM	02/25/09	AQ	Ground Water	USTAS4158-MW07
F63559-2	02/24/09	14:15 MM	02/25/09	AQ	Ground Water	USTAS4158-MW13
F63559-3	02/24/09	13:30 MM	02/25/09	AQ	Ground Water	USTAS4158-MW14
F63559-4	02/24/09	10:30 MM	02/25/09	AQ	Ground Water	USTAS4158-MW15
F63559-5	02/24/09	13:00 MM	02/25/09	AQ	Ground Water	USTAS4158-MW18



Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: USTAS4158-MW07
Lab Sample ID: F63559-1
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 02/24/09
Date Received: 02/25/09
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0033325.D	1	03/02/09	MM	n/a	n/a	VN1367
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.40	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	2.0	0.48	ug/l	
67-66-3	Chloroform	ND	1.0	0.28	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.54	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.43	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.61	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.26	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.32	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW07
Lab Sample ID: F63559-1
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 02/24/09
Date Received: 02/25/09
Percent Solids: n/a

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	3.0	1.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		87-116%
17060-07-0	1,2-Dichloroethane-D4	85%		76-127%
2037-26-5	Toluene-D8	97%		86-112%
460-00-4	4-Bromofluorobenzene	103%		84-120%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	USTAS4158-MW07	Date Sampled:	02/24/09
Lab Sample ID:	F63559-1	Date Received:	02/25/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 625 EPA 625		
Project:	Camp Lejeune-AS-4158		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X005445.D	1	02/27/09	NAF	02/25/09	OP28176	SX280
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	0.96	ug/l	
208-96-8	Acenaphthylene	ND	4.8	0.96	ug/l	
120-12-7	Anthracene	ND	4.8	0.96	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.96	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.96	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.96	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	0.96	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	0.96	ug/l	
218-01-9	Chrysene	ND	4.8	0.96	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	0.96	ug/l	
206-44-0	Fluoranthene	ND	4.8	0.96	ug/l	
86-73-7	Fluorene	ND	4.8	0.96	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.1	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	0.96	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	0.96	ug/l	
91-20-3	Naphthalene	ND	4.8	0.96	ug/l	
85-01-8	Phenanthrene	ND	4.8	0.96	ug/l	
129-00-0	Pyrene	ND	4.8	0.96	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	72%		42-108%
321-60-8	2-Fluorobiphenyl	70%		40-106%
1718-51-0	Terphenyl-d14	80%		39-121%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW07
Lab Sample ID: F63559-1
Matrix: AQ - Ground Water
Project: Camp Lejeune-AS-4158

Date Sampled: 02/24/09
Date Received: 02/25/09
Percent Solids: n/a

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead ^a	2.4 B	10	2.0	ug/l	1	02/25/09	02/25/09 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA7064
(2) Prep QC Batch: MP15943

(a) Elevated RL due to CRIA exceeding acceptance criteria.

RL = Reporting Limit
MDL = Method Detection Limit
U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: USTAS4158-MW13
Lab Sample ID: F63559-2
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 02/24/09
Date Received: 02/25/09
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0033326.D	1	03/02/09	MM	n/a	n/a	VN1367
Run #2	N0033370.D	2	03/03/09	MM	n/a	n/a	VN1368

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	22.1	1.0	0.40	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	2.0	0.48	ug/l	
67-66-3	Chloroform	ND	1.0	0.28	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.54	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.43	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.61	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	156 ^a	2.0	0.52	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.26	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.32	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW13
Lab Sample ID: F63559-2
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 02/24/09
Date Received: 02/25/09
Percent Solids: n/a

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	3.0	1.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%	105%	87-116%
17060-07-0	1,2-Dichloroethane-D4	86%	94%	76-127%
2037-26-5	Toluene-D8	96%	95%	86-112%
460-00-4	4-Bromofluorobenzene	103%	100%	84-120%

(a) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW13
Lab Sample ID: F63559-2
Matrix: AQ - Ground Water
Method: EPA 625 EPA 625
Project: Camp Lejeune-AS-4158

Date Sampled: 02/24/09
Date Received: 02/25/09
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X005446.D	1	02/27/09	NAF	02/25/09	OP28176	SX280
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	0.95	ug/l	
208-96-8	Acenaphthylene	ND	4.8	0.95	ug/l	
120-12-7	Anthracene	ND	4.8	0.95	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.95	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.95	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.95	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	0.95	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	0.95	ug/l	
218-01-9	Chrysene	ND	4.8	0.95	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	0.95	ug/l	
206-44-0	Fluoranthene	ND	4.8	0.95	ug/l	
86-73-7	Fluorene	ND	4.8	0.95	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	0.95	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	0.95	ug/l	
91-20-3	Naphthalene	ND	4.8	0.95	ug/l	
85-01-8	Phenanthrene	ND	4.8	0.95	ug/l	
129-00-0	Pyrene	ND	4.8	0.95	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	74%		42-108%
321-60-8	2-Fluorobiphenyl	72%		40-106%
1718-51-0	Terphenyl-d14	77%		39-121%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	USTAS4158-MW13	Date Sampled:	02/24/09
Lab Sample ID:	F63559-2	Date Received:	02/25/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-AS-4158		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead ^a	7.6 B	10	2.0	ug/l	1	02/25/09	02/25/09 RS	SW846 6010B ¹	SM 3030C ²

- (1) Instrument QC Batch: MA7064
(2) Prep QC Batch: MP15943

(a) Elevated RL due to CRIA exceeding acceptance criteria.

RL = Reporting Limit
MDL = Method Detection Limit
U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: USTAS4158-MW14
Lab Sample ID: F63559-3
Matrix: AQ - Ground Water
Method: EPA 625 EPA 625
Project: Camp Lejeune-AS-4158

Date Sampled: 02/24/09
Date Received: 02/25/09
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X005447.D	1	02/27/09	NAF	02/25/09	OP28176	SX280
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	0.96	ug/l	
208-96-8	Acenaphthylene	ND	4.8	0.96	ug/l	
120-12-7	Anthracene	ND	4.8	0.96	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.96	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.96	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.96	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	0.96	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	0.96	ug/l	
218-01-9	Chrysene	ND	4.8	0.96	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	0.96	ug/l	
206-44-0	Fluoranthene	ND	4.8	0.96	ug/l	
86-73-7	Fluorene	ND	4.8	0.96	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.1	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	0.96	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	0.96	ug/l	
91-20-3	Naphthalene	ND	4.8	0.96	ug/l	
85-01-8	Phenanthrene	ND	4.8	0.96	ug/l	
129-00-0	Pyrene	ND	4.8	0.96	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	78%		42-108%
321-60-8	2-Fluorobiphenyl	72%		40-106%
1718-51-0	Terphenyl-d14	69%		39-121%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	USTAS4158-MW14	Date Sampled:	02/24/09
Lab Sample ID:	F63559-3	Date Received:	02/25/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-AS-4158		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead ^a	23.3	10	2.0	ug/l	1	02/25/09	02/25/09 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA7064
(2) Prep QC Batch: MP15943

(a) Elevated RL due to CRIA exceeding acceptance criteria.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: USTAS4158-MW15
Lab Sample ID: F63559-4
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 02/24/09
Date Received: 02/25/09
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0033327.D	1	03/02/09	MM	n/a	n/a	VN1367
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.40	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	2.0	0.48	ug/l	
67-66-3	Chloroform	ND	1.0	0.28	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.54	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.43	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.61	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.26	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.32	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	USTAS4158-MW15	Date Sampled:	02/24/09
Lab Sample ID:	F63559-4	Date Received:	02/25/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 624		
Project:	Camp Lejeune-AS-4158		

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	3.0	1.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		87-116%
17060-07-0	1,2-Dichloroethane-D4	87%		76-127%
2037-26-5	Toluene-D8	95%		86-112%
460-00-4	4-Bromofluorobenzene	102%		84-120%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW15
Lab Sample ID: F63559-4
Matrix: AQ - Ground Water
Method: EPA 625 EPA 625
Project: Camp Lejeune-AS-4158

Date Sampled: 02/24/09
Date Received: 02/25/09
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X005448.D	1	02/27/09	NAF	02/25/09	OP28176	SX280
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	0.96	ug/l	
208-96-8	Acenaphthylene	ND	4.8	0.96	ug/l	
120-12-7	Anthracene	ND	4.8	0.96	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.96	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.96	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.96	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	0.96	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	0.96	ug/l	
218-01-9	Chrysene	ND	4.8	0.96	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	0.96	ug/l	
206-44-0	Fluoranthene	ND	4.8	0.96	ug/l	
86-73-7	Fluorene	ND	4.8	0.96	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.1	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	0.96	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	0.96	ug/l	
91-20-3	Naphthalene	ND	4.8	0.96	ug/l	
85-01-8	Phenanthrene	ND	4.8	0.96	ug/l	
129-00-0	Pyrene	ND	4.8	0.96	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	87%		42-108%
321-60-8	2-Fluorobiphenyl	82%		40-106%
1718-51-0	Terphenyl-d14	82%		39-121%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	USTAS4158-MW15	Date Sampled:	02/24/09
Lab Sample ID:	F63559-4	Date Received:	02/25/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-AS-4158		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead ^a	5.6 B	10	2.0	ug/l	1	02/25/09	02/25/09 RS	SW846 6010B ¹	SM 3030C ²

- (1) Instrument QC Batch: MA7064
(2) Prep QC Batch: MP15943
- (a) Elevated RL due to CRIA exceeding acceptance criteria.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: USTAS4158-MW18
Lab Sample ID: F63559-5
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 02/24/09
Date Received: 02/25/09
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0033328.D	1	03/02/09	MM	n/a	n/a	VN1367
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.40	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	2.0	0.48	ug/l	
67-66-3	Chloroform	ND	1.0	0.28	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.54	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.43	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.61	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.26	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.32	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW18
Lab Sample ID: F63559-5
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 02/24/09
Date Received: 02/25/09
Percent Solids: n/a

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	3.0	1.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		87-116%
17060-07-0	1,2-Dichloroethane-D4	86%		76-127%
2037-26-5	Toluene-D8	96%		86-112%
460-00-4	4-Bromofluorobenzene	104%		84-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW18
Lab Sample ID: F63559-5
Matrix: AQ - Ground Water
Method: EPA 625 EPA 625
Project: Camp Lejeune-AS-4158

Date Sampled: 02/24/09
Date Received: 02/25/09
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X005449.D	1	02/27/09	NAF	02/25/09	OP28176	SX280
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	0.95	ug/l	
208-96-8	Acenaphthylene	ND	4.8	0.95	ug/l	
120-12-7	Anthracene	ND	4.8	0.95	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.95	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.95	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.95	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	0.95	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	0.95	ug/l	
218-01-9	Chrysene	ND	4.8	0.95	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	0.95	ug/l	
206-44-0	Fluoranthene	ND	4.8	0.95	ug/l	
86-73-7	Fluorene	ND	4.8	0.95	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	0.95	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	0.95	ug/l	
91-20-3	Naphthalene	ND	4.8	0.95	ug/l	
85-01-8	Phenanthrene	ND	4.8	0.95	ug/l	
129-00-0	Pyrene	ND	4.8	0.95	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	76%		42-108%
321-60-8	2-Fluorobiphenyl	70%		40-106%
1718-51-0	Terphenyl-d14	76%		39-121%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	USTAS4158-MW18	Date Sampled:	02/24/09
Lab Sample ID:	F63559-5	Date Received:	02/25/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-AS-4158		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead ^a	2.0 U	10	2.0	ug/l	1	02/25/09	02/25/09 RS	SW846 6010B ¹	SM 3030C ²

- (1) Instrument QC Batch: MA7064
(2) Prep QC Batch: MP15943
- (a) Elevated RL due to CRIA exceeding acceptance criteria.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL



Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Chain of Custody



Shaw Environmental & Infrastructure, Inc.

CHAIN-OF-CUSTODY RECORD

FL63559

Shaw E & I - Piney Green Rd. Lot 203 Bld 626 - 910-451-2390											Receiving LAB: ACCUTEST										
Project Name				Project Location				Analysis Desired													
CAMP LEJEUNE - AS4158				CAMP LEJEUNE, NC				601/602 plus Xylenes 625 (SVOCs for PAH only) 3030C Lead													
Project Number		Contact		P.O. Number		Reviewed by															
125709		Mark Martin		282002																	
Client Rep				Project Manager																	
US NAVY - LANTDIV				Mark Pisarcik																	
Item	Sample	Date	Time	Comp	Grab	Sample Description	Number of														
No.	Number						Containers														
1	USTAS4158-MW07	2/24/09	15:00		X	USTAS4158-MW07	6	X	X	X											
2	USTAS4158-MW13	2/24/09	14:15		X	USTAS4158-MW13	6	X	X	X											
3	USTAS4158-MW14	2/24/09	13:30		X	USTAS4158-MW14	6	X	X	X											
4	USTAS4158-MW15	2/24/09	10:30		X	USTAS4158-MW15	6	X	X	X											
5	USTAS4158-MW18	2/24/09	13:00		X	USTAS4158-MW18	6	X	X	X											
6	USTAS4158-TB-022409	2/24/09	---		X	Trip Blank	2	X													
7																					
8																					
9																					
10																					

Transfer Number	Item Number	Transfers Relinquished By	Transfers Accepted By	Date	Time	Remarks
1	1 -- 6		FedEx 8684 4334 4672	2/24/09	16:00	14 Day TAT
2		TX	Setae/ACCUTEST	2-25-09	09:00	
3						

3.4

F63559: Chain of Custody

Page 1 of 2

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F63559 CLIENT: Shaw PROJECT: Camp Lejeune - AS4158
 DATE/TIME RECEIVED: 2-25-09 09:00 # OF COOLERS RECEIVED: 1 COOLER TEMPS: 3.4
 METHOD OF DELIVERY: FEDEx UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER
 AIRBILL NUMBERS: 8684 4324 4672

COOLER INFORMATION

- ☐ CUSTODY SEAL NOT PRESENT OR NOT INTACT
- ☐ CHAIN OF CUSTODY NOT RECEIVED (COC)
- ☐ ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- ☐ SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- ☐ TEMPERATURE CRITERIA NOT MET
- ☐ WET ICE RECEIVED IN COOLER

TRIP BLANK INFORMATION

- ☐ TRIP BLANK PROVIDED
- ☒ TRIP BLANK NOT PROVIDED
- ☐ TRIP BLANK NOT ON COC
- ☐ TRIP BLANK INTACT
- ☐ TRIP BLANK NOT INTACT
- ☐ RECEIVED WATER TRIP BLANK
- ☐ RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 8
 NUMBER OF 5035 FIELD KITS ? 8
 NUMBER OF LAB FILTERED METALS ? 8

SUMMARY OF COMMENTS: no TB received

SAMPLE INFORMATION

- ☐ SAMPLE LABELS NOT PRESENT ON ALL BOTTLES
 - ☐ CORRECT NUMBER OF CONTAINERS USED
 - ☐ SAMPLE RECEIVED IMPROPERLY PRESERVED
 - ☐ INSUFFICIENT VOLUME FOR ANALYSIS
 - ☐ TIMES ON COC DOES NOT MATCH LABEL(S)
 - ☐ ID'S ON COC DOES NOT MATCH LABEL(S)
 - ☐ VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
 - ☐ BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
 - ☐ NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
 - ☐ UNCLEAR FILTERING INSTRUCTIONS
 - ☐ UNCLEAR COMPOSITING INSTRUCTIONS
 - ☐ SAMPLE CONTAINER(S) RECEIVED BROKEN
 - ☐ % SOLIDS JAR NOT RECEIVED
 - ☐ 5035 FIELD KIT NOT FROZEN WITHIN 48 HOUR'S
 - ☐ RESIDUAL CHLORINE PRESENT
- (APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS)

TECHNICIAN SIGNATURE/DATE E-T-2-25-09 TECHNICIAN SIGNATURE/DATE LC 2-25-09

ASBD 12/17/07

F63559: Chain of Custody

Page 2 of 2



GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 2

Job Number: F63559
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN1367-MB	N0033324.D	1	03/02/09	MM	n/a	n/a	VN1367

The QC reported here applies to the following samples:

Method: EPA 624

F63559-1, F63559-2, F63559-4, F63559-5

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.40	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	2.0	0.48	ug/l	
67-66-3	Chloroform	ND	1.0	0.28	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.54	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.43	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.61	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.26	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.32	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	3.0	1.2	ug/l	

Method Blank Summary

Job Number: F63559
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN1367-MB	N0033324.D	1	03/02/09	MM	n/a	n/a	VN1367

The QC reported here applies to the following samples: Method: EPA 624

F63559-1, F63559-2, F63559-4, F63559-5

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	104% 87-116%
17060-07-0	1,2-Dichloroethane-D4	87% 76-127%
2037-26-5	Toluene-D8	96% 86-112%
460-00-4	4-Bromofluorobenzene	102% 84-120%

Method Blank Summary

Job Number: F63559
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN1368-MB	N0033352.D	1	03/03/09	MM	n/a	n/a	VN1368

The QC reported here applies to the following samples: Method: EPA 624

F63559-2

CAS No.	Compound	Result	RL	MDL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	106% 87-116%
17060-07-0	1,2-Dichloroethane-D4	88% 76-127%
2037-26-5	Toluene-D8	93% 86-112%
460-00-4	4-Bromofluorobenzene	102% 84-120%

Blank Spike Summary

Page 1 of 2

Job Number: F63559
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN1367-BS	N0033323.D	1	03/02/09	MM	n/a	n/a	VN1367

The QC reported here applies to the following samples:

Method: EPA 624

F63559-1, F63559-2, F63559-4, F63559-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	28.2	113	83-124
75-27-4	Bromodichloromethane	25	25.9	104	76-116
75-25-2	Bromoform	25	26.1	104	68-128
108-90-7	Chlorobenzene	25	26.0	104	87-115
75-00-3	Chloroethane	25	23.7	95	54-166
67-66-3	Chloroform	25	28.8	115	85-123
110-75-8	2-Chloroethyl vinyl ether	125	125	100	63-125
56-23-5	Carbon tetrachloride	25	30.7	123	74-139
75-34-3	1,1-Dichloroethane	25	29.5	118	82-127
75-35-4	1,1-Dichloroethylene	25	30.2	121	75-133
107-06-2	1,2-Dichloroethane	25	25.2	101	76-122
78-87-5	1,2-Dichloropropane	25	27.6	110	81-120
124-48-1	Dibromochloromethane	25	26.3	105	74-116
75-71-8	Dichlorodifluoromethane	25	15.7	63	34-158
156-59-2	cis-1,2-Dichloroethylene	25	27.2	109	81-114
10061-01-5	cis-1,3-Dichloropropene	25	26.3	105	83-119
541-73-1	m-Dichlorobenzene	25	26.7	107	86-115
95-50-1	o-Dichlorobenzene	25	26.1	104	85-115
106-46-7	p-Dichlorobenzene	25	26.3	105	87-113
156-60-5	trans-1,2-Dichloroethylene	25	28.6	114	82-126
10061-02-6	trans-1,3-Dichloropropene	25	26.3	105	87-123
100-41-4	Ethylbenzene	25	25.9	104	87-118
74-83-9	Methyl bromide	25	24.2	97	55-151
74-87-3	Methyl chloride	25	27.9	112	55-173
75-09-2	Methylene chloride	25	26.7	107	69-125
1634-04-4	Methyl Tert Butyl Ether	25	23.8	95	75-116
71-55-6	1,1,1-Trichloroethane	25	29.4	118	79-133
79-34-5	1,1,2,2-Tetrachloroethane	25	23.0	92	71-120
79-00-5	1,1,2-Trichloroethane	25	23.3	93	80-114
127-18-4	Tetrachloroethylene	25	29.5	118	80-131
108-88-3	Toluene	25	25.8	103	86-116
79-01-6	Trichloroethylene	25	29.3	117	85-124
75-69-4	Trichlorofluoromethane	25	24.5	98	66-156
75-01-4	Vinyl chloride	25	22.7	91	57-153
1330-20-7	Xylene (total)	75	75.1	100	86-120

Blank Spike Summary

Job Number: F63559
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN1367-BS	N0033323.D	1	03/02/09	MM	n/a	n/a	VN1367

The QC reported here applies to the following samples: Method: EPA 624

F63559-1, F63559-2, F63559-4, F63559-5

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	105%	87-116%
17060-07-0	1,2-Dichloroethane-D4	94%	76-127%
2037-26-5	Toluene-D8	92%	86-112%
460-00-4	4-Bromofluorobenzene	94%	84-120%

Blank Spike Summary

Job Number: F63559
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN1368-BS	N0033351.D	1	03/03/09	MM	n/a	n/a	VN1368

The QC reported here applies to the following samples: Method: SW846 8260B

F63559-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
1634-04-4	Methyl Tert Butyl Ether	25	23.3	93	75-116

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	106%	87-116%
17060-07-0	1,2-Dichloroethane-D4	90%	76-127%
2037-26-5	Toluene-D8	92%	86-112%
460-00-4	4-Bromofluorobenzene	93%	84-120%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 2

Job Number: F63559
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F63583-1MS	N0033338.D	1	03/02/09	MM	n/a	n/a	VN1367
F63583-1MSD	N0033339.D	1	03/02/09	MM	n/a	n/a	VN1367
F63583-1	N0033329.D	1	03/02/09	MM	n/a	n/a	VN1367

The QC reported here applies to the following samples:

Method: EPA 624

F63559-1, F63559-2, F63559-4, F63559-5

CAS No.	Compound	F63583-1 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	25	28.5	114	27.6	110	3	83-124/11
75-27-4	Bromodichloromethane	ND	25	25.5	102	25.3	101	1	76-116/10
75-25-2	Bromoform	ND	25	24.9	100	26.2	105	5	68-128/11
108-90-7	Chlorobenzene	ND	25	26.1	104	26.2	105	0	87-115/9
75-00-3	Chloroethane	ND	25	23.9	96	23.8	95	0	54-166/20
67-66-3	Chloroform	ND	25	29.1	116	28.4	114	2	85-123/10
110-75-8	2-Chloroethyl vinyl ether	ND	125	ND	0*	ND	0*	nc	63-125/24
56-23-5	Carbon tetrachloride	ND	25	28.7	115	28.6	114	0	74-139/13
75-34-3	1,1-Dichloroethane	ND	25	30.5	122	29.9	120	2	82-127/10
75-35-4	1,1-Dichloroethylene	ND	25	23.8	95	26.1	104	9	75-133/13
107-06-2	1,2-Dichloroethane	ND	25	24.6	98	24.5	98	0	76-122/11
78-87-5	1,2-Dichloropropane	ND	25	27.4	110	27.1	108	1	81-120/11
124-48-1	Dibromochloromethane	ND	25	26.3	105	26.5	106	1	74-116/11
75-71-8	Dichlorodifluoromethane	ND	25	11.3	45	11.5	46	2	34-158/22
156-59-2	cis-1,2-Dichloroethylene	ND	25	27.6	110	27.5	110	0	81-114/10
10061-01-5	cis-1,3-Dichloropropene	ND	25	25.0	100	24.7	99	1	83-119/10
541-73-1	m-Dichlorobenzene	ND	25	26.1	104	25.9	104	1	86-115/9
95-50-1	o-Dichlorobenzene	ND	25	26.3	105	25.9	104	2	85-115/9
106-46-7	p-Dichlorobenzene	ND	25	26.5	106	26.2	105	1	87-113/10
156-60-5	trans-1,2-Dichloroethylene	ND	25	24.4	98	24.8	99	2	82-126/10
10061-02-6	trans-1,3-Dichloropropene	ND	25	25.4	102	25.5	102	0	87-123/10
100-41-4	Ethylbenzene	ND	25	25.0	100	25.0	100	0	87-118/10
74-83-9	Methyl bromide	ND	25	21.6	86	22.3	89	3	55-151/21
74-87-3	Methyl chloride	ND	25	24.2	97	25.1	100	4	55-173/22
75-09-2	Methylene chloride	ND	25	24.0	96	24.7	99	3	69-125/11
1634-04-4	Methyl Tert Butyl Ether	0.60	J 25	20.8	81	22.2	86	7	75-116/10
71-55-6	1,1,1-Trichloroethane	ND	25	28.4	114	27.6	110	3	79-133/11
79-34-5	1,1,2,2-Tetrachloroethane	ND	25	24.0	96	24.7	99	3	71-120/11
79-00-5	1,1,2-Trichloroethane	ND	25	24.5	98	25.3	101	3	80-114/11
127-18-4	Tetrachloroethylene	ND	25	28.2	113	28.0	112	1	80-131/12
108-88-3	Toluene	ND	25	26.2	105	26.4	106	1	86-116/10
79-01-6	Trichloroethylene	ND	25	29.2	117	28.4	114	3	85-124/10
75-69-4	Trichlorofluoromethane	ND	25	18.9	76	20.1	80	6	66-156/15
75-01-4	Vinyl chloride	ND	25	19.1	76	19.8	79	4	57-153/22
1330-20-7	Xylene (total)	ND	75	73.7	98	73.4	98	0	86-120/10

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F63559
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F63583-1MS	N0033338.D	1	03/02/09	MM	n/a	n/a	VN1367
F63583-1MSD	N0033339.D	1	03/02/09	MM	n/a	n/a	VN1367
F63583-1	N0033329.D	1	03/02/09	MM	n/a	n/a	VN1367

The QC reported here applies to the following samples: Method: EPA 624

F63559-1, F63559-2, F63559-4, F63559-5

CAS No.	Surrogate Recoveries	MS	MSD	F63583-1	Limits
1868-53-7	Dibromofluoromethane	105%	105%	105%	87-116%
17060-07-0	1,2-Dichloroethane-D4	90%	89%	85%	76-127%
2037-26-5	Toluene-D8	93%	93%	96%	86-112%
460-00-4	4-Bromofluorobenzene	93%	93%	103%	84-120%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F63559
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F63657-11MS	N0033366.D	1	03/03/09	MM	n/a	n/a	VN1368
F63657-11MSD	N0033367.D	1	03/03/09	MM	n/a	n/a	VN1368
F63657-11	N0033361.D	1	03/03/09	MM	n/a	n/a	VN1368

The QC reported here applies to the following samples: Method: EPA 624

F63559-2

CAS No.	Compound	F63657-11 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
1634-04-4	Methyl Tert Butyl Ether	0.50	J	25	22.2	87	25.5	100	14*	75-116/10

CAS No.	Surrogate Recoveries	MS	MSD	F63657-11	Limits
1868-53-7	Dibromofluoromethane	105%	105%	103%	87-116%
17060-07-0	1,2-Dichloroethane-D4	94%	98%	85%	76-127%
2037-26-5	Toluene-D8	91%	90%	95%	86-112%
460-00-4	4-Bromofluorobenzene	92%	93%	104%	84-120%



GC/MS Semi-volatiles

5

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 1

Job Number: F63559
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP28176-MB	X005443.D	1	02/27/09	NAF	02/25/09	OP28176	SX280

The QC reported here applies to the following samples:

Method: EPA 625

F63559-1, F63559-2, F63559-3, F63559-4, F63559-5

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	1.7	5.0	1.0	ug/l	J
208-96-8	Acenaphthylene	1.6	5.0	1.0	ug/l	J
120-12-7	Anthracene	2.0	5.0	1.0	ug/l	J
56-55-3	Benzo(a)anthracene	2.0	5.0	1.0	ug/l	J
50-32-8	Benzo(a)pyrene	1.6	5.0	1.0	ug/l	J
205-99-2	Benzo(b)fluoranthene	1.8	5.0	1.0	ug/l	J
191-24-2	Benzo(g,h,i)perylene	2.1	5.0	1.0	ug/l	J
207-08-9	Benzo(k)fluoranthene	2.1	5.0	1.0	ug/l	J
218-01-9	Chrysene	2.4	5.0	1.0	ug/l	J
53-70-3	Dibenzo(a,h)anthracene	1.7	5.0	1.0	ug/l	J
206-44-0	Fluoranthene	2.0	5.0	1.0	ug/l	J
86-73-7	Fluorene	1.8	5.0	1.0	ug/l	J
193-39-5	Indeno(1,2,3-cd)pyrene	1.5	5.0	1.1	ug/l	J
90-12-0	1-Methylnaphthalene	1.2	5.0	1.0	ug/l	J
91-57-6	2-Methylnaphthalene	ND	5.0	1.0	ug/l	J
91-20-3	Naphthalene	1.3	5.0	1.0	ug/l	J
85-01-8	Phenanthrene	2.3	5.0	1.0	ug/l	J
129-00-0	Pyrene	2.1	5.0	1.0	ug/l	J

CAS No.	Surrogate Recoveries	Limits
4165-60-0	Nitrobenzene-d5	89% 42-108%
321-60-8	2-Fluorobiphenyl	82% 40-106%
1718-51-0	Terphenyl-d14	91% 39-121%

Blank Spike Summary

Page 1 of 1

Job Number: F63559
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP28176-BS	X005441.D	1	02/27/09	NAF	02/25/09	OP28176	SX280

The QC reported here applies to the following samples:

Method: EPA 625

F63559-1, F63559-2, F63559-3, F63559-4, F63559-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	40.2	80	58-106
208-96-8	Acenaphthylene	50	39.4	79	58-105
120-12-7	Anthracene	50	42.5	85	65-108
56-55-3	Benzo(a)anthracene	50	44.5	89	63-111
50-32-8	Benzo(a)pyrene	50	44.3	89	62-106
205-99-2	Benzo(b)fluoranthene	50	46.4	93	63-109
191-24-2	Benzo(g,h,i)perylene	50	48.3	97	61-111
207-08-9	Benzo(k)fluoranthene	50	45.2	90	64-111
218-01-9	Chrysene	50	45.2	90	64-111
53-70-3	Dibenzo(a,h)anthracene	50	47.8	96	62-112
206-44-0	Fluoranthene	50	44.7	89	65-114
86-73-7	Fluorene	50	43.2	86	61-106
193-39-5	Indeno(1,2,3-cd)pyrene	50	46.5	93	61-113
90-12-0	1-Methylnaphthalene	50	33.8	68	52-102
91-57-6	2-Methylnaphthalene	50	41.8	84	56-112
91-20-3	Naphthalene	50	33.4	67	50-104
85-01-8	Phenanthrene	50	44.7	89	65-108
129-00-0	Pyrene	50	44.2	88	60-113

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	87%	42-108%
321-60-8	2-Fluorobiphenyl	83%	40-106%
1718-51-0	Terphenyl-d14	85%	39-121%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F63559
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP28176-MS	X005450.D	1	02/27/09	NAF	02/25/09	OP28176	SX280
OP28176-MSD	X005451.D	1	02/27/09	NAF	02/25/09	OP28176	SX280
F63559-5	X005449.D	1	02/27/09	NAF	02/25/09	OP28176	SX280

The QC reported here applies to the following samples:

Method: EPA 625

F63559-1, F63559-2, F63559-3, F63559-4, F63559-5

CAS No.	Compound	F63559-5 ug/l	Spike Q	ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND	96.2	81.1	84	78.1	81	4	58-106/21	
208-96-8	Acenaphthylene	ND	96.2	78.9	82	74.7	78	5	58-105/21	
120-12-7	Anthracene	ND	96.2	82.3	86	78.0	81	5	65-108/19	
56-55-3	Benzo(a)anthracene	ND	96.2	85.2	89	82.0	85	4	63-111/19	
50-32-8	Benzo(a)pyrene	ND	96.2	84.4	88	80.3	84	5	62-106/20	
205-99-2	Benzo(b)fluoranthene	ND	96.2	86.7	90	83.5	87	4	63-109/20	
191-24-2	Benzo(g,h,i)perylene	ND	96.2	93.7	97	89.9	93	4	61-111/21	
207-08-9	Benzo(k)fluoranthene	ND	96.2	88.6	92	84.1	87	5	64-111/20	
218-01-9	Chrysene	ND	96.2	87.9	91	84.7	88	4	64-111/19	
53-70-3	Dibenzo(a,h)anthracene	ND	96.2	91.6	95	87.2	91	5	62-112/20	
206-44-0	Fluoranthene	ND	96.2	85.6	89	81.5	85	5	65-114/21	
86-73-7	Fluorene	ND	96.2	85.6	89	80.7	84	6	61-106/19	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	96.2	90.4	94	86.3	90	5	61-113/20	
90-12-0	1-Methylnaphthalene	ND	96.2	73.7	77	68.1	71	8	52-102/25	
91-20-3	Naphthalene	ND	96.2	68.7	71	66.3	69	4	50-104/28	
85-01-8	Phenanthrene	ND	96.2	86.8	90	83.7	87	4	65-108/20	
129-00-0	Pyrene	ND	96.2	87.2	91	83.1	86	5	60-113/20	

CAS No.	Surrogate Recoveries	MS	MSD	F63559-5	Limits
4165-60-0	Nitrobenzene-d5	75%	79%	76%	42-108%
321-60-8	2-Fluorobiphenyl	77%	77%	70%	40-106%
1718-51-0	Terphenyl-d14	82%	84%	76%	39-121%



Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F63559
Account: ITVAVAB - Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

QC Batch ID: MP15943
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 02/25/09

Metal	RL	IDL	MB raw	final
Aluminum	200	11		
Antimony	6.0	4.5		
Arsenic	10	3.6		
Barium	200	5		
Beryllium	4.0	1		
Cadmium	5.0	1		
Calcium	1000	100		
Chromium	10	1.6		
Cobalt	50	.83		
Copper	25	2.1		
Iron	300	23		
Lead	10	2	1.8	<10
Magnesium	5000	100		
Manganese	15	.5		
Molybdenum	50	2.8		
Nickel	40	2.3		
Potassium	10000	100		
Selenium	10	3.1		
Silver	10	1.2		
Sodium	10000	500		
Thallium	10	3.4		
Tin	50	2.8		
Vanadium	50	.66		
Zinc	20	3.8		

Associated samples MP15943: F63559-1, F63559-2, F63559-3, F63559-4, F63559-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F63559
 Account: ITVAVAB - Shaw E & I, Inc.
 Project: Camp Lejeune-AS-4158

QC Batch ID: MP15943
 Matrix Type: AQUEOUS

Methods: SW846 6010B
 Units: ug/l

Prep Date: 02/25/09

02/25/09

Metal	F63559-1 Original	DUP	RPD	QC Limits	F63559-1 Original	MS	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead	2.4	2.1	13.3	0-20	2.4	501	500	99.7	80-120
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Tin									
Vanadium									
Zinc									

Associated samples MP15943: F63559-1, F63559-2, F63559-3, F63559-4, F63559-5

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F63559
 Account: ITVAVAB - Shaw E & I, Inc.
 Project: Camp Lejeune-AS-4158

QC Batch ID: MP15943
 Matrix Type: AQUEOUS

Methods: SW846 6010B
 Units: ug/l

Prep Date: 02/25/09

Metal	BSP Result	Spike lot MPFLICP1	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead	504	500	100.8	80-120
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Thallium				
Tin				
Vanadium				
Zinc				

Associated samples MP15943: F63559-1, F63559-2, F63559-3, F63559-4, F63559-5

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: F63559
 Account: ITVAVAB - Shaw E & I, Inc.
 Project: Camp Lejeune-AS-4158

QC Batch ID: MP15943
 Matrix Type: AQUEOUS

Methods: SW846 6010B
 Units: ug/l

Prep Date: 02/25/09

Metal	F63559-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead	2.41	0.00	100.0(a)	0-10
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Thallium				
Tin				
Vanadium				
Zinc				

Associated samples MP15943: F63559-1, F63559-2, F63559-3, F63559-4, F63559-5

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).



05/01/09

Technical Report for

Shaw E & I, Inc.

Camp Lejeune-AS-4158

125709

Accutest Job Number: F63583

Sampling Date: 02/25/09

Report to:

Shaw E & I, Inc.

natasha.sullivan@shawgrp.com

ATTN: Natasha Sullivan

Total number of pages in report: **56**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.


Harry Behzadi, Ph.D.
Laboratory Director

Client Service contact: Heather Wandrey 407-425-6700

Certifications: FL (DOH E83510), NC (573), NJ (FL002), MA (FL946), IA (366), LA (03051), KS (E-10327), SC, AK
This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.

Table of Contents

-1-

Section 1: Sample Summary	3
Section 2: Sample Results	4
2.1: F63583-1: USTAS4158-MW16	5
2.2: F63583-2: USTAS4158-MW04	9
2.3: F63583-3: USTAS4158-MW05	13
2.4: F63583-4: USTAS4158-MW01	17
2.5: F63583-5: USTAS4158-MW03	21
2.6: F63583-6: USTAS4158-MW06	25
2.7: F63583-7: USTAS4158-MW08	29
2.8: F63583-8: USTAS4158-MW08D	33
2.9: F63583-9: USTAS4158-TB-022509	36
Section 3: Misc. Forms	38
3.1: Chain of Custody	39
Section 4: GC/MS Volatiles - QC Data Summaries	41
4.1: Method Blank Summary	42
4.2: Blank Spike Summary	44
4.3: Matrix Spike/Matrix Spike Duplicate Summary	46
Section 5: GC/MS Semi-volatiles - QC Data Summaries	48
5.1: Method Blank Summary	49
5.2: Blank Spike Summary	50
5.3: Matrix Spike/Matrix Spike Duplicate Summary	51
Section 6: Metals Analysis - QC Data Summaries	52
6.1: Prep QC MP15954: Pb	53



Sample Summary

Shaw E & I, Inc.

Job No: F63583

Camp Lejeune-AS-4158
Project No: 125709

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
F63583-1	02/25/09	09:00 MM	02/26/09	AQ	Ground Water	USTAS4158-MW16
F63583-2	02/25/09	10:00 MM	02/26/09	AQ	Ground Water	USTAS4158-MW04
F63583-3	02/25/09	11:00 MM	02/26/09	AQ	Ground Water	USTAS4158-MW05
F63583-4	02/25/09	12:00 MM	02/26/09	AQ	Ground Water	USTAS4158-MW01
F63583-5	02/25/09	12:50 MM	02/26/09	AQ	Ground Water	USTAS4158-MW03
F63583-6	02/25/09	14:15 MM	02/26/09	AQ	Ground Water	USTAS4158-MW06
F63583-7	02/25/09	15:00 MM	02/26/09	AQ	Ground Water	USTAS4158-MW08
F63583-8	02/25/09	15:00 MM	02/26/09	AQ	Ground Water	USTAS4158-MW08D
F63583-9	02/25/09	00:00 MM	02/26/09	AQ	Trip Blank Water	USTAS4158-TB-022509



Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: USTAS4158-MW16
Lab Sample ID: F63583-1
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 02/25/09
Date Received: 02/26/09
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0033329.D	1	03/02/09	MM	n/a	n/a	VN1367
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.40	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	2.0	0.48	ug/l	
67-66-3	Chloroform	ND	1.0	0.28	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.54	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.43	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.61	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.60	1.0	0.26	ug/l	J
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.26	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.32	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW16
Lab Sample ID: F63583-1
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 02/25/09
Date Received: 02/26/09
Percent Solids: n/a

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	3.0	1.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		87-116%
17060-07-0	1,2-Dichloroethane-D4	85%		76-127%
2037-26-5	Toluene-D8	96%		86-112%
460-00-4	4-Bromofluorobenzene	103%		84-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW16
Lab Sample ID: F63583-1
Matrix: AQ - Ground Water
Method: EPA 625 EPA 625
Project: Camp Lejeune-AS-4158

Date Sampled: 02/25/09
Date Received: 02/26/09
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X005477.D	1	03/02/09	NAF	02/27/09	OP28201	SX281
Run #2							

	Initial Volume	Final Volume
Run #1	1030 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.9	0.97	ug/l	
208-96-8	Acenaphthylene	ND	4.9	0.97	ug/l	
120-12-7	Anthracene	ND	4.9	0.97	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.9	0.97	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.9	0.97	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.9	0.97	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.9	0.97	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.9	0.97	ug/l	
218-01-9	Chrysene	ND	4.9	0.97	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.9	0.97	ug/l	
206-44-0	Fluoranthene	ND	4.9	0.97	ug/l	
86-73-7	Fluorene	ND	4.9	0.97	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.9	1.1	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.9	0.97	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.9	0.97	ug/l	
91-20-3	Naphthalene	ND	4.9	0.97	ug/l	
85-01-8	Phenanthrene	ND	4.9	0.97	ug/l	
129-00-0	Pyrene	ND	4.9	0.97	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	64%		42-108%
321-60-8	2-Fluorobiphenyl	66%		40-106%
1718-51-0	Terphenyl-d14	64%		39-121%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW16
Lab Sample ID: F63583-1
Matrix: AQ - Ground Water
Project: Camp Lejeune-AS-4158

Date Sampled: 02/25/09
Date Received: 02/26/09
Percent Solids: n/a

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead ^a	6.8 B	10	2.0	ug/l	1	02/26/09	02/27/09 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA7068
(2) Prep QC Batch: MP15954

(a) Elevated RL due to CRIA exceeding acceptance criteria.

RL = Reporting Limit
MDL = Method Detection Limit
U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: USTAS4158-MW04
Lab Sample ID: F63583-2
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 02/25/09
Date Received: 02/26/09
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0033330.D	1	03/02/09	MM	n/a	n/a	VN1367
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.40	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	2.0	0.48	ug/l	
67-66-3	Chloroform	ND	1.0	0.28	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.54	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.43	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.61	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.26	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.32	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW04
Lab Sample ID: F63583-2
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 02/25/09
Date Received: 02/26/09
Percent Solids: n/a

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	3.0	1.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		87-116%
17060-07-0	1,2-Dichloroethane-D4	85%		76-127%
2037-26-5	Toluene-D8	95%		86-112%
460-00-4	4-Bromofluorobenzene	104%		84-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	USTAS4158-MW04	Date Sampled:	02/25/09
Lab Sample ID:	F63583-2	Date Received:	02/26/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 625 EPA 625		
Project:	Camp Lejeune-AS-4158		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X005478.D	1	03/02/09	NAF	02/27/09	OP28201	SX281
Run #2							

	Initial Volume	Final Volume
Run #1	1030 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.9	0.97	ug/l	
208-96-8	Acenaphthylene	ND	4.9	0.97	ug/l	
120-12-7	Anthracene	ND	4.9	0.97	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.9	0.97	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.9	0.97	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.9	0.97	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.9	0.97	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.9	0.97	ug/l	
218-01-9	Chrysene	ND	4.9	0.97	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.9	0.97	ug/l	
206-44-0	Fluoranthene	ND	4.9	0.97	ug/l	
86-73-7	Fluorene	ND	4.9	0.97	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.9	1.1	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.9	0.97	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.9	0.97	ug/l	
91-20-3	Naphthalene	ND	4.9	0.97	ug/l	
85-01-8	Phenanthrene	ND	4.9	0.97	ug/l	
129-00-0	Pyrene	ND	4.9	0.97	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	69%		42-108%
321-60-8	2-Fluorobiphenyl	70%		40-106%
1718-51-0	Terphenyl-d14	69%		39-121%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	USTAS4158-MW04	Date Sampled:	02/25/09
Lab Sample ID:	F63583-2	Date Received:	02/26/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-AS-4158		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead ^a	2.3 B	10	2.0	ug/l	1	02/26/09	02/27/09 RS	SW846 6010B ¹	SM 3030C ²

- (1) Instrument QC Batch: MA7068
(2) Prep QC Batch: MP15954
- (a) Elevated RL due to CRIA exceeding acceptance criteria.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: USTAS4158-MW05
Lab Sample ID: F63583-3
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 02/25/09
Date Received: 02/26/09
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0033331.D	1	03/02/09	MM	n/a	n/a	VN1367
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.40	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	2.0	0.48	ug/l	
67-66-3	Chloroform	ND	1.0	0.28	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.54	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.43	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.61	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.26	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.32	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	USTAS4158-MW05	Date Sampled:	02/25/09
Lab Sample ID:	F63583-3	Date Received:	02/26/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 624		
Project:	Camp Lejeune-AS-4158		

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	3.0	1.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		87-116%
17060-07-0	1,2-Dichloroethane-D4	87%		76-127%
2037-26-5	Toluene-D8	96%		86-112%
460-00-4	4-Bromofluorobenzene	103%		84-120%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW05
Lab Sample ID: F63583-3
Matrix: AQ - Ground Water
Method: EPA 625 EPA 625
Project: Camp Lejeune-AS-4158

Date Sampled: 02/25/09
Date Received: 02/26/09
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X005479.D	1	03/02/09	NAF	02/27/09	OP28201	SX281
Run #2							

	Initial Volume	Final Volume
Run #1	1030 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.9	0.97	ug/l	
208-96-8	Acenaphthylene	ND	4.9	0.97	ug/l	
120-12-7	Anthracene	ND	4.9	0.97	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.9	0.97	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.9	0.97	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.9	0.97	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.9	0.97	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.9	0.97	ug/l	
218-01-9	Chrysene	ND	4.9	0.97	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.9	0.97	ug/l	
206-44-0	Fluoranthene	ND	4.9	0.97	ug/l	
86-73-7	Fluorene	ND	4.9	0.97	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.9	1.1	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.9	0.97	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.9	0.97	ug/l	
91-20-3	Naphthalene	ND	4.9	0.97	ug/l	
85-01-8	Phenanthrene	ND	4.9	0.97	ug/l	
129-00-0	Pyrene	ND	4.9	0.97	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	78%		42-108%
321-60-8	2-Fluorobiphenyl	79%		40-106%
1718-51-0	Terphenyl-d14	72%		39-121%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW05
Lab Sample ID: F63583-3
Matrix: AQ - Ground Water
Project: Camp Lejeune-AS-4158

Date Sampled: 02/25/09
Date Received: 02/26/09
Percent Solids: n/a

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead ^a	2.0 U	10	2.0	ug/l	1	02/26/09	02/27/09 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA7068
(2) Prep QC Batch: MP15954

(a) Elevated RL due to CRIA exceeding acceptance criteria.

RL = Reporting Limit
MDL = Method Detection Limit
U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	USTAS4158-MW01	Date Sampled:	02/25/09
Lab Sample ID:	F63583-4	Date Received:	02/26/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 624		
Project:	Camp Lejeune-AS-4158		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0033332.D	1	03/02/09	MM	n/a	n/a	VN1367
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.40	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	2.0	0.48	ug/l	
67-66-3	Chloroform	ND	1.0	0.28	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.54	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.43	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.61	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.26	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.32	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	USTAS4158-MW01	Date Sampled:	02/25/09
Lab Sample ID:	F63583-4	Date Received:	02/26/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 624		
Project:	Camp Lejeune-AS-4158		

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	3.0	1.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		87-116%
17060-07-0	1,2-Dichloroethane-D4	86%		76-127%
2037-26-5	Toluene-D8	97%		86-112%
460-00-4	4-Bromofluorobenzene	104%		84-120%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	USTAS4158-MW01	Date Sampled:	02/25/09
Lab Sample ID:	F63583-4	Date Received:	02/26/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 625 EPA 625		
Project:	Camp Lejeune-AS-4158		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X005480.D	1	03/02/09	NAF	02/27/09	OP28201	SX281
Run #2							

	Initial Volume	Final Volume
Run #1	990 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.1	1.0	ug/l	
208-96-8	Acenaphthylene	ND	5.1	1.0	ug/l	
120-12-7	Anthracene	ND	5.1	1.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.1	1.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.1	1.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.1	1.0	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.1	1.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.1	1.0	ug/l	
218-01-9	Chrysene	ND	5.1	1.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.1	1.0	ug/l	
206-44-0	Fluoranthene	ND	5.1	1.0	ug/l	
86-73-7	Fluorene	ND	5.1	1.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.1	1.1	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.1	1.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.1	1.0	ug/l	
91-20-3	Naphthalene	ND	5.1	1.0	ug/l	
85-01-8	Phenanthrene	ND	5.1	1.0	ug/l	
129-00-0	Pyrene	ND	5.1	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	66%		42-108%
321-60-8	2-Fluorobiphenyl	67%		40-106%
1718-51-0	Terphenyl-d14	53%		39-121%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW01
Lab Sample ID: F63583-4
Matrix: AQ - Ground Water
Project: Camp Lejeune-AS-4158

Date Sampled: 02/25/09
Date Received: 02/26/09
Percent Solids: n/a

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead ^a	5.4 B	10	2.0	ug/l	1	02/26/09	02/27/09 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA7068
(2) Prep QC Batch: MP15954

(a) Elevated RL due to CRIA exceeding acceptance criteria.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: USTAS4158-MW03
Lab Sample ID: F63583-5
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 02/25/09
Date Received: 02/26/09
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	N0033333.D	1	03/02/09	MM	n/a	n/a	VN1367
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.40	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	2.0	0.48	ug/l	
67-66-3	Chloroform	ND	1.0	0.28	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.54	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.43	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.61	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.26	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.32	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW03
Lab Sample ID: F63583-5
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 02/25/09
Date Received: 02/26/09
Percent Solids: n/a

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	3.0	1.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		87-116%
17060-07-0	1,2-Dichloroethane-D4	85%		76-127%
2037-26-5	Toluene-D8	95%		86-112%
460-00-4	4-Bromofluorobenzene	104%		84-120%

(a) Sample vial(s) contained significant headspace; reported results are considered minimum values.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW03
Lab Sample ID: F63583-5
Matrix: AQ - Ground Water
Method: EPA 625 EPA 625
Project: Camp Lejeune-AS-4158

Date Sampled: 02/25/09
Date Received: 02/26/09
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X005481.D	1	03/02/09	NAF	02/27/09	OP28201	SX281
Run #2							

	Initial Volume	Final Volume
Run #1	1020 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.9	0.98	ug/l	
208-96-8	Acenaphthylene	ND	4.9	0.98	ug/l	
120-12-7	Anthracene	ND	4.9	0.98	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.9	0.98	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.9	0.98	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.9	0.98	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.9	0.98	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.9	0.98	ug/l	
218-01-9	Chrysene	ND	4.9	0.98	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.9	0.98	ug/l	
206-44-0	Fluoranthene	ND	4.9	0.98	ug/l	
86-73-7	Fluorene	ND	4.9	0.98	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.9	1.1	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.9	0.98	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.9	0.98	ug/l	
91-20-3	Naphthalene	ND	4.9	0.98	ug/l	
85-01-8	Phenanthrene	ND	4.9	0.98	ug/l	
129-00-0	Pyrene	ND	4.9	0.98	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	72%		42-108%
321-60-8	2-Fluorobiphenyl	73%		40-106%
1718-51-0	Terphenyl-d14	69%		39-121%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	USTAS4158-MW03	Date Sampled:	02/25/09
Lab Sample ID:	F63583-5	Date Received:	02/26/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-AS-4158		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead ^a	5.5 B	10	2.0	ug/l	1	02/26/09	02/27/09 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA7068
(2) Prep QC Batch: MP15954

(a) Elevated RL due to CRIA exceeding acceptance criteria.

RL = Reporting Limit
MDL = Method Detection Limit
U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: USTAS4158-MW06
Lab Sample ID: F63583-6
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 02/25/09
Date Received: 02/26/09
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0033334.D	1	03/02/09	MM	n/a	n/a	VN1367
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.40	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	2.0	0.48	ug/l	
67-66-3	Chloroform	ND	1.0	0.28	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.54	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.43	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.61	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.26	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.32	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW06
Lab Sample ID: F63583-6
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 02/25/09
Date Received: 02/26/09
Percent Solids: n/a

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	3.0	1.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		87-116%
17060-07-0	1,2-Dichloroethane-D4	87%		76-127%
2037-26-5	Toluene-D8	97%		86-112%
460-00-4	4-Bromofluorobenzene	104%		84-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW06
Lab Sample ID: F63583-6
Matrix: AQ - Ground Water
Method: EPA 625 EPA 625
Project: Camp Lejeune-AS-4158

Date Sampled: 02/25/09
Date Received: 02/26/09
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X005482.D	1	03/02/09	NAF	02/27/09	OP28201	SX281
Run #2							

	Initial Volume	Final Volume
Run #1	1030 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.9	0.97	ug/l	
208-96-8	Acenaphthylene	ND	4.9	0.97	ug/l	
120-12-7	Anthracene	ND	4.9	0.97	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.9	0.97	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.9	0.97	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.9	0.97	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.9	0.97	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.9	0.97	ug/l	
218-01-9	Chrysene	ND	4.9	0.97	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.9	0.97	ug/l	
206-44-0	Fluoranthene	ND	4.9	0.97	ug/l	
86-73-7	Fluorene	ND	4.9	0.97	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.9	1.1	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.9	0.97	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.9	0.97	ug/l	
91-20-3	Naphthalene	ND	4.9	0.97	ug/l	
85-01-8	Phenanthrene	ND	4.9	0.97	ug/l	
129-00-0	Pyrene	ND	4.9	0.97	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	66%		42-108%
321-60-8	2-Fluorobiphenyl	65%		40-106%
1718-51-0	Terphenyl-d14	58%		39-121%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW06
Lab Sample ID: F63583-6
Matrix: AQ - Ground Water
Project: Camp Lejeune-AS-4158

Date Sampled: 02/25/09
Date Received: 02/26/09
Percent Solids: n/a

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead ^a	3.9 B	10	2.0	ug/l	1	02/26/09	02/27/09 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA7068
(2) Prep QC Batch: MP15954

(a) Elevated RL due to CRIA exceeding acceptance criteria.

RL = Reporting Limit
MDL = Method Detection Limit
U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: USTAS4158-MW08
Lab Sample ID: F63583-7
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 02/25/09
Date Received: 02/26/09
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0033335.D	1	03/02/09	MM	n/a	n/a	VN1367
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.40	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	2.0	0.48	ug/l	
67-66-3	Chloroform	ND	1.0	0.28	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.54	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.43	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.61	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.26	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.32	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	USTAS4158-MW08	Date Sampled:	02/25/09
Lab Sample ID:	F63583-7	Date Received:	02/26/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 624		
Project:	Camp Lejeune-AS-4158		

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	3.0	1.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		87-116%
17060-07-0	1,2-Dichloroethane-D4	86%		76-127%
2037-26-5	Toluene-D8	98%		86-112%
460-00-4	4-Bromofluorobenzene	102%		84-120%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW08
Lab Sample ID: F63583-7
Matrix: AQ - Ground Water
Method: EPA 625 EPA 625
Project: Camp Lejeune-AS-4158

Date Sampled: 02/25/09
Date Received: 02/26/09
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X005483.D	1	03/02/09	NAF	02/27/09	OP28201	SX281
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	0.96	ug/l	
208-96-8	Acenaphthylene	ND	4.8	0.96	ug/l	
120-12-7	Anthracene	ND	4.8	0.96	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.96	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.96	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.96	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	0.96	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	0.96	ug/l	
218-01-9	Chrysene	ND	4.8	0.96	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	0.96	ug/l	
206-44-0	Fluoranthene	ND	4.8	0.96	ug/l	
86-73-7	Fluorene	ND	4.8	0.96	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.1	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	0.96	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	0.96	ug/l	
91-20-3	Naphthalene	ND	4.8	0.96	ug/l	
85-01-8	Phenanthrene	ND	4.8	0.96	ug/l	
129-00-0	Pyrene	ND	4.8	0.96	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	70%		42-108%
321-60-8	2-Fluorobiphenyl	71%		40-106%
1718-51-0	Terphenyl-d14	60%		39-121%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	USTAS4158-MW08	Date Sampled:	02/25/09
Lab Sample ID:	F63583-7	Date Received:	02/26/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-AS-4158		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead ^a	2.2 B	10	2.0	ug/l	1	02/26/09	02/27/09 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA7068
(2) Prep QC Batch: MP15954

(a) Elevated RL due to CRIA exceeding acceptance criteria.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Page 1 of 2

Client Sample ID:	USTAS4158-MW08D	Date Sampled:	02/25/09
Lab Sample ID:	F63583-8	Date Received:	02/26/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 624		
Project:	Camp Lejeune-AS-4158		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0033336.D	1	03/02/09	MM	n/a	n/a	VN1367
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.40	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	2.0	0.48	ug/l	
67-66-3	Chloroform	ND	1.0	0.28	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.54	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.43	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.61	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.26	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.32	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW08D
Lab Sample ID: F63583-8
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 02/25/09
Date Received: 02/26/09
Percent Solids: n/a

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	3.0	1.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		87-116%
17060-07-0	1,2-Dichloroethane-D4	85%		76-127%
2037-26-5	Toluene-D8	97%		86-112%
460-00-4	4-Bromofluorobenzene	105%		84-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW08D
Lab Sample ID: F63583-8
Matrix: AQ - Ground Water
Project: Camp Lejeune-AS-4158

Date Sampled: 02/25/09
Date Received: 02/26/09
Percent Solids: n/a

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead ^a	11.6	10	2.0	ug/l	1	02/26/09	02/27/09 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA7068
(2) Prep QC Batch: MP15954

(a) Elevated RL due to CRIA exceeding acceptance criteria.

RL = Reporting Limit
MDL = Method Detection Limit
U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Page 1 of 2

Client Sample ID:	USTAS4158-TB-022509	Date Sampled:	02/25/09
Lab Sample ID:	F63583-9	Date Received:	02/26/09
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	EPA 624		
Project:	Camp Lejeune-AS-4158		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0033337.D	1	03/02/09	MM	n/a	n/a	VN1367
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.40	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	2.0	0.48	ug/l	
67-66-3	Chloroform	ND	1.0	0.28	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.54	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.43	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.61	ug/l	
75-09-2	Methylene chloride	1.2	5.0	1.0	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.26	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.32	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	USTAS4158-TB-022509	Date Sampled:	02/25/09
Lab Sample ID:	F63583-9	Date Received:	02/26/09
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	EPA 624		
Project:	Camp Lejeune-AS-4158		

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	3.0	1.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		87-116%
17060-07-0	1,2-Dichloroethane-D4	85%		76-127%
2037-26-5	Toluene-D8	97%		86-112%
460-00-4	4-Bromofluorobenzene	105%		84-120%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound



Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Chain of Custody

2509 F63583 Shaw™

Shaw Environmental & Infrastructure, Inc.

3.1 3

2.2 2.4

Page 1 of 2

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F63583 CLIENT: Shaw PROJECT: Camp LeDune
 DATE/TIME RECEIVED: 2/26/09 9:45 # OF COOLERS RECEIVED: 2 COOLER TEMPS: 2.2 2.4
 METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER
 AIRBILL NUMBERS: 8084 4334 4683

COOLER INFORMATION

- ☐ CUSTODY SEAL NOT PRESENT OR NOT INTACT
- ☐ CHAIN OF CUSTODY NOT RECEIVED (COC)
- ☐ ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- ☐ SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- ☐ TEMPERATURE CRITERIA NOT MET
- ☐ WET ICE RECEIVED IN COOLER

TRIP BLANK INFORMATION

- ☒ TRIP BLANK PROVIDED
- ☐ TRIP BLANK NOT PROVIDED
- ☐ TRIP BLANK NOT ON COC
- ☒ TRIP BLANK INTACT
- ☐ TRIP BLANK NOT INTACT
- ☒ RECEIVED WATER TRIP BLANK
- ☐ RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 0
 NUMBER OF 5035 FIELD KITS ? 0
 NUMBER OF LAB FILTERED METALS ? 0

SUMMARY OF COMMENTS: Received 2 Ambers broken for Sample 7
Sample 8 times on metal and Amber does not match coc (15:15) Cx says 15:00

SAMPLE INFORMATION

- ☐ SAMPLE LABELS NOT PRESENT ON ALL BOTTLES
 - ☐ CORRECT NUMBER OF CONTAINERS USED
 - ☐ SAMPLE RECEIVED IMPROPERLY PRESERVED
 - ☐ INSUFFICIENT VOLUME FOR ANALYSIS
 - ☐ TIMES ON COC DOES NOT MATCH LABEL(S)
 - ☐ ID'S ON COC DOES NOT MATCH LABEL(S)
 - ☐ VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
 - ☐ BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
 - ☐ NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
 - ☐ UNCLEAR FILTERING INSTRUCTIONS
 - ☐ UNCLEAR COMPOSITING INSTRUCTIONS
 - ☒ SAMPLE CONTAINER(S) RECEIVED BROKEN
 - ☐ % SOLIDS JAR NOT RECEIVED
 - ☐ 5035 FIELD KIT NOT FROZEN WITHIN 48 HOUR'S
 - ☐ RESIDUAL CHLORINE PRESENT
- (APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS)

TECHNICIAN SIGNATURE/DATE CL 2/26/09 TECHNICIAN SIGNATURE/DATE LC 2-26-09

ASBD 12/17/07

F63583: Chain of Custody

Page 2 of 2



GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 2

Job Number: F63583

Account: ITVAVAB Shaw E & I, Inc.

Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN1367-MB	N0033324.D	1	03/02/09	MM	n/a	n/a	VN1367

The QC reported here applies to the following samples:

Method: EPA 624

F63583-1, F63583-2, F63583-3, F63583-4, F63583-5, F63583-6, F63583-7, F63583-8, F63583-9

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.40	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	2.0	0.48	ug/l	
67-66-3	Chloroform	ND	1.0	0.28	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.54	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.43	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.61	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.26	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.32	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	3.0	1.2	ug/l	

Method Blank Summary

Job Number: F63583
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN1367-MB	N0033324.D	1	03/02/09	MM	n/a	n/a	VN1367

The QC reported here applies to the following samples: Method: EPA 624

F63583-1, F63583-2, F63583-3, F63583-4, F63583-5, F63583-6, F63583-7, F63583-8, F63583-9

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	104% 87-116%
17060-07-0	1,2-Dichloroethane-D4	87% 76-127%
2037-26-5	Toluene-D8	96% 86-112%
460-00-4	4-Bromofluorobenzene	102% 84-120%

Blank Spike Summary

Page 1 of 2

Job Number: F63583
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN1367-BS	N0033323.D	1	03/02/09	MM	n/a	n/a	VN1367

The QC reported here applies to the following samples:

Method: EPA 624

F63583-1, F63583-2, F63583-3, F63583-4, F63583-5, F63583-6, F63583-7, F63583-8, F63583-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	28.2	113	83-124
75-27-4	Bromodichloromethane	25	25.9	104	76-116
75-25-2	Bromoform	25	26.1	104	68-128
108-90-7	Chlorobenzene	25	26.0	104	87-115
75-00-3	Chloroethane	25	23.7	95	54-166
67-66-3	Chloroform	25	28.8	115	85-123
110-75-8	2-Chloroethyl vinyl ether	125	125	100	63-125
56-23-5	Carbon tetrachloride	25	30.7	123	74-139
75-34-3	1,1-Dichloroethane	25	29.5	118	82-127
75-35-4	1,1-Dichloroethylene	25	30.2	121	75-133
107-06-2	1,2-Dichloroethane	25	25.2	101	76-122
78-87-5	1,2-Dichloropropane	25	27.6	110	81-120
124-48-1	Dibromochloromethane	25	26.3	105	74-116
75-71-8	Dichlorodifluoromethane	25	15.7	63	34-158
156-59-2	cis-1,2-Dichloroethylene	25	27.2	109	81-114
10061-01-5	cis-1,3-Dichloropropene	25	26.3	105	83-119
541-73-1	m-Dichlorobenzene	25	26.7	107	86-115
95-50-1	o-Dichlorobenzene	25	26.1	104	85-115
106-46-7	p-Dichlorobenzene	25	26.3	105	87-113
156-60-5	trans-1,2-Dichloroethylene	25	28.6	114	82-126
10061-02-6	trans-1,3-Dichloropropene	25	26.3	105	87-123
100-41-4	Ethylbenzene	25	25.9	104	87-118
74-83-9	Methyl bromide	25	24.2	97	55-151
74-87-3	Methyl chloride	25	27.9	112	55-173
75-09-2	Methylene chloride	25	26.7	107	69-125
1634-04-4	Methyl Tert Butyl Ether	25	23.8	95	75-116
71-55-6	1,1,1-Trichloroethane	25	29.4	118	79-133
79-34-5	1,1,2,2-Tetrachloroethane	25	23.0	92	71-120
79-00-5	1,1,2-Trichloroethane	25	23.3	93	80-114
127-18-4	Tetrachloroethylene	25	29.5	118	80-131
108-88-3	Toluene	25	25.8	103	86-116
79-01-6	Trichloroethylene	25	29.3	117	85-124
75-69-4	Trichlorofluoromethane	25	24.5	98	66-156
75-01-4	Vinyl chloride	25	22.7	91	57-153
1330-20-7	Xylene (total)	75	75.1	100	86-120

Blank Spike Summary

Job Number: F63583
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN1367-BS	N0033323.D	1	03/02/09	MM	n/a	n/a	VN1367

The QC reported here applies to the following samples: Method: EPA 624

F63583-1, F63583-2, F63583-3, F63583-4, F63583-5, F63583-6, F63583-7, F63583-8, F63583-9

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	105%	87-116%
17060-07-0	1,2-Dichloroethane-D4	94%	76-127%
2037-26-5	Toluene-D8	92%	86-112%
460-00-4	4-Bromofluorobenzene	94%	84-120%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 2

Job Number: F63583
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F63583-1MS	N0033338.D	1	03/02/09	MM	n/a	n/a	VN1367
F63583-1MSD	N0033339.D	1	03/02/09	MM	n/a	n/a	VN1367
F63583-1	N0033329.D	1	03/02/09	MM	n/a	n/a	VN1367

The QC reported here applies to the following samples:

Method: EPA 624

F63583-1, F63583-2, F63583-3, F63583-4, F63583-5, F63583-6, F63583-7, F63583-8, F63583-9

CAS No.	Compound	F63583-1 ug/l	Spike Q	ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		25	28.5	114	27.6	110	3	83-124/11
75-27-4	Bromodichloromethane	ND		25	25.5	102	25.3	101	1	76-116/10
75-25-2	Bromoform	ND		25	24.9	100	26.2	105	5	68-128/11
108-90-7	Chlorobenzene	ND		25	26.1	104	26.2	105	0	87-115/9
75-00-3	Chloroethane	ND		25	23.9	96	23.8	95	0	54-166/20
67-66-3	Chloroform	ND		25	29.1	116	28.4	114	2	85-123/10
110-75-8	2-Chloroethyl vinyl ether	ND		125	ND	0*	ND	0*	nc	63-125/24
56-23-5	Carbon tetrachloride	ND		25	28.7	115	28.6	114	0	74-139/13
75-34-3	1,1-Dichloroethane	ND		25	30.5	122	29.9	120	2	82-127/10
75-35-4	1,1-Dichloroethylene	ND		25	23.8	95	26.1	104	9	75-133/13
107-06-2	1,2-Dichloroethane	ND		25	24.6	98	24.5	98	0	76-122/11
78-87-5	1,2-Dichloropropane	ND		25	27.4	110	27.1	108	1	81-120/11
124-48-1	Dibromochloromethane	ND		25	26.3	105	26.5	106	1	74-116/11
75-71-8	Dichlorodifluoromethane	ND		25	11.3	45	11.5	46	2	34-158/22
156-59-2	cis-1,2-Dichloroethylene	ND		25	27.6	110	27.5	110	0	81-114/10
10061-01-5	cis-1,3-Dichloropropene	ND		25	25.0	100	24.7	99	1	83-119/10
541-73-1	m-Dichlorobenzene	ND		25	26.1	104	25.9	104	1	86-115/9
95-50-1	o-Dichlorobenzene	ND		25	26.3	105	25.9	104	2	85-115/9
106-46-7	p-Dichlorobenzene	ND		25	26.5	106	26.2	105	1	87-113/10
156-60-5	trans-1,2-Dichloroethylene	ND		25	24.4	98	24.8	99	2	82-126/10
10061-02-6	trans-1,3-Dichloropropene	ND		25	25.4	102	25.5	102	0	87-123/10
100-41-4	Ethylbenzene	ND		25	25.0	100	25.0	100	0	87-118/10
74-83-9	Methyl bromide	ND		25	21.6	86	22.3	89	3	55-151/21
74-87-3	Methyl chloride	ND		25	24.2	97	25.1	100	4	55-173/22
75-09-2	Methylene chloride	ND		25	24.0	96	24.7	99	3	69-125/11
1634-04-4	Methyl Tert Butyl Ether	0.60	J	25	20.8	81	22.2	86	7	75-116/10
71-55-6	1,1,1-Trichloroethane	ND		25	28.4	114	27.6	110	3	79-133/11
79-34-5	1,1,2,2-Tetrachloroethane	ND		25	24.0	96	24.7	99	3	71-120/11
79-00-5	1,1,2-Trichloroethane	ND		25	24.5	98	25.3	101	3	80-114/11
127-18-4	Tetrachloroethylene	ND		25	28.2	113	28.0	112	1	80-131/12
108-88-3	Toluene	ND		25	26.2	105	26.4	106	1	86-116/10
79-01-6	Trichloroethylene	ND		25	29.2	117	28.4	114	3	85-124/10
75-69-4	Trichlorofluoromethane	ND		25	18.9	76	20.1	80	6	66-156/15
75-01-4	Vinyl chloride	ND		25	19.1	76	19.8	79	4	57-153/22
1330-20-7	Xylene (total)	ND		75	73.7	98	73.4	98	0	86-120/10

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F63583
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F63583-1MS	N0033338.D	1	03/02/09	MM	n/a	n/a	VN1367
F63583-1MSD	N0033339.D	1	03/02/09	MM	n/a	n/a	VN1367
F63583-1	N0033329.D	1	03/02/09	MM	n/a	n/a	VN1367

The QC reported here applies to the following samples: Method: EPA 624

F63583-1, F63583-2, F63583-3, F63583-4, F63583-5, F63583-6, F63583-7, F63583-8, F63583-9

CAS No.	Surrogate Recoveries	MS	MSD	F63583-1	Limits
1868-53-7	Dibromofluoromethane	105%	105%	105%	87-116%
17060-07-0	1,2-Dichloroethane-D4	90%	89%	85%	76-127%
2037-26-5	Toluene-D8	93%	93%	96%	86-112%
460-00-4	4-Bromofluorobenzene	93%	93%	103%	84-120%



GC/MS Semi-volatiles

5

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 1

Job Number: F63583

Account: ITVAVAB Shaw E & I, Inc.

Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP28201-MB	X005476.D	1	03/02/09	NAF	02/27/09	OP28201	SX281

The QC reported here applies to the following samples:

Method: EPA 625

F63583-1, F63583-2, F63583-3, F63583-4, F63583-5, F63583-6, F63583-7

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	1.0	ug/l	
208-96-8	Acenaphthylene	ND	5.0	1.0	ug/l	
120-12-7	Anthracene	ND	5.0	1.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	1.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	1.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	1.0	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	1.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	1.0	ug/l	
218-01-9	Chrysene	ND	5.0	1.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	1.0	ug/l	
206-44-0	Fluoranthene	ND	5.0	1.0	ug/l	
86-73-7	Fluorene	ND	5.0	1.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	1.1	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	1.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	1.0	ug/l	
129-00-0	Pyrene	ND	5.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Limits
4165-60-0	Nitrobenzene-d5	74% 42-108%
321-60-8	2-Fluorobiphenyl	75% 40-106%
1718-51-0	Terphenyl-d14	74% 39-121%

Blank Spike Summary

Page 1 of 1

Job Number: F63583
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP28201-BS	X005475.D	1	03/02/09	NAF	02/27/09	OP28201	SX281

The QC reported here applies to the following samples:

Method: EPA 625

F63583-1, F63583-2, F63583-3, F63583-4, F63583-5, F63583-6, F63583-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	45.5	91	58-106
208-96-8	Acenaphthylene	50	44.3	89	58-105
120-12-7	Anthracene	50	44.0	88	65-108
56-55-3	Benzo(a)anthracene	50	45.5	91	63-111
50-32-8	Benzo(a)pyrene	50	45.2	90	62-106
205-99-2	Benzo(b)fluoranthene	50	46.4	93	63-109
191-24-2	Benzo(g,h,i)perylene	50	48.3	97	61-111
207-08-9	Benzo(k)fluoranthene	50	47.3	95	64-111
218-01-9	Chrysene	50	46.9	94	64-111
53-70-3	Dibenzo(a,h)anthracene	50	47.5	95	62-112
206-44-0	Fluoranthene	50	46.1	92	65-114
86-73-7	Fluorene	50	46.7	93	61-106
193-39-5	Indeno(1,2,3-cd)pyrene	50	47.0	94	61-113
90-12-0	1-Methylnaphthalene	50	41.9	84	52-102
91-57-6	2-Methylnaphthalene	50	44.6	89	56-112
91-20-3	Naphthalene	50	40.3	81	50-104
85-01-8	Phenanthrene	50	46.9	94	65-108
129-00-0	Pyrene	50	45.1	90	60-113

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	84%	42-108%
321-60-8	2-Fluorobiphenyl	86%	40-106%
1718-51-0	Terphenyl-d14	80%	39-121%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F63583
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP28201-MS	X005484.D	1	03/02/09	NAF	02/27/09	OP28201	SX281
OP28201-MSD	X005485.D	1	03/02/09	NAF	02/27/09	OP28201	SX281

The QC reported here applies to the following samples:

Method: EPA 625

F63583-1, F63583-2, F63583-3, F63583-4, F63583-5, F63583-6, F63583-7

CAS No.	Compound	ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene			98	85.8	88	86.6	88	1	58-106/21
208-96-8	Acenaphthylene			98	84.3	86	85.0	87	1	58-105/21
120-12-7	Anthracene			98	83.3	85	82.7	84	1	65-108/19
56-55-3	Benzo(a)anthracene			98	87.7	89	87.9	90	0	63-111/19
50-32-8	Benzo(a)pyrene			98	86.9	89	86.3	88	1	62-106/20
205-99-2	Benzo(b)fluoranthene			98	89.1	91	90.6	92	2	63-109/20
191-24-2	Benzo(g,h,i)perylene			98	91.3	93	91.4	93	0	61-111/21
207-08-9	Benzo(k)fluoranthene			98	85.9	88	86.6	88	1	64-111/20
218-01-9	Chrysene			98	89.1	91	88.2	90	1	64-111/19
53-70-3	Dibenzo(a,h)anthracene			98	89.9	92	90.2	92	0	62-112/20
206-44-0	Fluoranthene			98	89.2	91	88.9	91	0	65-114/21
86-73-7	Fluorene			98	87.6	89	88.2	90	1	61-106/19
193-39-5	Indeno(1,2,3-cd)pyrene			98	90.0	92	90.3	92	0	61-113/20
90-12-0	1-Methylnaphthalene			98	82.6	84	80.2	82	3	52-102/25
91-57-6	2-Methylnaphthalene			98	87.4	89	85.8	88	2	56-112/26
91-20-3	Naphthalene			98	79.8	81	76.8	78	4	50-104/28
85-01-8	Phenanthrene			98	88.3	90	88.6	90	0	65-108/20
129-00-0	Pyrene			98	84.5	86	84.3	86	0	60-113/20

CAS No.	Surrogate Recoveries	MS	MSD	Limits
4165-60-0	Nitrobenzene-d5	79%	80%	42-108%
321-60-8	2-Fluorobiphenyl	80%	82%	40-106%
1718-51-0	Terphenyl-d14	75%	74%	39-121%



Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F63583
Account: ITVAVAB - Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

QC Batch ID: MP15954
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 02/26/09

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	11	11		
Antimony	6.0	4.5	4.5		
Arsenic	10	3.6	5.4		
Barium	200	5	5		
Beryllium	4.0	1	1		
Cadmium	5.0	1	1		
Calcium	1000	100	100		
Chromium	10	1.6	2		
Cobalt	50	.83	1		
Copper	25	2.1	5		
Iron	300	23	23		
Lead	10	2	2	2.3	<10
Magnesium	5000	100	100		
Manganese	15	.5	1		
Molybdenum	50	2.8	5		
Nickel	40	2.3	2.3		
Potassium	10000	100	100		
Selenium	10	3.1	3.4		
Silver	10	1.2	1.4		
Sodium	10000	500	500		
Thallium	10	3.4	3.6		
Tin	50	2.8	2.8		
Vanadium	50	.66	.9		
Zinc	20	3.8	7.4		

Associated samples MP15954: F63583-1, F63583-2, F63583-3, F63583-4, F63583-5, F63583-6, F63583-7, F63583-8

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F63583
 Account: ITVAVAB - Shaw E & I, Inc.
 Project: Camp Lejeune-AS-4158

QC Batch ID: MP15954
 Matrix Type: AQUEOUS

Methods: SW846 6010B
 Units: ug/l

Prep Date: 02/26/09

02/26/09

Metal	F63583-1 Original	DUP	RPD	QC Limits	F63583-1 Original	MS	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead	6.8	6.0	12.5	0-20	6.8	509	500	100.4	80-120
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Tin									
Vanadium									
Zinc									

Associated samples MP15954: F63583-1, F63583-2, F63583-3, F63583-4, F63583-5, F63583-6, F63583-7, F63583-8

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F63583
 Account: ITVAVAB - Shaw E & I, Inc.
 Project: Camp Lejeune-AS-4158

QC Batch ID: MP15954
 Matrix Type: AQUEOUS

Methods: SW846 6010B
 Units: ug/l

Prep Date: 02/26/09

Metal	BSP Result	Spike lot MPFLICP1	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead	490	500	98.0	80-120
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Thallium				
Tin				
Vanadium				
Zinc				

Associated samples MP15954: F63583-1, F63583-2, F63583-3, F63583-4, F63583-5, F63583-6, F63583-7, F63583-8

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: F63583
 Account: ITVAVAB - Shaw E & I, Inc.
 Project: Camp Lejeune-AS-4158

QC Batch ID: MP15954
 Matrix Type: AQUEOUS

Methods: SW846 6010B
 Units: ug/l

Prep Date: 02/26/09

Metal	F63583-1			QC Limits
	Original	SDL 1:5	%DIF	

Lead	6.84	11.0	60.8 (a)	0-10

Associated samples MP15954: F63583-1, F63583-2, F63583-3, F63583-4, F63583-5, F63583-6, F63583-7, F63583-8

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

6.1.4

6



03/10/09

Technical Report for

Shaw E & I, Inc.

Camp Lejeune-AS-4158

125709

Accutest Job Number: F63620

Sampling Date: 02/26/09

Report to:

Shaw E & I, Inc.
500 E Main St Suite 1630
Norfolk, VA 23510
natasha.sullivan@shawgrp.com

ATTN: Natasha Sullivan

Total number of pages in report: **41**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.


Harry Behzadi, Ph.D.
Laboratory Director

Client Service contact: Heather Wandrey 407-425-6700

Certifications: FL (DOH E83510), NC (573), NJ (FL002), MA (FL946), IA (366), LA (03051), KS (E-10327), SC, AK
This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.

Table of Contents

-1-

Section 1: Sample Summary	3
Section 2: Sample Results	4
2.1: F63620-1: USTAS4158-MW09	5
2.2: F63620-2: USTAS4158-MW10	9
2.3: F63620-3: USTAS4158-MW11	13
2.4: F63620-4: USTAS4158-MW17	17
2.5: F63620-5: USTAS4158-TB-022609	21
Section 3: Misc. Forms	23
3.1: Chain of Custody	24
Section 4: GC/MS Volatiles - QC Data Summaries	26
4.1: Method Blank Summary	27
4.2: Blank Spike Summary	29
4.3: Matrix Spike/Matrix Spike Duplicate Summary	31
Section 5: GC/MS Semi-volatiles - QC Data Summaries	33
5.1: Method Blank Summary	34
5.2: Blank Spike Summary	35
5.3: Matrix Spike/Matrix Spike Duplicate Summary	36
Section 6: Metals Analysis - QC Data Summaries	37
6.1: Prep QC MP15962: Pb	38



Sample Summary

Shaw E & I, Inc.

Job No: F63620

Camp Lejeune-AS-4158
Project No: 125709

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
F63620-1	02/26/09	12:15 MP	02/27/09	AQ	Ground Water	USTAS4158-MW09
F63620-2	02/26/09	10:45 MP	02/27/09	AQ	Ground Water	USTAS4158-MW10
F63620-3	02/26/09	13:15 MP	02/27/09	AQ	Ground Water	USTAS4158-MW11
F63620-4	02/26/09	11:30 MP	02/27/09	AQ	Ground Water	USTAS4158-MW17
F63620-5	02/26/09	00:00 MP	02/27/09	AQ	Trip Blank Water	USTAS4158-TB-022609



Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: USTAS4158-MW09
Lab Sample ID: F63620-1
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 02/26/09
Date Received: 02/27/09
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0033340.D	1	03/02/09	MM	n/a	n/a	VN1367
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	7.3	1.0	0.40	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	2.0	0.48	ug/l	
67-66-3	Chloroform	ND	1.0	0.28	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.54	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.43	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.61	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.26	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	0.55	1.0	0.35	ug/l	J
79-01-6	Trichloroethylene	ND	1.0	0.32	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW09
Lab Sample ID: F63620-1
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 02/26/09
Date Received: 02/27/09
Percent Solids: n/a

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	2.2	3.0	1.2	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		87-116%
17060-07-0	1,2-Dichloroethane-D4	87%		76-127%
2037-26-5	Toluene-D8	94%		86-112%
460-00-4	4-Bromofluorobenzene	97%		84-120%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	USTAS4158-MW09	Date Sampled:	02/26/09
Lab Sample ID:	F63620-1	Date Received:	02/27/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 625 EPA 625		
Project:	Camp Lejeune-AS-4158		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	X005530.D	4	03/05/09	NAF	03/03/09	OP28233	SX283
Run #2							

	Initial Volume	Final Volume
Run #1	1030 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	19	3.9	ug/l	
208-96-8	Acenaphthylene	ND	19	3.9	ug/l	
120-12-7	Anthracene	ND	19	3.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	19	3.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	19	3.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	19	3.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	19	3.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	19	3.9	ug/l	
218-01-9	Chrysene	ND	19	3.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	19	3.9	ug/l	
206-44-0	Fluoranthene	ND	19	3.9	ug/l	
86-73-7	Fluorene	ND	19	3.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	19	4.3	ug/l	
90-12-0	1-Methylnaphthalene	ND	19	3.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	19	3.9	ug/l	
91-20-3	Naphthalene	ND	19	3.9	ug/l	
85-01-8	Phenanthrene	ND	19	3.9	ug/l	
129-00-0	Pyrene	ND	19	3.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	79%		42-108%
321-60-8	2-Fluorobiphenyl	86%		40-106%
1718-51-0	Terphenyl-d14	61%		39-121%

(a) Dilution required due to matrix interference.

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	USTAS4158-MW09	Date Sampled:	02/26/09
Lab Sample ID:	F63620-1	Date Received:	02/27/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-AS-4158		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	2.4 B	5.0	2.0	ug/l	1	02/27/09	03/02/09 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA7075
(2) Prep QC Batch: MP15962

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: USTAS4158-MW10
Lab Sample ID: F63620-2
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 02/26/09
Date Received: 02/27/09
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0033341.D	1	03/02/09	MM	n/a	n/a	VN1367
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.40	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	2.0	0.48	ug/l	
67-66-3	Chloroform	ND	1.0	0.28	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.54	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.43	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.61	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.26	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.32	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW10
Lab Sample ID: F63620-2
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 02/26/09
Date Received: 02/27/09
Percent Solids: n/a

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	3.0	1.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		87-116%
17060-07-0	1,2-Dichloroethane-D4	91%		76-127%
2037-26-5	Toluene-D8	96%		86-112%
460-00-4	4-Bromofluorobenzene	99%		84-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW10
Lab Sample ID: F63620-2
Matrix: AQ - Ground Water
Method: EPA 625 EPA 625
Project: Camp Lejeune-AS-4158

Date Sampled: 02/26/09
Date Received: 02/27/09
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X005525.D	1	03/05/09	NAF	03/03/09	OP28233	SX283
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	0.96	ug/l	
208-96-8	Acenaphthylene	ND	4.8	0.96	ug/l	
120-12-7	Anthracene	ND	4.8	0.96	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.96	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.96	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.96	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	0.96	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	0.96	ug/l	
218-01-9	Chrysene	ND	4.8	0.96	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	0.96	ug/l	
206-44-0	Fluoranthene	ND	4.8	0.96	ug/l	
86-73-7	Fluorene	ND	4.8	0.96	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.1	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	0.96	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	0.96	ug/l	
91-20-3	Naphthalene	ND	4.8	0.96	ug/l	
85-01-8	Phenanthrene	ND	4.8	0.96	ug/l	
129-00-0	Pyrene	ND	4.8	0.96	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	70%		42-108%
321-60-8	2-Fluorobiphenyl	71%		40-106%
1718-51-0	Terphenyl-d14	66%		39-121%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	USTAS4158-MW10	Date Sampled:	02/26/09
Lab Sample ID:	F63620-2	Date Received:	02/27/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-AS-4158		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	2.3 B	5.0	2.0	ug/l	1	02/27/09	03/02/09 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA7075
(2) Prep QC Batch: MP15962

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: USTAS4158-MW11
Lab Sample ID: F63620-3
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 02/26/09
Date Received: 02/27/09
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0033342.D	1	03/02/09	MM	n/a	n/a	VN1367
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	6.9	1.0	0.40	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	2.0	0.48	ug/l	
67-66-3	Chloroform	ND	1.0	0.28	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.54	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.43	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.61	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	6.6	1.0	0.26	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.26	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.32	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW11
Lab Sample ID: F63620-3
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 02/26/09
Date Received: 02/27/09
Percent Solids: n/a

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	3.0	1.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		87-116%
17060-07-0	1,2-Dichloroethane-D4	89%		76-127%
2037-26-5	Toluene-D8	95%		86-112%
460-00-4	4-Bromofluorobenzene	100%		84-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW11
Lab Sample ID: F63620-3
Matrix: AQ - Ground Water
Method: EPA 625 EPA 625
Project: Camp Lejeune-AS-4158

Date Sampled: 02/26/09
Date Received: 02/27/09
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X005526.D	1	03/05/09	NAF	03/03/09	OP28233	SX283
Run #2							

	Initial Volume	Final Volume
Run #1	1030 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.9	0.97	ug/l	
208-96-8	Acenaphthylene	ND	4.9	0.97	ug/l	
120-12-7	Anthracene	ND	4.9	0.97	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.9	0.97	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.9	0.97	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.9	0.97	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.9	0.97	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.9	0.97	ug/l	
218-01-9	Chrysene	ND	4.9	0.97	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.9	0.97	ug/l	
206-44-0	Fluoranthene	ND	4.9	0.97	ug/l	
86-73-7	Fluorene	ND	4.9	0.97	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.9	1.1	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.9	0.97	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.9	0.97	ug/l	
91-20-3	Naphthalene	ND	4.9	0.97	ug/l	
85-01-8	Phenanthrene	ND	4.9	0.97	ug/l	
129-00-0	Pyrene	ND	4.9	0.97	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	67%		42-108%
321-60-8	2-Fluorobiphenyl	69%		40-106%
1718-51-0	Terphenyl-d14	74%		39-121%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	USTAS4158-MW11	Date Sampled:	02/26/09
Lab Sample ID:	F63620-3	Date Received:	02/27/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-AS-4158		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	2.0 U	5.0	2.0	ug/l	1	02/27/09	03/02/09 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA7075
(2) Prep QC Batch: MP15962

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: USTAS4158-MW17
Lab Sample ID: F63620-4
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 02/26/09
Date Received: 02/27/09
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0033343.D	1	03/02/09	MM	n/a	n/a	VN1367
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.40	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	2.0	0.48	ug/l	
67-66-3	Chloroform	ND	1.0	0.28	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.54	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.43	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.61	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	5.1	1.0	0.26	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.26	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.32	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	USTAS4158-MW17	Date Sampled:	02/26/09
Lab Sample ID:	F63620-4	Date Received:	02/27/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 624		
Project:	Camp Lejeune-AS-4158		

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	3.0	1.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		87-116%
17060-07-0	1,2-Dichloroethane-D4	87%		76-127%
2037-26-5	Toluene-D8	95%		86-112%
460-00-4	4-Bromofluorobenzene	102%		84-120%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW17
Lab Sample ID: F63620-4
Matrix: AQ - Ground Water
Method: EPA 625 EPA 625
Project: Camp Lejeune-AS-4158

Date Sampled: 02/26/09
Date Received: 02/27/09
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X005529.D	1	03/05/09	NAF	03/03/09	OP28233	SX283
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	0.96	ug/l	
208-96-8	Acenaphthylene	ND	4.8	0.96	ug/l	
120-12-7	Anthracene	ND	4.8	0.96	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.96	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.96	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.96	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	0.96	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	0.96	ug/l	
218-01-9	Chrysene	ND	4.8	0.96	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	0.96	ug/l	
206-44-0	Fluoranthene	ND	4.8	0.96	ug/l	
86-73-7	Fluorene	ND	4.8	0.96	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.1	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	0.96	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	0.96	ug/l	
91-20-3	Naphthalene	ND	4.8	0.96	ug/l	
85-01-8	Phenanthrene	ND	4.8	0.96	ug/l	
129-00-0	Pyrene	ND	4.8	0.96	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	65%		42-108%
321-60-8	2-Fluorobiphenyl	67%		40-106%
1718-51-0	Terphenyl-d14	73%		39-121%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	USTAS4158-MW17	Date Sampled:	02/26/09
Lab Sample ID:	F63620-4	Date Received:	02/27/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-AS-4158		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	2.0 U	5.0	2.0	ug/l	1	02/27/09	03/02/09 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA7075
(2) Prep QC Batch: MP15962

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: USTAS4158-TB-022609
Lab Sample ID: F63620-5
Matrix: AQ - Trip Blank Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 02/26/09
Date Received: 02/27/09
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0033344.D	1	03/02/09	MM	n/a	n/a	VN1367
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.40	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	2.0	0.48	ug/l	
67-66-3	Chloroform	ND	1.0	0.28	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.54	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.43	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.61	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.26	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.32	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-TB-022609
Lab Sample ID: F63620-5
Matrix: AQ - Trip Blank Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 02/26/09
Date Received: 02/27/09
Percent Solids: n/a

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	3.0	1.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		87-116%
17060-07-0	1,2-Dichloroethane-D4	85%		76-127%
2037-26-5	Toluene-D8	96%		86-112%
460-00-4	4-Bromofluorobenzene	101%		84-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound



Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Chain of Custody

09 **FL3620**
Shaw Environmental & Infrastr

3.1

[illegible]

2.6

Page 1 of 2

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F63620 CLIENT: Shaw PROJECT: Camp LeJeune
 DATE/TIME RECEIVED: 2/27/09 10:30 # OF COOLERS RECEIVED: 1 COOLER TEMPS: 2.6
 METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER
 AIRBILL NUMBERS: 8684 4334 4709

COOLER INFORMATION

- ☐ CUSTODY SEAL NOT PRESENT OR NOT INTACT
- ☐ CHAIN OF CUSTODY NOT RECEIVED (COC)
- ☐ ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- ☐ SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- ☐ TEMPERATURE CRITERIA NOT MET
- ☐ WET ICE RECEIVED IN COOLER

TRIP BLANK INFORMATION

- ☒ TRIP BLANK PROVIDED
- ☐ TRIP BLANK NOT PROVIDED
- ☐ TRIP BLANK NOT ON COC
- ☒ TRIP BLANK INTACT
- ☒ TRIP BLANK NOT INTACT
- ☒ RECEIVED WATER TRIP BLANK
- ☐ RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 0
 NUMBER OF 5035 FIELD KITS ? 0
 NUMBER OF LAB FILTERED METALS ? 0

SAMPLE INFORMATION

- ☐ SAMPLE LABELS NOT PRESENT ON ALL BOTTLES
 - ☐ CORRECT NUMBER OF CONTAINERS USED
 - ☐ SAMPLE RECEIVED IMPROPERLY PRESERVED
 - ☐ INSUFFICIENT VOLUME FOR ANALYSIS
 - ☐ TIMES ON COC DOES NOT MATCH LABEL(S)
 - ☐ ID'S ON COC DOES NOT MATCH LABEL(S)
 - ☐ VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
 - ☐ BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
 - ☐ NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
 - ☐ UNCLEAR FILTERING INSTRUCTIONS
 - ☐ UNCLEAR COMPOSITING INSTRUCTIONS
 - ☐ SAMPLE CONTAINER(S) RECEIVED BROKEN
 - ☐ % SOLIDS JAR NOT RECEIVED
 - ☐ 5035 FIELD KIT NOT FROZEN WITHIN 48 HOUR'S
 - ☐ RESIDUAL CHLORINE PRESENT
- (APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS)

SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE

[Signature] 2/27/09

TECHNICIAN SIGNATURE/DATE

[Signature] 2.27.09

ASBD 12/17/07

F63620: Chain of Custody

Page 2 of 2



GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 2

Job Number: F63620
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN1367-MB	N0033324.D	1	03/02/09	MM	n/a	n/a	VN1367

The QC reported here applies to the following samples:

Method: EPA 624

F63620-1, F63620-2, F63620-3, F63620-4, F63620-5

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.40	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	2.0	0.48	ug/l	
67-66-3	Chloroform	ND	1.0	0.28	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.54	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.43	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.61	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.26	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.32	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	3.0	1.2	ug/l	

Method Blank Summary

Job Number: F63620
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN1367-MB	N0033324.D	1	03/02/09	MM	n/a	n/a	VN1367

The QC reported here applies to the following samples: Method: EPA 624

F63620-1, F63620-2, F63620-3, F63620-4, F63620-5

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	104% 87-116%
17060-07-0	1,2-Dichloroethane-D4	87% 76-127%
2037-26-5	Toluene-D8	96% 86-112%
460-00-4	4-Bromofluorobenzene	102% 84-120%

Blank Spike Summary

Page 1 of 2

Job Number: F63620
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN1367-BS	N0033323.D	1	03/02/09	MM	n/a	n/a	VN1367

The QC reported here applies to the following samples:

Method: EPA 624

F63620-1, F63620-2, F63620-3, F63620-4, F63620-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	28.2	113	83-124
75-27-4	Bromodichloromethane	25	25.9	104	76-116
75-25-2	Bromoform	25	26.1	104	68-128
108-90-7	Chlorobenzene	25	26.0	104	87-115
75-00-3	Chloroethane	25	23.7	95	54-166
67-66-3	Chloroform	25	28.8	115	85-123
110-75-8	2-Chloroethyl vinyl ether	125	125	100	63-125
56-23-5	Carbon tetrachloride	25	30.7	123	74-139
75-34-3	1,1-Dichloroethane	25	29.5	118	82-127
75-35-4	1,1-Dichloroethylene	25	30.2	121	75-133
107-06-2	1,2-Dichloroethane	25	25.2	101	76-122
78-87-5	1,2-Dichloropropane	25	27.6	110	81-120
124-48-1	Dibromochloromethane	25	26.3	105	74-116
75-71-8	Dichlorodifluoromethane	25	15.7	63	34-158
156-59-2	cis-1,2-Dichloroethylene	25	27.2	109	81-114
10061-01-5	cis-1,3-Dichloropropene	25	26.3	105	83-119
541-73-1	m-Dichlorobenzene	25	26.7	107	86-115
95-50-1	o-Dichlorobenzene	25	26.1	104	85-115
106-46-7	p-Dichlorobenzene	25	26.3	105	87-113
156-60-5	trans-1,2-Dichloroethylene	25	28.6	114	82-126
10061-02-6	trans-1,3-Dichloropropene	25	26.3	105	87-123
100-41-4	Ethylbenzene	25	25.9	104	87-118
74-83-9	Methyl bromide	25	24.2	97	55-151
74-87-3	Methyl chloride	25	27.9	112	55-173
75-09-2	Methylene chloride	25	26.7	107	69-125
1634-04-4	Methyl Tert Butyl Ether	25	23.8	95	75-116
71-55-6	1,1,1-Trichloroethane	25	29.4	118	79-133
79-34-5	1,1,2,2-Tetrachloroethane	25	23.0	92	71-120
79-00-5	1,1,2-Trichloroethane	25	23.3	93	80-114
127-18-4	Tetrachloroethylene	25	29.5	118	80-131
108-88-3	Toluene	25	25.8	103	86-116
79-01-6	Trichloroethylene	25	29.3	117	85-124
75-69-4	Trichlorofluoromethane	25	24.5	98	66-156
75-01-4	Vinyl chloride	25	22.7	91	57-153
1330-20-7	Xylene (total)	75	75.1	100	86-120

Blank Spike Summary

Job Number: F63620
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN1367-BS	N0033323.D	1	03/02/09	MM	n/a	n/a	VN1367

The QC reported here applies to the following samples: Method: EPA 624

F63620-1, F63620-2, F63620-3, F63620-4, F63620-5

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	105%	87-116%
17060-07-0	1,2-Dichloroethane-D4	94%	76-127%
2037-26-5	Toluene-D8	92%	86-112%
460-00-4	4-Bromofluorobenzene	94%	84-120%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 2

Job Number: F63620
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F63583-1MS	N0033338.D	1	03/02/09	MM	n/a	n/a	VN1367
F63583-1MSD	N0033339.D	1	03/02/09	MM	n/a	n/a	VN1367
F63583-1	N0033329.D	1	03/02/09	MM	n/a	n/a	VN1367

The QC reported here applies to the following samples:

Method: EPA 624

F63620-1, F63620-2, F63620-3, F63620-4, F63620-5

CAS No.	Compound	F63583-1 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	25	28.5	114	27.6	110	3	83-124/11
75-27-4	Bromodichloromethane	ND	25	25.5	102	25.3	101	1	76-116/10
75-25-2	Bromoform	ND	25	24.9	100	26.2	105	5	68-128/11
108-90-7	Chlorobenzene	ND	25	26.1	104	26.2	105	0	87-115/9
75-00-3	Chloroethane	ND	25	23.9	96	23.8	95	0	54-166/20
67-66-3	Chloroform	ND	25	29.1	116	28.4	114	2	85-123/10
110-75-8	2-Chloroethyl vinyl ether	ND	125	ND	0*	ND	0*	nc	63-125/24
56-23-5	Carbon tetrachloride	ND	25	28.7	115	28.6	114	0	74-139/13
75-34-3	1,1-Dichloroethane	ND	25	30.5	122	29.9	120	2	82-127/10
75-35-4	1,1-Dichloroethylene	ND	25	23.8	95	26.1	104	9	75-133/13
107-06-2	1,2-Dichloroethane	ND	25	24.6	98	24.5	98	0	76-122/11
78-87-5	1,2-Dichloropropane	ND	25	27.4	110	27.1	108	1	81-120/11
124-48-1	Dibromochloromethane	ND	25	26.3	105	26.5	106	1	74-116/11
75-71-8	Dichlorodifluoromethane	ND	25	11.3	45	11.5	46	2	34-158/22
156-59-2	cis-1,2-Dichloroethylene	ND	25	27.6	110	27.5	110	0	81-114/10
10061-01-5	cis-1,3-Dichloropropene	ND	25	25.0	100	24.7	99	1	83-119/10
541-73-1	m-Dichlorobenzene	ND	25	26.1	104	25.9	104	1	86-115/9
95-50-1	o-Dichlorobenzene	ND	25	26.3	105	25.9	104	2	85-115/9
106-46-7	p-Dichlorobenzene	ND	25	26.5	106	26.2	105	1	87-113/10
156-60-5	trans-1,2-Dichloroethylene	ND	25	24.4	98	24.8	99	2	82-126/10
10061-02-6	trans-1,3-Dichloropropene	ND	25	25.4	102	25.5	102	0	87-123/10
100-41-4	Ethylbenzene	ND	25	25.0	100	25.0	100	0	87-118/10
74-83-9	Methyl bromide	ND	25	21.6	86	22.3	89	3	55-151/21
74-87-3	Methyl chloride	ND	25	24.2	97	25.1	100	4	55-173/22
75-09-2	Methylene chloride	ND	25	24.0	96	24.7	99	3	69-125/11
1634-04-4	Methyl Tert Butyl Ether	0.60	J 25	20.8	81	22.2	86	7	75-116/10
71-55-6	1,1,1-Trichloroethane	ND	25	28.4	114	27.6	110	3	79-133/11
79-34-5	1,1,2,2-Tetrachloroethane	ND	25	24.0	96	24.7	99	3	71-120/11
79-00-5	1,1,2-Trichloroethane	ND	25	24.5	98	25.3	101	3	80-114/11
127-18-4	Tetrachloroethylene	ND	25	28.2	113	28.0	112	1	80-131/12
108-88-3	Toluene	ND	25	26.2	105	26.4	106	1	86-116/10
79-01-6	Trichloroethylene	ND	25	29.2	117	28.4	114	3	85-124/10
75-69-4	Trichlorofluoromethane	ND	25	18.9	76	20.1	80	6	66-156/15
75-01-4	Vinyl chloride	ND	25	19.1	76	19.8	79	4	57-153/22
1330-20-7	Xylene (total)	ND	75	73.7	98	73.4	98	0	86-120/10

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F63620
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F63583-1MS	N0033338.D	1	03/02/09	MM	n/a	n/a	VN1367
F63583-1MSD	N0033339.D	1	03/02/09	MM	n/a	n/a	VN1367
F63583-1	N0033329.D	1	03/02/09	MM	n/a	n/a	VN1367

The QC reported here applies to the following samples: Method: EPA 624

F63620-1, F63620-2, F63620-3, F63620-4, F63620-5

CAS No.	Surrogate Recoveries	MS	MSD	F63583-1	Limits
1868-53-7	Dibromofluoromethane	105%	105%	105%	87-116%
17060-07-0	1,2-Dichloroethane-D4	90%	89%	85%	76-127%
2037-26-5	Toluene-D8	93%	93%	96%	86-112%
460-00-4	4-Bromofluorobenzene	93%	93%	103%	84-120%



GC/MS Semi-volatiles

5

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 1

Job Number: F63620
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP28233-MB	X005523.D	1	03/05/09	NAF	03/03/09	OP28233	SX283

The QC reported here applies to the following samples:

Method: EPA 625

F63620-1, F63620-2, F63620-3, F63620-4

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	1.0	ug/l	
208-96-8	Acenaphthylene	ND	5.0	1.0	ug/l	
120-12-7	Anthracene	ND	5.0	1.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	1.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	1.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	1.0	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	1.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	1.0	ug/l	
218-01-9	Chrysene	ND	5.0	1.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	1.0	ug/l	
206-44-0	Fluoranthene	ND	5.0	1.0	ug/l	
86-73-7	Fluorene	ND	5.0	1.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	1.1	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	1.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	1.0	ug/l	
129-00-0	Pyrene	ND	5.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Limits
4165-60-0	Nitrobenzene-d5	79% 42-108%
321-60-8	2-Fluorobiphenyl	82% 40-106%
1718-51-0	Terphenyl-d14	84% 39-121%

Blank Spike Summary

Page 1 of 1

Job Number: F63620
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP28233-BS	X005522.D	1	03/05/09	NAF	03/03/09	OP28233	SX283

The QC reported here applies to the following samples:

Method: EPA 625

F63620-1, F63620-2, F63620-3, F63620-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	42.9	86	58-106
208-96-8	Acenaphthylene	50	42.3	85	58-105
120-12-7	Anthracene	50	40.8	82	65-108
56-55-3	Benzo(a)anthracene	50	42.9	86	63-111
50-32-8	Benzo(a)pyrene	50	43.5	87	62-106
205-99-2	Benzo(b)fluoranthene	50	45.3	91	63-109
191-24-2	Benzo(g,h,i)perylene	50	45.0	90	61-111
207-08-9	Benzo(k)fluoranthene	50	44.6	89	64-111
218-01-9	Chrysene	50	43.6	87	64-111
53-70-3	Dibenzo(a,h)anthracene	50	45.1	90	62-112
206-44-0	Fluoranthene	50	42.8	86	65-114
86-73-7	Fluorene	50	43.2	86	61-106
193-39-5	Indeno(1,2,3-cd)pyrene	50	44.0	88	61-113
90-12-0	1-Methylnaphthalene	50	40.3	81	52-102
91-57-6	2-Methylnaphthalene	50	44.3	89	56-112
91-20-3	Naphthalene	50	39.6	79	50-104
85-01-8	Phenanthrene	50	43.9	88	65-108
129-00-0	Pyrene	50	43.3	87	60-113

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	80%	42-108%
321-60-8	2-Fluorobiphenyl	82%	40-106%
1718-51-0	Terphenyl-d14	81%	39-121%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F63620
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP28233-MS	X005527.D	1	03/05/09	NAF	03/03/09	OP28233	SX283
OP28233-MSD	X005528.D	1	03/05/09	NAF	03/03/09	OP28233	SX283
F63620-3	X005526.D	1	03/05/09	NAF	03/03/09	OP28233	SX283

The QC reported here applies to the following samples:

Method: EPA 625

F63620-1, F63620-2, F63620-3, F63620-4

CAS No.	Compound	F63620-3 ug/l	Spike Q	ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND	100	80.5	81	74.0	74	8	58-106/21	
208-96-8	Acenaphthylene	ND	100	79.0	79	72.1	72	9	58-105/21	
120-12-7	Anthracene	ND	100	82.6	83	77.2	77	7	65-108/19	
56-55-3	Benzo(a)anthracene	ND	100	87.2	87	82.0	82	6	63-111/19	
50-32-8	Benzo(a)pyrene	ND	100	88.5	89	81.8	82	8	62-106/20	
205-99-2	Benzo(b)fluoranthene	ND	100	88.7	89	82.9	83	7	63-109/20	
191-24-2	Benzo(g,h,i)perylene	ND	100	91.6	92	84.8	85	8	61-111/21	
207-08-9	Benzo(k)fluoranthene	ND	100	92.3	92	86.0	86	7	64-111/20	
218-01-9	Chrysene	ND	100	88.4	88	83.0	83	6	64-111/19	
53-70-3	Dibenzo(a,h)anthracene	ND	100	91.2	91	86.2	86	6	62-112/20	
206-44-0	Fluoranthene	ND	100	87.9	88	82.4	82	6	65-114/21	
86-73-7	Fluorene	ND	100	84.4	84	78.3	78	7	61-106/19	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	100	90.4	90	83.7	84	8	61-113/20	
90-12-0	1-Methylnaphthalene	ND	100	69.5	70	65.1	65	7	52-102/25	
91-57-6	2-Methylnaphthalene	ND	100	74.9	75	70.4	70	6	56-112/26	
91-20-3	Naphthalene	ND	100	67.0	67	64.2	64	4	50-104/28	
85-01-8	Phenanthrene	ND	100	88.1	88	83.0	83	6	65-108/20	
129-00-0	Pyrene	ND	100	87.7	88	81.0	81	8	60-113/20	

CAS No.	Surrogate Recoveries	MS	MSD	F63620-3	Limits
4165-60-0	Nitrobenzene-d5	66%	62%	67%	42-108%
321-60-8	2-Fluorobiphenyl	72%	66%	69%	40-106%
1718-51-0	Terphenyl-d14	82%	75%	74%	39-121%



Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F63620
Account: ITVAVAB - Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

QC Batch ID: MP15962
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 02/27/09

Metal	RL	IDL	MB raw	final
Aluminum	200	11		
Antimony	6.0	4.5		
Arsenic	10	3.6		
Barium	200	5		
Beryllium	4.0	1		
Cadmium	5.0	1		
Calcium	1000	100		
Chromium	10	1.6		
Cobalt	50	.83		
Copper	25	2.1		
Iron	300	23		
Lead	5.0	2	0.76	<5.0
Magnesium	5000	100		
Manganese	15	.5		
Molybdenum	50	2.8		
Nickel	40	2.3		
Potassium	10000	100		
Selenium	10	3.1		
Silver	10	1.2		
Sodium	10000	500		
Thallium	10	3.4		
Tin	50	2.8		
Vanadium	50	.66		
Zinc	20	3.8		

Associated samples MP15962: F63620-1, F63620-2, F63620-3, F63620-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F63620
 Account: ITVAVAB - Shaw E & I, Inc.
 Project: Camp Lejeune-AS-4158

QC Batch ID: MP15962
 Matrix Type: AQUEOUS

Methods: SW846 6010B
 Units: ug/l

Prep Date: 02/27/09

02/27/09

Metal	F63620-1 Original	DUP	RPD	QC Limits	F63620-1 Original	MS	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead	2.4	2.5	4.1	0-20	2.4	492	500	97.9	80-120
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Tin									
Vanadium									
Zinc									

Associated samples MP15962: F63620-1, F63620-2, F63620-3, F63620-4

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F63620
Account: ITVAVAB - Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

QC Batch ID: MP15962
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 02/27/09

Metal	BSP Result	Spike lot MPFLICP1	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead	501	500	100.2	80-120
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Thallium				
Tin				
Vanadium				
Zinc				

Associated samples MP15962: F63620-1, F63620-2, F63620-3, F63620-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

6.1.3
6

SERIAL DILUTION RESULTS SUMMARY

Login Number: F63620
 Account: ITVAVAB - Shaw E & I, Inc.
 Project: Camp Lejeune-AS-4158

QC Batch ID: MP15962
 Matrix Type: AQUEOUS

Methods: SW846 6010B
 Units: ug/l

Prep Date: 02/27/09

Metal	F63620-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead	2.37	0.00	100.0(a)	0-10
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Thallium				
Tin				
Vanadium				
Zinc				

Associated samples MP15962: F63620-1, F63620-2, F63620-3, F63620-4

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).



03/19/09

Technical Report for

Shaw E & I, Inc.

Camp Lejeune-AS-4158

125709

Accutest Job Number: F63776

Sampling Date: 03/04/09

Report to:

Shaw E & I, Inc.
500 E Main St Suite 1630
Norfolk, VA 23510
natasha.sullivan@shawgrp.com

ATTN: Natasha Sullivan

Total number of pages in report: **18**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.


Harry Behzadi, Ph.D.
Laboratory Director

Client Service contact: Heather Wandrey 407-425-6700

Certifications: FL (DOH E83510), NC (573), NJ (FL002), MA (FL946), IA (366), LA (03051), KS (E-10327), SC, AK
This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.

Table of Contents

-1-

Section 1: Sample Summary 3

Section 2: Sample Results 4

2.1: F63776-1: USTAS4158-MW14 5

2.2: F63776-2: USTAS4158-TB-030409 7

Section 3: Misc. Forms 9

3.1: Chain of Custody 10

Section 4: GC/MS Volatiles - QC Data Summaries 12

4.1: Method Blank Summary 13

4.2: Blank Spike Summary 15

4.3: Matrix Spike/Matrix Spike Duplicate Summary 17



Sample Summary

Shaw E & I, Inc.

Job No: F63776

Camp Lejeune-AS-4158
Project No: 125709

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
F63776-1	03/04/09	08:20 JM	03/06/09	AQ	Ground Water	USTAS4158-MW14
F63776-2	03/04/09	00:00 JM	03/06/09	AQ	Trip Blank Water	USTAS4158-TB-030409



Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: USTAS4158-MW14
Lab Sample ID: F63776-1
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 03/04/09
Date Received: 03/06/09
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J045728.D	1	03/17/09	KW	n/a	n/a	VJ2785
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.40	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	2.0	0.48	ug/l	
67-66-3	Chloroform	ND	1.0	0.28	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.54	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.43	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.61	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.26	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.32	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-MW14
Lab Sample ID: F63776-1
Matrix: AQ - Ground Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 03/04/09
Date Received: 03/06/09
Percent Solids: n/a

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	3.0	1.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		87-116%
17060-07-0	1,2-Dichloroethane-D4	94%		76-127%
2037-26-5	Toluene-D8	101%		86-112%
460-00-4	4-Bromofluorobenzene	106%		84-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: USTAS4158-TB-030409
Lab Sample ID: F63776-2
Matrix: AQ - Trip Blank Water
Method: EPA 624
Project: Camp Lejeune-AS-4158

Date Sampled: 03/04/09
Date Received: 03/06/09
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J045729.D	1	03/17/09	KW	n/a	n/a	VJ2785
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.40	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	2.0	0.48	ug/l	
67-66-3	Chloroform	ND	1.0	0.28	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.54	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.43	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.61	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.26	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.32	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	USTAS4158-TB-030409	Date Sampled:	03/04/09
Lab Sample ID:	F63776-2	Date Received:	03/06/09
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	EPA 624		
Project:	Camp Lejeune-AS-4158		

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	3.0	1.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		87-116%
17060-07-0	1,2-Dichloroethane-D4	98%		76-127%
2037-26-5	Toluene-D8	104%		86-112%
460-00-4	4-Bromofluorobenzene	108%		84-120%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound



Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Chain of Custody

COC Number:
125709-AS4158-030509

F6377X6
Shaw
Shaw Environmental & Infrastructure, Inc.

CHAIN-OF-CUSTODY RECORD

Shaw E & I - Piney Green Rd. Lot 203 Bld 626 - 910-451-2390

Receiving LAB: ACCUTEST

Analysis Desired

Project Name CAMP LEJEUNE - AS4158		Project Location CAMP LEJEUNE, NC		Project Number 125709		Contact Mark Martin		P.O. Number 282002		Reviewed by									
Client Rep US NAVY - LANTDIV		Project Manager Mark Pisarcik		Item No.		Sample Number		Date		Time		Comp		Grab		Sample Description		Number of Containers	
1		USTAS4158-MW14		3/4/09		8:20		X		USTAS4158-MW14		3		X					
2		USTAS4158-TB-030409		3/4/09				X		Trip Blank		2		X					
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

Transfer Number	Item Number	Transfers Relinquished By	Transfers Accepted By	Date	Time	Remarks
1	1 -- 2	John Macleod	Fed 8884 4334 4720	3/5/2009	14:00	14 Day TAT Redo sample for MW14 due to breakage of original sample vials in prior shipment
2		3/16/09 9:20	Accutest	3/16/09	9:20	
3						

1.8

F63776: Chain of Custody

Page 1 of 2

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F63776 CLIENT: Shaw PROJECT: Camp LeJeune
 DATE/TIME RECEIVED: 3/16/09 9:00 # OF COOLERS RECEIVED: 1 COOLER TEMPS: 1.8
 METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER
 AIRBILL NUMBERS: 8684 4334 4720

COOLER INFORMATION

- ☐ CUSTODY SEAL NOT PRESENT OR NOT INTACT
- ☐ CHAIN OF CUSTODY NOT RECEIVED (COC)
- ☐ ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- ☐ SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- ☐ TEMPERATURE CRITERIA NOT MET
- ☐ WET ICE RECEIVED IN COOLER

TRIP BLANK INFORMATION

- ☒ TRIP BLANK PROVIDED
- ☐ TRIP BLANK NOT PROVIDED
- ☐ TRIP BLANK NOT ON COC
- ☒ TRIP BLANK INTACT
- ☐ TRIP BLANK NOT INTACT
- ☒ RECEIVED WATER TRIP BLANK
- ☐ RECEIVED SOIL, TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 0
 NUMBER OF 5035 FIELD KITS ? 0
 NUMBER OF LAB FILTERED METALS ? 0

SUMMARY OF COMMENTS:

SAMPLE INFORMATION

- ☐ SAMPLE LABELS NOT PRESENT ON ALL BOTTLES
 - ☐ CORRECT NUMBER OF CONTAINERS USED
 - ☐ SAMPLE RECEIVED IMPROPERLY PRESERVED
 - ☐ INSUFFICIENT VOLUME FOR ANALYSIS
 - ☐ TIMES ON COC DOES NOT MATCH LABEL(S)
 - ☐ ID'S ON COC DOES NOT MATCH LABEL(S)
 - ☐ VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
 - ☐ BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
 - ☐ NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
 - ☐ UNCLEAR FILTERING INSTRUCTIONS
 - ☐ UNCLEAR COMPOSITING INSTRUCTIONS
 - ☐ SAMPLE CONTAINER(S) RECEIVED BROKEN
 - ☐ % SOLIDS JAR NOT RECEIVED
 - ☐ 5035 FIELD KIT NOT FROZEN WITHIN 48 HOUR'S
 - ☐ RESIDUAL CHLORINE PRESENT
- (APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS)

TECHNICIAN SIGNATURE/DATE

AK 3/16/09

TECHNICIAN SIGNATURE/DATE

ASD

ASD

F63776: Chain of Custody

Page 2 of 2



GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 2

Job Number: F63776
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ2785-MB	J045727.D	1	03/17/09	KW	n/a	n/a	VJ2785

The QC reported here applies to the following samples:

Method: EPA 624

F63776-1, F63776-2

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.40	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	2.0	0.48	ug/l	
67-66-3	Chloroform	ND	1.0	0.28	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.54	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.43	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.61	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.26	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.32	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	3.0	1.2	ug/l	

Method Blank Summary

Job Number: F63776
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ2785-MB	J045727.D	1	03/17/09	KW	n/a	n/a	VJ2785

The QC reported here applies to the following samples: Method: EPA 624

F63776-1, F63776-2

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	100% 87-116%
17060-07-0	1,2-Dichloroethane-D4	95% 76-127%
2037-26-5	Toluene-D8	103% 86-112%
460-00-4	4-Bromofluorobenzene	106% 84-120%

Blank Spike Summary

Page 1 of 2

Job Number: F63776
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ2785-BS	J045726.D	1	03/17/09	KW	n/a	n/a	VJ2785

The QC reported here applies to the following samples:

Method: EPA 624

F63776-1, F63776-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	25.9	104	83-124
75-27-4	Bromodichloromethane	25	22.8	91	76-116
75-25-2	Bromoform	25	21.4	86	68-128
108-90-7	Chlorobenzene	25	25.2	101	87-115
75-00-3	Chloroethane	25	24.2	97	54-166
67-66-3	Chloroform	25	25.0	100	85-123
110-75-8	2-Chloroethyl vinyl ether	125	99.3	79	63-125
56-23-5	Carbon tetrachloride	25	26.0	104	74-139
75-34-3	1,1-Dichloroethane	25	26.3	105	82-127
75-35-4	1,1-Dichloroethylene	25	26.8	107	75-133
107-06-2	1,2-Dichloroethane	25	23.2	93	76-122
78-87-5	1,2-Dichloropropane	25	23.7	95	81-120
124-48-1	Dibromochloromethane	25	23.0	92	74-116
75-71-8	Dichlorodifluoromethane	25	19.2	77	34-158
156-59-2	cis-1,2-Dichloroethylene	25	24.4	98	81-114
10061-01-5	cis-1,3-Dichloropropene	25	24.7	99	83-119
541-73-1	m-Dichlorobenzene	25	24.6	98	86-115
95-50-1	o-Dichlorobenzene	25	24.1	96	85-115
106-46-7	p-Dichlorobenzene	25	24.6	98	87-113
156-60-5	trans-1,2-Dichloroethylene	25	26.5	106	82-126
10061-02-6	trans-1,3-Dichloropropene	25	26.1	104	87-123
100-41-4	Ethylbenzene	25	25.7	103	87-118
74-83-9	Methyl bromide	25	22.7	91	55-151
74-87-3	Methyl chloride	25	25.2	101	55-173
75-09-2	Methylene chloride	25	24.2	97	69-125
1634-04-4	Methyl Tert Butyl Ether	25	22.4	90	75-116
71-55-6	1,1,1-Trichloroethane	25	26.8	107	79-133
79-34-5	1,1,2,2-Tetrachloroethane	25	21.4	86	71-120
79-00-5	1,1,2-Trichloroethane	25	24.6	98	80-114
127-18-4	Tetrachloroethylene	25	25.2	101	80-131
108-88-3	Toluene	25	25.6	102	86-116
79-01-6	Trichloroethylene	25	25.9	104	85-124
75-69-4	Trichlorofluoromethane	25	25.2	101	66-156
75-01-4	Vinyl chloride	25	22.2	89	57-153
1330-20-7	Xylene (total)	75	78.1	104	86-120

Blank Spike Summary

Job Number: F63776
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ2785-BS	J045726.D	1	03/17/09	KW	n/a	n/a	VJ2785

The QC reported here applies to the following samples: Method: EPA 624

F63776-1, F63776-2

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	102%	87-116%
17060-07-0	1,2-Dichloroethane-D4	99%	76-127%
2037-26-5	Toluene-D8	100%	86-112%
460-00-4	4-Bromofluorobenzene	98%	84-120%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 2

Job Number: F63776
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F63905-2MS	J045734.D	1	03/17/09	KW	n/a	n/a	VJ2785
F63905-2MSD	J045735.D	1	03/17/09	KW	n/a	n/a	VJ2785
F63905-2	J045733.D	1	03/17/09	KW	n/a	n/a	VJ2785

The QC reported here applies to the following samples:

Method: EPA 624

F63776-1, F63776-2

CAS No.	Compound	F63905-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		25	25.7	103	26.0	104	1	83-124/11
75-27-4	Bromodichloromethane	ND		25	22.7	91	22.6	90	0	76-116/10
75-25-2	Bromoform	ND		25	21.2	85	20.8	83	2	68-128/11
108-90-7	Chlorobenzene	ND		25	24.3	97	24.5	98	1	87-115/9
75-00-3	Chloroethane	ND		25	24.5	98	25.0	100	2	54-166/20
67-66-3	Chloroform	ND		25	23.9	96	24.0	96	0	85-123/10
110-75-8	2-Chloroethyl vinyl ether	ND		125	ND	0*	ND	0*	nc	63-125/24
56-23-5	Carbon tetrachloride	ND		25	27.4	110	26.6	106	3	74-139/13
75-34-3	1,1-Dichloroethane	ND		25	25.5	102	26.1	104	2	82-127/10
75-35-4	1,1-Dichloroethylene	ND		25	26.6	106	26.6	106	0	75-133/13
107-06-2	1,2-Dichloroethane	ND		25	23.0	92	23.6	94	3	76-122/11
78-87-5	1,2-Dichloropropane	ND		25	23.6	94	24.5	98	4	81-120/11
124-48-1	Dibromochloromethane	ND		25	22.2	89	22.7	91	2	74-116/11
75-71-8	Dichlorodifluoromethane	ND		25	18.3	73	20.0	80	9	34-158/22
156-59-2	cis-1,2-Dichloroethylene	ND		25	24.6	98	24.9	100	1	81-114/10
10061-01-5	cis-1,3-Dichloropropene	ND		25	23.5	94	23.9	96	2	83-119/10
541-73-1	m-Dichlorobenzene	ND		25	24.4	98	24.7	99	1	86-115/9
95-50-1	o-Dichlorobenzene	ND		25	24.3	97	24.1	96	1	85-115/9
106-46-7	p-Dichlorobenzene	ND		25	23.7	95	24.3	97	3	87-113/10
156-60-5	trans-1,2-Dichloroethylene	ND		25	26.3	105	26.4	106	0	82-126/10
10061-02-6	trans-1,3-Dichloropropene	ND		25	25.2	101	25.8	103	2	87-123/10
100-41-4	Ethylbenzene	ND		25	25.1	100	25.1	100	0	87-118/10
74-83-9	Methyl bromide	ND		25	22.9	92	23.8	95	4	55-151/21
74-87-3	Methyl chloride	ND		25	25.4	102	26.4	106	4	55-173/22
75-09-2	Methylene chloride	ND		25	22.8	91	23.5	94	3	69-125/11
1634-04-4	Methyl Tert Butyl Ether	ND		25	22.4	90	23.3	93	4	75-116/10
71-55-6	1,1,1-Trichloroethane	ND		25	26.2	105	25.9	104	1	79-133/11
79-34-5	1,1,2,2-Tetrachloroethane	ND		25	23.0	92	22.8	91	1	71-120/11
79-00-5	1,1,2-Trichloroethane	ND		25	23.3	93	23.7	95	2	80-114/11
127-18-4	Tetrachloroethylene	ND		25	23.9	96	24.3	97	2	80-131/12
108-88-3	Toluene	ND		25	25.2	101	25.0	100	1	86-116/10
79-01-6	Trichloroethylene	ND		25	24.6	98	24.5	98	0	85-124/10
75-69-4	Trichlorofluoromethane	ND		25	24.4	98	25.6	102	5	66-156/15
75-01-4	Vinyl chloride	ND		25	22.3	89	23.1	92	4	57-153/22
1330-20-7	Xylene (total)	ND		75	76.6	102	76.3	102	0	86-120/10

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F63776
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-AS-4158

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F63905-2MS	J045734.D	1	03/17/09	KW	n/a	n/a	VJ2785
F63905-2MSD	J045735.D	1	03/17/09	KW	n/a	n/a	VJ2785
F63905-2	J045733.D	1	03/17/09	KW	n/a	n/a	VJ2785

The QC reported here applies to the following samples: Method: EPA 624

F63776-1, F63776-2

CAS No.	Surrogate Recoveries	MS	MSD	F63905-2	Limits
1868-53-7	Dibromofluoromethane	100%	98%	100%	87-116%
17060-07-0	1,2-Dichloroethane-D4	99%	102%	96%	76-127%
2037-26-5	Toluene-D8	96%	99%	102%	86-112%
460-00-4	4-Bromofluorobenzene	98%	98%	104%	84-120%

APPENDIX C

HISTORICAL GROUNDWATER ANALYTICAL DATA

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	3/27/98	5/15/98	6/24/98	7/23/98	10/21/98	1/25/99	2/16/99	4/19/99	5/7/99	7/14/99	7/30/99	10/20/99
MW01													
Benzene	1	BQL	1	NS	BQL	6	NS	NS	BQL	NS	NS	BQL	NS
Ethylbenzene	29	BQL	BQL	NS	BQL	BQL	NS	NS	BQL	NS	NS	BQL	NS
Methyl-tert-butyl ether (MTBE)	200	BQL	BQL	NS	BQL	BQL	NS	NS	BQL	NS	NS	BQL	NS
Toluene	1000	BQL	BQL	NS	BQL	BQL	NS	NS	BQL	NS	NS	BQL	NS
Total Xylenes	530	BQL	BQL	NS	BQL	BQL	NS	NS	BQL	NS	NS	BQL	NS
Naphthalene	21	BQL	BQL	NS	BQL	BQL	NS	NS	BQL	NS	NS	BQL	NS
Acenaphthene	80	BQL	BQL	NS	BQL	BQL	NS	NS	BQL	NS	NS	BQL	NS
Fluorene	280	BQL	BQL	NS	BQL	BQL	NS	NS	BQL	NS	NS	BQL	NS
Phenanthrene	210	BQL	BQL	NS	BQL	BQL	NS	NS	BQL	NS	NS	BQL	NS
Anthracene	2100	BQL	BQL	NS	BQL	BQL	NS	NS	BQL	NS	NS	BQL	NS
Pyrene	210	BQL	BQL	NS	BQL	BQL	NS	NS	BQL	NS	NS	BQL	NS
1-Methylnaphthalene	Detection Limit	BQL	BQL	NS	BQL	BQL	NS	NS	BQL	NS	NS	BQL	NS
2-Methylnaphthalene	28	BQL	BQL	NS	BQL	BQL	NS	NS	BQL	NS	NS	BQL	NS

Well No./Contaminant	NCDENR Reg Limit	1/12/00	3/23/00	4/25/00	7/26/00	7/27/00	10/18/00	1/4/01	4/17/01	7/16/01	10/15/01	1/15/02	4/15/02
MW01													
Benzene	1	BQL	NS	BQL	BQL	NS	BQL	NS	BQL	BQL	BQL	NS	BQL
Ethylbenzene	29	BQL	NS	BQL	BQL	NS	BQL	NS	BQL	BQL	BQL	NS	BQL
Methyl-tert-butyl ether (MTBE)	200	BQL	NS	BQL	BQL	NS	BQL	NS	BQL	BQL	BQL	NS	BQL
Toluene	1000	BQL	NS	BQL	BQL	NS	BQL	NS	BQL	BQL	BQL	NS	BQL
Total Xylenes	530	BQL	NS	BQL	BQL	NS	BQL	NS	BQL	BQL	BQL	NS	BQL
Naphthalene	21	BQL	NS	BQL	BQL	NS	BQL	NS	BQL	BQL	BQL	NS	BQL
Acenaphthene	80	BQL	NS	BQL	BQL	NS	BQL	NS	BQL	BQL	BQL	NS	BQL
Fluorene	280	BQL	NS	BQL	BQL	NS	BQL	NS	BQL	BQL	BQL	NS	BQL
Phenanthrene	210	BQL	NS	BQL	BQL	NS	BQL	NS	BQL	BQL	BQL	NS	BQL
Anthracene	2100	BQL	NS	BQL	BQL	NS	BQL	NS	BQL	BQL	BQL	NS	BQL
Pyrene	210	BQL	NS	BQL	BQL	NS	BQL	NS	BQL	BQL	BQL	NS	BQL
1-Methylnaphthalene	Detection Limit	BQL	NS	BQL	BQL	NS	BQL	NS	BQL	BQL	BQL	NS	BQL
2-Methylnaphthalene	28	BQL	NS	BQL	BQL	NS	BQL	NS	BQL	BQL	BQL	NS	BQL

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	4/14/04	7/12/04	10/7/04	1/4/05	4/5/05	7/27/05	3/8/07	6/23/07	10/9/07	1/9/08	3/26/08	9/30/08
MW01													
Benzene	1	NS	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29	NS	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200	NS	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Toluene	1000	NS	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530	NS	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Naphthalene	21	NS	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80	NS	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280	NS	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210	NS	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100	NS	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210	NS	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit	NS	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28	NS	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL

Well No./Contaminant	NCDENR Reg Limit	2/25/09											
MW01													
Benzene	1	BQL											
Ethylbenzene	29	BQL											
Methyl-tert-butyl ether (MTBE)	200	BQL											
Toluene	1000	BQL											
Total Xylenes	530	BQL											
Naphthalene	21	BQL											
Acenaphthene	80	BQL											
Fluorene	280	BQL											
Phenanthrene	210	BQL											
Anthracene	2100	BQL											
Pyrene	210	BQL											
1-Methylnaphthalene	Detection Limit	BQL											
2-Methylnaphthalene	28	BQL											

Above regulatory limits

NS - Not Sampled

BQL - Below Quantitation Limit

FP - Free Product

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	3/27/98	5/15/98	6/24/98	7/23/98	10/21/98	1/25/99	2/16/99	4/19/99	5/7/99	7/14/99	7/30/99	10/20/99
MW02													
Benzene	1	BQL	23	NS	NS	NS	BQL	NS	NS	BQL	NS	NS	NS
Ethylbenzene	29	240	320	NS	NS	NS	BQL	NS	NS	BQL	NS	NS	NS
Methyl-tert-butyl ether (MTBE)	200	BQL	BQL	NS	NS	NS	BQL	NS	NS	BQL	NS	NS	NS
Toluene	1000	140	140	NS	NS	NS	BQL	NS	NS	BQL	NS	NS	NS
Total Xylenes	530	1020	1100	NS	NS	NS	BQL	NS	NS	BQL	NS	NS	NS
Naphthalene	21	14	18	NS	NS	NS	BQL	NS	NS	BQL	NS	NS	NS
Acenaphthene	80	BQL	BQL	NS	NS	NS	BQL	NS	NS	BQL	NS	NS	NS
Fluorene	280	BQL	BQL	NS	NS	NS	BQL	NS	NS	BQL	NS	NS	NS
Phenanthrene	210	BQL	BQL	NS	NS	NS	BQL	NS	NS	BQL	NS	NS	NS
Anthracene	2100	BQL	BQL	NS	NS	NS	BQL	NS	NS	BQL	NS	NS	NS
Pyrene	210	BQL	BQL	NS	NS	NS	BQL	NS	NS	BQL	NS	NS	NS
1-Methylnaphthalene	Detection Limit	BQL	BQL	NS	NS	NS	BQL	NS	NS	BQL	NS	NS	NS
2-Methylnaphthalene	28	BQL	BQL	NS	NS	NS	BQL	NS	NS	BQL	NS	NS	NS

Well No./Contaminant	NCDENR Reg Limit	1/12/00	3/23/00	4/25/00	7/26/00	7/27/00	10/18/00	1/4/01	4/17/01	7/16/01	10/15/01	1/15/02	4/15/02
MW02													
Benzene	1	NS	NS	BQL	BQL	BQL	BQL	NS	BQL	BQL	NS	NS	NS
Ethylbenzene	29	NS	NS	BQL	BQL	BQL	BQL	NS	BQL	BQL	NS	NS	NS
Methyl-tert-butyl ether (MTBE)	200	NS	NS	BQL	BQL	BQL	BQL	NS	BQL	BQL	NS	NS	NS
Toluene	1000	NS	NS	BQL	BQL	BQL	BQL	NS	BQL	BQL	NS	NS	NS
Total Xylenes	530	NS	NS	BQL	BQL	BQL	BQL	NS	BQL	BQL	NS	NS	NS
Naphthalene	21	NS	NS	BQL	BQL	BQL	BQL	NS	BQL	BQL	NS	NS	NS
Acenaphthene	80	NS	NS	BQL	BQL	BQL	BQL	NS	BQL	BQL	NS	NS	NS
Fluorene	280	NS	NS	BQL	BQL	BQL	BQL	NS	BQL	BQL	NS	NS	NS
Phenanthrene	210	NS	NS	BQL	BQL	BQL	BQL	NS	BQL	BQL	NS	NS	NS
Anthracene	2100	NS	NS	BQL	BQL	BQL	BQL	NS	BQL	BQL	NS	NS	NS
Pyrene	210	NS	NS	BQL	BQL	BQL	BQL	NS	BQL	BQL	NS	NS	NS
1-Methylnaphthalene	Detection Limit	NS	NS	BQL	BQL	BQL	BQL	NS	BQL	BQL	NS	NS	NS
2-Methylnaphthalene	28	NS	NS	BQL	BQL	BQL	BQL	NS	BQL	BQL	NS	NS	NS

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	4/14/04	7/12/04	10/7/04	1/4/05	4/5/05	7/27/05	3/8/07	6/23/07	10/9/07	1/9/08	3/26/08	9/30/08
MW02													
Benzene	1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Ethylbenzene	29	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Methyl-tert-butyl ether (MTBE)	200	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Toluene	1000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Total Xylenes	530	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Naphthalene	21	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Acenaphthene	80	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Fluorene	280	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Phenanthrene	210	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Anthracene	2100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Pyrene	210	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
1-Methylnaphthalene	Detection Limit	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
2-Methylnaphthalene	28	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Well No./Contaminant	NCDENR Reg Limit	2/25/09											
MW02													
Benzene	1	NS											
Ethylbenzene	29	NS											
Methyl-tert-butyl ether (MTBE)	200	NS											
Toluene	1000	NS											
Total Xylenes	530	NS											
Naphthalene	21	NS											
Acenaphthene	80	NS											
Fluorene	280	NS											
Phenanthrene	210	NS											
Anthracene	2100	NS											
Pyrene	210	NS											
1-Methylnaphthalene	Detection Limit	NS											
2-Methylnaphthalene	28	NS											

Above regulatory limits

NS - Not Sampled

BQL - Below Quantitation Limit

FP - Free Product

**Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina**

Well No./Contaminant	NCDENR Reg Limit	3/27/98	5/15/98	6/24/98	7/23/98	10/21/98	1/25/99	2/16/99	4/19/99	5/7/99	7/14/99	7/30/99	10/20/99
MW03													
Benzene	1	BQL	BQL	BQL	BQL	BQL	1	NS	BQL	NS	BQL	NS	BQL
Ethylbenzene	29	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Methyl-tert-butyl ether (MTBE)	200	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Toluene	1000	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Total Xylenes	530	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Naphthalene	21	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Acenaphthene	80	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Fluorene	280	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Phenanthrene	210	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Anthracene	2100	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Pyrene	210	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
1-Methylnaphthalene	Detection Limit	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
2-Methylnaphthalene	28	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL

[illegible]

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	4/14/04	7/12/04	10/7/04	1/4/05	4/5/05	7/27/05	3/8/07	6/23/07	10/9/07	1/9/08	3/26/08	9/30/08
MW03													
Benzene	1	NS	NS	NS	NS	NS	BQL	NS	NS	NS	NS	NS	BQL
Ethylbenzene	29	NS	NS	NS	NS	NS	BQL	NS	NS	NS	NS	NS	BQL
Methyl-tert-butyl ether (MTBE)	200	NS	NS	NS	NS	NS	BQL	NS	NS	NS	NS	NS	BQL
Toluene	1000	NS	NS	NS	NS	NS	BQL	NS	NS	NS	NS	NS	BQL
Total Xylenes	530	NS	NS	NS	NS	NS	BQL	NS	NS	NS	NS	NS	BQL
Naphthalene	21	NS	NS	NS	NS	NS	BQL	NS	NS	NS	NS	NS	BQL
Acenaphthene	80	NS	NS	NS	NS	NS	BQL	NS	NS	NS	NS	NS	BQL
Fluorene	280	NS	NS	NS	NS	NS	BQL	NS	NS	NS	NS	NS	BQL
Phenanthrene	210	NS	NS	NS	NS	NS	BQL	NS	NS	NS	NS	NS	BQL
Anthracene	2100	NS	NS	NS	NS	NS	BQL	NS	NS	NS	NS	NS	BQL
Pyrene	210	NS	NS	NS	NS	NS	BQL	NS	NS	NS	NS	NS	BQL
1-Methylnaphthalene	Detection Limit	NS	NS	NS	NS	NS	BQL	NS	NS	NS	NS	NS	BQL
2-Methylnaphthalene	28	NS	NS	NS	NS	NS	BQL	NS	NS	NS	NS	NS	BQL

Well No./Contaminant	NCDENR Reg Limit	2/25/09											
MW03													
Benzene	1	BQL											
Ethylbenzene	29	BQL											
Methyl-tert-butyl ether (MTBE)	200	BQL											
Toluene	1000	BQL											
Total Xylenes	530	BQL											
Naphthalene	21	BQL											
Acenaphthene	80	BQL											
Fluorene	280	BQL											
Phenanthrene	210	BQL											
Anthracene	2100	BQL											
Pyrene	210	BQL											
1-Methylnaphthalene	Detection Limit	BQL											
2-Methylnaphthalene	28	BQL											

Above regulatory limits

NS - Not Sampled

BQL - Below Quantitation Limit

FP - Free Product

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	3/27/98	5/15/98	6/24/98	7/23/98	10/21/98	1/25/99	2/16/99	4/19/99	5/7/99	7/14/99	7/30/99	10/20/99
MW04													
Benzene	1	NS	BQL	BQL	BQL	BQL	1	NS	BQL	NS	BQL	NS	BQL
Ethylbenzene	29	NS	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Methyl-tert-butyl ether (MTBE)	200	NS	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Toluene	1000	NS	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Total Xylenes	530	NS	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Naphthalene	21	NS	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Acenaphthene	80	NS	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Fluorene	280	NS	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Phenanthrene	210	NS	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Anthracene	2100	NS	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Pyrene	210	NS	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
1-Methylnaphthalene	Detection Limit	NS	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
2-Methylnaphthalene	28	NS	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL

Well No./Contaminant	NCDENR Reg Limit	1/12/00	3/23/00	4/25/00	7/26/00	7/27/00	10/18/00	1/4/01	4/17/01	7/16/01	10/15/01	1/15/02	4/15/02
MW04													
Benzene	1	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Toluene	1000	BQL	NS	BQL	BQL	NS	2	BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Naphthalene	21	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	4/14/04	7/12/04	10/7/04	1/4/05	4/5/05	7/27/05	3/8/07	6/23/07	10/9/07	1/9/08	3/26/08	9/30/08
MW04													
Benzene	1	BQL	BQL	BQL	BQL	BQL	BQL	NS	NS	NS	NS	NS	BQL
Ethylbenzene	29	BQL	BQL	BQL	BQL	BQL	BQL	NS	NS	NS	NS	NS	BQL
Methyl-tert-butyl ether (MTBE)	200	BQL	BQL	BQL	BQL	BQL	BQL	NS	NS	NS	NS	NS	BQL
Toluene	1000	1.3	BQL	BQL	BQL	1.4	BQL	NS	NS	NS	NS	NS	BQL
Total Xylenes	530	BQL	BQL	BQL	BQL	BQL	BQL	NS	NS	NS	NS	NS	BQL
Naphthalene	21	BQL	BQL	BQL	BQL	BQL	BQL	NS	NS	NS	NS	NS	BQL
Acenaphthene	80	BQL	BQL	BQL	BQL	BQL	BQL	NS	NS	NS	NS	NS	BQL
Fluorene	280	BQL	BQL	BQL	BQL	BQL	BQL	NS	NS	NS	NS	NS	BQL
Phenanthrene	210	BQL	BQL	BQL	BQL	BQL	BQL	NS	NS	NS	NS	NS	BQL
Anthracene	2100	BQL	BQL	BQL	BQL	BQL	BQL	NS	NS	NS	NS	NS	BQL
Pyrene	210	BQL	BQL	BQL	BQL	BQL	BQL	NS	NS	NS	NS	NS	BQL
1-Methylnaphthalene	Detection Limit	BQL	BQL	BQL	BQL	BQL	BQL	NS	NS	NS	NS	NS	BQL
2-Methylnaphthalene	28	BQL	BQL	BQL	BQL	BQL	BQL	NS	NS	NS	NS	NS	BQL

Well No./Contaminant	NCDENR Reg Limit	2/25/09											
MW04													
Benzene	1	BQL											
Ethylbenzene	29	BQL											
Methyl-tert-butyl ether (MTBE)	200	BQL											
Toluene	1000	BQL											
Total Xylenes	530	BQL											
Naphthalene	21	BQL											
Acenaphthene	80	BQL											
Fluorene	280	BQL											
Phenanthrene	210	BQL											
Anthracene	2100	BQL											
Pyrene	210	BQL											
1-Methylnaphthalene	Detection Limit	BQL											
2-Methylnaphthalene	28	BQL											

Above regulatory limits

NS - Not Sampled

BQL - Below Quantitation Limit

FP - Free Product

**Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina**

Well No./Contaminant	NCDENR Reg Limit	3/27/98	5/15/98	6/24/98	7/23/98	10/21/98	1/25/99	2/16/99	4/19/99	5/7/99	7/14/99	7/30/99	10/20/99
MW05													
Benzene	1	BQL	NS	NS	NS	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Ethylbenzene	29	BQL	NS	NS	NS	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Methyl-tert-butyl ether (MTBE)	200	BQL	NS	NS	NS	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Toluene	1000	BQL	NS	NS	NS	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Total Xylenes	530	BQL	NS	NS	NS	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Naphthalene	21	BQL	NS	NS	NS	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Acenaphthene	80	BQL	NS	NS	NS	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Fluorene	280	BQL	NS	NS	NS	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Phenanthrene	210	BQL	NS	NS	NS	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Anthracene	2100	BQL	NS	NS	NS	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Pyrene	210	BQL	NS	NS	NS	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
1-Methylnaphthalene	Detection Limit	BQL	NS	NS	NS	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
2-Methylnaphthalene	28	BQL	NS	NS	NS	BQL	BQL	NS	BQL	NS	BQL	NS	BQL

[illegible]

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	4/14/04	7/12/04	10/7/04	1/4/05	4/5/05	7/27/05	3/8/07	6/23/07	10/9/07	1/9/08	3/26/08	9/30/08
MW05													
Benzene	1	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL
Ethylbenzene	29	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL
Methyl-tert-butyl ether (MTBE)	200	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL
Toluene	1000	BQL	1.1	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL
Total Xylenes	530	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL
Naphthalene	21	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL
Acenaphthene	80	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL
Fluorene	280	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL
Phenanthrene	210	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL
Anthracene	2100	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL
Pyrene	210	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL
1-Methylnaphthalene	Detection Limit	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL
2-Methylnaphthalene	28	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL

Well No./Contaminant	NCDENR Reg Limit	2/25/09											
MW05													
Benzene	1	BQL											
Ethylbenzene	29	BQL											
Methyl-tert-butyl ether (MTBE)	200	BQL											
Toluene	1000	BQL											
Total Xylenes	530	BQL											
Naphthalene	21	BQL											
Acenaphthene	80	BQL											
Fluorene	280	BQL											
Phenanthrene	210	BQL											
Anthracene	2100	BQL											
Pyrene	210	BQL											
1-Methylnaphthalene	Detection Limit	BQL											
2-Methylnaphthalene	28	BQL											

Above regulatory limits

NS - Not Sampled

BQL - Below Quantitation Limit

FP - Free Product

**Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina**

[illegible][illegible]

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	4/14/04	7/12/04	10/7/04	1/4/05	4/5/05	7/27/05	3/8/07	6/23/07	10/9/07	1/9/08	3/26/08	9/30/08
MW6													
Benzene	1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	BQL
Ethylbenzene	29	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	BQL
Methyl-tert-butyl ether (MTBE)	200	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	BQL
Toluene	1000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	BQL
Total Xylenes	530	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	BQL
Naphthalene	21	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	BQL
Acenaphthene	80	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	BQL
Fluorene	280	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	BQL
Phenanthrene	210	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	BQL
Anthracene	2100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	BQL
Pyrene	210	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	BQL
1-Methylnaphthalene	Detection Limit	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	BQL
2-Methylnaphthalene	28	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	BQL

Well No./Contaminant	NCDENR Reg Limit	2/25/09											
MW6													
Benzene	1	BQL											
Ethylbenzene	29	BQL											
Methyl-tert-butyl ether (MTBE)	200	BQL											
Toluene	1000	BQL											
Total Xylenes	530	BQL											
Naphthalene	21	BQL											
Acenaphthene	80	BQL											
Fluorene	280	BQL											
Phenanthrene	210	BQL											
Anthracene	2100	BQL											
Pyrene	210	BQL											
1-Methylnaphthalene	Detection Limit	BQL											
2-Methylnaphthalene	28	BQL											

Above regulatory limits

NS - Not Sampled

BQL - Below Quantitation Limit

FP - Free Product

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	3/27/98	5/15/98	6/24/98	7/23/98	10/21/98	1/25/99	2/16/99	4/19/99	5/7/99	7/14/99	7/30/99	10/20/99
MW07													
Benzene	1	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Ethylbenzene	29	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Methyl-tert-butyl ether (MTBE)	200	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Toluene	1000	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Total Xylenes	530	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Naphthalene	21	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Acenaphthene	80	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Fluorene	280	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Phenanthrene	210	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Anthracene	2100	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Pyrene	210	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
1-Methylnaphthalene	Detection Limit	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
2-Methylnaphthalene	28	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL

Well No./Contaminant	NCDENR Reg Limit	1/12/00	3/23/00	4/25/00	7/26/00	7/27/00	10/18/00	1/4/01	4/17/01	7/16/01	10/15/01	1/15/02	4/15/02
MW07													
Benzene	1	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL
Ethylbenzene	29	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL
Toluene	1000	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL
Total Xylenes	530	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL
Naphthalene	21	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL
Acenaphthene	80	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL
Fluorene	280	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL
Phenanthrene	210	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL
Anthracene	2100	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL
Pyrene	210	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL
1-Methylnaphthalene	Detection Limit	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL
2-Methylnaphthalene	28	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	4/14/04	7/12/04	10/7/04	1/4/05	4/5/05	7/27/05	3/8/07	6/23/07	10/9/07	1/9/08	3/26/08	9/30/08
MW07													
Benzene	1	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	1
Ethylbenzene	29	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	1
Toluene	1000	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Naphthalene	21	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL

Well No./Contaminant	NCDENR Reg Limit	2/24/09											
MW07													
Benzene	1	BQL											
Ethylbenzene	29	BQL											
Methyl-tert-butyl ether (MTBE)	200	BQL											
Toluene	1000	BQL											
Total Xylenes	530	BQL											
Naphthalene	21	BQL											
Acenaphthene	80	BQL											
Fluorene	280	BQL											
Phenanthrene	210	BQL											
Anthracene	2100	BQL											
Pyrene	210	BQL											
1-Methylnaphthalene	Detection Limit	BQL											
2-Methylnaphthalene	28	BQL											

Above regulatory limits

NS - Not Sampled

BQL - Below Quantitation Limit

FP - Free Product

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	3/27/98	5/15/98	6/24/98	7/23/98	10/21/98	1/25/99	2/16/99	4/19/99	5/7/99	7/14/99	7/30/99	10/20/99
MW08													
Benzene	1	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Ethylbenzene	29	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Methyl-tert-butyl ether (MTBE)	200	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Toluene	1000	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Total Xylenes	530	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Naphthalene	21	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Acenaphthene	80	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Fluorene	280	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Phenanthrene	210	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Anthracene	2100	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Pyrene	210	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
1-Methylnaphthalene	Detection Limit	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
2-Methylnaphthalene	28	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL

Well No./Contaminant	NCDENR Reg Limit	1/12/00	3/23/00	4/25/00	7/26/00	7/27/00	10/18/00	1/4/01	4/17/01	7/16/01	10/15/01	1/15/02	4/15/02
MW08													
Benzene	1	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Toluene	1000	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Naphthalene	21	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	4/14/04	7/12/04	10/7/04	1/4/05	4/5/05	7/27/05	3/8/07	6/23/07	10/9/07	1/9/08	3/26/08	9/30/08
MW08													
Benzene	1	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Toluene	1000	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Naphthalene	21	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL

Well No./Contaminant	NCDENR Reg Limit	2/25/09											
MW08													
Benzene	1	BQL											
Ethylbenzene	29	BQL											
Methyl-tert-butyl ether (MTBE)	200	BQL											
Toluene	1000	BQL											
Total Xylenes	530	BQL											
Naphthalene	21	BQL											
Acenaphthene	80	BQL											
Fluorene	280	BQL											
Phenanthrene	210	BQL											
Anthracene	2100	BQL											
Pyrene	210	BQL											
1-Methylnaphthalene	Detection Limit	BQL											
2-Methylnaphthalene	28	BQL											

Above regulatory limits

NS - Not Sampled

BQL - Below Quantitation Limit

FP - Free Product

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	3/27/98	5/15/98	6/24/98	7/23/98	10/21/98	1/25/99	2/16/99	4/19/99	5/7/99	7/14/99	7/30/99	10/20/99
MW09													
Benzene	1	NS	NS	NS	NS	NS	NS	110	NS	13	5	NS	6
Ethylbenzene	29	NS	NS	NS	NS	NS	NS	86	NS	61	1	NS	BQL
Methyl-tert-butyl ether (MTBE)	200	NS	NS	NS	NS	NS	NS	26	NS	23	28	NS	13
Toluene	1000	NS	NS	NS	NS	NS	NS	BQL	NS	BQL	BQL	NS	BQL
Total Xylenes	530	NS	NS	NS	NS	NS	NS	470	NS	321	55	NS	8
Naphthalene	21	NS	NS	NS	NS	NS	NS	BQL	NS	56	68	NS	16
Acenaphthene	80	NS	NS	NS	NS	NS	NS	BQL	NS	BQL	17	NS	BQL
Fluorene	280	NS	NS	NS	NS	NS	NS	BQL	NS	26	89	NS	22
Phenanthrene	210	NS	NS	NS	NS	NS	NS	11000	NS	37	160	NS	29
Anthracene	2100	NS	NS	NS	NS	NS	NS	11000	NS	BQL	20	NS	BQL
Pyrene	210	NS	NS	NS	NS	NS	NS	BQL	NS	BQL	22	NS	BQL
1-Methylnaphthalene	Detection Limit	NS	NS	NS	NS	NS	NS	17000	NS	120	240	NS	62
2-Methylnaphthalene	28	NS	NS	NS	NS	NS	NS	90000	NS	120	360	NS	31

Well No./Contaminant	NCDENR Reg Limit	1/12/00	3/23/00	4/25/00	7/26/00	7/27/00	10/18/00	1/4/01	4/17/01	7/16/01	10/15/01	1/15/02	4/15/02
MW09													
Benzene	1	17	NS	66	89	NS	100	160	180	52	BQL	NS	NS
Ethylbenzene	29	1	NS	BQL	BQL	NS	BQL	BQL	13	1	BQL	NS	NS
Methyl-tert-butyl ether (MTBE)	200	23	NS	23	16	NS	11	10	BQL	6	2	NS	NS
Toluene	1000	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	NS	NS
Total Xylenes	530	9	NS	BQL	BQL	NS	BQL	32	24	2	BQL	NS	NS
Naphthalene	21	13	NS	BQL	BQL	NS	BQL	54	28	BQL	BQL	NS	NS
Acenaphthene	80	BQL	NS	BQL	BQL	NS	BQL	BQL	17	BQL	BQL	NS	NS
Fluorene	280	20	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	NS	NS
Phenanthrene	210	20	NS	17	BQL	NS	11	23	BQL	BQL	BQL	NS	NS
Anthracene	2100	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	NS	NS
Pyrene	210	BQL	NS	BQL	30	NS	13	14	BQL	BQL	BQL	NS	NS
1-Methylnaphthalene	Detection Limit	51	NS	12	BQL	NS	BQL	63	13	BQL	BQL	NS	NS
2-Methylnaphthalene	28	23	NS	BQL	BQL	NS	11	35	13	BQL	BQL	NS	NS

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	4/14/04	7/12/04	10/7/04	1/4/05	4/5/05	7/27/05	3/8/07	6/23/07	10/9/07	1/9/08	3/26/08	9/30/08
MW09													
Benzene	1	20.3	NS	18.7	NS	1.8	BQL	10.5	16.4	8	FP	FP	BQL
Ethylbenzene	29	5.2	NS	6	NS	BQL	BQL	BQL	BQL	BQL	FP	FP	BQL
Methyl-tert-butyl ether (MTBE)	200	2.2	NS	1.2	NS	2.3	BQL	BQL	BQL	BQL	FP	FP	BQL
Toluene	1000	7.3	NS	BQL	NS	BQL	2.5	BQL	BQL	BQL	FP	FP	BQL
Total Xylenes	530	62.3	NS	62.2	NS	18.1	11	5.1	4.5	4.6	FP	FP	BQL
Naphthalene	21	BQL	NS	BQL	NS	BQL	BQL	BQL	BQL	BQL	FP	FP	BQL
Acenaphthene	80	BQL	NS	BQL	NS	BQL	BQL	BQL	BQL	BQL	FP	FP	BQL
Fluorene	280	BQL	NS	BQL	NS	BQL	BQL	BQL	BQL	BQL	FP	FP	BQL
Phenanthrene	210	BQL	NS	BQL	NS	BQL	BQL	BQL	BQL	BQL	FP	FP	BQL
Anthracene	2100	BQL	NS	BQL	NS	BQL	BQL	BQL	BQL	BQL	FP	FP	BQL
Pyrene	210	BQL	NS	BQL	NS	BQL	BQL	BQL	BQL	BQL	FP	FP	BQL
1-Methylnaphthalene	Detection Limit	BQL	NS	BQL	NS	BQL	BQL	BQL	BQL	BQL	FP	FP	BQL
2-Methylnaphthalene	28	BQL	NS	BQL	NS	BQL	BQL	BQL	BQL	BQL	FP	FP	BQL

Well No./Contaminant	NCDENR Reg Limit	2/26/09											
MW09													
Benzene	1	7.3											
Ethylbenzene	29	BQL											
Methyl-tert-butyl ether (MTBE)	200	BQL											
Toluene	1000	0.55 J											
Total Xylenes	530	2.2 J											
Naphthalene	21	BQL											
Acenaphthene	80	BQL											
Fluorene	280	BQL											
Phenanthrene	210	BQL											
Anthracene	2100	BQL											
Pyrene	210	BQL											
1-Methylnaphthalene	Detection Limit	BQL											
2-Methylnaphthalene	28	BQL											

Above regulatory limits

NS - Not Sampled

BQL - Below Quantitation Limit

FP - Free Product

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	3/27/98	5/15/98	6/24/98	7/23/98	10/21/98	1/25/99	2/16/99	4/19/99	5/7/99	7/14/99	7/30/99	10/20/99
MW10													
Benzene	1	230	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	NS	NS	BQL
Ethylbenzene	29	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	NS	NS	BQL
Methyl-tert-butyl ether (MTBE)	200	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	NS	NS	BQL
Toluene	1000	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	NS	NS	BQL
Total Xylenes	530	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	NS	NS	BQL
Naphthalene	21	26	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	NS	NS	BQL
Acenaphthene	80	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	NS	NS	BQL
Fluorene	280	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	NS	NS	BQL
Phenanthrene	210	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	NS	NS	BQL
Anthracene	2100	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	NS	NS	BQL
Pyrene	210	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	NS	NS	BQL
1-Methylnaphthalene	Detection Limit	12	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	NS	NS	BQL
2-Methylnaphthalene	28	14	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	NS	NS	BQL

Well No./Contaminant	NCDENR Reg Limit	1/12/00	3/23/00	4/25/00	7/26/00	7/27/00	10/18/00	1/4/01	4/17/01	7/16/01	10/15/01	1/15/02	4/15/02
MW10													
Benzene	1	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Toluene	1000	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Naphthalene	21	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	4/14/04	7/12/04	10/7/04	1/4/05	4/5/05	7/27/05	3/8/07	6/23/07	10/9/07	1/9/08	3/26/08	9/30/08
MW10													
Benzene	1	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	1
Ethylbenzene	29	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	11.9	1
Toluene	1000	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Naphthalene	21	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL

Well No./Contaminant	NCDENR Reg Limit	2/26/09											
MW10													
Benzene	1	BQL											
Ethylbenzene	29	BQL											
Methyl-tert-butyl ether (MTBE)	200	BQL											
Toluene	1000	BQL											
Total Xylenes	530	BQL											
Naphthalene	21	BQL											
Acenaphthene	80	BQL											
Fluorene	280	BQL											
Phenanthrene	210	BQL											
Anthracene	2100	BQL											
Pyrene	210	BQL											
1-Methylnaphthalene	Detection Limit	BQL											
2-Methylnaphthalene	28	BQL											

Above regulatory limits

NS - Not Sampled

BQL - Below Quantitation Limit

FP - Free Product

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	3/27/98	5/15/98	6/24/98	7/23/98	10/21/98	1/25/99	2/16/99	4/19/99	5/7/99	7/14/99	7/30/99	10/20/99
MW11													
Benzene	1	90	20	250	62	20	7	NS	5	NS	16	NS	2
Ethylbenzene	29	4	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Methyl-tert-butyl ether (MTBE)	200	130	7	26	10	40	12	NS	8	NS	13	NS	6
Toluene	1000	24	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Total Xylenes	530	56	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Naphthalene	21	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Acenaphthene	80	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Fluorene	280	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Phenanthrene	210	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Anthracene	2100	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Pyrene	210	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
1-Methylnaphthalene	Detection Limit	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
2-Methylnaphthalene	28	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL

Well No./Contaminant	NCDENR Reg Limit	1/12/00	3/23/00	4/25/00	7/26/00	7/27/00	10/18/00	1/4/01	4/17/01	7/16/01	10/15/01	1/15/02	4/15/02
MW11													
Benzene	1	BQL	NS	8	15	NS	16	10	2	3	1	2	BQL
Ethylbenzene	29	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200	7	NS	9	9	NS	7	4	5	8	12	13	7
Toluene	1000	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Naphthalene	21	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	4/14/04	7/12/04	10/7/04	1/4/05	4/5/05	7/27/05	3/8/07	6/23/07	10/9/07	1/9/08	3/26/08	9/30/08
MW11													
Benzene	1	2.5	2.7	6.7	4.4	BQL	BQL	8.3	2.9	5.5	3.6	3.6	BQL
Ethylbenzene	29	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200	6.8	7	3.3	7.8	80.3	29.9	4.8	7.8	80.3	29.9	4.8	BQL
Toluene	1000	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Naphthalene	21	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL

Well No./Contaminant	NCDENR Reg Limit	2/26/09											
MW11													
Benzene	1	6.9											
Ethylbenzene	29	BQL											
Methyl-tert-butyl ether (MTBE)	200	6.6											
Toluene	1000	BQL											
Total Xylenes	530	BQL											
Naphthalene	21	BQL											
Acenaphthene	80	BQL											
Fluorene	280	BQL											
Phenanthrene	210	BQL											
Anthracene	2100	BQL											
Pyrene	210	BQL											
1-Methylnaphthalene	Detection Limit	BQL											
2-Methylnaphthalene	28	BQL											

Above regulatory limits

NS - Not Sampled

BQL - Below Quantitation Limit

FP - Free Product

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	3/27/98	5/15/98	6/24/98	7/23/98	10/21/98	1/25/99	2/16/99	4/19/99	5/7/99	7/14/99	7/30/99	10/20/99
MW13													
Benzene	1	1700	140	1200	44	NS	NS	1	38	NS	NS	NS	6
Ethylbenzene	29	220	19	440	7	NS	NS	BQL	3	NS	NS	NS	1
Methyl-tert-butyl ether (MTBE)	200	BQL	BQL	150	56	NS	NS	7	18	NS	NS	NS	16
Toluene	1000	270	BQL	1300	BQL	NS	NS	BQL	7	NS	NS	NS	BQL
Total Xylenes	530	580	BQL	2020	10	NS	NS	BQL	BQL	NS	NS	NS	BQL
Naphthalene	21	47	BQL	64	BQL	NS	NS	BQL	36	NS	NS	NS	BQL
Acenaphthene	80	BQL	BQL	BQL	BQL	NS	NS	BQL	BQL	NS	NS	NS	BQL
Fluorene	280	BQL	BQL	BQL	BQL	NS	NS	BQL	BQL	NS	NS	NS	BQL
Phenanthrene	210	BQL	BQL	BQL	BQL	NS	NS	BQL	BQL	NS	NS	NS	BQL
Anthracene	2100	BQL	BQL	BQL	BQL	NS	NS	BQL	BQL	NS	NS	NS	BQL
Pyrene	210	BQL	BQL	BQL	BQL	NS	NS	BQL	BQL	NS	NS	NS	BQL
1-Methylnaphthalene	Detection Limit	BQL	BQL	BQL	BQL	NS	NS	BQL	22	NS	NS	NS	BQL
2-Methylnaphthalene	28	11	BQL	BQL	BQL	NS	NS	BQL	32	NS	NS	NS	BQL

Well No./Contaminant	NCDENR Reg Limit	1/12/00	3/23/00	4/25/00	7/26/00	7/27/00	10/18/00	1/4/01	4/17/01	7/16/01	10/15/01	1/15/02	4/15/02
MW13													
Benzene	1	BQL	NS	180	89	NS	300	150	35	5	BQL	3	3
Ethylbenzene	29	BQL	NS	34	BQL	NS	550	43	3	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200	17	NS	69	55	NS	BQL	35	52	62	42	15	34
Toluene	1000	BQL	NS	190	26	NS	610	67	7	BQL	BQL	BQL	BQL
Total Xylenes	530	BQL	NS	290	19	NS	1280	154	13	BQL	BQL	BQL	BQL
Naphthalene	21	BQL	NS	13	BQL	NS	90	11	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit	BQL	NS	BQL	BQL	NS	14	BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28	BQL	NS	BQL	BQL	NS	13	BQL	BQL	BQL	BQL	BQL	BQL

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	4/14/04	7/12/04	10/7/04	1/4/05	4/5/05	7/27/05	3/8/07	6/23/07	10/9/07	1/9/08	3/26/08	9/30/08
MW13													
Benzene	1	49.5	1.9	35.1	2	BQL	BQL	88.3	9.2	BQL	1.9	1.8	18.4
Ethylbenzene	29	4.5	BQL	3.6	BQL	BQL	BQL	11.5	BQL	BQL	BQL	11.5	BQL
Methyl-tert-butyl ether (MTBE)	200	47.4	35.7	38.4	53.7	35.7	47.4	60.5	21.9	57.7	84	98.9	75.7
Toluene	1000	1.1	BQL	1.9	BQL	BQL	BQL	1.4	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530	9.7	BQL	8.3	BQL	BQL	BQL	32.3	BQL	BQL	BQL	BQL	BQL
Naphthalene	21	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL

Well No./Contaminant	NCDENR Reg Limit	2/24/09											
MW13													
Benzene	1	22.1											
Ethylbenzene	29	BQL											
Methyl-tert-butyl ether (MTBE)	200	156											
Toluene	1000	BQL											
Total Xylenes	530	BQL											
Naphthalene	21	BQL											
Acenaphthene	80	BQL											
Fluorene	280	BQL											
Phenanthrene	210	BQL											
Anthracene	2100	BQL											
Pyrene	210	BQL											
1-Methylnaphthalene	Detection Limit	BQL											
2-Methylnaphthalene	28	BQL											

Above regulatory limits

NS - Not Sampled

BQL - Below Quantitation Limit

FP - Free Product

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	3/27/98	5/15/98	6/24/98	7/23/98	10/21/98	1/25/99	2/16/99	4/19/99	5/7/99	7/14/99	7/30/99	10/20/99
MW14													
Benzene	1	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Ethylbenzene	29	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Methyl-tert-butyl ether (MTBE)	200	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Toluene	1000	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Total Xylenes	530	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Naphthalene	21	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Acenaphthene	80	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Fluorene	280	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Phenanthrene	210	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Anthracene	2100	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Pyrene	210	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
1-Methylnaphthalene	Detection Limit	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
2-Methylnaphthalene	28	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL

Well No./Contaminant	NCDENR Reg Limit	1/12/00	3/23/00	4/25/00	7/26/00	7/27/00	10/18/00	1/4/01	4/17/01	7/16/01	10/15/01	1/15/02	4/15/02
MW14													
Benzene	1	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Toluene	1000	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Naphthalene	21	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	4/14/04	7/12/04	10/7/04	1/4/05	4/5/05	7/27/05	3/8/07	6/23/07	10/9/07	1/9/08	3/26/08	9/30/08
MW14													
Benzene	1	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Toluene	1000	BQL	BQL	1.4	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Naphthalene	21	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL

Well No./Contaminant	NCDENR Reg Limit	2/24/2009 & 3/4/2009											
MW14													
Benzene	1	BQL											
Ethylbenzene	29	BQL											
Methyl-tert-butyl ether (MTBE)	200	BQL											
Toluene	1000	BQL											
Total Xylenes	530	BQL											
Naphthalene	21	BQL											
Acenaphthene	80	BQL											
Fluorene	280	BQL											
Phenanthrene	210	BQL											
Anthracene	2100	BQL											
Pyrene	210	BQL											
1-Methylnaphthalene	Detection Limit	BQL											
2-Methylnaphthalene	28	BQL											

Above regulatory limits

NS - Not Sampled

BQL - Below Quantitation Limit

FP - Free Product

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	3/27/98	5/15/98	6/24/98	7/23/98	10/21/98	1/25/99	2/16/99	4/19/99	5/7/99	7/14/99	7/30/99	10/20/99
MW15													
Benzene	1	1	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Ethylbenzene	29	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Methyl-tert-butyl ether (MTBE)	200	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Toluene	1000	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Total Xylenes	530	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Naphthalene	21	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Acenaphthene	80	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Fluorene	280	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Phenanthrene	210	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Anthracene	2100	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Pyrene	210	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
1-Methylnaphthalene	Detection Limit	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
2-Methylnaphthalene	28	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL

Well No./Contaminant	NCDENR Reg Limit	1/12/00	3/23/00	4/25/00	7/26/00	7/27/00	10/18/00	1/4/01	4/17/01	7/16/01	10/15/01	1/15/02	4/15/02
MW15													
Benzene	1	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29	BQL	NS	BQL	BQL	NS	BQL	BQL	2	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Toluene	1000	BQL	NS	BQL	BQL	NS	BQL	BQL	1	BQL	BQL	BQL	BQL
Total Xylenes	530	BQL	NS	BQL	BQL	NS	BQL	BQL	6	BQL	BQL	BQL	BQL
Naphthalene	21	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	4/14/04	7/12/04	10/7/04	1/4/05	4/5/05	7/27/05	3/8/07	6/23/07	10/9/07	1/9/08	3/26/08	9/30/08
MW15													
Benzene	1	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Toluene	1000	NS	BQL	BQL	1.3	BQL	1	BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Naphthalene	21	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL

Well No./Contaminant	NCDENR Reg Limit	2/24/09											
MW15													
Benzene	1	BQL											
Ethylbenzene	29	BQL											
Methyl-tert-butyl ether (MTBE)	200	BQL											
Toluene	1000	BQL											
Total Xylenes	530	BQL											
Naphthalene	21	BQL											
Acenaphthene	80	BQL											
Fluorene	280	BQL											
Phenanthrene	210	BQL											
Anthracene	2100	BQL											
Pyrene	210	BQL											
1-Methylnaphthalene	Detection Limit	BQL											
2-Methylnaphthalene	28	BQL											

Above regulatory limits

NS - Not Sampled

BQL - Below Quantitation Limit

FP - Free Product

**Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina**

[illegible][illegible]

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	4/14/04	7/12/04	10/7/04	1/4/05	4/5/05	7/27/05	3/8/07	6/23/07	10/9/07	1/9/08	3/26/08	9/30/08
MW16													
Benzene	1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	BQL
Ethylbenzene	29	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	BQL
Methyl-tert-butyl ether (MTBE)	200	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	BQL
Toluene	1000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	BQL
Total Xylenes	530	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	BQL
Naphthalene	21	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	BQL
Acenaphthene	80	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	BQL
Fluorene	280	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	BQL
Phenanthrene	210	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	BQL
Anthracene	2100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	BQL
Pyrene	210	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	BQL
1-Methylnaphthalene	Detection Limit	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	BQL
2-Methylnaphthalene	28	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	BQL

Well No./Contaminant	NCDENR Reg Limit	2/25/09											
MW16													
Benzene	1	BQL											
Ethylbenzene	29	BQL											
Methyl-tert-butyl ether (MTBE)	200	0.6 J											
Toluene	1000	BQL											
Total Xylenes	530	BQL											
Naphthalene	21	BQL											
Acenaphthene	80	BQL											
Fluorene	280	BQL											
Phenanthrene	210	BQL											
Anthracene	2100	BQL											
Pyrene	210	BQL											
1-Methylnaphthalene	Detection Limit	BQL											
2-Methylnaphthalene	28	BQL											

Above regulatory limits

NS - Not Sampled

BQL - Below Quantitation Limit

FP - Free Product

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	3/27/98	5/15/98	6/24/98	7/23/98	10/21/98	1/25/99	2/16/99	4/19/99	5/7/99	7/14/99	7/30/99	10/20/99
MW17													
Benzene	1	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Ethylbenzene	29	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Methyl-tert-butyl ether (MTBE)	200	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Toluene	1000	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Total Xylenes	530	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Naphthalene	21	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Acenaphthene	80	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Fluorene	280	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Phenanthrene	210	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Anthracene	2100	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
Pyrene	210	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
1-Methylnaphthalene	Detection Limit	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL
2-Methylnaphthalene	28	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL

Well No./Contaminant	NCDENR Reg Limit	1/12/00	3/23/00	4/25/00	7/26/00	7/27/00	10/18/00	1/4/01	4/17/01	7/16/01	10/15/01	1/15/02	4/15/02
MW17													
Benzene	1	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200	BQL	NS	BQL	3	NS	3	3	8	8	8	10	9
Toluene	1000	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Naphthalene	21	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28	BQL	NS	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL

Well No./Contaminant	NCDENR Reg Limit	4/14/04	7/12/04	10/7/04	1/4/05	4/5/05	7/27/05	3/8/07	6/23/07	10/9/07	1/9/08	3/26/08	9/30/08
MW17													
Benzene	1	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200	31.9	30.2	28.1	33.7	33.5	29.4	23.1	9	BQL	2.6	2.7	BQL
Toluene	1000	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Naphthalene	21	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL

Above regulatory limits

NS - Not Sampled

BQL - Below Quantitation Limit

FP - Free Product

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	3/27/98	5/15/98	6/24/98	7/23/98	10/21/98	1/25/99	2/16/99	4/19/99	5/7/99	7/14/99	7/30/99	10/20/99
MW18													
Benzene	1	BQL	NS	NS	NS	NS	NS	NS	BQL	NS	BQL	NS	NS
Ethylbenzene	29	BQL	NS	NS	NS	NS	NS	NS	BQL	NS	BQL	NS	NS
Methyl-tert-butyl ether (MTBE)	200	BQL	NS	NS	NS	NS	NS	NS	BQL	NS	BQL	NS	NS
Toluene	1000	BQL	NS	NS	NS	NS	NS	NS	BQL	NS	BQL	NS	NS
Total Xylenes	530	BQL	NS	NS	NS	NS	NS	NS	BQL	NS	BQL	NS	NS
Naphthalene	21	BQL	NS	NS	NS	NS	NS	NS	BQL	NS	BQL	NS	NS
Acenaphthene	80	BQL	NS	NS	NS	NS	NS	NS	BQL	NS	BQL	NS	NS
Fluorene	280	BQL	NS	NS	NS	NS	NS	NS	BQL	NS	BQL	NS	NS
Phenanthrene	210	BQL	NS	NS	NS	NS	NS	NS	BQL	NS	BQL	NS	NS
Anthracene	2100	BQL	NS	NS	NS	NS	NS	NS	BQL	NS	BQL	NS	NS
Pyrene	210	BQL	NS	NS	NS	NS	NS	NS	BQL	NS	BQL	NS	NS
1-Methylnaphthalene	Detection Limit	BQL	NS	NS	NS	NS	NS	NS	BQL	NS	BQL	NS	NS
2-Methylnaphthalene	28	BQL	NS	NS	NS	NS	NS	NS	BQL	NS	BQL	NS	NS

Well No./Contaminant	NCDENR Reg Limit	1/12/00	3/23/00	4/25/00	7/26/00	7/27/00	10/18/00	1/4/01	4/17/01	7/16/01	10/15/01	1/15/02	4/15/02
MW18													
Benzene	1	NS	NS	BQL	NS	NS	NS	NS	BQL	NS	BQL	BQL	BQL
Ethylbenzene	29	NS	NS	BQL	NS	NS	NS	NS	BQL	NS	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200	NS	NS	BQL	NS	NS	NS	NS	BQL	NS	BQL	BQL	BQL
Toluene	1000	NS	NS	BQL	NS	NS	NS	NS	BQL	NS	BQL	BQL	BQL
Total Xylenes	530	NS	NS	BQL	NS	NS	NS	NS	BQL	NS	BQL	BQL	BQL
Naphthalene	21	NS	NS	BQL	NS	NS	NS	NS	BQL	NS	BQL	BQL	BQL
Acenaphthene	80	NS	NS	BQL	NS	NS	NS	NS	BQL	NS	BQL	BQL	BQL
Fluorene	280	NS	NS	BQL	NS	NS	NS	NS	BQL	NS	BQL	BQL	BQL
Phenanthrene	210	NS	NS	BQL	NS	NS	NS	NS	BQL	NS	BQL	BQL	BQL
Anthracene	2100	NS	NS	BQL	NS	NS	NS	NS	BQL	NS	BQL	BQL	BQL
Pyrene	210	NS	NS	BQL	NS	NS	NS	NS	BQL	NS	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit	NS	NS	BQL	NS	NS	NS	NS	BQL	NS	BQL	BQL	BQL
2-Methylnaphthalene	28	NS	NS	BQL	NS	NS	NS	NS	BQL	NS	BQL	BQL	BQL

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	4/14/04	7/12/04	10/7/04	1/4/05	4/5/05	7/27/05	3/8/07	6/23/07	10/9/07	1/9/08	3/26/08	9/30/08
MW18													
Benzene	1	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL
Ethylbenzene	29	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL
Methyl-tert-butyl ether (MTBE)	200	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL
Toluene	1000	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL
Total Xylenes	530	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL
Naphthalene	21	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL
Acenaphthene	80	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL
Fluorene	280	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL
Phenanthrene	210	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL
Anthracene	2100	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL
Pyrene	210	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL
1-Methylnaphthalene	Detection Limit	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL
2-Methylnaphthalene	28	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL

Well No./Contaminant	NCDENR Reg Limit	2/24/09											
MW18													
Benzene	1	BQL											
Ethylbenzene	29	BQL											
Methyl-tert-butyl ether (MTBE)	200	BQL											
Toluene	1000	BQL											
Total Xylenes	530	BQL											
Naphthalene	21	BQL											
Acenaphthene	80	BQL											
Fluorene	280	BQL											
Phenanthrene	210	BQL											
Anthracene	2100	BQL											
Pyrene	210	BQL											
1-Methylnaphthalene	Detection Limit	BQL											
2-Methylnaphthalene	28	BQL											

Above regulatory limits

NS - Not Sampled

BQL - Below Quantitation Limit

FP - Free Product

**Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina**

Well No./Contaminant	NCDENR Reg Limit	3/27/98	5/15/98	6/24/98	7/23/98	10/21/98	1/25/99	2/16/99	4/19/99	5/7/99	7/14/99	7/30/99	10/20/99	1/12/00	3/23/00
MW01															
Benzene	1	BQL	1	NS	BQL	6	NS	NS	BQL	NS	NS	BQL	NS	BQL	NS
Ethylbenzene	29	BQL	BQL	NS	BQL	BQL	NS	NS	BQL	NS	NS	BQL	NS	BQL	NS
Methyl-tert-butyl ether (MTBE)	200	BQL	BQL	NS	BQL	BQL	NS	NS	BQL	NS	NS	BQL	NS	BQL	NS
Toluene	1000	BQL	BQL	NS	BQL	BQL	NS	NS	BQL	NS	NS	BQL	NS	BQL	NS
Total Xylenes	530	BQL	BQL	NS	BQL	BQL	NS	NS	BQL	NS	NS	BQL	NS	BQL	NS
Naphthalene	21	BQL	BQL	NS	BQL	BQL	NS	NS	BQL	NS	NS	BQL	NS	BQL	NS
Acenaphthene	80	BQL	BQL	NS	BQL	BQL	NS	NS	BQL	NS	NS	BQL	NS	BQL	NS
Fluorene	280	BQL	BQL	NS	BQL	BQL	NS	NS	BQL	NS	NS	BQL	NS	BQL	NS
Phenanthrene	210	BQL	BQL	NS	BQL	BQL	NS	NS	BQL	NS	NS	BQL	NS	BQL	NS
Anthracene	2100	BQL	BQL	NS	BQL	BQL	NS	NS	BQL	NS	NS	BQL	NS	BQL	NS
Pyrene	210	BQL	BQL	NS	BQL	BQL	NS	NS	BQL	NS	NS	BQL	NS	BQL	NS
1-Methylnaphthalene	Detection Limit	BQL	BQL	NS	BQL	BQL	NS	NS	BQL	NS	NS	BQL	NS	BQL	NS
2-Methylnaphthalene	28	BQL	BQL	NS	BQL	BQL	NS	NS	BQL	NS	NS	BQL	NS	BQL	NS

Above regulatory limits

BQL - Below Quantitation Limit

NS - Not Sampled

**Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina**

Well No./Contaminant	NCDENR Reg Limit	4/25/00	7/26/00	7/27/00	10/18/00	1/4/01	4/17/01	7/16/01	10/15/01	1/15/02	4/15/02	4/14/04	7/12/04	10/7/04	1/4/05
MW01															
Benzene	1	BQL	BQL	NS	BQL	NS	BQL	BQL	BQL	NS	BQL	NS	NS	BQL	BQL
Ethylbenzene	29	BQL	BQL	NS	BQL	NS	BQL	BQL	BQL	NS	BQL	NS	NS	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200	BQL	BQL	NS	BQL	NS	BQL	BQL	BQL	NS	BQL	NS	NS	BQL	BQL
Toluene	1000	BQL	BQL	NS	BQL	NS	BQL	BQL	BQL	NS	BQL	NS	NS	BQL	BQL
Total Xylenes	530	BQL	BQL	NS	BQL	NS	BQL	BQL	BQL	NS	BQL	NS	NS	BQL	BQL
Naphthalene	21	BQL	BQL	NS	BQL	NS	BQL	BQL	BQL	NS	BQL	NS	NS	BQL	BQL
Acenaphthene	80	BQL	BQL	NS	BQL	NS	BQL	BQL	BQL	NS	BQL	NS	NS	BQL	BQL
Fluorene	280	BQL	BQL	NS	BQL	NS	BQL	BQL	BQL	NS	BQL	NS	NS	BQL	BQL
Phenanthrene	210	BQL	BQL	NS	BQL	NS	BQL	BQL	BQL	NS	BQL	NS	NS	BQL	BQL
Anthracene	2100	BQL	BQL	NS	BQL	NS	BQL	BQL	BQL	NS	BQL	NS	NS	BQL	BQL
Pyrene	210	BQL	BQL	NS	BQL	NS	BQL	BQL	BQL	NS	BQL	NS	NS	BQL	BQL
1-Methylnaphthalene	Detection Limit	BQL	BQL	NS	BQL	NS	BQL	BQL	BQL	NS	BQL	NS	NS	BQL	BQL
2-Methylnaphthalene	28	BQL	BQL	NS	BQL	NS	BQL	BQL	BQL	NS	BQL	NS	NS	BQL	BQL

Above regulatory limits

BQL - Below Quantitation Limit

NS - Not Sampled

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	4/5/05	7/27/05	3/8/07	6/23/07	10/9/07	1/9/08	3/26/08	9/30/08	2/25/09
MW01										
Benzene	1	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Toluene	1000	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Naphthalene	21	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL

Above regulatory limits

BQL - Below Quantitation Limit

NS - Not Sampled

**Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina**

Well No./Contaminant	NCDENR Reg Limit	3/27/98	5/15/98	6/24/98	7/23/98	10/21/98	1/25/99	2/16/99	4/19/99	5/7/99	7/14/99	7/30/99	10/20/99	1/12/00	3/23/00
MW02															
Benzene	1	BQL	23	NS	NS	NS	BQL	NS	NS	BQL	NS	NS	NS	NS	NS
Ethylbenzene	29	240	320	NS	NS	NS	BQL	NS	NS	BQL	NS	NS	NS	NS	NS
Methyl-tert-butyl ether (MTBE)	200	BQL	BQL	NS	NS	NS	BQL	NS	NS	BQL	NS	NS	NS	NS	NS
Toluene	1000	140	140	NS	NS	NS	BQL	NS	NS	BQL	NS	NS	NS	NS	NS
Total Xylenes	530	1020	1100	NS	NS	NS	BQL	NS	NS	BQL	NS	NS	NS	NS	NS
Naphthalene	21	14	18	NS	NS	NS	BQL	NS	NS	BQL	NS	NS	NS	NS	NS
Acenaphthene	80	BQL	BQL	NS	NS	NS	BQL	NS	NS	BQL	NS	NS	NS	NS	NS
Fluorene	280	BQL	BQL	NS	NS	NS	BQL	NS	NS	BQL	NS	NS	NS	NS	NS
Phenanthrene	210	BQL	BQL	NS	NS	NS	BQL	NS	NS	BQL	NS	NS	NS	NS	NS
Anthracene	2100	BQL	BQL	NS	NS	NS	BQL	NS	NS	BQL	NS	NS	NS	NS	NS
Pyrene	210	BQL	BQL	NS	NS	NS	BQL	NS	NS	BQL	NS	NS	NS	NS	NS
1-Methylnaphthalene	Detection Limit	BQL	BQL	NS	NS	NS	BQL	NS	NS	BQL	NS	NS	NS	NS	NS
2-Methylnaphthalene	28	BQL	BQL	NS	NS	NS	BQL	NS	NS	BQL	NS	NS	NS	NS	NS

Above regulatory limits

BQL - Below Quantitation Limit

NS - Not Sampled

**Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina**

Well No./Contaminant	NCDENR Reg Limit	4/25/00	7/26/00	7/27/00	10/18/00	1/4/01	4/17/01	7/16/01	10/15/01	1/15/02	4/15/02	4/14/04	7/12/04	10/7/04	1/4/05
MW02															
Benzene	1	BQL	BQL	BQL	BQL	NS	BQL	BQL	NS	NS	NS	NS	NS	NS	NS
Ethylbenzene	29	BQL	BQL	BQL	BQL	NS	BQL	BQL	NS	NS	NS	NS	NS	NS	NS
Methyl-tert-butyl ether (MTBE)	200	BQL	BQL	BQL	BQL	NS	BQL	BQL	NS	NS	NS	NS	NS	NS	NS
Toluene	1000	BQL	BQL	BQL	BQL	NS	BQL	BQL	NS	NS	NS	NS	NS	NS	NS
Total Xylenes	530	BQL	BQL	BQL	BQL	NS	BQL	BQL	NS	NS	NS	NS	NS	NS	NS
Naphthalene	21	BQL	BQL	BQL	BQL	NS	BQL	BQL	NS	NS	NS	NS	NS	NS	NS
Acenaphthene	80	BQL	BQL	BQL	BQL	NS	BQL	BQL	NS	NS	NS	NS	NS	NS	NS
Fluorene	280	BQL	BQL	BQL	BQL	NS	BQL	BQL	NS	NS	NS	NS	NS	NS	NS
Phenanthrene	210	BQL	BQL	BQL	BQL	NS	BQL	BQL	NS	NS	NS	NS	NS	NS	NS
Anthracene	2100	BQL	BQL	BQL	BQL	NS	BQL	BQL	NS	NS	NS	NS	NS	NS	NS
Pyrene	210	BQL	BQL	BQL	BQL	NS	BQL	BQL	NS	NS	NS	NS	NS	NS	NS
1-Methylnaphthalene	Detection Limit	BQL	BQL	BQL	BQL	NS	BQL	BQL	NS	NS	NS	NS	NS	NS	NS
2-Methylnaphthalene	28	BQL	BQL	BQL	BQL	NS	BQL	BQL	NS	NS	NS	NS	NS	NS	NS

Above regulatory limits

BQL - Below Quantitation Limit

NS - Not Sampled

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	4/5/05	7/27/05	3/8/07	6/23/07	10/9/07	1/9/08	3/26/08	9/30/08	2/25/09
MW02										
Benzene	1	NS	NS	NS	NS	NS	NS	NS	NS	NS
Ethylbenzene	29	NS	NS	NS	NS	NS	NS	NS	NS	NS
Methyl-tert-butyl ether (MTBE)	200	NS	NS	NS	NS	NS	NS	NS	NS	NS
Toluene	1000	NS	NS	NS	NS	NS	NS	NS	NS	NS
Total Xylenes	530	NS	NS	NS	NS	NS	NS	NS	NS	NS
Naphthalene	21	NS	NS	NS	NS	NS	NS	NS	NS	NS
Acenaphthene	80	NS	NS	NS	NS	NS	NS	NS	NS	NS
Fluorene	280	NS	NS	NS	NS	NS	NS	NS	NS	NS
Phenanthrene	210	NS	NS	NS	NS	NS	NS	NS	NS	NS
Anthracene	2100	NS	NS	NS	NS	NS	NS	NS	NS	NS
Pyrene	210	NS	NS	NS	NS	NS	NS	NS	NS	NS
1-Methylnaphthalene	Detection Limit	NS	NS	NS	NS	NS	NS	NS	NS	NS
2-Methylnaphthalene	28	NS	NS	NS	NS	NS	NS	NS	NS	NS

Above regulatory limits

BQL - Below Quantitation Limit

NS - Not Sampled

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	3/27/98	5/15/98	6/24/98	7/23/98	10/21/98	1/25/99	2/16/99	4/19/99	5/7/99	7/14/99	7/30/99	10/20/99	1/12/00	3/23/00
MW03															
Benzene	1	BQL	BQL	BQL	BQL	BQL	1	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Ethylbenzene	29	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Methyl-tert-butyl ether (MTBE)	200	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Toluene	1000	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Total Xylenes	530	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Naphthalene	21	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Acenaphthene	80	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Fluorene	280	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Phenanthrene	210	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Anthracene	2100	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Pyrene	210	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
1-Methylnaphthalene	Detection Limit	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
2-Methylnaphthalene	28	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS

Above regulatory limits

BQL - Below Quantitation Limit

NS - Not Sampled

**Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina**

Well No./Contaminant	NCDENR Reg Limit	4/25/00	7/26/00	7/27/00	10/18/00	1/4/01	4/17/01	7/16/01	10/15/01	1/15/02	4/15/02	4/14/04	7/12/04	10/7/04	1/4/05
MW03															
Benzene	1	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	NS	NS	NS
Ethylbenzene	29	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	NS	NS	NS
Methyl-tert-butyl ether (MTBE)	200	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	NS	NS	NS
Toluene	1000	BQL	BQL	BQL	BQL	13	BQL	BQL	BQL	BQL	BQL	NS	NS	NS	NS
Total Xylenes	530	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	NS	NS	NS
Naphthalene	21	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	NS	NS	NS
Acenaphthene	80	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	NS	NS	NS
Fluorene	280	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	NS	NS	NS
Phenanthrene	210	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	NS	NS	NS
Anthracene	2100	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	NS	NS	NS
Pyrene	210	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	NS	NS	NS
1-Methylnaphthalene	Detection Limit	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	NS	NS	NS
2-Methylnaphthalene	28	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	NS	NS	NS

Above regulatory limits

BQL - Below Quantitation Limit

NS - Not Sampled

**Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina**

Well No./Contaminant	NCDENR Reg Limit	4/5/05	7/27/05	3/8/07	6/23/07	10/9/07	1/9/08	3/26/08	9/30/08	2/25/09
MW03										
Benzene	1	NS	BQL	NS	NS	NS	NS	NS	BQL	BQL
Ethylbenzene	29	NS	BQL	NS	NS	NS	NS	NS	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200	NS	BQL	NS	NS	NS	NS	NS	BQL	BQL
Toluene	1000	NS	BQL	NS	NS	NS	NS	NS	BQL	BQL
Total Xylenes	530	NS	BQL	NS	NS	NS	NS	NS	BQL	BQL
Naphthalene	21	NS	BQL	NS	NS	NS	NS	NS	BQL	BQL
Acenaphthene	80	NS	BQL	NS	NS	NS	NS	NS	BQL	BQL
Fluorene	280	NS	BQL	NS	NS	NS	NS	NS	BQL	BQL
Phenanthrene	210	NS	BQL	NS	NS	NS	NS	NS	BQL	BQL
Anthracene	2100	NS	BQL	NS	NS	NS	NS	NS	BQL	BQL
Pyrene	210	NS	BQL	NS	NS	NS	NS	NS	BQL	BQL
1-Methylnaphthalene	Detection Limit	NS	BQL	NS	NS	NS	NS	NS	BQL	BQL
2-Methylnaphthalene	28	NS	BQL	NS	NS	NS	NS	NS	BQL	BQL

Above regulatory limits

BQL - Below Quantitation Limit

NS - Not Sampled

**Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina**

Well No./Contaminant	NCDENR Reg Limit	3/27/98	5/15/98	6/24/98	7/23/98	10/21/98	1/25/99	2/16/99	4/19/99	5/7/99	7/14/99	7/30/99	10/20/99	1/12/00	3/23/00
MW04															
Benzene	1	NS	BQL	BQL	BQL	BQL	1	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Ethylbenzene	29	NS	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Methyl-tert-butyl ether (MTBE)	200	NS	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Toluene	1000	NS	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Total Xylenes	530	NS	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Naphthalene	21	NS	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Acenaphthene	80	NS	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Fluorene	280	NS	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Phenanthrene	210	NS	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Anthracene	2100	NS	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Pyrene	210	NS	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
1-Methylnaphthalene	Detection Limit	NS	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
2-Methylnaphthalene	28	NS	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS

Above regulatory limits	BQL - Below Quantitation Limit					NS - Not Sampled									
MW05															
Benzene	1	BQL	NS	NS	NS	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	NS	BQL
Ethylbenzene	29	BQL	NS	NS	NS	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	NS	BQL
Methyl-tert-butyl ether (MTBE)	200	BQL	NS	NS	NS	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	NS	BQL
Toluene	1000	BQL	NS	NS	NS	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	NS	BQL
Total Xylenes	530	BQL	NS	NS	NS	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	NS	BQL
Naphthalene	21	BQL	NS	NS	NS	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	NS	BQL
Acenaphthene	80	BQL	NS	NS	NS	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	NS	BQL
Fluorene	280	BQL	NS	NS	NS	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	NS	BQL
Phenanthrene	210	BQL	NS	NS	NS	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	NS	BQL
Anthracene	2100	BQL	NS	NS	NS	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	NS	BQL
Pyrene	210	BQL	NS	NS	NS	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	NS	BQL
1-Methylnaphthalene	Detection Limit	BQL	NS	NS	NS	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	NS	BQL
2-Methylnaphthalene	28	BQL	NS	NS	NS	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	NS	BQL

Above regulatory limits **BQL - Below Quantitation Limit** **NS - Not Sampled**

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	4/25/00	7/26/00	7/27/00	10/18/00	1/4/01	4/17/01	7/16/01	10/15/01	1/15/02	4/15/02	4/14/04	7/12/04	10/7/04	1/4/05
MW04															
Benzene	1	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Toluene	1000	BQL	BQL	NS	2	BQL	BQL	BQL	BQL	BQL	BQL	1.3	BQL	BQL	BQL
Total Xylenes	530	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Naphthalene	21	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL

Above regulatory limits		BQL - Below Quantitation Limit								NS - Not Sampled					
MW05															
Benzene	1	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Toluene	1000	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	1.1	BQL	BQL
Total Xylenes	530	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Naphthalene	21	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL

Above regulatory limits		BQL - Below Quantitation Limit								NS - Not Sampled					

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	4/5/05	7/27/05	3/8/07	6/23/07	10/9/07	1/9/08	3/26/08	9/30/08	2/25/09
MW04										
Benzene	1	BQL	BQL	NS	NS	NS	NS	NS	BQL	BQL
Ethylbenzene	29	BQL	BQL	NS	NS	NS	NS	NS	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200	BQL	BQL	NS	NS	NS	NS	NS	BQL	BQL
Toluene	1000	1.4	BQL	NS	NS	NS	NS	NS	BQL	BQL
Total Xylenes	530	BQL	BQL	NS	NS	NS	NS	NS	BQL	BQL
Naphthalene	21	BQL	BQL	NS	NS	NS	NS	NS	BQL	BQL
Acenaphthene	80	BQL	BQL	NS	NS	NS	NS	NS	BQL	BQL
Fluorene	280	BQL	BQL	NS	NS	NS	NS	NS	BQL	BQL
Phenanthrene	210	BQL	BQL	NS	NS	NS	NS	NS	BQL	BQL
Anthracene	2100	BQL	BQL	NS	NS	NS	NS	NS	BQL	BQL
Pyrene	210	BQL	BQL	NS	NS	NS	NS	NS	BQL	BQL
1-Methylnaphthalene	Detection Limit	BQL	BQL	NS	NS	NS	NS	NS	BQL	BQL
2-Methylnaphthalene	28	BQL	BQL	NS	NS	NS	NS	NS	BQL	BQL

Above regulatory limits	BQL - Below Quantitation Limit					NS - Not Sampled				
MW05										
Benzene	1	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	BQL
Ethylbenzene	29	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	BQL
Toluene	1000	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	BQL
Total Xylenes	530	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	BQL
Naphthalene	21	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	BQL
Acenaphthene	80	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	BQL
Fluorene	280	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	BQL
Phenanthrene	210	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	BQL
Anthracene	2100	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	BQL
Pyrene	210	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	BQL
1-Methylnaphthalene	Detection Limit	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	BQL
2-Methylnaphthalene	28	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	BQL

Above regulatory limits	BQL - Below Quantitation Limit	NS - Not Sampled

**Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina**

Well No./Contaminant	NCDENR Reg Limit	3/27/98	5/15/98	6/24/98	7/23/98	10/21/98	1/25/99	2/16/99	4/19/99	5/7/99	7/14/99	7/30/99	10/20/99	1/12/00	3/23/00
MW06															
Benzene	1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Ethylbenzene	29	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Methyl-tert-butyl ether (MTBE)	200	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Toluene	1000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Total Xylenes	530	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Naphthalene	21	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Acenaphthene	80	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Fluorene	280	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Phenanthrene	210	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Anthracene	2100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Pyrene	210	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
1-Methylnaphthalene	Detection Limit	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
2-Methylnaphthalene	28	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Above regulatory limits

BQL - Below Quantitation Limit

NS - Not Sampled

**Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina**

Well No./Contaminant	NCDENR Reg Limit	4/25/00	7/26/00	7/27/00	10/18/00	1/4/01	4/17/01	7/16/01	10/15/01	1/15/02	4/15/02	4/14/04	7/12/04	10/7/04	1/4/05
MW06															
Benzene	1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Ethylbenzene	29	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Methyl-tert-butyl ether (MTBE)	200	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Toluene	1000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Total Xylenes	530	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Naphthalene	21	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Acenaphthene	80	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Fluorene	280	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Phenanthrene	210	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Anthracene	2100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Pyrene	210	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
1-Methylnaphthalene	Detection Limit	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
2-Methylnaphthalene	28	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Above regulatory limits

BQL - Below Quantitation Limit

NS - Not Sampled

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	4/5/05	7/27/05	3/8/07	6/23/07	10/9/07	1/9/08	3/26/08	9/30/08	2/25/09
MW06										
Benzene	1	NS	NS	NS	NS	NS	NS	NS	BQL	BQL
Ethylbenzene	29	NS	NS	NS	NS	NS	NS	NS	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200	NS	NS	NS	NS	NS	NS	NS	BQL	BQL
Toluene	1000	NS	NS	NS	NS	NS	NS	NS	BQL	BQL
Total Xylenes	530	NS	NS	NS	NS	NS	NS	NS	BQL	BQL
Naphthalene	21	NS	NS	NS	NS	NS	NS	NS	BQL	BQL
Acenaphthene	80	NS	NS	NS	NS	NS	NS	NS	BQL	BQL
Fluorene	280	NS	NS	NS	NS	NS	NS	NS	BQL	BQL
Phenanthrene	210	NS	NS	NS	NS	NS	NS	NS	BQL	BQL
Anthracene	2100	NS	NS	NS	NS	NS	NS	NS	BQL	BQL
Pyrene	210	NS	NS	NS	NS	NS	NS	NS	BQL	BQL
1-Methylnaphthalene	Detection Limit	NS	NS	NS	NS	NS	NS	NS	BQL	BQL
2-Methylnaphthalene	28	NS	NS	NS	NS	NS	NS	NS	BQL	BQL

Above regulatory limits

BQL - Below Quantitation Limit

NS - Not Sampled

**Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina**

Well No./Contaminant	NCDENR Reg Limit	3/27/98	5/15/98	6/24/98	7/23/98	10/21/98	1/25/99	2/16/99	4/19/99	5/7/99	7/14/99	7/30/99	10/20/99	1/12/00	3/23/00
MW07															
Benzene	1	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Ethylbenzene	29	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Methyl-tert-butyl ether (MTBE)	200	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Toluene	1000	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Total Xylenes	530	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Naphthalene	21	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Acenaphthene	80	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Fluorene	280	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Phenanthrene	210	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Anthracene	2100	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Pyrene	210	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
1-Methylnaphthalene	Detection Limit	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
2-Methylnaphthalene	28	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS

Above regulatory limits

BQL - Below Quantitation Limit

NS - Not Sampled

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	4/25/00	7/26/00	7/27/00	10/18/00	1/4/01	4/17/01	7/16/01	10/15/01	1/15/02	4/15/02	4/14/04	7/12/04	10/7/04	1/4/05
MW07															
Benzene	1	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL
Toluene	1000	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL
Naphthalene	21	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL

Above regulatory limits

BQL - Below Quantitation Limit

NS - Not Sampled

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	4/5/05	7/27/05	3/8/07	6/23/07	10/9/07	1/9/08	3/26/08	9/30/08	2/25/09
MW07										
Benzene	1	BQL	BQL	BQL	BQL	BQL	BQL	BQL	1	BQL
Ethylbenzene	29	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200	BQL	BQL	BQL	BQL	BQL	BQL	BQL	1	BQL
Toluene	1000	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Naphthalene	21	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL

Above regulatory limits

BQL - Below Quantitation Limit

NS - Not Sampled

**Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina**

Well No./Contaminant	NCDENR Reg Limit	3/27/98	5/15/98	6/24/98	7/23/98	10/21/98	1/25/99	2/16/99	4/19/99	5/7/99	7/14/99	7/30/99	10/20/99	1/12/00	3/23/00
MW08															
Benzene	1	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Ethylbenzene	29	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Methyl-tert-butyl ether (MTBE)	200	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Toluene	1000	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Total Xylenes	530	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Naphthalene	21	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Acenaphthene	80	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Fluorene	280	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Phenanthrene	210	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Anthracene	2100	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Pyrene	210	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
1-Methylnaphthalene	Detection Limit	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
2-Methylnaphthalene	28	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS

Above regulatory limits

BQL - Below Quantitation Limit

NS - Not Sampled

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	4/25/00	7/26/00	7/27/00	10/18/00	1/4/01	4/17/01	7/16/01	10/15/01	1/15/02	4/15/02	4/14/04	7/12/04	10/7/04	1/4/05
MW08															
Benzene	1	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Toluene	1000	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Naphthalene	21	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL

Above regulatory limits

BQL - Below Quantitation Limit

NS - Not Sampled

**Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina**

Well No./Contaminant	NCDENR Reg Limit	4/5/05	7/27/05	3/8/07	6/23/07	10/9/07	1/9/08	3/26/08	9/30/08	2/25/09
MW08										
Benzene	1	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Toluene	1000	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Naphthalene	21	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL

Above regulatory limits

BQL - Below Quantitation Limit

NS - Not Sampled

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	3/27/98	5/15/98	6/24/98	7/23/98	10/21/98	1/25/99	2/16/99	4/19/99	5/7/99	7/14/99	7/30/99	10/20/99	1/12/00	3/23/00
MW09															
Benzene	1	NS	NS	NS	NS	NS	NS	110	NS	13	5	NS	6	17	NS
Ethylbenzene	29	NS	NS	NS	NS	NS	NS	86	NS	61	1	NS	BQL	1	NS
Methyl-tert-butyl ether (MTBE)	200	NS	NS	NS	NS	NS	NS	26	NS	23	28	NS	13	23	NS
Toluene	1000	NS	NS	NS	NS	NS	NS	BQL	NS	BQL	BQL	NS	BQL	BQL	NS
Total Xylenes	530	NS	NS	NS	NS	NS	NS	470	NS	321	55	NS	8	9	NS
Naphthalene	21	NS	NS	NS	NS	NS	NS	BQL	NS	56	68	NS	16	13	NS
Acenaphthene	80	NS	NS	NS	NS	NS	NS	BQL	NS	BQL	17	NS	BQL	BQL	NS
Fluorene	280	NS	NS	NS	NS	NS	NS	BQL	NS	26	89	NS	22	20	NS
Phenanthrene	210	NS	NS	NS	NS	NS	NS	11000	NS	37	160	NS	29	20	NS
Anthracene	2100	NS	NS	NS	NS	NS	NS	11000	NS	BQL	20	NS	BQL	BQL	NS
Pyrene	210	NS	NS	NS	NS	NS	NS	BQL	NS	BQL	22	NS	BQL	BQL	NS
1-Methylnaphthalene	Detection Limit	NS	NS	NS	NS	NS	NS	17000	NS	120	240	NS	62	51	NS
2-Methylnaphthalene	28	NS	NS	NS	NS	NS	NS	90000	NS	120	360	NS	31	23	NS

Above regulatory limits

BQL - Below Quantitation Limit

NS - Not Sampled

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	4/25/00	7/26/00	7/27/00	10/18/00	1/4/01	4/17/01	7/16/01	10/15/01	1/15/02	4/15/02	4/14/04	7/12/04	10/7/04	1/4/05
MW09															
Benzene	1	66	89	NS	100	160	180	52	BQL	NS	NS	20.3	NS	18.7	NS
Ethylbenzene	29	BQL	BQL	NS	BQL	BQL	13	1	BQL	NS	NS	5.2	NS	6	NS
Methyl-tert-butyl ether (MTBE)	200	23	16	NS	11	10	BQL	6	2	NS	NS	2.2	NS	1.2	NS
Toluene	1000	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	NS	NS	7.3	NS	BQL	NS
Total Xylenes	530	BQL	BQL	NS	BQL	32	24	2	BQL	NS	NS	62.3	NS	62.2	NS
Naphthalene	21	BQL	BQL	NS	BQL	54	28	BQL	BQL	NS	NS	BQL	NS	BQL	NS
Acenaphthene	80	BQL	BQL	NS	BQL	BQL	17	BQL	BQL	NS	NS	BQL	NS	BQL	NS
Fluorene	280	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	NS	NS	BQL	NS	BQL	NS
Phenanthrene	210	17	BQL	NS	11	23	BQL	BQL	BQL	NS	NS	BQL	NS	BQL	NS
Anthracene	2100	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	NS	NS	BQL	NS	BQL	NS
Pyrene	210	BQL	30	NS	13	14	BQL	BQL	BQL	NS	NS	BQL	NS	BQL	NS
1-Methylnaphthalene	Detection Limit	12	BQL	NS	BQL	63	13	BQL	BQL	NS	NS	BQL	NS	BQL	NS
2-Methylnaphthalene	28	BQL	BQL	NS	11	35	13	BQL	BQL	NS	NS	BQL	NS	BQL	NS

Above regulatory limits

BQL - Below Quantitation Limit

NS - Not Sampled

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	4/5/05	7/27/05	3/8/07	6/23/07	10/9/07	1/9/08	3/26/08	9/30/08	2/25/09
MW09										
Benzene	1	1.8	BQL	10.5	16.4	8	FP	FP	BQL	7.3
Ethylbenzene	29	BQL	BQL	BQL	BQL	BQL	FP	FP	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200	2.3	BQL	BQL	BQL	BQL	FP	FP	BQL	BQL
Toluene	1000	BQL	2.5	BQL	BQL	BQL	FP	FP	BQL	0.55 J
Total Xylenes	530	18.1	11	5.1	4.5	4.6	FP	FP	BQL	2.2 J
Naphthalene	21	BQL	BQL	BQL	BQL	BQL	FP	FP	BQL	BQL
Acenaphthene	80	BQL	BQL	BQL	BQL	BQL	FP	FP	BQL	BQL
Fluorene	280	BQL	BQL	BQL	BQL	BQL	FP	FP	BQL	BQL
Phenanthrene	210	BQL	BQL	BQL	BQL	BQL	FP	FP	BQL	BQL
Anthracene	2100	BQL	BQL	BQL	BQL	BQL	FP	FP	BQL	BQL
Pyrene	210	BQL	BQL	BQL	BQL	BQL	FP	FP	BQL	BQL
1-Methylnaphthalene	Detection Limit	BQL	BQL	BQL	BQL	BQL	FP	FP	BQL	BQL
2-Methylnaphthalene	28	BQL	BQL	BQL	BQL	BQL	FP	FP	BQL	BQL

Above regulatory limits

BQL - Below Quantitation Limit

NS - Not Sampled

**Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina**

Well No./Contaminant	NCDENR Reg Limit	3/27/98	5/15/98	6/24/98	7/23/98	10/21/98	1/25/99	2/16/99	4/19/99	5/7/99	7/14/99	7/30/99	10/20/99	1/12/00	3/23/00
MW10															
Benzene	1	230	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	NS	NS	BQL	BQL	NS
Ethylbenzene	29	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	NS	NS	BQL	BQL	NS
Methyl-tert-butyl ether (MTBE)	200	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	NS	NS	BQL	BQL	NS
Toluene	1000	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	NS	NS	BQL	BQL	NS
Total Xylenes	530	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	NS	NS	BQL	BQL	NS
Naphthalene	21	26	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	NS	NS	BQL	BQL	NS
Acenaphthene	80	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	NS	NS	BQL	BQL	NS
Fluorene	280	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	NS	NS	BQL	BQL	NS
Phenanthrene	210	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	NS	NS	BQL	BQL	NS
Anthracene	2100	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	NS	NS	BQL	BQL	NS
Pyrene	210	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	NS	NS	BQL	BQL	NS
1-Methylnaphthalene	Detection Limit	12	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	NS	NS	BQL	BQL	NS
2-Methylnaphthalene	28	14	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	NS	NS	BQL	BQL	NS

Above regulatory limits

BQL - Below Quantitation Limit

NS - Not Sampled

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	4/25/00	7/26/00	7/27/00	10/18/00	1/4/01	4/17/01	7/16/01	10/15/01	1/15/02	4/15/02	4/14/04	7/12/04	10/7/04	1/4/05
MW10															
Benzene	1	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Toluene	1000	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Naphthalene	21	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL

Above regulatory limits

BQL - Below Quantitation Limit

NS - Not Sampled

**Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina**

Well No./Contaminant	NCDENR Reg Limit	4/5/05	7/27/05	3/8/07	6/23/07	10/9/07	1/9/08	3/26/08	9/30/08	2/25/09
MW10										
Benzene	1	BQL	BQL	BQL	BQL	BQL	BQL	BQL	1	BQL
Ethylbenzene	29	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200	BQL	BQL	BQL	BQL	BQL	BQL	11.9	1	BQL
Toluene	1000	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Naphthalene	21	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL

Above regulatory limits

BQL - Below Quantitation Limit

NS - Not Sampled

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	3/27/98	5/15/98	6/24/98	7/23/98	10/21/98	1/25/99	2/16/99	4/19/99	5/7/99	7/14/99	7/30/99	10/20/99	1/12/00	3/23/00
MW11															
Benzene	1	90	20	250	62	20	7	NS	5	NS	16	NS	2	BQL	NS
Ethylbenzene	29	4	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Methyl-tert-butyl ether (MTBE)	200	130	7	26	10	40	12	NS	8	NS	13	NS	6	7	NS
Toluene	1000	24	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Total Xylenes	530	56	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Naphthalene	21	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Acenaphthene	80	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Fluorene	280	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Phenanthrene	210	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Anthracene	2100	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Pyrene	210	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
1-Methylnaphthalene	Detection Limit	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
2-Methylnaphthalene	28	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS

Above regulatory limits

BQL - Below Quantitation Limit

NS - Not Sampled

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	4/25/00	7/26/00	7/27/00	10/18/00	1/4/01	4/17/01	7/16/01	10/15/01	1/15/02	4/15/02	4/14/04	7/12/04	10/7/04	1/4/05
MW11															
Benzene	1	8	15	NS	16	10	2	3	1	2	BQL	2.5	2.7	6.7	4.4
Ethylbenzene	29	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200	9	9	NS	7	4	5	8	12	13	7	6.8	7.0	3.3	7.8
Toluene	1000	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Naphthalene	21	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL

Above regulatory limits

BQL - Below Quantitation Limit

NS - Not Sampled

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	4/5/05	7/27/05	3/8/07	6/23/07	10/9/07	1/9/08	3/26/08	9/30/08	2/25/09
MW11										
Benzene	1	BQL	BQL	8.3	2.9	5.5	3.6	3.6	BQL	6.9
Ethylbenzene	29	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200	80.3	29.9	4.8	7.8	80.3	29.9	4.8	BQL	6.6
Toluene	1000	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Naphthalene	21	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL

Above regulatory limits

BQL - Below Quantitation Limit

NS - Not Sampled

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	3/27/98	5/15/98	6/24/98	7/23/98	10/21/98	1/25/99	2/16/99	4/19/99	5/7/99	7/14/99	7/30/99	10/20/99	1/12/00	3/23/00
MW13															
Benzene	1	1700	140	1200	44	NS	NS	1	38	NS	NS	NS	6	BQL	NS
Ethylbenzene	29	220	19	440	7	NS	NS	BQL	3	NS	NS	NS	1	BQL	NS
Methyl-tert-butyl ether (MTBE)	200	BQL	BQL	150	56	NS	NS	7	18	NS	NS	NS	16	17	NS
Toluene	1000	270	BQL	1300	BQL	NS	NS	BQL	7	NS	NS	NS	BQL	BQL	NS
Total Xylenes	530	580	BQL	2020	10	NS	NS	BQL	BQL	NS	NS	NS	BQL	BQL	NS
Naphthalene	21	47	BQL	64	BQL	NS	NS	BQL	36	NS	NS	NS	BQL	BQL	NS
Acenaphthene	80	BQL	BQL	BQL	BQL	NS	NS	BQL	BQL	NS	NS	NS	BQL	BQL	NS
Fluorene	280	BQL	BQL	BQL	BQL	NS	NS	BQL	BQL	NS	NS	NS	BQL	BQL	NS
Phenanthrene	210	BQL	BQL	BQL	BQL	NS	NS	BQL	BQL	NS	NS	NS	BQL	BQL	NS
Anthracene	2100	BQL	BQL	BQL	BQL	NS	NS	BQL	BQL	NS	NS	NS	BQL	BQL	NS
Pyrene	210	BQL	BQL	BQL	BQL	NS	NS	BQL	BQL	NS	NS	NS	BQL	BQL	NS
1-Methylnaphthalene	Detection Limit	BQL	BQL	BQL	BQL	NS	NS	BQL	22	NS	NS	NS	BQL	BQL	NS
2-Methylnaphthalene	28	11	BQL	BQL	BQL	NS	NS	BQL	32	NS	NS	NS	BQL	BQL	NS

Above regulatory limits

BQL - Below Quantitation Limit

NS - Not Sampled

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	4/25/00	7/26/00	7/27/00	10/18/00	1/4/01	4/17/01	7/16/01	10/15/01	1/15/02	4/15/02	4/14/04	7/12/04	10/7/04	1/4/05
MW13															
Benzene	1	180	89	NS	300	150	35	5	BQL	3	3	49.5	1.9	35.1	2
Ethylbenzene	29	34	BQL	NS	550	43	3	BQL	BQL	BQL	BQL	4.5	BQL	3.6	BQL
Methyl-tert-butyl ether (MTBE)	200	69	55	NS	BQL	35	52	62	42	15	34	47.4	35.7	38.4	53.7
Toluene	1000	190	26	NS	610	67	7	BQL	BQL	BQL	BQL	1.1	BQL	1.9	BQL
Total Xylenes	530	290	19	NS	1280	154	13	BQL	BQL	BQL	BQL	9.7	BQL	8.3	BQL
Naphthalene	21	13	BQL	NS	90	11	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit	BQL	BQL	NS	14	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28	BQL	BQL	NS	13	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL

Above regulatory limits

BQL - Below Quantitation Limit

NS - Not Sampled

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	4/5/05	7/27/05	3/8/07	6/23/07	10/9/07	1/9/08	3/26/08	9/30/08	2/25/09
MW13										
Benzene	1	BQL	BQL	88.3	9.2	BQL	1.9	1.8	18.4	22.1
Ethylbenzene	29	BQL	BQL	11.5	BQL	BQL	BQL	11.5	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200	35.7	47.4	60.5	21.9	57.7	84	98.9	75.7	156
Toluene	1000	BQL	BQL	1.4	BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530	BQL	BQL	32.3	BQL	BQL	BQL	BQL	BQL	BQL
Naphthalene	21	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL

Above regulatory limits

BQL - Below Quantitation Limit

NS - Not Sampled

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	3/27/98	5/15/98	6/24/98	7/23/98	10/21/98	1/25/99	2/16/99	4/19/99	5/7/99	7/14/99	7/30/99	10/20/99	1/12/00	3/23/00
MW14															
Benzene	1	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Ethylbenzene	29	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Methyl-tert-butyl ether (MTBE)	200	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Toluene	1000	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Total Xylenes	530	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Naphthalene	21	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Acenaphthene	80	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Fluorene	280	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Phenanthrene	210	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Anthracene	2100	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Pyrene	210	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
1-Methylnaphthalene	Detection Limit	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
2-Methylnaphthalene	28	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS

Above regulatory limits

BQL - Below Quantitation Limit

NS - Not Sampled

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	4/25/00	7/26/00	7/27/00	10/18/00	1/4/01	4/17/01	7/16/01	10/15/01	1/15/02	4/15/02	4/14/04	7/12/04	10/7/04	1/4/05
MW14															
Benzene	1	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Toluene	1000	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	1.4	BQL
Total Xylenes	530	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Naphthalene	21	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL

Above regulatory limits

BQL - Below Quantitation Limit

NS - Not Sampled

**Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina**

Well No./Contaminant	NCDENR Reg Limit	4/5/05	7/27/05	3/8/07	6/23/07	10/9/07	1/9/08	3/26/08	9/30/08	2/25/09
MW14										
Benzene	1	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Toluene	1000	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Naphthalene	21	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL

Above regulatory limits

BQL - Below Quantitation Limit

NS - Not Sampled

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	3/27/98	5/15/98	6/24/98	7/23/98	10/21/98	1/25/99	2/16/99	4/19/99	5/7/99	7/14/99	7/30/99	10/20/99	1/12/00	3/23/00
MW15															
Benzene	1	1	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Ethylbenzene	29	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Methyl-tert-butyl ether (MTBE)	200	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Toluene	1000	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Total Xylenes	530	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Naphthalene	21	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Acenaphthene	80	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Fluorene	280	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Phenanthrene	210	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Anthracene	2100	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Pyrene	210	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
1-Methylnaphthalene	Detection Limit	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
2-Methylnaphthalene	28	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS

Above regulatory limits		BQL - Below Quantitation Limit					NS - Not Sampled								
MW16															
Benzene	1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Ethylbenzene	29	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Methyl-tert-butyl ether (MTBE)	200	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Toluene	1000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Total Xylenes	530	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Naphthalene	21	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Acenaphthene	80	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Fluorene	280	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Phenanthrene	210	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Anthracene	2100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Pyrene	210	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
1-Methylnaphthalene	Detection Limit	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
2-Methylnaphthalene	28	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Above regulatory limits **BQL - Below Quantitation Limit** **NS - Not Sampled**

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	4/25/00	7/26/00	7/27/00	10/18/00	1/4/01	4/17/01	7/16/01	10/15/01	1/15/02	4/15/02	4/14/04	7/12/04	10/7/04	1/4/05
MW15															
Benzene	1	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL
Ethylbenzene	29	BQL	BQL	NS	BQL	BQL	2	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL
Toluene	1000	BQL	BQL	NS	BQL	BQL	1	BQL	BQL	BQL	BQL	NS	BQL	BQL	1.3
Total Xylenes	530	BQL	BQL	NS	BQL	BQL	6	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL
Naphthalene	21	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL
Acenaphthene	80	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL
Fluorene	280	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL
Phenanthrene	210	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL
Anthracene	2100	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL
Pyrene	210	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL
2-Methylnaphthalene	28	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	BQL	BQL

Above regulatory limits		BQL - Below Quantitation Limit								NS - Not Sampled					
MW16															
Benzene	1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Ethylbenzene	29	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Methyl-tert-butyl ether (MTBE)	200	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Toluene	1000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Total Xylenes	530	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Naphthalene	21	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Acenaphthene	80	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Fluorene	280	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Phenanthrene	210	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Anthracene	2100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Pyrene	210	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
1-Methylnaphthalene	Detection Limit	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
2-Methylnaphthalene	28	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Above regulatory limits		BQL - Below Quantitation Limit								NS - Not Sampled					

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	4/5/05	7/27/05	3/8/07	6/23/07	10/9/07	1/9/08	3/26/08	9/30/08	2/25/09
MW15										
Benzene	1	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Toluene	1000	BQL	1	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Naphthalene	21	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL

Above regulatory limits	BQL - Below Quantitation Limit					NS - Not Sampled				
MW16										
Benzene	1	NS	NS	NS	NS	NS	NS	NS	BQL	BQL
Ethylbenzene	29	NS	NS	NS	NS	NS	NS	NS	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200	NS	NS	NS	NS	NS	NS	NS	BQL	0.6 J
Toluene	1000	NS	NS	NS	NS	NS	NS	NS	BQL	BQL
Total Xylenes	530	NS	NS	NS	NS	NS	NS	NS	BQL	BQL
Naphthalene	21	NS	NS	NS	NS	NS	NS	NS	BQL	BQL
Acenaphthene	80	NS	NS	NS	NS	NS	NS	NS	BQL	BQL
Fluorene	280	NS	NS	NS	NS	NS	NS	NS	BQL	BQL
Phenanthrene	210	NS	NS	NS	NS	NS	NS	NS	BQL	BQL
Anthracene	2100	NS	NS	NS	NS	NS	NS	NS	BQL	BQL
Pyrene	210	NS	NS	NS	NS	NS	NS	NS	BQL	BQL
1-Methylnaphthalene	Detection Limit	NS	NS	NS	NS	NS	NS	NS	BQL	BQL
2-Methylnaphthalene	28	NS	NS	NS	NS	NS	NS	NS	BQL	BQL

Above regulatory limits	BQL - Below Quantitation Limit					NS - Not Sampled				

**Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina**

Well No./Contaminant	NCDENR Reg Limit	3/27/98	5/15/98	6/24/98	7/23/98	10/21/98	1/25/99	2/16/99	4/19/99	5/7/99	7/14/99	7/30/99	10/20/99	1/12/00	3/23/00
MW17															
Benzene	1	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Ethylbenzene	29	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Methyl-tert-butyl ether (MTBE)	200	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Toluene	1000	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Total Xylenes	530	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Naphthalene	21	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Acenaphthene	80	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Fluorene	280	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Phenanthrene	210	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Anthracene	2100	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
Pyrene	210	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
1-Methylnaphthalene	Detection Limit	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS
2-Methylnaphthalene	28	BQL	BQL	BQL	BQL	BQL	BQL	NS	BQL	NS	BQL	NS	BQL	BQL	NS

Above regulatory limits

BQL - Below Quantitation Limit

NS - Not Sampled

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	4/25/00	7/26/00	7/27/00	10/18/00	1/4/01	4/17/01	7/16/01	10/15/01	1/15/02	4/15/02	4/14/04	7/12/04	10/7/04	1/4/05
MW17															
Benzene	1	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200	BQL	3	NS	3	3	8	8	8	10	9	31.9	30.2	28.1	33.7
Toluene	1000	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Naphthalene	21	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28	BQL	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL

Above regulatory limits

BQL - Below Quantitation Limit

NS - Not Sampled

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	4/5/05	7/27/05	3/8/07	6/23/07	10/9/07	1/9/08	3/26/08	9/30/08	2/25/09
MW17										
Benzene	1	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200	33.5	29.4	23.1	9.0	BQL	2.6	2.7	BQL	5.1
Toluene	1000	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Naphthalene	21	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL

Above regulatory limits

BQL - Below Quantitation Limit

NS - Not Sampled

**Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina**

Well No./Contaminant	NCDENR Reg Limit	3/27/98	5/15/98	6/24/98	7/23/98	10/21/98	1/25/99	2/16/99	4/19/99	5/7/99	7/14/99	7/30/99	10/20/99	1/12/00	3/23/00
MW18															
Benzene	1	BQL	NS	NS	NS	NS	NS	NS	BQL	NS	BQL	NS	NS	NS	NS
Ethylbenzene	29	BQL	NS	NS	NS	NS	NS	NS	BQL	NS	BQL	NS	NS	NS	NS
Methyl-tert-butyl ether (MTBE)	200	BQL	NS	NS	NS	NS	NS	NS	BQL	NS	BQL	NS	NS	NS	NS
Toluene	1000	BQL	NS	NS	NS	NS	NS	NS	BQL	NS	BQL	NS	NS	NS	NS
Total Xylenes	530	BQL	NS	NS	NS	NS	NS	NS	BQL	NS	BQL	NS	NS	NS	NS
Naphthalene	21	BQL	NS	NS	NS	NS	NS	NS	BQL	NS	BQL	NS	NS	NS	NS
Acenaphthene	80	BQL	NS	NS	NS	NS	NS	NS	BQL	NS	BQL	NS	NS	NS	NS
Fluorene	280	BQL	NS	NS	NS	NS	NS	NS	BQL	NS	BQL	NS	NS	NS	NS
Phenanthrene	210	BQL	NS	NS	NS	NS	NS	NS	BQL	NS	BQL	NS	NS	NS	NS
Anthracene	2100	BQL	NS	NS	NS	NS	NS	NS	BQL	NS	BQL	NS	NS	NS	NS
Pyrene	210	BQL	NS	NS	NS	NS	NS	NS	BQL	NS	BQL	NS	NS	NS	NS
1-Methylnaphthalene	Detection Limit	BQL	NS	NS	NS	NS	NS	NS	BQL	NS	BQL	NS	NS	NS	NS
2-Methylnaphthalene	28	BQL	NS	NS	NS	NS	NS	NS	BQL	NS	BQL	NS	NS	NS	NS

Above regulatory limits

BQL - Below Quantitation Limit

NS - Not Sampled

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	4/25/00	7/26/00	7/27/00	10/18/00	1/4/01	4/17/01	7/16/01	10/15/01	1/15/02	4/15/02	4/14/04	7/12/04	10/7/04	1/4/05
MW18															
Benzene	1	BQL	NS	NS	NS	NS	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29	BQL	NS	NS	NS	NS	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200	BQL	NS	NS	NS	NS	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Toluene	1000	BQL	NS	NS	NS	NS	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530	BQL	NS	NS	NS	NS	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Naphthalene	21	BQL	NS	NS	NS	NS	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80	BQL	NS	NS	NS	NS	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280	BQL	NS	NS	NS	NS	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210	BQL	NS	NS	NS	NS	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100	BQL	NS	NS	NS	NS	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210	BQL	NS	NS	NS	NS	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit	BQL	NS	NS	NS	NS	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28	BQL	NS	NS	NS	NS	BQL	NS	BQL	BQL	BQL	BQL	BQL	BQL	BQL

Above regulatory limits

BQL - Below Quantitation Limit

NS - Not Sampled

Historical Summary of Detected Contaminants
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corp Air Station
New River, North Carolina

Well No./Contaminant	NCDENR Reg Limit	4/5/05	7/27/05	3/8/07	6/23/07	10/9/07	1/9/08	3/26/08	9/30/08	2/25/09
MW18										
Benzene	1	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	BQL
Ethylbenzene	29	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	BQL
Toluene	1000	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	BQL
Total Xylenes	530	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	BQL
Naphthalene	21	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	BQL
Acenaphthene	80	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	BQL
Fluorene	280	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	BQL
Phenanthrene	210	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	BQL
Anthracene	2100	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	BQL
Pyrene	210	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	BQL
1-Methylnaphthalene	Detection Limit	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	BQL
2-Methylnaphthalene	28	BQL	BQL	NS	BQL	BQL	BQL	NS	BQL	BQL

Above regulatory limits

BQL - Below Quantitation Limit

NS - Not Sampled

APPENDIX D

MONTHLY WELL GAUGING LOG SHEETS

Well ID	DTW
USTAS4158-MW01	8.13
USTAS4158-MW03	8.30
USTAS4158-MW04	8.84
USTAS4158-MW05	8.93
USTAS4158-MW06	9.24
USTAS4158-MW07	9.20
USTAS4158-MW08	9.68
USTAS4158-MW09	9.12
USTAS4158-MW10	9.52
USTAS4158-MW11	10.85
USTAS4158-MW13	11.21
USTAS4158-MW14	10.17
USTAS4158-MW15	11.18
USTAS4158-MW16	9.60/9.68
USTAS4158-MW17	10.66
USTAS4158-MW18	11.64

* Product removed from well 7/9/08

Well ID	DTW
USTAS4158-MW01	8.46
USTAS4158-MW03	8.71
USTAS4158-MW04	7.85
USTAS4158-MW05	9.30
USTAS4158-MW06	8.38
USTAS4158-MW07	9.68
USTAS4158-MW08	10.33
USTAS4158-MW09	10.29
USTAS4158-MW10	9.98
USTAS4158-MW11	11.44
USTAS4158-MW13	11.76
USTAS4158-MW14	10.36
USTAS4158-MW15	11.52
USTAS4158-MW16	9.85/9.91*
USTAS4158-MW17	10.97
USTAS4158-MW18	11.79

* Product removed from well 7/31/08

Well Sampling scheduling was being evaluated which caused the water level measurements to be pushed back till the sampling event was finalized. Want to gauge just prior to sampling

Well ID	DTW
USTAS4158-MW01	8.09
USTAS4158-MW03	8.31
USTAS4158-MW04	9.04
USTAS4158-MW05	9.14
USTAS4158-MW06	9.17
USTAS4158-MW07	9.89
USTAS4158-MW08	10.46
USTAS4158-MW09	10.57
USTAS4158-MW10	11.86
USTAS4158-MW11	11.75
USTAS4158-MW13	11.86
USTAS4158-MW14	10.33
USTAS4158-MW15	11.57
USTAS4158-MW16	10.07
USTAS4158-MW17	11.28
USTAS4158-MW18	11.87

Well ID	DTW
USTAS4158-MW01	8.01
USTAS4158-MW03	8.23
USTAS4158-MW04	8.96
USTAS4158-MW05	9.03
USTAS4158-MW06	9.06
USTAS4158-MW07	9.80
USTAS4158-MW08	10.37
USTAS4158-MW09	10.48
USTAS4158-MW10	11.75
USTAS4158-MW11	11.69
USTAS4158-MW13	11.76
USTAS4158-MW14	10.22
USTAS4158-MW15	11.47
USTAS4158-MW16	9.99
USTAS4158-MW17	11.13
USTAS4158-MW18	11.78

Well ID	DTW
USTAS4158-MW01	8.84
USTAS4158-MW03	9.06
USTAS4158-MW04	9.56
USTAS4158-MW05	9.89
USTAS4158-MW06	9.86
USTAS4158-MW07	10.02
USTAS4158-MW08	10.50
USTAS4158-MW09	10.10
USTAS4158-MW10	11.20
USTAS4158-MW11	10.59
USTAS4158-MW13	11.91
USTAS4158-MW14	10.53
USTAS4158-MW15	11.63
USTAS4158-MW16	10.41
USTAS4158-MW17	11.18
USTAS4158-MW18	12.08

Well ID	DTW
USTAS4158-MW01	8.36
USTAS4158-MW03	8.63
USTAS4158-MW04	9.08
USTAS4158-MW05	9.37
USTAS4158-MW06	9.31
USTAS4158-MW07	9.56
USTAS4158-MW08	9.99
USTAS4158-MW09	9.65
USTAS4158-MW10	10.62
USTAS4158-MW11	10.00
USTAS4158-MW13	11.59
USTAS4158-MW14	10.12
USTAS4158-MW15	11.21
USTAS4158-MW16	10.00
USTAS4158-MW17	10.79
USTAS4158-MW18	11.43

Well ID	DTW
USTAS4158-MW01	7.51
USTAS4158-MW03	7.23
USTAS4158-MW04	9.00
USTAS4158-MW05	9.52
USTAS4158-MW06	9.70
USTAS4158-MW07	9.74
USTAS4158-MW08	10.40
USTAS4158-MW09	9.72
USTAS4158-MW10	11.16
USTAS4158-MW11	11.61
USTAS4158-MW13	12.00
USTAS4158-MW14	11.47
USTAS4158-MW15	11.80
USTAS4158-MW16	10.25
USTAS4158-MW17	11.14
USTAS4158-MW18	11.88

Well ID	DTW
USTAS4158-MW01	9.04
USTAS4158-MW03	9.24
USTAS4158-MW04	9.73
USTAS4158-MW05	9.99
USTAS4158-MW06	9.97
USTAS4158-MW07	10.22
USTAS4158-MW08	10.69
USTAS4158-MW09	10.38
USTAS4158-MW10	11.39
USTAS4158-MW11	10.72
USTAS4158-MW13	12.16
USTAS4158-MW14	10.68
USTAS4158-MW15	11.80
USTAS4158-MW16	10.62
USTAS4158-MW17	11.36
USTAS4158-MW18	12.15

Well ID	DTW
USTAS4158-MW01	8.72
USTAS4158-MW03	9.25
USTAS4158-MW04	10.23
USTAS4158-MW05	9.52
USTAS4158-MW06	9.80
USTAS4158-MW07	9.26
USTAS4158-MW08	10.45
USTAS4158-MW09	9.55
USTAS4158-MW10	11.10
USTAS4158-MW11	11.60
USTAS4158-MW13	11.55
USTAS4158-MW14	10.48
USTAS4158-MW15	11.78
USTAS4158-MW16	10.20
USTAS4158-MW17	11.13
USTAS4158-MW18	11.15

Camp Lejeune, NC
MCAS New River

Water Levels as of

5-22-09

AS-4158

Well ID	DTW
USTAS4158-MW01	8.10
USTAS4158-MW03	5.90
USTAS4158-MW04	8.62
USTAS4158-MW05	9.75
USTAS4158-MW06	9.10
USTAS4158-MW07	8.35
USTAS4158-MW08	10.05
USTAS4158-MW09	9.50
USTAS4158-MW10	
USTAS4158-MW11	11.15
USTAS4158-MW13	11.50
USTAS4158-MW14	10.10
USTAS4158-MW15	11.30
USTAS4158-MW16	9.70
USTAS4158-MW17	10.65
USTAS4158-MW18	11.45