Rev. 1
12/02/05

N00204.AR.002088
NAS PENSACOLA
5090.3a

Site Assessment Report Addendum No. 2

for

Underground Storage Tank Site 2406 Outlying Landing Field Saufley

Naval Air Station Pensacola

Pensacola, Florida

Southern Division
Naval Facilities Engineering Command

Contract No. N62467-94-D-0888
Contract Task Order 0274

December 2005

Rev. 1
12/02/05

SITE ASSESSMENT REPORT ADDENDUM NO. 2
FOR
UNDERGROUND STORAGE TANK
SITE 2406
OUTLYING LANDING FIELD SAUFLEY

NAVAL AIR STATION PENSACOLA
PENSACOLA, FLORIDA

COMPREHENSIVE LONG-TERM
ENVIRONMENTAL ACTION NAVY (CLEAN) CONTRACT

Submitted to:
Southern Division
Naval Facilities Engineering Command
2155 Eagle Drive
North Charleston, South Carolina 29406

Submitted by:
Tetra Tech NUS, Inc.
661 Andersen Drive
Foster Plaza 7
Pittsburgh, Pennsylvania 15220

CONTRACT NUMBER N62467-94-D-0888
CONTRACT TASK ORDER 0274

December 2005

PREPARED UNDER THE SUPERVISION OF:

Gerald Walker

GERALD WALKER, P.G.
TASK ORDER MANAGER
TETRA TECH NUS, INC.
TALLAHASSEE, FLORIDA

APPROVED FOR SUBMITTAL BY:

Debra M Humbert

DEBRA M. HUMBERT
PROGRAM MANAGER
TETRA TECH NUS, INC.
PITTSBURGH, PENNSYLVANIA

PROFESSIONAL CERTIFICATION

Site Assessment Report Addendum No.2
UST Site 2406, Outlying Landing Field Saufley
Naval Air Station Pensacola, Pensacola, Florida

This Site Assessment Report Addendum No. 2 was prepared under the direct supervision of the undersigned geologist using geologic and hydrogeologic principles standard to the profession at the time the report was prepared. If conditions are determined to exist that differ from those described, the undersigned geologist should be notified to evaluate the effects of additional information on the assessment described in this report. This report was developed specifically for the referenced site and should not be construed to apply to any other site.

Gerald Walker

Gerald Walker, P.G.
Florida License No. PG 1180

December 1, 2005
Date

TABLE OF CONTENTS

SECTION **PAGE**

PG CERTIFICATION ..... **iii**
ACRONYMS ..... **vii**

EXECUTIVE SUMMARY **ES-1**

1.0 SITE DESCRIPTION AND BACKGROUND INFORMATION **1-1**
1.1 SITE LOCATION AND CONDITIONS 1-1
1.2 SITE HISTORY 1-1

2.0 PREVIOUS INVESTIGATION **2-1**

3.0 SITE ASSESSMENT METHODOLOGY **3-1**
3.1 QUALITY ASSURANCE 3-1
3.2 SOIL ASSESSMENT 3-2
3.2.1 Soil Lithologic Descriptions 3-2
3.2.2 Organic Vapor Analysis 3-2
3.3 GROUNDWATER ASSESSMENT 3-2
3.3.1 Monitoring Well Locations 3-3
3.3.2 Monitoring Well Installation 3-3
3.3.3 Monitoring Well Development 3-5
3.3.4 Monitoring Well Sampling 3-5
3.4 AQUIFER CHARACTERIZATION 3-5
3.4.1 Well TOC Survey 3-6
3.4.2 Static Water Level Measurements 3-6

4.0 SITE ASSESSMENT RESULTS **4-1**
4.1 SOIL ASSESSMENT RESULTS 4-1
4.2 SITE HYDROGEOLOGY 4-1
4.2.1 Static Water Level and Groundwater Elevations 4-1
4.2.2 Free Product Measurement Determination 4-10
4.3 GROUNDWATER ASSESSMENT RESULTS 4-12
4.3.1 Existing Monitoring Well Groundwater Resampling Results 4-12
4.3.2 Shallow Monitoring Well Groundwater Sample Results – New Wells 4-20
4.3.3 Deep Monitoring Well Groundwater Samples – New Wells 4-20

5.0 CONCLUSIONS AND RECOMMENDATION **5-1**

REFERENCES **R-1**

APPENDICES

A FDEP SITE ASSESSMENT REPORT ADDENDUM NO.1 COMMENTS LETTER
B SITE ASSESSMENT REPORT ADDENDUM NO. 2 FIELD DATA
C VALIDATED LABORATORY ANALYTICAL REPORTS

TABLES

NUMBER **PAGE**

4-1 Soil OVA Headspace Results....4-2
4-2 Groundwater Elevation Summary....4-6
4-3 Summary of Contaminants Detected in Groundwater....4-13

FIGURES

NUMBER **PAGE**

1-1 Base Map....1-2
1-2 Site Map....1-3
3-1 Monitoring Well Location Map....3-4
4-1 Shallow Groundwater Flow – 7/28/04....4-7
4-2 Intermediate Groundwater Flow – 7/28/04....4-8
4-3 Deep Groundwater Flow – 7/28/04....4-9
4-4 Free Product – 7/28/04....4-11
4-5 Shallow Groundwater Data....4-17
4-6 Intermediate Groundwater Data....4-18
4-7 Deep Groundwater Data....4-19

ACRONYMS

AST	Aboveground Storage Tank
AVGAS	Aviation Gasoline
bls	Below Land Surface
BTOC	Below Top Of Casing
DEP-SOP-001/01	FDEP Field Activities SOPs
DPT	Direct-Push Technology
EDB	Ethylene dibromide or 1,2-dibromoethane
EDC	Ethylene dichloride or 1,2-dichloroethane
EPA	United States Environmental Protection Agency
F.A.C.	Florida Administrative Code
FDEP	Florida Department of Environmental Protection
FID	Flame Ionization Detector
FL-PRO	Florida Petroleum Range Organics
GCTLs	Groundwater Cleanup Target Levels
ID	Inside Diameter
lbs	pounds
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
NAAS	Naval Auxiliary Air Station
NAS	Naval Air Station
NAVFAC EFD SOUTH	Southern Division, Naval Facilities Engineering Command
NETPDTC	Naval Education and Training Professional Development and Technical Center
NETPMSA	Naval Education and Training Program Management Support Activity
NTTC	Naval Technical Training Center
OLF	Outlying Landing Field
OVA	Organic Vapor Analyzer
PAH	Polynuclear Aromatic Hydrocarbons
ppm	parts per million
PVC	Poly Vinyl Chloride
PWC	Public Works Center
PW03	Potable Water Well #3
PW04	Potable Water Well #4
RAP	Remedial Action Plan
SARA	Site Assessment Report Addendum
SCTLs	Soil Cleanup Target Levels
SOP	Standard Operating Procedure
SWL	Static Water Level
TOC	Top of Casing
TRPH	Total Recoverable Petroleum Hydrocarbon
TtNUS	Tetra Tech NUS, Inc.

ACRONYMS (CONTINUED)

µg/L	micrograms per liter
UST	Underground Storage Tank
VOC	Volatile Organic Compounds

EXECUTIVE SUMMARY

Tetra Tech NUS, Inc. (TtNUS) has been authorized by Southern Division, Naval Facilities Engineering Command (NAVFAC EFD SOUTH) to prepare site assessment reports (SARs) for petroleum impacted sites at Naval Air Station (NAS) Pensacola in Escambia County, Florida. This SAR Addendum (SARA) No. 2 has been prepared to further evaluate the extent of groundwater contamination resulting from operation of underground storage tanks (USTs) and a fuel transfer line located at UST Site 2406, Outlying Landing Field (OLF) Saufley. Previously a SARA (TtNUS, 2003) was completed for the site. This addendum continues and supplements the conclusions and recommendation of the previous addendum.

Site Assessment

The following activities were conducted as part of this SARA:

- Installation of five shallow monitoring wells to investigate the extent of on-site free product and installation of two single shallow monitoring wells and three monitoring well nests including a shallow and deep well pairs to confirm the lateral and vertical extent of the dissolved groundwater plume.
- Collection of groundwater samples from the newly installed monitoring wells for laboratory analysis of volatile organic compounds (VOCs), polynuclear aromatic hydrocarbons (PAHs), 1,2-dibromoethane (EDB), total recoverable petroleum hydrocarbons (TRPH), and lead.
- Collection of groundwater samples from six existing permanent monitoring wells for laboratory analysis of select parameters.
- Comparison of groundwater analytical results to the Groundwater Cleanup Target Levels (GCTLs) in Chapter 62-777 Florida Administrative Code (F.A.C.).
- Evaluation of aquifer properties to interpret the movement of groundwater at the site.

Conclusions SARA No. 2

- Three petroleum systems have been identified as possible sources of petroleum releases: four fuel-oil USTs with a capacity of 7,800 gallons each located in the vicinity of potable water supply well PW04, six 20,000 gallon USTs used to supply aviation gasoline (AVGAS) or jet fuel to the flight line, and a 10-inch fuel line system, reportedly 2 miles long, used to distribute the fuel to the flight line fuel hydrant system. The six 20,000 gallon USTs and junction with the buried 10-inch fuel line have been concluded to be the most likely source of contamination based on the present free product plume location and area of soil contamination.

- A second potential source area is the overall extent of the 10-inch fuel line system reportedly two miles long used to distribute fuel to the flight line fuel hydrant system. This possible source area remains a concern, however, it is believed to be separate from the free product and groundwater contamination identified as the primary source in this investigation. The fuel line and flightline fuel distribution system are currently being assessed as a separate investigation by the Navy.

- The results of the SARA No. 1 indicated petroleum constituents are present in the site soil (TtNUS, 2003). Based on organic vapor analysis (OVA) results at soil borings, the surface soil [0 to 4 feet below land surface (bls)] and shallow subsurface soil (4 to 25 feet bls) at the site are unaffected. OVA results did indicate "excessively contaminated soil" was present in the 25 to 55 feet bls interval surrounding the former AVGAS tank area and the fuel transfer line pump house. Analytical results from the off-site fixed-base laboratory confirmed that benzene, toluene, ethylbenzene, total xylenes, and TRPH were present at concentrations above Florida Department of Environmental Protection (FDEP) Soil Cleanup Target Levels (SCTLs) within the area of "excessively contaminated soil". Due to the depth of contaminated soil, direct contact to the contamination is not a concern, however the contaminated soil remains a concern for leaching to groundwater.

- Based on the July 2004 data, free-product is present on site covering an approximate area of 20,000 square feet with an average thickness of 0.38 feet and an approximate free product contaminant mass of 57,470 pounds (lbs).

- Based on the groundwater assessment results reported in the SARA No. 1 in combination with the groundwater results from this re-sampling event (SARA No. 2), concentrations of petroleum related VOCs are present in on-site groundwater at concentrations exceeding the FDEP GCTLs. Monitoring well locations with FDEP GCTL exceedances include an area that extends from Building 845 (east of the former AVGAS tank area) to an open area approximately 300 feet northwest of the tank farm, to the southwestern edge of the wooded area located southwest of the former tank area. Analytical results indicate that benzene, toluene, ethylbenzene, total xylenes, and 1,2-dichloroethane are present in the groundwater above FDEP GCTLs. No PAHs were detected at concentrations exceeding FDEP GCTLs. The extent of dissolved groundwater contamination has been delineated within the facility boundaries.

- Elevated lead concentrations reported during the SARA No. 1 were not confirmed by resampling of the same monitoring wells during this additional assessment. Therefore lead is not a concern in additional assessment and remediation of the site.

In accordance with the conclusions in the SARA No. 1 and in this SARA No. 2, TtNUS recommends that a Remedial Action Plan (RAP) be completed to address the free product and contaminated soils and groundwater at UST Site 2406, OLF Saufley. In addition to the proposed RAP, immediate recovery of free product should be initiated as per Chapter 62-770 F.A.C. Furthermore, the evaluation and proper closure, if required, of the fuel oil UST, the flight line AVGAS USTs, and the buried 10-inch fuel distribution pipeline system should be conducted. An additional assessment of these potential source areas is currently being preformed by Navy.

1.0 SITE DESCRIPTION AND BACKGROUND INFORMATION

TtNUS, under contract to the Department of Navy, NAVFAC EFD SOUTH, has completed this SARA to document the additional site assessment activities performed at UST Site 2406, OLF Saufley Field, Naval Education and Training Professional Development and Technical Center (NETPDTC) located in Pensacola, Florida.

1.1 SITE LOCATION AND CONDITIONS

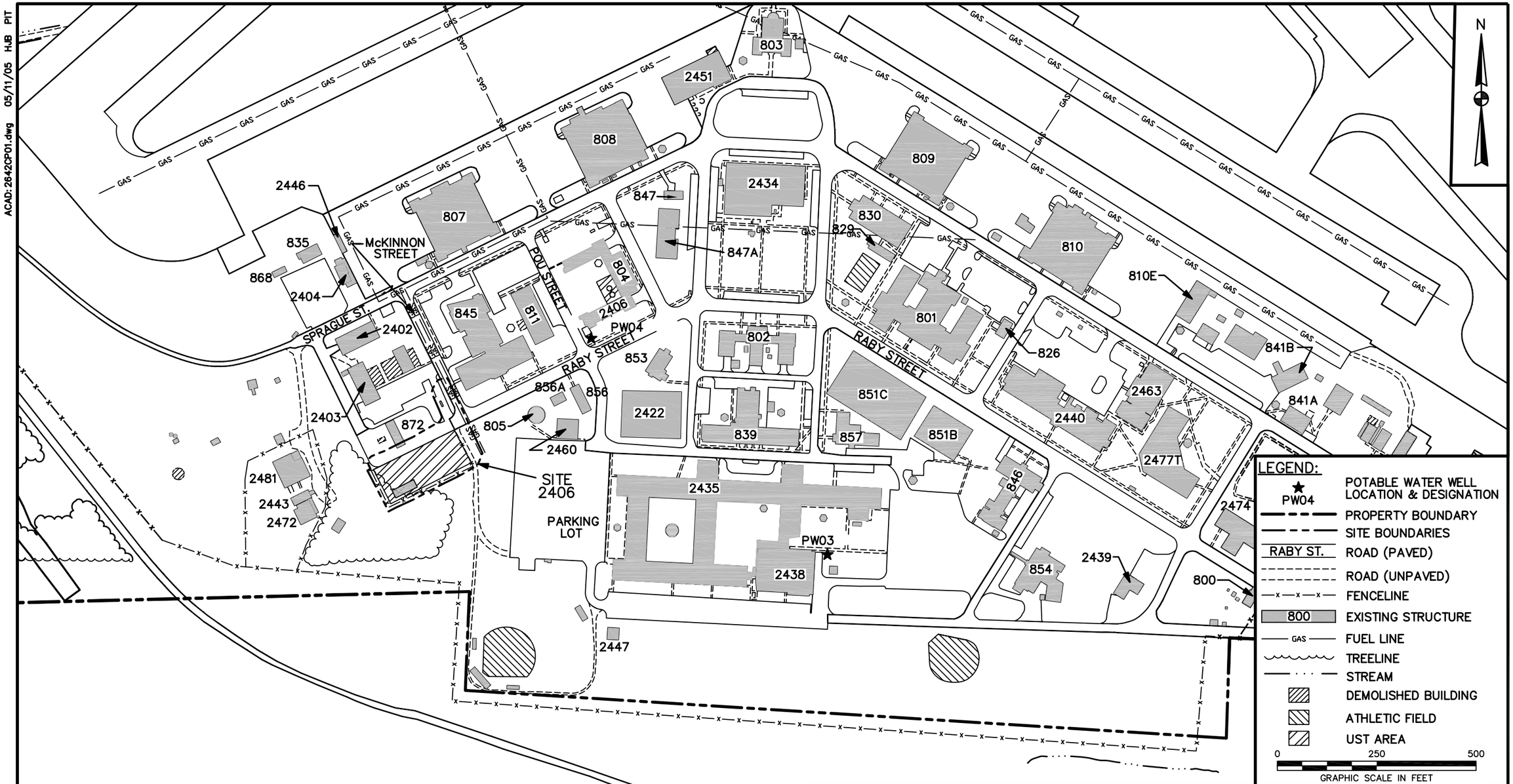
OLF Saufley Field is located in northwest Florida, Escambia County. The base is situated between Highway 10 and Perdido Bay approximately five miles northwest of Pensacola, Florida. OLF Saufley consists of four airstrips, two of which are active. The base also has a small number of support buildings and a Federal Prison that are located south of the airfield (Figure 1-1). OLF Saufley covers 866 acres of land, the majority of which is wooded or used for the airstrips.

UST Site 2406 is in the vicinity of the former location of Potable Water Well # 4 (PW04; Figure 1-1), which was located at the southwest corner of Building 2406. Potable Water Well # 4 was appropriately abandoned by a licensed water well contractor in April 1996. Most of the area in the vicinity of UST Site 2406 is paved with asphalt or concrete. Buildings 811 and 845 are located immediately to the west of Building 2406. Two wooded areas, approximately a half acre and two acres respectively, are located south-southwest of Building 2406. A former tank area containing six 20,000 gallon USTs (Figure 1-2) was situated within these wooded areas. A 10-inch fuel line distributed the AVGAS or jet fuel to the landing field from the UST area. In addition to the USTs and fuel line, there are also two 20,000 gallon aboveground storage tanks (ASTs) located behind Building 804 and four 7,800 gallon USTs located beneath the ASTs. The 7,800 gallon USTs were abandoned in place in November 1988.

1.2 SITE HISTORY

OLF Saufley opened in 1940 as Naval Auxiliary Air Station (NAAS) Saufley. NAAS Saufley was used to train pilots during World War II and the Korean Conflict. In 1957, the mission at Saufley Field was changed to basic training for naval aviators. NAAS Saufley was re-designated as a NAS in 1968 and retained that status until 1976 when NAS Saufley operations were discontinued and the facility was placed in caretaker status. Between 1976 and 1979 Saufley Field was used as an OLF for NAS Whiting Field. In 1979, Saufley Field was reactivated as Naval Educational and Training Program Management Support Activity (NETPMSA). Saufley Field was renamed the NETPDTC in 1996. Saufley Field is now used primarily to train and educate naval personnel and to house federal prisoners. NAS Whiting Field pilots use two of the airstrips for touch and go landing exercises.

ACAD:2642CP01.dwg 05/11/05 HJB PIT



LEGEND:

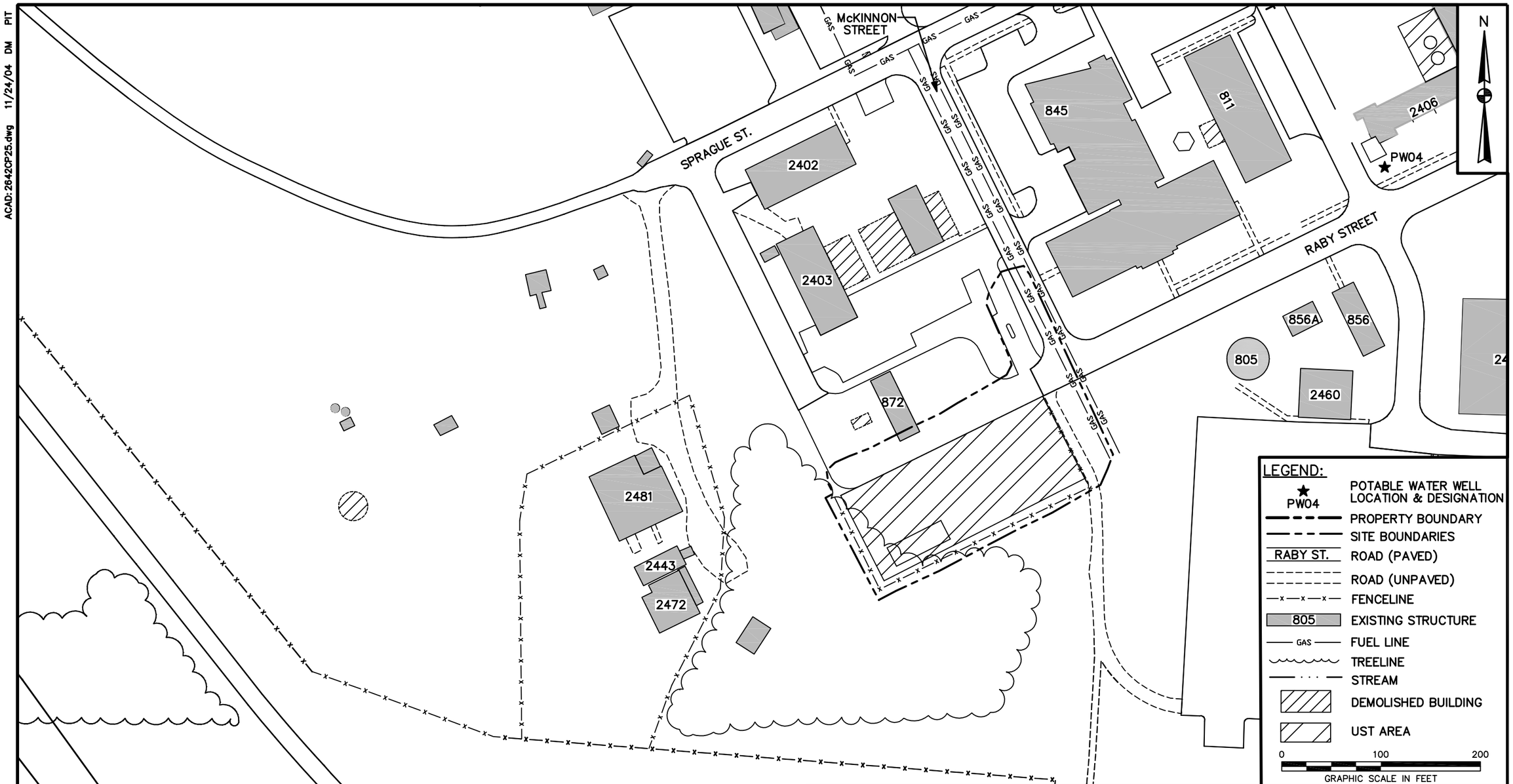
- ★ PW04 — POTABLE WATER WELL LOCATION & DESIGNATION
- PROPERTY BOUNDARY
- SITE BOUNDARIES
- RABY ST. — ROAD (PAVED)
- ROAD (UNPAVED)
- FENCELINE
- 800 — EXISTING STRUCTURE
- GAS — FUEL LINE
- TREELINE
- STREAM
- DEMOLISHED BUILDING
- ATHLETIC FIELD
- UST AREA

0 250 500
GRAPHIC SCALE IN FEET

DRAWN BY DM	DATE 11/18/04	BASE MAP SITE ASSESSMENT REPORT ADDENDUM NO. 2 OLF SAUFLEY, SITE 2406 NAS PENSACOLA PENSACOLA, FLORIDA	CONTRACT NO. 2642
CHECKED BY	DATE		OWNER NO. 0000
REVISED BY	DATE		APPROVED BY / DATE
SCALE AS NOTED		NAVFAC	DRAWING NO. FIGURE 1-1 / REV. 0

FORM CADD NO. SDIV-BH.DWG - REV 1 - 9/10/98

ACAD:2642CP25.dwg 11/24/04 DM PIT



DRAWN BY DM	DATE 11/16/04	SITE MAP SITE ASSESSMENT REPORT ADDENDUM NO. 2 OLF SAUFLEY - SITE 2406 NAS PENSACOLA PENSACOLA, FLORIDA	CONTRACT NO. 2642
CHECKED BY	DATE		OWNER NO. 0000
REVISED BY	DATE		APPROVED BY / DATE
SCALE AS NOTED			DRAWING NO. FIGURE 1-2 / REV. 0

NAVFAC

FORM CADD NO. SDIV-BH.DWG - REV 1 - 9/10/98

In 1994, the Public Works Center (PWC) potable water treatment system at OLF Saufley included two active potable water wells (PW03 and PW04; Figure 1-1). On May 9, 1994, a water sample from PW04 effluent indicated benzene contamination levels of 0.032 milligrams per liter (mg/L), exceeding the FDEP drinking water standard of 0.001 mg/L. PW04 was taken off-line, and was subsequently placed on quarterly sampling for one year for observation and corrective action to remove the contamination. In April 1996, PW03 and PW04 were abandoned in-place. Currently the only source of potable water for OLF Saufley is a well field located at the Naval Technical Training Center (NTTC) Corry Station, located approximately 5 miles north of Bayou Grande (SDIV, 1998).

In November 1988, four fuel-oil USTs with a capacity of 7,800 gallons each located in the vicinity of potable water supply well PW04, near the intersection of Raby Avenue and Pou Street were abandoned in place (SDIV, 1998). Six additional USTs (20,000 gallon) used to supply AVGAS or jet fuel to the flight line were located southwest of the intersection of Raby Avenue and McKinnon Street. No documentation of a tank closure assessment for these tanks has been found. In addition, the 10-inch fuel line system, which was reportedly 2 miles long and used to distribute the fuel to the flight line fuel hydrant system, is believed to have not been properly abandoned or assessed. The pipeline system appears to originate at a pump house adjacent to the six 20,000 gallon USTs. Three fuel pipelines exit the UST area and extend under Pou Street to the flight line. Approximately 20 segments of pipeline, with an unknown number of junctions and valves, connect the USTs to the fueling pits. Approximately 55 fueling pits were associated with this system are located on the flight line. Reportedly there are two additional tanks associated with this system located on the flight line. No documentation of a pipeline closure assessment for this system has been found. The Navy is currently scheduled to begin investigation of the flight line and fuel pipelines at OLF Saufley in 2005.

The actual source and quantity of petroleum releases at the site are unknown. Benzene was detected in potable water well PW04, located within the site boundaries. During the initial site assessment, petroleum contaminants were detected in the subsurface soil and groundwater in the vicinity of Building 2406.

2.0 PREVIOUS INVESTIGATION

A site assessment was conducted at UST Site 2406 in April and May 1996 by NAS Pensacola PWC (SDIV 1998). A total of 10 monitoring wells (9 shallow and 1 deep) were installed and soil samples were collected from boreholes during the installation of the monitoring wells. Organic vapors exceeding 50 parts per million (ppm) were detected in soil samples collected from three locations. A groundwater sample from one monitoring well contained VOCs, TRPH, and lead at concentrations exceeding FDEP GCTLs (SDIV, 1998). NAS Pensacola PWC concluded that: excessively contaminated soil existed in the vicinity of monitoring wells OLFS-2406-MW3 and OLFS-2406-DMW10; petroleum constituents in the groundwater in the vicinity of OLFS-2406-MW3 were present; the source could not be determined; and no free product existed in the groundwater. NAS Pensacola PWC recommended the development of a RAP for soil and development of a Monitoring Only Plan for groundwater.

After review of the SAR, FDEP responded with comments requiring additional assessment to further delineate the extent of the soil and groundwater contamination, as well as, determine the source of the contamination (FDEP, 1998). FDEP specifically requested an additional shallow monitoring well and an intermediate monitoring well be installed.

During July and August 2000, additional site assessment was conducted by TtNUS in the area near PW04. Seven soil borings were advanced at the site to total depths of 42 feet. Soil samples from the borings were screened for soil contamination and five soil samples were sent to a laboratory for confirmatory analysis of gasoline and kerosene analytical group parameters Soil screening results were less than 50 ppm and the soil sample laboratory analytical results were less than FDEP SCTLs. Three new monitoring wells were installed, one shallow well, one intermediate well, and one deep well. Groundwater samples were collected from these three wells and analyzed for gasoline and kerosene analytical group parameters (Chapter 62-770, F.A.C.). Results of the additional site assessment indicated that a groundwater sample from monitoring well OLFS-2406-DMW12 contained EDB and benzene at concentrations exceeding FDEP's GCTLs.

Based on the exceedances reported in monitoring well OLFS-2406-DMW-12, the site assessment was continued and included the installation of three additional monitoring wells surrounding monitoring well OLFS-2406-DMW-12. In October and November 2001, groundwater samples were collected from six monitoring wells and again analyzed for gasoline and kerosene analytical group parameters.

The analytical results for the additional sampling event indicated that benzene, ethylbenzene, xylenes, and toluene were present in the groundwater collected from the three additional monitoring wells. The detected concentrations exceeded the FDEP GCTLs.

Because elevated concentrations were detected in the groundwater samples from deep monitoring wells located at the site, NAVFAC EFD SOUTH determined that additional investigation and assessment was warranted and authorized additional site assessment activities. The additional site assessment activities, including direct-push technology (DPT) soil and groundwater investigation, monitoring well installation, and groundwater sampling, were conducted from October 2002 through January 2003.

The OVA results from the DPT soil investigation indicated excessively contaminated soil was present in the 25 to 44 feet bls interval in the vicinity of the former USTs located west of Building 2406. The presence of benzene, toluene, ethylbenzene, xylenes, and TRPH were confirmed by either mobile laboratory or fixed-based laboratory results. The mobile laboratory groundwater results from the DPT groundwater investigation indicated that benzene, toluene, ethylbenzene, xylenes are in the shallow groundwater (55 feet bls) and the deep groundwater contained these same contaminants. The majority of contaminant levels detected in the groundwater were less than the FDEP GCTLs. The contaminants, as well as, the contaminant levels were confirmed by the fixed-based laboratory.

Based on the DPT soil and groundwater investigation results, 21 monitoring wells [6 shallow (55 feet bls), 13 intermediate (65 – 80 feet bls) and 2 deep (130 – 135 feet bls)] were installed and sampled for VOCs, PAHs, TRPH, and lead. During the groundwater sampling event, free-product was detected in all six of the newly installed shallow monitoring wells. The free-product plume was located in the vicinity of the former six 20,000 gallon USTs, as well as, the excessively contaminated soil. Results from the intermediate monitoring wells indicated that several VOCs, PAHs, TRPH and lead were present in intermediate groundwater. Results from the deep monitoring wells did not indicate any contaminants were present in deep groundwater.

As part of the investigation, TtNUS completed an informal survey of residents located on Saufley Field Road to determine their current water source. Municipal water is currently available for the residents (TtNUS, 2003).

Based on findings from the additional site assessment activities, TtNUS concluded and recommended the following:

- Petroleum contaminants above the FDEP SCTLs are present in the soil at 25 to 45 feet bls in the vicinity of the free product plume.

- Free-product is present covering an approximate area of 45,000 square feet in the vicinity of the former tank farm area and fuel distribution pipelines, near at the intersection of Raby Avenue and McKinnon Street.

- Dissolved petroleum contaminants above the FDEP GCTLs are present in the groundwater. The groundwater contamination is located from the water table (approximately 45 feet bls) to 130 feet bls, in an area that extends from 200 feet east of the free product plume to 500 feet southwest of the free product plume to 600 feet west of the free product plume.

- Exposure pathways of human receptors to subsurface soil are not complete; therefore, direct exposure to the subsurface soil is not possible.

- Exposure pathways of human receptors to groundwater via surface water or potable water supply wells are not complete; therefore, direct exposure to the groundwater is not possible.

Based upon the hydrogeological and chemical data presented in this SARA the source of contamination is most likely the intersection between the fuel supply line and the former tank farm, which is located in the free product plume and area of soil contamination. The groundwater contamination has moved in a downgradient direction, which is to be expected, but it is possible that dissolved contamination has also moved in an upgradient direction during past operation of the potable water well, PW04.

In accordance with the conclusions, TtNUS recommended that a RAP be completed for UST Site 2406, OLF Saufley. In addition to the RAP for the known contamination, further evaluation and proper closure of the fuel oil USTs, the AVGAS USTs, and the fuel distribution pipe line system should be conducted, and immediate recovery of free product should be initiated (TtNUS, 2003).

After reviewing the SARA, FDEP responded with comments requiring further investigation (FDEP, 2003). FDEP determined the vertical and horizontal contamination found in the southwestern boundary of the intermediate aquifer was not delineated. In order to address these comments, additional assessment was needed to better define the free-product plume, as well as the vertical and horizontal extent of dissolved petroleum contamination. A copy of FDEP's comments to SARA No. 1 is provided as Appendix A.

3.0 SITE ASSESSMENT METHODOLOGY

Groundwater assessment data were collected to further define the vertical and horizontal extent of petroleum contamination, and to define the horizontal extent of the free-product. The following activities were conducted as part of the site assessment:

- Quality Assurance
- Groundwater Assessment

The site assessment methods used during this investigation are discussed below. The results of the investigation are presented in Sections 3.0 and 4.0.

3.1 QUALITY ASSURANCE

The site assessment investigation was conducted in accordance with the FDEP Standard Operating Procedures (SOPs) for Field Activities (DEP-SOP-001/01).

- Decontamination Procedures
- Instrument Calibration
- Sample Collection Procedures
- Sample Management

Equipment used to advance the soil borings, to install monitoring wells, and to collect groundwater samples was decontaminated prior to and following each use.

Field instruments were used during the site assessment to measure organic vapor concentrations and to monitor groundwater quality during sampling. OVAs were made using a Photovac MicroFID as required by FDEP. Prior to each day's activities, the Flame Ionization Detector (FID) was field calibrated with 100-ppm methane-in-air span gas, in accordance with the manufacturer's directions. During each day's sampling, periodic instrument response checks were made with the span gas. Groundwater quality measurements were made with an YSI 556 multiparameter instrument. Prior to each day's activities, the meter was field calibrated with a standard calibration solution, in accordance with the manufacturer's directions. Equipment calibration documents are included in Appendix B.

Groundwater sampling activities were performed in accordance with the procedures prescribed in DEP-SOP-001/01. Groundwater samples were collected in containers provided by the laboratory. As part of

the groundwater sampling event, quality control samples (e.g. matrix spike duplicate, rinsate blanks and trip blanks) were collected and submitted to the laboratory.

Sampling activities were documented in a site-specific field logbook, and samples were transmitted under chain-of-custody protocols to the laboratory.

3.2 SOIL ASSESSMENT

The soil screening investigation conducted as part of this SARA was limited to lithologic descriptions of drilling cores and OVA screening measurements recorded during monitoring well installation. During Rotosonic drilling operations continuous soil cores were recovered and soil samples from the cores were viewed and described by the on-site geologist and screened for OVA headspace. No soil samples were collected for on-site or off-site analysis.

3.2.1 Soil Lithologic Descriptions

Soil borings for the monitoring wells were advanced with a Rotosonic drill rig which uses a continuous soil core sampler. The soil core sampler is approximately 20 feet long and lined with disposable plastic sleeves. The soil borings were advanced continuously from ground surface to the water table at each soil boring location. The site geologist recorded the soil properties, including texture, color and soil moisture for each soil boring and noted staining or odors. Soil boring logs are provided in Appendix B.

3.2.2 Organic Vapor Analysis

Soil sample cores were screened on site at 5-foot intervals for OVA vapors organic vapors using a FID. Formal headspace screening as outlined in 62-770.200(8) F.A.C. was not completed. Instead, the sample cores were broken at specific intervals and bedding planes and the FID response to total organic vapor was measured by inserting the FID probe into the break and recording the highest instrument reading on the soil boring log. The OVA screening measurements were recorded in the field on the soil boring logs and are included in Appendix B.

3.3 GROUNDWATER ASSESSMENT

The additional groundwater assessment was conducted at UST Site 2406 to further delineate the vertical and horizontal extent of the dissolved petroleum contamination in the groundwater reported during the initial site assessment (SDIV, 1998) and the subsequent SARA. Further delineation of the horizontal extent of the free-product reported during the SARA was also conducted. Delineation was accomplished

by installing permanent monitoring wells at selected locations based on the data collected during the previous investigations.

3.3.1 Monitoring Well Locations

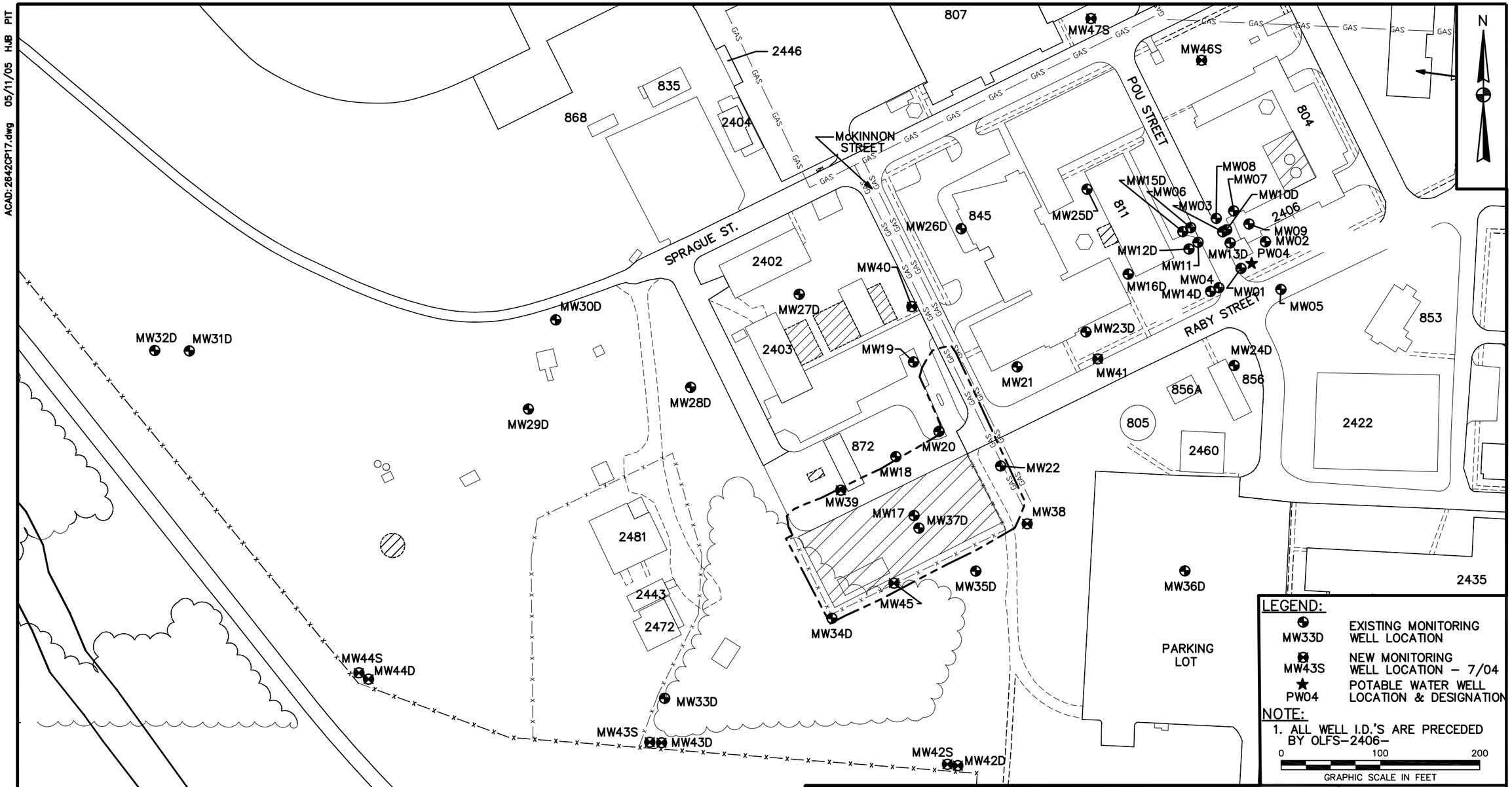
Ten shallow monitoring wells (OLFS-2406-MW38, -MW39, -MW40, -MW41, -MW42S, -MW43S, -MW44S, -MW45, MW46S, and -MW47) and three deep monitoring wells (OLFS-2406-MW42D, -MW43D, and -MW44D) were installed at the site (Figure 3-1). Data obtained during the Site Assessment Addendum activities were evaluated to determine the locations of these new wells. Monitoring wells OLFS-2406-MW38 through OLFS-2406-MW41, and OLFS-2406-MW45 were installed to delineate the horizontal extent of the free-product plume; and monitoring wells OLFS2406-MW42S through OLFS-2406-MW44S, 2406-MW46, OLFS-2406-MW47, and OLFS-2406-MW42D through OLFS-2406-MW44D were installed to delineate the horizontal and vertical extent of the dissolved petroleum contamination in groundwater.

3.3.2 Monitoring Well Installation

The monitoring well borings were drilled with a tractor and trailer mounted Rotosonic drill rig using 4.25-inch inside diameter (ID) rods creating a nominal borehole diameter of approximately 4.5-inches. All wells were constructed of 2-inch ID, flush-threaded, schedule 40 polyvinyl chloride (PVC) riser and 0.010-inch slot well screen with a 6-inch point cap. The shallow wells were generally installed to approximately 56 feet bls with a 15-foot screen section that bracketed the water table. Because of site-specific conditions three of the wells were completed to different depths. Monitoring Well OLFS-2406-MW43S was completed to a depth of 50 feet bls due to the presence of a clay layer in the anticipated screen zone and monitoring wells OLFS-2406-MW45 and OLFS-2406-MW46 were completed to depths of 45 feet bls and 50 feet bls, respectively in order to effectively bracket the water table. The three deep monitoring wells (OLFS-2406-MW42D, OLFS-2406-MW43D, and OLFS-2406-MW44D) were installed to approximately 130 feet bls. All of the deep monitoring wells were constructed of 2-inch ID, flush-threaded, schedule 40 PVC riser and 5-feet or 10 feet of 0.010-inch slot well screen with a 6-inch point cap.

The annulus around each well was filled approximately 2 to 3 feet above the top of the screen with US Standard Sieve size 20/40 silica sand, followed by a 2-foot bentonite or fine sand seal. The remainder of the annulus was grouted with a Portland/Bentonite mixture to the surface. Each well was secured with a locking, watertight cap within a steel, 8-inch diameter manhole. The manhole was set in a 24-inch square concrete apron finished slightly above grade. Monitoring well construction detail completion diagrams are provided in Appendix B.

ACAD:2642CP17.dwg 05/11/05 HJB PIT



LEGEND:

MW33D	EXISTING MONITORING WELL LOCATION
MW43S	NEW MONITORING WELL LOCATION – 7/04
PW04	POTABLE WATER WELL LOCATION & DESIGNATION

NOTE:

1. ALL WELL I.D.'S ARE PRECEDED BY OLFS–2406–

0 100 200

GRAPHIC SCALE IN FEET

DRAWN BY DM	DATE 11/16/04	MONITORING WELL LOCATION MAP SITE ASSESSMENT REPORT ADDENDUM NO. 2 OLF SAUFLEY - SITE 2406 NAS PENSACOLA PENSACOLA, FLORIDA	CONTRACT NO. 2642
CHECKED BY	DATE		OWNER NO. 0000
REVISED BY	DATE		APPROVED BY / DATE
SCALE AS NOTED		NAVFAC	DRAWING NO. FIGURE 3-1 / REV. 0

FORM CADD NO. SDIV-BH.DWG - REV 1 - 9/10/98

3.3.3 Monitoring Well Development

Each monitoring well was developed using a surge and pump technique. A well was considered developed once the pH, temperature, and conductivity of the extracted groundwater stabilized and the groundwater was visibly clear. Development water from the site was stored in labeled 55-gallon drums for later disposal based on the groundwater sampling analytical results. Monitoring well development records are provided in Appendix B.

3.3.4 Monitoring Well Sampling

Groundwater samples were collected from the newly installed site monitoring wells to evaluate groundwater quality in the shallow surficial aquifer at UST Site 2406. The groundwater samples were collected using the low-flow quiescent purging and sampling method. New Teflon® tubing was installed in each well for groundwater sampling. Each monitoring well was purged using a submersible Grundfos pump until the water quality parameters were stable over consecutive readings, in accordance with the DEP-SOP-001/01. Temperature, pH, specific conductance, dissolved oxygen concentration, and turbidity were monitored during the well purging activities. Groundwater sample log sheets are provided in Appendix B.

The groundwater samples collected from the new monitoring wells were analyzed for VOCs [United States Environmental Protection Agency (EPA) SW-846 Method 8260B], PAHs (EPA SW-846 Method 8270C), EDB using EPA Method 504.1, TRPH [Florida Petroleum Range Organics (FL-PRO)] and lead (EPA SW-846 Method 3010A/6010B). Monitoring wells OLFS-2406-MW46 and OLFS-2406-MW47 were analyzed at a later sampling date and were analyzed for VOCs (EPA SW-846 Method 8260B), and PAHs (EPA SW-846 Method 8270C) only. In addition to the new monitoring wells being sampled, several previously installed monitoring wells (OLFS-2406-DMW13, -MW28, -MW29, -MW32D, -MW34D, and -MW27D) were sampled. The groundwater collected from these monitoring wells was analyzed for specific parameters based on the analytical results presented in the SARA (TtNUS, 2003). Intermediate monitoring wells OLFS-2406-MW28D, -MW29D, and -MW34D were re-sampled for lead only. Intermediate monitoring well OLFS-2406-MW29D was re-sampled for VOCs, whereas deep monitoring wells OLFS-2406-MW13D, -MW32D, and MW37D were re-sampled for VOCs and lead. Groundwater laboratory analytical reports are presented in Appendix C.

3.4 AQUIFER CHARACTERIZATION

Data were collected during the additional site investigation to evaluate the presence of free product and direction of groundwater movement. Groundwater elevations were determined from static water level (SWL) measurements and a well top-of-casing (TOC) elevation survey.

3.4.1 Well TOC Survey

A reference point was marked on the top of each monitoring well casing on the north side. The TOC of monitoring well OLFS-2406-MW04 was established as an arbitrary datum with an elevation of 127.94 feet. The elevations of the reference points were surveyed to the nearest 0.01-foot, relative to the TOC of OLFS-2406-MW04. The survey data calculations are included in Appendix B.

3.4.2 Static Water Level Measurements

A round of depth-to-free product and depth-to-groundwater measurements was made in all site monitoring wells on July 28, 2004. Monitoring wells OLFS-2406-MW46 and OLFS-2406-MW47 were not included in the groundwater measurement survey because they were installed at a later date. Measurements were made from the reference points marked on the tops of the well casings with an oil-water interface probe. Depth to free product, if present and depth to SWL measurements were made to the nearest 0.01-foot. Groundwater elevations were calculated from the TOC survey elevations and the SWL measurements. In monitoring wells containing free product, water level measurement were corrected for the presence of free product assuming a free product specific gravity of 0.8. The depths to water measurements are discussed in Section 4.2 and the original recorded measurements are presented in Appendix B.

4.0 SITE ASSESSMENT RESULTS

4.1 SOIL ASSESSMENT RESULTS

Interpretation of site lithology and stratigraphy was based on visual examination of soil cores collected from soil borings during the monitoring well installation. The recorded lithologies were consistent with previous descriptions at the site (TtNUS, 2003). Typical lithology at the site consists of inter-bedded, various colored, silty clayey sands, silty sands; clayey silty sands, and silty sand.

The OVA screening results for soil samples collected during monitoring well drilling are included in the boring logs in Appendix B and summarized on Table 4-1. Eleven (11) soil borings were advanced for monitoring well installation and OVA screening results were recorded for eight of the soil borings. Three of the soil borings were completed as nested well pairs and therefore OVA screening was not completed on both adjacent well pairs.

Elevated OVA screening measurements were recorded on two of the completed soil borings. In soil boring OLFS2406SB41 (monitoring well OLFS-2406-MW41) a measurement of 16 ppm was reported at the 35 to 40 feet bls interval, which was located immediately above the water table. And soil boring OLFS2406SB44 (monitoring well OLFS-2406-MW45) was reported to contain elevated OVA measurements of 500 ppm, 4,350 ppm, and 210 ppm at depth intervals of 30 to 35 feet, 35 to 40 feet, and 40 to 45 feet; respectively. The water level at this location was approximately 36 feet bls. The detected elevated OVA screening concentrations are likely a result of groundwater fluctuations causing a smearing of contamination immediately in the vadose zone.

4.2 SITE HYDROGEOLOGY

Hydrogeologic data were collected during the additional site assessment to evaluate movement of groundwater in the shallow surficial aquifer at the site. Depth to groundwater and groundwater elevation were used to determine the groundwater flow direction at the site.

4.2.1 Static Water Level and Groundwater Elevations

On-site depth to water measurements and groundwater elevation determinations were recorded from site monitoring wells on July 28, 2004. The water level measurements are compiled on Table 4-2 and presented graphically for the shallow, intermediate, and deep groundwater flow zones on figures 4-1, 4-2 and 4-3, respectively.

TABLE 4-1
SOIL OVA HEADSPACE RESULTS
UST SITE 2406

SITE ASSESSMENT REPORT ADDENDUM NO. 2
OUTLYING LANDING FIELD SAUFLEY
PENSACOLA, FLORIDA

PAGE 1 OF 4

SAMPLE LOCATION NO.	SAMPLE DATE	DEPTH TO WATER (ft bls)	SAMPLE INTERVAL (ft bls)	TOTAL OVA READING (ppm)	COMMENTS
OLFS2406SB34 (Monitoring Well OLFS-2406-MW-38)	07/07/04	41	0-5	0	
			5-10	0	
			10-15	0	
			15-20	0	
			20-25	0	
			25-30	0	
			30-35	0	
			35-40	0	
			40-45	0	
			45-50	0	Boring terminated at 56 ft bls
			50-55	0	
OLFS2406SB35 (Monitoring Well OLFS-2406-MW-39)	7/7/04	36	0-5	0	
			5-10	0	
			10-15	0	
			15-20	0	
			20-25	0	
			25-30	0	
			30-35	0	
			35-40	0	
			40-45	0	
			45-50	0	Boring terminated at 56 ft bls
			50-55	0	
OLFS2406SB36 (Monitoring Well OLFS-2406-DMW42D)	7/8/04	45	0-5	0	
			5-10	0	
			10-15	0	
			15-20	0	
			20-25	0	
			25-30	0	
			30-35	0	
			35-40	0	
			40-45	0	
			45-50	0	
			50-55	0	
			55-60	0	
			60-65	0	
			65-70	0	
			70-75	0	
			75-80	0	
			80-85	0	
			85-90	0	
			90-95	0	
			95-100	0	
			100-105	0	
			105-110	0	
			110-115	0	
			115-120	0	
			120-125	0	Boring terminated at 130 ft bls
			125-130	0	

Notes:
ft bls = feet below land surface
ppm = parts per million
GW = groundwater
OVA = Organic Vapor Analysis
NA = not available; readings were not recorded below the water table

TABLE 4-1
SOIL OVA HEADSPACE RESULTS
UST SITE 2406

SITE ASSESSMENT REPORT ADDENDUM NO. 2
OUTLYING LANDING FIELD SAUFLEY
PENSACOLA, FLORIDA

PAGE 2 OF 4

SAMPLE LOCATION NO.	SAMPLE DATE	DEPTH TO WATER (ft bls)	SAMPLE INTERVAL (ft bls)	TOTAL OVA READING (ppm)	COMMENTS
OLFS2406SB37 (Monitoring Well OLFS-2406-MW42S)	7/9/04	34			Data not collected because location adjacent to soil boring OLFS-2406-SB36 Boring terminated at 56 ft bls
OLFS2406SB38 (Monitoring Well OLFS-2406-MW43D)	7/9/04	38	0-5	0	
			5-10	0	
			10-15	0	
			15-20	0	
			20-25	0	
			25-30	0	
			30-35	0	
			35-40	0	
			40-45	0	
			45-50	0	
			50-55	0	
			55-60	0	
			60-65	0	
			65-70	0	
			70-75	0	
			75-80	0	
			80-85	0	
			85-90	0	
			90-95	0	
			95-100	0	
			100-105	0	
			105-110	0	
			110-115	0	
			115-120	0	
			120-125	0	Boring terminated at 130 ft bls
			125-130	0	
OLFS2406SB39 (Monitoring Well OLFS-2406-MW43S)	7/10/04	19			Data not collected because location adjacent to soil boring OLFS-2406-SB38 Boring terminated at 56 ft bls

Notes:
ft bls = feet below land surface
ppm = parts per million
GW = groundwater
OVA = Organic Vapor Analysis
NA = not available; readings were not recorded below the water table

TABLE 4-1
SOIL OVA HEADSPACE RESULTS
UST SITE 2406

SITE ASSESSMENT REPORT ADDENDUM NO. 2
OUTLYING LANDING FIELD SAUFLEY
PENSACOLA, FLORIDA

PAGE 3 OF 4

SAMPLE LOCATION NO.	SAMPLE DATE	DEPTH TO WATER (ft bls)	SAMPLE INTERVAL (ft bls)	TOTAL OVA READING (ppm)	COMMENTS
OLFS2406SB40 (Monitoring Well OLFS-2406-MW40S)	7/11/04	41	0-5	0	
			5-10	0	
			10-15	0	
			15-20	0	
			20-25	0	
			25-30	0	
			30-35	0	
			35-40	0	
			40-45	0	
			45-50	0	Boring terminated at 56 ft bls
			50-55	0	
OLFS2406SB41 (Monitoring Well OLFS-2406-MW41S)	7/11/04	40	0-5		Data not collected from 0 to 30 ft bls; location adjacent to soil boring OLFS-2406-DMW23
			5-10		
			10-15		
			15-20		
			20-25		
			25-30		
			30-35	0	
			35-40	16	
			40-45	0	
			45-50	0	Boring terminated at 56 ft bls
			50-55	0	
OLFS2406SB42 (Monitoring Well OLFS-2406-MW44D)	7/12/04	29	0-5	0	
			5-10	0	
			10-15	0	
			15-20	0	
			20-25	0	
			25-30	0	
			30-35	0	
			35-40	0	
			40-45	0	
			45-50	0	
			50-55	0	
			55-60	0	
			60-65	0	
			65-70	0	
			70-75	0	
			75-80	0	
			80-85	0	
			85-90	0	
			90-95	0	
			95-100	0	
			100-105	0	
			105-110	0	
			110-115	0	
			115-120	0	
			120-125	0	Boring terminated at 130 ft bls
			125-130	0	

Notes:
ft bls = feet below land surface
ppm = parts per million
GW = groundwater
OVA = Organic Vapor Analysis
NA = not available; readings were not recorded below the water table

TABLE 4-1
SOIL OVA HEADSPACE RESULTS
UST SITE 2406

SITE ASSESSMENT REPORT ADDENDUM NO. 2
OUTLYING LANDING FIELD SAUFLEY
PENSACOLA, FLORIDA

PAGE 4 OF 4

SAMPLE LOCATION NO.	SAMPLE DATE	DEPTH TO WATER (ft bls)	SAMPLE INTERVAL (ft bls)	TOTAL OVA READING (ppm)	COMMENTS
OLFS2406SB43 (Monitoring Well OLFS-2406-MW-44S)	7/13/04	29			Data not collected because location adjacent to soil boring OLFS-2406-SB42 Boring terminated at 56 ft bls
OLFS2406SB44 (Monitoring Well OLFS-2406-MW-45S)	7/13/04	36	0-5	0	
			5-10	0	
			10-15	0	
			15-20	0	
			20-25	0	
			25-30	0	
			30-35	500	
			35-40	4,350	Boring terminated at 46 ft bls
			40-45	210	

Notes:
ft bls = feet below land surface
ppm = parts per million
GW = groundwater
OVA = Organic Vapor Analysis
NA = not available; readings were not recorded below the water table

TABLE 4-2
GROUNDWATER ELEVATION SUMMARY
UST SITE 2406 - July 28, 2004

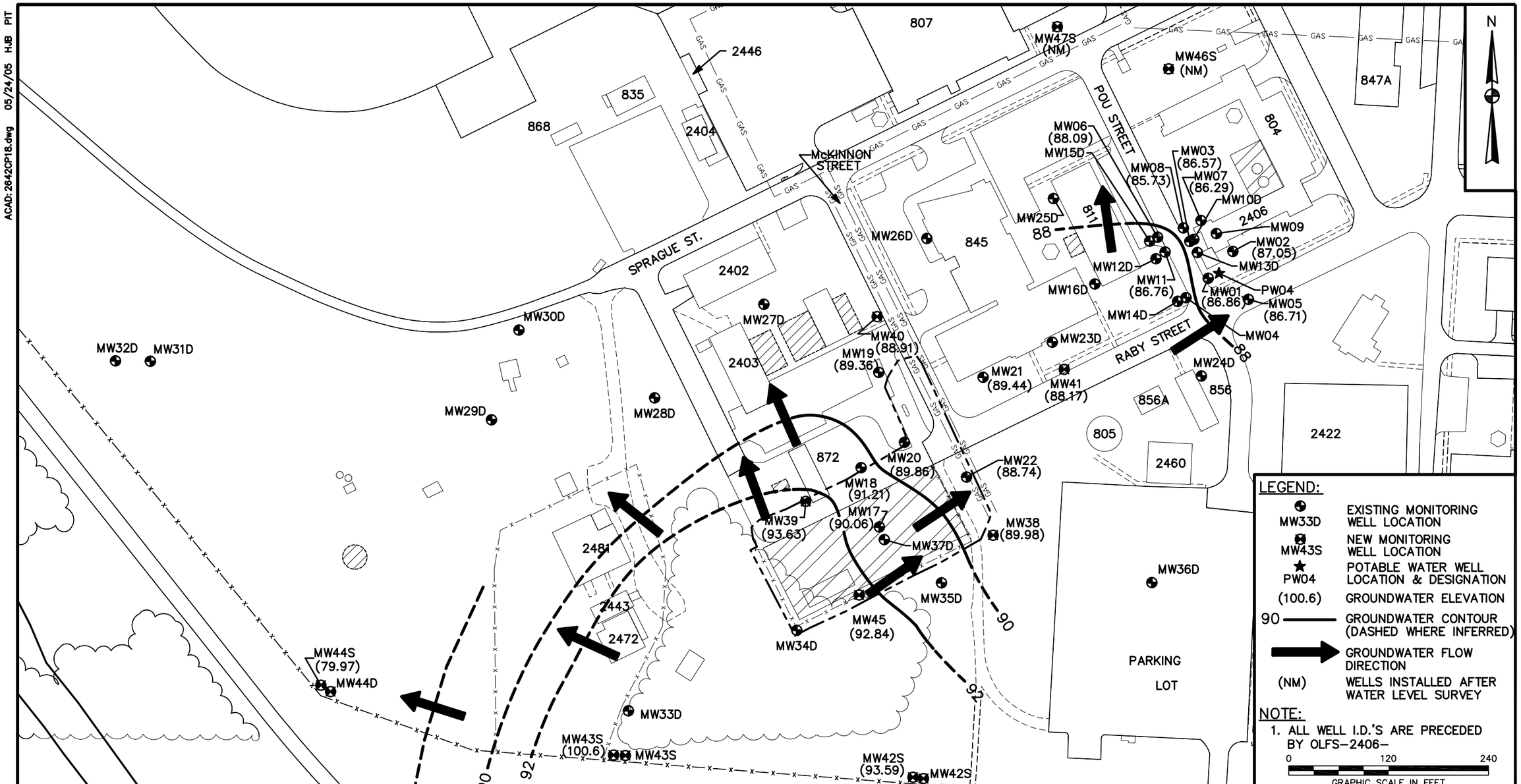
SITE ASSESSMENT REPORT ADDENDUM NO. 2
OUTLYING LANDING FIELD SAUFLEY
PENSACOLA, FLORIDA

Well ID	TOC Elevation (ft)*	Depth of Well (ft BTOC)	Screened Interval (ft BTOC)	Depth to Water (ft BTOC)	Depth to Free Product (ft BTOC)	Free Product Thickness (ft)	Water Level Elevation (ft)
SHALLOW							
OLFS-2406-MW01	127.71	47.01	37 - 47	40.85	ND	NA	86.86
OLFS-2406-MW02	128.54	46.74	37 - 47	41.49	ND	NA	87.05
OLFS-2406-MW03	128.45	47.6	37 - 47	41.88	ND	NA	86.57
OLFS-2406-MW05	127.69	46.39	37 - 47	40.98	ND	NA	86.71
OLFS-2406-MW06	128.68	45.57	37 - 47	40.59	ND	NA	88.09
OLFS-2406-MW07	128.67	46.18	37 - 47	42.38	ND	NA	86.29
OLFS-2406-MW08	128.12	45.9	37 - 47	42.39	ND	NA	85.73
OLFS-2406-MW09	128.79	45.8	37 - 47	N/A	ND	NA	N/A
OLFS-2406-MW11	128.7	47.00	37 - 47	41.94	ND	NA	86.76
OLFS-2406-MW17**	129.93	53.90	39.5 - 54.5	39.33	38.65	0.68	90.06
OLFS-2406-MW18**	129.60	55.00	39.5 - 54.5	38.34	38.28	0.06	91.21
OLFS-2406-MW19	130.29	55.63	39.5 - 54.5	40.93	ND	ND	89.36
OLFS-2406-MW20**	129.63	55.74	39.5 - 54.5	39.76	39.75	0.01	89.86
OLFS-2406-MW21	129.46	55.85	39.5 - 54.5	40.02	ND	ND	89.44
OLFS-2406-MW22**	130.28	54.80	39.5 - 54.5	40.89	40.08	0.81	88.74
OLFS-2406-MW38	131.20	56.00	39 - 56	41.22	ND	NA	89.98
OLFS-2406-MW39	129.65	56.00	39 - 56	36.02	ND	NA	93.63
OLFS-2406-MW40	130.06	56.00	41 - 56	41.15	ND	NA	88.91
OLFS-2406-MW41	128.47	56.00	42 - 57	40.30	ND	NA	88.17
OLFS-2406-MW42S	127.36	56.00	39 - 56	33.77	ND	NA	93.59
OLFS-2406-MW43S	119.40	56.00	35 - 50	18.80	ND	NA	100.60
OLFS-2406-MW44S	109.01	56.00	41 - 56	29.04	ND	NA	79.97
OLFS-2406-MW45	128.79	45.00	31 - 46	35.95	ND	NA	92.84
OLFS-2406-MW46	NA	52.05	42 - 52	NA	ND	NA	NA
OLFS-2406-MW47	NA	56.69	46 - 56	NA	ND	NA	NA
INTERMEDIATE							
OLFS-2406-MW04	127.94	71.42	37 - 47	40.98	ND	NA	86.96
OLFS-2406-MW10D	128.54	67.00	62 - 67	42.36	ND	NA	86.18
OLFS-2406-MW12D	128.71	69.88	60 - 69	42.37	ND	NA	86.34
OLFS-2406-MW14D	128.12	72.00	65 - 70	41.66	ND	NA	86.46
OLFS-2406-MW15D	128.73	70.09	65 - 70	42.17	ND	NA	86.56
OLFS-2406-MW16D	128.9	70.49	65 - 70	42.37	ND	NA	86.53
OLFS-2406-MW23D	129.24	81.18	74.5 - 79.5	47.71	ND	NA	81.53
OLFS-2406-MW24D	127.85	81.25	74.5 - 79.5	41.17	ND	NA	86.68
OLFS-2406-MW25D	120.92	81.23	74.5 - 79.5	45.5	ND	NA	75.42
OLFS-2406-MW26D	130.07	65.85	59.5 - 64.5	43.91	ND	NA	86.16
OLFS-2406-MW27D	129.29	66.44	59.5 - 64.5	38.98	ND	NA	90.31
OLFS-2406-MW28D	128.44	80.13	74.5 - 79.5	46.14	ND	NA	82.30
OLFS-2406-MW29D	119.42	80.40	74.5 - 79.5	38.37	ND	NA	81.05
OLFS-2406-MW30D	120.00	81.80	74.5 - 79.5	38.73	ND	NA	81.27
OLFS-2406-MW31D	108.32	79.35	74.5 - 79.5	27.73	ND	NA	80.59
OLFS-2406-MW33D	119.56	80.25	74.5 - 79.5	N/A	ND	NA	N/A
OLFS-2406-MW34DR	125.32	77.90	74.5 - 79.5	27.2	ND	NA	98.12
OLFS-2406-MW35D	130.11	81.12	74.5 - 79.5	45.2	ND	NA	84.91
OLFS-2406-MW36D	128.47	79.12	74.5 - 79.5	44.94	ND	NA	83.53
DEEP							
OLFS-2406-MW13D	128.28	142.00	137 - 142	43.73	ND	NA	84.55
OLFS-2406-MW32D	108.50	135.70	130 - 135	28.13	ND	NA	80.37
OLFS-2406-MW37D	129.93	135.80	130 - 135	47.09	ND	NA	82.84
OLFS-2406-MW42D	127.68	130.00	125 - 130	45.14	ND	NA	82.54
OLFS-2406-MW43D	119.24	133.20	120 - 130	37.6	ND	NA	81.64
OLFS-2406-MW44D	108.92	130.00	125 - 130	28.89	ND	NA	80.03

Notes:

TOC = Top Of Casing
ft BTOC = feet below top of casing
* = Benchmark is arbitrary at 127.94 ft. at OLFS-2406-MW4
from the intersection of Raby Avenue and Pou Street
** = corrected for free product thickness assuming a free product specific gravity of 0.8
ND = Free Product not detected
NA = Not Applicable

ACAD: 2642CP18.dwg 05/24/05 HJB PIT



DRAWN BY	DATE
DM	11/16/04
CHECKED BY	DATE
REVISED BY	DATE
SCALE AS NOTED	

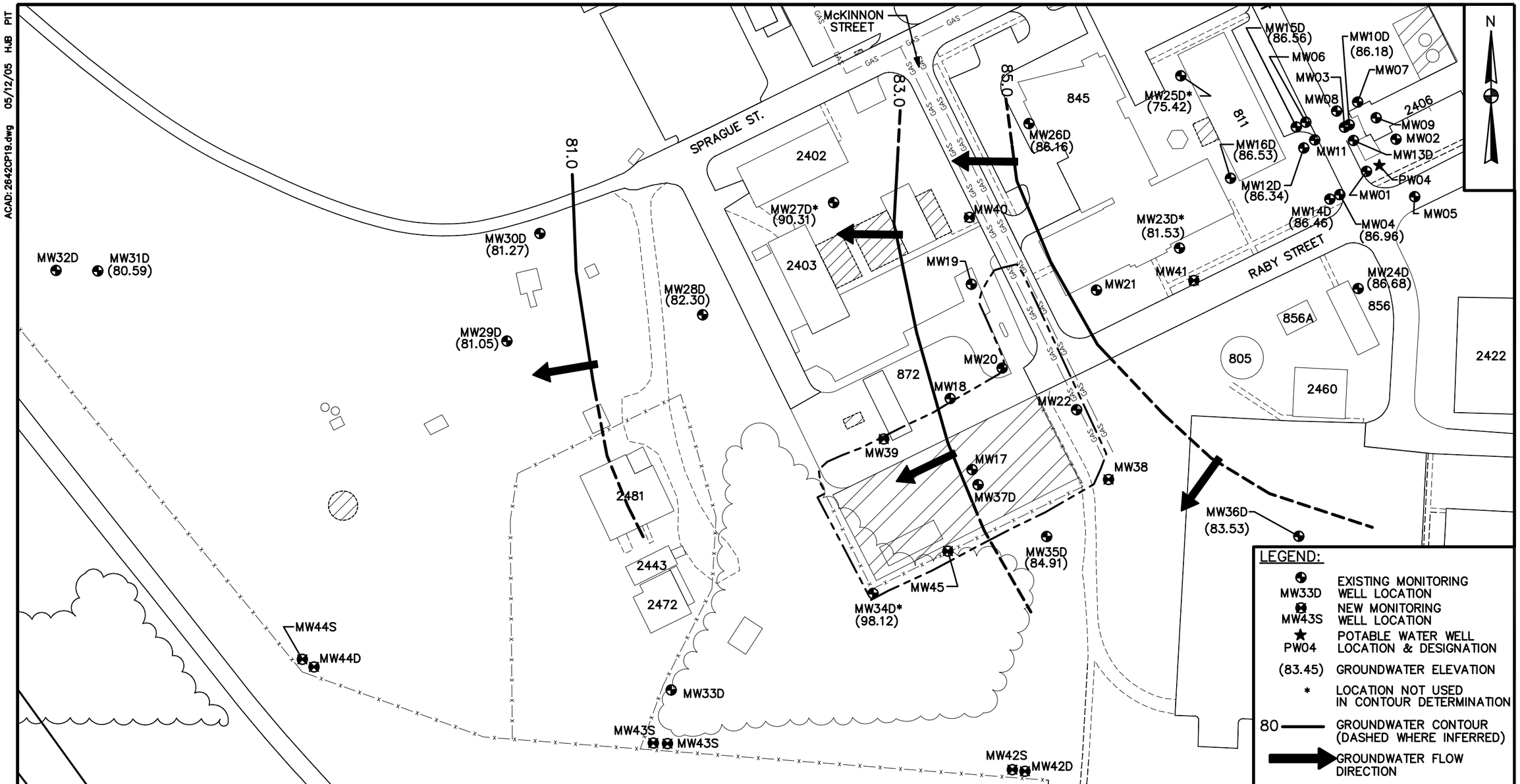
NAVFAC

SHALLOW GROUNDWATER FLOW - 7/28/04
SITE ASSESSMENT REPORT ADDENDUM NO. 2
OLF SAUFLEY - SITE 2406
NAS PENSACOLA
PENSACOLA, FLORIDA

CONTRACT NO. 2642	
OWNER NO. 0000	
APPROVED BY	DATE
DRAWING NO. FIGURE 4-1	REV. 0

FORM CADD NO. SDIV-BH.DWG - REV 1 - 9/10/98

ACAD:2642CP19.dwg 05/12/05 HJB PIT



NOTE:
1. ALL WELL I.D.'S ARE PRECEDED BY OLFS-2406-

0 100 200
GRAPHIC SCALE IN FEET

LEGEND:

MW33D	EXISTING MONITORING WELL LOCATION
MW43S	NEW MONITORING WELL LOCATION
PW04	POTABLE WATER WELL LOCATION & DESIGNATION
(83.45)	GROUNDWATER ELEVATION
*	LOCATION NOT USED IN CONTOUR DETERMINATION
80	GROUNDWATER CONTOUR (DASHED WHERE INFERRED)
	GROUNDWATER FLOW DIRECTION

DRAWN BY DM	DATE 11/16/04
CHECKED BY	DATE
REVISED BY	DATE
SCALE AS NOTED	

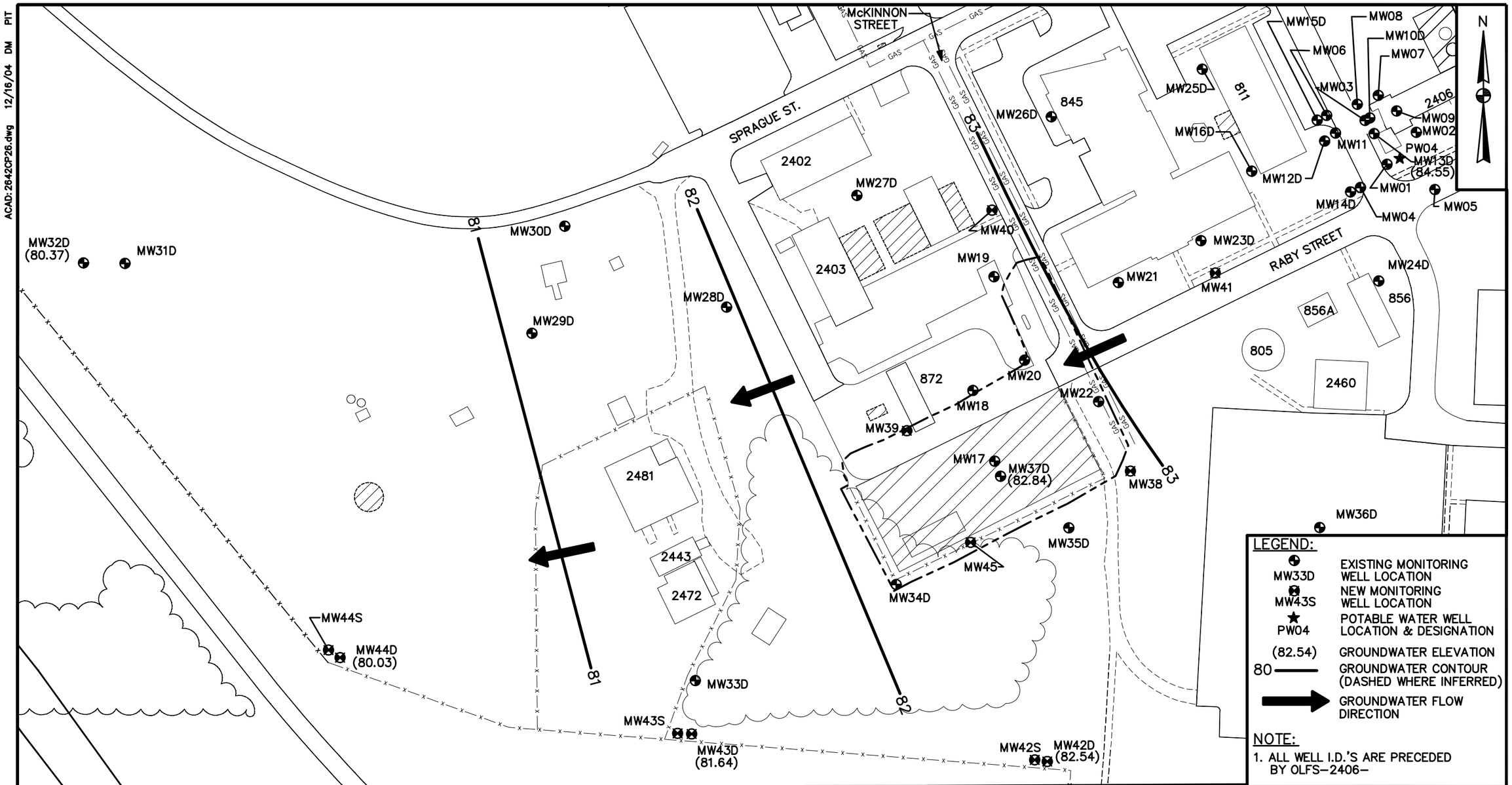
NAVFAC

INTERMEDIATE GROUNDWATER FLOW - 7/28/04
SITE ASSESSMENT REPORT ADDENDUM NO. 2
OLF SAUFLEY - SITE 2406
NAS PENSACOLA
PENSACOLA, FLORIDA

CONTRACT NO. 2642
OWNER NO. 0000
APPROVED BY DATE
DRAWING NO. FIGURE 4-2
REV. 0

FORM CADD NO. SDIV-BH.DWG - REV 1 - 9/10/98

ACAD:2642CP26.dwg 12/16/04 DM PIT



LEGEND:

MW33D	EXISTING MONITORING WELL LOCATION
MW43S	NEW MONITORING WELL LOCATION
PW04	POTABLE WATER WELL LOCATION & DESIGNATION
(82.54)	GROUNDWATER ELEVATION
80	GROUNDWATER CONTOUR (DASHED WHERE INFERRED)
	GROUNDWATER FLOW DIRECTION

NOTE:

1. ALL WELL I.D.'S ARE PRECEDED BY OLFS–2406–

DRAWN BY DM	DATE 11/16/04	
CHECKED BY	DATE	
REVISED BY	DATE	
SCALE AS NOTED		

NAVFAC

DEEP GROUNDWATER FLOW - 7/28/04
SITE ASSESSMENT REPORT ADDENDUM NO. 2
OLF SAUFLEY - SITE 2406
NAS PENSACOLA
PENSACOLA, FLORIDA

CONTRACT NO. 2642	
OWNER NO. 0000	
APPROVED BY	DATE
DRAWING NO. FIGURE 4-3	REV. 0

FORM CADD NO. SDIV-BH.DWG - REV 1 - 9/10/98

The depth to water measurement data and the relative elevations from the well TOC survey were used to determine relative groundwater elevations at each monitoring well.

For monitoring wells designated as the shallow flow zone depth to water measurements ranged from 18.80 feet below top of casing (BTOC) in OLFS-2406-MW43S to 42.39 feet BTOC in OLFS-2406-MW08. The relative groundwater elevations in the shallow wells ranged from 79.97 feet in OLFS-2406-MW44S to 100.60 feet in OLFS-2406-MW43S. Although free product was present in four monitoring wells (OLFS-2406-MW17, -MW18, -MW20, and –MW22), the water levels from these wells were corrected for density differences of free product using an assumed free product specific gravity of 0.8. As indicated on Figure 4-1, groundwater flow for the shallow (45 to 56 feet bls) screened groundwater interval is in radial direction with the high point located the former fuel farm area. Based on the current data it is unclear if this pattern is consistent in the area south of the fuel tank area.

The water level measurements in the intermediate wells ranged from 27.20 feet BTOC in OLFS-2406-MW34D to 47.71 feet BTOC in OLFS-2406-MW23D. The relative groundwater elevations in the intermediate wells ranged from 75.42 feet. in OLFS-2406-MW25D to 98.12 feet. in OLFS-2406-MW34D. As indicated on Figure 4-2, groundwater flow for the intermediate (65 to 81 feet bls) screened groundwater interval is generally in a radial direction near the former fuel farm area and to the west southwest near production well PW04. Because of the flow patterns there appears to be a north northwest to south southeast trending trough located beneath Building 845.

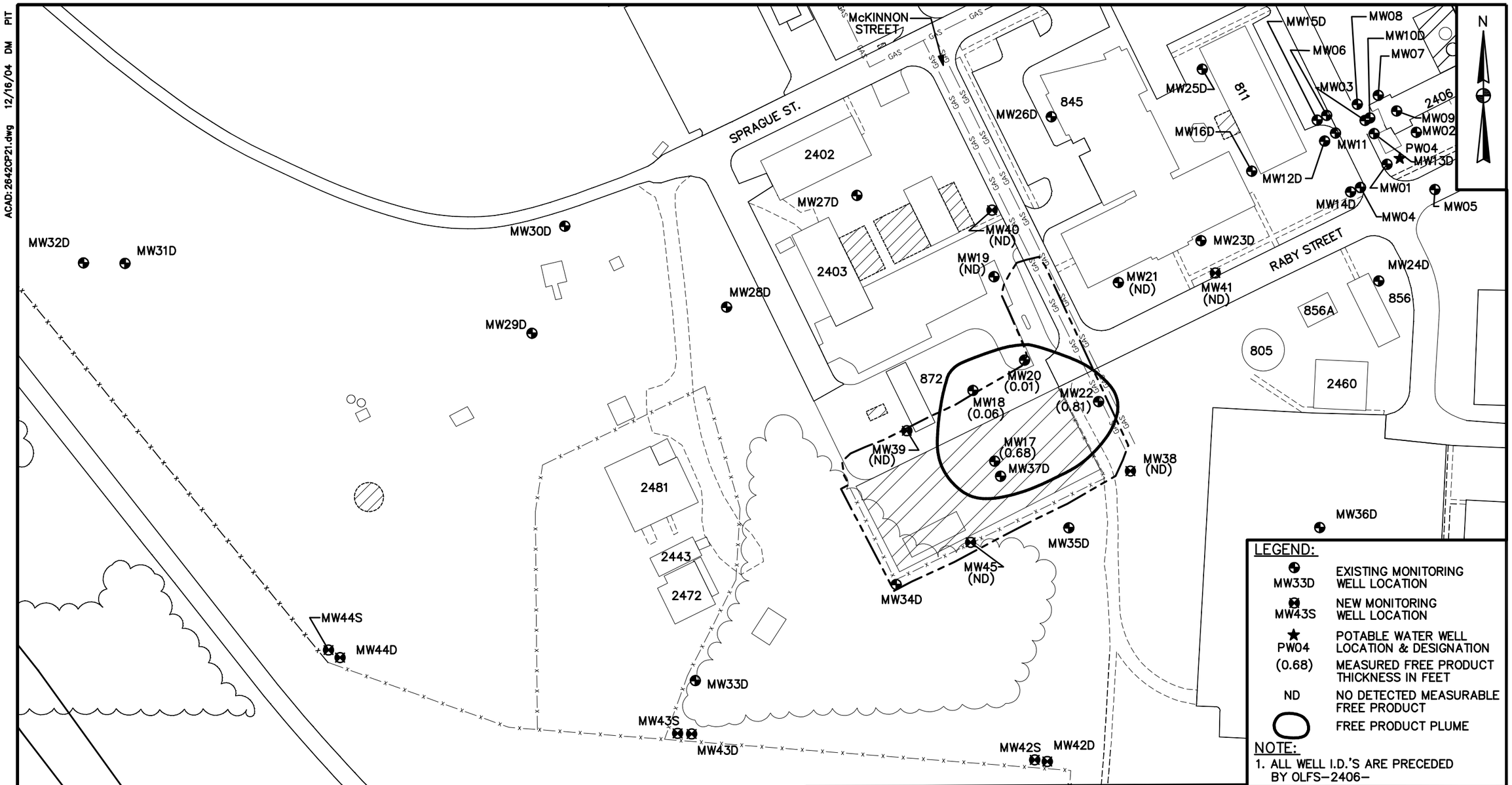
The depth to water measurements in the deep wells ranged from 28.13 feet BTOC in OLFS-2406-MW32D to 47.09 feet BTOC in OLFS-2406-MW37D. The relative groundwater elevation in the deep wells ranged from 80.03 feet in OLFS-2406-MW44D to 84.55 feet in OLFS-2406-MW-13D. As indicated on Figure 4-3, groundwater flow on the deep (130 to 142 feet bls) screened groundwater interval is toward the west southwest.

4.2.2 Free Product Measurement Determination

Free product thickness measurements were recorded from site monitoring wells in July 2004. Four of the monitoring wells at the site contained measurable thickness of free product. Free product measurements ranged from a 0.01 feet to 0.81 feet in thickness. Figure 4-4 presents the free product thickness measurements from the July 2004 measurement event.

A determination of free product contaminant mass was completed for the site based on the July 2004. The determination was completed using the formula:

ACAD:2642CP21.dwg 12/16/04 DM PIT



LEGEND:

MW33D	EXISTING MONITORING WELL LOCATION
MW43S	NEW MONITORING WELL LOCATION
PW04	POTABLE WATER WELL LOCATION & DESIGNATION
(0.68)	MEASURED FREE PRODUCT THICKNESS IN FEET
ND	NO DETECTED MEASURABLE FREE PRODUCT
	FREE PRODUCT PLUME

NOTE:
1. ALL WELL I.D.'S ARE PRECEDED BY OLFS-2406-

DRAWN BY DM	DATE 11/16/04	FREE PRODUCT - 7/28/04 SITE ASSESSMENT REPORT ADDENDUM NO. 2 OLF SAUFLEY - SITE 2406 NAS PENSACOLA PENSACOLA, FLORIDA	CONTRACT NO. 2642
CHECKED BY	DATE		OWNER NO. 0000
REVISED BY	DATE		APPROVED BY / DATE
SCALE AS NOTED			DRAWING NO. FIGURE 4-4 / REV. 0

NAVFAC

FORM CADD NO. SDIV-BH.DWG - REV 1 - 9/10/98

$$\text{Total free product mass} = A * T * n * Cf * 49.12\,\text{lb/ft}^3$$

where:

T = Average observed thickness (feet) = 0.39 feet

A = Total area of plume (feet^2) = 20,000 ft^2

n = Porosity = 0.30

Cf = Correction factor for soil type (0.50 for sand)

Based on the above assumptions the free product contaminant mass was estimated at approximately 57,470 lbs.

4.3 GROUNDWATER ASSESSMENT RESULTS

Groundwater samples were collected from 8 previously installed monitoring wells [2 shallow (55 ft bls) and 6 deep (130 feet bls)] and 11 newly installed monitoring wells [8 shallow (45 to 56 feet bls) and 3 deep (130 to 133 feet bls)]. The results of the groundwater sample analyses are summarized in Table 4-3, and the analytical results for the shallow, intermediate and deep groundwater flow zones are illustrated on Figures 4-5, 4-6, and 4-7; respectively. The validated laboratory analytical data is included in Appendix C.

4.3.1 Existing Monitoring Well Groundwater Resampling Results

Six existing monitoring wells (OLFS-2406-DMW13, -MW28, MW29, -MW32D, -MW34D, and –MW37D) were sampled for specific parameters based on the results reported in the SARA No.1 (TtNUS, 2003).

Intermediate monitoring wells OLFS-2406-MW28D and OLFS-2406-MW34D were re-sampled for lead only. Lead was not detected above instrument detection limits in either of the groundwater samples. Analytical results from the previous sampling event January 7, 2003 and March 10, 2003, respectively indicated lead [17.9 micrograms per liter (µg/L) and 69.5 µg/L, respectively] was present in the groundwater samples at concentrations above the FDEP GCTL of 15 µg/L. The previously detected lead concentrations were not confirmed by this resampling event.

Intermediate monitoring well OLFS-2406-MW29D was re-sampled for VOCs only. Three VOCs: benzene, chloroform, and 1,2-diochloroethane were detected in the groundwater sample from monitoring well OLFS-2406-MW29D. Both the detected concentrations of benzene and 1,2-diochloroethane were detected at a concentrations (308 µg/L and 5.1 µg/L, respectively) that exceeded the FDEP GCTLs. The FDEP GCLT for benzene is 1 µg/L and for 1,2-diochloroethane is 3 µg/L . The previous sampling event in

TABLE 4-3
SUMMARY OF CONTAMINANTS DETECTED IN GROUNDWATER
UST SITE 2406

SITE ASSESSMENT REPORT ADDENDUM NO. 2
OUTLYING LANDING FIELD SAUFLEY
PENSACOLA, FLORIDA

		Shallow Monitoring Wells				
Sample No.		OLFS-2406-MW38	OLFS-2406-MW39	OLFS-2406-MW40	OLFS-2406-MW41	OLFS-2406-MW42S
Sample Location		OLFS-2406-MW38	OLFS-2406-MW39	OLFS-2406-MW40	OLFS-2406-MW41	OLFS-2406-MW42S
Collect Date		7/31/2004	7/30/2004	7/30/2004	7/31/2004	7/28/2004
Sample Depth (ft bls)		38.5 - 55.5	39 - 56	39 - 56	38.5 - 55.5	39 - 56
	GCTL[1] (µg/L)					
VOCs [2] (µg/L)						
Methylene Chloride	5	--	--	--	--	--
Toluene	**40**	3.8	2.7	--	**368**	--
Ethylbenzene	**30**	1.3	0.58J	--	**30.5**	--
Total Xylenes	**20**	1.5J	--	--	**88.6**	--
Acetone	6300	--	--	--	--	--
Methyl tert-butyl ether	20	--	--	--	--	--
Benzene	**1**	--	--	--	**439**	--
1,2-DCA	70	--	--	--	--	--
Chloroform	**3**	--	0.54J	0.71J	--	0.62J
PAHs [3] (µg/L)						
Naphthalene	140	--	--	--	0.46J	Not Analyzed
TRPH [4] (mg/L)	5	0.314	1.01	--	1.02	Not Analyzed
Metals [5] (µg/L)						
Lead	15	--	--	--	--	--

See notes at end of table

TABLE 4-3
SUMMARY OF CONTAMINANTS DETECTED IN GROUNDWATER
UST SITE 2406

SITE ASSESSMENT REPORT ADDENDUM NO. 2
OUTLYING LANDING FIELD SAUFLEY
PENSACOLA, FLORIDA

		Shallow Monitoring Wells				
Sample No.		OLFS-2406-MW43S	OLFS-2406-MW44S	OLFS-2406-MW45	OLFS-2406-MW46	OLFS-2406-MW47
Sample Location		OLFS-2406-MW43S	OLFS-2406-MW44S	OLFS-2406-MW45	OLFS-2406-MW46	OLFS-2406-MW47
Collect Date		7/29/2004	7/28/2004	7/30/2004	3/4/2005	3/4/2005
Sample Depth (ft bls)		36 - 51	39 - 56	29.5 - 44.5	40.5 - 50.5	40.5 - 50.5
	GCTL[1] (µg/L)					
VOCs [2] (µg/L)						
Methylene Chloride	5	--	--	--	--	--
Toluene	**40**	--	--	--	0.58 J	0.35 J
Ethylbenzene	**30**	--	--	--	--	--
Total Xylenes	**20**	--	--	--	--	--
Acetone	6300	--	--	--	7.1	4.3 J
Methyl tert-butyl ether	20	--	--	--	--	0.35 J
Benzene	**1**	--	--	--	--	--
1,2-DCA	70	--	--	--	--	--
Chloroform	**3**	--	0.65J	--	--	--
PAHs [3] (µg/L)		Not Analyzed	Not Analyzed			
Naphthalene	140			--	--	--
TRPH [4] (mg/L)	5	Not Analyzed	Not Analyzed	--	--	--
Metals [5] (µg/L)						
Lead	15	--	--	--	--	--

See notes at end of table

TABLE 4-3
SUMMARY OF CONTAMINANTS DETECTED IN GROUNDWATER
UST SITE 2406

SITE ASSESSMENT REPORT ADDENDUM NO. 2
OUTLYING LANDING FIELD SAUFLEY
PENSACOLA, FLORIDA

		Intermediate Monitoring Wells			Deep Monitoring Wells	
Sample No.		OLFS-2406-MW28	OLFS-2406-MW29	OLFS-2406-MW34D	OLFS-2406-DMW13	OLFS-2406-DMW32
Sample Location		OLFS-2406-MW28D*	OLFS-2406-MW29D*	OLFS-2406-MW34D*	OLFS-2406-MW13D*	OLFS-2406-MW32D*
Collect Date		7/30/2004	7/26/2004	7/30/2004	7/31/2004	7/31/2004
Sample Depth (ft bls)		64.5 - 79.5	64.5 - 79.5	62.5 - 76.5	137 - 142	130.2 - 135.2
	GCTL[1] (µg/L)					
VOCs [2] (µg/L)		Not Analyzed		Not Analyzed		
Methylene Chloride	5		--		--	1.1
Toluene	**40**		--		--	--
Ethylbenzene	**30**		--		--	--
Total Xylenes	**20**		1.7J		--	--
Acetone	6300	--	--	--	--	--
Methyl tert-butyl ether	20	--	--	--	--	--
Benzene	**1**		**308**		--	--
1,2-DCA	70		**5.1**		--	--
Chloroform	**3**		--		--	--
PAHs [3] (µg/L)		Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed
Naphthalene	140					
TRPH [4] (mg/L)	5	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed
Metals [5] (µg/L)						
Lead	15	--	Not Analyzed	--	--	--

See notes at end of table

TABLE 4-3
SUMMARY OF CONTAMINANTS DETECTED IN GROUNDWATER
UST SITE 2406

SITE ASSESSMENT REPORT ADDENDUM NO. 2
OUTLYING LANDING FIELD SAUFLEY
PENSACOLA, FLORIDA

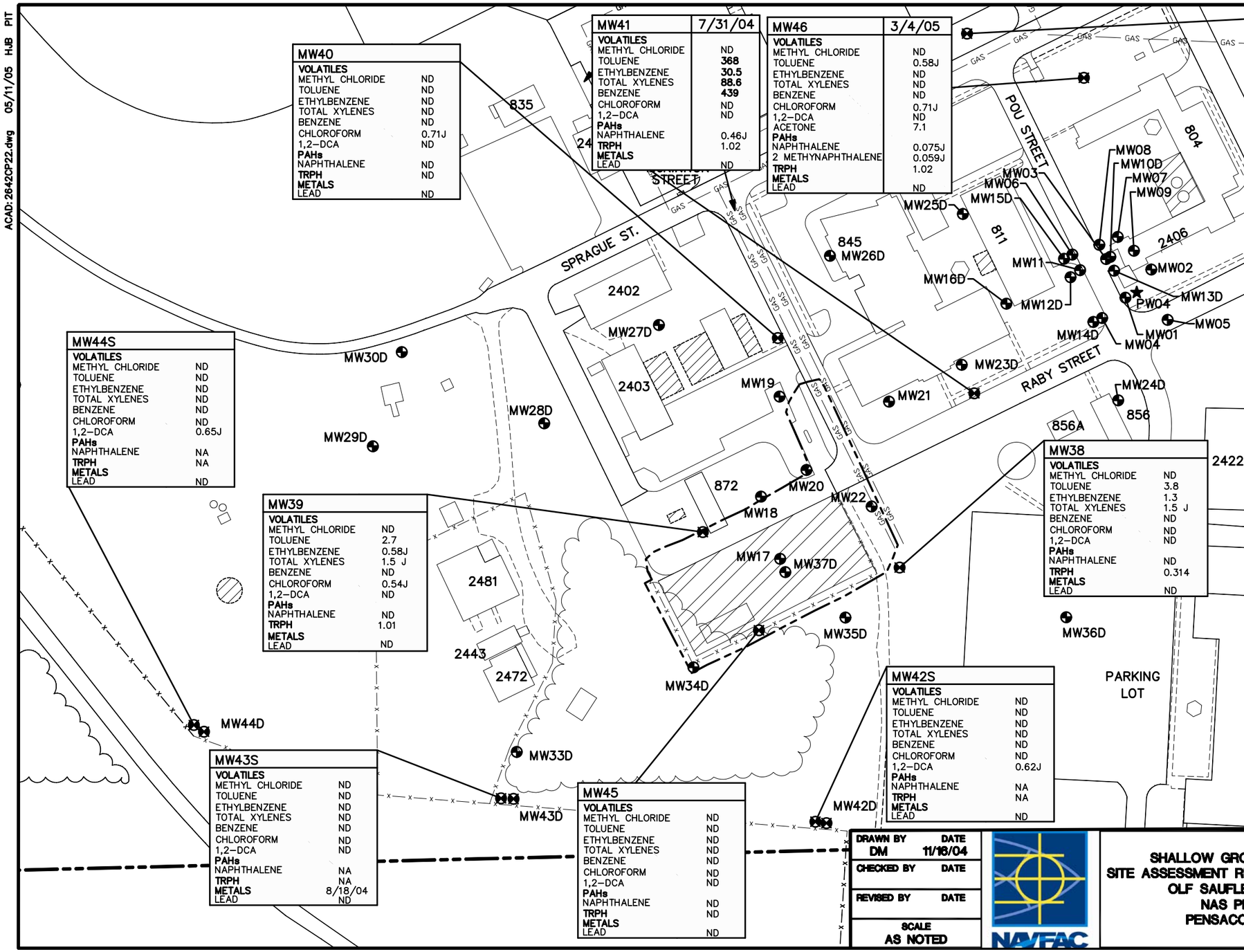
		Deep Monitoring Wells			
Sample No.		OLFS-2406-DMW37	OLFS-2406-MW42D	OLFS-2406-MW43D	OLFS-2406-MW44D
Sample Location		OLFS-2406-MW37D*	OLFS-2406-MW42D	OLFS-2406-MW43D	OLFS-2406-MW44D
Collect Date		7/31/2004	7/28/2004	7/28/2004	7/29/2004
Sample Depth (ft bls)		130.3 - 135.3	124.5 - 129.5	127.5 - 132.5	124.5 - 129.5
	GCTL[1] (µg/L)				
VOCs [2] (µg/L)					
Methylene Chloride	5	1.3	--	--	--
Toluene	**40**	0.71J	0.51J	0.53J	--
Ethylbenzene	**30**	--	--	--	--
Total Xylenes	**20**	--	--	--	--
Acetone	6300	--	--	--	--
Methyl tert-butyl ether	20	--	--	--	--
Benzene	**1**	--	--	--	--
Chloroform	70	--	--	--	--
1,2-DCA	**3**	--	--	1.6	--
PAHs [3] (µg/L)					
Naphthalene	140	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed
TRPH [4] (mg/L)	5	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed
Metals [5] (µg/L)					
Lead	15	--	--	--	--

[1] Groundwater Cleanup Target Level as provided in Chapter 62-777, F.A.C.
[2] VOCs = Volatile Organic Compounds (SW-846 8260B)
[3] PAHs = Polynuclear aromatic hydrocarbons (SW-846 8310)
[4] TRPH = Total Recoverable Petroleum Hydrocarbons (FDEP FL-PRO)
[5] SW-846 6010B

No analytes were detected above instrument detection limits on quality control samples collected on July 31, 2004
The trip blank collected on 3/4/05 contained chloroform (estimated 0.52 ug/l) and chloromethane (estimated 0.78 ug/l) at concentrations less than method detection limits

Notes: * = monitoring well was re-sampled based on analytical results reported in the SARA
Bold indicates an exceedance of limits.
µg/L = micrograms per liter
J = Compound was detected at an estimated concentration
F.A.C. = Florida Administrative Code
FL-PRO = Florida Petroleum Range Organics
ft bls = feet below land surface
-- = Analyte not detected above the instrument detection limit
mg/L = milligrams per liter
FDEP = Florida Department of Environmental Protection

ACAD:2642CP22.dwg 05/11/05 HJB PIT



MW40	
VOLATILES	
METHYL CHLORIDE	ND
TOLUENE	ND
ETHYLBENZENE	ND
TOTAL XYLENES	ND
BENZENE	ND
CHLOROFORM	0.71J
1,2–DCA	ND
PAHs	
NAPHTHALENE	ND
TRPH	ND
METALS	
LEAD	ND

MW41	7/31/04
VOLATILES	
METHYL CHLORIDE	ND
TOLUENE	**368**
ETHYLBENZENE	**30.5**
TOTAL XYLENES	**88.6**
BENZENE	**439**
CHLOROFORM	ND
1,2–DCA	ND
PAHs	
NAPHTHALENE	0.46J
TRPH	1.02
METALS	
LEAD	ND

MW46	3/4/05
VOLATILES	
METHYL CHLORIDE	ND
TOLUENE	0.58J
ETHYLBENZENE	ND
TOTAL XYLENES	ND
BENZENE	ND
CHLOROFORM	0.71J
1,2–DCA	ND
ACETONE	7.1
PAHs	
NAPHTHALENE	0.075J
2 METHYNAPHTHALENE	0.059J
TRPH	1.02
METALS	
LEAD	ND

MW47	3/4/05
VOLATILES	
METHYL CHLORIDE	ND
TOLUENE	**0.35J**
ETHYLBENZENE	**ND**
TOTAL XYLENES	**ND**
BENZENE	**ND**
CHLOROFORM	ND
1,2–DCA	ND
ACETONE	4.3J
MTBE	0.35J
PAHs	
NAPHTHALENE	NA
TRPH	NA
METALS	**8/18/04**
LEAD	ND

MW44S	
VOLATILES	
METHYL CHLORIDE	ND
TOLUENE	ND
ETHYLBENZENE	ND
TOTAL XYLENES	ND
BENZENE	ND
CHLOROFORM	ND
1,2–DCA	0.65J
PAHs	
NAPHTHALENE	NA
TRPH	NA
METALS	
LEAD	ND

MW39	
VOLATILES	
METHYL CHLORIDE	ND
TOLUENE	2.7
ETHYLBENZENE	0.58J
TOTAL XYLENES	1.5 J
BENZENE	ND
CHLOROFORM	0.54J
1,2–DCA	ND
PAHs	
NAPHTHALENE	ND
TRPH	1.01
METALS	
LEAD	ND

MW38	
VOLATILES	
METHYL CHLORIDE	ND
TOLUENE	3.8
ETHYLBENZENE	1.3
TOTAL XYLENES	1.5 J
BENZENE	ND
CHLOROFORM	ND
1,2–DCA	ND
PAHs	
NAPHTHALENE	ND
TRPH	0.314
METALS	
LEAD	ND

MW42S	
VOLATILES	
METHYL CHLORIDE	ND
TOLUENE	ND
ETHYLBENZENE	ND
TOTAL XYLENES	ND
BENZENE	ND
CHLOROFORM	ND
1,2–DCA	0.62J
PAHs	
NAPHTHALENE	NA
TRPH	NA
METALS	
LEAD	ND

MW43S	
VOLATILES	
METHYL CHLORIDE	ND
TOLUENE	ND
ETHYLBENZENE	ND
TOTAL XYLENES	ND
BENZENE	ND
CHLOROFORM	ND
1,2–DCA	ND
PAHs	
NAPHTHALENE	NA
TRPH	NA
METALS	8/18/04
LEAD	ND

MW45	
VOLATILES	
METHYL CHLORIDE	ND
TOLUENE	ND
ETHYLBENZENE	ND
TOTAL XYLENES	ND
BENZENE	ND
CHLOROFORM	ND
1,2–DCA	ND
PAHs	
NAPHTHALENE	ND
TRPH	ND
METALS	
LEAD	ND

LEGEND:

MW33D	EXISTING MONITORING WELL LOCATION
MW43S	NEW MONITORING WELL LOCATION
PW04	POTABLE WATER WELL LOCATION & DESIGNATION
J	ESTIMATED CONCENTRATIONS
ND	NOT DETECTED
NA	NOT ANALYZED

NOTES:

1. GROUNDWATER CLEANUP TARGET LEVEL

VOLATILES	GCTL
METHYL CHLORIDE	5
TOLUENE	40
ETHYLBENZENE	30
TOTAL XYLENES	20
BENZENE	1
CHLOROFORM	5.7
1,2–DCA	3
PAHs	
NAPHTHALENE	20
TRPH	5
METALS	
LEAD	15

2. ALL CONCENTRATIONS REPORTED IN MICROGRAMS/LITER (ug/L) EXCEPT TRPH WHICH IS MEASURED IN MILLIGRAMS/LITER (mg/L)
3. EXCEEDANCES ARE IN BOLD
4. ALL WELL I.D.'S ARE PRECEDED BY OLFS–2406–

0 100 200
GRAPHIC SCALE IN FEET

DRAWN BY	DATE
DM	11/16/04
CHECKED BY	DATE
REVISED BY	DATE
SCALE	
AS NOTED	

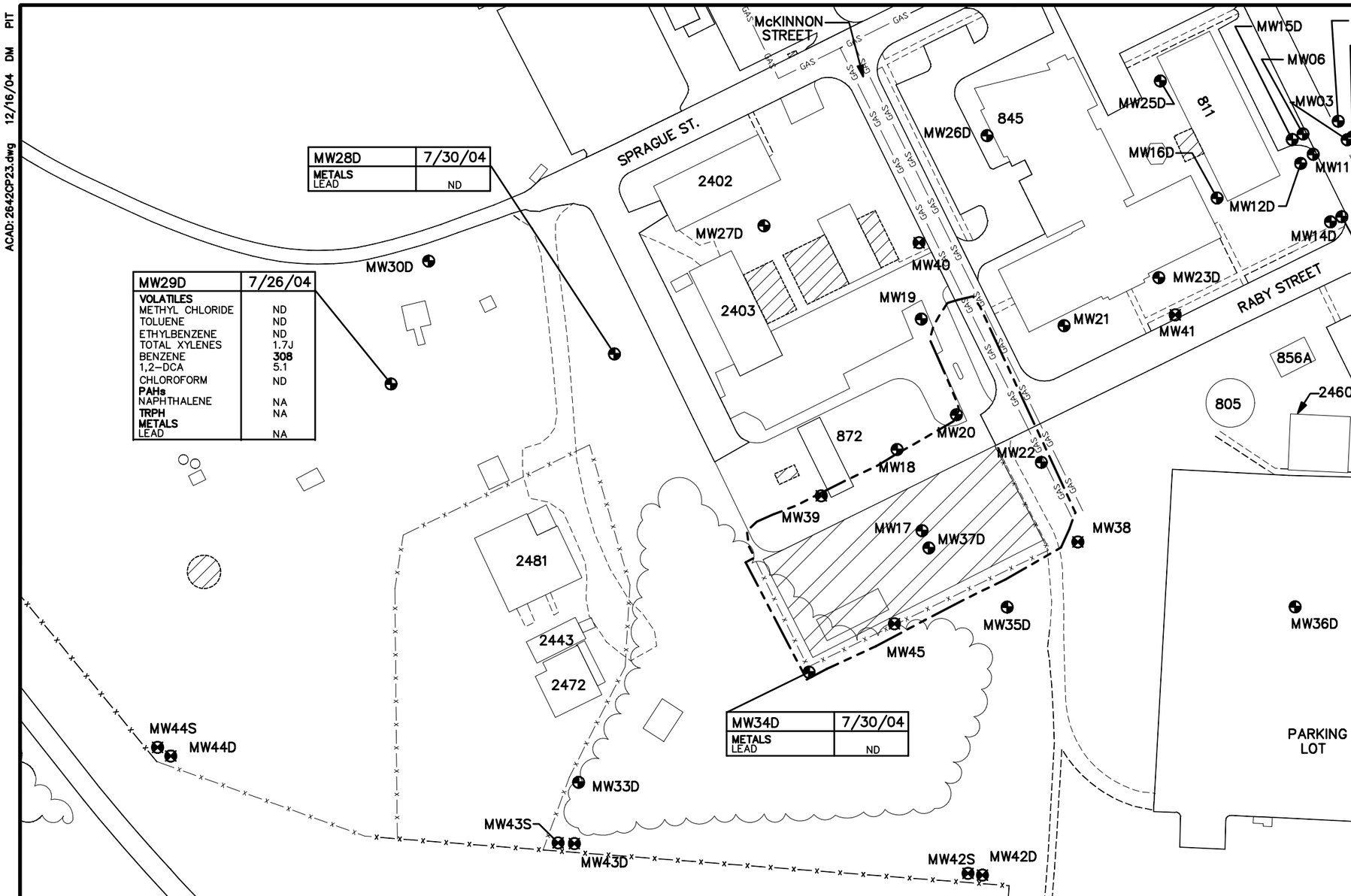
NAVFAC

SHALLOW GROUNDWATER DATA
SITE ASSESSMENT REPORT ADDENDUM NO. 2
OLF SAUFLEY - SITE 2406
NAS PENSACOLA
PENSACOLA, FLORIDA

CONTRACT NO.	
2642	
OWNER NO.	
0000	
APPROVED BY	DATE
DRAWING NO.	REV.
FIGURE 4-5	0

FORM CADD NO. SDIV-BH.DWG - REV 1 - 9/10/98

ACAD: 2642CP23.dwg 12/16/04 DM PIT



MW28D	7/30/04
METALS	
LEAD	ND

MW29D	7/26/04
VOLATILES	
METHYL CHLORIDE	ND
TOLUENE	ND
ETHYLBENZENE	ND
TOTAL XYLENES	1.7J
BENZENE	**308**
1,2-DCA	5.1
CHLOROFORM	ND
PAHs	
NAPHTHALENE	NA
TRPH	NA
METALS	
LEAD	NA

MW34D	7/30/04
METALS	
LEAD	ND

LEGEND:

MW33D	EXISTING MONITORING WELL LOCATION
MW43S	NEW MONITORING WELL LOCATION
PW04	POTABLE WATER WELL LOCATION & DESIGNATION
J	ESTIMATED CONCENTRATIONS
ND	NOT DETECTED
NA	NOT ANALYZED

NOTES:

1. GROUNDWATER CLEANUP TARGET LEVEL

VOLATILES	GCTL
METHYL CHLORIDE	5
TOLUENE	40
ETHYLBENZENE	30
TOTAL XYLENES	20
BENZENE	1
CHLOROFORM	5.7
1,2-DCA	3
PAHs	
NAPHTHALENE	20
TRPH	5
METALS	
LEAD	15

2. ALL CONCENTRATIONS REPORTED IN MICROGRAMS/LITER (ug/L) EXCEPT TRPH WHICH IS MEASURED IN MILLIGRAMS/LITER (mg/L)
3. EXCEEDANCES ARE IN BOLD
4. ALL WELL I.D.'S ARE PRECEDED BY OLFS-2406-

0 100 200
GRAPHIC SCALE IN FEET

DRAWN BY DM	DATE 11/16/04	
CHECKED BY	DATE	
REVISED BY	DATE	
SCALE AS NOTED		

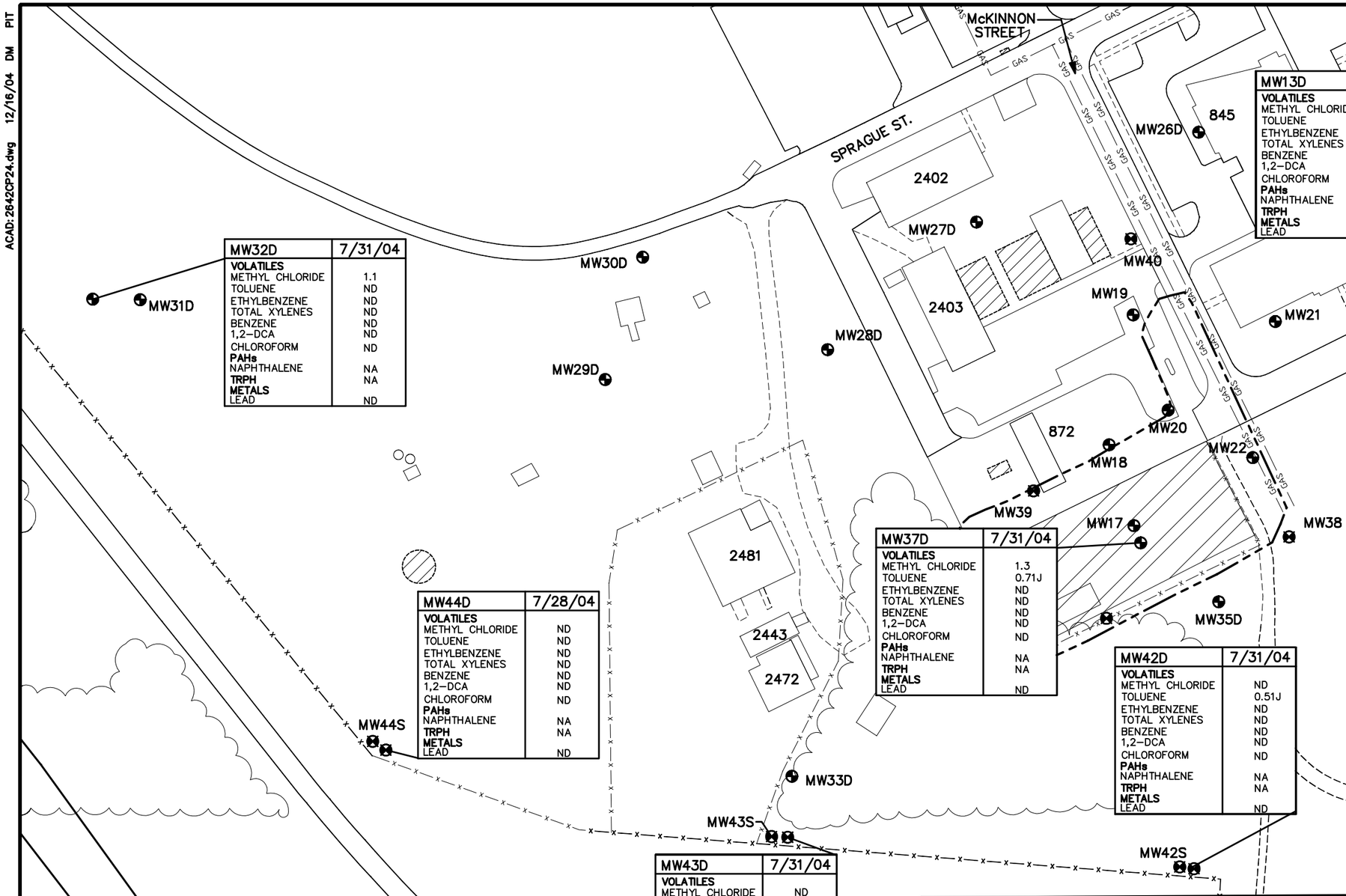
NAVFAC

INTERMEDIATE GROUNDWATER DATA
SITE ASSESSMENT REPORT ADDENDUM NO. 2
OLF SAUFLEY - SITE 2406
NAS PENSACOLA
PENSACOLA, FLORIDA

CONTRACT NO. 2642	
OWNER NO. 0000	
APPROVED BY	DATE
DRAWING NO. FIGURE 4-6	REV. 0

FORM CADD NO. SDIV-BH.DWG - REV 1 - 9/10/98

ACAD:2642CP24.dwg 12/16/04 DM PIT



MW32D	7/31/04
VOLATILES	
METHYL CHLORIDE	1.1
TOLUENE	ND
ETHYLBENZENE	ND
TOTAL XYLENES	ND
BENZENE	ND
1,2-DCA	ND
CHLOROFORM	ND
PAHs	
NAPHTHALENE	NA
TRPH	NA
METALS	
LEAD	ND

MW13D	7/31/04
VOLATILES	
METHYL CHLORIDE	ND
TOLUENE	ND
ETHYLBENZENE	ND
TOTAL XYLENES	ND
BENZENE	ND
1,2-DCA	ND
CHLOROFORM	ND
PAHs	
NAPHTHALENE	NA
TRPH	NA
METALS	
LEAD	ND

MW37D	7/31/04
VOLATILES	
METHYL CHLORIDE	1.3
TOLUENE	0.71J
ETHYLBENZENE	ND
TOTAL XYLENES	ND
BENZENE	ND
1,2-DCA	ND
CHLOROFORM	ND
PAHs	
NAPHTHALENE	NA
TRPH	NA
METALS	
LEAD	ND

MW44D	7/28/04
VOLATILES	
METHYL CHLORIDE	ND
TOLUENE	ND
ETHYLBENZENE	ND
TOTAL XYLENES	ND
BENZENE	ND
1,2-DCA	ND
CHLOROFORM	ND
PAHs	
NAPHTHALENE	NA
TRPH	NA
METALS	
LEAD	ND

MW42D	7/31/04
VOLATILES	
METHYL CHLORIDE	ND
TOLUENE	0.51J
ETHYLBENZENE	ND
TOTAL XYLENES	ND
BENZENE	ND
1,2-DCA	ND
CHLOROFORM	ND
PAHs	
NAPHTHALENE	NA
TRPH	NA
METALS	
LEAD	ND

MW43D	7/31/04
VOLATILES	
METHYL CHLORIDE	ND
TOLUENE	0.53J
ETHYLBENZENE	ND
TOTAL XYLENES	ND
BENZENE	ND
1,2-DCA	ND
CHLOROFORM	1.6
PAHs	
NAPHTHALENE	NA
TRPH	NA
METALS	
LEAD	ND

LEGEND:

MW33D	EXISTING MONITORING WELL LOCATION
MW43S	NEW MONITORING WELL LOCATION
PW04	POTABLE WATER WELL LOCATION & DESIGNATION
J	ESTIMATED CONCENTRATIONS
ND	NOT DETECTED
NA	NOT ANALYZED

NOTES:

1. GROUNDWATER CLEANUP TARGET LEVEL

VOLATILES	GCTL
METHYL CHLORIDE	5
TOLUENE	40
ETHYLBENZENE	30
TOTAL XYLENES	20
BENZENE	1
CHLOROFORM	5.7
1,2-DCA	3
PAHs	
NAPHTHALENE	20
TRPH	5
METALS	
LEAD	15

2. ALL CONCENTRATIONS REPORTED IN MICROGRAMS/LITER (ug/L) EXCEPT TRPH WHICH IS MEASURED IN MILLIGRAMS/LITER (mg/L)
3. EXCEEDANCES ARE IN BOLD
4. ALL WELL I.D.'S ARE PRECEDED BY OLFS-2406-

0 100 200
GRAPHIC SCALE IN FEET

DRAWN BY	DATE
DM	11/16/04
CHECKED BY	DATE
REVISED BY	DATE
SCALE	
AS NOTED	

NAVFAC

DEEP GROUNDWATER DATA
SITE ASSESSMENT REPORT ADDENDUM NO. 2
OLF SAUFLEY - SITE 2406
NAS PENSACOLA
PENSACOLA, FLORIDA

CONTRACT NO. 2642
OWNER NO. 0000
APPROVED BY DATE
DRAWING NO. FIGURE 4-7
REV. 0

FORM CADD NO. SDIV-BH.DWG - REV 1 - 9/10/98

January 2003 indicated 1,2-dibromoethene (0.048 µg/L), 1,2-dichloroethane (4.8 µg/L), and benzene (194 µg/L) were present in the groundwater samples at concentrations exceeding their respective FDEP GCTLs.

Deep monitoring wells OLFS-2406-MW13D, OLFS-2406-MW32D, and OLFS-2406-MW37D were re-sampled for VOCs and lead only. Lead was not detected in any of the three groundwater samples at concentrations above instrument detection limits and methylene chloride and toluene were the only VOCs detected. The detected concentrations of methylene chloride or toluene did not exceed the FDEP GCTLs.

4.3.2 Shallow Monitoring Well Groundwater Sample Results – New Wells

Seven VOCs including toluene, ethylbenzene, total xylene, acetone, methyl tert-burtyl ether, benzene, and chloroform were detected in the shallow groundwater samples from the newly installed monitoring wells. The groundwater sample OLFS-2406-MW41 was the only sample to contain VOC concentrations exceeding the FDEP GCTLs. Detected concentrations of toluene (368 µg/L), ethylbenzene (30.5 µg/L), total xylene (88.6 µg/L), and benzene (439 µg/L) exceeded the FDEP GCTLs of 40 µg/L, 30 µg/L, 20 µg/L, and 1 µg/L, respectively. Detected concentrations exceeding the instrument detection limits of toluene, ethylbenzene, acetone, total xylene, and chloroform were detected in groundwater samples from the remaining shallow monitoring wells; however, none of the detected concentrations exceeded the FDEP GCTLs.

The only PAH reported in the shallow monitoring well groundwater samples was naphthalene detected in sample OLFS-2406-MW41 at an estimated concentration of 0.46 µg/L. The FDEP GCTL for naphthalene is 140 µg/L. TRPH was detected in the three groundwater samples from shallow monitoring wells including: OLFS-2406-MW38, OLFS-2406-MW39, and OLFS-2406-MW41 at concentrations of 0.314 mg/L, 1.01 mg/L, and 1.02 mg/L, respectively. All of the detected concentrations were less than the FDEP GCTL of 5 mg/L. Lead was not detected in any of the shallow monitoring well groundwater samples.

4.3.3 Deep Monitoring Well Groundwater Samples – New Wells

Groundwater samples from deep monitoring wells were reported to contain elevated concentrations of two VOCs: toluene and chloroform. Analytical results for samples OLFS-2406-MW42D and OLFS-2406-MW43D contained toluene at estimated concentrations of 0.51µg/L and 0.53 µg/L, respectively. Both concentrations were less than the FDEP GCTL of 40 µg/L. Chloroform was also detected in the

groundwater sample from monitoring well OLFS-2406-MW43D at a concentration of 1.6 µg/L which is less than FDEP GCTL of 70 µg/L.

5.0 CONCLUSIONS AND RECOMMENDATION

The conclusions discussion below is separated into two groups, the first being conclusions of the first SARA completed in August 2003 (TtNUS 2003) and the second includes the additional conclusions as a result of this additional assessment.

Discussion and Conclusions SARA No. 1

The initial SARA identified three petroleum systems as potential sources of petroleum releases that may have resulted in the contamination detected in potable well PW04 before it was abandoned.

- Four fuel-oil USTs with a capacity of 7,800 gallons each are located in the vicinity of potable water supply well PW04, near the intersection of Raby Avenue and Pou Street. These fuel oil USTs are located upgradient of PW04 and were reportedly abandoned in place in November 1988. No documentation of a tank closure assessment for these tanks has been found. Two 20,000 gallon fuel oil ASTs are located above the abandoned USTs. These fuel oil tanks are temporarily out of service. (SDIV, 1998)

- Six 20,000 gallon USTs used to supply AVGAS or jet fuel to the flight line are located southwest of potable water supply well PW04, at the intersection of Raby Avenue and McKinnon Street. These AVGAS USTs are located downgradient of PW04. No documentation of a tank closure assessment for these tanks has been found. (SDIV, 1998)

- A 10-inch fuel line system, reportedly 2 miles long, was used to distribute the fuel to the flight line fuel hydrant system. The pipeline system appears to originate at a pump house adjacent to the six 20,000 gallon USTs. Three fuel pipelines exit the UST area and extend under Pou Street to the flight line. Approximately 20 segments of pipeline, with an unknown number of junctions and valves, connect the USTs to the fueling pits. Approximately 55 fueling pits were associated with this system are located on the flight line. Reportedly there are two additional tanks associated with this system located on the flight line. No documentation of a pipeline closure assessment for this system has been found. (SDIV, 1998)

The SARA investigation of the three areas led to the following conclusions:

- Petroleum contaminants above the FDEP SCTLs are present in the soil at 25 to 45 feet bls in the vicinity of the free product plume.

- Free-product is present covering an approximate area of 45,000 square feet in the vicinity of the former tank farm area and fuel distribution pipelines, near at the intersection of Raby Avenue and McKinnon Street.

- Dissolved petroleum contaminants above the FDEP GCTLs are present in the groundwater. The groundwater contamination is located from the water table (approximately 45 feet bls) to 130 feet bls, in an area that extends from 200 feet east of the free product plume to 500 feet southwest of the free product plume to 600 feet west of the free product plume.

- Exposure pathways of human receptors to subsurface soil are not complete; therefore, direct exposure to the subsurface soil is not possible.

- Exposure pathways of human receptors to groundwater via surface water or potable water supply wells are not complete; therefore, direct exposure to the groundwater is not possible.

Based upon the hydrogeological and chemical data presented in this SARA the source of contamination is most likely the intersection between the fuel supply line and the former tank farm, which is located in the free product plume and area of soil contamination. The groundwater contamination has moved in a downgradient direction, which is to be expected, but it is possible that dissolved contamination has also moved in an upgradient direction during past operation of the potable water well, PW04.

Conclusions SARA No. 2

- Three petroleum systems have been identified as possible sources of petroleum releases. The six 20,000 gallon USTs and junction with the buried 10-inch fuel fuel line have been concluded to be the most likely source of contamination based on the present free product plume location and area of soil contamination.

- An additional potential source area is the overall extent of the 10-inch fuel line system reportedly two-miles long used to distribute fuel to the flight line fuel hydrant system. This possible source area remains a concern; however, it is believed to be separate from the free product and groundwater contamination identified as the primary sources in this investigation. The fuel line and flightline fuel distribution system are currently being assessed as a separate investigation by the Navy.

- The results of the SARA No. 1 indicated petroleum constituents are present in the site soil (TtNUS, 2003). Based on OVA results at soil borings, the surface soil (0 to 4 feet bls) and shallow subsurface soil (4 to 25 feet bls) at the site are unaffected. OVA results did indicate "excessively

contaminated soil" was present in the 25 to 55 foot bls interval surrounding the former AVGAS tank area and the fuel transfer line pump house. Analytical results from the off-site fixed-base laboratory confirmed that benzene, toluene, ethylbenzene, total xylenes, and TRPH were present at concentrations above FDEP SCTLs within the area of "excessively contaminated soil". Due to the depth of contaminated soil, direct contact to the contamination is not a concern, however the contaminated soil remains a concern for leaching to groundwater.

- Based on the July 2004 data, free-product is present on site covering an approximate area of 20,000 square feet with an average thickness of 0.38 feet and an approximate free product contaminant mass of 57,470 lbs.

- Based on the groundwater assessment results reported in the SARA No. 1 in combination with the groundwater results from this re-sampling event (SARA No. 2), concentrations of petroleum related VOCs are present in on-site groundwater at concentrations exceeding the FDEP GCTLs. Monitoring well locations with FDEP GCTL exceedances include an area that extends from Building 845 (east of the former AVGAS tank area) to an open area approximately 300 feet northwest of the tank farm, to the southwestern edge of the wooded area located southwest of the former tank area. Analytical results indicate that benzene, toluene, ethylbenzene, total xylenes, and 1,2-dichloroethane are present in the groundwater above FDEP GCTLs. No PAHs were detected at concentrations exceeding FDEP GCTLs. The extent of dissolved groundwater contamination has been delineated within the facility boundaries.

- Elevated lead concentrations reported during the SARA No. 1 were not confirmed by resampling of the same monitoring wells during this additional assessment. Therefore lead is not a concern in additional assessment and remediation of the site.

In accordance with the conclusions in the SARA No. 1 and in this SARA No. 2, TtNUS recommends that a RAP be completed to address the free product and contaminated soils and groundwater at UST Site 2406, OLF Saufley. In addition to the proposed RAP, immediate recovery of free product should be initiated as per Chapter 62-770 F.A.C. Further the evaluation and proper closure, if required, of the fuel oil USTs, the flight line AVGAS USTs, and the buried 10-inch fuel distribution pipeline system should be conducted. An additional assessment of these potential source areas is currently being competed by the Navy.

REFERENCES

FDEP (Florida Department of Environmental Protection), 1998. Memorandum from David P. Grabka, FDEP to John Michell, FDEP on Site Assessment Report (SAR), March 3, 1998, Site 2406, Saufley Field Naval Education and Training Professional Development and Technical Center, Pensacola, Florida, DEP# 178628753, April 1, 1998.

FDEP, 2003. Letter from Tracie Vaught to Byas Glover, Southern Division, Naval Facilities Engineering Command, Review Comments on Site Assessment Report Addendum for UST Site 2406, Saufley Field, Pensacola Florida, October 23, 2003.

SDIV (Southern Division, Naval Facilities Engineering Command), 1998. Site Assessment Report Saufley field Site 2406 Naval Education and Training Professional Development and Technical Center Pensacola, Florida.

TtNUS (Tetra Tech NUS, Inc.), 2003. Site Assessment Addendum for Underground Storage Tank Site 2406 Outlying Landing Field Saufley, Naval Education and Training Professional Development and Technical Center, Naval Air Station Pensacola, Pensacola Florida, August.

APPENDIX A

FDEP SITE ASSESSMENT REPORT ADDENDUM NO.1 COMMENTS LETTER

TtNUS/TAL-01-004/0231-4.3

August 6, 2004

Project Number 2642

Tracie Vaught, P.G.
Remedial Project Manager
Technical Review/Federal Facilities
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Reference: CLEAN Contract No. N62467-94-D-0888
Contract Task Order No. 0274

Subject: Response to the Florida Department of Envirnmental Protection's (FDEP) Comments on the Site Assessment Report Addendum (SARA) for Underground Storage Tank (UST) Site 2406 Outlying Landing Field (OLF) Saufley, Naval Education and Training Professional Development and Technical Development and Technical Center (NETPDTC), Naval Air Station (NAS) Pensacola, Pensacola, Florida,

Ms. Vaught:

Tetra Tech NUS, Inc. (TtNUS) is pleased to submit a response to FDEP's comments on the (SARA) for UST Site 2406 located at OLF Saufley, NETPDTC, NAS Pensacola, Pensacola, Florida. This response has been prepared for the U.S. Navy Southern Division Naval Facilities Engineering Command (SOUTHDIVENGCOM) under Contract Task Order 274, for the Comprehensive Long-term Environmental Action Navy (CLEAN) Contract Number N62467-94-D-0888.

The purpose of the response is to address comments on the SARA from FDEP dated October 23, 2003. A copy of the comments is included in Attachment A.

RESPONSE TO COMMENTS

1. ***Figure 3-4:*** *The groundwater flow direction is not contoured correctly, the northern part of the site depicts that the groundwater data shows that it flows in a northeast direction and OLFS-2406-DMW33 is not contoured correctly, please correct.*

Figure 3-4 The Intermediate Groundwater Flow Map will be corrected. The contours for groundwater flow in the northern part of the site will be revised to reflect groundwater flow in a northeast direction. Groundwater elevation data from intermediate monitoring well OLFS-2406-DMW33 was not included in the groundwater flow analysis. The groundwater elevation at this location was determined to be an outlier or anomaly with regards to the rest of the groundwater elevation data collected from the south and southwestern part of the site. The groundwater elevation data for OLFS-2406-DMW33 will be footnoted as not included in the flow interpetation.

2. ***Figure 3-5:*** *The locations chosen for monitoring wells for groundwater elevations are linear and do not provide adequate data to contur the groundwater at this depth. Please increase the number of elevations collected from the deep monitoring wells prior to submitting this figure in future documents. Also, the groundwater elevation was not included for OLFS-2406-DMW13 in this figure.*

Because only three deep monitoring wells exists at the site, a three-point calculation was employed in order to determine the deep groundwater flow at the site. The figure will be revised to include the groundwater elevation for OLFS-2406-DMW13.

3. ***Figure 4-5:*** *Sample point OLFS2406SB19 has contamination and is not included as a part of the "concentration isopleth – 1.2" or plume boundary, please correct.*

Figure 4-5 will be revised to include sample OLFS2406SB19 within the plume boundary as depicted by the "concentration isopleth – 1.2". Additionally, "concentration isopleth -1.2" in the legend will be revised to read "Benzene – 1.0".

4. ***Figure 4-6:*** *Vertical and horizontal contamination found in the southwestern boundary of the intermediate aquifer is not delineated per the information presented in this figure. Either present data that shows the plume has been vertically and horizontally delineated or install monitoring wells to address this situation.*

5. ***Sections 4, 5, and 6:*** *Vertical and horizontal contamination found in the southwestern boundary of the intermediate aquifer is not delineated. This situation needs to be addressed and discussed in these sections.*

Sincerely,

Terry Hansen, P.G.
Florida Professional Geologist No. 234
Tetra Tech NUS, Inc.

Cc : Greg Campbell, NAS Pensacola
Byas Glover, SOUTHNAVFACENGCOM

ATTACHMENT A

FDEP Comment Letter

ATTACHMENT B

Figures

APPENDIX B

SITE ASSESSMENT REPORT ADDENDUM NO.2 FIELD DATA

Tetra Tech NUS, Inc.

EQUIPMENT CALIBRATION LOG

PROJECT NAME : SAR @ OLF Saufley

INSTRUMENT NAME/MODEL: MicroFid I/S

SITE NAME: 2406

MANUFACTURER: Perkin Elmer

PROJECT No.: N2642

SERIAL NUMBER: 5706

Date of Calibration	Instrument I.D. Number	Person Performing Calibration	Instrument Settings		Instrument Readings		Calibration Standard (Lot No.)	Remarks and Comments
			Pre-calibration	Post-calibration	Pre-calibration	Post-calibration		
7/7/2004	05706	H. Engle			0	0		Zero Gas Initial Calibration
					553	101		100 ppm CH4 span gas Initial Cal.
						0		Zero Gas Cont. Cal.
						100		100 ppm CH4 span gas Cont. Cal.
7/8/2004	05706	H. Engle			0	0		Zero Gas Initial Calibration
					328	100		100 ppm CH4 span gas Initial Cal.
						0		Zero Gas Cont. Cal.
						102		100 ppm CH4 span gas Cont. Cal.
7/9/2004	05706	H. Engle			0	0		Zero Gas Initial Calibration
					125	101		100 ppm CH4 span gas Initial Cal.
						0		Zero Gas Cont. Cal.
						101		100 ppm CH4 span gas Cont. Cal.
7/10/2004	05706	H. Engle			0	0		Zero Gas Initial Calibration
					138	100		100 ppm CH4 span gas Initial Cal.
						0		Zero Gas Cont. Cal.
						100		100 ppm CH4 span gas Cont. Cal.
7/11/2004	05706	H. Engle			0	0		Zero Gas Initial Calibration
					115	102		100 ppm CH4 span gas Initial Cal.
						0		Zero Gas Cont. Cal.
						100		100 ppm CH4 span gas Cont. Cal.
7/12/2004	05706	H. Engle			0	0		Zero Gas Initial Calibration
					145	103		100 ppm CH4 span gas Initial Cal.
						0		Zero Gas Cont. Cal.
						101		100 ppm CH4 span gas Cont. Cal.
7/13/2004	05706	H. Engle			0	0		Zero Gas Initial Calibration
					178	100		100 ppm CH4 span gas Initial Cal.
						0		Zero Gas Cont. Cal.
						101		100 ppm CH4 span gas Cont. Cal.
7/14/2004	05706	H. Engle			0	0		Zero Gas Initial Calibration
					255	101		100 ppm CH4 span gas Initial Cal.
						0		Zero Gas Cont. Cal.
						100		100 ppm CH4 span gas Cont. Cal.

Tetra Tech NUS, Inc.

EQUIPMENT CALIBRATION LOG

PROJECT NAME : SAR/RAP @ OLF Saufley

SITE NAME: 2406

PROJECT No.: 2642

INSTRUMENT NAME/MODEL: LaMotte 2020

MANUFACTURER: LaMotte

SERIAL NUMBER: 3291-2202

Date of Calibration	Instrument I.D. Number	Person Performing Calibration	Instrument Settings		Instrument Readings		Calibration Standard (Lot No.)	Remarks and Comments
			Pre-calibration	Post-calibration	Pre-calibration	Post-calibration		
8/18/2004		H. Engle			1.29	0.81		1.0 Std
					9.34	10		10.0 Std

Tetra Tech NUS, Inc.

DAILY ACTIVITIES RECORD

PROJECT NAME:	SARA at Site 2406	**PROJECT NUMBER:**	N2642
CLIENT:	NAS Pensacola	**LOCATION:**	OLF Saufley
DATE:	7-Jul-04	**ARRIVAL TIME:**	730
Tt NUS PERSONNEL:	Larry Smith; Howard Engle	**DEPARTURE TIME:**	1800
CONTRACTOR:	Prosonic Corporation	**DRILLER:**	Jeff Cummings

ITEM	QUANTITY ESTIMATE	QUANTITY TODAY	PREVIOUS TOTAL QUANTITY	CUMULATIVE QUANTITY TO DATE
Well Installation - 2"x55'	55	56	0	56
Well Installation - 2"x130'	0	0	0	0
8" M/H w/ 2' pad	N/A	0	0	0
Decon (hours)	1	1	0	1
Development	0	0	0	0
Standby	N/A	0	0	0
Permits	1	1	0	1
Waste Management	N/A	0	0	0
2" PVC Screen (feet)	15	15	0	15
2" PVC Riser (feet)	35	41	0	41
20-30 Sand Pack (bags)	N/A	9	0	9
Bentonite (bags)	N/A	1	0	1
Grout (bags)	N/A	4	0	4

COMMENTS:

APPROVED BY:

TtNUS REPRESENTATIVE

SUBCONTRACTOR REPRESENTATIVE

DATE:

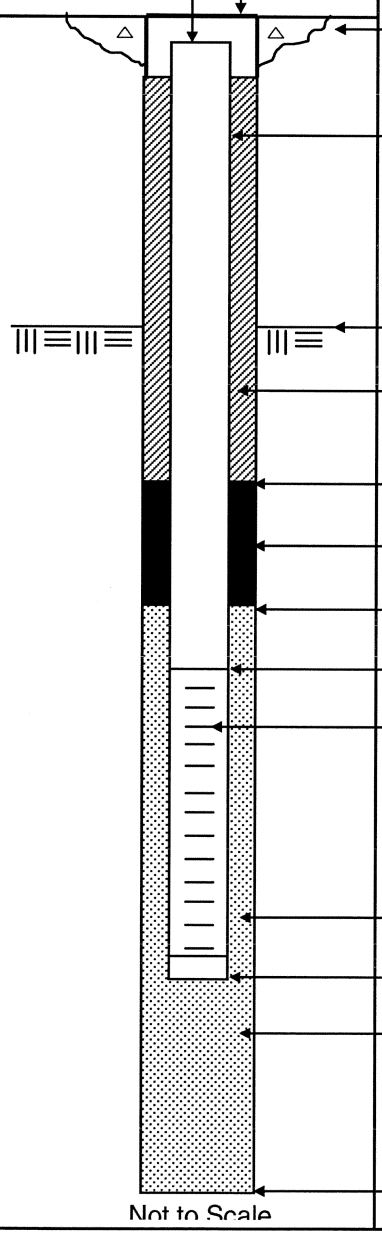
Tetra Tech NUS, Inc.

WELL No.: OLFS-2406-MW38

MONITORING WELL SHEET

PROJECT:	SARA at OLF Saufley	DRILLING Co.:	Prosonic Corp.	BORING No.:	OLFS2406SB34
PROJECT No.:	N2642	DRILLER:	Jeff Cummings	DATE COMPLETED:	07/07/04
SITE:	2406	DRILLING METHOD:	Rotosonic	NORTHING:	
GEOLOGIST:	Larry Smith	DEV. METHOD:	Pump	EASTING:	

Ground Elevation =
Datum:



Elevation / Depth of Top of Riser: /

Elevation / Height of Top of Surface Casing: /

I.D. of Surface Casing: N/A

Type of Surface Casing: N/A

Type of Surface Seal: concrete pad

I.D. of Riser: 2 inches

Type of Riser: PVC

Borehole Diameter: 6 inches

Elevation / Depth Top of Rock: N/A / N/A

Type of Backfill: Type I Grout with 5% Bentonite

Elevation / Depth of Seal: / 33 feet

Type of Seal: Bentonite Hole Plug (chip)

Elevation / Depth of Top of Filter Pack: / 35 feet

Elevation / Depth of Top of Screen: / 39 feet

Type of Screen: PCV

Slot Size x Length: 0.001 x 15 feet

I.D. of Screen: 2 inches

Type of Filter Pack: 20-30 Quartz Sand

Elevation / Depth of Bottom of Screen: / 56 feet

Elevation / Depth of Bottom of Filter Pack: / 56 feet

Type of Backfill Below Well: N/A

Elevation / Total Depth of Borehole: / 56 feet

Tetra Tech NUS, Inc.

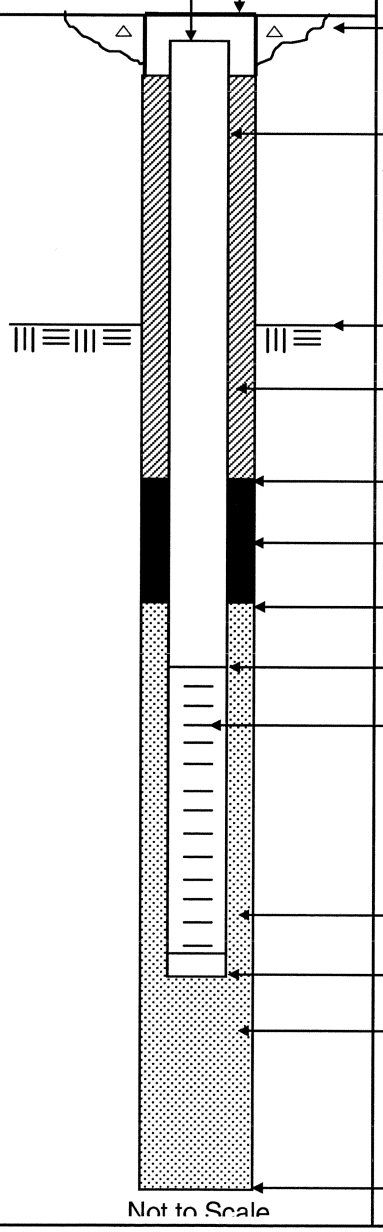
WELL No.: OLFS-2406-MW39

MONITORING WELL SHEET

PROJECT:	SARA at OLF Saufley	DRILLING Co.:	Prosonic Corp.	BORING No.:	OLFS240635
PROJECT No.:	N2642	DRILLER:	Jeff Cummings	DATE COMPLETED:	07/08/04
SITE:	2406	DRILLING METHOD:	Rotosonic	NORTHING:	
GEOLOGIST:	Larry Smith	DEV. METHOD:	Pump	EASTING:	

Ground Elevation =

Datum:



Elevation / Depth of Top of Riser: /

Elevation / Height of Top of Surface Casing: /

I.D. of Surface Casing: N/A

Type of Surface Casing: N/A

Type of Surface Seal: concrete pad

I.D. of Riser: 2 inches

Type of Riser: PVC

Borehole Diameter: 6 inches

Elevation / Depth Top of Rock: N/A / N/A

Type of Backfill: Type I Grout with 5% Bentonite

Elevation / Depth of Seal: / 33 feet

Type of Seal: Bentonite Hole Plug (chip)

Elevation / Depth of Top of Filter Pack: / 35 feet

Elevation / Depth of Top of Screen: / 39 feet

Type of Screen: PCV

Slot Size x Length: 0.001 x 15 feet

I.D. of Screen: 2 inches

Type of Filter Pack: 20-30 Quartz Sand

Elevation / Depth of Bottom of Screen: / 56 feet

Elevation / Depth of Bottom of Filter Pack: / 56 feet

Type of Backfill Below Well: N/A

Elevation / Total Depth of Borehole: / 56 feet

Tetra Tech NUS, Inc.

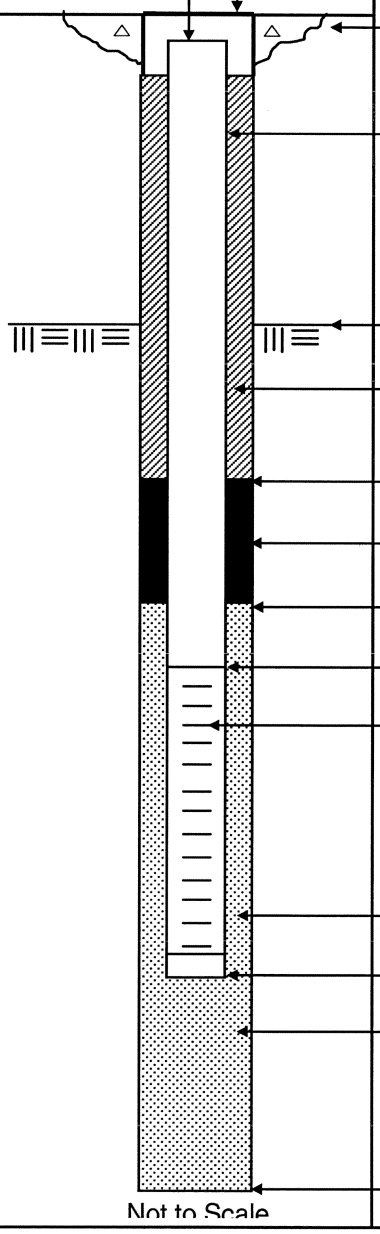
WELL No.: OLFS-2406-MW40S

MONITORING WELL SHEET

PROJECT:	SARA at OLF Saufley	DRILLING Co.:	Prosonic Corp.	BORING No.:	OLFS2406SB40
PROJECT No.:	N2642	DRILLER:	Jeff Cummings	DATE COMPLETED:	07/11/04
SITE:	2406	DRILLING METHOD:	Rotosonic	NORTHING:	
GEOLOGIST:	Larry Smith	DEV. METHOD:	Pump	EASTING:	

Ground Elevation =

Datum:



Elevation / Depth of Top of Riser: /

Elevation / Height of Top of Surface Casing: /

I.D. of Surface Casing: N/A

Type of Surface Casing: N/A

Type of Surface Seal: concrete pad

I.D. of Riser: 2 inches

Type of Riser: PVC

Borehole Diameter: 6 inches

Elevation / Depth Top of Rock: N/A / N/A

Type of Backfill: Type I Grout with 5% Bentonite

Elevation / Depth of Seal: / 34 feet

Type of Seal: Bentonite Hole Plug (chip)

Elevation / Depth of Top of Filter Pack: / 37 feet

Elevation / Depth of Top of Screen: / 41 feet

Type of Screen: PCV

Slot Size x Length: 0.001 x 15 feet

I.D. of Screen: 2 inches

Type of Filter Pack: 20-30 Quartz Sand

Elevation / Depth of Bottom of Screen: / 56 feet

Elevation / Depth of Bottom of Filter Pack: / 56 feet

Type of Backfill Below Well: N/A

Elevation / Total Depth of Borehole: / 56 feet

Tetra Tech NUS, Inc.

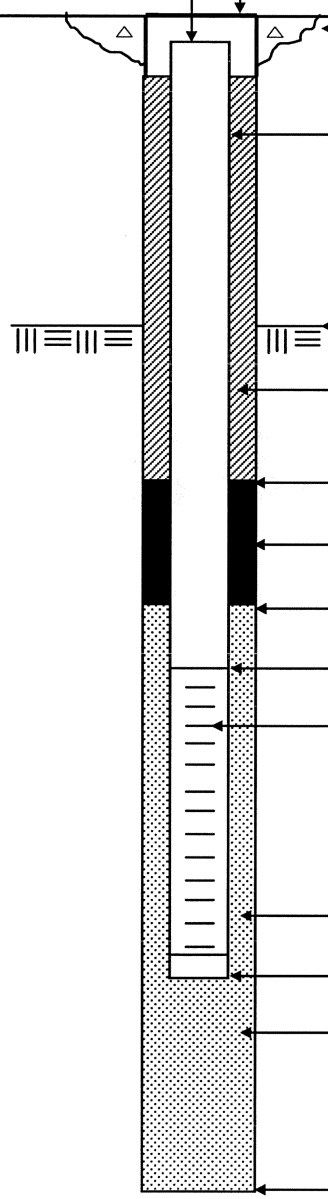
WELL No.: OLFS-2406-MW41S

MONITORING WELL SHEET

PROJECT:	SARA at OLF Saufley	DRILLING Co.:	Prosonic Corp.	BORING No.:	OLFS2406SB41
PROJECT No.:	N2642	DRILLER:	Jeff Cummings	DATE COMPLETED:	07/11/04
SITE:	2406	DRILLING METHOD:	Rotosonic	NORTHING:	
GEOLOGIST:	Larry Smith	DEV. METHOD:	Pump	EASTING:	

Ground Elevation =

Datum:



Not to Scale

Elevation / Depth of Top of Riser: /

Elevation / Height of Top of Surface Casing: /

I.D. of Surface Casing: N/A

Type of Surface Casing: N/A

Type of Surface Seal: concrete pad

I.D. of Riser: 2 inches

Type of Riser: PVC

Borehole Diameter: 6 inches

Elevation / Depth Top of Rock: N/A / N/A

Type of Backfill: Type I Grout with 5% Bentonite

Elevation / Depth of Seal: / 37 feet

Type of Seal: Bentonite Hole Plug (chip)

Elevation / Depth of Top of Filter Pack: / 40 feet

Elevation / Depth of Top of Screen: / 42 feet

Type of Screen: PCV

Slot Size x Length: 0.001 x 15 feet

I.D. of Screen: 2 inches

Type of Filter Pack: 20-30 Quartz Sand

Elevation / Depth of Bottom of Screen: / 57 feet

Elevation / Depth of Bottom of Filter Pack: / 57 feet

Type of Backfill Below Well: N/A

Elevation / Total Depth of Borehole: / 57 feet

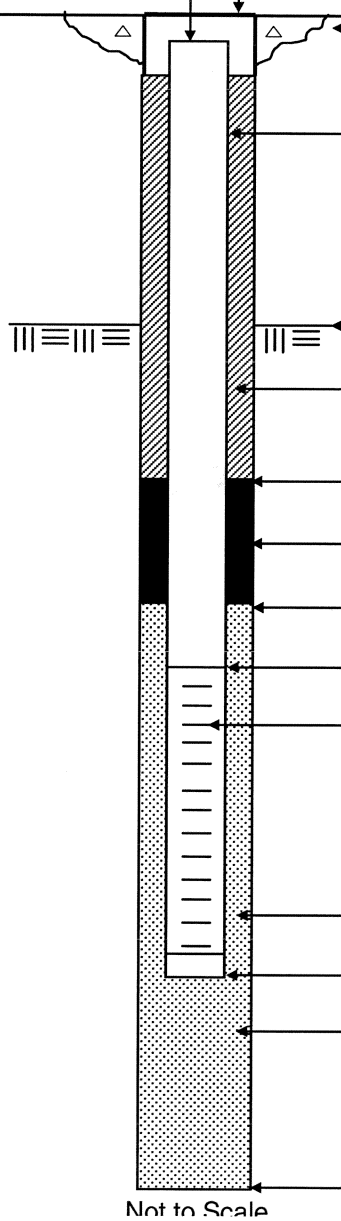
Tetra Tech NUS, Inc.

WELL No.: OLFS-2406-MW42D

MONITORING WELL SHEET

PROJECT:	SARA at OLF Saufley	DRILLING Co.:	Prosonic Corp.	BORING No.:	OLFS2406SB36
PROJECT No.:	N2642	DRILLER:	Jeff Cummings	DATE COMPLETED:	07/08/04
SITE:	2406	DRILLING METHOD:	Rotosonic	NORTHING:	
GEOLOGIST:	Larry Smith	DEV. METHOD:	Pump	EASTING:	

Ground Elevation =
Datum:



Elevation / Depth of Top of Riser: /

Elevation / Height of Top of Surface Casing: /

I.D. of Surface Casing: N/A

Type of Surface Casing: N/A

Type of Surface Seal: concrete pad

I.D. of Riser: 2 inches

Type of Riser: PVC

Borehole Diameter: 6 inches

Elevation / Depth Top of Rock: N/A / N/A

Type of Backfill: Type I Grout with 5% Bentonite

Elevation / Depth of Seal: / 118 feet

Type of Seal: Bentonite Hole Plug (chip)

Elevation / Depth of Top of Filter Pack: / 122 feet

Elevation / Depth of Top of Screen: / 125 feet

Type of Screen: PCV

Slot Size x Length: 0.001 x 5 feet

I.D. of Screen: 2 inches

Type of Filter Pack: 20-30 Quartz Sand

Elevation / Depth of Bottom of Screen: / 130 feet

Elevation / Depth of Bottom of Filter Pack: / 130 feet

Type of Backfill Below Well: N/A

Elevation / Total Depth of Borehole: / 130 feet

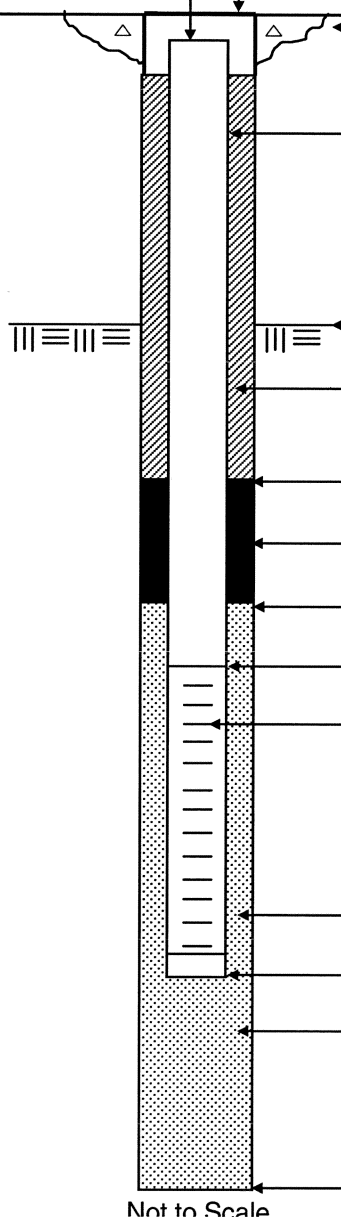
Tetra Tech NUS, Inc.

WELL No.: OLFS-2406-MW42S

MONITORING WELL SHEET

PROJECT:	SARA at OLF Saufley	DRILLING Co.:	Prosonic Corp.	BORING No.:	OLFS2406SB37
PROJECT No.:	N2642	DRILLER:	Jeff Cummings	DATE COMPLETED:	07/09/04
SITE:	2406	DRILLING METHOD:	Rotosonic	NORTHING:	
GEOLOGIST:	Larry Smith	DEV. METHOD:	Pump	EASTING:	

Ground Elevation =
Datum:



Elevation / Depth of Top of Riser: /

Elevation / Height of Top of Surface Casing: /

I.D. of Surface Casing: N/A

Type of Surface Casing: N/A

Type of Surface Seal: concrete pad

I.D. of Riser: 2 inches

Type of Riser: PVC

Borehole Diameter: 6 inches

Elevation / Depth Top of Rock: N/A / N/A

Type of Backfill: Type I Grout with 5% Bentonite

Elevation / Depth of Seal: / 33 feet

Type of Seal: Bentonite Hole Plug (chip)

Elevation / Depth of Top of Filter Pack: / 35 feet

Elevation / Depth of Top of Screen: / 39 feet

Type of Screen: PCV

Slot Size x Length: 0.001 x 15 feet

I.D. of Screen: 2 inches

Type of Filter Pack: 20-30 Quartz Sand

Elevation / Depth of Bottom of Screen: / 56 feet

Elevation / Depth of Bottom of Filter Pack: / 56 feet

Type of Backfill Below Well: N/A

Elevation / Total Depth of Borehole: / 56 feet

Tetra Tech NUS, Inc.

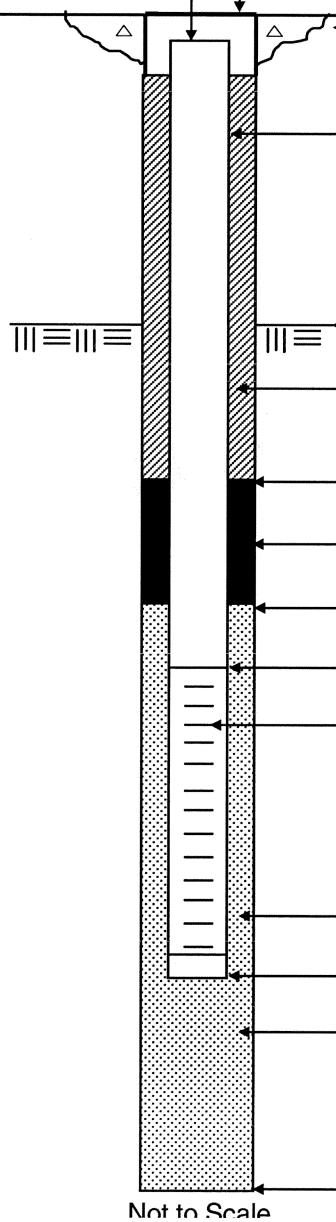
WELL No.: OLFS-2406-MW43D

MONITORING WELL SHEET

PROJECT:	SARA at OLF Saufley	DRILLING Co.:	Prosonic Corp.	BORING No.:	OLFS2406SB38
PROJECT No.:	N2642	DRILLER:	Jeff Cummings	DATE COMPLETED:	07/10/04
SITE:	2406	DRILLING METHOD:	Rotosonic	NORTHING:	
GEOLOGIST:	Larry Smith	DEV. METHOD:	Pump	EASTING:	

Ground Elevation =

Datum:



Not to Scale

Elevation / Depth of Top of Riser:		/
Elevation / Height of Top of Surface Casing:		/
I.D. of Surface Casing:	N/A	
Type of Surface Casing:	N/A	
Type of Surface Seal:	concrete pad	
I.D. of Riser:	2 inches	
Type of Riser:	PVC	
Borehole Diameter:	6 inches	
Elevation / Depth Top of Rock:		N/A / N/A
Type of Backfill:	Type I Grout with 5% Bentonite	
Elevation / Depth of Seal:		/ 120 feet
Type of Seal:	Bentonite Hole Plug (chip)	
Elevation / Depth of Top of Filter Pack:		/ 120 feet
Elevation / Depth of Top of Screen:		/ 120 feet
Type of Screen:	PCV	
Slot Size x Length:	0.001 x 5 feet	
I.D. of Screen:	2 inches	
Type of Filter Pack:	20-30 Quartz Sand	
Elevation / Depth of Bottom of Screen:		/ 130 feet
Elevation / Depth of Bottom of Filter Pack:		/ 130 feet
Type of Backfill Below Well:	N/A	
Elevation / Total Depth of Borehole:		/ 130 feet

Tetra Tech NUS, Inc.

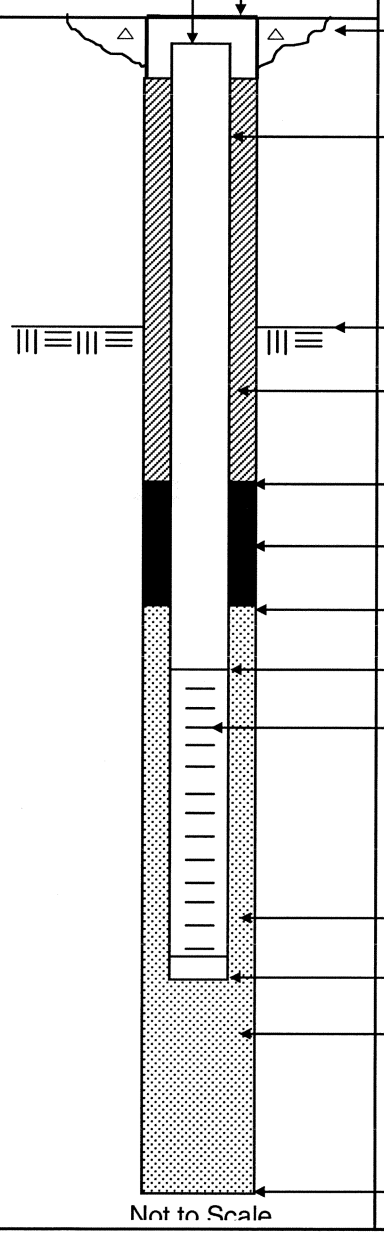
WELL No.: OLFS-2406-MW43S

MONITORING WELL SHEET

PROJECT:	SARA at OLF Saufley	DRILLING Co.:	Prosonic Corp.	BORING No.:	OLFS2406SB39
PROJECT No.:	N2642	DRILLER:	Jeff Cummings	DATE COMPLETED:	07/10/04
SITE:	2406	DRILLING METHOD:	Rotosonic	NORTHING:	
GEOLOGIST:	Larry Smith	DEV. METHOD:	Pump	EASTING:	

Ground Elevation =

Datum:



Not to Scale

Elevation / Depth of Top of Riser:		/
Elevation / Height of Top of Surface Casing:		/
I.D. of Surface Casing:	N/A	
Type of Surface Casing:	N/A	
Type of Surface Seal:	concrete pad	
I.D. of Riser:	2 inches	
Type of Riser:	PVC	
Borehole Diameter:	6 inches	
Elevation / Depth Top of Rock:		N/A / N/A
Type of Backfill:	Type I Grout with 5% Bentonite	
Elevation / Depth of Seal:		/ 31 feet
Type of Seal:	Bentonite Hole Plug (chip)	
Elevation / Depth of Top of Filter Pack:		/ 33 feet
Elevation / Depth of Top of Screen:		/ 35 feet
Type of Screen:	PCV	
Slot Size x Length:	0.001 x 15 feet	
I.D. of Screen:	2 inches	
Type of Filter Pack:	20-30 Quartz Sand	
Elevation / Depth of Bottom of Screen:		/ 50 feet
Elevation / Depth of Bottom of Filter Pack:		/ 50 feet
Type of Backfill Below Well:	N/A	
Elevation / Total Depth of Borehole:		/ 50 feet

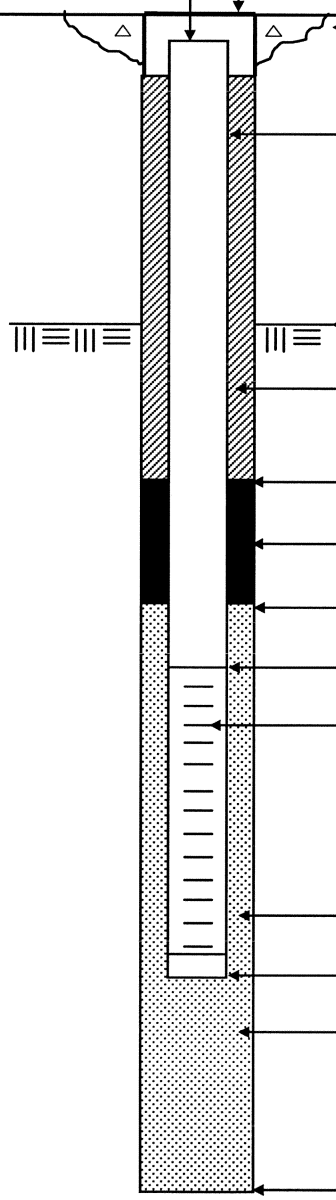
Tetra Tech NUS, Inc.

WELL No.: OLFS-2406-MW44D

MONITORING WELL SHEET

PROJECT:	SARA at OLF Saufley	DRILLING Co.:	Prosonic Corp.	BORING No.:	OLFS2406SB42
PROJECT No.:	N2642	DRILLER:	Jeff Cummings	DATE COMPLETED:	07/12/04
SITE:	2406	DRILLING METHOD:	Rotosonic	NORTHING:	
GEOLOGIST:	Larry Smith	DEV. METHOD:	Pump	EASTING:	

Ground Elevation =
Datum:



Not to Scale

Elevation / Depth of Top of Riser:		/
Elevation / Height of Top of Surface Casing:		/
I.D. of Surface Casing:	N/A	
Type of Surface Casing:	N/A	
Type of Surface Seal:	concrete pad	
I.D. of Riser:	2 inches	
Type of Riser:	PVC	
Borehole Diameter:	6 inches	
Elevation / Depth Top of Rock:		N/A / N/A
Type of Backfill:	Type I Grout with 5% Bentonite	
Elevation / Depth of Seal:		/ 118 feet
Type of Seal:	Bentonite Hole Plug (chip)	
Elevation / Depth of Top of Filter Pack:		/ 122 feet
Elevation / Depth of Top of Screen:		/ 125 feet
Type of Screen:	PCV	
Slot Size x Length:	0.001 x 5 feet	
I.D. of Screen:	2 inches	
Type of Filter Pack:	20-30 Quartz Sand	
Elevation / Depth of Bottom of Screen:		/ 130 feet
Elevation / Depth of Bottom of Filter Pack:		/ 130 feet
Type of Backfill Below Well:	N/A	
Elevation / Total Depth of Borehole:		/ 130 feet

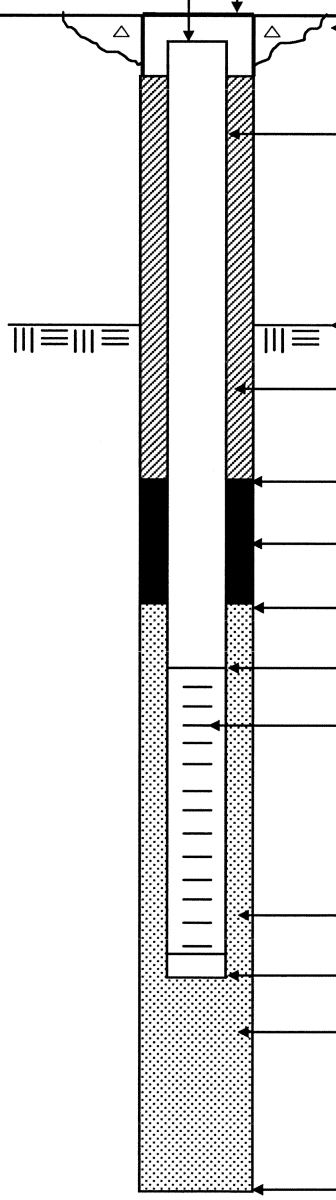
Tetra Tech NUS, Inc.

WELL No.: OLFS-2406-MW44S

MONITORING WELL SHEET

PROJECT:	SARA at OLF Saufley	DRILLING Co.:	Prosonic Corp.	BORING No.:	OLFS2406SB43
PROJECT No.:	N2642	DRILLER:	Jeff Cummings	DATE COMPLETED:	02/25/00
SITE:	2406	DRILLING METHOD:	Rotosonic	NORTHING:	
GEOLOGIST:	Larry Smith	DEV. METHOD:	Pump	EASTING:	

Ground Elevation =
Datum:



Not to Scale

Elevation / Depth of Top of Riser: /

Elevation / Height of Top of Surface Casing: /

I.D. of Surface Casing: N/A

Type of Surface Casing: N/A

Type of Surface Seal: concrete pad

I.D. of Riser: 2 inches

Type of Riser: PVC

Borehole Diameter: 6 inches

Elevation / Depth Top of Rock: N/A / N/A

Type of Backfill: Type I Grout with 5% Bentonite

Elevation / Depth of Seal: / 36 feet

Type of Seal: Bentonite Hole Plug (chip)

Elevation / Depth of Top of Filter Pack: / 38 feet

Elevation / Depth of Top of Screen: / 41 feet

Type of Screen: PCV

Slot Size x Length: 0.001 x 15 feet

I.D. of Screen: 2 inches

Type of Filter Pack: 20-30 Quartz Sand

Elevation / Depth of Bottom of Screen: / 56 feet

Elevation / Depth of Bottom of Filter Pack: / 56 feet

Type of Backfill Below Well: N/A

Elevation / Total Depth of Borehole: / 56 feet

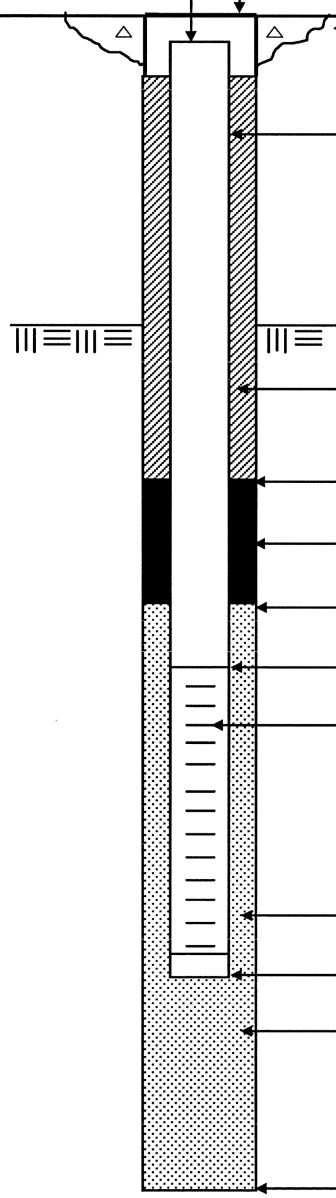
Tetra Tech NUS, Inc.

WELL No.: OLFS-2406-MW45S

MONITORING WELL SHEET

PROJECT:	SARA at OLF Saufley	DRILLING Co.:	Prosonic Corp.	BORING No.:	OLFS2406SB44
PROJECT No.:	N2642	DRILLER:	Jeff Cummings	DATE COMPLETED:	07/14/04
SITE:	2406	DRILLING METHOD:	Rotosonic	NORTHING:	
GEOLOGIST:	Larry Smith	DEV. METHOD:	Pump	EASTING:	

Ground Elevation =
Datum:



Not to Scale

Elevation / Depth of Top of Riser:		/
Elevation / Height of Top of Surface Casing:		/
I.D. of Surface Casing:	N/A	
Type of Surface Casing:	N/A	
Type of Surface Seal:	concrete pad	
I.D. of Riser:	2 inches	
Type of Riser:	PVC	
Borehole Diameter:	6 inches	
Elevation / Depth Top of Rock:		N/A / N/A
Type of Backfill:	Type I Grout with 5% Bentonite	
Elevation / Depth of Seal:		/ 27 feet
Type of Seal:	Bentonite Hole Plug (chip)	
Elevation / Depth of Top of Filter Pack:		/ 29 feet
Elevation / Depth of Top of Screen:		/ 31 feet
Type of Screen:	PCV	
Slot Size x Length:	0.001 x 15 feet	
I.D. of Screen:	2 inches	
Type of Filter Pack:	20-30 Quartz Sand	
Elevation / Depth of Bottom of Screen:		/ 46 feet
Elevation / Depth of Bottom of Filter Pack:		/ 46 feet
Type of Backfill Below Well:	N/A	
Elevation / Total Depth of Borehole:		/ 46 feet

Tetra Tech NUS, Inc.

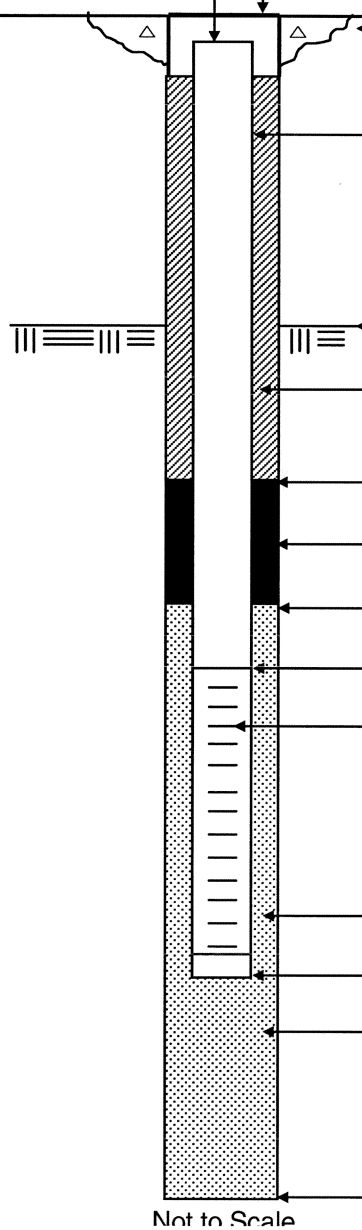
WELL No.: OLFS-2406-MW-46S

MONITORING WELL SHEET

PROJECT:	OLF Saufley	DRILLING Co.:	ProSonic	BORING No.:	
PROJECT No.:	N2642	DRILLER:	Jeff Commings	DATE COMPLETED:	02/22/05
SITE:	2406	DRILLING METHOD:	Roto-Sonic	NORTHING:	
GEOLOGIST:	Larry Smith	DEV. METHOD:	Pump	EASTING:	

Ground Elevation =

Datum:



Elevation / Depth of Top of Riser:		/
Elevation / Height of Top of Surface Casing:		/
I.D. of Surface Casing:		
Type of Surface Casing:	Flush Mount	
Type of Surface Seal:	Concrete	
I.D. of Riser:	2 inch	
Type of Riser:	PVC	
Borehole Diameter:	6 inch	
Elevation / Depth Top of Rock:		NA /
Type of Backfill:	Type I Grount No bentonite added per NWFWMD	
Elevation / Depth of Seal:		36.5 ft /
Type of Seal:	Bentonite	
Elevation / Depth of Top of Filter Pack:		38.5 ft /
Elevation / Depth of Top of Screen:		40.5 ft /
Type of Screen:	PVC	
Slot Size x Length:	0.01 Slot	
I.D. of Screen:	2 inch	
Type of Filter Pack:	20 x 30 qtz	
Elevation / Depth of Bottom of Screen:		50.5 ft /
Elevation / Depth of Bottom of Filter Pack:		50.5 ft /
Type of Backfill Below Well:	NA	
Elevation / Total Depth of Borehole:		50.5 ft /

Tetra Tech NUS, Inc.

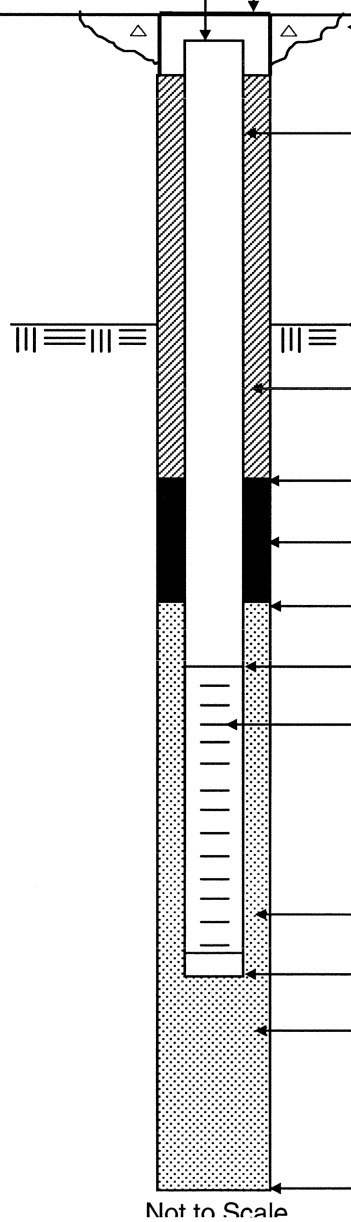
WELL No.: OLFS-2406-MW-47S

MONITORING WELL SHEET

PROJECT:	OLF Saufley	DRILLING Co.:	ProSonic	BORING No.:	
PROJECT No.:	N2642	DRILLER:	Jeff Commings	DATE COMPLETED:	02/22/05
SITE:	2406	DRILLING METHOD:	Roto-Sonic	NORTHING:	
GEOLOGIST:	Larry Smith	DEV. METHOD:	Pump	EASTING:	

Ground Elevation =

Datum:



Elevation / Depth of Top of Riser:		/
Elevation / Height of Top of Surface Casing:		/
I.D. of Surface Casing:		
Type of Surface Casing:	Flush Mount	
Type of Surface Seal:	Concrete	
I.D. of Riser:	2 inch	
Type of Riser:	PVC	
Borehole Diameter:	6 inch	
Elevation / Depth Top of Rock:		NA /
Type of Backfill:	Type I Grount No bentonite added per NWFWMD	
Elevation / Depth of Seal:		38 ft /
Type of Seal:	Bentonite	
Elevation / Depth of Top of Filter Pack:		44 ft /
Elevation / Depth of Top of Screen:		46 ft /
Type of Screen:	PVC	
Slot Size x Length:	0.01 Slot	
I.D. of Screen:	2 inch	
Type of Filter Pack:	20 x 30 qtz	
Elevation / Depth of Bottom of Screen:		56 ft /
Elevation / Depth of Bottom of Filter Pack:		56 ft /
Type of Backfill Below Well:	NA	
Elevation / Total Depth of Borehole:		56 ft /

SURVEYING DATA SHEET

Project Name: OLF Saufley 2406

Project No.: N2642 **Date:** 7/29/2004

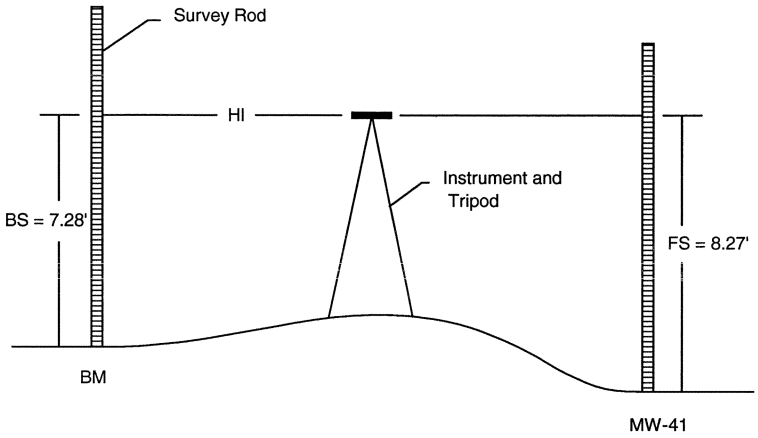
Personnel: Howard Engle / Louis Knight

Station ID	Backsight (BS)	Height of Instrument (HI)	Foresight (FS)	Elevation	Comments
MW-21	7.28	136.74		129.46	Datum
MW-41		136.74	8.27	128.47	
MW-40		136.74	6.68	130.06	
MW-38		136.74	5.54	131.20	
MW-45		136.74	7.95	128.79	
MW-38 (TP)	5.42	136.62		131.2	Temp. Benchmark
MW-45 (TP)	7.83	136.62		128.79	Temp. Benchmark
MW-39		136.62	6.97	129.65	
MW-42S		136.62	9.26	127.36	
MW-42D		136.62	8.94	127.68	
MW-42D (TP)	6.16	133.84		127.68	Temp. Benchmark
MW-43S		133.84	14.44	119.40	
MW-43D		133.84	14.6	119.24	
MW-43S	2.64	122.04		119.4	Temp. Benchmark
MW-44S		122.04	13.03	109.01	
MW-44D		122.04	13.12	108.92	

HI = BM Elevation + BM Backsight
Station Elevation = HI - Station FS

To create a Turning Point (TP):
1. Shoot a FS to the TP
2. HI - FS = the TP Elevation
3. Move the insturment to the new location

SURVEYING SCHEMATIC



BM = Benchmark = 129.46'

FS = Foresight

HI = Height of Instrument

BS = Backsight

HI = BM + BS = 129.46' + 7.28' = 136.74"

MW-41 = HI - FS = 136.74' - 8.27' = 128.47'

Example:

Station	BS	HI	FS	Elevation	Comments
BM				129.46'	MW-21
BM	5.7'	136.74'			
MW41		136.74'	8.27'	128.47'	Top of PVC casing
MW40		136.74'	6.68'	130.06'	Top of PVC casing
BM				131.20'	MW-38
TP	5.42'	136.62'		131.20'	Turning point - MW-38
TP	7.83'	136.62'		131.20'	Turning Point - MW-45

Tetra Tech NUS, Inc.

GROUNDWATER LEVEL MEASUREMENT SHEET

Project Name: NAS Pensacola, SARA / RAP
Project No.: N2642
Location: OLF Saufley, Building 2406
Personnel: H. Engle, L. Knight
Weather Conditions:
Measuring Device: Slope Indicator
Tidally Influenced: Yes ___ No X
Remarks:

Well or Piezometer Number	Date	Time	Elevation of Reference Point (feet)*	Total Well Depth (feet)*	Water Level Indicator Reading (feet)*	Thickness of Free Product (feet)*	Groundwater Elevation (feet)*	Comments
MW-26D	7/28/2004	1815	130.07	65.85	43.91		86.16	
MW-27D	7/28/2004	1818	129.29	66.44	38.98		90.31	
MW-28D	7/28/2004	1821	128.44	80.13	46.14		82.3	
MW-29D	7/28/2004	1845	119.42	80.4	38.37		81.05	
MW-30D	7/28/2004	1842	120	81.8	38.73		81.27	
MW-31D	7/28/2004	1850	108.32	79.35	27.73		80.59	
MW-32D	7/28/2004	1851	108.5	135.7	28.13		80.37	
MW-33D	7/28/2004		119.56	80.25			119.56	cannot locate
MW-34D	7/28/2004	1824	125.32	77.9	27.2		98.12	
MW-35D	7/28/2004	1900	130.11	81.12	45.2		84.91	
MW-36D	7/28/2004	1905	128.47	79.12	44.94		83.53	
MW-37D	7/28/2004	1903	129.93	135.8	47.09		82.84	
MW-38	7/28/2004	1805	131.2	56	41.22		89.98	
MW-39	7/28/2004	1855	129.65	56	36.02		93.63	
MW-40	7/28/2004	1812	130.06	56	41.15		88.91	
MW-41	7/28/2004	1742	128.47	56	40.3		88.17	
MW-42S	7/28/2004	1845	127.36	56	33.77		93.59	
MW-42D	7/28/2004	1847	127.68	130	45.14		82.54	
MW-43S	7/28/2004	1850	119.4	56	18.8		100.6	
MW-43D	7/28/2004	1852	119.24	133.2	37.6		81.64	
MW-44S	7/28/2004	1837	109.01	56	29.04		79.97	
MW-44D	7/28/2004	1835	108.92	130	28.89		80.03	
MW-45	7/28/2004	1801	128.79	45	35.95		92.84	

* All measurements to the nearest 0.01 foot

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: OLF SAUFLEY, BUILDING 2406
Project No.: N2642

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: OLFS-2406-MW47
Sample Location: MW-47
Sampled By: Howard Engle
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

		Color Visual	pH Standard	S.C. mS/cm	Temp. °C	Turbidity NTU	DO mg/l	ORP mV	Time
Date:	3/4/2005								
Time:	13:45								
Method:	low flow	clear	5.16	0.026	23.45	17.1	8.73	241.3	15:07

PURGE DATA:

		Volume	pH	S.C.	Temp. (C)	Turbidity	DO	ORP	Time
Date:	3/4/2005								
Method:	low flow								13:11
Monitor Reading (ppm):		600 mL	8.23	0.163	24.85	>400	1.14	34.3	13:13
Well Casing Diameter & Material		2.1 L	8.13	0.162	25.29	170	0.9	34.7	13:18
Type:	2" PVC	4.5 L	7.79	0.166	25.93	40	0.81	24.4	13:26
Total Well Depth (TD):	56.69	8.1 L	7.1	0.15	25.91	15	1.02	-51.4	13:38
Static Water Level (WL):	42.69								
One Pump Volume(L):	1.4								
Start Purge (hrs):	13:11								
End Purge (hrs):	13:38								
Total Purge Time (min):	0:27								
Total Vol. Purged (L):	8.1 L								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
SW-846 8206B VOCs (BTEX)	HCl	3 - 40 mL vials	Yes
SW-8270C SIM PAHs	4° C	2 - 1L Amber Jar	Yes

OBSERVATIONS / NOTES:

Purge rate = 300 mL/min
Screen fully submerged, tubing placed in screen interval
Purge 1 pump volume = 60 ft. x 0.006 gal./ft = 5.3 gallons x 3.8 liters/1 gallon = 1.4 liters

Purge rate could not be adjusted to equal recharge rate

Circle if Applicable:

MS/MSD	Duplicate ID No.:	Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: OLF SAUFLEY, BUILDING 2406
Project No.: N2642

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: OLFS-2406-MW46
Sample Location: MW-46
Sampled By: Howard Engle
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 3/4/2005	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Time
Time: 12:40	Visual	Standard	mS/cm	°C	NTU	mg/l	mV	
Method: low flow	clear	7.07	0.18	26.13	290	1.62	-245.8	11:31

PURGE DATA:

Date: 3/4/2005	Volume	pH	S.C.	Temp. (C)	Turbidity	DO	ORP	Time
Method: low flow								11:00
Monitor Reading (ppm):	3.2	7.04	0.177	24.15	>400	2.24	-212.6	11:16
Well Casing Diameter & Material	6	7.07	0.18	26.13	290	1.62	-245.8	11:30
Type: 2" PVC		WELL PURGED DRY						11:31
Total Well Depth (TD): 52.05								
Static Water Level (WL): 40.97								
One Pump Volume(L): 8.4								
Start Purge (hrs): 11:00								
End Purge (hrs): 11:31								
Total Purge Time (min): 0:31								
Total Vol. Purged (gal): 6								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
SW-846 8206B VOCs (BTEX)	HCl	3 - 40 mL vials	Yes
SW-8270C SIM PAHs	4° C	2 - 1L Amber Jar	Yes

OBSERVATIONS / NOTES:

Purge rate = 200 mL/min
Screen fully submerged, tubing placed in screen interval
Purge 1 pump volume = 55 ft. x 0.04 gal./ft = 5.3 gallons x 3.8 liters/1 gallon = 8.36 liters

Purge rate could not be adjusted to equal recharge rate

GW extremely trubid. Slowed flow rate to 200 mL/min @ 10:00. Turned up flow rate to try and remove purged dry. Will wait for recharge, then begin purging a 200 mL/min again.
Well purged dry again. Will sample when well recharges for the second time.

Circle if Applicable:		Signature(s):
MS/MSD	Duplicate ID No.:	

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: OLF SAUFLEY, BUILDING 2406
Project No.: N2642

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: OLFS-2406-MW45
Sample Location: MW-45
Sampled By: Howard Engle
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

		Color Visual	pH Standard	S.C. mS/cm	Temp. °C	Turbidity NTU	DO mg/l	ORP mV	Time
Date:	7/30/2004								
Time:	14:50								
Method:	low flow	clear	6.29	0.12	21.89	1.5	0.78	-295.9	14:50

PURGE DATA:

		Volume	pH	S.C.	Temp. (C)	Turbidity	DO	ORP	Time
Date:	7/30/2004								
Method:	low flow	2.1	6.47	0.126	21.84	23	0.75	-341.4	14:30
Monitor Reading (ppm):		3.15	6.39	0.123	21.85	4.4	0.68	-321.1	14:35
Well Casing Diameter & Material		4.2	6.29	0.12	21.89	1.5	0.78	-295.9	14:40
Type:	2" PVC								
Total Well Depth (TD):	45								
Static Water Level (WL):	28.89								
One Pump Volume(gal):	0.9								
Start Purge (hrs):	14:20								
End Purge (hrs):	14:40								
Total Purge Time (min):	0:20								
Total Vol. Purged (gal):	4.2								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
SW-846 8260B - Select VOCs	HCl	Three 40mL Vials	Yes
SW-846 6010B - Total Lead	HNO3	One 500mL Plastic	Yes
SW-846 8270C SIM - PAHs	None	Two 1L Ambers	Yes
USEPA 504.1 - EDB	Na2S2O3	Three 40mL Vials	Yes
FL-PRO - TRPH	H2SO4	Two 1L Ambers	Yes

OBSERVATIONS / NOTES:

See Field Analytical Log Sheets for Geochemical Parameters (i.e. natural attenuation).

Purge rate = 0.21 gal/min
Screen fully submerged, pump placed in screen interval
Purge 1 pump volume = 45 ft. x 0.02 gal./ft = 0.9 gallons

Circle if Applicable:		Signature(s):
MS/MSD	Duplicate ID No.:	

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: OLF SAUFLEY, BUILDING 2406
Project No.: N2642

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: OLFS-2406-MW44D
Sample Location: MW-44D
Sampled By: Howard Engle
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

		Color Visual	pH Standard	S.C. mS/cm	Temp. °C	Turbidity NTU	DO mg/l	ORP mV	Time
Date:	7/29/2004								
Time:	17:40								
Method:	low flow	clear	8.62	0.061	22.48	8.6	8.81	25.9	17:40

PURGE DATA:

		Volume	pH	S.C.	Temp. (C)	Turbidity	DO	ORP	Time
Date:	7/29/2004								
Method:	low flow	7.5							16:45
Monitor Reading (ppm):		12.5							16:55
Well Casing Diameter & Material		15	10.15	0.115	22.54	65	12.6	-20.1	17:00
Type:	2" PVC	17.5	10.05	0.105	22.53	70	10.9	-14	17:05
Total Well Depth (TD):	130	20	9.81	0.092	22.51	50	10.36	-2.1	17:10
Static Water Level (WL):	28.89	22.5	9.45	0.079	22.5	45	9.96	10.1	17:15
One Pump Volume(gal):	2.6	25	9.32	0.077	22.5	33	12.21	16.4	17:20
Start Purge (hrs):	16:30	27.5	9.06	0.072	22.49	29	11.18	21.3	17:25
End Purge (hrs):	17:35	30	8.83	0.064	22.49	17	9.15	25.9	17:30
Total Purge Time (min):	1:05	32.5	8.62	0.061	22.48	8.6	8.81	25.9	17:35
Total Vol. Purged (gal):	32.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
SW-846 8260B - Select VOCs	HCl	Three 40mL Vials	Yes
SW-846 6010B - Total Lead	HNO3	One 500mL Plastic	Yes

OBSERVATIONS / NOTES:

See Field Analytical Log Sheets for Geochemical Parameters (i.e. natural attenuation).

Purge rate = 0.5 gal/min
Screen fully submerged, pump placed in screen interval
Purge 1 pump volume = 130 ft. x 0.02 gal./ft = 2.6 gallons

Circle if Applicable:

MS/MSD	Duplicate ID No.:	Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: OLF SAUFLEY, BUILDING 2406
Project No.: N2642

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: OLFS-2406-MW44S
Sample Location: MW-44S
Sampled By: Howard Engle
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Time
Date:	7/28/2004	Visual	Standard	mS/cm	^{0}C	NTU	mg/l	mV	
Time:	17:45								
Method:	low flow	clear	6.23	0.067	21.84	14	0.89	-308	17:45

PURGE DATA:

		Volume	pH	S.C.	Temp. (C)	Turbidity	DO	ORP	Time
Date:	7/28/2004								
Method:	low flow	1.8	9.8	0.114	21.83	500	0.39	-442.6	17:05
Monitor Reading (ppm):		2.88	7.25	0.083	21.83	240	0.6	-388.4	17:11
Well Casing Diameter & Material		4.68	6.56	0.067	21.78	90	0.82	-360.4	17:21
Type:	2" PVC	7.02	6.26	0.067	21.82	16	0.95	-329	17:34
Total Well Depth (TD):	56	7.05	6.25	0.067	21.82	16	0.91	-310	17:37
Static Water Level (WL):	29.04	8.1	6.26	0.067	21.85	15	0.87	-305	17:40
One Pump Volume(gal):	1.12	8.64	6.23	0.067	21.84	14	0.89	-308	17:43
Start Purge (hrs):	16:55								
End Purge (hrs):	17:43								
Total Purge Time (min):	0:48								
Total Vol. Purged (gal):	8.64								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
SW-846 8260B - Select VOCs	HCl	Three 40mL Vials	Yes
SW-846 6010B - Total Lead	HNO3	One 500mL Plastic	Yes

OBSERVATIONS / NOTES:

See Field Analytical Log Sheets for Geochemical Parameters (i.e. natural attenuation).

Purge rate = 0.18 gal/min
Screen fully submerged, pump placed in screen interval
Purge 1 pump volume = 56 ft. x 0.02 gal./ft = 1.12 gallons

Circle if Applicable:

MS/MSD	Duplicate ID No.:	Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: OLF SAUFLEY, BUILDING 2406
Project No.: N2642

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: OLFS-2406-MW43d
Sample Location: MW-43D
Sampled By: Howard Engle
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Time
Date:	7/28/2004								
Time:	13:35	Visual	Standard	mS/cm	^{0}C	NTU	mg/l	mV	
Method:	low flow	clear	12.08	1.27	23.43	14	0.82	-335	13:35

PURGE DATA:

		Volume	pH	S.C.	Temp. (C)	Turbidity	DO	ORP	Time
Date:	7/28/2004								
Method:	low flow	2.52	11.92	1.27	23.41	29	1.76	-328	13:24
Monitor Reading (ppm):		3.78	12.08	1.27	23.44	15	0.87	-326	13:31
Well Casing Diameter & Material		4.5	12.08	1.27	23.43	14	0.82	-335	13:35
Type:	2" PVC								
Total Well Depth (TD):	133.2								
Static Water Level (WL):	37.6								
One Casing Volume(gal):	2.64								
Start Purge (hrs):	13:10								
End Purge (hrs):	13:35								
Total Purge Time (min):	0:25								
Total Vol. Purged (gal):	4.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
SW-846 8260B - Select VOCs	HCl	Three 40mL Vials	Yes
SW-846 6010B - Total Lead	HNO3	One 500mL Plastic	Yes

OBSERVATIONS / NOTES:

See Field Analytical Log Sheets for Geochemical Parameters (i.e. natural attenuation).

Purge rate = 0.18 gal/min
Screen fully submerged, pump placed in screen interval
Purge 1 pump volume = 132 ft. x 0.02 gal./ft = 2.64 gallons

Circle if Applicable:		Signature(s):
MS/MSD	Duplicate ID No.:	

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: OLF SAUFLEY, BUILDING 2406
Project No.: N2642

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: OLFS-2406-MW43S
Sample Location: MW-43S
Sampled By: Howard Engle
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Time
Date:	7/29/2004	Visual	Standard	mS/cm	^{0}C	NTU	mg/l	mV	
Time:	15:45								
Method:	low flow	slightly cloudy	6.7	0.044	21.84	280	10.18	-52.8	15:45

PURGE DATA:

		Volume	pH	S.C.	Temp. (C)	Turbidity	DO	ORP	Time
Date:	7/29/2004								
Method:	low flow	5	6.4	0.044	21.48	120	9.3	24	14:55
Monitor Reading (ppm):		12	6.28	0.034	21.62	400	7.63	24	15:02
Well Casing Diameter & Material		15	6.4	0.037	21.94	>1000	5.45	-443	15:05
Type:	2" PVC	40	6.7	0.044	21.84	280	10.18	-52.8	15:30
Total Well Depth (TD):	56	Well purged dry							15:40
Static Water Level (WL):	19.33								
One Pump Volume(gal/L):	1.12								
Start Purge (hrs):	14:50								
End Purge (hrs):	15:40								
Total Purge Time (min):	0:50								
Total Vol. Purged (gal/L):	40								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
SW-846 8260B - Select VOCs	HCl	Three 40mL Vials	Yes
SW-846 6010B - Total Lead	HNO3	One 500mL Plastic	Yes

OBSERVATIONS / NOTES:

See Field Analytical Log Sheets for Geochemical Parameters (i.e. natural attenuation).

Purge rate = 1 gal/min; Note - pump not functioning properly; cannot adjust flow rate
Screen fully submerged, pump placed in screen interval
Purge 1 pump volume = 56 ft. x 0.02 gal./ft = 1.12 gallons

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: OLF SAUFLEY, BUILDING 2406
Project No.: N2642

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: OLFS-2406-MW42D
Sample Location: MW-42D
Sampled By: Howard Engle
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Time
Date:	7/28/2004								
Time:	10:30	Visual	Standard	mS/cm	^{0}C	NTU	mg/l	mV	
Method:	low flow	clear	5.75	0.027	23.87	5.8	13	158	10:30

PURGE DATA:

		Volume	pH	S.C.	Temp. (C)	Turbidity	DO	ORP	Time
Date:	7/28/2004								
Method:	low flow	2.52	5.82	0.027	23.55	6.9	15.05	140	10:04
Monitor Reading (ppm):		3.06	5.75	0.028	23.88	6.2	13.6	160	10:07
Well Casing Diameter & Material		3.6	5.75	0.028	23.98	6	13.6	160	10:10
Type:	2" PVC	4.14	5.75	0.027	23.87	5.8	13	158	10:13
Total Well Depth (TD):	130								
Static Water Level (WL):	45.14								
One Pump Volume(gal):	2.6								
Start Purge (hrs):	9:50								
End Purge (hrs):	10:13								
Total Purge Time (min):	0:23								
Total Vol. Purged (gal):	4.14								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
SW-846 8260B - Select VOCs	HCl	Three 40mL Vials	Yes
SW-846 6010B - Total Lead	HNO3	One 500mL Plastic	Yes

OBSERVATIONS / NOTES:

See Field Analytical Log Sheets for Geochemical Parameters (i.e. natural attenuation).

Purge rate = 0.18 gal/min
Screen fully submerged, pump placed in screen interval
Purge 1 pump volume = 130 ft. x 0.02 gal./ft = 2.6 gallons

Circle if Applicable:		Signature(s):
MS/MSD	Duplicate ID No.:	

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: OLF SAUFLEY, BUILDING 2406
Project No.: N2642

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: OLFS-2406-MW42S
Sample Location: MW-42S
Sampled By: Howard Engle
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Time
Date:	7/28/2004								
Time:	10:15	Visual	Standard	mS/cm	^{0}C	NTU	mg/l	mV	
Method:	low flow	clear	6.47	0.074	22.34	16	1.73	-373.8	10:15

PURGE DATA:

		Volume	pH	S.C.	Temp. (C)	Turbidity	DO	ORP	Time
Date:	7/28/2004								
Method:	low flow	0.91	7	0.087	22.95	150	0.59	-520	9:15
Monitor Reading (ppm):		1.82	6.79	0.084	22.62	34	0.36	-480	9:22
Well Casing Diameter & Material		2.86	6.6	0.078	22.71	29	0.7	-420.5	9:30
Type:	2" PVC	3.77	6.5	0.075	22.43	23	1.53	-392.2	9:37
Total Well Depth (TD):	56	4.81	6.47	0.074	22.34	16	1.73	-373.8	9:45
Static Water Level (WL):	33.77								
One Pump Volume(gal/L):	1.12								
Start Purge (hrs):	9:08								
End Purge (hrs):	9:45								
Total Purge Time (min):	0:37								
Total Vol. Purged (gal/L):	4.81								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
SW-846 8260B - Select VOCs	HCl	Three 40mL Vials	Yes
SW-846 6010B - Total lead	HNO3	One 500mL Plastic	Yes

OBSERVATIONS / NOTES:

See Field Analytical Log Sheets for Geochemical Parameters (i.e. natural attenuation).

Purge rate = 0.13 gal/min
Screen fully submerged, pump placed in screen interval
Purge 1 pump volume = 56 ft. x 0.02 gal./ft = 1.12 gallons

Circle if Applicable:		Signature(s):
MS/MSD	Duplicate ID No.:	

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: OLF SAUFLEY, BUILDING 2406
Project No.: N2642

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: OLFS-2406-MW41
Sample Location: MW-41
Sampled By: Howard Engle
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Time
Date: 7/31/2004	Visual	Standard	mS/cm	°C	NTU	mg/l	mV	
Time: 10:50								
Method: low flow	clear	7.13	0.148	25.54	1000	0.37	-342	10:50

PURGE DATA:

	Volume	pH	S.C.	Temp. (C)	Turbidity	DO	ORP	Time
Date: 7/31/2004								
Method: low flow	1.6	7.85	0.151	24.64	240	0.71	-432.6	9:35
Monitor Reading (ppm):	2.4	7.78	0.136	25.02	450	0.58	-461.9	9:40
Well Casing Diameter & Material	3.2	7.67	0.134	25.09	950	0.47	-415.7	9:45
Type: 2" PVC	4	7.5	0.135	25.25	750	0.43	-284.4	9:50
Total Well Depth (TD): 56	4.8	7.13	0.148	25.54	1000	0.37	-342	9:55
Static Water Level (WL): 40.2	Well is dry							10:00
One Pump Volume(gal): 1.12								
Start Purge (hrs): 9:25								
End Purge (hrs): 10:00								
Total Purge Time (min): 0:35								
Total Vol. Purged (gal): 4.8								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
SW-846 8260B - Select VOCs	HCl	Three 40mL Vials	Yes
SW-846 8270C SIM - PAHs	None	Two 1L Ambers	Yes
SW-846 6010B - Total Lead	HNO3	One 500mL Plastic	Yes
USEPA 504.1 - EDB	Na2S2O3	Three 40mL Vials	Yes
FL-PRO - TRPH	H2SO4	2 1L Ambers	Yes

OBSERVATIONS / NOTES:

See Field Analytical Log Sheets for Geochemical Parameters (i.e. natural attenuation).

Purge rate = 0.16 gal/min
Screen fully submerged, pump placed in screen interval
Purge 1 pump volume = 56 ft. x 0.02 gal./ft = 1.12 gallons

Circle if Applicable:		Signature(s):
MS/MSD	Duplicate ID No.:	

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: OLF SAUFLEY, BUILDING 2406
Project No.: N2642

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: OLFS-2406-MW40
Sample Location: MW-40
Sampled By: Howard Engle
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

		Color Visual	pH Standard	S.C. mS/cm	Temp. °C	Turbidity NTU	DO mg/l	ORP mV	Time
Date:	7/30/2004								
Time:	16:45								
Method:	low flow	clear	6.42	0.084	25.57	8.5	1.69	-27.2	16:45

PURGE DATA:

		Volume	pH	S.C.	Temp. (C)	Turbidity	DO	ORP	Time
Date:	7/30/2004								
Method:	low flow	1.9	6.81	0.102	25.7	550	0.48	-97.7	16:20
Monitor Reading (ppm):		2.85	6.82	0.112	25.69	360	0.63	-137	16:25
Well Casing Diameter & Material Type:	2" PVC	3.8	6.67	0.101	25.62	100	0.89	-140.4	16:30
Total Well Depth (TD):	56	4.75	6.5	0.091	25.56	21	1.38	-61.2	16:35
Static Water Level (WL):	41.15	5.7	6.42	0.084	25.57	8.5	1.69	-27.2	16:40
One Casing Volume(gal):	2.38								
Start Purge (hrs):	16:10								
End Purge (hrs):	16:40								
Total Purge Time (min):	0:30								
Total Vol. Purged (gal):	5.7								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
SW-846 8260B - Select VOCs	HCl	Three 40mL Vials	Yes
SW-846 8270C SIM - PAHs	None	Two 1L Ambers	Yes
SW-846 6010B - Total Lead	HNO3	One 500mL Plastic	Yes
USEPA 504.1 - EDB	Na2S2O3	Three 40mL Vials	Yes
FL-PRO - TRPH	H2SO4	2 1L Ambers	Yes

OBSERVATIONS / NOTES:

See Field Analytical Log Sheets for Geochemical Parameters (i.e. natural attenuation).

Purge rate = 0.19 gal/min
Screen partially submerged, pump placed in screen interval
Purge 1 well volume = 14.85 ft. x 0.16 gal./ft = 2.38 gallons

Circle if Applicable:

MS/MSD	Duplicate ID No.:	Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: OLF SAUFLEY, BUILDING 2406
Project No.: N2642

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: OLFS-2406-MW39
Sample Location: MW-39
Sampled By: Howard Engle
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

		Color Visual	pH Standard	S.C. mS/cm	Temp. °C	Turbidity NTU	DO mg/l	ORP mV	Time
Date:	7/30/2004								
Time:	15:45								
Method:	low flow	clear	6.37	0.107	24.52	4.3	1.88	-7.2	15:45

PURGE DATA:

		Volume	pH	S.C.	Temp. (C)	Turbidity	DO	ORP	Time
Date:	7/30/2004								
Method:	low flow	1.6	6.31	0.101	24.63	8.5	0.97	-4.7	15:30
Monitor Reading (ppm):		2.4	6.32	0.105	24.55	5.1	0.99	-23	15:35
Well Casing Diameter & Material		3.2	6.37	0.107	24.52	4.3	1.88	-7.2	15:40
Type:	2" PVC								
Total Well Depth (TD):	56								
Static Water Level (WL):	36.02								
One Pump Volume(gal):	1.12								
Start Purge (hrs):	15:20								
End Purge (hrs):	15:40								
Total Purge Time (min):	0:20								
Total Vol. Purged (gal):	3.2								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
SW-846 8260B - Select VOCs	HCl	Three 40mL Vials	Yes
SW-846 8270C SIM - PAHs	None	Two 1L Ambers	Yes
SW-846 6010B - Total Lead	HNO3	One 500mL Plastic	Yes
USEPA 504.1 - EDB	Na2S2O3	Three 40mL Vials	Yes
FL-PRO - TRPH	H2SO4	2 1L Ambers	Yes

OBSERVATIONS / NOTES:

See Field Analytical Log Sheets for Geochemical Parameters (i.e. natural attenuation).

Purge rate = 0.16 gal/min
Screen fully submerged, pump placed in screen interval
Purge 1 pump volume = 56 ft. x0.02 gal./ft = 1.12 gallons

Circle if Applicable:

MS/MSD	Duplicate ID No.:	Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: OLF SAUFLEY, BUILDING 2406
Project No.: N2642

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: OLFS-2406-MW38
Sample Location: MW-38
Sampled By: Howard Engle
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color Visual	pH Standard	S.C. mS/cm	Temp. °C	Turbidity NTU	DO mg/l	ORP mV	Time
Date: 7/31/2004								
Time: 11:40								
Method: low flow	clear	5.79	0.119	23.59	16	0.88	11.4	11:40

PURGE DATA:

	Volume	pH	S.C.	Temp. (C)	Turbidity	DO	ORP	Time
Date: 7/31/2004								
Method: low flow	1.8	5.8	0.12	23.49	200	1.47	15.1	11:25
Monitor Reading (ppm):	2.7	5.8	0.118	23.57	35	0.96	13.3	11:30
Well Casing Diameter & Material	3.6	5.79	0.119	23.59	16	0.88	11.4	11:35
Type: 2" PVC	4.5	5.78	0.119	23.57	15	0.89	11.1	11:38
Total Well Depth (TD): 56								
Static Water Level (WL): 41.26								
One Casing Volume(gal): 2.36								
Start Purge (hrs): 11:15								
End Purge (hrs): 11:40								
Total Purge Time (min): 0:25								
Total Vol. Purged (gal): 4.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
SW-846 8260B - Select VOCs	HCl	Three 40mL Vials	Yes
SW-846 8270C SIM - PAHs	None	Two 1L Ambers	Yes
SW-846 6010B - Total Lead	HNO3	One 500mL Plastic	Yes
USEPA 504.1 - EDB	Na2S2O3	Three 40mL Vials	Yes
FL-PRO - TRPH	H2SO4	2 1L Ambers	Yes

OBSERVATIONS / NOTES:

See Field Analytical Log Sheets for Geochemical Parameters (i.e. natural attenuation).

Purge rate = 0.18 gal/min
Screen partially submerged, pump placed in screen interval
Purge 1 well volume = 14.74 ft. x 0.16 gal./ft = 2.36 gallons

Circle if Applicable:

MS/MSD	Duplicate ID No.:	Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: OLF SAUFLEY, BUILDING 2406
Project No.: N2642

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: OLFS-2406-MW37D
Sample Location: MW-37D
Sampled By: Howard Engle
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

		Color Visual	pH Standard	S.C. mS/cm	Temp. °C	Turbidity NTU	DO mg/l	ORP mV	Time
Date:	7/31/2004								
Time:	15:50								
Method:	low flow	clear	4.88	0.029	23.4	4	11.58	318.9	15:50

PURGE DATA:

		Volume	pH	S.C.	Temp. (C)	Turbidity	DO	ORP	Time
Date:	7/31/2004								
Method:	low flow	3.6	5.5	0.031	23.47	4.6	6.73	242.1	15:10
Monitor Reading (ppm):		7.2	5.21	0.029	23.43	6.6	9.03	269.5	15:20
Well Casing Diameter & Material		10.8	5.02	0.029	23.42	4.9	10.5	291.6	15:30
Type:	2" PVC	14.4	4.91	0.028	23.35	3.5	11.26	310.8	15:40
Total Well Depth (TD):	135.8	15.5	4.9	0.029	23.41	3.9	11.58	9:36	15:43
Static Water Level (WL):	47.09	16.6	4.88	0.029	23.4	4	11.58	318.9	15:46
One Pump Volume(gal):	2.68								
Start Purge (hrs):	15:00								
End Purge (hrs):	15:46								
Total Purge Time (min):	0:46								
Total Vol. Purged (gal):	16.6								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
SW-846 8260B - Select VOCs	HCl	Three 40mL Vials	Yes
SW-846 6010B - Total lead	HNO3	One 500mL Plastic	Yes

OBSERVATIONS / NOTES:

See Field Analytical Log Sheets for Geochemical Parameters (i.e. natural attenuation).

Purge rate = 0.36 gal/min
Screen fully submerged, pump placed in screen interval
Purge 1 pump volume = 134 ft. x 0.02 gal./ft = 2.68 gallons

Circle if Applicable:

MS/MSD	Duplicate ID No.:	Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: OLF SAUFLEY, BUILDING 2406
Project No.: N2642

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: OLFS-2406-MW34D
Sample Location: MW-34D
Sampled By: Howard Engle
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color Visual	pH Standard	S.C. mS/cm	Temp. °C	Turbidity NTU	DO mg/l	ORP mV	Time
Date: 7/30/2004								
Time: 11:30								
Method: low flow	clear	5.83	0.74	23.24	180	1.57	176.7	11:30

PURGE DATA:

	Volume	pH	S.C.	Temp. (C)	Turbidity	DO	ORP	Time
Date: 7/30/2004								
Method: low flow	1.3	5.81	0.069	23.5	95	1.24	169.5	10:55
Monitor Reading (ppm):	2.6	5.72	0.069	23.77	85	1.09	188.3	11:05
Well Casing Diameter & Material	3.9	5.64	0.067	23.04	110	1.03	181.2	11:15
Type: 2" PVC	5.2	5.83	0.74	23.24	180	1.57	176.7	11:25
Total Well Depth (TD): 77.9								
Static Water Level (WL): 27.3								
One Pump Volume(gal): 1.54								
Start Purge (hrs): 10:45								
End Purge (hrs): 11:25								
Total Purge Time (min): 0:40								
Total Vol. Purged (gal): 5.2								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
SW-846 6010B - Total lead	HNO3	One 500mL Plastic	Yes

OBSERVATIONS / NOTES:

See Field Analytical Log Sheets for Geochemical Parameters (i.e. natural attenuation).

Purge rate = 0.13 gal/min
Screen fully submerged, pump placed in screen interval
Purge 1 pump volume = 77 ft. x 0.02 gal./ft = 1.54 gallons

Circle if Applicable:

MS/MSD	Duplicate ID No.:	Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: OLF SAUFLEY, BUILDING 2406
Project No.: N2642

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: OLFS-2406-MW32D
Sample Location: MW-32D
Sampled By: Howard Engle
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

		Color Visual	pH Standard	S.C. mS/cm	Temp. °C	Turbidity NTU	DO mg/l	ORP mV	Time
Date:	7/31/2004								
Time:	13:00								
Method:	low flow	clear	4.77	0.042	23.62	2.6	6.89	361	13:00

PURGE DATA:

		Volume	pH	S.C.	Temp. (C)	Turbidity	DO	ORP	Time
Date:	7/31/2004								
Method:	low flow	3.6	4.95	0.038	22.43	8.3	4.69	286.7	12:20
Monitor Reading (ppm):		7.2	4.85	0.041	23.53	5.6	5.98	334.9	12:30
Well Casing Diameter & Material		10.8	4.81	0.042	23.48	5.8	6.42	351	12:40
Type:	2" PVC	14.4	4.79	0.042	23.52	4.9	6.68	16:48	12:50
Total Well Depth (TD):	135.7	15.48	4.78	0.042	23.56	4	6.75	0:00	12:53
Static Water Level (WL):	28.26	16.56	4.77	0.042	23.62	2.6	6.89	361	12:56
One Pump Volume(gal):	2.7								
Start Purge (hrs):	12:10								
End Purge (hrs):	12:56								
Total Purge Time (min):	0:46								
Total Vol. Purged (gal):	16.56								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
SW-846 8260B - Select VOC	HCL	Three 40mL Vials	Yes
SW-846 6010B - Total lead	HNO3	One 500mL Plastic	Yes

OBSERVATIONS / NOTES:

See Field Analytical Log Sheets for Geochemical Parameters (i.e. natural attenuation).

Purge rate = 0.36 gal/min
Screen fully submerged, pump placed in screen interval
Purge 1 pump volume = 135 ft. x 0.02 gal./ft = 2.7 gallons

Circle if Applicable:

MS/MSD	Duplicate ID No.:	Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: OLF SAUFLEY, BUILDING 2406
Project No.: N2642

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: OLFS-2406-MW29
Sample Location: MW-29
Sampled By: Howard Engle
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color Visual	pH Standard	S.C. mS/cm	Temp. °C	Turbidity NTU	DO mg/l	ORP mV	Time
Date: 7/29/2004								
Time: 1845								
Method: low flow	clear	5.22	0.04	22.99	7.2	0.26	185	1840

PURGE DATA:

	Volume	pH	S.C.	Temp. (C)	Turbidity	DO	ORP	Time
Date: 7/29/2004								
Method: low flow	3.1	5.3	0.042	22.89	3.3	0.29	203.6	1830
Monitor Reading (ppm):	4.65	5.24	0.041	22.93	6.5	0.27	189	1835
Well Casing Diameter & Material	6.2	5.22	0.04	22.99	7.2	0.26	185	1840
Type: 2" PVC								
Total Well Depth (TD): 80.4								
Static Water Level (WL): 38.37								
One Pump Volume(gal): 1.6								
Start Purge (hrs): 18:20								
End Purge (hrs): 18:40								
Total Purge Time (min): 0:20								
Total Vol. Purged (gal): 6.2								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
Sw-846 8260B - Select VOC	HCL	Three 40mL Vials	Yes
total lead - 6010	HNO3	One 500mL Plastic	Yes

OBSERVATIONS / NOTES:

See Field Analytical Log Sheets for Geochemical Parameters (i.e. natural attenuation).

Purge rate = 0.31 gal/min
Screen fully submerged, pump placed in screen interval
Purge 1 pump volume = 80 ft. x 0.02 gal./ft = 1.6 gallons

Circle if Applicable:

MS/MSD	Duplicate ID No.:	Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: OLF SAUFLEY, BUILDING 2406
Project No.: N2642

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: OLFS-2406-MW28
Sample Location: MW-28
Sampled By: Howard Engle
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

		Color Visual	pH Standard	S.C. mS/cm	Temp. ^{0}C	Turbidity NTU	DO mg/l	ORP mV	Time
Date:	7/30/2004								
Time:	9:55								
Method:	low flow	clear	13.06	2.582	24.28	13	2.36	-44.9	9:55

PURGE DATA:

		Volume	pH	S.C.	Temp. (C)	Turbidity	DO	ORP	Time
Date:	7/30/2004								
Method:	low flow	1.5	13.14	3.538	24.13	7.2	0.79	-76.8	9:40
Monitor Reading (ppm):		2.25	13.15	3.531	24.13	14	0.75	-75.6	9:45
Well Casing Diameter & Material		3	13.06	2.582	24.28	13	2.36	-44.9	9:50
Type:	2" PVC								
Total Well Depth (TD):	80.13								
Static Water Level (WL):	46.03								
One Pump Volume(gal):	1.6								
Start Purge (hrs):	9:30								
End Purge (hrs):	9:50								
Total Purge Time (min):	0:20								
Total Vol. Purged (gal):	3								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
SW-846 6010B - Total lead	HNO3	One 500mL Plastic	Yes

OBSERVATIONS / NOTES:

See Field Analytical Log Sheets for Geochemical Parameters (i.e. natural attenuation).

Purge rate = 0.15 gal/min
Screen fully submerged, pump placed in screen interval
Purge 1 pump volume = 80 ft. x 0.02 gal./ft = 1.6 gallons

Circle if Applicable:

MS/MSD	Duplicate ID No.:	Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: OLF SAUFLEY, BUILDING 2406
Project No.: N2642

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: OLFS-2406-DMW13
Sample Location: DMW-13
Sampled By: Howard Engle
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

		Color Visual	pH Standard	S.C. mS/cm	Temp. °C	Turbidity NTU	DO mg/L	ORP mV	Time
Date:	7/31/2004								
Time:	14:30								
Method:	low flow	clear	5.38	0.041	25.61	5.6	7.49	246	14:30

PURGE DATA:

		Volume	pH	S.C.	Temp. (C)	Turbidity	DO	ORP	Time
Date:	7/31/2004								
Method:	low flow	4	5.42	0.042	25.57	11	8.58	276.1	13:55
Monitor Reading (ppm):		8	5.4	0.042	25.71	5.8	8.28	281.1	14:05
Well Casing Diameter & Material		12	5.39	0.041	25.53	6.1	7.79	255.2	14:15
Type:	2" PVC	16	5.38	0.041	25.61	5.6	7.49	246	14:25
Total Well Depth (TD):	142								
Static Water Level (WL):	43.73								
One Pump Volume(gal):	2.8								
Start Purge (hrs):	13:35								
End Purge (hrs):	14:25								
Total Purge Time (min):	0:50								
Total Vol. Purged (gal):	16								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
SW-846 8260B - Select VOCs	HCL	Three 40mL VOA vials	Yes
Total Lead	HNO3	1 500mL Plastic	Yes

OBSERVATIONS / NOTES:

See Field Analytical Log Sheets for Geochemical Parameters (i.e. natural attenuation).

Purge rate = 0.13 gal/min
Screen fully submerged, pump placed in screen interval
Purge 1 pump volume = 140 ft. x 0.02 gal./ft =

Circle if Applicable:

MS/MSD	Duplicate ID No.:	Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: OLF SAUFLEY, BUILDING 2406
Project No.: N2642

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: OLFS-2406-MW43D
Sample Location: MW-43D
Sampled By: Howard Engle
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

		Color Visual	pH Standard	S.C. mS/cm	Temp. °C	Turbidity NTU	DO mg/l	ORP mV	Time
Date:	8/18/2004								
Time:	15:15								
Method:	low flow	clear	5.16	0.026	23.45	17.1	8.73	241.3	15:07

PURGE DATA:

		Volume	pH	S.C.	Temp. (C)	Turbidity	DO	ORP	Time
Date:	8/18/2004								
Method:	low flow	5.3 gal	5.38	0.027	23.98	611	7.98	158.1	14:47
Monitor Reading (ppm):		7.04 gal	5.38	0.024	24.11	272	7.95	159.3	14:50
Well Casing Diameter & Material		9.94 gal	5.17	0.026	23.62	48.7	8.76	211.3	14:55
Type:	2" PVC	15.16 gal	5.18	0.026	23.5	18.3	8.69	234.8	15:04
Total Well Depth (TD):	133.2	16.9 gal	5.16	0.026	23.45	17.1	8.73	241.3	15:07
Static Water Level (WL):	45								
One Pump Volume(gal):	5.3 gal								
Start Purge (hrs):	14:38								
End Purge (hrs):	15:07								
Total Purge Time (min):	0:29								
Total Vol. Purged (gal):	9.94 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
SW-846 6010B - Total Lead	HNO3	One 500mL Plastic	Yes

OBSERVATIONS / NOTES:

See Field Analytical Log Sheets for Geochemical Parameters (i.e. natural attenuation).

Purge rate = 0.58 gal/min
Screen fully submerged, tubing placed in screen interval
Purge 1 pump volume = 133.2 ft. x 0.04 gal./ft = 5.3 gallons

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: OLF SAUFLEY, BUILDING 2406
Project No.: N2642

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: OLFS-2406-MW43D
Sample Location: MW-43D
Sampled By: Howard Engle
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

		Color Visual	pH Standard	S.C. mS/cm	Temp. °C	Turbidity NTU	DO mg/l	ORP mV	Time
Date:	8/18/2004								
Time:	15:15								
Method:	low flow	clear	5.16	0.026	23.45	17.1	8.73	241.3	15:07

PURGE DATA:

		Volume	pH	S.C.	Temp. (C)	Turbidity	DO	ORP	Time
Date:	8/18/2004								
Method:	low flow	5.3 gal	5.38	0.027	23.98	611	7.98	158.1	14:47
Monitor Reading (ppm):		7.04 gal	5.38	0.024	24.11	272	7.95	159.3	14:50
Well Casing Diameter & Material		9.94 gal	5.17	0.026	23.62	48.7	8.76	211.3	14:55
Type:	2" PVC	15.16 gal	5.18	0.026	23.5	18.3	8.69	234.8	15:04
Total Well Depth (TD):	133.2	16.9 gal	5.16	0.026	23.45	17.1	8.73	241.3	15:07
Static Water Level (WL):	45								
One Pump Volume(gal):	5.3 gal								
Start Purge (hrs):	14:38								
End Purge (hrs):	15:07								
Total Purge Time (min):	0:29								
Total Vol. Purged (gal):	9.94 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
SW-846 6010B - Total Lead	HNO3	One 500mL Plastic	Yes

OBSERVATIONS / NOTES:

See Field Analytical Log Sheets for Geochemical Parameters (i.e. natural attenuation).

Purge rate = 0.58 gal/min
Screen fully submerged, tubing placed in screen interval
Purge 1 pump volume = 133.2 ft. x 0.04 gal./ft = 5.3 gallons

Circle if Applicable:

MS/MSD	Duplicate ID No.:	Signature(s):

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Page ___ of _____

Well: OLFS-2406-MW19
Site: OLF Saufley 2406
Date Installed: 12/13/02
Date Developed: 12/17/02
Dev. Method: Surge
Pump Type: Waterra

Depth to Bottom (ft.): 55 ft.
Static Water Level Before (ft.): _____
Static Water Level After (ft.): _____
Screen Length (ft.): 15 ft.
Specific Capacity: _____
Casing ID (in.): 4 in

Responsible Personnel: _____
Drilling Co.: Prosonic
Project Name: OLF Saufley, Site 2406 SAR Addendum
Project Number: 2642

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units _____)	Turbidity (NTU)	Remarks

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Page ___ of _____

Well: OLFS-2406-MW18
Site: OLF Saufley 2406
Date Installed: 12/12/02
Date Developed: 12/17/02
Dev. Method: Surge
Pump Type: Waterra

Depth to Bottom (ft.): 55 ft.
Static Water Level Before (ft.): _____
Static Water Level After (ft.): _____
Screen Length (ft.): 15 ft.
Specific Capacity: _____
Casing ID (in.): 4 in

Responsible Personnel: _____
Drilling Co.: Prosonic
Project Name: OLF Saufley, Site 2406 SAR Addendum
Project Number: 2642

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units _____)	Turbidity (NTU)	Remarks

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Page ___ of _____

Well: OLFS-2406-MW17
Site: OLF Saufley 2406
Date Installed: 12/11/02
Date Developed: 12/17/02
Dev. Method: Surge
Pump Type: Waterra

Depth to Bottom (ft.): 55 ft.
Static Water Level Before (ft.): _____
Static Water Level After (ft.): _____
Screen Length (ft.): 15 ft.
Specific Capacity: _____
Casing ID (in.): 4 in

Responsible Personnel: _____
Drilling Co.: Prosonic
Project Name: OLF Saufley, Site 2406 SAR Addendum
Project Number: 2642

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units _____)	Turbidity (NTU)	Remarks

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Page ___ of _____

Well: OLFS-2406-DMW37
Site: OLF Saufley 2406
Date Installed: 12/18/02
Date Developed: 12/17/02
Dev. Method: Surge
Pump Type: Waterra

Depth to Bottom (ft.): 133 ft.
Static Water Level Before (ft.): _____
Static Water Level After (ft.): _____
Screen Length (ft.): 10 ft.
Specific Capacity: _____
Casing ID (in.): 4 in

Responsible Personnel: _____
Drilling Co.: Prosonic
Project Name: OLF Saufley, Site 2406 SAR Addendum
Project Number: 2642

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units _____)	Turbidity (NTU)	Remarks

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Page ___ of _____

Well: OLFS-2406-DMW36
Site: OLF Saufley 2406
Date Installed: 12/15/02
Date Developed: 12/17/02
Dev. Method: Surge
Pump Type: Waterra

Depth to Bottom (ft.): 80 ft.
Static Water Level Before (ft.): _____
Static Water Level After (ft.): _____
Screen Length (ft.): 5 ft.
Specific Capacity: _____
Casing ID (in.): 4 in

Responsible Personnel: _____
Drilling Co.: Prosonic
Project Name: OLF Saufley, Site 2406 SAR Addendum
Project Number: 2642

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units _____)	Turbidity (NTU)	Remarks

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Page ___ of _____

Well: OLFS-2406-DMW35
Site: OLF Saufley 2406
Date Installed: 12/15/02
Date Developed: 12/18/02
Dev. Method: Surge
Pump Type: Waterra

Depth to Bottom (ft.): 80 ft.
Static Water Level Before (ft.): _____
Static Water Level After (ft.): _____
Screen Length (ft.): 5 ft.
Specific Capacity: _____
Casing ID (in.): 4 in

Responsible Personnel: _____
Drilling Co.: Prosonic
Project Name: OLF Saufley, Site 2406 SAR Addendum
Project Number: 2642

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units _____)	Turbidity (NTU)	Remarks

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Page ___ of _____

Well: OLFS-2406-DMW34R
Site: OLF Saufley 2406
Date Installed: 03/06/03
Date Developed: 03/07/03
Dev. Method: Surge
Pump Type: Waterra

Depth to Bottom (ft.): 65 ft.
Static Water Level Before (ft.): _____
Static Water Level After (ft.): _____
Screen Length (ft.): 15 ft.
Specific Capacity: _____
Casing ID (in.): 4 in

Responsible Personnel: _____
Drilling Co.: Prosonic
Project Name: OLF Saufley, Site 2406 SAR Addendum
Project Number: 2642

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units _____)	Turbidity (NTU)	Remarks

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Page ___ of _____

Well: OLFS-2406-DMW34
Site: OLF Saufley 2406
Date Installed: 12/18/02
Date Developed: 12/19/02
Dev. Method: Surge
Pump Type: Waterra

Depth to Bottom (ft.): 80 ft.
Static Water Level Before (ft.): _____
Static Water Level After (ft.): _____
Screen Length (ft.): 5 ft.
Specific Capacity: _____
Casing ID (in.): 4 in

Responsible Personnel: _____
Drilling Co.: Prosonic
Project Name: OLF Saufley, Site 2406 SAR Addendum
Project Number: 2642

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units _____)	Turbidity (NTU)	Remarks

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Page ___ of _____

Well: OLFS-2406-DMW33
Site: OLF Saufley 2406
Date Installed: 12/18/02
Date Developed: 12/19/02
Dev. Method: Surge
Pump Type: Waterra

Depth to Bottom (ft.): 80 ft.
Static Water Level Before (ft.): _____
Static Water Level After (ft.): _____
Screen Length (ft.): 5 ft.
Specific Capacity: _____
Casing ID (in.): 4 in

Responsible Personnel: _____
Drilling Co.: Prosonic
Project Name: OLF Saufley, Site 2406 SAR Addendum
Project Number:2642

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units _____)	Turbidity (NTU)	Remarks

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Page ___ of _____

Well: OLFS-2406-DMW32
Site: OLF Saufley 2406
Date Installed: 12/17/02
Date Developed: 12/18/02
Dev. Method: Surge
Pump Type: Waterra

Depth to Bottom (ft.): 130 ft.
Static Water Level Before (ft.): _____
Static Water Level After (ft.): _____
Screen Length (ft.): 5 ft.
Specific Capacity: _____
Casing ID (in.): 4 in

Responsible Personnel: _____
Drilling Co.: Prosonic
Project Name: OLF Saufley, Site 2406 SAR Addendum
Project Number: 2642

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units _____)	Turbidity (NTU)	Remarks

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Page ___ of _____

Well: OLFS-2406-DMW31
Site: OLF Saufley 2406
Date Installed: 12/16/02
Date Developed: 12/17/02
Dev. Method: Surge
Pump Type: Waterra

Depth to Bottom (ft.): 80 ft.
Static Water Level Before (ft.): _____
Static Water Level After (ft.): _____
Screen Length (ft.): 5 ft.
Specific Capacity: _____
Casing ID (in.): 4 in

Responsible Personnel: _____
Drilling Co.: Prosonic
Project Name: OLF Saufley, Site 2406 SAR Addendum
Project Number: 2642

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units _____)	Turbidity (NTU)	Remarks

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Page ___ of _____

Well: OLFS-2406-DMW30
Site: OLF Saufley 2406
Date Installed: 12/17/02
Date Developed: 12/18/02
Dev. Method: Surge
Pump Type: Waterra

Depth to Bottom (ft.): 80 ft.
Static Water Level Before (ft.): _____
Static Water Level After (ft.): _____
Screen Length (ft.): 5 ft.
Specific Capacity: _____
Casing ID (in.): 4 in

Responsible Personnel: _____
Drilling Co.: Prosonic
Project Name: OLF Saufley, Site 2406 SAR Addendum
Project Number: 2642

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units _____)	Turbidity (NTU)	Remarks

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Page ___ of _____

Well: OLFS-2406-DMW29
Site: OLF Saufley 2406
Date Installed: 12/18/02
Date Developed: 12/19/02
Dev. Method: Surge
Pump Type: Waterra

Depth to Bottom (ft.): 80 ft.
Static Water Level Before (ft.): _____
Static Water Level After (ft.): _____
Screen Length (ft.): 5 ft.
Specific Capacity: _____
Casing ID (in.): 4 in

Responsible Personnel: _____
Drilling Co.: Prosonic
Project Name: OLF Saufley, Site 2406 SAR Addendum
Project Number: 2642

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units _____)	Turbidity (NTU)	Remarks

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Page ___ of _____

Well: OLFS-2406-DMW28
Site: OLF Saufley 2406
Date Installed: 12/19/02
Date Developed: 12/20/02
Dev. Method: Surge
Pump Type: Waterra

Depth to Bottom (ft.): 80 ft.
Static Water Level Before (ft.): _____
Static Water Level After (ft.): _____
Screen Length (ft.): 5 ft.
Specific Capacity: _____
Casing ID (in.): 4 in

Responsible Personnel: _____
Drilling Co.: Prosonic
Project Name: OLF Saufley, Site 2406 SAR Addendum
Project Number: 2642

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units _____)	Turbidity (NTU)	Remarks

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Page ___ of _____

Well: OLFS-2406-DMW27
Site: OLF Saufley 2406
Date Installed: 12/16/02
Date Developed: 12/17/02
Dev. Method: Surge
Pump Type: Waterra

Depth to Bottom (ft.): 65 ft.
Static Water Level Before (ft.): _____
Static Water Level After (ft.): _____
Screen Length (ft.): 5 ft.
Specific Capacity: _____
Casing ID (in.): 4 in

Responsible Personnel: _____
Drilling Co.: Prosonic
Project Name: OLF Saufley, Site 2406 SAR Addendum
Project Number: 2642

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units _____)	Turbidity (NTU)	Remarks

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Page ___ of _____

Well: OLFS-2406-DMW26
Site: OLF Saufley 2406
Date Installed: 12/17/02
Date Developed: 12/18/02
Dev. Method: Surge
Pump Type: Waterra

Depth to Bottom (ft.): 65 ft.
Static Water Level Before (ft.): _____
Static Water Level After (ft.): _____
Screen Length (ft.): 5 ft.
Specific Capacity: _____
Casing ID (in.): 4 in

Responsible Personnel: _____
Drilling Co.: Prosonic
Project Name: OLF Saufley, Site 2406 SAR Addendum
Project Number: 2642

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units _____)	Turbidity (NTU)	Remarks

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Page ___ of _____

Well: OLFS-2406-DMW25
Site: OLF Saufley 2406
Date Installed: 12/17/02
Date Developed: 12/18/02
Dev. Method: Surge
Pump Type: Waterra

Depth to Bottom (ft.): 80 ft.
Static Water Level Before (ft.): _____
Static Water Level After (ft.): _____
Screen Length (ft.): 5 ft.
Specific Capacity: _____
Casing ID (in.): 4 in

Responsible Personnel: _____
Drilling Co.: Prosonic
Project Name: OLF Saufley, Site 2406 SAR Addendum
Project Number: 2642

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units _____)	Turbidity (NTU)	Remarks

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Page ___ of _____

Well: OLFS-2406-DMW24
Site: OLF Saufley 2406
Date Installed: 12/18/02
Date Developed: 12/19/02
Dev. Method: Surge
Pump Type: Waterra

Depth to Bottom (ft.): 80 ft.
Static Water Level Before (ft.): _____
Static Water Level After (ft.): _____
Screen Length (ft.): 5 ft.
Specific Capacity: _____
Casing ID (in.): 4 in

Responsible Personnel: _____
Drilling Co.: Prosonic
Project Name: OLF Saufley, Site 2406 SAR Addendum
Project Number: 2642

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units _____)	Turbidity (NTU)	Remarks

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Page ___ of _____

Well: OLFS-2406-DMW23
Site: OLF Saufley 2406
Date Installed: 12/19/02
Date Developed: 12/20/02
Dev. Method: Surge
Pump Type: Waterra

Depth to Bottom (ft.): 80 ft.
Static Water Level Before (ft.): _____
Static Water Level After (ft.): _____
Screen Length (ft.): 5 ft.
Specific Capacity: _____
Casing ID (in.): 4 in

Responsible Personnel: _____
Drilling Co.: Prosonic
Project Name: OLF Saufley, Site 2406 SAR Addendum
Project Number: 2642

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units _____)	Turbidity (NTU)	Remarks

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Page ___ of _____

Well: OLFS-2406-MW22
Site: OLF Saufley 2406
Date Installed: 12/14/02
Date Developed: 12/17/02
Dev. Method: Surge
Pump Type: Waterra

Depth to Bottom (ft.): 55 ft.
Static Water Level Before (ft.): _____
Static Water Level After (ft.): _____
Screen Length (ft.): 15 ft.
Specific Capacity: _____
Casing ID (in.): 4 in

Responsible Personnel: _____
Drilling Co.: Prosonic
Project Name: OLF Saufley, Site 2406 SAR Addendum
Project Number: 2642

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units _____)	Turbidity (NTU)	Remarks

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Page ___ of _____

Well: OLFS-2406-MW21
Site: OLF Saufley 2406
Date Installed: 12/13/02
Date Developed: 12/17/02
Dev. Method: Surge
Pump Type: Waterra

Depth to Bottom (ft.): 55 ft.
Static Water Level Before (ft.): _____
Static Water Level After (ft.): _____
Screen Length (ft.): 15 ft.
Specific Capacity: _____
Casing ID (in.): 4 in

Responsible Personnel: _____
Drilling Co.: Prosonic
Project Name: OLF Saufley, Site 2406 SAR Addendum
Project Number: 2642

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units _____)	Turbidity (NTU)	Remarks

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Page ___ of _____

Well: OLFS-2406-MW20
Site: OLF Saufley 2406
Date Installed: 12/12/02
Date Developed: 12/17/02
Dev. Method: Surge
Pump Type: Waterra

Depth to Bottom (ft.): 55 ft.
Static Water Level Before (ft.): _____
Static Water Level After (ft.): _____
Screen Length (ft.): 15 ft.
Specific Capacity: _____
Casing ID (in.): 4 in

Responsible Personnel: _____
Drilling Co.: Prosonic
Project Name: OLF Saufley, Site 2406 SAR Addendum
Project Number: 2642

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units _____)	Turbidity (NTU)	Remarks

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: OLF Saufley
PROJECT NUMBER: N2642
DRILLING COMPANY: Pyrosonic
DRILLING RIG: SR-055

BORING NUMBER: ~~OLFS-2406-MW38~~ OLFS2406SB34
DATE: 7 July 2004
GEOLOGIST: Larry Smith
DRILLER: Jeff Cummings

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	~~PID~~/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
1110				100%			Brick red		~~SC~~ CL		Ø	Ø	N/A	Ø
5				↓				silty, sandy, micaceous			Ø			
		1						clay			Ø	Ø	N/A	Ø
15				NOT							Ø	Ø		
				Recovered							Ø	Ø		Ø
25														
30								clayey silty SAND	SC/SM		Ø	Ø		
1210 35		2						lt gray to orange			Ø	Ø		Ø
40								grading to lt gray to			Ø	Ø		
45								white clayey Silt			Ø	Ø		Ø
50											Ø	Ø		
55								graded to lt orange			Ø	Ø		Ø
1210 60														
								Boring Terminated @						
								56 Feet bls						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: Borehole not accessable for FID/workers on mezzanine

Drilling Area Background (ppm): Ø

WT adjacent Well @ 45.3

Converted to Well: Yes X No ____ Well I.D. #: OLFS-2406-MW38

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: OLF Scuffley
PROJECT NUMBER: N2642
DRILLING COMPANY: Prosonic
DRILLING RIG: SR-055

BORING NUMBER: ~~OLFS-2406-39~~ OLFS 2406 @ 35
DATE: 7 July 2004
GEOLOGIST: Larry Smith
DRILLER: Jeff Cummings

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**	Time
			100%			Brick red		CL		Ø	Ø	NA	Ø	1610
							silty, sandy micaceous			Ø				
							CLAY			Ø	Ø		Ø	
						-	- - - - grading to			Ø				1625
							clayey silty SAND	SC/SM		Ø	Ø		Ø	
25							lt grey to white			Ø				1640
										Ø	Ø		Ø	
							grading to			Ø				1705
										Ø	Ø		Ø	
							clayey silt			Ø				1730
~~50~~										Ø	Ø		Ø	
60							Boring Terminated @ 56 feet bls							
~~65~~														
~~70~~														

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): Ø

Remarks: Borehole not accessable for FID/workers on raised platform

Converted to Well: Yes X No _____ Well I.D. #: OLFS-2406-MW39

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: OLF Sandy - 2406
PROJECT NUMBER: N2642
DRILLING COMPANY: Prosonic
DRILLING RIG: SR-055

BORING NUMBER: OLFS2406SB36 ~~OLFS-2406-DMW42D~~
DATE: 8 July 2004
GEOLOGIST: Larry Smith
DRILLER: Jeff Cummings

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**	Time
dry to moist							Brick Red		CL		Ø	Ø		Ø	
								silty sandy micaceous			Ø				
								CLAY			Ø	Ø		Ø	1010
											Ø				
		25						clayey silty SAND			Ø	Ø		Ø	1025
								lt grey to white to orange			Ø				
								increase in clay to sandy	CL	CLAY 1 foot thick	Ø	Ø		Ø	1030
								clayey silty SAND			Ø				
wet											Ø	Ø		Ø	1110
		50						As Above			Ø				
								with 1-2 foot zones of			Ø	Ø		Ø	1130
								increase percentages of clay			Ø				
								clayey sandy SILT	CL		Ø	Ø		Ø	1150
									CH	Plastic CLAY 65-70.5	Ø				
		75						clayey Fine sandy SILT	ML		Ø	Ø		Ø	1315
											Ø				
											Ø	Ø		Ø	1335
											Ø				
											Ø	Ø		Ø	1410
		100						Gradational contact	SM		Ø				
								Poorly Sorted Sand with Coarse			Ø	Ø		Ø	1440
								Sand Grains 5-10%		Pink to brown	Ø			Ø	
								minor pebbles			Ø	Ø		Ø	1510
											Ø			Ø	
		125						increase in % silt for 2 feet			Ø	Ø		Ø	

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): Ø

Remarks:

Converted to Well: Yes X No _____ Well I.D. #: OLFS-2406-DMW42D

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: OLF Sandfly 2406
PROJECT NUMBER: N2642
DRILLING COMPANY: Prosonic
DRILLING RIG: SR-055

BORING NUMBER: OLFS2406SB37 ~~OLFS-2406-MW42BS~~
DATE: 9 & July 2004
GEOLOGIST: Larry W. Smith
DRILLER: Jeff Cummings

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	100												
					See		MW42D						
	120												
	140												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes X No

Well I.D. #: OLFS-2406-MW42S

01

0C43AA

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: OLF Scantly - 2406
BORING NUMBER: ~~OLFS 2406 MW43D~~ OLFS2406GSB38
PROJECT NUMBER: N2642
DATE: 9 July 2004
DRILLING COMPANY: Prosonic
GEOLOGIST: Larry Smith
DRILLING RIG: SR-055
DRILLER: Jeff Cummings

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**	Time
							Grass Top Soil							
							Fine clayey silty SAND	CL		Ø	Ø		Ø	1210
							Lt grey to orange			Ø				
							micaceous			Ø	Ø		Ø	1236
										Ø				
Moist	25						gravel to			Ø	Ø		Ø	1255
							micaceous SILT	CL		Ø				
wet?							orange			Ø	Ø		Ø	1310
			NONE	???			Driller commented soft			Ø				
			NONE					SM		Ø	Ø		Ø	
	50						silty Fine SAND Grey/Green			Ø				1330
							silty CLAY Grey/Green	CH		Ø	Ø		Ø	
										Ø				1350
										Ø	Ø		Ø	
										Ø				1405
	75						Gravel 12" inches limonitic			Ø	Ø		Ø	
							CLAYEY SILT grading to			Ø				1430
							silty F-M SAND to (CH) CLAY lenses White to Ocher			Ø	Ø		Ø	
										Ø				1500
										Ø	Ø		Ø	
	100									Ø				1525
							Sandy silt Lgrey to Orange	SM		Ø	Ø		Ø	1650
										Ø				
							As above with M to C Qts SAND			Ø	Ø		Ø	
										Ø				
							Sandy SILT	MH		Ø	Ø		Ø	1740

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): Ø

Remarks:

Converted to Well: Yes Y No _____ Well I.D. #: OLFS-2406-MW43D

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: OLF Scuffly 2406
PROJECT NUMBER: N2642
DRILLING COMPANY: Prosonic
DRILLING RIG: SR-055

BORING NUMBER: OLFS2406SB39 ~~OLFS-2406-MW43S~~
DATE: 10 July 2004
GEOLOGIST: Larry Smith
DRILLER: Jeff Cummings

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
							See log for 2406-MW43D						

TIME

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: Well located 5 feet south of OLFS-2406-MW43D

Drilling Area Background (ppm): Ø

Converted to Well: Yes X No _____ Well I.D. #: OLFS-2406-MW43S

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: OLF Sauffley
PROJECT NUMBER: N ~~EFE~~ 2642
DRILLING COMPANY: Prosonic
DRILLING RIG: SR-055

BORING NUMBER: ~~OLFS 2406 MW405~~ OLFS2406SB40
DATE: 11 July 2004
GEOLOGIST: Larry Smith
DRILLER: Jeff Cummings

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**	Time
										Ø	Ø		Ø	1440
										Ø				
										Ø	Ø		Ø	
										Ø				
	25									Ø	Ø		Ø	
										Ø				1325
					Begin	sampling				Ø	Ø		Ø	1345
							clayey SILT	ML		Ø				
							micaceous lt grey			Ø	Ø		Ø	1505
	50						grading to			Ø				
							orange			Ø	Ø		Ø	
							Boring Terminated @							
							56 feet bls							

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): Ø

Converted to Well: Yes X No ____ Well I.D. #: OLFS-2406-MW405

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: OLF Sandfly
PROJECT NUMBER: N2642
DRILLING COMPANY: Prosonic
DRILLING RIG: SR-055

BORING NUMBER: ~~OLFS 2406 MW415~~ OLFS2406SB41
DATE: 11 July 2004
GEOLOGIST: Larry Smith
DRILLER: Jeff Cummings

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**	
							No Attempt to Recover				Ø		Ø	Time 0810
							Samples, Monitoring well							
							OLFS-2406-DMW23				Ø		Ø	
							is 10 feet north.							
	25										Ø		Ø	
							Recover samples from		36-46					
									46-56	Ø	Ø		Ø	
							clayey sandy SILT	ML		16				
										Ø	Ø		Ø	
	50									Ø				0905
										Ø	Ø		Ø	
							Boring terminated @							0930
							56 ft. bls.							

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): Ø

Converted to Well: Yes X No ____ Well I.D. #: OLFS-2406-MW415

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: Sauflly SAIR
PROJECT NUMBER: N2642
DRILLING COMPANY: Pvosonic
DRILLING RIG: SR-055

BORING NUMBER: OLFS2406SB42 ~~OLFS-2406 MW44D~~
DATE: 12 July 2004
GEOLOGIST: Larry Smith
DRILLER: Jeff Cummings

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**	
							Top soil with clay			Ø	Ø		Ø	Time 0815
							Brick Red mottled			Ø				
							Sandy Clay							
							grading to			Ø	Ø		Ø	0830
					moist		Sandy SILT Lt grey	ML		Ø				
	25						Not plastic			Ø	Ø		Ø	
							grading to ocher			Ø				0841
										Ø	Ø		Ø	
							grade to Grey			Ø				0853
							CLAY plastic Grey	CH		Ø	Ø		Ø	
	50									Ø				0907
						Gravel	limonitic	ML		Ø	Ø		Ø	
							Ocher			Ø				0930
							sandy SILT Lt Grey to							
							ocher grade to reddish	pink		Ø	Ø		Ø	
							grading to			Ø				0946
	75						ocher			Ø	Ø		Ø	1015
							trace CLAY bed	CH ML		Ø				
							lt Grey			Ø	Ø		Ø	1035
										Ø				
										Ø	Ø		Ø	1105
	100						Grading to			Ø				
							Silty fine SAND micaceous			Ø	Ø		Ø	
										Ø				1130
							Grey Silty CLAY	CH		Ø	Ø		Ø	
										Ø				
	125							ML		Ø	Ø		Ø	

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): Ø

Remarks:

Converted to Well: Yes X No _____ Well I.D. #: OLFS-2406-DMW44D

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: Sandfly SAR
PROJECT NUMBER: N2642
DRILLING COMPANY: Diosonic
DRILLING RIG: SR-055

BORING NUMBER: ~~OLFS-2406-MW44S~~ OLFS2406SB43
DATE: 12 July
GEOLOGIST: Larry Smith
DRILLER: Jeff Cunningham

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
					Not logged, adjacent to								
					OLFS-2406-MW44D reference								
					to that log.								
	25												
	50												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes Y No

Well I.D. #: OLFS-2406-MW44S

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: Saufley SAR
PROJECT NUMBER: N2642
DRILLING COMPANY: Prosonic
DRILLING RIG: SR-065

BORING NUMBER: OLPS2406SB44 ~~OLPS-2406-MW~~ ~~MW455~~
DATE: 13 July 2004
GEOLOGIST: Larry Smith
DRILLER: Jeff Cummings

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**	
														Time 1400
										Ø	Ø		Ø	
							Clayey SILT w/ ~9% Fine Sand Light Gray	ML		Ø				1410
										Ø	Ø		Ø	
										Ø				1435
	25									Ø	Ø		Ø	1450 Moist
							4" Thick CLAY Bed	CL		Ø				
								ML	500		Ø		Ø	wet
									4350					1500 Sat
									210		Ø		Ø	1500
	50						Boring Terminated @ 46 ft bls							

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): Ø

Converted to Well: Yes X No ~~X~~ Well I.D. #: ~~MW~~ OLPS-2406-MW455

APPENDIX C

VALIDATED LABORATORY ANALYTICAL REPORTS

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO:	**MR. G. WALKER**	**DATE:**	**OCTOBER 4, 2004**
FROM:	**EDWARD SEDLMYER**	**COPIES:**	**DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION- VOA/PAH/TPH**
CTO 274, NAS PENSACOLA
SDG F25819

SAMPLES: 7/Aqueous

OLFS-2406-DMW13	OLFS-2406-DMW32	OLFS-2406-DMW37
*OLFS-2406-MW38	*OLFS-2406-MW41	*OLFS-2406-RB01
TRIP BLANK		

OVERVIEW

The sample set for CTO 274, NAS Pensacola, SDG F25819 consists of one (1) trip blank, one (1) rinse blank, and five (5) aqueous environmental samples. All samples were analyzed for volatile organic compounds (VOCs). Samples denoted with an asterisk (*) were also analyzed for polynuclear aromatic hydrocarbons (PAHs), 1,2-dibromoethane, and total petroleum hydrocarbon (TPH). The trip blank was analyzed for VOCs and 1,2-dibromoethane only.

The samples were collected by TetraTech NUS on July 31, 2004 and analyzed by Accutest Laboratories. All analyses were conducted in accordance with Naval Facilities Engineering Service Center (NFESC) Quality Assurance/Quality Control (QA/QC) criteria using SW-846 Method 8260B, 8310, FDEP FL-PRO (TPH), and EPA Method 504.1 analytical and reporting protocols. The data contained in this SDG were validated with regard to the following parameters:

* • Data completeness
* • Holding times
* • Initial/continuing calibrations
* • Laboratory method blank results
• Detection Limits

The symbol (*) indicates that quality control criteria were met for this parameter. Problems affecting data quality are discussed below; documentation supporting these findings is presented in Appendix C. Qualified Analytical results are presented in Appendix A.

Volatiles

Sample OLFS-2406-MW41 required a dilution (10X) because of concentrations exceeding the linear calibration range of the instrument for benzene, ethylbenzene, toluene, and total xylenes. This accounts for the elevated detection limits for the non-detected results. No qualification of the data was necessary.

1,2-Dbromoethane

The trip blank (TRIP BLANK) and rinse blank (OLFS-2406-RB01) were double spiked for the surrogate 4-bromofluorobenzene. The laboratory corrected the percent recoveries for the double spike and the surrogate recoveries meet the laboratory specified criterion. No action was taken on this basis.

PAHs

No qualification of the data was necessary.

TPH

No qualification of the data is necessary.

Additional Comments:

Positive results less than the reporting limit (RL) were qualified as estimated "J", due to uncertainty near the detection limit.

The reporting limit for 2-chloroethylvinyl ether exceeded the reporting limit required in the laboratory specification but is below the groundwater action level.

All results were reported down to the method detection limits.

EXECUTIVE SUMMARY

Laboratory Performance Issues: None.

Other Factors Affecting Data Quality: None.

The data for these analyses were reviewed with reference to the EPA Functional Guidelines for Organic Data Validation (10/99), and the NFESC guidelines IRCDQM (Sept., 1999). The text of this report has been formulated to address only those problem areas affecting data quality.

"I attest that the data referenced herein were validated according to the agreed upon validation criteria as specified in the NFESC guidelines and the Quality Assurance Project Plan (QAPP)."

Edward Sedlmyer
Tetra Tech NUS

Edward Sedlmyer
Chemist/Data Validator

TetraTech NUS

Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:

Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

PROJ_NO: 2642

SDG: F25819 MEDIA: WATER DATA FRACTION: OV

nsample	OLFS-2406-DMW13
samp_date	7/31/2004
lab_id	F25819-4
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	0.5	U	
1,1,2,2-TETRACHLOROETHANE	0.3	U	
1,1,2-TRICHLOROETHANE	0.5	U	
1,1-DICHLOROETHANE	0.5	U	
1,1-DICHLOROETHENE	0.5	U	
1,2-DICHLOROBENZENE	0.5	U	
1,2-DICHLOROETHANE	0.5	U	
1,2-DICHLOROPROPANE	0.5	U	
1,3-DICHLOROBENZENE	0.5	U	
1,4-DICHLOROBENZENE	0.5	U	
2-CHLOROETHYL VINYL ETHER	2.5	U	
BENZENE	0.5	U	
BROMODICHLOROMETHANE	0.5	U	
BROMOFORM	0.5	U	
BROMOMETHANE	1	U	
CARBON TETRACHLORIDE	0.5	U	
CHLOROBENZENE	0.5	U	
CHLORODIBROMOMETHANE	0.4	U	
CHLOROETHANE	1	U	
CHLOROFORM	0.5	U	
CHLOROMETHANE	1	U	
CIS-1,2-DICHLOROETHENE	0.5	U	
CIS-1,3-DICHLOROPROPENE	0.3	U	
ETHYLBENZENE	0.5	U	
METHYL TERT-BUTYL ETHER	0.5	U	
METHYLENE CHLORIDE	1	U	
TETRACHLOROETHENE	0.5	U	
TOLUENE	0.5	U	
TOTAL XYLENES	1	U	
TRANS-1,2-DICHLOROETHENE	0.5	U	
TRANS-1,3-DICHLOROPROPENE	0.3	U	
TRICHLOROETHENE	0.5	U	

nsample	OLFS-2406-DMW13
samp_date	7/31/2004
lab_id	F25819-4
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
VINYL CHLORIDE	0.5	U	

nsample	OLFS-2406-DMW32
samp_date	7/31/2004
lab_id	F25819-3
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	0.5	U	
1,1,2,2-TETRACHLOROETHANE	0.3	U	
1,1,2-TRICHLOROETHANE	0.5	U	
1,1-DICHLOROETHANE	0.5	U	
1,1-DICHLOROETHENE	0.5	U	
1,2-DICHLOROBENZENE	0.5	U	
1,2-DICHLOROETHANE	0.5	U	
1,2-DICHLOROPROPANE	0.5	U	
1,3-DICHLOROBENZENE	0.5	U	
1,4-DICHLOROBENZENE	0.5	U	
2-CHLOROETHYL VINYL ETHER	2.5	U	
BENZENE	0.5	U	
BROMODICHLOROMETHANE	0.5	U	
BROMOFORM	0.5	U	
BROMOMETHANE	1	U	
CARBON TETRACHLORIDE	0.5	U	
CHLOROBENZENE	0.5	U	
CHLORODIBROMOMETHANE	0.4	U	
CHLOROETHANE	1	U	
CHLOROFORM	0.5	U	
CHLOROMETHANE	1	U	
CIS-1,2-DICHLOROETHENE	0.5	U	
CIS-1,3-DICHLOROPROPENE	0.3	U	
ETHYLBENZENE	0.5	U	
METHYL TERT-BUTYL ETHER	0.5	U	
METHYLENE CHLORIDE	1.1		
TETRACHLOROETHENE	0.5	U	
TOLUENE	0.5	U	
TOTAL XYLENES	1	U	
TRANS-1,2-DICHLOROETHENE	0.5	U	
TRANS-1,3-DICHLOROPROPENE	0.3	U	
TRICHLOROETHENE	0.5	U	

PROJ_NO: 2642

SDG: F25819 MEDIA: WATER DATA FRACTION: OV

nsample	OLFS-2406-DMW32
samp_date	7/31/2004
lab_id	F25819-3
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
VINYL CHLORIDE	0.5	U	

nsample	OLFS-2406-DMW37
samp_date	7/31/2004
lab_id	F25819-5
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	0.5	U	
1,1,2,2-TETRACHLOROETHANE	0.3	U	
1,1,2-TRICHLOROETHANE	0.5	U	
1,1-DICHLOROETHANE	0.5	U	
1,1-DICHLOROETHENE	0.5	U	
1,2-DICHLOROBENZENE	0.5	U	
1,2-DICHLOROETHANE	0.5	U	
1,2-DICHLOROPROPANE	0.5	U	
1,3-DICHLOROBENZENE	0.5	U	
1,4-DICHLOROBENZENE	0.5	U	
2-CHLOROETHYL VINYL ETHER	2.5	U	
BENZENE	0.5	U	
BROMODICHLOROMETHANE	0.5	U	
BROMOFORM	0.5	U	
BROMOMETHANE	1	U	
CARBON TETRACHLORIDE	0.5	U	
CHLOROBENZENE	0.5	U	
CHLORODIBROMOMETHANE	0.4	U	
CHLOROETHANE	1	U	
CHLOROFORM	0.5	U	
CHLOROMETHANE	1	U	
CIS-1,2-DICHLOROETHENE	0.5	U	
CIS-1,3-DICHLOROPROPENE	0.3	U	
ETHYLBENZENE	0.5	U	
METHYL TERT-BUTYL ETHER	0.5	U	
METHYLENE CHLORIDE	1.3		
TETRACHLOROETHENE	0.5	U	
TOLUENE	0.71	J	P
TOTAL XYLENES	1	U	
TRANS-1,2-DICHLOROETHENE	0.5	U	
TRANS-1,3-DICHLOROPROPENE	0.3	U	
TRICHLOROETHENE	0.5	U	

nsample	OLFS-2406-DMW37
samp_date	7/31/2004
lab_id	F25819-5
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
VINYL CHLORIDE	0.5	U	

PROJ_NO: 2642

SDG: F25819 MEDIA: WATER DATA FRACTION: OV

nsample	OLFS-2406-MW38
samp_date	7/31/2004
lab_id	F25819-2
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	0.5	U	
1,1,2,2-TETRACHLOROETHANE	0.3	U	
1,1,2-TRICHLOROETHANE	0.5	U	
1,1-DICHLOROETHANE	0.5	U	
1,1-DICHLOROETHENE	0.5	U	
1,2-DIBROMOETHANE	0.0089	U	
1,2-DICHLOROBENZENE	0.5	U	
1,2-DICHLOROETHANE	0.5	U	
1,2-DICHLOROPROPANE	0.5	U	
1,3-DICHLOROBENZENE	0.5	U	
1,4-DICHLOROBENZENE	0.5	U	
2-CHLOROETHYL VINYL ETHER	2.5	U	
BENZENE	0.5	U	
BROMODICHLOROMETHANE	0.5	U	
BROMOFORM	0.5	U	
BROMOMETHANE	1	U	
CARBON TETRACHLORIDE	0.5	U	
CHLOROBENZENE	0.5	U	
CHLORODIBROMOMETHANE	0.4	U	
CHLOROETHANE	1	U	
CHLOROFORM	0.5	U	
CHLOROMETHANE	1	U	
CIS-1,2-DICHLOROETHENE	0.5	U	
CIS-1,3-DICHLOROPROPENE	0.3	U	
ETHYLBENZENE	1.3		
METHYL TERT-BUTYL ETHER	0.5	U	
METHYLENE CHLORIDE	1	U	
TETRACHLOROETHENE	0.5	U	
TOLUENE	3.8		
TOTAL XYLENES	1.5	J	P
TRANS-1,2-DICHLOROETHENE	0.5	U	
TRANS-1,3-DICHLOROPROPENE	0.3	U	

nsample	OLFS-2406-MW38
samp_date	7/31/2004
lab_id	F25819-2
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
TRICHLOROETHENE	0.5	U	
VINYL CHLORIDE	0.5	U	

nsample	OLFS-2406-MW41
samp_date	7/31/2004
lab_id	F25819-1
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	5	U	
1,1,2,2-TETRACHLOROETHANE	3	U	
1,1,2-TRICHLOROETHANE	5	U	
1,1-DICHLOROETHANE	5	U	
1,1-DICHLOROETHENE	5	U	
1,2-DIBROMOETHANE	0.0089	U	
1,2-DICHLOROBENZENE	5	U	
1,2-DICHLOROETHANE	5	U	
1,2-DICHLOROPROPANE	5	U	
1,3-DICHLOROBENZENE	5	U	
1,4-DICHLOROBENZENE	5	U	
2-CHLOROETHYL VINYL ETHER	25	U	
BENZENE	439		
BROMODICHLOROMETHANE	5	U	
BROMOFORM	5	U	
BROMOMETHANE	10	U	
CARBON TETRACHLORIDE	5	U	
CHLOROBENZENE	5	U	
CHLORODIBROMOMETHANE	4	U	
CHLOROETHANE	10	U	
CHLOROFORM	5	U	
CHLOROMETHANE	10	U	
CIS-1,2-DICHLOROETHENE	5	U	
CIS-1,3-DICHLOROPROPENE	3	U	
ETHYLBENZENE	30.5		
METHYL TERT-BUTYL ETHER	5	U	
METHYLENE CHLORIDE	10	U	
TETRACHLOROETHENE	5	U	
TOLUENE	368		
TOTAL XYLENES	88.6		
TRANS-1,2-DICHLOROETHENE	5	U	
TRANS-1,3-DICHLOROPROPENE	3	U	

PROJ_NO: 2642

SDG: F25819 MEDIA: WATER DATA FRACTION: OV

nsample	OLFS-2406-MW41
samp_date	7/31/2004
lab_id	F25819-1
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
TRICHLOROETHENE	5	U	
VINYL CHLORIDE	5	U	

nsample	OLFS-2406-RB01
samp_date	7/31/2004
lab_id	F25819-8
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	0.5	U	
1,1,2,2-TETRACHLOROETHANE	0.3	U	
1,1,2-TRICHLOROETHANE	0.5	U	
1,1-DICHLOROETHANE	0.5	U	
1,1-DICHLOROETHENE	0.5	U	
1,2-DIBROMOETHANE	0.0092	U	
1,2-DICHLOROBENZENE	0.5	U	
1,2-DICHLOROETHANE	0.5	U	
1,2-DICHLOROPROPANE	0.5	U	
1,3-DICHLOROBENZENE	0.5	U	
1,4-DICHLOROBENZENE	0.5	U	
2-CHLOROETHYL VINYL ETHER	2.5	U	
BENZENE	0.5	U	
BROMODICHLOROMETHANE	0.5	U	
BROMOFORM	0.5	U	
BROMOMETHANE	1	U	
CARBON TETRACHLORIDE	0.5	U	
CHLOROBENZENE	0.5	U	
CHLORODIBROMOMETHANE	0.4	U	
CHLOROETHANE	1	U	
CHLOROFORM	0.5	U	
CHLOROMETHANE	1	U	
CIS-1,2-DICHLOROETHENE	0.5	U	
CIS-1,3-DICHLOROPROPENE	0.3	U	
ETHYLBENZENE	0.5	U	
METHYL TERT-BUTYL ETHER	0.5	U	
METHYLENE CHLORIDE	1	U	
TETRACHLOROETHENE	0.5	U	
TOLUENE	0.5	U	
TOTAL XYLENES	1	U	
TRANS-1,2-DICHLOROETHENE	0.5	U	
TRANS-1,3-DICHLOROPROPENE	0.3	U	

nsample	OLFS-2406-RB01
samp_date	7/31/2004
lab_id	F25819-8
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
TRICHLOROETHENE	0.5	U	
VINYL CHLORIDE	0.5	U	

PROJ_NO: 2642

SDG: F25819 MEDIA: WATER DATA FRACTION: OV

nsample	TRIP BLANK-F25819
samp_date	7/31/2004
lab_id	F25819-6
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	0.5	U	
1,1,2,2-TETRACHLOROETHANE	0.3	U	
1,1,2-TRICHLOROETHANE	0.5	U	
1,1-DICHLOROETHANE	0.5	U	
1,1-DICHLOROETHENE	0.5	U	
1,2-DIBROMOETHANE	0.0089	U	
1,2-DICHLOROBENZENE	0.5	U	
1,2-DICHLOROETHANE	0.5	U	
1,2-DICHLOROPROPANE	0.5	U	
1,3-DICHLOROBENZENE	0.5	U	
1,4-DICHLOROBENZENE	0.5	U	
2-CHLOROETHYL VINYL ETHER	2.5	U	
BENZENE	0.5	U	
BROMODICHLOROMETHANE	0.5	U	
BROMOFORM	0.5	U	
BROMOMETHANE	1	U	
CARBON TETRACHLORIDE	0.5	U	
CHLOROBENZENE	0.5	U	
CHLORODIBROMOMETHANE	0.4	U	
CHLOROETHANE	1	U	
CHLOROFORM	0.5	U	
CHLOROMETHANE	1	U	
CIS-1,2-DICHLOROETHENE	0.5	U	
CIS-1,3-DICHLOROPROPENE	0.3	U	
ETHYLBENZENE	0.5	U	
METHYL TERT-BUTYL ETHER	0.5	U	
METHYLENE CHLORIDE	1	U	
TETRACHLOROETHENE	0.5	U	
TOLUENE	0.5	U	
TOTAL XYLENES	1	U	
TRANS-1,2-DICHLOROETHENE	0.5	U	
TRANS-1,3-DICHLOROPROPENE	0.3	U	

nsample	TRIP BLANK-F25819
samp_date	7/31/2004
lab_id	F25819-6
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
TRICHLOROETHENE	0.5	U	
VINYL CHLORIDE	0.5	U	

PROJ_NO: 2642

SDG: F25819 MEDIA: WATER DATA FRACTION: PAH

nsample	OLFS-2406-MW38	nsample	OLFS-2406-MW41	nsample	OLFS-2406-RB01
samp_date	7/31/2004	samp_date	7/31/2004	samp_date	7/31/2004
lab_id	F25819-2	lab_id	F25819-1	lab_id	F25819-8
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/L	units	UG/L	units	UG/L
Pct_Solids		Pct_Solids		Pct_Solids	
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1-METHYLNAPHTHALENE	0.24	U	
2-METHYLNAPHTHALENE	0.24	U	
ACENAPHTHENE	0.49	U	
ACENAPHTHYLENE	0.49	U	
ANTHRACENE	0.24	U	
BENZO(A)ANTHRACENE	0.097	U	
BENZO(A)PYRENE	0.097	U	
BENZO(B)FLUORANTHENE	0.097	U	
BENZO(G,H,I)PERYLENE	0.097	U	
BENZO(K)FLUORANTHENE	0.097	U	
CHRYSENE	0.097	U	
DIBENZO(A,H)ANTHRACENE	0.097	U	
FLUORANTHENE	0.24	U	
FLUORENE	0.24	U	
INDENO(1,2,3-CD)PYRENE	0.097	U	
NAPHTHALENE	0.24	U	
PHENANTHRENE	0.24	U	
PYRENE	0.24	U	

Parameter	Result	Val Qual	Qual Code
1-METHYLNAPHTHALENE	0.26	U	
2-METHYLNAPHTHALENE	0.26	U	
ACENAPHTHENE	0.51	U	
ACENAPHTHYLENE	0.51	U	
ANTHRACENE	0.26	U	
BENZO(A)ANTHRACENE	0.1	U	
BENZO(A)PYRENE	0.1	U	
BENZO(B)FLUORANTHENE	0.1	U	
BENZO(G,H,I)PERYLENE	0.1	U	
BENZO(K)FLUORANTHENE	0.1	U	
CHRYSENE	0.1	U	
DIBENZO(A,H)ANTHRACENE	0.1	U	
FLUORANTHENE	0.26	U	
FLUORENE	0.26	U	
INDENO(1,2,3-CD)PYRENE	0.1	U	
NAPHTHALENE	0.46	J	P
PHENANTHRENE	0.26	U	
PYRENE	0.26	U	

Parameter	Result	Val Qual	Qual Code
1-METHYLNAPHTHALENE	0.25	U	
2-METHYLNAPHTHALENE	0.25	U	
ACENAPHTHENE	0.5	U	
ACENAPHTHYLENE	0.5	U	
ANTHRACENE	0.25	U	
BENZO(A)ANTHRACENE	0.1	U	
BENZO(A)PYRENE	0.1	U	
BENZO(B)FLUORANTHENE	0.1	U	
BENZO(G,H,I)PERYLENE	0.1	U	
BENZO(K)FLUORANTHENE	0.1	U	
CHRYSENE	0.1	U	
DIBENZO(A,H)ANTHRACENE	0.1	U	
FLUORANTHENE	0.25	U	
FLUORENE	0.25	U	
INDENO(1,2,3-CD)PYRENE	0.1	U	
NAPHTHALENE	0.25	U	
PHENANTHRENE	0.25	U	
PYRENE	0.25	U	

PROJ_NO: 2642

SDG: F25819 MEDIA: WATER DATA FRACTION: PET

nsample	OLFS-2406-MW38
samp_date	7/31/2004
lab_id	F25819-2
qc_type	NM
units	MG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
TOTAL PETROLEUM HYDROCARBONS	0.314		

nsample	OLFS-2406-MW41
samp_date	7/31/2004
lab_id	F25819-1
qc_type	NM
units	MG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
TOTAL PETROLEUM HYDROCARBONS	1.02		

nsample	OLFS-2406-RB01
samp_date	7/31/2004
lab_id	F25819-8
qc_type	NM
units	MG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
TOTAL PETROLEUM HYDROCARBONS	0.17	U	

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-DMW13		
Lab Sample ID:	F25819-4	**Date Sampled:**	07/31/04
Matrix:	AQ - Ground Water	**Date Received:**	08/03/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M0000094.D	1	08/11/04	NJ	n/a	n/a	VM4
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.50 U	1.0	0.50	ug/l	
75-27-4	Bromodichloromethane	0.50 U	1.0	0.50	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	ug/l	
75-00-3	Chloroethane	1.0 U	1.0	1.0	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	2.5 U	5.0	2.5	ug/l	
56-23-5	Carbon tetrachloride	0.50 U	1.0	0.50	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	ug/l	
124-48-1	Dibromochloromethane	0.40 U	1.0	0.40	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.30 U	1.0	0.30	ug/l	
541-73-1	m-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
95-50-1	o-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
106-46-7	p-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.30 U	1.0	0.30	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	ug/l	
74-83-9	Methyl bromide	1.0 U	1.0	1.0	ug/l	
74-87-3	Methyl chloride	1.0 U	1.0	1.0	ug/l	
75-09-2	Methylene chloride	1.0 U	1.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.30 U	1.0	0.30	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	ug/l	
127-18-4	Tetrachloroethylene	0.50 U	1.0	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	ug/l	
79-01-6	Trichloroethylene	0.50 U	1.0	0.50	ug/l	
75-01-4	Vinyl chloride	0.50 U	1.0	0.50	ug/l	

U = Not detected MDL - Method Detection Limit I = Result >= MDL but < RL J = Estimated value
RL = Reporting Limit V = Indicates analyte found in associated method blank
L = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFS-2406-DMW13		
Lab Sample ID:	F25819-4	**Date Sampled:**	07/31/04
Matrix:	AQ - Ground Water	**Date Received:**	08/03/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
1330-20-7	Xylene (total)	1.0 U	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		86-115%
17060-07-0	1,2-Dichloroethane-D4	102%		73-126%
2037-26-5	Toluene-D8	99%		86-112%
460-00-4	4-Bromofluorobenzene	96%		83-119%

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit
L = Indicates value exceeds calibration range

I = Result >= MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-DMW32		
Lab Sample ID:	F25819-3	**Date Sampled:**	07/31/04
Matrix:	AQ - Ground Water	**Date Received:**	08/03/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M0000093.D	1	08/11/04	NJ	n/a	n/a	VM4
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.50 U	1.0	0.50	ug/l	
75-27-4	Bromodichloromethane	0.50 U	1.0	0.50	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	ug/l	
75-00-3	Chloroethane	1.0 U	1.0	1.0	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	2.5 U	5.0	2.5	ug/l	
56-23-5	Carbon tetrachloride	0.50 U	1.0	0.50	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	ug/l	
124-48-1	Dibromochloromethane	0.40 U	1.0	0.40	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.30 U	1.0	0.30	ug/l	
541-73-1	m-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
95-50-1	o-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
106-46-7	p-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.30 U	1.0	0.30	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	ug/l	
74-83-9	Methyl bromide	1.0 U	1.0	1.0	ug/l	
74-87-3	Methyl chloride	1.0 U	1.0	1.0	ug/l	
75-09-2	Methylene chloride	1.1	1.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.30 U	1.0	0.30	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	ug/l	
127-18-4	Tetrachloroethylene	0.50 U	1.0	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	ug/l	
79-01-6	Trichloroethylene	0.50 U	1.0	0.50	ug/l	
75-01-4	Vinyl chloride	0.50 U	1.0	0.50	ug/l	

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit
L = Indicates value exceeds calibration range

I = Result >= MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

0061

Report of Analysis

Client Sample ID:	OLFS-2406-DMW32		
Lab Sample ID:	F25819-3	**Date Sampled:**	07/31/04
Matrix:	AQ - Ground Water	**Date Received:**	08/03/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
1330-20-7	Xylene (total)	1.0 U	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		86-115%
17060-07-0	1,2-Dichloroethane-D4	103%		73-126%
2037-26-5	Toluene-D8	98%		86-112%
460-00-4	4-Bromofluorobenzene	97%		83-119%

U = Not detected MDL - Method Detection Limit I = Result >= MDL but < RL J = Estimated value
RL = Reporting Limit V = Indicates analyte found in associated method blank
L = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-DMW37		
Lab Sample ID:	F25819-5	**Date Sampled:**	07/31/04
Matrix:	AQ - Ground Water	**Date Received:**	08/03/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M0000095.D	1	08/11/04	NJ	n/a	n/a	VM4
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.50 U	1.0	0.50	ug/l	
75-27-4	Bromodichloromethane	0.50 U	1.0	0.50	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	ug/l	
75-00-3	Chloroethane	1.0 U	1.0	1.0	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	2.5 U	5.0	2.5	ug/l	
56-23-5	Carbon tetrachloride	0.50 U	1.0	0.50	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	ug/l	
124-48-1	Dibromochloromethane	0.40 U	1.0	0.40	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.30 U	1.0	0.30	ug/l	
541-73-1	m-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
95-50-1	o-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
106-46-7	p-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.30 U	1.0	0.30	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	ug/l	
74-83-9	Methyl bromide	1.0 U	1.0	1.0	ug/l	
74-87-3	Methyl chloride	1.0 U	1.0	1.0	ug/l	
75-09-2	Methylene chloride	1.3	1.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.30 U	1.0	0.30	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	ug/l	
127-18-4	Tetrachloroethylene	0.50 U	1.0	0.50	ug/l	
108-88-3	Toluene	0.71	1.0	0.50	ug/l	I
79-01-6	Trichloroethylene	0.50 U	1.0	0.50	ug/l	
75-01-4	Vinyl chloride	0.50 U	1.0	0.50	ug/l	

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit
L = Indicates value exceeds calibration range

I = Result >= MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFS-2406-DMW37		
Lab Sample ID:	F25819-5	**Date Sampled:**	07/31/04
Matrix:	AQ - Ground Water	**Date Received:**	08/03/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
1330-20-7	Xylene (total)	1.0 U	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		86-115%
17060-07-0	1,2-Dichloroethane-D4	103%		73-126%
2037-26-5	Toluene-D8	99%		86-112%
460-00-4	4-Bromofluorobenzene	96%		83-119%

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit
L = Indicates value exceeds calibration range

I = Result >= MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-MW38		
Lab Sample ID:	F25819-2	**Date Sampled:**	07/31/04
Matrix:	AQ - Ground Water	**Date Received:**	08/03/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M0000092.D	1	08/11/04	NJ	n/a	n/a	VM4
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.50 U	1.0	0.50	ug/l	
75-27-4	Bromodichloromethane	0.50 U	1.0	0.50	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	ug/l	
75-00-3	Chloroethane	1.0 U	1.0	1.0	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	2.5 U	5.0	2.5	ug/l	
56-23-5	Carbon tetrachloride	0.50 U	1.0	0.50	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	ug/l	
124-48-1	Dibromochloromethane	0.40 U	1.0	0.40	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.30 U	1.0	0.30	ug/l	
541-73-1	m-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
95-50-1	o-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
106-46-7	p-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.30 U	1.0	0.30	ug/l	
100-41-4	Ethylbenzene	1.3	1.0	0.50	ug/l	
74-83-9	Methyl bromide	1.0 U	1.0	1.0	ug/l	
74-87-3	Methyl chloride	1.0 U	1.0	1.0	ug/l	
75-09-2	Methylene chloride	1.0 U	1.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.30 U	1.0	0.30	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	ug/l	
127-18-4	Tetrachloroethylene	0.50 U	1.0	0.50	ug/l	
108-88-3	Toluene	3.8	1.0	0.50	ug/l	
79-01-6	Trichloroethylene	0.50 U	1.0	0.50	ug/l	
75-01-4	Vinyl chloride	0.50 U	1.0	0.50	ug/l	

U = Not detected MDL - Method Detection Limit I = Result >= MDL but < RL J = Estimated value
RL = Reporting Limit V = Indicates analyte found in associated method blank
L = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-MW38		
Lab Sample ID:	F25819-2	**Date Sampled:**	07/31/04
Matrix:	AQ - Ground Water	**Date Received:**	08/03/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
1330-20-7	Xylene (total)	1.5	3.0	1.0	ug/l	I

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		86-115%
17060-07-0	1,2-Dichloroethane-D4	103%		73-126%
2037-26-5	Toluene-D8	99%		86-112%
460-00-4	4-Bromofluorobenzene	96%		83-119%

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit
L = Indicates value exceeds calibration range

I = Result >= MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-MW41		
Lab Sample ID:	F25819-1	**Date Sampled:**	07/31/04
Matrix:	AQ - Ground Water	**Date Received:**	08/03/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B023889.D	10	08/12/04	KW	n/a	n/a	VB1034
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	439	10	5.0	ug/l	
75-27-4	Bromodichloromethane	5.0 U	10	5.0	ug/l	
75-25-2	Bromoform	5.0 U	10	5.0	ug/l	
108-90-7	Chlorobenzene	5.0 U	10	5.0	ug/l	
75-00-3	Chloroethane	10 U	10	10	ug/l	
67-66-3	Chloroform	5.0 U	10	5.0	ug/l	
110-75-8	2-Chloroethyl vinyl ether	25 U	50	25	ug/l	
56-23-5	Carbon tetrachloride	5.0 U	10	5.0	ug/l	
75-34-3	1,1-Dichloroethane	5.0 U	10	5.0	ug/l	
75-35-4	1,1-Dichloroethylene	5.0 U	10	5.0	ug/l	
107-06-2	1,2-Dichloroethane	5.0 U	10	5.0	ug/l	
78-87-5	1,2-Dichloropropane	5.0 U	10	5.0	ug/l	
124-48-1	Dibromochloromethane	4.0 U	10	4.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	5.0 U	10	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	3.0 U	10	3.0	ug/l	
541-73-1	m-Dichlorobenzene	5.0 U	10	5.0	ug/l	
95-50-1	o-Dichlorobenzene	5.0 U	10	5.0	ug/l	
106-46-7	p-Dichlorobenzene	5.0 U	10	5.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	5.0 U	10	5.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	3.0 U	10	3.0	ug/l	
100-41-4	Ethylbenzene	30.5	10	5.0	ug/l	
74-83-9	Methyl bromide	10 U	10	10	ug/l	
74-87-3	Methyl chloride	10 U	10	10	ug/l	
75-09-2	Methylene chloride	10 U	10	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	5.0 U	10	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	5.0 U	10	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	3.0 U	10	3.0	ug/l	
79-00-5	1,1,2-Trichloroethane	5.0 U	10	5.0	ug/l	
127-18-4	Tetrachloroethylene	5.0 U	10	5.0	ug/l	
108-88-3	Toluene	368	10	5.0	ug/l	
79-01-6	Trichloroethylene	5.0 U	10	5.0	ug/l	
75-01-4	Vinyl chloride	5.0 U	10	5.0	ug/l	

U = Not detected MDL - Method Detection Limit I = Result >= MDL but < RL J = Estimated value
RL = Reporting Limit V = Indicates analyte found in associated method blank
L = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFS-2406-MW41		
Lab Sample ID:	F25819-1	**Date Sampled:**	07/31/04
Matrix:	AQ - Ground Water	**Date Received:**	08/03/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
1330-20-7	Xylene (total)	88.6	30	10	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		86-115%
17060-07-0	1,2-Dichloroethane-D4	98%		73-126%
2037-26-5	Toluene-D8	100%		86-112%
460-00-4	4-Bromofluorobenzene	101%		83-119%

U = Not detected MDL - Method Detection Limit I = Result >= MDL but < RL J = Estimated value
RL = Reporting Limit V = Indicates analyte found in associated method blank
L = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-RB01		
Lab Sample ID:	F25819-8	**Date Sampled:**	07/31/04
Matrix:	AQ - Equipment Blank	**Date Received:**	08/03/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M0000097.D	1	08/11/04	NJ	n/a	n/a	VM4
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.50 U	1.0	0.50	ug/l	
75-27-4	Bromodichloromethane	0.50 U	1.0	0.50	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	ug/l	
75-00-3	Chloroethane	1.0 U	1.0	1.0	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	2.5 U	5.0	2.5	ug/l	
56-23-5	Carbon tetrachloride	0.50 U	1.0	0.50	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	ug/l	
124-48-1	Dibromochloromethane	0.40 U	1.0	0.40	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.30 U	1.0	0.30	ug/l	
541-73-1	m-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
95-50-1	o-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
106-46-7	p-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.30 U	1.0	0.30	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	ug/l	
74-83-9	Methyl bromide	1.0 U	1.0	1.0	ug/l	
74-87-3	Methyl chloride	1.0 U	1.0	1.0	ug/l	
75-09-2	Methylene chloride	1.0 U	1.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.30 U	1.0	0.30	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	ug/l	
127-18-4	Tetrachloroethylene	0.50 U	1.0	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	ug/l	
79-01-6	Trichloroethylene	0.50 U	1.0	0.50	ug/l	
75-01-4	Vinyl chloride	0.50 U	1.0	0.50	ug/l	

U = Not detected MDL - Method Detection Limit I = Result >= MDL but < RL J = Estimated value
RL = Reporting Limit V = Indicates analyte found in associated method blank
L = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFS-2406-RB01		
Lab Sample ID:	F25819-8	**Date Sampled:**	07/31/04
Matrix:	AQ - Equipment Blank	**Date Received:**	08/03/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
1330-20-7	Xylene (total)	1.0 U	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		86-115%
17060-07-0	1,2-Dichloroethane-D4	103%		73-126%
2037-26-5	Toluene-D8	98%		86-112%
460-00-4	4-Bromofluorobenzene	95%		83-119%

U = Not detected MDL - Method Detection Limit I = Result >= MDL but < RL J = Estimated value
RL = Reporting Limit V = Indicates analyte found in associated method blank
L = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	F25819-6	**Date Sampled:**	07/31/04
Matrix:	AQ - Trip Blank Water	**Date Received:**	08/03/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M0000096.D	1	08/11/04	NJ	n/a	n/a	VM4
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.50 U	1.0	0.50	ug/l	
75-27-4	Bromodichloromethane	0.50 U	1.0	0.50	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	ug/l	
75-00-3	Chloroethane	1.0 U	1.0	1.0	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	2.5 U	5.0	2.5	ug/l	
56-23-5	Carbon tetrachloride	0.50 U	1.0	0.50	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	ug/l	
124-48-1	Dibromochloromethane	0.40 U	1.0	0.40	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.30 U	1.0	0.30	ug/l	
541-73-1	m-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
95-50-1	o-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
106-46-7	p-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.30 U	1.0	0.30	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	ug/l	
74-83-9	Methyl bromide	1.0 U	1.0	1.0	ug/l	
74-87-3	Methyl chloride	1.0 U	1.0	1.0	ug/l	
75-09-2	Methylene chloride	1.0 U	1.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.30 U	1.0	0.30	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	ug/l	
127-18-4	Tetrachloroethylene	0.50 U	1.0	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	ug/l	
79-01-6	Trichloroethylene	0.50 U	1.0	0.50	ug/l	
75-01-4	Vinyl chloride	0.50 U	1.0	0.50	ug/l	

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit
L = Indicates value exceeds calibration range

I = Result >= MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	F25819-6	**Date Sampled:**	07/31/04
Matrix:	AQ - Trip Blank Water	**Date Received:**	08/03/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
1330-20-7	Xylene (total)	1.0 U	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		86-115%
17060-07-0	1,2-Dichloroethane-D4	103%		73-126%
2037-26-5	Toluene-D8	98%		86-112%
460-00-4	4-Bromofluorobenzene	95%		83-119%

U = Not detected MDL - Method Detection Limit I = Result >= MDL but < RL J = Estimated value
RL = Reporting Limit V = Indicates analyte found in associated method blank
L = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-MW38		
Lab Sample ID:	F25819-2	**Date Sampled:**	07/31/04
Matrix:	AQ - Ground Water	**Date Received:**	08/03/04
Method:	EPA 504.1 EPA 504	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	MN22369.D	1	08/05/04	AA	08/04/04	OP11047	GMN801
Run #2							

	Initial Volume	Final Volume
Run #1	39.5 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
106-93-4	1,2-Dibromoethane	0.0089 U	0.018	0.0089	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	105%		60-139%

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit
L = Indicates value exceeds calibration range

I = Result >= MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

C448

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-MW41		
Lab Sample ID:	F25819-1	**Date Sampled:**	07/31/04
Matrix:	AQ - Ground Water	**Date Received:**	08/03/04
Method:	EPA 504.1 EPA 504	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	MN22366.D	1	08/05/04	AA	08/04/04	OP11047	GMN801
Run #2							

	Initial Volume	Final Volume
Run #1	39.3 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
106-93-4	1,2-Dibromoethane	0.0089 U	0.018	0.0089	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	94%		60-139%

U = Not detected MDL - Method Detection Limit I = Result >= MDL but < RL J = Estimated value
RL = Reporting Limit V = Indicates analyte found in associated method blank
L = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-RB01		
Lab Sample ID:	F25819-8	**Date Sampled:**	07/31/04
Matrix:	AQ - Equipment Blank	**Date Received:**	08/03/04
Method:	EPA 504.1 EPA 504	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	MN22372.D	1	08/05/04	AA	08/04/04	OP11047	GMN801
Run #2							

	Initial Volume	Final Volume
Run #1	37.9 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
106-93-4	1,2-Dibromoethane	0.0092 U	0.018	0.0092	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	89% [a]		60-139%

(a) Surrogate recoveries corrected for double spike.

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit
L = Indicates value exceeds calibration range

I = Result >= MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	F25819-7	**Date Sampled:**	07/31/04
Matrix:	AQ - Trip Blank Water	**Date Received:**	08/03/04
Method:	EPA 504.1 EPA 504	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	MN22371.D	1	08/05/04	AA	08/04/04	OP11047	GMN801
Run #2							

	Initial Volume	Final Volume
Run #1	39.2 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
106-93-4	1,2-Dibromoethane	0.0089 U	0.018	0.0089	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	104% [a]		60-139%

(a) Surrogate recoveries corrected for double spike.

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-MW38		
Lab Sample ID:	F25819-2	**Date Sampled:**	07/31/04
Matrix:	AQ - Ground Water	**Date Received:**	08/03/04
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W021475.D	1	08/12/04	ME	08/06/04	OP11065	SW1127
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	0.49 U	0.97	0.49	ug/l	
208-96-8	Acenaphthylene	0.49 U	0.97	0.49	ug/l	
120-12-7	Anthracene	0.24 U	0.97	0.24	ug/l	
56-55-3	Benzo(a)anthracene	0.097 U	0.19	0.097	ug/l	
50-32-8	Benzo(a)pyrene	0.097 U	0.19	0.097	ug/l	
205-99-2	Benzo(b)fluoranthene	0.097 U	0.19	0.097	ug/l	
191-24-2	Benzo(g,h,i)perylene	0.097 U	0.19	0.097	ug/l	
207-08-9	Benzo(k)fluoranthene	0.097 U	0.19	0.097	ug/l	
218-01-9	Chrysene	0.097 U	0.19	0.097	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.097 U	0.19	0.097	ug/l	
206-44-0	Fluoranthene	0.24 U	0.97	0.24	ug/l	
86-73-7	Fluorene	0.24 U	0.97	0.24	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	0.097 U	0.19	0.097	ug/l	
90-12-0	1-Methylnaphthalene	0.24 U	0.97	0.24	ug/l	
91-57-6	2-Methylnaphthalene	0.24 U	0.97	0.24	ug/l	
91-20-3	Naphthalene	0.24 U	0.97	0.24	ug/l	
85-01-8	Phenanthrene	0.24 U	0.97	0.24	ug/l	
129-00-0	Pyrene	0.24 U	0.97	0.24	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	83%		49-119%
321-60-8	2-Fluorobiphenyl	77%		45-118%
1718-51-0	Terphenyl-d14	83%		46-135%

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit
L = Indicates value exceeds calibration range

I = Result >= MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-MW41		
Lab Sample ID:	F25819-1	**Date Sampled:**	07/31/04
Matrix:	AQ - Ground Water	**Date Received:**	08/03/04
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W021474.D	1	08/12/04	ME	08/06/04	OP11065	SW1127
Run #2							

	Initial Volume	Final Volume
Run #1	980 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.51 U	1.0	0.51	ug/l	
208-96-8	Acenaphthylene	0.51 U	1.0	0.51	ug/l	
120-12-7	Anthracene	0.26 U	1.0	0.26	ug/l	
56-55-3	Benzo(a)anthracene	0.10 U	0.20	0.10	ug/l	
50-32-8	Benzo(a)pyrene	0.10 U	0.20	0.10	ug/l	
205-99-2	Benzo(b)fluoranthene	0.10 U	0.20	0.10	ug/l	
191-24-2	Benzo(g,h,i)perylene	0.10 U	0.20	0.10	ug/l	
207-08-9	Benzo(k)fluoranthene	0.10 U	0.20	0.10	ug/l	
218-01-9	Chrysene	0.10 U	0.20	0.10	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.10 U	0.20	0.10	ug/l	
206-44-0	Fluoranthene	0.26 U	1.0	0.26	ug/l	
86-73-7	Fluorene	0.26 U	1.0	0.26	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	0.10 U	0.20	0.10	ug/l	
90-12-0	1-Methylnaphthalene	0.26 U	1.0	0.26	ug/l	
91-57-6	2-Methylnaphthalene	0.26 U	1.0	0.26	ug/l	
91-20-3	Naphthalene	0.46	1.0	0.26	ug/l	I
85-01-8	Phenanthrene	0.26 U	1.0	0.26	ug/l	
129-00-0	Pyrene	0.26 U	1.0	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	79%		49-119%
321-60-8	2-Fluorobiphenyl	79%		45-118%
1718-51-0	Terphenyl-d14	74%		46-135%

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit
L = Indicates value exceeds calibration range

I = Result >= MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-RB01		
Lab Sample ID:	F25819-8	**Date Sampled:**	07/31/04
Matrix:	AQ - Equipment Blank	**Date Received:**	08/03/04
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W021476.D	1	08/12/04	ME	08/06/04	OP11065	SW1127
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.50 U	1.0	0.50	ug/l	
208-96-8	Acenaphthylene	0.50 U	1.0	0.50	ug/l	
120-12-7	Anthracene	0.25 U	1.0	0.25	ug/l	
56-55-3	Benzo(a)anthracene	0.10 U	0.20	0.10	ug/l	
50-32-8	Benzo(a)pyrene	0.10 U	0.20	0.10	ug/l	
205-99-2	Benzo(b)fluoranthene	0.10 U	0.20	0.10	ug/l	
191-24-2	Benzo(g,h,i)perylene	0.10 U	0.20	0.10	ug/l	
207-08-9	Benzo(k)fluoranthene	0.10 U	0.20	0.10	ug/l	
218-01-9	Chrysene	0.10 U	0.20	0.10	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.10 U	0.20	0.10	ug/l	
206-44-0	Fluoranthene	0.25 U	1.0	0.25	ug/l	
86-73-7	Fluorene	0.25 U	1.0	0.25	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	0.10 U	0.20	0.10	ug/l	
90-12-0	1-Methylnaphthalene	0.25 U	1.0	0.25	ug/l	
91-57-6	2-Methylnaphthalene	0.25 U	1.0	0.25	ug/l	
91-20-3	Naphthalene	0.25 U	1.0	0.25	ug/l	
85-01-8	Phenanthrene	0.25 U	1.0	0.25	ug/l	
129-00-0	Pyrene	0.25 U	1.0	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	85%		49-119%
321-60-8	2-Fluorobiphenyl	78%		45-118%
1718-51-0	Terphenyl-d14	91%		46-135%

U = Not detected MDL - Method Detection Limit I = Result >= MDL but < RL J = Estimated value
RL = Reporting Limit V = Indicates analyte found in associated method blank
L = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

0242

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-MW38		
Lab Sample ID:	F25819-2	**Date Sampled:**	07/31/04
Matrix:	AQ - Ground Water	**Date Received:**	08/03/04
Method:	FLORIDA-PRO SW846 3510C	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP41427.D	1	08/08/04	AA	08/06/04	OP11063	GOP1268
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	0.314	0.25	0.17	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	90%		50-125%

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit
L = Indicates value exceeds calibration range

I = Result >= MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-MW41		
Lab Sample ID:	F25819-1	**Date Sampled:**	07/31/04
Matrix:	AQ - Ground Water	**Date Received:**	08/03/04
Method:	FLORIDA-PRO SW846 3510C	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP41426.D	1	08/08/04	AA	08/06/04	OP11063	GOP1268
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	1.02	0.25	0.17	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	91%		50-125%

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit
L = Indicates value exceeds calibration range

I = Result >= MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-RB01		
Lab Sample ID:	F25819-8	**Date Sampled:**	07/31/04
Matrix:	AQ - Equipment Blank	**Date Received:**	08/03/04
Method:	FLORIDA-PRO SW846 3510C	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP41428.D	1	08/08/04	AA	08/06/04	OP11063	GOP1268
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	0.17 U	0.25	0.17	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	101%		50-125%

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit
L = Indicates value exceeds calibration range

I = Result >= MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

APPENDIX C

SUPPORT DOCUMENTATION

HOLDTIME

SDG F25819

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
M	UG/L	OLFS-2406-RB01	F25819-8	NM	07/31/2004	08/21/2004	08/24/2004	21	3	24
M	UG/L	OLFS-2406-DMW13	F25819-4	NM	07/31/2004	08/21/2004	08/24/2004	21	3	24
M	UG/L	OLFS-2406-DMW32	F25819-3	NM	07/31/2004	08/21/2004	08/24/2004	21	3	24
M	UG/L	OLFS-2406-DMW37	F25819-5	NM	07/31/2004	08/21/2004	08/24/2004	21	3	24
M	UG/L	OLFS-2406-MW41	F25819-1	NM	07/31/2004	08/21/2004	08/24/2004	21	3	24
M	UG/L	OLFS-2406-MW38	F25819-2	NM	07/31/2004	08/21/2004	08/24/2004	21	3	24
	%	OLFS-2406-MW41-PAH	F25819-1	NM	07/31/2004	08/06/2004	08/12/2004	6	6	12
	%	OLFS-2406-RB01-PAH	F25819-8	NM	07/31/2004	08/06/2004	08/12/2004	6	6	12
	%	OLFS-2406-MW38-PAH	F25819-2	NM	07/31/2004	08/06/2004	08/12/2004	6	6	12
	UG/L	OLFS-2406-MW41-PAH	F25819-1	NM	07/31/2004	08/06/2004	08/12/2004	6	6	12
	UG/L	OLFS-2406-RB01-PAH	F25819-8	NM	07/31/2004	08/06/2004	08/12/2004	6	6	12
	UG/L	OLFS-2406-MW38-PAH	F25819-2	NM	07/31/2004	08/06/2004	08/12/2004	6	6	12
EDB	%	OLFS-2406-MW38	F25819-2	NM	07/31/2004	08/04/2004	08/05/2004	4	1	5
EDB	%	OLFS-2406-MW41	F25819-1	NM	07/31/2004	08/04/2004	08/05/2004	4	1	5
EDB	%	OLFS-2406-RB01	F25819-8	NM	07/31/2004	08/04/2004	08/05/2004	4	1	5

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
EDB	%	TRIP BLANK	F25819-7	NM	07/31/2004	08/04/2004	08/05/2004	4	1	5
EDB	UG/L	OLFS-2406-MW41	F25819-1	NM	07/31/2004	08/04/2004	08/05/2004	4	1	5
EDB	UG/L	OLFS-2406-RB01	F25819-8	NM	07/31/2004	08/04/2004	08/05/2004	4	1	5
EDB	UG/L	TRIP BLANK	F25819-7	NM	07/31/2004	08/04/2004	08/05/2004	4	1	5
EDB	UG/L	OLFS-2406-MW38	F25819-2	NM	07/31/2004	08/04/2004	08/05/2004	4	1	5
OV	%	OLFS-2406-DMW32	F25819-3	NM	07/31/2004	08/11/2004	08/11/2004	11	0	11
OV	%	OLFS-2406-DMW37	F25819-5	NM	07/31/2004	08/11/2004	08/11/2004	11	0	11
OV	%	OLFS-2406-MW38	F25819-2	NM	07/31/2004	08/11/2004	08/11/2004	11	0	11
OV	%	OLFS-2406-MW41	F25819-1	NM	07/31/2004	08/12/2004	08/12/2004	12	0	12
OV	%	OLFS-2406-RB01	F25819-8	NM	07/31/2004	08/11/2004	08/11/2004	11	0	11
OV	%	TRIP BLANK	F25819-6	NM	07/31/2004	08/11/2004	08/11/2004	11	0	11
OV	%	OLFS-2406-DMW13	F25819-4	NM	07/31/2004	08/11/2004	08/11/2004	11	0	11
OV	UG/L	OLFS-2406-RB01	F25819-8	NM	07/31/2004	08/11/2004	08/11/2004	11	0	11
OV	UG/L	TRIP BLANK	F25819-6	NM	07/31/2004	08/11/2004	08/11/2004	11	0	11
OV	UG/L	OLFS-2406-DMW13	F25819-4	NM	07/31/2004	08/11/2004	08/11/2004	11	0	11
OV	UG/L	OLFS-2406-DMW32	F25819-3	NM	07/31/2004	08/11/2004	08/11/2004	11	0	11
OV	UG/L	OLFS-2406-DMW37	F25819-5	NM	07/31/2004	08/11/2004	08/11/2004	11	0	11
OV	UG/L	OLFS-2406-MW38	F25819-2	NM	07/31/2004	08/11/2004	08/11/2004	11	0	11

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	UG/L	OLFS-2406-MW41	F25819-1	NM	07/31/2004	08/12/2004	08/12/2004	12	0	12
TPH	MG/L	OLFS-2406-MW38	F25819-2	NM	07/31/2004	08/06/2004	08/08/2004	6	2	8
TPH	MG/L	OLFS-2406-RB01	F25819-8	NM	07/31/2004	08/06/2004	08/08/2004	6	2	8
TPH	MG/L	OLFS-2406-MW41	F25819-1	NM	07/31/2004	08/06/2004	08/08/2004	6	2	8

Southeast
ACCUTEST
Laboratories

09/02/04

Technical Report for

Tetra-Tech NUS

NAS Pensacola CTO# 274 N2642

N2642-WR452

Accutest Job Number: F25819

Sampling Date: 07/31/04

Report to:

Tetra-Tech,Inc.
661 Andersen Drive
Foster Plaza 7
Pittsburgh, PA 15520-2745

ATTN: Amy Thomson

Total number of pages in report: 773

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

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.

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Tetra-Tech NUS **Job No:** F25819

Site: NAS Pensacola CTO# 274 N2642 **Report Date** 9/2/2004 1:47:12 PM

6 Samples and 1 Trip Blank were collected on 07/31/2004 and were received at Accutest on 08/03/2004 properly preserved, at 3.6 Deg. C and intact. These Samples received an Accutest job number of F25819.A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix: AQ **Batch ID:** VB1034

All samples were analyzed within the recommended method holding time.

Sample(s) F25844-1MS, F25844-1MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

MS/MSD Recovery for Trichloroethylene is outside control limits. Outside control limits due to high level in sample relative to spike amount. For method performance in clean matrix refer to Blank Spike data

RPD(s) for MSD for 1,2-Dichloropropane, 2-Chloroethyl vinyl ether are outside control limits for sample F25844-1MSD, F25844-1MSD. Probable cause due to sample non-homogeneity.

Matrix: AQ **Batch ID:** VM4

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F25811-1MS, F25811-1MSD were used as the QC samples indicated.

MS/MSD Recovery for 2-Chloroethyl vinyl ether is outside control limits due to sampe preservation.

Extractables by GCMS By Method SW846 8270C BY SIM

Matrix: AQ **Batch ID:** OP11065

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F25789-10MS, F25789-10MSD were used as the QC samples indicated.

Volatiles by GC By Method EPA 504.1

Matrix: AQ **Batch ID:** OP11047

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F25819-8MS, F25819-8MSD were used as the QC samples indicated.

F25819-8 for 4-Bromofluorobenzene: Surrogate recoveries corrected for double spike.

F25819-7 for 4-Bromofluorobenzene: Surrogate recoveries corrected for double spike.

Extractables by GC By Method FLORIDA-PRO

Matrix: AQ **Batch ID:** OP11063

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

Sample(s) F25795-2MS, F25795-2MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

Matrix Spike Recovery(s) for TPH (C8-C40) are outside control limits. Outside control limits due to high level in sample relative to spike amount.

Metals By Method SW846 6010B

Matrix: AQ **Batch ID:** MP7017

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F25954-1DUP, F25954-1MS, F25954-1MSD, F25954-1SDL were used as the QC samples for metals.

RPD(s) for Serial Dilution for Lead are outside control limits. Probable cause due to sample non-homogeneity.

MP7017-SD1 for Lead: Serial dilution indicates possible matrix interference.

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data QualityObjectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used

Narrative prepared by:

Svetlana Izosimova, QAO

Date: September 02, 2004

TETRA TECH NUS, INC.

CHAIN OF CUSTODY

NUMBER 42 F25817

PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
N2642	OLF Sanford	Gerry Walker	385-9899 (850)	Accutest Labs SE (Sue Bell)
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
William Howard Engle		Howard Engle	850-385-9899	4405 Vineland Rd Ste C15
		CARRIER/WAYBILL NUMBER		CITY, STATE
				Orlando, FL 32811-7363

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

	DATE YEAR 2004	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	VOCs (8260)	EDB (504.1)	PAHs (8270 sim)	TRPH (FL-PRO)	Total Lead (6010)				COMMENTS
			CONTAINER TYPE PLASTIC (P) or GLASS (G)							3G	3G	2G	2G	1P				
			PRESERVATIVE USED							HCl	$H_2S_2O_3$	N/A	H_2SO_4	HNO_3				
1	7/31	1050	OLFS-2406-MW41	MW41	40.2	56	GW	G	11	X	X	X	X	X				All times are
2		1140	OLFS-2406-MW38	MW38	41.22	56			11	X	X	X	X	X				Central
3		1300	OLFS-2406-DMW32	MW32	98.13	135.7			4	X				X				
4		1430	OLFS-2406-DMW13	DMW13	43.73	142			4	X				X				see Work Release
5		1550	OLFS-2406-DMW37	DMW37	47.09	136			4	X				X				N2642-WR452
6			Trip Blank				QC		6	X	X							for detailed
8	7/31	1450	OLFS-2406-RB1						11	X	X	X	X	X				parameter list

1. RELINQUISHED BY: William Howard Engle	DATE 8/2/04	TIME 1630	1. RECEIVED BY: FX	DATE	TIME
2. RELINQUISHED BY: FX	DATE	TIME	2. RECEIVED BY: Carlos B	DATE 8/3/04	TIME 09:00
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS 3-2 3-6

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/0?

FORM NO. TINUS

Accutest Laboratories

Sample Summary

Tetra-Tech NUS

Job No: F25819

NAS Pensacola CTO# 274 N2642
Project No: N2642-WR452

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
F25819-1	07/31/04	10:50 WH	08/03/04	AQ	Ground Water	OLFS-2406-MW41
F25819-2	07/31/04	11:40 WH	08/03/04	AQ	Ground Water	OLFS-2406-MW38
F25819-3	07/31/04	13:00 WH	08/03/04	AQ	Ground Water	OLFS-2406-DMW32
F25819-4	07/31/04	14:30 WH	08/03/04	AQ	Ground Water	OLFS-2406-DMW13
F25819-5	07/31/04	15:50 WH	08/03/04	AQ	Ground Water	OLFS-2406-DMW37
F25819-6	07/31/04	00:00 WH	08/03/04	AQ	Trip Blank Water	TRIP BLANK
F25819-7	07/31/04	00:00 WH	08/03/04	AQ	Trip Blank Water	TRIP BLANK
F25819-8	07/31/04	14:50 WH	08/03/04	AQ	Equipment Blank	OLFS-2406-RB01

Volatile Surrogate Recovery Summary

Job Number: F25819
Account: TETRFLTA Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

Method: SW846 8260B **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
F25819-1	B023889.D	96.0	98.0	100.0	101.0
F25819-2	M0000092.D	103.0	103.0	99.0	96.0
F25819-3	M0000093.D	105.0	103.0	98.0	97.0
F25819-4	M0000094.D	104.0	102.0	99.0	96.0
F25819-5	M0000095.D	104.0	103.0	99.0	96.0
F25819-6	M0000096.D	103.0	103.0	98.0	95.0
F25819-8	M0000097.D	103.0	103.0	98.0	95.0
F25811-1MS	M0000098.D	105.0	102.0	100.0	96.0
F25811-1MSD	M0000099.D	104.0	103.0	97.0	97.0
F25844-1MS	B023890.D	102.0	105.0	96.0	94.0
F25844-1MSD	B023891.D	97.0	102.0	97.0	95.0
VB1034-BS	B023881.D	98.0	100.0	97.0	96.0
VB1034-MB	B023882.D	99.0	95.0	99.0	102.0
VM4-BS	M0000080.D	102.0	103.0	99.0	100.0
VM4-MB	M0000081.D	104.0	105.0	98.0	99.0

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	86-115%
S2 = 1,2-Dichloroethane-D4	73-126%
S3 = Toluene-D8	86-112%
S4 = 4-Bromofluorobenzene	83-119%

Method Blank Summary

Job Number: F25819
Account: TETRFLTA Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM4-MB	M0000081.D	1	08/11/04	NJ	n/a	n/a	VM4

The QC reported here applies to the following samples: **Method:** SW846 8260B

F25819-2, F25819-3, F25819-4, F25819-5, F25819-6, F25819-8

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
75-27-4	Bromodichloromethane	ND	2.0	0.50	ug/l	
75-25-2	Bromoform	ND	2.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	2.0	0.50	ug/l	
75-00-3	Chloroethane	ND	2.0	1.0	ug/l	
67-66-3	Chloroform	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	2.5	ug/l	
56-23-5	Carbon tetrachloride	ND	2.0	0.50	ug/l	
75-34-3	1,1-Dichloroethane	ND	2.0	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	ND	2.0	0.50	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	0.50	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.50	ug/l	
124-48-1	Dibromochloromethane	ND	2.0	0.40	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	2.0	0.50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.30	ug/l	
541-73-1	m-Dichlorobenzene	ND	2.0	0.50	ug/l	
95-50-1	o-Dichlorobenzene	ND	2.0	0.50	ug/l	
106-46-7	p-Dichlorobenzene	ND	2.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	2.0	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.30	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.50	ug/l	
74-83-9	Methyl bromide	ND	2.0	1.0	ug/l	
74-87-3	Methyl chloride	ND	2.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.30	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.50	ug/l	
127-18-4	Tetrachloroethylene	ND	2.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	0.50	ug/l	
79-01-6	Trichloroethylene	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.50	ug/l	
1330-20-7	Xylene (total)	ND	6.0	1.0	ug/l	

Method Blank Summary

Job Number: F25819
Account: TETRFLTA Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM4-MB	M0000081.D	1	08/11/04	NJ	n/a	n/a	VM4

The QC reported here applies to the following samples: **Method:** SW846 8260B

F25819-2, F25819-3, F25819-4, F25819-5, F25819-6, F25819-8

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	104%	86-115%
17060-07-0	1,2-Dichloroethane-D4	105%	73-126%
2037-26-5	Toluene-D8	98%	86-112%
460-00-4	4-Bromofluorobenzene	99%	83-119%

Method Blank Summary

Job Number: F25819
Account: TETRFLTA Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VB1034-MB	B023882.D	1	08/12/04	KW	n/a	n/a	VB1034

The QC reported here applies to the following samples: **Method:** SW846 8260B

F25819-1

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
75-27-4	Bromodichloromethane	ND	2.0	0.50	ug/l	
75-25-2	Bromoform	ND	2.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	2.0	0.50	ug/l	
75-00-3	Chloroethane	ND	2.0	1.0	ug/l	
67-66-3	Chloroform	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	2.5	ug/l	
56-23-5	Carbon tetrachloride	ND	2.0	0.50	ug/l	
75-34-3	1,1-Dichloroethane	ND	2.0	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	ND	2.0	0.50	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	0.50	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.50	ug/l	
124-48-1	Dibromochloromethane	ND	2.0	0.40	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	2.0	0.50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.30	ug/l	
541-73-1	m-Dichlorobenzene	ND	2.0	0.50	ug/l	
95-50-1	o-Dichlorobenzene	ND	2.0	0.50	ug/l	
106-46-7	p-Dichlorobenzene	ND	2.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	2.0	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.30	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.50	ug/l	
74-83-9	Methyl bromide	ND	2.0	1.0	ug/l	
74-87-3	Methyl chloride	ND	2.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.30	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.50	ug/l	
127-18-4	Tetrachloroethylene	ND	2.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	0.50	ug/l	
79-01-6	Trichloroethylene	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.50	ug/l	
1330-20-7	Xylene (total)	ND	6.0	1.0	ug/l	

Method Blank Summary

Job Number: F25819
Account: TETRFLTA Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VB1034-MB	B023882.D	1	08/12/04	KW	n/a	n/a	VB1034

The QC reported here applies to the following samples: **Method:** SW846 8260B

F25819-1

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	99%	86-115%
17060-07-0	1,2-Dichloroethane-D4	95%	73-126%
2037-26-5	Toluene-D8	99%	86-112%
460-00-4	4-Bromofluorobenzene	102%	83-119%

Instrument Performance Check (BFB)

Job Number: F25819
Account: TETRFLTA Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

Sample: VB1032-BFB
Lab File ID: B023843.D
Instrument ID: GCMSB
Injection Date: 08/10/04
Injection Time: 13:28

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	31386	33.1	Pass
75	30.0 - 60.0% of mass 95	46282	48.8	Pass
95	Base peak, 100% relative abundance	94880	100.0	Pass
96	5.0 - 9.0% of mass 95	6767	7.1	Pass
173	Less than 2.0% of mass 174	196	0.21 (0.29) [a]	Pass
174	50.0 - 100.0% of mass 95	68453	72.1	Pass
175	5.0 - 9.0% of mass 174	4811	5.1 (7.0) [a]	Pass
176	95.0 - 101.0% of mass 174	65869	69.4 (96.2) [a]	Pass
177	5.0 - 9.0% of mass 176	4195	4.4 (6.4) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VB1032-IC1032	B023844.D	08/10/04	13:54	00:26	Initial cal 1
VB1032-IC1032	B023845.D	08/10/04	14:22	00:54	Initial cal 5
VB1032-IC1032	B023846.D	08/10/04	14:48	01:20	Initial cal 20
VB1032-ICC1032	B023847.D	08/10/04	15:16	01:48	Initial cal 40
VB1032-IC1032	B023848.D	08/10/04	15:43	02:15	Initial cal 70
VB1032-IC1032	B023849.D	08/10/04	16:10	02:42	Initial cal 100

Instrument Performance Check (BFB)

Job Number: F25819
Account: TETRFLTA Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

Sample: VB1034-BFB
Lab File ID: B023878.D
Instrument ID: GCMSB
Injection Date: 08/12/04
Injection Time: 09:27

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	42116	38.3	Pass
75	30.0 - 60.0% of mass 95	54205	49.3	Pass
95	Base peak, 100% relative abundance	110034	100.0	Pass
96	5.0 - 9.0% of mass 95	7394	6.7	Pass
173	Less than 2.0% of mass 174	392	0.36 (0.45) [a]	Pass
174	50.0 - 100.0% of mass 95	87192	79.2	Pass
175	5.0 - 9.0% of mass 174	5774	5.2 (6.6) [a]	Pass
176	95.0 - 101.0% of mass 174	84832	77.1 (97.3) [a]	Pass
177	5.0 - 9.0% of mass 176	6116	5.6 (7.2) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VB1034-CC1032	B023880.D	08/12/04	10:19	00:52	Continuing cal 40
VB1034-BS	B023881.D	08/12/04	10:46	01:19	Blank Spike
VB1034-MB	B023882.D	08/12/04	11:14	01:47	Method Blank
F25844-1	B023883.D	08/12/04	11:43	02:16	(used for QC only; not part of job F25819)
ZZZZZZ	B023884.D	08/12/04	12:12	02:45	(unrelated sample)
ZZZZZZ	B023885.D	08/12/04	12:39	03:12	(unrelated sample)
ZZZZZZ	B023886.D	08/12/04	13:05	03:38	(unrelated sample)
ZZZZZZ	B023887.D	08/12/04	13:32	04:05	(unrelated sample)
ZZZZZZ	B023888.D	08/12/04	13:59	04:32	(unrelated sample)
F25819-1	B023889.D	08/12/04	14:28	05:01	OLFS-2406-MW41
F25844-1MS	B023890.D	08/12/04	14:55	05:28	Matrix Spike
F25844-1MSD	B023891.D	08/12/04	15:22	05:55	Matrix Spike Duplicate
ZZZZZZ	B023892.D	08/12/04	15:49	06:22	(unrelated sample)
ZZZZZZ	B023893.D	08/12/04	16:17	06:50	(unrelated sample)
ZZZZZZ	B023894.D	08/12/04	16:44	07:17	(unrelated sample)
ZZZZZZ	B023898.D	08/12/04	18:33	09:06	(unrelated sample)
ZZZZZZ	B023899.D	08/12/04	19:00	09:33	(unrelated sample)
ZZZZZZ	B023901.D	08/12/04	19:55	10:28	(unrelated sample)
ZZZZZZ	B023903.D	08/12/04	20:49	11:22	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: F25819
Account: TETRFLTA Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

Sample: VM1-BFB
Lab File ID: M0000001.D
Instrument ID: GCMSM
Injection Date: 08/06/04
Injection Time: 09:54

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	40600	32.3	Pass
75	30.0 - 60.0% of mass 95	50752	40.3	Pass
95	Base peak, 100% relative abundance	125866	100.0	Pass
96	5.0 - 9.0% of mass 95	8206	6.5	Pass
173	Less than 2.0% of mass 174	597	0.47 (0.55) [a]	Pass
174	50.0 - 100.0% of mass 95	108026	85.8	Pass
175	5.0 - 9.0% of mass 174	8242	6.5 (7.6) [a]	Pass
176	95.0 - 101.0% of mass 174	103914	82.6 (96.2) [a]	Pass
177	5.0 - 9.0% of mass 176	6925	5.5 (6.7) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VM1-IC1	M0000002.D	08/06/04	10:09	00:15	Initial cal 1
VM1-IC1	M0000003.D	08/06/04	10:36	00:42	Initial cal 5
VM1-IC1	M0000004.D	08/06/04	11:03	01:09	Initial cal 20
VM1-ICC1	M0000005.D	08/06/04	11:31	01:37	Initial cal 40
VM1-IC1	M0000006.D	08/06/04	11:59	02:05	Initial cal 70
VM1-IC1	M0000007.D	08/06/04	12:26	02:32	Initial cal 100
VM1-MB	M0000009.D	08/06/04	13:21	03:27	Method Blank
F25856-1	M0000010.D	08/06/04	14:55	05:01	(used for QC only; not part of job F25819)
ZZZZZZ	M0000011.D	08/06/04	15:23	05:29	(unrelated sample)
ZZZZZZ	M0000012.D	08/06/04	15:50	05:56	(unrelated sample)
ZZZZZZ	M0000013.D	08/06/04	16:18	06:24	(unrelated sample)
ZZZZZZ	M0000014.D	08/06/04	16:46	06:52	(unrelated sample)
ZZZZZZ	M0000015.D	08/06/04	17:13	07:19	(unrelated sample)
VM1-BS	M0000016.D	08/06/04	17:41	07:47	Blank Spike
F25856-1MS	M0000017.D	08/06/04	18:09	08:15	Matrix Spike
F25856-1MSD	M0000018.D	08/06/04	18:37	08:43	Matrix Spike Duplicate
ZZZZZZ	M0000019.D	08/06/04	19:05	09:11	(unrelated sample)
ZZZZZZ	M0000020.D	08/06/04	19:33	09:39	(unrelated sample)
ZZZZZZ	M0000021.D	08/06/04	20:01	10:07	(unrelated sample)
ZZZZZZ	M0000022.D	08/06/04	20:29	10:35	(unrelated sample)
ZZZZZZ	M0000023.D	08/06/04	20:57	11:03	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: F25819
Account: TETRFLTA Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

Sample:	VM4-BFB	**Injection Date:**	08/11/04
Lab File ID:	M0000078.D	**Injection Time:**	09:01
Instrument ID:	GCMSM		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	32288	31.5	Pass
75	30.0 - 60.0% of mass 95	40365	39.3	Pass
95	Base peak, 100% relative abundance	102637	100.0	Pass
96	5.0 - 9.0% of mass 95	7137	7.0	Pass
173	Less than 2.0% of mass 174	234	0.23 (0.27) [a]	Pass
174	50.0 - 100.0% of mass 95	86554	84.3	Pass
175	5.0 - 9.0% of mass 174	6243	6.1 (7.2) [a]	Pass
176	95.0 - 101.0% of mass 174	83237	81.1 (96.2) [a]	Pass
177	5.0 - 9.0% of mass 176	5431	5.3 (6.5) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VM4-CC1	M0000079.D	08/11/04	09:27	00:26	Continuing cal 40
VM4-BS	M0000080.D	08/11/04	09:57	00:56	Blank Spike
VM4-MB	M0000081.D	08/11/04	10:25	01:24	Method Blank
ZZZZZZ	M0000082.D	08/11/04	11:00	01:59	(unrelated sample)
ZZZZZZ	M0000083.D	08/11/04	11:27	02:26	(unrelated sample)
ZZZZZZ	M0000084.D	08/11/04	11:54	02:53	(unrelated sample)
ZZZZZZ	M0000085.D	08/11/04	12:22	03:21	(unrelated sample)
ZZZZZZ	M0000086.D	08/11/04	12:50	03:49	(unrelated sample)
F25811-1	M0000087.D	08/11/04	13:19	04:18	(used for QC only; not part of job F25819)
ZZZZZZ	M0000088.D	08/11/04	13:46	04:45	(unrelated sample)
ZZZZZZ	M0000089.D	08/11/04	14:16	05:15	(unrelated sample)
ZZZZZZ	M0000090.D	08/11/04	14:45	05:44	(unrelated sample)
F25819-2	M0000092.D	08/11/04	15:43	06:42	OLFS-2406-MW38
F25819-3	M0000093.D	08/11/04	16:11	07:10	OLFS-2406-DMW32
F25819-4	M0000094.D	08/11/04	16:39	07:38	OLFS-2406-DMW13
F25819-5	M0000095.D	08/11/04	17:07	08:06	OLFS-2406-DMW37
F25819-6	M0000096.D	08/11/04	17:35	08:34	TRIP BLANK
F25819-8	M0000097.D	08/11/04	18:03	09:02	OLFS-2406-RB01
F25811-1MS	M0000098.D	08/11/04	18:31	09:30	Matrix Spike
F25811-1MSD	M0000099.D	08/11/04	18:59	09:58	Matrix Spike Duplicate
ZZZZZZ	M0000100.D	08/11/04	19:26	10:25	(unrelated sample)
ZZZZZZ	M0000101.D	08/11/04	19:54	10:53	(unrelated sample)
ZZZZZZ	M0000102.D	08/11/04	20:21	11:20	(unrelated sample)

Response Factor Report MSVOA4

Method : C:\MSDCHEM\1\METHODS\82600810.M (RTE Integrator)
Title : EPA 624 & SWA 5030B/8260B
Last Update : Tue Aug 10 16:48:55 2004
Response via : Initial Calibration

Calibration Files
1 =B023844.D 2 =B023845.D 3 =B023846.D
4 =B023847.D 5 =B023848.D 6 =B023849.D

		Compound	1	2	3	4	5	6	Avg	%RS
1)	I	Fluorobenzene	----------	----------	----------	ISTD	----------	----------	----------	
2)		Dichlorodifluoromet	0.437	0.370	0.365	0.358	0.361	0.337	0.371	9.27
3)	P	Chloromethane	1.019	0.948	0.907	0.881	0.874	0.785	0.902	8.70
4)	C	Vinyl Chloride	0.575	0.599	0.579	0.561	0.576	0.516	0.568	4.94
5)		Bromomethane		0.263	0.250	0.235	0.233	0.204	0.237	9.39
6)		Chloroethane	0.283	0.311	0.293	0.275	0.278	0.251	0.282	7.04
7)		Trichlorofluorometh	0.520	0.456	0.486	0.453	0.497	0.465	0.479	5.53
8)		Ethyl Ether	0.401	0.339	0.404	0.381	0.395	0.370	0.382	6.40
9)		1,2-Dichlorotrifluo	0.540	0.497	0.495	0.459	0.478	0.451	0.487	6.55
10)		Acrolein	0.055	0.056	0.057	0.053	0.057	0.057	0.056	2.92
11)		Freon 113	0.339	0.287	0.288	0.268	0.281	0.283	0.291	8.50
12)	C	1,1-Dichloroethene	0.806	0.716	0.710	0.672	0.710	0.715	0.722	6.19
13)		Acetone		0.287	0.296	0.274	0.293	0.278	0.286	3.31
14)		Iodomethane	0.393	0.376	0.387	0.348	0.382	0.380	0.378	4.13
15)		Carbon Disulfide	1.395	1.119	1.148	1.082	1.136	1.121	1.167	9.77
16)		Methyl acetate	0.484	0.418	0.438	0.419	0.452	0.448	0.443	5.51
17)		Methylene Chloride		0.903	0.850	0.808	0.839	0.810	0.842	4.58
18)		Methyl Tert Butyl E	0.726	0.635	0.662	0.667	0.712	0.713	0.686	5.28
19)		trans-1,2-Dichloroe	0.728	0.601	0.638	0.604	0.641	0.631	0.640	7.18
20)		Acrylonitrile	0.138	0.167	0.195	0.191	0.193	0.193	0.180	12.85
21)		Hexane		0.616	0.643	0.619	0.630	0.628	0.627	1.68
22)		Di-isopropyl ether	2.208	2.024	2.126	2.012	2.146	2.114	2.105	3.55
23)		Vinyl acetate		0.898	0.916	0.955	0.958	0.991	0.943	3.90
24)	P	1,1-Dichloroethane	0.790	0.727	0.768	0.730	0.773	0.767	0.759	3.31
25)		ETBE	0.971	0.896	1.049	1.048	1.169	1.201	1.056	10.95
26)		2-Butanone	0.314	0.287	0.333	0.326	0.350	0.338	0.325	6.76
27)		2,2-Dichloropropane	0.161	0.161	0.194	0.196	0.217	0.215	0.191	13.18
28)		cis-1,2-Dichloroeth	0.357	0.310	0.327	0.306	0.322	0.319	0.324	5.65
29)		Bromochloromethane	0.147	0.123	0.121	0.117	0.123	0.123	0.126	8.46
30)		Tetrahydrofuran	0.209	0.149	0.168	0.152	0.163	0.162	0.167	13.00
31)	C	Chloroform	0.635	0.541	0.550	0.525	0.557	0.557	0.561	6.86
32)	S	Dibromofluoromethan	0.246	0.244	0.236	0.235	0.239	0.236	0.239	1.87
33)		1,1,1-Trichloroetha	0.464	0.388	0.412	0.396	0.424	0.423	0.418	6.43
34)		Cyclohexane	0.959	0.769	0.818	0.779	0.816	0.821	0.827	8.26
35)		Carbon Tetrachlorid	0.348	0.303	0.331	0.324	0.351	0.352	0.335	5.68
36)		1,1-Dichloropropene	0.433	0.390	0.405	0.388	0.407	0.408	0.405	4.07
37)	S	1,2-Dichloroethane-	0.410	0.403	0.411	0.399	0.411	0.407	0.407	1.19
38)		TAME	0.693	0.636	0.724	0.747	0.842	0.854	0.749	11.36
39)		Benzene	1.379	1.182	1.258	1.245	1.321	1.305	1.282	5.34
40)		1,2-Dichloroethane	0.660	0.574	0.567	0.548	0.588	0.579	0.586	6.58
41)		Trichloroethene	0.375	0.299	0.307	0.292	0.320	0.315	0.318	9.36
42)		Methylcyclohexane	0.588	0.442	0.448	0.435	0.455	0.456	0.471	12.28

(#) = Out of Range

Response Factor Report MSVOA4

Method : C:\MSDCHEM\1\METHODS\82600810.M (RTE Integrator)
Title : EPA 624 & SWA 5030B/8260B
Last Update : Tue Aug 10 16:48:55 2004
Response via : Initial Calibration

Calibration Files
1 =B023844.D 2 =B023845.D 3 =B023846.D
4 =B023847.D 5 =B023848.D 6 =B023849.D

		Compound	1	2	3	4	5	6	Avg	%RS
43)	C	1,2-Dichloropropane	0.484	0.429	0.425	0.418	0.449	0.438	0.440	5.40
44)		Dibromomethane	0.208	0.177	0.193	0.186	0.196	0.193	0.192	5.31
45)		Bromodichloromethan	0.434	0.373	0.400	0.397	0.424	0.425	0.409	5.53
46)		2-Chloroethyl vinyl		0.113	0.140	0.139	0.162	0.165	0.144	14.69
47)		2-Nitropropane	0.134	0.128	0.150	0.151	0.161	0.159	0.147	9.04
48)		cis-1,3-Dichloropro	0.409	0.382	0.465	0.468	0.522	0.520	0.461	12.33
49)		4-Methyl-2-pentanon	0.602	0.565	0.630	0.618	0.668	0.653	0.623	5.89
50)	I	Chlorobenzene-d5	----------ISTD----------							
51)	S	Toluene-d8	1.309	1.280	1.281	1.261	1.243	1.270	1.274	1.74
52)	C	Toluene	1.899	1.616	1.715	1.630	1.719	1.723	1.717	5.88
53)		trans-1,3-Dichlorop	0.460	0.416	0.530	0.525	0.594	0.610	0.522	14.39
54)		1,1,2-Trichloroetha	0.330	0.309	0.325	0.307	0.328	0.323	0.320	3.01
55)		Tetrachloroethene	0.409	0.359	0.375	0.350	0.378	0.370	0.373	5.45
56)		2-hexanone	0.649	0.543	0.634	0.613	0.668	0.647	0.626	7.06
57)		1,3-Dichloropropane	0.694	0.632	0.665	0.639	0.677	0.680	0.665	3.63
58)		Dibromochloromethan	0.354	0.290	0.332	0.328	0.353	0.360	0.336	7.64
59)		1,2-Dibromoethane	0.341	0.327	0.377	0.360	0.377	0.376	0.360	5.95
60)		1-Chlorohexane	0.503	0.469	0.517	0.499	0.529	0.527	0.507	4.40
61)	P	Chlorobenzene	1.126	1.041	1.089	1.044	1.118	1.104	1.087	3.39
62)	C	Ethylbenzene	2.134	1.780	1.941	1.875	2.031	1.998	1.960	6.33
63)		1,1,1,2-Tetrachloro	0.362	0.309	0.353	0.339	0.365	0.365	0.349	6.26
64)		m,p-Xylene	1.648	1.415	1.535	1.497	1.632	1.615	1.557	5.86
65)		o-Xylene	1.697	1.502	1.625	1.580	1.674	1.666	1.624	4.46
66)		Styrene	0.971	0.953	1.134	1.130	1.226	1.212	1.104	10.61
67)	P	Bromoform	0.190	0.157	0.206	0.212	0.236	0.232	0.206	14.15
68)	I	1,4-Dichlorobenzene-d	----------ISTD----------							
69)		Isopropylbenzene	4.226	3.326	3.338	3.143	3.358	3.401	3.465	11.06
70)		Cyclohexanone		0.049	0.041	0.038	0.041	0.041	0.042	9.70
71)	S	4-Bromofluorobenzen	1.131	1.098	1.056	1.042	1.067	1.072	1.078	2.98
72)	P	1,1,2,2-Tetrachloro	1.297	1.046	1.015	0.943	1.002	0.994	1.049	11.99
73)		trans-1,4-Dichloro-	0.118	0.078	0.129	0.173	0.214	0.229	0.157	37.31
		----- Quadratic regression ----- Coefficient = 0.9983								
		Resp. Ratio= -0.00754 + 0.15493 *Amt.ratio + 0.04027 *Amt.ratio^2								
74)		n-Propylbenzene	5.461	4.308	4.505	4.323	4.616	4.656	4.645	9.15
75)		Bromobenzene	1.013	0.877	0.866	0.826	0.871	0.851	0.884	7.42
76)		1,2,3-Trichloroprop	0.310	0.271	0.261	0.255	0.260	0.262	0.270	7.58
77)		1,3,5-Trimethylbenz	3.595	2.904	2.889	2.748	2.949	2.913	3.000	9.99
78)		2-Chlorotoluene	3.756	3.115	3.084	2.908	3.132	3.115	3.185	9.16
79)		4-Chlorotoluene	3.199	2.768	2.724	2.636	2.810	2.790	2.821	6.92
80)		tert-Butylbenzene	2.236	1.731	1.756	1.645	1.769	1.766	1.817	11.58

(#) = Out of Range

Response Factor Report MSVOA4

Method : C:\MSDCHEM\1\METHODS\82600810.M (RTE Integrator)
Title : EPA 624 & SWA 5030B/8260B
Last Update : Tue Aug 10 16:48:55 2004
Response via : Initial Calibration

Calibration Files
1 =B023844.D 2 =B023845.D 3 =B023846.D
4 =B023847.D 5 =B023848.D 6 =B023849.D

	Compound	1	2	3	4	5	6	Avg	%RS
81)	1,2,4-Trimethylbenz	3.690	2.859	2.922	2.797	3.044	3.016	3.055	10.64
82)	sec-Butylbenzene		3.515	3.475	3.334	3.538	3.554	3.483	2.55
83)	4-Isopropyltoluene		2.624	2.652	2.549	2.705	2.702	2.646	2.42
84)	1,3-Dichlorobenzene	1.884	1.385	1.460	1.408	1.485	1.484	1.518	12.12
85)	1,4-Dichlorobenzene	2.046	1.516	1.507	1.447	1.522	1.508	1.591	14.12
86)	Benzyl Chloride	1.497	1.177	1.626	1.681	1.834	1.830	1.607	15.33
	----- Linear regression ----- Coefficient = 0.9990								
	Response Ratio= -0.06586 + 1.85681 *Amt.ratio								
87)	n-Butylbenzene	3.737	2.762	2.808	2.720	2.901	2.861	2.965	12.95
88)	1,2-Dichlorobenzene	1.714	1.411	1.440	1.381	1.456	1.439	1.473	8.19
89)	1,2-Dibromo-3-Chlor		0.148	0.143	0.155	0.168	0.167	0.156	7.15
90)	1,2,4-Trichlorobenz		0.857	0.912	0.897	0.964	0.967	0.919	5.08
91)	Hexachlorobutadiene		0.455	0.421	0.394	0.415	0.413	0.420	5.30
92)	Naphthalene		2.097	2.188	2.204	2.366	2.410	2.253	5.81
93)	1,2,3-Trichlorobenz		0.783	0.845	0.826	0.858	0.872	0.837	4.17
94) I	Tert Butyl alcohol-d1 ----------ISTD----------								
95)	Tert-Butyl Alcohol	1.599	1.370	1.387	1.452	1.544	1.498	1.475	6.05
96)	Tert amyl alcohol	0.901	0.755	0.947	0.984	1.112	1.117	0.970	14.09
97)	1,4-Dioxane	0.104	0.079	0.114	0.112	0.120	0.125	0.109	15.02
	----- Linear regression ----- Coefficient = 0.9984								
	Response Ratio= -0.01867 + 0.12555 *Amt.ratio								

(#) = Out of Range

Response Factor Report MSVOA7

Method : C:\MSDCHEM\1\METHODS\MSM0806.M (RTE Integrator)
Title : EPA 624 & SWA 5030B/8260B
Last Update : Fri Aug 06 16:28:48 2004
Response via : Initial Calibration

hy 8-9-04

Calibration Files
1 =M0000002.D 2 =M0000003.D 3 =M0000004.D 4 =M0000005.D
5 =M0000006.D 6 =M0000007.D

		Compound	1	2	3	4	5	6	Avg	%RSD
1)	I	Fluorobenzene	----------ISTD----------							
2)		Dichlorodifluoromet	0.143	0.154	0.153	0.145	0.139	0.160	0.149	5.21
3)	P	Chloromethane		0.487	0.461	0.444	0.426	0.452	0.454	4.90
4)	C	Vinyl Chloride	0.312	0.268	0.281	0.266	0.263	0.280	0.278	6.56
5)		Bromomethane	0.173	0.124	0.123	0.104	0.089	0.081	0.116	28.51
		---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9983								
		Response Ratio = 0.00000 + 0.12016 *A + -0.02001 *A^2								
6)		Chloroethane		0.148	0.144	0.128	0.116	0.110	0.129	13.06
7)		Trichlorofluorometh	0.167	0.231	0.248	0.228	0.217	0.224	0.219	12.55
8)		1,2-Dichlorotrifluo	0.270	0.224	0.220	0.213	0.203	0.201	0.222	11.46
9)		Ethyl ether	0.370	0.280	0.273	0.256	0.248	0.230	0.276	17.90
		---- Linear regr., Force(0,0) ---- Coefficient = 0.9965								
		Response Ratio = 0.00000 + 0.23866 *A								
.0)		Acrolein	0.084	0.070	0.064	0.065	0.063	0.063	0.068	12.25
.1)		Freon 113	0.271	0.258	0.257	0.255	0.247	0.250	0.256	3.21
.2)		Acetone	0.308	0.168	0.161	0.158	0.160	0.160	0.186	32.36
		---- Linear regr., Force(0,0) ---- Coefficient = 0.9999								
		Response Ratio = 0.00000 + 0.15956 *A								
3)	C	1,1-Dichloroethene	0.632	0.582	0.592	0.579	0.579	0.595	0.593	3.43
4)		Iodomethane	0.529	0.489	0.505	0.495	0.495	0.498	0.502	2.85
5)		Methyl Acetate	0.455	0.445	0.453	0.450	0.454	0.457	0.452	0.96
6)		Carbon Disulfide	1.102	0.987	0.991	0.973	0.979	1.006	1.006	4.80
7)		Methylene Chloride		0.787	0.743	0.718	0.721	0.721	0.738	3.96
8)		Acrylonitrile	0.199	0.214	0.217	0.214	0.216	0.216	0.213	3.19
9)		Methyl Tert Butyl E	0.686	0.659	0.669	0.650	0.645	0.644	0.659	2.49
0)		trans-1,2-Dichloroe	0.646	0.591	0.605	0.588	0.578	0.576	0.597	4.38
1)		Hexane		0.665	0.653	0.615	0.620	0.639	0.638	3.29
2)		Vinyl acetate	0.868	0.924	0.970	0.959	0.966	0.937	0.937	4.09
3)		Di-isopropyl ether	1.971	1.840	1.849	1.817	1.823	1.813	1.852	3.22
4)	P	1,1-Dichloroethane	0.710	0.660	0.683	0.653	0.642	0.636	0.664	4.19
5)		ETBE	1.389	1.304	1.309	1.266	1.260	1.251	1.296	3.97
6)		2-Butanone	0.292	0.275	0.279	0.275	0.277	0.272	0.278	2.53
7)		cis-1,2-Dichloroeth	0.321	0.298	0.302	0.284	0.274	0.260	0.290	7.51
3)		2,2-Dichloropropane	0.408	0.373	0.356	0.337	0.327	0.319	0.353	9.37
9)		Bromochloromethane	0.144	0.133	0.139	0.132	0.132	0.129	0.135	4.03
0)	C	Chloroform	0.531	0.497	0.494	0.470	0.463	0.453	0.485	5.89
1)		Tetrahydrofuran	0.174	0.174	0.165	0.164	0.166	0.163	0.168	3.00
2)	S	Dibromofluoromethan	0.268	0.262	0.259	0.254	0.251	0.249	0.257	2.73
3)		1,1,1-Trichloroetha	0.446	0.420	0.415	0.404	0.394	0.395	0.412	4.71
4)		Cyclohexane	0.925	0.789	0.767	0.739	0.749	0.780	0.791	8.59
5)		1,1-Dichloropropene	0.347	0.316	0.319	0.311	0.303	0.303	0.316	5.09
6)		Carbon Tetrachlorid	0.370	0.355	0.349	0.338	0.341	0.351	0.350	3.22
7)	S	1,2-Dichloroethane-	0.345	0.344	0.338	0.323	0.316	0.306	0.329	4.89
8)		1,2-Dichloroethane	0.527	0.506	0.506	0.494	0.490	0.483	0.501	3.12
9)		Benzene	1.239	1.062	1.077	1.015	0.971	0.926	1.048	10.39
0)		TAME	0.859	0.833	0.823	0.788	0.751	0.719	0.796	6.69
.)		Trichloroethene	0.331	0.287	0.291	0.282	0.275	0.270	0.289	7.57
2)	C	1,2-Dichloropropane	0.436	0.389	0.399	0.384	0.382	0.376	0.394	5.52
)		Methylcyclohexane	0.522	0.454	0.453	0.429	0.426	0.441	0.454	7.70
)		Dibromomethane	0.192	0.185	0.182	0.180	0.175	0.173	0.181	3.91
)		Bromodichloromethan	0.372	0.363	0.374	0.364	0.366	0.361	0.367	1.38
)		2-Nitropropane	0.133	0.128	0.133	0.135	0.138	0.137	0.134	2.69
)		2-Chloroethyl vinyl	0.267	0.264	0.266	0.253	0.237	0.222	0.252	7.25
)		cis-1,3-Dichloropro	0.460	0.441	0.448	0.432	0.431	0.421	0.439	3.19
)		4-Methyl-2-pentanon	0.574	0.581	0.595	0.591	0.590	0.573	0.584	1.60
)	I	Chlorobenzene-d5	----------ISTD----------							
)	S	Toluene-d8	1.194	1.196	1.183	1.208	1.199	1.217	1.200	0.97
)	C	Toluene	1.695	1.473	1.487	1.447	1.418	1.389	1.485	7.34

53)		trans-1,3-Dichlorop	0.542	0.515	0.515	0.507	0.505	0.495	0.513	3.11
54)		1,1,2-Trichloroetha	0.291	0.284	0.290	0.284	0.279	0.274	0.284	2.31
55)		2-hexanone	0.481	0.509	0.520	0.522	0.523	0.518	0.512	3.11
56)		1,3-Dichloropropane	0.579	0.550	0.560	0.548	0.539	0.527	0.551	3.27
57)		Tetrachloroethene	0.433	0.388	0.391	0.379	0.383	0.386	0.393	5.07
58)		Dibromochloromethan	0.372	0.352	0.379	0.376	0.378	0.379	0.373	2.80
59)		1,2-Dibromoethane	0.358	0.361	0.370	0.366	0.363	0.356	0.362	1.41
60)		1-Chlorohexane	0.517	0.456	0.460	0.451	0.443	0.450	0.463	5.85
61)	P	Chlorobenzene	1.084	1.018	1.024	1.003	0.983	0.956	1.011	4.28
62)		1,1,1,2-Tetrachloro	0.390	0.381	0.388	0.386	0.381	0.375	0.383	1.45
63)	C	Ethylbenzene	1.821	1.681	1.679	1.617	1.574	1.532	1.651	6.17
64)		m,p-Xylene	1.445	1.309	1.294	1.230	1.154	1.104	1.256	9.69
65)		o-Xylene	1.533	1.407	1.405	1.346	1.291	1.232	1.369	7.67
66)		Styrene	1.153	1.103	1.135	1.093	1.047	1.004	1.089	5.09
67)	P	Bromoform	0.242	0.243	0.272	0.280	0.287	0.289	0.269	7.93
68)	I	1,4-Dichlorobenzene-d	----------	----------	----------	ISTD	----------	----------	----------	
69)		Isopropylbenzene	3.105	2.973	2.995	2.893	2.856	2.792	2.936	3.81
70)		Cyclohexanone		0.054	0.047	0.047	0.047	0.048	0.049	6.37
71)	S	4-Bromofluorobenzen	0.910	0.921	0.921	0.924	0.921	0.930	0.921	0.72
72)	P	1,1,2,2-Tetrachloro	0.889	0.827	0.874	0.849	0.863	0.854	0.859	2.50
73)		trans-1,4-Dichloro-		0.012	0.011	0.010	0.011	0.010	0.011	7.51
74)		1,2,3-Trichloroprop	0.223	0.248	0.249	0.247	0.236	0.225	0.238	4.95
75)		Bromobenzene	0.957	0.848	0.880	0.842	0.811	0.775	0.852	7.35
76)		n-Propylbenzene	4.141	3.703	3.762	3.570	3.375	3.232	3.631	8.80
77)		1,3,5-Trimethylbenz	2.792	2.603	2.633	2.501	2.376	2.287	2.532	7.24
78)		2-Chlorotoluene	2.754	2.518	2.519	2.401	2.249	2.126	2.428	9.15
79)		4-Chlorotoluene	2.580	2.308	2.394	2.336	2.253	2.178	2.342	5.90
30)		tert-Butylbenzene	1.643	1.457	1.532	1.449	1.429	1.403	1.486	5.95
31)		1,2,4-Trimethylbenz	3.049	2.692	2.796	2.695	2.641	2.526	2.733	6.51
32)		sec-Butylbenzene	3.634	3.339	3.397	3.257	3.222	3.204	3.342	4.81
33)		4-Isopropyltoluene	3.088	2.783	2.886	2.780	2.728	2.700	2.827	5.05
34)		1,3-Dichlorobenzene	1.811	1.597	1.664	1.613	1.581	1.517	1.630	6.17
35)		1,4-Dichlorobenzene	1.886	1.615	1.659	1.625	1.602	1.541	1.655	7.24
36)		Benzyl chloride	2.181	2.082	2.168	2.118	2.068	1.932	2.092	4.30
37)		n-Butylbenzene	3.113	2.770	2.827	2.685	2.623	2.570	2.765	7.05
38)		1,2-Dichlorobenzene	1.858	1.642	1.669	1.617	1.595	1.533	1.652	6.72
39)		1,2-Dibromo-3-Chlor	0.244	0.180	0.176	0.176	0.178	0.179	0.189	14.45
40)		1,2,4-Trichlorobenz	1.528	1.323	1.375	1.317	1.304	1.286	1.355	6.63
41)		Hexachlorobutadiene	0.638	0.561	0.577	0.543	0.549	0.552	0.570	6.20
42)		Naphthalene	3.814	3.562	3.675	3.582	3.495	3.438	3.594	3.74
43)		1,2,3-Trichlorobenz	1.488	1.252	1.309	1.248	1.238	1.218	1.292	7.79
4)	I	Tert Butyl alcohol-d1	----------	----------	----------	ISTD	----------	----------	----------	
5)		Tert-Butyl alcohol	1.992	1.533	1.538	1.534	1.527	1.511	1.606	11.80
6)		Tert Amyl Alcohol	1.483	1.330	1.331	1.357	1.358	1.319	1.363	4.47
7)		1,4-Dioxane	0.088	0.095	0.114	0.114	0.114	0.113	0.106	11.13

#) = Out of Range

MSM0806.M Mon Aug 09 11:16:26 2004

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\081204\B023880.D
Acq On : 12 Aug 2004 10:19 am
Sample : CC1032-40
Misc : ms3525,vb1034,,,,,
MS Integration Params: Med.p

Vial: 1
Operator: Karenw
Inst : MSVOA4
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\82600810.M (RTE Integrator)
Title : EPA 624 & SWA 5030B/8260B
Last Update : Tue Aug 10 16:48:55 2004
Response via : Multiple Level Calibration

KW 08/13/04

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T
1	I	Fluorobenzene	1.000	1.000	0.0	182	0.00	9.55
2		Dichlorodifluoromethane	0.371	0.341	8.1	174	0.00	4.12
3	P	Chloromethane	0.902	0.877	2.8	181	0.00	4.48
4	C	Vinyl Chloride	0.568	0.574	-1.1	187	0.00	4.67
5		Bromomethane	0.237	0.233	1.7	181	0.00	5.22
6		Chloroethane	0.282	0.286	-1.4	190	0.00	5.37
7		Trichlorofluoromethane	0.479	0.466	2.7	188	0.00	5.67
8		Ethyl Ether	0.382	0.405	-6.0	194	0.00	5.98
9		1,2-Dichlorotrifluoroetha	0.487	0.471	3.3	187	0.00	6.05
10		Acrolein	0.056	0.054	3.6	187	0.00	6.25
11		Freon 113	0.291	0.264	9.3	179	0.00	6.30
12	C	1,1-Dichloroethene	0.722	0.639	11.5	173	0.00	6.38
13		Acetone	0.286	0.281	1.7	187	0.00	6.42
14		Iodomethane	0.378	0.336	11.1	176	0.00	6.64
15		Carbon Disulfide	1.167	1.038	11.1	175	0.00	6.72
16		Methyl acetate	0.443	0.435	1.8	189	0.00	6.75
17		Methylene Chloride	0.842	0.800	5.0	181	0.00	7.00
18		Methyl Tert Butyl Ether	0.686	0.659	3.9	180	0.00	7.15
19		trans-1,2-Dichloroethene	0.640	0.574	10.3	173	0.00	7.23
20		Acrylonitrile	0.180	0.185	-2.8	176	0.00	7.27
21		Hexane	0.627	0.666	-6.2	196	0.00	7.42
22		Di-isopropyl ether	2.105	2.010	4.5	182	0.00	7.63
23		Vinyl acetate	0.943	0.983	-4.2	188	0.00	7.68
24	P	1,1-Dichloroethane	0.759	0.725	4.5	181	0.00	7.74
25		ETBE	1.056	1.063	-0.7	185	0.00	8.02
26		2-Butanone	0.325	0.332	-2.2	186	0.00	8.33
27		2,2-Dichloropropane	0.191	0.199	-4.2	186	0.00	8.35
28		cis-1,2-Dichloroethene	0.324	0.303	6.5	180	0.00	8.37
29		Bromochloromethane	0.126	0.113	10.3	176	0.00	8.64
30		Tetrahydrofuran	0.167	0.150	10.2	180	0.00	8.65
31	C	Chloroform	0.561	0.508	9.4	176	0.00	8.66
32	S	Dibromofluoromethane	0.239	0.230	3.8	179	0.00	8.85
33		1,1,1-Trichloroethane	0.418	0.369	11.7	170	0.00	8.88
34		Cyclohexane	0.827	0.779	5.8	182	0.00	8.91
35		Carbon Tetrachloride	0.335	0.304	9.3	171	0.00	9.03
36		1,1-Dichloropropene	0.405	0.369	8.9	174	0.00	9.04
37	S	1,2-Dichloroethane-d4	0.407	0.388	4.7	177	0.00	9.25
38		TAME	0.749	0.749	0.0	183	0.00	9.26
39		Benzene	1.282	1.225	4.4	179	0.00	9.27

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\081204\B023880.D
Acq On : 12 Aug 2004 10:19 am
Sample : CC1032-40
Misc : ms3525,vb1034,,,,,
MS Integration Params: Med.p

Vial: 1
Operator: Karenw
Inst : MSVOA4
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\82600810.M (RTE Integrator)
Title : EPA 624 & SWA 5030B/8260B
Last Update : Tue Aug 10 16:48:55 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T
40		1,2-Dichloroethane	0.586	0.533	9.0	177	0.00	9.33
41		Trichloroethene	0.318	0.286	10.1	178	0.00	9.92
42		Methylcyclohexane	0.471	0.459	2.5	193	0.00	10.08
43	C	1,2-Dichloropropane	0.440	0.411	6.6	179	0.00	10.20
44		Dibromomethane	0.192	0.181	5.7	177	0.00	10.35
45		Bromodichloromethane	0.409	0.392	4.2	180	0.00	10.45
46		2-Chloroethyl vinyl ether	0.144	0.148	-2.8	194	0.00	10.68
47		2-Nitropropane	0.147	0.154	-4.8	186	0.00	10.71
48		cis-1,3-Dichloropropene	0.461	0.477	-3.5	186	0.00	10.91
49		4-Methyl-2-pentanone	0.623	0.621	0.3	183	0.00	10.98
50	I	Chlorobenzene-d5	1.000	1.000	0.0	175	0.00	12.76
51	S	Toluene-d8	1.274	1.258	1.3	175	0.00	11.16
52	C	Toluene	1.717	1.649	4.0	177	0.00	11.24
53		trans-1,3-Dichloropropene	0.522	0.557	-6.7	186	0.00	11.49
54		1,1,2-Trichloroethane	0.320	0.316	1.3	181	0.00	11.70
55		Tetrachloroethene	0.373	0.342	8.3	171	0.00	11.82
56		2-hexanone	0.626	0.648	-3.5	185	0.00	11.85
57		1,3-Dichloropropane	0.665	0.663	0.3	182	0.00	11.90
58		Dibromochloromethane	0.336	0.342	-1.8	183	0.00	12.14
59		1,2-Dibromoethane	0.360	0.361	-0.3	176	0.00	12.32
60		1-Chlorohexane	0.507	0.506	0.2	178	0.00	12.63
61	P	Chlorobenzene	1.087	1.055	2.9	177	0.00	12.79
62	C	Ethylbenzene	1.960	1.899	3.1	178	0.00	12.82
63		1,1,1,2-Tetrachloroethane	0.349	0.341	2.3	177	0.00	12.85
64		m,p-Xylene	1.557	1.514	2.8	177	0.00	12.93
65		o-Xylene	1.624	1.582	2.6	176	0.00	13.39
66		Styrene	1.104	1.152	-4.3	179	0.00	13.41
67	P	Bromoform	0.206	0.234	-13.6	194	0.00	13.71
68	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	177	0.00	15.30
69		Isopropylbenzene	3.465	3.191	7.9	179	0.00	13.75
70		Cyclohexanone	0.042	0.041	2.4	187	0.00	14.00
71	S	4-Bromofluorobenzene	1.078	1.020	5.4	173	0.00	14.02
72	P	1,1,2,2-Tetrachloroethane	1.049	1.000	4.7	187	0.00	14.13
			True	Calc.	% Drift			
73		trans-1,4-Dichloro-2-Bute	40.000	43.773	-9.4	203	0.00	14.20
			AvgRF	CCRF	% Dev			
74		n-Propylbenzene	4.645	4.447	4.3	182	0.00	14.20

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\081204\B023880.D Vial: 1
Acq On : 12 Aug 2004 10:19 am Operator: Karenw
Sample : CC1032-40 Inst : MSVOA4
Misc : ms3525,vb1034,,,,, Multiplr: 1.00
MS Integration Params: Med.p

Method : C:\MSDCHEM\1\METHODS\82600810.M (RTE Integrator)
Title : EPA 624 & SWA 5030B/8260B
Last Update : Tue Aug 10 16:48:55 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T
75		Bromobenzene	0.884	0.820	7.2	175	0.00	14.22
76		1,2,3-Trichloropropane	0.270	0.246	8.9	171	0.00	14.23
77		1,3,5-Trimethylbenzene	3.000	2.826	5.8	182	0.00	14.37
78		2-Chlorotoluene	3.185	2.962	7.0	180	0.00	14.39
79		4-Chlorotoluene	2.821	2.605	7.7	175	0.00	14.50
80		tert-Butylbenzene	1.817	1.737	4.4	187	0.00	14.74
81		1,2,4-Trimethylbenzene	3.055	2.906	4.9	184	0.00	14.81
82		sec-Butylbenzene	3.483	3.604	-3.5	191	0.00	14.98
83		4-Isopropyltoluene	2.646	2.727	-3.1	189	0.00	15.12
84		1,3-Dichlorobenzene	1.518	1.426	6.1	179	0.00	15.23
85		1,4-Dichlorobenzene	1.591	1.467	7.8	179	0.00	15.32
			True	Calc.	% Drift			
86		Benzyl Chloride	40.000	39.357	1.6	183	0.00	15.45
			AvgRF	CCRF	% Dev			
87		n-Butylbenzene	2.965	3.032	-2.3	197	0.00	15.57
88		1,2-Dichlorobenzene	1.473	1.404	4.7	180	0.00	15.76
89		1,2-Dibromo-3-Chloropropa	0.156	0.154	1.3	176	0.00	16.61
90		1,2,4-Trichlorobenzene	0.919	0.945	-2.8	186	0.00	17.51
91		Hexachlorobutadiene	0.420	0.459	-9.3	205#	0.00	17.59
92		Naphthalene	2.253	2.271	-0.8	182	0.00	17.84
93		1,2,3-Trichlorobenzene	0.837	0.843	-0.7	180	0.00	18.13
94	I	Tert Butyl alcohol-d10	1.000	1.000	0.0	186	0.00	6.87
95		Tert-Butyl Alcohol	1.475	1.435	2.7	184	0.00	6.96
96		Tert amyl alcohol	0.970	0.975	-0.5	184	0.00	9.13
			True	Calc.	% Drift			
97		1,4-Dioxane	800.000	774.011	3.2	191	0.00	10.28

(0%) 0 of 93 compounds' %D > 20

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\081104\M0000079.D Vial: 1
Acq On : 11 Aug 2004 9:27 am Operator: NareshJ
Sample : cc1-40 Inst : MSVOA7
Misc : ms3515,vm4,,,,, Multiplr: 1.00
MS Integration Params: Rteint.p

Method : C:\MSDCHEM\1\METHODS\MSM0806.M (RTE Integrator)
Title : EPA 624 & SWA 5030B/8260B
Last Update : Fri Aug 06 16:28:48 2004
Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Fluorobenzene	1.000	1.000	0.0	85	0.00	10.14
2		Dichlorodifluoromethane	0.149	0.139	6.7	82	0.01	4.20
3	P	Chloromethane	0.454	0.465	-2.4	89	0.01	4.58
4	C	Vinyl Chloride	0.278	0.287	-3.2	91	0.00	4.81
			Amount	Calc.	%Drift			
5		Bromomethane	40.000	45.147	-12.9	94	0.00	5.44
			AvgRF	CCRF	%Dev			
6		Chloroethane	0.129	0.142	-10.1	94	0.00	5.60
7		Trichlorofluoromethane	0.219	0.260	-18.7	97	0.00	5.96
8		1,2-Dichlorotrifluoroetha	0.222	0.237	-6.8	94	0.00	6.40
			Amount	Calc.	%Drift			
9		Ethyl ether	40.000	42.863	-7.2	85	0.00	6.33
			AvgRF	CCRF	%Dev			
10		Acrolein	0.068	0.046	32.4#	60	0.00	6.65
11		Freon 113	0.256	0.285	-11.3	95	0.00	6.66
			Amount	Calc.	%Drift			
12		Acetone	200.000	274.596	-37.3#	118	0.00	6.84
			AvgRF	CCRF	%Dev			
13	C	1,1-Dichloroethene	0.593	0.630	-6.2	92	0.00	6.73
14		Iodomethane	0.502	0.527	-5.0	90	0.00	7.01
15		Methyl Acetate	0.452	0.423	6.4	80	0.00	7.21
16		Carbon Disulfide	1.006	1.073	-6.7	94	0.00	7.09
17		Methylene Chloride	0.738	0.779	-5.6	92	0.00	7.42
18		Acrylonitrile	0.213	0.198	7.0	78	0.00	7.79
19		Methyl Tert Butyl Ether	0.659	0.686	-4.1	90	0.00	7.65
20		trans-1,2-Dichloroethene	0.597	0.627	-5.0	90	0.00	7.70
21		Hexane	0.638	0.693	-8.6	95	0.00	7.89
22		Vinyl acetate	0.937	0.909	3.0	80	0.00	8.21
23		Di-isopropyl ether	1.852	1.900	-2.6	89	0.00	8.15
24	P	1,1-Dichloroethane	0.664	0.692	-4.2	90	0.00	8.26
25		ETBE	1.296	1.328	-2.5	89	0.00	8.57
26		2-Butanone	0.278	0.283	-1.8	87	0.00	8.91
27		cis-1,2-Dichloroethene	0.290	0.306	-5.5	91	0.00	8.92
28		2,2-Dichloropropane	0.353	0.378	-7.1	95	0.00	8.91
29		Bromochloromethane	0.135	0.140	-3.7	90	0.00	9.21
30	C	Chloroform	0.485	0.505	-4.1	91	0.00	9.24
31		Tetrahydrofuran	0.168	0.152	9.5	79	0.00	9.22
32	S	Dibromofluoromethane	0.257	0.266	-3.5	89	0.00	9.43
33		1,1,1-Trichloroethane	0.412	0.442	-7.3	93	0.00	9.45
34		Cyclohexane	0.791	0.819	-3.5	94	0.00	9.46
35		1,1-Dichloropropene	0.316	0.338	-7.0	92	0.00	9.61
36		Carbon Tetrachloride	0.350	0.373	-6.6	94	0.00	9.60
37	S	1,2-Dichloroethane-d4	0.329	0.329	0.0	86	0.00	9.85
38		1,2-Dichloroethane	0.501	0.513	-2.4	88	0.00	9.93
39		Benzene	1.048	1.078	-2.9	90	0.00	9.86
40		TAME	0.796	0.813	-2.1	87	0.00	9.86
41		Trichloroethene	0.289	0.290	-0.3	87	0.00	10.52
42	C	1,2-Dichloropropane	0.394	0.405	-2.8	89	0.00	10.82
43		Methylcyclohexane	0.454	0.492	-8.4	97	0.00	10.68
44		Dibromomethane	0.181	0.182	-0.6	86	0.00	10.97
45		Bromodichloromethane	0.367	0.379	-3.3	88	0.00	11.08
46		2-Nitropropane	0.134	0.125	6.7	79	0.00	11.38

OK

0218

47		2-Chloroethyl vinyl ether	0.252	0.246	2.4	82	0.00	11.32
48		cis-1,3-Dichloropropene	0.439	0.451	-2.7	88	0.00	11.54
49		4-Methyl-2-pentanone	0.584	0.550	5.8	79	0.00	11.64
50	I	Chlorobenzene-d5	1.000	1.000	0.0	88	0.00	13.41
51	S	Toluene-d8	1.200	1.187	1.1	86	0.00	11.80
52	C	Toluene	1.485	1.477	0.5	89	0.00	11.88
53		trans-1,3-Dichloropropene	0.513	0.506	1.4	87	0.00	12.13
54		1,1,2-Trichloroethane	0.284	0.283	0.4	88	0.00	12.36
55		2-hexanone	0.512	0.479	6.4	80	0.00	12.52
56		1,3-Dichloropropane	0.551	0.550	0.2	88	0.00	12.56
57		Tetrachloroethene	0.393	0.398	-1.3	92	0.00	12.45
58		Dibromochloromethane	0.373	0.367	1.6	86	0.00	12.79
59		1,2-Dibromoethane	0.362	0.355	1.9	85	0.00	12.98
60		1-Chlorohexane	0.463	0.471	-1.7	92	0.00	13.29
61	P	Chlorobenzene	1.011	1.010	0.1	88	0.00	13.45
62		1,1,1,2-Tetrachloroethane	0.383	0.388	-1.3	88	0.00	13.52
63	C	Ethylbenzene	1.651	1.671	-1.2	91	0.00	13.48
64		m,p-Xylene	1.256	1.271	-1.2	91	0.00	13.60
65		o-Xylene	1.369	1.376	-0.5	90	0.00	14.05
66		Styrene	1.089	1.089	0.0	87	0.00	14.08
67	P	Bromoform	0.269	0.264	1.9	83	0.00	14.38
68	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	89	0.00	15.98
69		Isopropylbenzene	2.936	2.989	-1.8	92	0.00	14.42
70		Cyclohexanone	0.049	0.043	12.2	82	0.00	14.69
71	S	4-Bromofluorobenzene	0.921	0.908	1.4	88	0.00	14.69
72	P	1,1,2,2-Tetrachloroethane	0.859	0.838	2.4	88	0.00	14.81
73		trans-1,4-Dichloro-2-bute	0.011	0.010	9.1	86	0.00	14.56
74		1,2,3-Trichloropropane	0.238	0.227	4.6	82	0.00	14.91
75		Bromobenzene	0.852	0.838	1.6	89	0.00	14.89
76		n-Propylbenzene	3.631	3.679	-1.3	92	0.00	14.87
77		1,3,5-Trimethylbenzene	2.532	2.578	-1.8	92	0.00	15.05
78		2-Chlorotoluene	2.428	2.436	-0.3	91	0.00	15.06
79		4-Chlorotoluene	2.342	2.342	0.0	90	0.00	15.18
80		tert-Butylbenzene	1.486	1.511	-1.7	93	0.00	15.42
81		1,2,4-Trimethylbenzene	2.733	2.747	-0.5	91	0.00	15.48
82		sec-Butylbenzene	3.342	3.428	-2.6	94	0.00	15.67
83		4-Isopropyltoluene	2.827	2.886	-2.1	93	0.00	15.79
84		1,3-Dichlorobenzene	1.630	1.615	0.9	89	0.00	15.90
85		1,4-Dichlorobenzene	1.655	1.635	1.2	90	0.00	16.00
86		Benzyl chloride	2.092	1.988	5.0	84	0.00	16.14
87		n-Butylbenzene	2.765	2.866	-3.7	95	0.00	16.26
88		1,2-Dichlorobenzene	1.652	1.612	2.4	89	0.00	16.44
89		1,2-Dibromo-3-Chloropropa	0.189	0.154	18.5	78	0.00	17.31
90		1,2,4-Trichlorobenzene	1.355	1.342	1.0	91	0.00	18.21
91		Hexachlorobutadiene	0.570	0.578	-1.4	95	0.00	18.29
92		Naphthalene	3.594	3.359	6.5	84	0.00	18.56
93		1,2,3-Trichlorobenzene	1.292	1.248	3.4	89	0.00	18.85
94	I	Tert Butyl alcohol-d10	1.000	1.000	0.0	86	0.00	7.36
95		Tert-Butyl alcohol	1.606	1.500	6.6	84	0.00	7.46
96		Tert Amyl Alcohol	1.363	1.215	10.9	77	0.00	9.74
97		1,4-Dioxane	0.106	0.121	-14.2	92	0.00	10.91

(#) = Out of Range SPCC's out = 0 CCC's out = 0

M0000005.D MSM0806.M Thu Aug 12 08:17:33 2004

Volatile Internal Standard Area Summary

Job Number: F25819
Account: TETRFLTA Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

Check Std:	VB1034-CC1032	**Injection Date:**	08/12/04
Lab File ID:	B023880.D	**Injection Time:**	10:19
Instrument ID:	GCMSB	**Method:**	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
Check Std	2114370	9.55	1615246	12.76	867397	15.30	271766	6.87
Upper Limit [a]	4228740	10.05	3230492	13.26	1734794	15.80	543532	7.37
Lower Limit [b]	1057185	9.05	807623	12.26	433699	14.80	135883	6.37

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
VB1034-BS	1914760	9.55	1486299	12.76	786954	15.30	251674	6.87
VB1034-MB	1754521	9.55	1305868	12.76	567704	15.30	226385	6.87
F25844-1	1672322	9.54	1218393	12.76	529055	15.30	203077	6.87
ZZZZZZ	1475116	9.55	1073867	12.76	471442	15.30	173958	6.87
ZZZZZZ	1353108	9.55	1017343	12.76	446584	15.30	160507	6.87
ZZZZZZ	1390358	9.55	1027677	12.76	491246	15.30	178778	6.87
ZZZZZZ	1889057	9.55	1433500	12.76	684816	15.30	237314	6.87
ZZZZZZ	1835024	9.55	1405736	12.76	659182	15.30	220874	6.86
F25819-1	1940002	9.55	1433187	12.76	632903	15.30	199715	6.87
F25844-1MS	1839189	9.55	1544698	12.76	868237	15.30	226825	6.87
F25844-1MSD	2034402	9.55	1629596	12.76	905262	15.30	239320	6.87
ZZZZZZ	2030717	9.55	1484450	12.76	653899	15.30	238080	6.87
ZZZZZZ	1837596	9.55	1373976	12.76	594945	15.30	214376	6.87
ZZZZZZ	1823076	9.55	1396638	12.76	623745	15.30	209747	6.87
ZZZZZZ	1900513	9.55	1574109	12.76	900802	15.30	198064	6.87
ZZZZZZ	2073164	9.55	1555679	12.76	677374	15.30	239624	6.88
ZZZZZZ	2276510	9.55	1642427	12.76	702251	15.30	275910	6.87
ZZZZZZ	2465125	9.55	1785802	12.76	777535	15.30	298116	6.87

IS 1 = Fluorobenzene
IS 2 = Chlorobenzene-D5
IS 3 = 1,4-Dichlorobenzene-d4
IS 4 = Tert Butyl Alcohol-D10

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Internal Standard Area Summary

Job Number: F25819
Account: TETRFLTA Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

Check Std:	VM4-CC1	**Injection Date:**	08/11/04
Lab File ID:	M0000079.D	**Injection Time:**	09:27
Instrument ID:	GCMSM	**Method:**	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
Check Std	1323409	10.14	1071469	13.41	596307	15.98	204122	7.36
Upper Limit [a]	2646818	10.64	2142938	13.91	1192614	16.48	408244	7.86
Lower Limit [b]	661705	9.64	535735	12.91	298154	15.48	102061	6.86

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
VM4-BS	1348112	10.14	1085428	13.41	601207	15.97	223786	7.36
VM4-MB	1339187	10.14	1065905	13.41	591032	15.97	221652	7.36
ZZZZZZ	1336614	10.14	1064669	13.41	578179	15.97	215883	7.36
ZZZZZZ	1322672	10.14	1044477	13.41	569201	15.97	219446	7.36
ZZZZZZ	1331743	10.14	1049791	13.41	575566	15.97	223108	7.36
ZZZZZZ	1345703	10.14	1058672	13.41	577167	15.97	230371	7.36
ZZZZZZ	1334233	10.14	1052679	13.41	575678	15.97	230567	7.36
F25811-1	1330315	10.14	1047660	13.41	573449	15.97	221792	7.36
ZZZZZZ	1295907	10.15	1027003	13.41	561258	15.97	220169	7.36
ZZZZZZ	1299823	10.14	1031191	13.41	562802	15.97	210699	7.36
ZZZZZZ	1292937	10.14	1019669	13.41	559640	15.97	222008	7.36
F25819-2	1271373	10.14	1010729	13.41	550198	15.97	240572	7.36
F25819-3	1244590	10.14	1001441	13.41	542589	15.97	241959	7.36
F25819-4	1259303	10.14	1004576	13.41	542836	15.97	247332	7.37
F25819-5	1226247	10.14	977766	13.41	531970	15.97	242572	7.36
F25819-6	1215970	10.14	986091	13.41	541201	15.97	236218	7.36
F25819-8	1212962	10.14	982055	13.41	541892	15.97	228101	7.36
F25811-1MS	1229345	10.14	1008889	13.41	564862	15.97	220082	7.36
F25811-1MSD	1261003	10.14	1029825	13.41	566789	15.97	233028	7.36
ZZZZZZ	1295895	10.14	1041628	13.41	564873	15.97	225179	7.36
ZZZZZZ	1264848	10.14	1020298	13.41	555875	15.97	219814	7.36
ZZZZZZ	1225108	10.14	999753	13.41	543639	15.97	217099	7.36

IS 1 = Fluorobenzene
IS 2 = Chlorobenzene-D5
IS 3 = 1,4-Dichlorobenzene-d4
IS 4 = Tert Butyl Alcohol-D10

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Surrogate Recovery Summary

Job Number: F25819
Account: TETRFLTA Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

Method: EPA 504.1 **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]
F25819-1	MN22366.D	94.0
F25819-2	MN22369.D	105.0
F25819-7	MN22371.D	104.0 [b]
F25819-8	MN22372.D	89.0 [b]
OP11047-BS	MN22350.D	92.0
OP11047-BS2	MN22351.D	82.0
OP11047-MB	MN22349.D	99.0
OP11047-MS	MN22367.D	92.0
OP11047-MSD	MN22368.D	101.0

Surrogate Compounds	Recovery Limits
S1 = 4-Bromofluorobenzene	60-139%

(a) Recovery from GC signal #2
(b) Surrogate recoveries corrected for double spike.

GC Surrogate Retention Time Summary

Job Number: F25819
Account: TETRFLTA Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

Check Std:	GMN801-ICC801	**Injection Date:**	08/05/04
Lab File ID:	MN22343.D	**Injection Time:**	11:41
Instrument ID:	GCMN	**Method:**	EPA 504.1

	S1 [a] RT
Check Std	6.86

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT
OP11047-MB	MN22349.D	08/05/04	14:09	6.86
OP11047-BS	MN22350.D	08/05/04	14:34	6.86
OP11047-BS2	MN22351.D	08/05/04	14:58	6.86
ZZZZZZ	MN22352.D	08/05/04	15:23	6.86
ZZZZZZ	MN22353.D	08/05/04	15:48	6.86
ZZZZZZ	MN22354.D	08/05/04	16:13	6.86
ZZZZZZ	MN22355.D	08/05/04	16:37	6.86
ZZZZZZ	MN22356.D	08/05/04	17:02	6.86
ZZZZZZ	MN22357.D	08/05/04	17:27	6.85
ZZZZZZ	MN22358.D	08/05/04	17:52	6.86

Surrogate Compounds

S1 = 4-Bromofluorobenzene

(a) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: F25819
Account: TETRFLTA Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

Check Std:	GMN801-CC801	**Injection Date:**	08/05/04
Lab File ID:	MN22359.D	**Injection Time:**	18:16
Instrument ID:	GCMN	**Method:**	EPA 504.1

	S1 [a] RT
Check Std	6.86

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT
ZZZZZZ	MN22360.D	08/05/04	18:41	6.86
ZZZZZZ	MN22361.D	08/05/04	19:06	6.86
ZZZZZZ	MN22362.D	08/05/04	19:31	6.86
ZZZZZZ	MN22363.D	08/05/04	19:55	6.86
ZZZZZZ	MN22364.D	08/05/04	20:20	6.86
ZZZZZZ	MN22365.D	08/05/04	20:45	6.86
F25819-1	MN22366.D	08/05/04	21:10	6.86
OP11047-MS	MN22367.D	08/05/04	21:35	6.86
OP11047-MSD	MN22368.D	08/05/04	21:59	6.86
F25819-2	MN22369.D	08/05/04	22:24	6.85

Surrogate Compounds

S1 = 4-Bromofluorobenzene

(a) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: F25819
Account: TETRFLTA Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

Check Std:	GMN801-CC801	**Injection Date:**	08/05/04
Lab File ID:	MN22370.D	**Injection Time:**	22:49
Instrument ID:	GCMN	**Method:**	EPA 504.1

	S1 [a] RT
Check Std	6.86

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT
F25819-7	MN22371.D	08/05/04	23:14	6.85
F25819-8	MN22372.D	08/05/04	23:39	6.86

Surrogate Compounds

S1 = 4-Bromofluorobenzene

(a) Retention time from GC signal #2

Method Blank Summary

Job Number: F25819
Account: TETRFLTA Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11047-MB	MN22349.D	1	08/05/04	AA	08/04/04	OP11047	GMN801

The QC reported here applies to the following samples: **Method:** EPA 504.1

F25819-1, F25819-2, F25819-7, F25819-8

CAS No.	Compound	Result	RL	MDL	Units	Q
106-93-4	1,2-Dibromoethane	ND	0.020	0.010	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	99%	60-139%

Response Factor Report ECD 2

Method : C:\HPCHEM\2\METHODS\504_1.M (Chemstation Integrator)
Title : EDB/DBCP by EPA 504.1 or SW846 8011
Last Update : Thu Aug 05 15:32:37 2004
Response via : Initial Calibration

Calibration Files
.125=MN22342.D 0.25=MN22343.D 0.50=MN22344.D 0.75=MN22345.D
1.0 =MN22346.D icv =MN22259.D

	Compound	.125	0.25	0.50	0.75	1.0	icv	Avg	%RSD
1)	1,2-Dibromoethane	6.250	5.721	5.413	5.289	5.283		5.591 E4	7.31
2) S	4-Bromofluorobenzen	5.135	4.803	4.930	4.886	4.602		4.871 E3	3.98
3)	1,2,3-Trichloroprop							0.000	-1.00
4)	1,2-Dibromo-3-chlor	1.696	1.574	1.525	1.509	1.513		1.563 E5	5.04

Signal #2

1)	1,2-Dibromoethane	3.814	3.678	3.548	3.411	3.458		3.582 E4	4.60
2) S	4-Bromofluorobenzen	3.487	3.112	2.971	3.156	3.045		3.154 E3	6.30
3)	1,2,3-Trichloroprop							0.000	-1.00
4)	1,2-Dibromo-3-chlor	9.260	8.749	8.647	8.703	8.940		8.860 E4	2.81

(#) = Out of Range

504_1.M Fri Aug 06 12:33:36 2004 RPT1

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\2\DATA\0805EDB\MN22359.D\ECD1B.CH Vial: 3
Signal #2 : C:\HPCHEM\2\DATA\0805EDB\MN22359.D\ECD2A.CH
Acq On : 5 Aug 2004 6:16 pm Operator: aubreya
Sample : cc801-0.25 Inst : ECD 2
Misc : op11047,gmn801,35.0,,,2,1,water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\HPCHEM\2\METHODS\504_1.M (Chemstation Integrator)
Title : EDB/DBCP by EPA 504.1 or SW846 8011
Last Update : Thu Aug 05 15:32:37 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	1,2-Dibromoethane	0.250	0.249	0.4	97	0.00	4.58- 4.78
2 S	4-Bromofluorobenzene	2.000	1.928	3.6	98	0.00	6.45- 6.65
3	1,2,3-Trichloropropane		----------NA----------				
4	1,2-Dibromo-3-chloropr	0.250	0.262	-4.8	104	0.00	9.03- 9.23

***** Signal #2 *****

1	1,2-Dibromoethane	0.250	0.237	5.2	92	0.00	4.95- 5.15
2 S	4-Bromofluorobenzene	2.000	2.066	-3.3	105	0.00	6.76- 6.96
3	1,2,3-Trichloropropane		----------NA----------				
4	1,2-Dibromo-3-chloropr	0.250	0.255	-2.0	103	0.00	9.39- 9.59

(#) = Out of Range SPCC's out = 0 CCC's out = 0
MN22343.D 504_1.M Fri Aug 06 12:34:00 2004 RPT1

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\2\DATA\0805EDB\MN22370.D\ECD1B.CH Vial: 4
Signal #2 : C:\HPCHEM\2\DATA\0805EDB\MN22370.D\ECD2A.CH
Acq On : 5 Aug 2004 10:49 pm Operator: aubreya
Sample : cc801-0.50 Inst : ECD 2
Misc : op11047,gmn801,35.0,,,2,1,water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\HPCHEM\2\METHODS\504_1.M (Chemstation Integrator)
Title : EDB/DBCP by EPA 504.1 or SW846 8011
Last Update : Thu Aug 05 15:32:37 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	1,2-Dibromoethane	0.500	0.442	11.6	91	-0.01	4.58- 4.78
2 S	4-Bromofluorobenzene	4.000	3.550	11.3	88	0.00	6.45- 6.65
3	1,2,3-Trichloropropane		----------NA----------				
4	1,2-Dibromo-3-chloropr	0.500	0.505	-1.0	104	0.00	9.03- 9.23

***** Signal #2 *****

1	1,2-Dibromoethane	0.500	0.435	13.0	88	-0.01	4.95- 5.15
2 S	4-Bromofluorobenzene	4.000	3.800	5.0	101	0.00	6.76- 6.96
3	1,2,3-Trichloropropane		----------NA----------				
4	1,2-Dibromo-3-chloropr	0.500	0.514	-2.8	105	0.00	9.39- 9.59

(#) = Out of Range SPCC's out = 0 CCC's out = 0
MN22344.D 504_1.M Sat Aug 07 09:17:18 2004 RPT1

0507

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\2\DATA\0805EDB\MN22373.D\ECD1B.CH Vial: 3
Signal #2 : C:\HPCHEM\2\DATA\0805EDB\MN22373.D\ECD2A.CH
Acq On : 6 Aug 2004 12:03 am
Sample : cc801-0.25
Misc : op11047,gmn801,35.0,,,2,1,water
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Operator: aubreya
Inst : ECD 2
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\504_1.M (Chemstation Integrator)
Title : EDB/DBCP by EPA 504.1 or SW846 8011
Last Update : Thu Aug 05 15:32:37 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	1,2-Dibromoethane	0.250	0.239	4.4	94	-0.02	4.58- 4.78
2 S	4-Bromofluorobenzene	2.000	1.915	4.2	97	0.00	6.45- 6.65
3	1,2,3-Trichloropropane		----------NA----------				
4	1,2-Dibromo-3-chloropr	0.250	0.266	-6.4	106	0.00	9.03- 9.23

***** Signal #2 *****

1	1,2-Dibromoethane	0.250	0.237	5.2	92	-0.01	4.95- 5.15
2 S	4-Bromofluorobenzene	2.000	2.062	-3.1	105	0.00	6.76- 6.96
3	1,2,3-Trichloropropane		----------NA----------				
4	1,2-Dibromo-3-chloropr	0.250	0.262	-4.8	106	0.00	9.39- 9.59

(#) = Out of Range SPCC's out = 0 CCC's out = 0
MN22343.D 504_1.M Sat Aug 07 09:16:09 2004 RPT1

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\2\DATA\0805EDB\MN22384.D\ECD1B.CH Vial: 4
Signal #2 : C:\HPCHEM\2\DATA\0805EDB\MN22384.D\ECD2A.CH
Acq On : 6 Aug 2004 4:36 am Operator: aubreya
Sample : cc801-0.50 Inst : ECD 2
Misc : op11046,gmn801,35.0,,,2,1,water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\HPCHEM\2\METHODS\504_1.M (Chemstation Integrator)
Title : EDB/DBCP by EPA 504.1 or SW846 8011
Last Update : Thu Aug 05 15:32:37 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	1,2-Dibromoethane	0.500	0.454	9.2	94	-0.01	4.58- 4.78
2 S	4-Bromofluorobenzene	4.000	3.589	10.3	89	0.00	6.45- 6.65
3	1,2,3-Trichloropropane		----------NA----------				
4	1,2-Dibromo-3-chloropr	0.500	0.514	-2.8	105	0.00	9.03- 9.23

***** Signal #2 *****

1	1,2-Dibromoethane	0.500	0.450	10.0	91	-0.01	4.95- 5.15
2 S	4-Bromofluorobenzene	4.000	3.902	2.4	104	0.00	6.76- 6.96
3	1,2,3-Trichloropropane		----------NA----------				
4	1,2-Dibromo-3-chloropr	0.500	0.529	-5.8	108	0.00	9.39- 9.59

(#) = Out of Range SPCC's out = 0 CCC's out = 0
MN22344.D 504_1.M Sat Aug 07 09:17:19 2004 RPT1

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\2\DATA\0805EDB\MN22395.D\ECD1B.CH Vial: 4
Signal #2 : C:\HPCHEM\2\DATA\0805EDB\MN22395.D\ECD2A.CH
Acq On : 6 Aug 2004 9:09 am Operator: aubreya
Sample : cc801-0.50 Inst : ECD 2
Misc : op11046,gmn801,35.0,,,2,1,water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\HPCHEM\2\METHODS\504_1.M (Chemstation Integrator)
Title : EDB/DBCP by EPA 504.1 or SW846 8011
Last Update : Thu Aug 05 15:32:37 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	1,2-Dibromoethane	0.500	0.451	9.8	93	0.00	4.58- 4.78
2 S	4-Bromofluorobenzene	4.000	3.601	10.0	89	0.00	6.45- 6.65
3	1,2,3-Trichloropropane		----------NA----------				
4	1,2-Dibromo-3-chloropr	0.500	0.523	-4.6	107	0.00	9.03- 9.23

***** Signal #2 *****

1	1,2-Dibromoethane	0.500	0.454	9.2	92	0.00	4.95- 5.15
2 S	4-Bromofluorobenzene	4.000	3.936	1.6	104	0.00	6.76- 6.96
3	1,2,3-Trichloropropane		----------NA----------				
4	1,2-Dibromo-3-chloropr	0.500	0.532	-6.4	109	0.00	9.39- 9.59

(#) = Out of Range SPCC's out = 0 CCC's out = 0
MN22344.D 504_1.M Fri Aug 06 16:09:13 2004 RPT1

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\0805EDB\MN22398.D\ECD1B.CH Vial: 3
Acq On : 6 Aug 2004 10:22 am Operator: aubreya
Sample : cc801-0.25 Inst : ECD 2
Misc : op11046,gmn801,35.0,,,2,1,water Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\2\DATA\0805EDB\MN22398.D\ECD2A.CH Vial: 3
Acq On : 6 Aug 2004 10:22 am Operator: aubreya
Sample : ecc801-0.25 Inst : ECD 2
Misc : op11046,gmn801,35.0,,,2,1,water Multiplr: 1.00
IntFile : events2.e

Method : C:\HPCHEM\2\METHODS\504_1.M (Chemstation Integrator)
Title : EDB/DBCP by EPA 504.1 or SW846 8011
Last Update : Thu Aug 05 15:32:37 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	1,2-Dibromoethane	0.250	0.232	7.2	91	0.00	4.58- 4.78
2 S	4-Bromofluorobenzene	2.000	1.905	4.7	97	0.00	6.45- 6.65
3	1,2,3-Trichloropropane		----------NA----------				
4	1,2-Dibromo-3-chloropr	0.250	0.272	-8.8	108	0.00	9.03- 9.23

***** Signal #2 *****

1	1,2-Dibromoethane	0.250	0.224	10.4	87	0.00	4.95- 5.15
2 S	4-Bromofluorobenzene	2.000	2.115	-5.8	107	0.00	6.76- 6.96
3	1,2,3-Trichloropropane		----------NA----------				
4	1,2-Dibromo-3-chloropr	0.250	0.271	-8.4	110	0.00	9.39- 9.59

(#) = Out of Range SPCC's out = 0 CCC's out = 0
MN22343.D 504_1.M Sat Aug 07 09:16:10 2004 RPT1

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\2\DATA\0805EDB\MN22408.D\ECD1B.CH Vial: 3
Signal #2 : C:\HPCHEM\2\DATA\0805EDB\MN22408.D\ECD2A.CH
Acq On : 6 Aug 2004 3:49 pm Operator: aubreya
Sample : cc801-0.25 Inst : ECD 2
Misc : op11046,gmn801,35.0,,,2,2,water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\HPCHEM\2\METHODS\504_1.M (Chemstation Integrator)
Title : EDB/DBCP by EPA 504.1 or SW846 8011
Last Update : Thu Aug 05 15:32:37 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	1,2-Dibromoethane	0.250	0.246	1.6	96	0.00	4.58- 4.78
2 S	4-Bromofluorobenzene	2.000	2.094	-4.7	106	0.00	6.45- 6.65
3	1,2,3-Trichloropropane		----------NA----------				
4	1,2-Dibromo-3-chloropr	0.250	0.285	-14.0	113	0.00	9.03- 9.23

***** Signal #2 *****

1	1,2-Dibromoethane	0.250	0.220	12.0	86	0.00	4.95- 5.15
2 S	4-Bromofluorobenzene	2.000	2.164	-8.2	110	0.00	6.76- 6.96
3	1,2,3-Trichloropropane		----------NA----------				
4	1,2-Dibromo-3-chloropr	0.250	0.278	-11.2	112	0.00	9.39- 9.59

(#) = Out of Range SPCC's out = 0 CCC's out = 0
MN22343.D 504_1.M Sat Aug 07 09:16:11 2004 RPT1

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\2\DATA\0805EDB\MN22412.D\ECD1B.CH Vial: 3
Signal #2 : C:\HPCHEM\2\DATA\0805EDB\MN22412.D\ECD2A.CH
Acq On : 6 Aug 2004 5:34 pm Operator: aubreya
Sample : ecc801-0.25 Inst : ECD 2
Misc : op11046,gmn801,35.0,,,2,1,water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\HPCHEM\2\METHODS\504_1.M (Chemstation Integrator)
Title : EDB/DBCP by EPA 504.1 or SW846 8011
Last Update : Thu Aug 05 15:32:37 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	1,2-Dibromoethane	0.250	0.231	7.6	90	0.00	4.58- 4.78
2 S	4-Bromofluorobenzene	2.000	2.076	-3.8	105	0.00	6.45- 6.65
3	1,2,3-Trichloropropane		----------NA----------				
4	1,2-Dibromo-3-chloropr	0.250	0.281	-12.4	112	0.00	9.03- 9.23

***** Signal #2 *****

1	1,2-Dibromoethane	0.250	0.214	14.4	83	0.00	4.95- 5.15
2 S	4-Bromofluorobenzene	2.000	2.198	-9.9	111	0.00	6.76- 6.96
3	1,2,3-Trichloropropane		----------NA----------				
4	1,2-Dibromo-3-chloropr	0.250	0.282	-12.8	114	0.00	9.39- 9.59

(#) = Out of Range SPCC's out = 0 CCC's out = 0
MN22343.D 504_1.M Sat Aug 07 12:49:37 2004 RPT1

Semivolatile Surrogate Recovery Summary

Job Number: F25819
Account: TETRFLTA Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

Method: SW846 8270C BY SIM **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
F25819-1	W021474.D	79.0	79.0	74.0
F25819-2	W021475.D	83.0	77.0	83.0
F25819-8	W021476.D	85.0	78.0	91.0
OP11065-BS	W021467.D	94.0	84.0	96.0
OP11065-MB	W021468.D	71.0	65.0	84.0
OP11065-MS	W021470.D	93.0	86.0	91.0
OP11065-MSD	W021471.D	92.0	84.0	90.0

Surrogate Compounds	Recovery Limits
S1 = Nitrobenzene-d5	49-119%
S2 = 2-Fluorobiphenyl	45-118%
S3 = Terphenyl-d14	46-135%

Method Blank Summary

Job Number: F25819
Account: TETRFLTA Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11065-MB	W021468.D	1	08/12/04	ME	08/06/04	OP11065	SW1127

The QC reported here applies to the following samples: **Method:** SW846 8270C BY SIM

F25819-1, F25819-2, F25819-8

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	1.0	0.50	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.50	ug/l	
120-12-7	Anthracene	ND	1.0	0.25	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.20	0.10	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.20	0.10	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.20	0.10	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.20	0.10	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.20	0.10	ug/l	
218-01-9	Chrysene	ND	0.20	0.10	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.20	0.10	ug/l	
206-44-0	Fluoranthene	ND	1.0	0.25	ug/l	
86-73-7	Fluorene	ND	1.0	0.25	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.20	0.10	ug/l	
90-12-0	1-Methylnaphthalene	ND	1.0	0.25	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.0	0.25	ug/l	
91-20-3	Naphthalene	ND	1.0	0.25	ug/l	
85-01-8	Phenanthrene	ND	1.0	0.25	ug/l	
129-00-0	Pyrene	ND	1.0	0.25	ug/l	

CAS No.	Surrogate Recoveries		Limits
4165-60-0	Nitrobenzene-d5	71%	49-119%
321-60-8	2-Fluorobiphenyl	65%	45-118%
1718-51-0	Terphenyl-d14	84%	46-135%

Instrument Performance Check (DFTPP)

Job Number: F25819
Account: TETRFLTA Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

Sample: SW1116-DFTPP
Lab File ID: W021248.D
Instrument ID: GCMSW
Injection Date: 07/31/04
Injection Time: 11:24

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 80.0% of mass 198	35994	41.0	Pass
68	Less than 2.0% of mass 69	0	0.0 (0.0) [a]	Pass
69	Mass 69 relative abundance	34067	38.9	Pass
70	Less than 2.0% of mass 69	179	0.2 (0.53) [a]	Pass
127	25.0 - 75.0% of mass 198	43504	49.6	Pass
197	Less than 1.0% of mass 198	0	0.0	Pass
198	Base peak, 100% relative abundance	87685	100.0	Pass
199	5.0 - 9.0% of mass 198	6164	7.0	Pass
275	10.0 - 30.0% of mass 198	16508	18.8	Pass
365	1.0 - 100.0% of mass 198	1406	1.6	Pass
441	Present, but less than mass 443	6883	7.8 (78.6) [b]	Pass
442	40.0 - 100.0% of mass 198	42443	48.4	Pass
443	17.0 - 23.0% of mass 442	8756	10.0 (20.6) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
SW1116-IC1116	W021250.D	07/31/04	12:14	00:50	Initial cal 1
SW1116-IC1116	W021251.D	07/31/04	12:45	01:21	Initial cal 2
SW1116-IC1116	W021252.D	07/31/04	13:17	01:53	Initial cal 3
SW1116-ICC1116	W021253.D	07/31/04	13:49	02:25	Initial cal 4
SW1116-IC1116	W021254.D	07/31/04	14:20	02:56	Initial cal 5
SW1116-IC1116	W021255.D	07/31/04	14:52	03:28	Initial cal 6
SW1116-IC1116	W021256.D	07/31/04	15:23	03:59	Initial cal 7
SW1116-ICV1116	W021257.D	07/31/04	15:54	04:30	Initial cal verification 5
OP10945-BS	W021258.D	07/31/04	16:26	05:02	Blank Spike
OP10945-MB	W021259.D	07/31/04	16:57	05:33	Method Blank
F25412-1	W021263.D	07/31/04	19:00	07:36	(used for QC only; not part of job F25819)
OP10945-MS	W021264.D	07/31/04	19:31	08:07	Matrix Spike
OP10945-MSD	W021265.D	07/31/04	20:02	08:38	Matrix Spike Duplicate
ZZZZZZ	W021266.D	07/31/04	20:32	09:08	(unrelated sample)
ZZZZZZ	W021267.D	07/31/04	21:03	09:39	(unrelated sample)
ZZZZZZ	W021268.D	07/31/04	21:34	10:10	(unrelated sample)
ZZZZZZ	W021269.D	07/31/04	22:05	10:41	(unrelated sample)
ZZZZZZ	W021270.D	07/31/04	22:35	11:11	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: F25819
Account: TETRFLTA Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

Sample: SW1127-DFTPP
Lab File ID: W021463.D
Instrument ID: GCMSW
Injection Date: 08/12/04
Injection Time: 09:35

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 80.0% of mass 198	46529	43.5		Pass
68	Less than 2.0% of mass 69	309	0.29	(0.76) [a]	Pass
69	Mass 69 relative abundance	40533	37.9		Pass
70	Less than 2.0% of mass 69	223	0.21	(0.55) [a]	Pass
127	25.0 - 75.0% of mass 198	53659	50.1		Pass
197	Less than 1.0% of mass 198	162	0.15		Pass
198	Base peak, 100% relative abundance	107061	100.0		Pass
199	5.0 - 9.0% of mass 198	7158	6.7		Pass
275	10.0 - 30.0% of mass 198	20775	19.4		Pass
365	1.0 - 100.0% of mass 198	1935	1.8		Pass
441	Present, but less than mass 443	8926	8.3	(77.4) [b]	Pass
442	40.0 - 100.0% of mass 198	57120	53.4		Pass
443	17.0 - 23.0% of mass 442	11535	10.8	(20.2) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
SW1127-CC1116	W021465.D	08/12/04	10:25	00:50	Continuing cal 4
OP11065-BS	W021467.D	08/12/04	11:27	01:52	Blank Spike
OP11065-MB	W021468.D	08/12/04	11:58	02:23	Method Blank
F25789-10	W021469.D	08/12/04	12:30	02:55	(used for QC only; not part of job F25819)
OP11065-MS	W021470.D	08/12/04	13:01	03:26	Matrix Spike
OP11065-MSD	W021471.D	08/12/04	13:33	03:58	Matrix Spike Duplicate
ZZZZZZ	W021472.D	08/12/04	14:04	04:29	(unrelated sample)
ZZZZZZ	W021473.D	08/12/04	14:35	05:00	(unrelated sample)
F25819-1	W021474.D	08/12/04	15:07	05:32	OLFS-2406-MW41
F25819-2	W021475.D	08/12/04	15:38	06:03	OLFS-2406-MW38
F25819-8	W021476.D	08/12/04	16:09	06:34	OLFS-2406-RB01

Response Factor Report MSBNA01

Method : C:\HPCHEM\1\METHODS\SIM_PAH.M (RTE Integrator)
Title : PAH's by 8270 SIM
Last Update : Mon Aug 02 08:33:41 2004
Response via : Initial Calibration

08/2/04

Calibration Files
L1 =W021250.D L2 =W021251.D L3 =W021252.D L4 =W021253.D
L5 =W021254.D L6 =W021255.D L7 =W021256.D icv =W021257.D

Compound	L1	L2	L3	L4	L5	L6	L7	icv	Avg	%RSD
1) I Naphthalene-d8			----------ISTD----------							
2) Nitrobenzene	0.365	0.359	0.361	0.340	0.341	0.345	0.338		0.350	3.22
3) N-nitroso-di		0.067	0.063	0.060	0.059	0.055	0.052		0.059	8.97
4) Naphthalene	1.171	1.120	1.119	1.059	1.059	1.033	1.016		1.082	5.16
5) 2-Methylnaph	0.764	0.732	0.735	0.693	0.689	0.671	0.650		0.705	5.68
6) 1-Methylnaph	0.682	0.659	0.663	0.624	0.629	0.603	0.603		0.638	4.86
7) I Acenaphthene-d10			----------ISTD----------							
8) Hexachlorocy		0.130	0.150	0.146	0.161	0.162	0.161		0.152	8.20
9) 2-Fluorobiph	1.706	1.683	1.686	1.582	1.610	1.574	1.573		1.631	3.62
0) Acenaphthyle	2.278	2.191	2.201	2.106	2.081	2.041	2.010		2.130	4.53
1) Acenaphthene	1.400	1.338	1.352	1.288	1.291	1.251	1.224		1.306	4.66
2) 2,4-Dinitrop		0.051	0.072	0.078	0.096	0.099	0.109		0.084	25.19
3) 4-Nitropheno		0.117	0.131	0.135	0.139	0.146	0.141		0.135	7.44
4) Fluorene	1.545	1.455	1.460	1.388	1.379	1.334	1.323		1.412	5.60
5) I Phenanthrene-d10			----------ISTD----------							
6) Phenanthrene	1.377	1.324	1.319	1.253	1.248	1.226	1.194		1.277	5.05
7) Anthracene	1.356	1.329	1.338	1.282	1.263	1.228	1.200		1.285	4.59
8) Fluoranthene	1.279	1.229	1.257	1.211	1.205	1.172	1.153		1.215	3.64
9) I Chrysene-d12			----------ISTD----------							
0) Pyrene	2.231	2.225	2.276	2.131	2.112	2.066	2.019		2.151	4.41
1) Terphenyl-d1	0.816	0.824	0.842	0.765	0.790	0.773	0.763		0.796	3.96
2) Benzo[a]anth	1.620	1.509	1.535	1.492	1.535	1.542	1.534		1.538	2.62
3) Chrysene	1.560	1.493	1.577	1.504	1.516	1.513	1.489		1.522	2.21
4) I Perylene-d12			----------ISTD----------							
5) Benzo[b]fluo	2.237	2.153	2.200	2.135	2.169	2.230	2.103		2.175	2.28
6) Benzo[k]fluo	1.989	1.977	2.107	2.073	2.182	2.290	2.238		2.122	5.67
7) Benzo[a]pyre	1.866	1.812	1.916	1.886	1.960	2.012	1.975		1.918	3.60
8) Indeno[1,2,3	1.622	1.598	1.651	1.631	1.704	1.862	1.798		1.695	5.87
9) Dibenz[a,h]a	1.502	1.551	1.601	1.588	1.639	1.686	1.657		1.603	3.97
0) Benzo[g,h,i]	1.885	1.881	1.953	1.923	1.955	2.022	1.952		1.939	2.50

) = Out of Range ### Number of calibration levels exceeded format ###

SIM_PAH.M Mon Aug 02 08:34:49 2004 ECD3

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\081204\W021465.D
Acq On : 12 Aug 2004 10:25 am
Sample : cc1116-4
Misc : op11068,sw1127,1010,,,1,1,water
MS Integration Params: RTEINT.P

Vial: 2
Operator: marke
Inst : MSBNA01
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\SIM_PAH.M (RTE Integrator)
Title : PAH's by 8270 SIM
Last Update : Thu Aug 12 15:01:34 2004
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Naphthalene-d8	1.000	1.000	0.0	101	0.00	6.35
2	S	Nitrobenzene-d5	0.350	0.379	-8.3	112	0.00	5.66
3	P	N-nitroso-di-n-propylamin	0.059	0.072	-22.0#	121	0.00	5.53
4		Naphthalene	1.082	1.142	-5.5	109	0.00	6.38
5		2-Methylnaphthalene	0.705	0.768	-8.9	112	0.01	7.20
6		1-Methylnaphthalene	0.638	0.689	-8.0	111	0.00	7.34
7	I	Acenaphthene-d10	1.000	1.000	0.0	106	0.00	8.73
8	P	Hexachlorocyclopentadiene	0.152	0.150	1.3	109	0.00	7.50
9	S	2-Fluorobiphenyl	1.631	1.693	-3.8	113	0.00	7.73
10		Acenaphthylene	2.130	2.244	-5.4	113	0.00	8.49
11	C	Acenaphthene	1.306	1.388	-6.3	114	0.00	8.78
12	P	2,4-Dinitrophenol	0.084	0.094	-11.9	126	0.00	8.87
13	P	4-Nitrophenol	0.135	0.149	-10.4	116	0.01	9.02
14		Fluorene	1.412	1.529	-8.3	117	0.00	9.61
15	I	Phenanthrene-d10	1.000	1.000	0.0	110	0.00	11.23
16		Phenanthrene	1.277	1.352	-5.9	119	0.00	11.26
17		Anthracene	1.285	1.380	-7.4	118	0.00	11.35
18	C	Fluoranthene	1.215	1.329	-9.4	121	0.01	13.46
19	I	Chrysene-d12	1.000	1.000	0.0	110	0.00	16.17
20		Pyrene	2.151	2.308	-7.3	119	-0.02	13.86
21	S	Terphenyl-d14	0.796	0.882	-10.8	127	-0.01	14.26
22		Benzo[a]anthracene	1.538	1.678	-9.1	124	0.00	16.14
23		Chrysene	1.522	1.639	-7.7	120	0.00	16.21
24	I	Perylene-d12	1.000	1.000	0.0	113	0.00	18.69
25		Benzo[b]fluoranthene	2.175	2.292	-5.4	121	0.00	18.07
26		Benzo[k]fluoranthene	2.122	2.306	-8.7	125	0.00	18.11
27	C	Benzo[a]pyrene	1.918	2.098	-9.4	125	0.00	18.59
28		Indeno[1,2,3-cd]pyrene	1.695	1.842	-8.7	127	0.00	20.31
29		Dibenz[a,h]anthracene	1.603	1.729	-7.9	123	0.00	20.35
30		Benzo[g,h,i]perylene	1.939	2.069	-6.7	121	-0.01	20.67

(#) = Out of Range SPCC's out = 0 CCC's out = 0
W021253.D SIM_PAH.M Wed Aug 18 16:06:39 2004 ECD3

Semivolatile Internal Standard Area Summary

Job Number: F25819
Account: TETRFLTA Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

Check Std:	SW1127-CC1116	**Injection Date:**	08/12/04
Lab File ID:	W021465.D	**Injection Time:**	10:25
Instrument ID:	GCMSW	**Method:**	SW846 8270C BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	566489	6.35	271701	8.73	400854	11.23	237464	16.17	149333	18.69
Upper Limit [a]	1132978	6.85	543402	9.23	801708	11.73	474928	16.67	298666	19.19
Lower Limit [b]	283245	5.85	135851	8.23	200427	10.73	118732	15.67	74667	18.19

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
OP11065-BS	592425	6.35	278922	8.73	410965	11.23	254259	16.17	158803	18.69
OP11065-MB	577893	6.35	275304	8.73	396455	11.22	245145	16.17	152548	18.69
F25789-10	602882	6.35	287379	8.73	417763	11.22	254838	16.17	155357	18.69
OP11065-MS	593567	6.36	277755	8.73	403940	11.23	244998	16.17	147984	18.69
OP11065-MSD	581337	6.36	275740	8.73	407732	11.22	255696	16.17	155080	18.68
ZZZZZZ	562767	6.35	262678	8.73	378871	11.22	236011	16.17	148343	18.69
ZZZZZZ	564082	6.35	261294	8.73	384679	11.22	244706	16.17	153577	18.69
F25819-1	608800	6.36	256501	8.73	368366	11.22	230161	16.17	144747	18.69
F25819-2	556383	6.35	257070	8.73	377194	11.22	236664	16.17	147307	18.68
F25819-8	575691	6.36	268378	8.73	389480	11.22	242692	16.17	152669	18.68

IS 1 = Naphthalene-d8
IS 2 = Acenaphthene-D10
IS 3 = Phenanthrene-d10
IS 4 = Chrysene-d12
IS 5 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Surrogate Recovery Summary

Job Number: F25819
Account: TETRFLTA Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

Method: FLORIDA-PRO **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]
F25819-1	OP41426.D	91.0
F25819-2	OP41427.D	90.0
F25819-8	OP41428.D	101.0
OP11063-BS	OP41404.D	92.0
OP11063-MB	OP41405.D	97.0
OP11063-MB	OP41468.D	98.0
OP11063-MS	OP41471.D	77.0
OP11063-MSD	OP41472.D	81.0

Surrogate Compounds	Recovery Limits
S1 = o-Terphenyl	50-125%

(a) Recovery from GC signal #1

GC Surrogate Retention Time Summary

Job Number: F25819
Account: TETRFLTA Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

Check Std:	GOP1268-CC1259	**Injection Date:**	08/07/04
Lab File ID:	OP41403.D	**Injection Time:**	17:45
Instrument ID:	GCOP	**Method:**	FLORIDA-PRO

	S1 [a] RT
Check Std	5.14

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT
OP11063-BS	OP41404.D	08/07/04	18:06	5.14
OP11063-MB	OP41405.D	08/07/04	18:27	5.14
ZZZZZZ	OP41406.D	08/07/04	18:48	5.14
ZZZZZZ	OP41407.D	08/07/04	19:10	5.14
ZZZZZZ	OP41408.D	08/07/04	19:31	5.14
ZZZZZZ	OP41409.D	08/07/04	19:52	5.14
ZZZZZZ	OP41410.D	08/07/04	20:13	5.14
ZZZZZZ	OP41411.D	08/07/04	20:34	5.14
ZZZZZZ	OP41412.D	08/07/04	20:56	5.14

Surrogate Compounds

S1 = o-Terphenyl

(a) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Job Number: F25819
Account: TETRFLTA Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

Check Std:	GOP1268-CC1259	**Injection Date:**	08/08/04
Lab File ID:	OP41424.D	**Injection Time:**	01:11
Instrument ID:	GCOP	**Method:**	FLORIDA-PRO

	S1 [a] RT
Check Std	5.14

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT
ZZZZZZ	OP41425.D	08/08/04	01:32	5.14
F25819-1	OP41426.D	08/08/04	01:54	5.14
F25819-2	OP41427.D	08/08/04	02:15	5.14
F25819-8	OP41428.D	08/08/04	02:36	5.14
ZZZZZZ	OP41429.D	08/08/04	02:58	5.14

Surrogate Compounds

S1 = o-Terphenyl

(a) Retention time from GC signal #1

C3R0

GC Surrogate Retention Time Summary

Job Number: F25819
Account: TETRFLTA Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

Check Std:	GOP1269-CC1259	**Injection Date:**	08/09/04
Lab File ID:	OP41467.D	**Injection Time:**	15:49
Instrument ID:	GCOP	**Method:**	FLORIDA-PRO

	S1 [a] RT
Check Std	5.14

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT
OP11063-MB	OP41468.D	08/09/04	16:10	5.14
ZZZZZZ	OP41469.D	08/09/04	16:32	5.13
F25795-2	OP41470.D	08/09/04	16:53	5.14
OP11063-MS	OP41471.D	08/09/04	17:15	5.14
OP11063-MSD	OP41472.D	08/09/04	17:36	5.14

Surrogate Compounds

S1 = o-Terphenyl

(a) Retention time from GC signal #1

Method Blank Summary

Job Number: F25819
Account: TETRFLTA Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11063-MB	OP41405.D	1	08/07/04	AA	08/06/04	OP11063	GOP1268

The QC reported here applies to the following samples: **Method:** FLORIDA-PRO

F25819-1, F25819-2, F25819-8

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	ND	0.25	0.17	mg/l	

CAS No.	Surrogate Recoveries		Limits
84-15-1	o-Terphenyl	97%	50-125%

Method Blank Summary

Job Number: F25819
Account: TETRFLTA Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11063-MB	OP41468.D	1	08/09/04	AA	08/06/04	OP11063	GOP1269

The QC reported here applies to the following samples: **Method:** FLORIDA-PRO

F25819-1, F25819-2, F25819-8

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	ND	0.25	0.17	mg/l	

CAS No.	Surrogate Recoveries		Limits
84-15-1	o-Terphenyl	98%	50-125%

Response Factor Report FID 2

Method : C:\HPCHEM\2\METHODS\FL_PRO_F.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Sat Jul 24 14:01:16 2004
Response via : Initial Calibration

Calibration Files
1 =OP40971.D 2 =OP40972.D 3 =OP40973.D 4 =OP40974.D
5 =OP40975.D 6 =OP40976.D 7 =OP40977.D ICV =OP40305.D

Compound	1	2	3	4	5	6	7	ICV	Avg	%RSD
1) O-TERPHENYL	2.545	2.517	2.512	2.524	2.587				2.537 E4	1.21
2) TPH (C8-C40)	2.137	2.325	2.360	2.381	2.444	2.322	2.228		2.314 E4	4.41

(#) = Out of Range ### Number of calibration levels exceeded format ###

FL_PRO_F.M Mon Jul 26 08:10:00 2004

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\0807PRO\OP41395.D
Acq On : 7 Aug 2004 2:55 pm
Sample : cc1259-1020
Misc : op11057,gop1268,1000,,,1,1,water
IntFile : events.e

Vial: 1
Operator: aubreya
Inst : FID 2
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\FL_PRO_F.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Mon Aug 09 09:00:05 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1 S	O-TERPHENYL	60.000	60.548	-0.9	102	0.00	5.04- 5.24
2 H	TPH (C8-C40)	1020.000	1085.813	-6.5	104	0.00	1.77- 9.85

(#) = Out of Range SPCC's out = 0 CCC's out = 0
OP40973.D FL_PRO_F.M Mon Aug 09 10:00:27 2004

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\0807PRO\OP41396.D
Acq On : 7 Aug 2004 3:16 pm
Sample : cc1259-340
Misc : op11057,gop1268,1000,,,1,1,water
IntFile : events.e

Vial: 2
Operator: aubreya
Inst : FID 2
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\FL_PRO_F.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Mon Aug 09 09:00:05 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1 S	O-TERPHENYL	20.000	20.609	-3.0	103	0.00	5.04- 5.24
2 H	TPH (C8-C40)	340.000	378.310	-11.3	120	0.00	1.77- 9.85

(#) = Out of Range SPCC's out = 0 CCC's out = 0
OP40971.D FL_PRO_F.M Mon Aug 09 10:01:54 2004

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\0807PRO\OP41403.D
Acq On : 7 Aug 2004 5:45 pm
Sample : cc1259-1020
Misc : op11057,gop1268,100,,,1,1,water
IntFile : events.e

Vial: 1
Operator: aubreya
Inst : FID 2
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\FL_PRO_F.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Mon Aug 09 09:00:05 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	O-TERPHENYL	60.000	61.619	-2.7	104	0.00	5.04- 5.24
2	H	TPH (C8-C40)	1020.000	1094.889	-7.3	105	0.00	1.77- 9.85

(#) = Out of Range
OP40973.D FL_PRO_F.M

SPCC's out = 0 CCC's out = 0
Mon Aug 09 10:00:27 2004

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\0807PRO\OP41413.D
Acq On : 7 Aug 2004 9:17 pm
Sample : cc1259-1020
Misc : op11063,gop1268,1050,,,1,1,water
IntFile : events.e

Vial: 1
Operator: aubreya
Inst : FID 2
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\FL_PRO_F.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Mon Aug 09 09:00:05 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1 S	O-TERPHENYL	60.000	61.905	-3.2	104	0.00	5.04- 5.24
2 H	TPH (C8-C40)	1020.000	1099.434	-7.8	106	0.00	1.77- 9.85

(#) = Out of Range SPCC's out = 0 CCC's out = 0
OP40973.D FL_PRO_F.M Mon Aug 09 10:00:27 2004

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\0807PRO\OP41424.D
Acq On : 8 Aug 2004 1:11 am
Sample : cc1259-1020
Misc : op11063,gop1268,480,,,1,1,water
IntFile : events.e

Vial: 1
Operator: aubreya
Inst : FID 2
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\FL_PRO_F.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Mon Aug 09 09:00:05 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	O-TERPHENYL	60.000	62.973	-5.0	106	0.00	5.04- 5.24
2	H	TPH (C8-C40)	1020.000	1167.355	-14.4	112	0.00	1.77- 9.85

(#) = Out of Range SPCC's out = 0 CCC's out = 0
OP40973.D FL_PRO_F.M Mon Aug 09 10:00:27 2004

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\0807PRO\OP41430.D
Acq On : 8 Aug 2004 3:19 am
Sample : cc1259-1020
Misc : op11063,gop1268,1050,,,1,1,water
IntFile : events.e

Vial: 1
Operator: aubreya
Inst : FID 2
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\FL_PRO_F.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Mon Aug 09 09:00:05 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1 S	O-TERPHENYL	60.000	63.405	-5.7	107	0.00	5.04- 5.24
2 H	TPH (C8-C40)	1020.000	1146.994	-12.5	110	0.00	1.77- 9.85

(#) = Out of Range
OP40973.D FL_PRO_F.M

SPCC's out = 0 CCC's out = 0
Mon Aug 09 10:00:28 2004

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\0807PRO\OP41440.D
Acq On : 8 Aug 2004 6:52 am
Sample : cc1259-1020
Misc : op11060,gop1268,30.1,,,1,1,soil
IntFile : events.e

Vial: 1
Operator: aubreya
Inst : FID 2
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\FL_PRO_F.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Mon Aug 09 09:00:05 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	O-TERPHENYL	60.000	64.988	-8.3	109	0.00	5.04- 5.24
2	H	TPH (C8-C40)	1020.000	1153.452	-13.1	111	0.00	1.77- 9.85

(#) = Out of Range SPCC's out = 0 CCC's out = 0
OP40973.D FL_PRO_F.M Mon Aug 09 10:00:28 2004

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\0807PRO\OP41451.D
Acq On : 8 Aug 2004 10:47 am
Sample : cc1259-1020
Misc : op11060,gop1268,30.2,,,1,1,soil
IntFile : events.e

Vial: 1
Operator: aubreya
Inst : FID 2
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\FL_PRO_F.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Mon Aug 09 09:00:05 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1 S	O-TERPHENYL	60.000	68.437	-14.1	115	0.00	5.04- 5.24
2 H	TPH (C8-C40)	1020.000	1219.120	-19.5	117	0.00	1.77- 9.85

(#) = Out of Range
OP40973.D FL_PRO_F.M

SPCC's out = 0 CCC's out = 0
Mon Aug 09 10:00:28 2004

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\0807PRO\OP41455.D
Acq On : 8 Aug 2004 12:11 pm
Sample : ecc1259-1020
Misc : op11060,gop1268,30.5,,,1,1,soil
IntFile : events.e

Vial: 1
Operator: aubreya
Inst : FID 2
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\FL_PRO_F.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Mon Aug 09 09:00:05 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1 S	O-TERPHENYL	60.000	69.063	-15.1	116	0.00	5.04- 5.24
2 H	TPH (C8-C40)	1020.000	1221.881	-19.8	117	0.00	1.77- 9.85

(#) = Out of Range
OP40973.D FL_PRO_F.M

SPCC's out = 0 CCC's out = 0
Mon Aug 09 10:00:28 2004

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\0809PRO\OP41456.D
Acq On : 9 Aug 2004 11:45 am
Sample : cc1259-1020
Misc : op11060,gop1269,30.0,,,1,1,soil
IntFile : events.e

Vial: 1
Operator: aubreya
Inst : FID 2
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\FL_PRO_F.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Mon Aug 09 09:00:05 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1 S	O-TERPHENYL	60.000	59.538	0.8	100	0.00	5.04- 5.24
2 H	TPH (C8-C40)	1020.000	1066.331	-4.5	102	0.00	1.77- 9.85

(#) = Out of Range SPCC's out = 0 CCC's out = 0
OP40973.D FL_PRO_F.M Tue Aug 10 15:14:36 2004

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\0809PRO\OP41457.D
Acq On : 9 Aug 2004 12:18 pm
Sample : cc1259-340
Misc : op11060,gop1269,30.0,,,1,1,soil
IntFile : events.e

Vial: 2
Operator: aubreya
Inst : FID 2
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\FL_PRO_F.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Mon Aug 09 09:00:05 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1 S	O-TERPHENYL	20.000	20.279	-1.4	101	0.00	5.04- 5.24
2 H	TPH (C8-C40)	340.000	374.411	-10.1	119	0.00	1.77- 9.85

(#) = Out of Range SPCC's out = 0 CCC's out = 0
OP40971.D FL_PRO_F.M Tue Aug 10 15:13:51 2004

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\0809PRO\OP41467.D
Acq On : 9 Aug 2004 3:49 pm
Sample : cc1259-1020
Misc : op11060,gop1269,30.9,,,1,1,soil
IntFile : events.e

Vial: 1
Operator: aubreya
Inst : FID 2
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\FL_PRO_F.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Mon Aug 09 09:00:05 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1 S	O-TERPHENYL	60.000	60.021	-0.0	101	0.00	5.04- 5.24
2 H	TPH (C8-C40)	1020.000	1080.662	-5.9	104	0.00	1.77- 9.85

(#) = Out of Range SPCC's out = 0 CCC's out = 0
OP40973.D FL_PRO_F.M Tue Aug 10 15:14:36 2004

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\0809PRO\OP41473.D
Acq On : 9 Aug 2004 5:58 pm
Sample : cc1259-1020
Misc : op11063,gop1269,480,,,1,1,water
IntFile : events.e

Vial: 1
Operator: aubreya
Inst : FID 2
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\FL_PRO_F.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Mon Aug 09 09:00:05 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1 S	O-TERPHENYL	60.000	61.112	-1.9	103	0.00	5.04- 5.24
2 H	TPH (C8-C40)	1020.000	1086.340	-6.5	104	0.00	1.77- 9.85

(#) = Out of Range SPCC's out = 0 CCC's out = 0
OP40973.D FL_PRO_F.M Tue Aug 10 15:14:36 2004

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\0809PRO\OP41484.D
Acq On : 9 Aug 2004 9:51 pm
Sample : cc1259-1020
Misc : op11070,gop1269,1000,,,1,1,water
IntFile : events.e

Vial: 1
Operator: aubreya
Inst : FID 2
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\FL_PRO_F.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Mon Aug 09 09:00:05 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1 S	O-TERPHENYL	60.000	62.571	-4.3	105	0.00	5.04- 5.24
2 H	TPH (C8-C40)	1020.000	1156.354	-13.4	111	0.00	1.77- 9.85

(#) = Out of Range SPCC's out = 0 CCC's out = 0
OP40973.D FL_PRO_F.M Tue Aug 10 15:14:36 2004

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\0809PRO\OP41495.D
Acq On : 10 Aug 2004 1:42 am
Sample : cc1259-1020
Misc : op11070,gop1269,1040,,,1,1,water
IntFile : events.e

Vial: 1
Operator: aubreya
Inst : FID 2
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\FL_PRO_F.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Mon Aug 09 09:00:05 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1 S	O-TERPHENYL	60.000	62.613	-4.4	105	0.00	5.04- 5.24
2 H	TPH (C8-C40)	1020.000	1120.938	-9.9	108	0.00	1.77- 9.85

(#) = Out of Range SPCC's out = 0 CCC's out = 0
OP40973.D FL_PRO_F.M Tue Aug 10 15:14:36 2004

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\0809PRO\OP41501.D
Acq On : 10 Aug 2004 3:46 am
Sample : cc1259-1020
Misc : op11070,gop1269,1000,,,1,1,water
IntFile : events.e

Vial: 1
Operator: aubreya
Inst : FID 2
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\FL_PRO_F.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Mon Aug 09 09:00:05 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1 S	O-TERPHENYL	60.000	65.719	-9.5	111	0.00	5.04- 5.24
2 H	TPH (C8-C40)	1020.000	1221.618	-19.8	117	0.00	1.77- 9.85

(#) = Out of Range SPCC's out = 0 CCC's out = 0
OP40973.D FL_PRO_F.M Tue Aug 10 15:14:36 2004

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\0809PRO\OP41512.D
Acq On : 10 Aug 2004 8:05 am
Sample : cc1259-1020
Misc : op11059,gop1269,1050,,,1,1,water
IntFile : events.e

Vial: 1
Operator: aubreya
Inst : FID 2
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\FL_PRO_F.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Mon Aug 09 09:00:05 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1 S	O-TERPHENYL	60.000	61.347	-2.2	103	0.00	5.04- 5.24
2 H	TPH (C8-C40)	1020.000	1044.848	-2.4	100	0.00	1.77- 9.85

(#) = Out of Range
OP40973.D FL_PRO_F.M

SPCC's out = 0 CCC's out = 0
Tue Aug 10 15:14:37 2004

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\0809PRO\OP41521.D
Acq On : 10 Aug 2004 11:14 am
Sample : cc1259-1020
Misc : op11059,gop1269,920,,,1,1,water
IntFile : events.e

Vial: 1
Operator: aubreya
Inst : FID 2
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\FL_PRO_F.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Mon Aug 09 09:00:05 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1 S	O-TERPHENYL	60.000	61.813	-3.0	104	0.00	5.04- 5.24
2 H	TPH (C8-C40)	1020.000	1060.138	-3.9	102	0.00	1.77- 9.85

(#) = Out of Range SPCC's out = 0 CCC's out = 0
OP40973.D FL_PRO_F.M Tue Aug 10 15:14:37 2004

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\0809PRO\OP41531.D
Acq On : 10 Aug 2004 2:49 pm
Sample : cc1259-1020
Misc : op11077,gop1269,1050,,,1,1,water
IntFile : events.e

Vial: 1
Operator: aubreya
Inst : FID 2
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\FL_PRO_F.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Mon Aug 09 09:00:05 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	O-TERPHENYL	60.000	64.412	-7.4	108	0.00	5.04- 5.24
2	H	TPH (C8-C40)	1020.000	1092.724	-7.1	105	0.00	1.77- 9.85

(#) = Out of Range SPCC's out = 0 CCC's out = 0
OP40973.D FL_PRO_F.M Tue Aug 10 15:14:37 2004

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\0809PRO\OP41532.D
Acq On : 10 Aug 2004 3:10 pm
Sample : cc1259-340
Misc : op11077,gop1269,1050,,,1,1,water
IntFile : events.e

Vial: 2
Operator: aubreya
Inst : FID 2
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\FL_PRO_F.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Mon Aug 09 09:00:05 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1 S	O-TERPHENYL	20.000	22.164	-10.8	110	0.00	5.04- 5.24
2 H	TPH (C8-C40)	340.000	382.928	-12.6	122	0.00	1.77- 9.85

(#) = Out of Range SPCC's out = 0 CCC's out = 0
OP40971.D FL_PRO_F.M Tue Aug 10 15:28:49 2004

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\0809PRO\OP41541.D
Acq On : 10 Aug 2004 6:26 pm
Sample : cc1259-1020
Misc : op11059,gop1269,1020,,,1,1,water
IntFile : events.e

Vial: 1
Operator: aubreya
Inst : FID 2
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\FL_PRO_F.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Mon Aug 09 09:00:05 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1 S	O-TERPHENYL	60.000	62.640	-4.4	105	0.00	5.04- 5.24
2 H	TPH (C8-C40)	1020.000	1064.136	-4.3	102	0.00	1.77- 9.85

(#) = Out of Range SPCC's out = 0 CCC's out = 0
OP40973.D FL_PRO_F.M Wed Aug 11 08:18:41 2004

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO:	**G. WALKER**	**DATE:**	**OCTOBER 4, 2004**
FROM:	**BERNARD F SPADA III**	**COPIES:**	**DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION- VOC/EDB/PAH/TPH**
CTO 274, NAS PENSACOLA
SDG F25789

SAMPLES: 11/Aqueous

OLFS-2406-DMW42D	OLFS-2406-DMW43D	OLFS-2406-DMW44D
OLFS-2406-MW29	OLFS-2406-MW39*	OLFS-2406-MW40*
OLFS-2406-MW42S	OLFS-2406-MW43S	OLFS-2406-MW44S
OLFS-2406-MW4S*	TRIP BLANK	

OVERVIEW

The sample set for CTO 274, NAS Pensacola, SDG F25789 consists of ten (10) environmental aqueous samples and one (1) trip blank. All samples were analyzed for volatile organic compounds (VOC). The samples denoted with an asterisk (*) were also analyzed for ethylene dibromide (EDB), polynuclear aromatic hydrocarbons (PAH), and total petroleum hydrocarbons (TPH). The trip blank was also analyzed for EDB.

The sample was collected by Tetra Tech NUS on July 28, 29, and 30, 2004 and analyzed by Accutest Laboratories. All analyses were conducted in accordance with Naval Facilities Engineering Service Center (NFESC) Quality Assurance/Quality Control (QA/QC) criteria using SW-846 Methods 8260B and 8310, EPA 504.1, and Florida PRO analytical and reporting protocols. The data contained in this SDG were validated with regard to the following parameters:

* • Data completeness
* • Holding times
* • Initial and continuing calibration
* • Laboratory method and field quality control blank results
* • Detection Limits

The symbol (*) indicates that all quality control criteria were met for this parameter. Problems affecting data quality are discussed below; documentation supporting these findings is presented in Appendix C. Qualified Analytical results are presented in Appendix A.

The text of this report is formulated to address only gross non-compliances resulting in the rejection of data and the elimination of false positives.

Volatile

Several MS/MSD non-compliances were noted. No qualifications were made on this basis because the un-spiked samples were not associated with this SDG.

EDB

No qualifications were assigned to this fraction.

PAH

The surrogates were double spiked in sample OLFS-2406-MW4S. The laboratory adjusted for the double spike in order to get acceptable percent recoveries. No qualifications were made on this basis.

TPH

No qualifications were assigned to this fraction.

EXECUTIVE SUMMARY

Laboratory Performance Issues: Surrogates were double spiked in one PAH sample.

Other Factors Affecting Data Quality: None.

The data for these analyses were reviewed with reference to the EPA Functional Guidelines for Organic Data Validation (10/99) and the NFESC guidelines. The text of this report has been formulated to address only those problem areas affecting data quality.

"I attest that the data referenced herein were validated according to the agreed upon validation criteria as specified in the NFESC guidelines and the Quality Assurance Project Plan (QAPP)."

Bernard F. Spada III

Tetra Tech NUS
Bernard F. Spada III
Chemist/Data Validator

Tetra Tech NUS
Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:
1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as Reported by the Laboratory
3. Appendix C - Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is less than sample activity

PROJ_NO: 2642

SDG: F25789 MEDIA: WATER DATA FRACTION: OV

nsample	OLFS-2406-DMW42D
samp_date	7/28/2004
lab_id	F25789-5
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	0.5	U	
1,1,2,2-TETRACHLOROETHANE	0.3	U	
1,1,2-TRICHLOROETHANE	0.5	U	
1,1-DICHLOROETHANE	0.5	U	
1,1-DICHLOROETHENE	0.5	U	
1,2-DICHLOROBENZENE	0.5	U	
1,2-DICHLOROETHANE	0.5	U	
1,2-DICHLOROPROPANE	0.5	U	
1,3-DICHLOROBENZENE	0.5	U	
1,4-DICHLOROBENZENE	0.5	U	
2-CHLOROETHYL VINYL ETHER	2.5	U	
BENZENE	0.5	U	
BROMODICHLOROMETHANE	0.5	U	
BROMOFORM	0.5	U	
BROMOMETHANE	1	U	
CARBON TETRACHLORIDE	0.5	U	
CHLOROBENZENE	0.5	U	
CHLORODIBROMOMETHANE	0.4	U	
CHLOROETHANE	1	U	
CHLOROFORM	0.5	U	
CHLOROMETHANE	1	U	
CIS-1,2-DICHLOROETHENE	0.5	U	
CIS-1,3-DICHLOROPROPENE	0.3	U	
ETHYLBENZENE	0.5	U	
METHYL TERT-BUTYL ETHER	0.5	U	
METHYLENE CHLORIDE	1	U	
TETRACHLOROETHENE	0.5	U	
TOLUENE	0.51	J	P
TOTAL XYLENES	1	U	
TRANS-1,2-DICHLOROETHENE	0.5	U	
TRANS-1,3-DICHLOROPROPENE	0.3	U	
TRICHLOROETHENE	0.5	U	

nsample	OLFS-2406-DMW42D
samp_date	7/28/2004
lab_id	F25789-5
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
VINYL CHLORIDE	0.5	U	

nsample	OLFS-2406-DMW43D
samp_date	7/28/2004
lab_id	F25789-7
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	0.5	U	
1,1,2,2-TETRACHLOROETHANE	0.3	U	
1,1,2-TRICHLOROETHANE	0.5	U	
1,1-DICHLOROETHANE	0.5	U	
1,1-DICHLOROETHENE	0.5	U	
1,2-DICHLOROBENZENE	0.5	U	
1,2-DICHLOROETHANE	0.5	U	
1,2-DICHLOROPROPANE	0.5	U	
1,3-DICHLOROBENZENE	0.5	U	
1,4-DICHLOROBENZENE	0.5	U	
2-CHLOROETHYL VINYL ETHER	2.5	U	
BENZENE	0.5	U	
BROMODICHLOROMETHANE	0.5	U	
BROMOFORM	0.5	U	
BROMOMETHANE	1	U	
CARBON TETRACHLORIDE	0.5	U	
CHLOROBENZENE	0.5	U	
CHLORODIBROMOMETHANE	0.4	U	
CHLOROETHANE	1	U	
CHLOROFORM	1.6		
CHLOROMETHANE	1	U	
CIS-1,2-DICHLOROETHENE	0.5	U	
CIS-1,3-DICHLOROPROPENE	0.3	U	
ETHYLBENZENE	0.5	U	
METHYL TERT-BUTYL ETHER	0.5	U	
METHYLENE CHLORIDE	1	U	
TETRACHLOROETHENE	0.5	U	
TOLUENE	0.53	J	P
TOTAL XYLENES	1	U	
TRANS-1,2-DICHLOROETHENE	0.5	U	
TRANS-1,3-DICHLOROPROPENE	0.3	U	
TRICHLOROETHENE	0.5	U	

PROJ_NO: 2642

SDG: F25789 MEDIA: WATER DATA FRACTION: OV

nsample	OLFS-2406-DMW43D
samp_date	7/28/2004
lab_id	F25789-7
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
VINYL CHLORIDE	0.5	U	

nsample	OLFS-2406-DMW44D
samp_date	7/29/2004
lab_id	F25789-9
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	0.5	U	
1,1,2,2-TETRACHLOROETHANE	0.3	U	
1,1,2-TRICHLOROETHANE	0.5	U	
1,1-DICHLOROETHANE	0.5	U	
1,1-DICHLOROETHENE	0.5	U	
1,2-DICHLOROBENZENE	0.5	U	
1,2-DICHLOROETHANE	0.5	U	
1,2-DICHLOROPROPANE	0.5	U	
1,3-DICHLOROBENZENE	0.5	U	
1,4-DICHLOROBENZENE	0.5	U	
2-CHLOROETHYL VINYL ETHER	2.5	U	
BENZENE	0.5	U	
BROMODICHLOROMETHANE	0.5	U	
BROMOFORM	0.5	U	
BROMOMETHANE	1	U	
CARBON TETRACHLORIDE	0.5	U	
CHLOROBENZENE	0.5	U	
CHLORODIBROMOMETHANE	0.4	U	
CHLOROETHANE	1	U	
CHLOROFORM	0.5	U	
CHLOROMETHANE	1	U	
CIS-1,2-DICHLOROETHENE	0.5	U	
CIS-1,3-DICHLOROPROPENE	0.3	U	
ETHYLBENZENE	0.5	U	
METHYL TERT-BUTYL ETHER	0.5	U	
METHYLENE CHLORIDE	1	U	
TETRACHLOROETHENE	0.5	U	
TOLUENE	0.5	U	
TOTAL XYLENES	1	U	
TRANS-1,2-DICHLOROETHENE	0.5	U	
TRANS-1,3-DICHLOROPROPENE	0.3	U	
TRICHLOROETHENE	0.5	U	

nsample	OLFS-2406-DMW44D
samp_date	7/29/2004
lab_id	F25789-9
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
VINYL CHLORIDE	0.5	U	

PROJ_NO: 2642

SDG: F25789 MEDIA: WATER DATA FRACTION: OV

nsample	OLFS-2406-MW29	nsample	OLFS-2406-MW29	nsample	OLFS-2406-MW39
samp_date	7/29/2004	samp_date	7/29/2004	samp_date	7/30/2004
lab_id	F25789-2	lab_id	F25789-2	lab_id	F25789-11
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/L	units	UG/L	units	UG/L
Pct_Solids		Pct_Solids		Pct_Solids	
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	0.5	U	
1,1,2,2-TETRACHLOROETHANE	0.3	U	
1,1,2-TRICHLOROETHANE	0.5	U	
1,1-DICHLOROETHANE	0.5	U	
1,1-DICHLOROETHENE	0.5	U	
1,2-DICHLOROBENZENE	0.5	U	
1,2-DICHLOROETHANE	5.1		
1,2-DICHLOROPROPANE	0.5	U	
1,3-DICHLOROBENZENE	0.5	U	
1,4-DICHLOROBENZENE	0.5	U	
2-CHLOROETHYL VINYL ETHER	2.5	U	
BENZENE	308		
BROMODICHLOROMETHANE	0.5	U	
BROMOFORM	0.5	U	
BROMOMETHANE	1	U	
CARBON TETRACHLORIDE	0.5	U	
CHLOROBENZENE	0.5	U	
CHLORODIBROMOMETHANE	0.4	U	
CHLOROETHANE	1	U	
CHLOROFORM	0.5	U	
CHLOROMETHANE	1	U	
CIS-1,2-DICHLOROETHENE	0.5	U	
CIS-1,3-DICHLOROPROPENE	0.3	U	
ETHYLBENZENE	0.5	U	
METHYL TERT-BUTYL ETHER	0.5	U	
METHYLENE CHLORIDE	1	U	
TETRACHLOROETHENE	0.5	U	
TOLUENE	0.5	U	
TOTAL XYLENES	1.7	J	P
TRANS-1,2-DICHLOROETHENE	0.5	U	
TRANS-1,3-DICHLOROPROPENE	0.3	U	
TRICHLOROETHENE	0.5	U	

Parameter	Result	Val Qual	Qual Code
VINYL CHLORIDE	0.5	U	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	0.5	U	
1,1,2,2-TETRACHLOROETHANE	0.3	U	
1,1,2-TRICHLOROETHANE	0.5	U	
1,1-DICHLOROETHANE	0.5	U	
1,1-DICHLOROETHENE	0.5	U	
1,2-DIBROMOETHANE	0.0088	U	
1,2-DICHLOROBENZENE	0.5	U	
1,2-DICHLOROETHANE	0.5	U	
1,2-DICHLOROPROPANE	0.5	U	
1,3-DICHLOROBENZENE	0.5	U	
1,4-DICHLOROBENZENE	0.5	U	
2-CHLOROETHYL VINYL ETHER	2.5	U	
BENZENE	0.5	U	
BROMODICHLOROMETHANE	0.5	U	
BROMOFORM	0.5	U	
BROMOMETHANE	1	U	
CARBON TETRACHLORIDE	0.5	U	
CHLOROBENZENE	0.5	U	
CHLORODIBROMOMETHANE	0.4	U	
CHLOROETHANE	1	U	
CHLOROFORM	0.54	J	P
CHLOROMETHANE	1	U	
CIS-1,2-DICHLOROETHENE	0.5	U	
CIS-1,3-DICHLOROPROPENE	0.3	U	
ETHYLBENZENE	0.58	J	P
METHYL TERT-BUTYL ETHER	0.5	U	
METHYLENE CHLORIDE	1	U	
TETRACHLOROETHENE	0.5	U	
TOLUENE	2.7		
TOTAL XYLENES	1	U	
TRANS-1,2-DICHLOROETHENE	0.5	U	
TRANS-1,3-DICHLOROPROPENE	0.3	U	

PROJ_NO: 2642

SDG: F25789 MEDIA: WATER DATA FRACTION: OV

nsample	OLFS-2406-MW39
samp_date	7/30/2004
lab_id	F25789-11
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
TRICHLOROETHENE	0.5	U	
VINYL CHLORIDE	0.5	U	

nsample	OLFS-2406-MW40
samp_date	7/30/2004
lab_id	F25789-12
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	0.5	U	
1,1,2,2-TETRACHLOROETHANE	0.3	U	
1,1,2-TRICHLOROETHANE	0.5	U	
1,1-DICHLOROETHANE	0.5	U	
1,1-DICHLOROETHENE	0.5	U	
1,2-DIBROMOETHANE	0.0092	U	
1,2-DICHLOROBENZENE	0.5	U	
1,2-DICHLOROETHANE	0.5	U	
1,2-DICHLOROPROPANE	0.5	U	
1,3-DICHLOROBENZENE	0.5	U	
1,4-DICHLOROBENZENE	0.5	U	
2-CHLOROETHYL VINYL ETHER	2.5	U	
BENZENE	0.5	U	
BROMODICHLOROMETHANE	0.5	U	
BROMOFORM	0.5	U	
BROMOMETHANE	1	U	
CARBON TETRACHLORIDE	0.5	U	
CHLOROBENZENE	0.5	U	
CHLORODIBROMOMETHANE	0.4	U	
CHLOROETHANE	1	U	
CHLOROFORM	0.71	J	P
CHLOROMETHANE	1	U	
CIS-1,2-DICHLOROETHENE	0.5	U	
CIS-1,3-DICHLOROPROPENE	0.3	U	
ETHYLBENZENE	0.5	U	
METHYL TERT-BUTYL ETHER	0.5	U	
METHYLENE CHLORIDE	1	U	
TETRACHLOROETHENE	0.5	U	
TOLUENE	0.5	U	
TOTAL XYLENES	1	U	
TRANS-1,2-DICHLOROETHENE	0.5	U	
TRANS-1,3-DICHLOROPROPENE	0.3	U	

nsample	OLFS-2406-MW40
samp_date	7/30/2004
lab_id	F25789-12
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
TRICHLOROETHENE	0.5	U	
VINYL CHLORIDE	0.5	U	

PROJ_NO: 2642

SDG: F25789 MEDIA: WATER DATA FRACTION: OV

nsample	OLFS-2406-MW42S
samp_date	7/28/2004
lab_id	F25789-4
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	0.5	U	
1,1,2,2-TETRACHLOROETHANE	0.3	U	
1,1,2-TRICHLOROETHANE	0.5	U	
1,1-DICHLOROETHANE	0.5	U	
1,1-DICHLOROETHENE	0.5	U	
1,2-DICHLOROBENZENE	0.5	U	
1,2-DICHLOROETHANE	0.5	U	
1,2-DICHLOROPROPANE	0.5	U	
1,3-DICHLOROBENZENE	0.5	U	
1,4-DICHLOROBENZENE	0.5	U	
2-CHLOROETHYL VINYL ETHER	2.5	U	
BENZENE	0.5	U	
BROMODICHLOROMETHANE	0.5	U	
BROMOFORM	0.5	U	
BROMOMETHANE	1	U	
CARBON TETRACHLORIDE	0.5	U	
CHLOROBENZENE	0.5	U	
CHLORODIBROMOMETHANE	0.4	U	
CHLOROETHANE	1	U	
CHLOROFORM	0.62	J	P
CHLOROMETHANE	1	U	
CIS-1,2-DICHLOROETHENE	0.5	U	
CIS-1,3-DICHLOROPROPENE	0.3	U	
ETHYLBENZENE	0.5	U	
METHYL TERT-BUTYL ETHER	0.5	U	
METHYLENE CHLORIDE	1	U	
TETRACHLOROETHENE	0.5	U	
TOLUENE	0.5	U	
TOTAL XYLENES	1	U	
TRANS-1,2-DICHLOROETHENE	0.5	U	
TRANS-1,3-DICHLOROPROPENE	0.3	U	
TRICHLOROETHENE	0.5	U	

nsample	OLFS-2406-MW42S
samp_date	7/28/2004
lab_id	F25789-4
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
VINYL CHLORIDE	0.5	U	

nsample	OLFS-2406-MW43S
samp_date	7/29/2004
lab_id	F25789-6
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	0.5	U	
1,1,2,2-TETRACHLOROETHANE	0.3	U	
1,1,2-TRICHLOROETHANE	0.5	U	
1,1-DICHLOROETHANE	0.5	U	
1,1-DICHLOROETHENE	0.5	U	
1,2-DICHLOROBENZENE	0.5	U	
1,2-DICHLOROETHANE	0.5	U	
1,2-DICHLOROPROPANE	0.5	U	
1,3-DICHLOROBENZENE	0.5	U	
1,4-DICHLOROBENZENE	0.5	U	
2-CHLOROETHYL VINYL ETHER	2.5	U	
BENZENE	0.5	U	
BROMODICHLOROMETHANE	0.5	U	
BROMOFORM	0.5	U	
BROMOMETHANE	1	U	
CARBON TETRACHLORIDE	0.5	U	
CHLOROBENZENE	0.5	U	
CHLORODIBROMOMETHANE	0.4	U	
CHLOROETHANE	1	U	
CHLOROFORM	0.5	U	
CHLOROMETHANE	1	U	
CIS-1,2-DICHLOROETHENE	0.5	U	
CIS-1,3-DICHLOROPROPENE	0.3	U	
ETHYLBENZENE	0.5	U	
METHYL TERT-BUTYL ETHER	0.5	U	
METHYLENE CHLORIDE	1	U	
TETRACHLOROETHENE	0.5	U	
TOLUENE	0.5	U	
TOTAL XYLENES	1	U	
TRANS-1,2-DICHLOROETHENE	0.5	U	
TRANS-1,3-DICHLOROPROPENE	0.3	U	
TRICHLOROETHENE	0.5	U	

PROJ_NO: 2642

SDG: F25789 MEDIA: WATER DATA FRACTION: OV

nsample	OLFS-2406-MW43S
samp_date	7/29/2004
lab_id	F25789-6
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
VINYL CHLORIDE	0.5	U	

nsample	OLFS-2406-MW44S
samp_date	7/28/2004
lab_id	F25789-8
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	0.5	U	
1,1,2,2-TETRACHLOROETHANE	0.3	U	
1,1,2-TRICHLOROETHANE	0.5	U	
1,1-DICHLOROETHANE	0.5	U	
1,1-DICHLOROETHENE	0.5	U	
1,2-DICHLOROBENZENE	0.5	U	
1,2-DICHLOROETHANE	0.65	J	P
1,2-DICHLOROPROPANE	0.5	U	
1,3-DICHLOROBENZENE	0.5	U	
1,4-DICHLOROBENZENE	0.5	U	
2-CHLOROETHYL VINYL ETHER	2.5	U	
BENZENE	0.5	U	
BROMODICHLOROMETHANE	0.5	U	
BROMOFORM	0.5	U	
BROMOMETHANE	1	U	
CARBON TETRACHLORIDE	0.5	U	
CHLOROBENZENE	0.5	U	
CHLORODIBROMOMETHANE	0.4	U	
CHLOROETHANE	1	U	
CHLOROFORM	0.5	U	
CHLOROMETHANE	1	U	
CIS-1,2-DICHLOROETHENE	0.5	U	
CIS-1,3-DICHLOROPROPENE	0.3	U	
ETHYLBENZENE	0.5	U	
METHYL TERT-BUTYL ETHER	0.5	U	
METHYLENE CHLORIDE	1	U	
TETRACHLOROETHENE	0.5	U	
TOLUENE	0.5	U	
TOTAL XYLENES	1	U	
TRANS-1,2-DICHLOROETHENE	0.5	U	
TRANS-1,3-DICHLOROPROPENE	0.3	U	
TRICHLOROETHENE	0.5	U	

nsample	OLFS-2406-MW44S
samp_date	7/28/2004
lab_id	F25789-8
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
VINYL CHLORIDE	0.5	U	

PROJ_NO: 2642

SDG: F25789 MEDIA: WATER DATA FRACTION: OV

nsample	OLFS-2406-MW4S
samp_date	7/30/2004
lab_id	F25789-10
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	0.5	U	
1,1,2,2-TETRACHLOROETHANE	0.3	U	
1,1,2-TRICHLOROETHANE	0.5	U	
1,1-DICHLOROETHANE	0.5	U	
1,1-DICHLOROETHENE	0.5	U	
1,2-DIBROMOETHANE	0.0089	U	
1,2-DICHLOROBENZENE	0.5	U	
1,2-DICHLOROETHANE	0.5	U	
1,2-DICHLOROPROPANE	0.5	U	
1,3-DICHLOROBENZENE	0.5	U	
1,4-DICHLOROBENZENE	0.5	U	
2-CHLOROETHYL VINYL ETHER	2.5	U	
BENZENE	0.5	U	
BROMODICHLOROMETHANE	0.5	U	
BROMOFORM	0.5	U	
BROMOMETHANE	1	U	
CARBON TETRACHLORIDE	0.5	U	
CHLOROBENZENE	0.5	U	
CHLORODIBROMOMETHANE	0.4	U	
CHLOROETHANE	1	U	
CHLOROFORM	0.5	U	
CHLOROMETHANE	1	U	
CIS-1,2-DICHLOROETHENE	0.5	U	
CIS-1,3-DICHLOROPROPENE	0.3	U	
ETHYLBENZENE	0.5	U	
METHYL TERT-BUTYL ETHER	0.5	U	
METHYLENE CHLORIDE	1	U	
TETRACHLOROETHENE	0.5	U	
TOLUENE	0.5	U	
TOTAL XYLENES	1	U	
TRANS-1,2-DICHLOROETHENE	0.5	U	
TRANS-1,3-DICHLOROPROPENE	0.3	U	

nsample	OLFS-2406-MW4S
samp_date	7/30/2004
lab_id	F25789-10
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
TRICHLOROETHENE	0.5	U	
VINYL CHLORIDE	0.5	U	

nsample	TRIP BLANK
samp_date	7/30/2004
lab_id	F25789-13
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	0.5	U	
1,1,2,2-TETRACHLOROETHANE	0.3	U	
1,1,2-TRICHLOROETHANE	0.5	U	
1,1-DICHLOROETHANE	0.5	U	
1,1-DICHLOROETHENE	0.5	U	
1,2-DIBROMOETHANE	0.0087	U	
1,2-DICHLOROBENZENE	0.5	U	
1,2-DICHLOROETHANE	0.5	U	
1,2-DICHLOROPROPANE	0.5	U	
1,3-DICHLOROBENZENE	0.5	U	
1,4-DICHLOROBENZENE	0.5	U	
2-CHLOROETHYL VINYL ETHER	2.5	U	
BENZENE	0.5	U	
BROMODICHLOROMETHANE	0.5	U	
BROMOFORM	0.5	U	
BROMOMETHANE	1	U	
CARBON TETRACHLORIDE	0.5	U	
CHLOROBENZENE	0.5	U	
CHLORODIBROMOMETHANE	0.4	U	
CHLOROETHANE	1	U	
CHLOROFORM	0.5	U	
CHLOROMETHANE	1	U	
CIS-1,2-DICHLOROETHENE	0.5	U	
CIS-1,3-DICHLOROPROPENE	0.3	U	
ETHYLBENZENE	0.5	U	
METHYL TERT-BUTYL ETHER	0.5	U	
METHYLENE CHLORIDE	1	U	
TETRACHLOROETHENE	0.5	U	
TOLUENE	0.5	U	
TOTAL XYLENES	1	U	
TRANS-1,2-DICHLOROETHENE	0.5	U	
TRANS-1,3-DICHLOROPROPENE	0.3	U	

PROJ_NO: 2642

SDG: F25789 MEDIA: WATER DATA FRACTION: OV

nsample	TRIP BLANK
samp_date	7/30/2004
lab_id	F25789-13
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
TRICHLOROETHENE	0.5	U	
VINYL CHLORIDE	0.5	U	

PROJ_NO: 2642

SDG: F25789 MEDIA: WATER DATA FRACTION: OS

nsample	OLFS-2406-MW39	nsample	OLFS-2406-MW40	nsample	OLFS-2406-MW4S
samp_date	7/30/2004	samp_date	7/30/2004	samp_date	7/30/2004
lab_id	F25789-11	lab_id	F25789-12	lab_id	F25789-10
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/L	units	UG/L	units	UG/L
Pct_Solids		Pct_Solids		Pct_Solids	
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1-METHYLNAPHTHALENE	0.24	U	
2-METHYLNAPHTHALENE	0.24	U	
ACENAPHTHENE	0.48	U	
ACENAPHTHYLENE	0.48	U	
ANTHRACENE	0.24	U	
BENZO(A)ANTHRACENE	0.096	U	
BENZO(A)PYRENE	0.096	U	
BENZO(B)FLUORANTHENE	0.096	U	
BENZO(G,H,I)PERYLENE	0.096	U	
BENZO(K)FLUORANTHENE	0.096	U	
CHRYSENE	0.096	U	
DIBENZO(A,H)ANTHRACENE	0.096	U	
FLUORANTHENE	0.24	U	
FLUORENE	0.24	U	
INDENO(1,2,3-CD)PYRENE	0.096	U	
NAPHTHALENE	0.24	U	
PHENANTHRENE	0.24	U	
PYRENE	0.24	U	

Parameter	Result	Val Qual	Qual Code
1-METHYLNAPHTHALENE	0.24	U	
2-METHYLNAPHTHALENE	0.24	U	
ACENAPHTHENE	0.49	U	
ACENAPHTHYLENE	0.49	U	
ANTHRACENE	0.24	U	
BENZO(A)ANTHRACENE	0.097	U	
BENZO(A)PYRENE	0.097	U	
BENZO(B)FLUORANTHENE	0.097	U	
BENZO(G,H,I)PERYLENE	0.097	U	
BENZO(K)FLUORANTHENE	0.097	U	
CHRYSENE	0.097	U	
DIBENZO(A,H)ANTHRACENE	0.097	U	
FLUORANTHENE	0.24	U	
FLUORENE	0.24	U	
INDENO(1,2,3-CD)PYRENE	0.097	U	
NAPHTHALENE	0.24	U	
PHENANTHRENE	0.24	U	
PYRENE	0.24	U	

Parameter	Result	Val Qual	Qual Code
1-METHYLNAPHTHALENE	0.24	U	
2-METHYLNAPHTHALENE	0.24	U	
ACENAPHTHENE	0.48	U	
ACENAPHTHYLENE	0.48	U	
ANTHRACENE	0.24	U	
BENZO(A)ANTHRACENE	0.095	U	
BENZO(A)PYRENE	0.095	U	
BENZO(B)FLUORANTHENE	0.095	U	
BENZO(G,H,I)PERYLENE	0.095	U	
BENZO(K)FLUORANTHENE	0.095	U	
CHRYSENE	0.095	U	
DIBENZO(A,H)ANTHRACENE	0.095	U	
FLUORANTHENE	0.24	U	
FLUORENE	0.24	U	
INDENO(1,2,3-CD)PYRENE	0.095	U	
NAPHTHALENE	0.24	U	
PHENANTHRENE	0.24	U	
PYRENE	0.24	U	

PROJ_NO: 2642

SDG: F25789 MEDIA: WATER DATA FRACTION: PET

nsample	OLFS-2406-MW39	nsample	OLFS-2406-MW40	nsample	OLFS-2406-MW4S
samp_date	7/30/2004	samp_date	7/30/2004	samp_date	7/30/2004
lab_id	F25789-11	lab_id	F25789-12	lab_id	F25789-10
qc_type	NM	qc_type	NM	qc_type	NM
units	MG/L	units	MG/L	units	MG/L
Pct_Solids		Pct_Solids		Pct_Solids	
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
TOTAL PETROLEUM HYDROCARBONS	1.01		

Parameter	Result	Val Qual	Qual Code
TOTAL PETROLEUM HYDROCARBONS	0.16	U	

Parameter	Result	Val Qual	Qual Code
TOTAL PETROLEUM HYDROCARBONS	0.17	U	

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-DMW42D		
Lab Sample ID:	F25789-5	**Date Sampled:**	07/28/04
Matrix:	AQ - Ground Water	**Date Received:**	07/31/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0000122.D	1	08/10/04	NJ	n/a	n/a	VN8
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.50 U	1.0	0.50	ug/l	
75-27-4	Bromodichloromethane	0.50 U	1.0	0.50	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	ug/l	
75-00-3	Chloroethane	1.0 U	1.0	1.0	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	2.5 U	5.0	2.5	ug/l	
56-23-5	Carbon tetrachloride	0.50 U	1.0	0.50	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	ug/l	
124-48-1	Dibromochloromethane	0.40 U	1.0	0.40	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.30 U	1.0	0.30	ug/l	
541-73-1	m-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
95-50-1	o-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
106-46-7	p-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.30 U	1.0	0.30	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	ug/l	
74-83-9	Methyl bromide	1.0 U	1.0	1.0	ug/l	
74-87-3	Methyl chloride	1.0 U	1.0	1.0	ug/l	
75-09-2	Methylene chloride	1.0 U	1.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.30 U	1.0	0.30	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	ug/l	
127-18-4	Tetrachloroethylene	0.50 U	1.0	0.50	ug/l	
108-88-3	Toluene	0.51	1.0	0.50	ug/l	I
79-01-6	Trichloroethylene	0.50 U	1.0	0.50	ug/l	
75-01-4	Vinyl chloride	0.50 U	1.0	0.50	ug/l	

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit
L = Indicates value exceeds calibration range

I = Result >= MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFS-2406-DMW42D		
Lab Sample ID:	F25789-5	**Date Sampled:**	07/28/04
Matrix:	AQ - Ground Water	**Date Received:**	07/31/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
1330-20-7	Xylene (total)	1.0 U	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		86-115%
17060-07-0	1,2-Dichloroethane-D4	102%		73-126%
2037-26-5	Toluene-D8	94%		86-112%
460-00-4	4-Bromofluorobenzene	100%		83-119%

U = Not detected MDL - Method Detection Limit I = Result >= MDL but < RL J = Estimated value
RL = Reporting Limit V = Indicates analyte found in associated method blank
L = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-DMW43D		
Lab Sample ID:	F25789-7	**Date Sampled:**	07/28/04
Matrix:	AQ - Ground Water	**Date Received:**	07/31/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M0000062.D	1	08/10/04	NJ	n/a	n/a	VM3
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.50 U	1.0	0.50	ug/l	
75-27-4	Bromodichloromethane	0.50 U	1.0	0.50	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	ug/l	
75-00-3	Chloroethane	1.0 U	1.0	1.0	ug/l	
67-66-3	Chloroform	1.6	1.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	2.5 U	5.0	2.5	ug/l	
56-23-5	Carbon tetrachloride	0.50 U	1.0	0.50	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	ug/l	
124-48-1	Dibromochloromethane	0.40 U	1.0	0.40	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.30 U	1.0	0.30	ug/l	
541-73-1	m-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
95-50-1	o-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
106-46-7	p-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.30 U	1.0	0.30	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	ug/l	
74-83-9	Methyl bromide	1.0 U	1.0	1.0	ug/l	
74-87-3	Methyl chloride	1.0 U	1.0	1.0	ug/l	
75-09-2	Methylene chloride	1.0 U	1.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.30 U	1.0	0.30	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	ug/l	
127-18-4	Tetrachloroethylene	0.50 U	1.0	0.50	ug/l	
108-88-3	Toluene	0.53	1.0	0.50	ug/l	I
79-01-6	Trichloroethylene	0.50 U	1.0	0.50	ug/l	
75-01-4	Vinyl chloride	0.50 U	1.0	0.50	ug/l	

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFS-2406-DMW43D		
Lab Sample ID:	F25789-7	**Date Sampled:**	07/28/04
Matrix:	AQ - Ground Water	**Date Received:**	07/31/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
1330-20-7	Xylene (total)	1.0 U	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		86-115%
17060-07-0	1,2-Dichloroethane-D4	104%		73-126%
2037-26-5	Toluene-D8	98%		86-112%
460-00-4	4-Bromofluorobenzene	97%		83-119%

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit
L = Indicates value exceeds calibration range

I = Result >= MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-DMW44D		
Lab Sample ID:	F25789-9	**Date Sampled:**	07/29/04
Matrix:	AQ - Ground Water	**Date Received:**	07/31/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M0000084.D	1	08/11/04	NJ	n/a	n/a	VM4
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.50 U	1.0	0.50	ug/l	
75-27-4	Bromodichloromethane	0.50 U	1.0	0.50	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	ug/l	
75-00-3	Chloroethane	1.0 U	1.0	1.0	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	2.5 U	5.0	2.5	ug/l	
56-23-5	Carbon tetrachloride	0.50 U	1.0	0.50	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	ug/l	
124-48-1	Dibromochloromethane	0.40 U	1.0	0.40	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.30 U	1.0	0.30	ug/l	
541-73-1	m-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
95-50-1	o-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
106-46-7	p-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.30 U	1.0	0.30	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	ug/l	
74-83-9	Methyl bromide	1.0 U	1.0	1.0	ug/l	
74-87-3	Methyl chloride	1.0 U	1.0	1.0	ug/l	
75-09-2	Methylene chloride	1.0 U	1.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.30 U	1.0	0.30	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	ug/l	
127-18-4	Tetrachloroethylene	0.50 U	1.0	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	ug/l	
79-01-6	Trichloroethylene	0.50 U	1.0	0.50	ug/l	
75-01-4	Vinyl chloride	0.50 U	1.0	0.50	ug/l	

U = Not detected MDL - Method Detection Limit I = Result > = MDL but < RL J = Estimated value
RL = Reporting Limit V = Indicates analyte found in associated method blank
L = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFS-2406-DMW44D		
Lab Sample ID:	F25789-9	**Date Sampled:**	07/29/04
Matrix:	AQ - Ground Water	**Date Received:**	07/31/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
1330-20-7	Xylene (total)	1.0 U	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		86-115%
17060-07-0	1,2-Dichloroethane-D4	103%		73-126%
2037-26-5	Toluene-D8	98%		86-112%
460-00-4	4-Bromofluorobenzene	98%		83-119%

U = Not detected MDL - Method Detection Limit I = Result >= MDL but < RL J = Estimated value
RL = Reporting Limit V = Indicates analyte found in associated method blank
L = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-MW29		
Lab Sample ID:	F25789-2	**Date Sampled:**	07/29/04
Matrix:	AQ - Ground Water	**Date Received:**	07/31/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M0000082.D	1	08/11/04	NJ	n/a	n/a	VM4
Run #2	M0000090.D	5	08/11/04	NJ	n/a	n/a	VM4

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	308 [a]	5.0	2.5	ug/l	
75-27-4	Bromodichloromethane	0.50 U	1.0	0.50	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	ug/l	
75-00-3	Chloroethane	1.0 U	1.0	1.0	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	2.5 U	5.0	2.5	ug/l	
56-23-5	Carbon tetrachloride	0.50 U	1.0	0.50	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
107-06-2	1,2-Dichloroethane	5.1	1.0	0.50	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	ug/l	
124-48-1	Dibromochloromethane	0.40 U	1.0	0.40	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.30 U	1.0	0.30	ug/l	
541-73-1	m-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
95-50-1	o-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
106-46-7	p-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.30 U	1.0	0.30	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	ug/l	
74-83-9	Methyl bromide	1.0 U	1.0	1.0	ug/l	
74-87-3	Methyl chloride	1.0 U	1.0	1.0	ug/l	
75-09-2	Methylene chloride	1.0 U	1.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.30 U	1.0	0.30	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	ug/l	
127-18-4	Tetrachloroethylene	0.50 U	1.0	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	ug/l	
79-01-6	Trichloroethylene	0.50 U	1.0	0.50	ug/l	
75-01-4	Vinyl chloride	0.50 U	1.0	0.50	ug/l	

U = Not detected MDL - Method Detection Limit I = Result >= MDL but < RL J = Estimated value
RL = Reporting Limit V = Indicates analyte found in associated method blank
L = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-MW29		
Lab Sample ID:	F25789-2	**Date Sampled:**	07/29/04
Matrix:	AQ - Ground Water	**Date Received:**	07/31/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
1330-20-7	Xylene (total)	1.7	3.0	1.0	ug/l	I

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%	104%	86-115%
17060-07-0	1,2-Dichloroethane-D4	90%	102%	73-126%
2037-26-5	Toluene-D8	98%	100%	86-112%
460-00-4	4-Bromofluorobenzene	100%	96%	83-119%

(a) Result is from Run# 2

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit
L = Indicates value exceeds calibration range

I = Result >= MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-MW39		
Lab Sample ID:	F25789-11	**Date Sampled:**	07/30/04
Matrix:	AQ - Ground Water	**Date Received:**	07/31/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M0000101.D	1	08/11/04	NJ	n/a	n/a	VM4
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.50 U	1.0	0.50	ug/l	
75-27-4	Bromodichloromethane	0.50 U	1.0	0.50	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	ug/l	
75-00-3	Chloroethane	1.0 U	1.0	1.0	ug/l	
67-66-3	Chloroform	0.54	1.0	0.50	ug/l	I
110-75-8	2-Chloroethyl vinyl ether	2.5 U	5.0	2.5	ug/l	
56-23-5	Carbon tetrachloride	0.50 U	1.0	0.50	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	ug/l	
124-48-1	Dibromochloromethane	0.40 U	1.0	0.40	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.30 U	1.0	0.30	ug/l	
541-73-1	m-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
95-50-1	o-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
106-46-7	p-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.30 U	1.0	0.30	ug/l	
100-41-4	Ethylbenzene	0.58	1.0	0.50	ug/l	I
74-83-9	Methyl bromide	1.0 U	1.0	1.0	ug/l	
74-87-3	Methyl chloride	1.0 U	1.0	1.0	ug/l	
75-09-2	Methylene chloride	1.0 U	1.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.30 U	1.0	0.30	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	ug/l	
127-18-4	Tetrachloroethylene	0.50 U	1.0	0.50	ug/l	
108-88-3	Toluene	2.7	1.0	0.50	ug/l	
79-01-6	Trichloroethylene	0.50 U	1.0	0.50	ug/l	
75-01-4	Vinyl chloride	0.50 U	1.0	0.50	ug/l	

U = Not detected MDL - Method Detection Limit I = Result >= MDL but < RL J = Estimated value
RL = Reporting Limit V = Indicates analyte found in associated method blank
L = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFS-2406-MW39		
Lab Sample ID:	F25789-11	**Date Sampled:**	07/30/04
Matrix:	AQ - Ground Water	**Date Received:**	07/31/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
1330-20-7	Xylene (total)	1.0 U	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		86-115%
17060-07-0	1,2-Dichloroethane-D4	103%		73-126%
2037-26-5	Toluene-D8	99%		86-112%
460-00-4	4-Bromofluorobenzene	96%		83-119%

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit
L = Indicates value exceeds calibration range

I = Result >= MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-MW39		
Lab Sample ID:	F25789-11	**Date Sampled:**	07/30/04
Matrix:	AQ - Ground Water	**Date Received:**	07/31/04
Method:	EPA 504.1 EPA 504	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	MN22363.D	1	08/05/04	AA	08/04/04	OP11047	GMN801
Run #2							

	Initial Volume	Final Volume
Run #1	39.8 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
106-93-4	1,2-Dibromoethane	0.0088 U	0.018	0.0088	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	99%		60-139%

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit
L = Indicates value exceeds calibration range

I = Result >= MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-MW40		
Lab Sample ID:	F25789-12	**Date Sampled:**	07/30/04
Matrix:	AQ - Ground Water	**Date Received:**	07/31/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M0000085.D	1	08/11/04	NJ	n/a	n/a	VM4
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.50 U	1.0	0.50	ug/l	
75-27-4	Bromodichloromethane	0.50 U	1.0	0.50	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	ug/l	
75-00-3	Chloroethane	1.0 U	1.0	1.0	ug/l	
67-66-3	Chloroform	0.71	1.0	0.50	ug/l	I
110-75-8	2-Chloroethyl vinyl ether	2.5 U	5.0	2.5	ug/l	
56-23-5	Carbon tetrachloride	0.50 U	1.0	0.50	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	ug/l	
124-48-1	Dibromochloromethane	0.40 U	1.0	0.40	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.30 U	1.0	0.30	ug/l	
541-73-1	m-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
95-50-1	o-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
106-46-7	p-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.30 U	1.0	0.30	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	ug/l	
74-83-9	Methyl bromide	1.0 U	1.0	1.0	ug/l	
74-87-3	Methyl chloride	1.0 U	1.0	1.0	ug/l	
75-09-2	Methylene chloride	1.0 U	1.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.30 U	1.0	0.30	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	ug/l	
127-18-4	Tetrachloroethylene	0.50 U	1.0	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	ug/l	
79-01-6	Trichloroethylene	0.50 U	1.0	0.50	ug/l	
75-01-4	Vinyl chloride	0.50 U	1.0	0.50	ug/l	

U = Not detected MDL - Method Detection Limit I = Result >= MDL but < RL J = Estimated value
RL = Reporting Limit V = Indicates analyte found in associated method blank
L = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFS-2406-MW40		
Lab Sample ID:	F25789-12	**Date Sampled:**	07/30/04
Matrix:	AQ - Ground Water	**Date Received:**	07/31/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
1330-20-7	Xylene (total)	1.0 U	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		86-115%
17060-07-0	1,2-Dichloroethane-D4	102%		73-126%
2037-26-5	Toluene-D8	99%		86-112%
460-00-4	4-Bromofluorobenzene	98%		83-119%

U = Not detected MDL - Method Detection Limit I = Result >= MDL but < RL J = Estimated value
RL = Reporting Limit V = Indicates analyte found in associated method blank
L = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-MW40		
Lab Sample ID:	F25789-12	**Date Sampled:**	07/30/04
Matrix:	AQ - Ground Water	**Date Received:**	07/31/04
Method:	EPA 504.1 EPA 504	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	MN22364.D	1	08/05/04	AA	08/04/04	OP11047	GMN801
Run #2							

	Initial Volume	Final Volume
Run #1	38.1 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
106-93-4	1,2-Dibromoethane	0.0092 U	0.018	0.0092	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	110%		60-139%

U = Not detected MDL - Method Detection Limit I = Result >= MDL but < RL J = Estimated value
RL = Reporting Limit V = Indicates analyte found in associated method blank
L = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-MW42S		
Lab Sample ID:	F25789-4	**Date Sampled:**	07/28/04
Matrix:	AQ - Ground Water	**Date Received:**	07/31/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0000121.D	1	08/10/04	NJ	n/a	n/a	VN8
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.50 U	1.0	0.50	ug/l	
75-27-4	Bromodichloromethane	0.50 U	1.0	0.50	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	ug/l	
75-00-3	Chloroethane	1.0 U	1.0	1.0	ug/l	
67-66-3	Chloroform	0.62	1.0	0.50	ug/l	I
110-75-8	2-Chloroethyl vinyl ether	2.5 U	5.0	2.5	ug/l	
56-23-5	Carbon tetrachloride	0.50 U	1.0	0.50	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	ug/l	
124-48-1	Dibromochloromethane	0.40 U	1.0	0.40	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.30 U	1.0	0.30	ug/l	
541-73-1	m-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
95-50-1	o-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
106-46-7	p-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.30 U	1.0	0.30	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	ug/l	
74-83-9	Methyl bromide	1.0 U	1.0	1.0	ug/l	
74-87-3	Methyl chloride	1.0 U	1.0	1.0	ug/l	
75-09-2	Methylene chloride	1.0 U	1.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.30 U	1.0	0.30	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	ug/l	
127-18-4	Tetrachloroethylene	0.50 U	1.0	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	ug/l	
79-01-6	Trichloroethylene	0.50 U	1.0	0.50	ug/l	
75-01-4	Vinyl chloride	0.50 U	1.0	0.50	ug/l	

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit
L = Indicates value exceeds calibration range

I = Result >= MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFS-2406-MW42S		
Lab Sample ID:	F25789-4	**Date Sampled:**	07/28/04
Matrix:	AQ - Ground Water	**Date Received:**	07/31/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
1330-20-7	Xylene (total)	1.0 U	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		86-115%
17060-07-0	1,2-Dichloroethane-D4	102%		73-126%
2037-26-5	Toluene-D8	93%		86-112%
460-00-4	4-Bromofluorobenzene	98%		83-119%

U = Not detected MDL - Method Detection Limit I = Result > = MDL but < RL J = Estimated value
RL = Reporting Limit V = Indicates analyte found in associated method blank
L = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-MW43S		
Lab Sample ID:	F25789-6	**Date Sampled:**	07/29/04
Matrix:	AQ - Ground Water	**Date Received:**	07/31/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M0000083.D	1	08/11/04	NJ	n/a	n/a	VM4
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.50 U	1.0	0.50	ug/l	
75-27-4	Bromodichloromethane	0.50 U	1.0	0.50	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	ug/l	
75-00-3	Chloroethane	1.0 U	1.0	1.0	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	2.5 U	5.0	2.5	ug/l	
56-23-5	Carbon tetrachloride	0.50 U	1.0	0.50	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	ug/l	
124-48-1	Dibromochloromethane	0.40 U	1.0	0.40	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.30 U	1.0	0.30	ug/l	
541-73-1	m-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
95-50-1	o-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
106-46-7	p-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.30 U	1.0	0.30	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	ug/l	
74-83-9	Methyl bromide	1.0 U	1.0	1.0	ug/l	
74-87-3	Methyl chloride	1.0 U	1.0	1.0	ug/l	
75-09-2	Methylene chloride	1.0 U	1.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.30 U	1.0	0.30	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	ug/l	
127-18-4	Tetrachloroethylene	0.50 U	1.0	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	ug/l	
79-01-6	Trichloroethylene	0.50 U	1.0	0.50	ug/l	
75-01-4	Vinyl chloride	0.50 U	1.0	0.50	ug/l	

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit
L = Indicates value exceeds calibration range

I = Result >= MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFS-2406-MW43S		
Lab Sample ID:	F25789-6	**Date Sampled:**	07/29/04
Matrix:	AQ - Ground Water	**Date Received:**	07/31/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
1330-20-7	Xylene (total)	1.0 U	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		86-115%
17060-07-0	1,2-Dichloroethane-D4	103%		73-126%
2037-26-5	Toluene-D8	99%		86-112%
460-00-4	4-Bromofluorobenzene	99%		83-119%

U = Not detected MDL - Method Detection Limit I = Result >= MDL but < RL J = Estimated value
RL = Reporting Limit V = Indicates analyte found in associated method blank
L = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-MW44S		
Lab Sample ID:	F25789-8	**Date Sampled:**	07/28/04
Matrix:	AQ - Ground Water	**Date Received:**	07/31/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M0000063.D	1	08/10/04	NJ	n/a	n/a	VM3
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.50 U	1.0	0.50	ug/l	
75-27-4	Bromodichloromethane	0.50 U	1.0	0.50	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	ug/l	
75-00-3	Chloroethane	1.0 U	1.0	1.0	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	2.5 U	5.0	2.5	ug/l	
56-23-5	Carbon tetrachloride	0.50 U	1.0	0.50	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
107-06-2	1,2-Dichloroethane	0.65	1.0	0.50	ug/l	I
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	ug/l	
124-48-1	Dibromochloromethane	0.40 U	1.0	0.40	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.30 U	1.0	0.30	ug/l	
541-73-1	m-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
95-50-1	o-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
106-46-7	p-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.30 U	1.0	0.30	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	ug/l	
74-83-9	Methyl bromide	1.0 U	1.0	1.0	ug/l	
74-87-3	Methyl chloride	1.0 U	1.0	1.0	ug/l	
75-09-2	Methylene chloride	1.0 U	1.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.30 U	1.0	0.30	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	ug/l	
127-18-4	Tetrachloroethylene	0.50 U	1.0	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	ug/l	
79-01-6	Trichloroethylene	0.50 U	1.0	0.50	ug/l	
75-01-4	Vinyl chloride	0.50 U	1.0	0.50	ug/l	

U = Not detected MDL - Method Detection Limit I = Result >= MDL but < RL J = Estimated value
RL = Reporting Limit V = Indicates analyte found in associated method blank
L = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLFS-2406-MW44S		
Lab Sample ID:	F25789-8	**Date Sampled:**	07/28/04
Matrix:	AQ - Ground Water	**Date Received:**	07/31/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
1330-20-7	Xylene (total)	1.0 U	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		86-115%
17060-07-0	1,2-Dichloroethane-D4	104%		73-126%
2037-26-5	Toluene-D8	99%		86-112%
460-00-4	4-Bromofluorobenzene	99%		83-119%

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-MW4S		
Lab Sample ID:	F25789-10	**Date Sampled:**	07/30/04
Matrix:	AQ - Ground Water	**Date Received:**	07/31/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M0000100.D	1	08/11/04	NJ	n/a	n/a	VM4
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.50 U	1.0	0.50	ug/l	
75-27-4	Bromodichloromethane	0.50 U	1.0	0.50	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	ug/l	
75-00-3	Chloroethane	1.0 U	1.0	1.0	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	2.5 U	5.0	2.5	ug/l	
56-23-5	Carbon tetrachloride	0.50 U	1.0	0.50	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	ug/l	
124-48-1	Dibromochloromethane	0.40 U	1.0	0.40	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.30 U	1.0	0.30	ug/l	
541-73-1	m-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
95-50-1	o-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
106-46-7	p-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.30 U	1.0	0.30	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	ug/l	
74-83-9	Methyl bromide	1.0 U	1.0	1.0	ug/l	
74-87-3	Methyl chloride	1.0 U	1.0	1.0	ug/l	
75-09-2	Methylene chloride	1.0 U	1.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.30 U	1.0	0.30	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	ug/l	
127-18-4	Tetrachloroethylene	0.50 U	1.0	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	ug/l	
79-01-6	Trichloroethylene	0.50 U	1.0	0.50	ug/l	
75-01-4	Vinyl chloride	0.50 U	1.0	0.50	ug/l	

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit
L = Indicates value exceeds calibration range

I = Result >= MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-MW4S		
Lab Sample ID:	F25789-10	**Date Sampled:**	07/30/04
Matrix:	AQ - Ground Water	**Date Received:**	07/31/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
1330-20-7	Xylene (total)	1.0 U	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		86-115%
17060-07-0	1,2-Dichloroethane-D4	103%		73-126%
2037-26-5	Toluene-D8	99%		86-112%
460-00-4	4-Bromofluorobenzene	97%		83-119%

U = Not detected MDL - Method Detection Limit I = Result >= MDL but < RL J = Estimated value
RL = Reporting Limit V = Indicates analyte found in associated method blank
L = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

C100

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-MW4S		
Lab Sample ID:	F25789-10	**Date Sampled:**	07/30/04
Matrix:	AQ - Ground Water	**Date Received:**	07/31/04
Method:	EPA 504.1 EPA 504	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	MN22362.D	1	08/05/04	AA	08/04/04	OP11047	GMN801
Run #2							

	Initial Volume	Final Volume
Run #1	39.3 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
106-93-4	1,2-Dibromoethane	0.0089 U	0.018	0.0089	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	104%		60-139%

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit
L = Indicates value exceeds calibration range

I = Result >= MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	F25789-13	**Date Sampled:**	07/30/04
Matrix:	AQ - Trip Blank Water	**Date Received:**	07/31/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M0000086.D	1	08/11/04	NJ	n/a	n/a	VM4
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.50 U	1.0	0.50	ug/l	
75-27-4	Bromodichloromethane	0.50 U	1.0	0.50	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	ug/l	
75-00-3	Chloroethane	1.0 U	1.0	1.0	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	2.5 U	5.0	2.5	ug/l	
56-23-5	Carbon tetrachloride	0.50 U	1.0	0.50	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	ug/l	
124-48-1	Dibromochloromethane	0.40 U	1.0	0.40	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.30 U	1.0	0.30	ug/l	
541-73-1	m-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
95-50-1	o-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
106-46-7	p-Dichlorobenzene	0.50 U	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.30 U	1.0	0.30	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	ug/l	
74-83-9	Methyl bromide	1.0 U	1.0	1.0	ug/l	
74-87-3	Methyl chloride	1.0 U	1.0	1.0	ug/l	
75-09-2	Methylene chloride	1.0 U	1.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.30 U	1.0	0.30	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	ug/l	
127-18-4	Tetrachloroethylene	0.50 U	1.0	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	ug/l	
79-01-6	Trichloroethylene	0.50 U	1.0	0.50	ug/l	
75-01-4	Vinyl chloride	0.50 U	1.0	0.50	ug/l	

U = Not detected MDL - Method Detection Limit I = Result >= MDL but < RL J = Estimated value
RL = Reporting Limit V = Indicates analyte found in associated method blank
L = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	F25789-13	**Date Sampled:**	07/30/04
Matrix:	AQ - Trip Blank Water	**Date Received:**	07/31/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
1330-20-7	Xylene (total)	1.0 U	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		86-115%
17060-07-0	1,2-Dichloroethane-D4	102%		73-126%
2037-26-5	Toluene-D8	100%		86-112%
460-00-4	4-Bromofluorobenzene	97%		83-119%

U = Not detected MDL - Method Detection Limit I = Result >= MDL but < RL J = Estimated value
RL = Reporting Limit V = Indicates analyte found in associated method blank
L = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	F25789-13	**Date Sampled:**	07/30/04
Matrix:	AQ - Trip Blank Water	**Date Received:**	07/31/04
Method:	EPA 504.1 EPA 504	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	MN22365.D	1	08/05/04	AA	08/04/04	OP11047	GMN801
Run #2							

	Initial Volume	Final Volume
Run #1	40.1 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
106-93-4	1,2-Dibromoethane	0.0087 U	0.017	0.0087	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	111%		60-139%

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit
L = Indicates value exceeds calibration range

I = Result >= MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-MW39		
Lab Sample ID:	F25789-11	**Date Sampled:**	07/30/04
Matrix:	AQ - Ground Water	**Date Received:**	07/31/04
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W021472.D	1	08/12/04	ME	08/06/04	OP11065	SW1127
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	0.48 U	0.96	0.48	ug/l	
208-96-8	Acenaphthylene	0.48 U	0.96	0.48	ug/l	
120-12-7	Anthracene	0.24 U	0.96	0.24	ug/l	
56-55-3	Benzo(a)anthracene	0.096 U	0.19	0.096	ug/l	
50-32-8	Benzo(a)pyrene	0.096 U	0.19	0.096	ug/l	
205-99-2	Benzo(b)fluoranthene	0.096 U	0.19	0.096	ug/l	
191-24-2	Benzo(g,h,i)perylene	0.096 U	0.19	0.096	ug/l	
207-08-9	Benzo(k)fluoranthene	0.096 U	0.19	0.096	ug/l	
218-01-9	Chrysene	0.096 U	0.19	0.096	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.096 U	0.19	0.096	ug/l	
206-44-0	Fluoranthene	0.24 U	0.96	0.24	ug/l	
86-73-7	Fluorene	0.24 U	0.96	0.24	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	0.096 U	0.19	0.096	ug/l	
90-12-0	1-Methylnaphthalene	0.24 U	0.96	0.24	ug/l	
91-57-6	2-Methylnaphthalene	0.24 U	0.96	0.24	ug/l	
91-20-3	Naphthalene	0.24 U	0.96	0.24	ug/l	
85-01-8	Phenanthrene	0.24 U	0.96	0.24	ug/l	
129-00-0	Pyrene	0.24 U	0.96	0.24	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	93%		49-119%
321-60-8	2-Fluorobiphenyl	86%		45-118%
1718-51-0	Terphenyl-d14	69%		46-135%

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit
L = Indicates value exceeds calibration range

I = Result >= MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-MW40		
Lab Sample ID:	F25789-12	**Date Sampled:**	07/30/04
Matrix:	AQ - Ground Water	**Date Received:**	07/31/04
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W021473.D	1	08/12/04	ME	08/06/04	OP11065	SW1127
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	0.49 U	0.97	0.49	ug/l	
208-96-8	Acenaphthylene	0.49 U	0.97	0.49	ug/l	
120-12-7	Anthracene	0.24 U	0.97	0.24	ug/l	
56-55-3	Benzo(a)anthracene	0.097 U	0.19	0.097	ug/l	
50-32-8	Benzo(a)pyrene	0.097 U	0.19	0.097	ug/l	
205-99-2	Benzo(b)fluoranthene	0.097 U	0.19	0.097	ug/l	
191-24-2	Benzo(g,h,i)perylene	0.097 U	0.19	0.097	ug/l	
207-08-9	Benzo(k)fluoranthene	0.097 U	0.19	0.097	ug/l	
218-01-9	Chrysene	0.097 U	0.19	0.097	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.097 U	0.19	0.097	ug/l	
206-44-0	Fluoranthene	0.24 U	0.97	0.24	ug/l	
86-73-7	Fluorene	0.24 U	0.97	0.24	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	0.097 U	0.19	0.097	ug/l	
90-12-0	1-Methylnaphthalene	0.24 U	0.97	0.24	ug/l	
91-57-6	2-Methylnaphthalene	0.24 U	0.97	0.24	ug/l	
91-20-3	Naphthalene	0.24 U	0.97	0.24	ug/l	
85-01-8	Phenanthrene	0.24 U	0.97	0.24	ug/l	
129-00-0	Pyrene	0.24 U	0.97	0.24	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	83%		49-119%
321-60-8	2-Fluorobiphenyl	77%		45-118%
1718-51-0	Terphenyl-d14	74%		46-135%

U = Not detected MDL - Method Detection Limit I = Result >= MDL but < RL J = Estimated value
RL = Reporting Limit V = Indicates analyte found in associated method blank
L = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-MW4S		
Lab Sample ID:	F25789-10	**Date Sampled:**	07/30/04
Matrix:	AQ - Ground Water	**Date Received:**	07/31/04
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W021469.D	1	08/12/04	ME	08/06/04	OP11065	SW1127
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	0.48 U	0.95	0.48	ug/l	
208-96-8	Acenaphthylene	0.48 U	0.95	0.48	ug/l	
120-12-7	Anthracene	0.24 U	0.95	0.24	ug/l	
56-55-3	Benzo(a)anthracene	0.095 U	0.19	0.095	ug/l	
50-32-8	Benzo(a)pyrene	0.095 U	0.19	0.095	ug/l	
205-99-2	Benzo(b)fluoranthene	0.095 U	0.19	0.095	ug/l	
191-24-2	Benzo(g,h,i)perylene	0.095 U	0.19	0.095	ug/l	
207-08-9	Benzo(k)fluoranthene	0.095 U	0.19	0.095	ug/l	
218-01-9	Chrysene	0.095 U	0.19	0.095	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.095 U	0.19	0.095	ug/l	
206-44-0	Fluoranthene	0.24 U	0.95	0.24	ug/l	
86-73-7	Fluorene	0.24 U	0.95	0.24	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	0.095 U	0.19	0.095	ug/l	
90-12-0	1-Methylnaphthalene	0.24 U	0.95	0.24	ug/l	
91-57-6	2-Methylnaphthalene	0.24 U	0.95	0.24	ug/l	
91-20-3	Naphthalene	0.24 U	0.95	0.24	ug/l	
85-01-8	Phenanthrene	0.24 U	0.95	0.24	ug/l	
129-00-0	Pyrene	0.24 U	0.95	0.24	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	94% [a]		49-119%
321-60-8	2-Fluorobiphenyl	86% [a]		45-118%
1718-51-0	Terphenyl-d14	76% [a]		46-135%

(a) Surrogate recoveries corrected for double spike.

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit
L = Indicates value exceeds calibration range
I = Result >= MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-MW39		
Lab Sample ID:	F25789-11	**Date Sampled:**	07/30/04
Matrix:	AQ - Ground Water	**Date Received:**	07/31/04
Method:	FLORIDA-PRO SW846 3510C	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP41418.D	1	08/07/04	AA	08/06/04	OP11063	GOP1268
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	1.01	0.25	0.17	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	77%		50-125%

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit
L = Indicates value exceeds calibration range

I = Result >= MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-MW40		
Lab Sample ID:	F25789-12	**Date Sampled:**	07/30/04
Matrix:	AQ - Ground Water	**Date Received:**	07/31/04
Method:	FLORIDA-PRO SW846 3510C	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP41419.D	1	08/07/04	AA	08/06/04	OP11063	GOP1268
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	0.16 U	0.24	0.16	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	93%		50-125%

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit
L = Indicates value exceeds calibration range

I = Result >= MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-MW4S		
Lab Sample ID:	F25789-10	**Date Sampled:**	07/30/04
Matrix:	AQ - Ground Water	**Date Received:**	07/31/04
Method:	FLORIDA-PRO SW846 3510C	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO# 274 N2642		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP41417.D	1	08/07/04	AA	08/06/04	OP11063	GOP1268
Run #2							

	Initial Volume	Final Volume
Run #1	1010 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	0.17 U	0.25	0.17	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	95%		50-125%

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit
L = Indicates value exceeds calibration range

I = Result >= MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

APPENDIX C

SUPPORT DOCUMENTATION

HOLDTIME

SDG F25789

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
M	UG/L	OLFS-2406-MW4S	F25789-10	NM	07/30/2004	08/18/2004	08/20/2004	19	2	21
M	UG/L	OLFS-2406-DMW34	F25789-3	NM	07/30/2004	08/18/2004	08/20/2004	19	2	21
M	UG/L	OLFS-2406-DMW42D	F25789-5	NM	07/28/2004	08/18/2004	08/20/2004	21	2	23
M	UG/L	OLFS-2406-DMW43D	F25789-7	NM	07/28/2004	08/18/2004	08/20/2004	21	2	23
M	UG/L	OLFS-2406-DMW44D	F25789-9	NM	07/29/2004	08/18/2004	08/20/2004	20	2	22
M	UG/L	OLFS-2406-MW28	F25789-1	NM	07/30/2004	08/18/2004	08/20/2004	19	2	21
M	UG/L	OLFS-2406-MW39	F25789-11	NM	07/30/2004	08/18/2004	08/20/2004	19	2	21
M	UG/L	OLFS-2406-MW40	F25789-12	NM	07/30/2004	08/18/2004	08/20/2004	19	2	21
M	UG/L	OLFS-2406-MW42S	F25789-4	NM	07/28/2004	08/18/2004	08/20/2004	21	2	23
M	UG/L	OLFS-2406-MW43S	F25789-6	NM	07/29/2004	08/18/2004	08/20/2004	20	2	22
M	UG/L	OLFS-2406-MW44S	F25789-8	NM	07/28/2004	08/18/2004	08/20/2004	21	2	23
	%	OLFS-2406-MW40	F25789-12	NM	07/30/2004	08/06/2004	08/12/2004	7	6	13
	%	OLFS-2406-MW4S	F25789-10	NM	07/30/2004	08/06/2004	08/12/2004	7	6	13
	%	OLFS-2406-MW39	F25789-11	NM	07/30/2004	08/06/2004	08/12/2004	7	6	13
	UG/L	OLFS-2406-MW39	F25789-11	NM	07/30/2004	08/06/2004	08/12/2004	7	6	13

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
	UG/L	OLFS-2406-MW4S	F25789-10	NM	07/30/2004	08/06/2004	08/12/2004	7	6	13
	UG/L	OLFS-2406-MW40	F25789-12	NM	07/30/2004	08/06/2004	08/12/2004	7	6	13
EDB	%	OLFS-2406-MW39	F25789-11	NM	07/30/2004	08/04/2004	08/05/2004	5	1	6
EDB	%	TRIP BLANK	F25789-13	NM	07/30/2004	08/04/2004	08/05/2004	5	1	6
EDB	%	OLFS-2406-MW4S	F25789-10	NM	07/30/2004	08/04/2004	08/05/2004	5	1	6
EDB	%	OLFS-2406-MW40	F25789-12	NM	07/30/2004	08/04/2004	08/05/2004	5	1	6
EDB	UG/L	OLFS-2406-MW4S	F25789-10	NM	07/30/2004	08/04/2004	08/05/2004	5	1	6
EDB	UG/L	OLFS-2406-MW40	F25789-12	NM	07/30/2004	08/04/2004	08/05/2004	5	1	6
EDB	UG/L	OLFS-2406-MW39	F25789-11	NM	07/30/2004	08/04/2004	08/05/2004	5	1	6
EDB	UG/L	TRIP BLANK	F25789-13	NM	07/30/2004	08/04/2004	08/05/2004	5	1	6
OV	%	OLFS-2406-DMW42D	F25789-5	NM	07/28/2004	08/10/2004	08/10/2004	13	0	13
OV	%	OLFS-2406-DMW43D	F25789-7	NM	07/28/2004	08/10/2004	08/10/2004	13	0	13
OV	%	OLFS-2406-MW4S	F25789-10	NM	07/30/2004	08/11/2004	08/11/2004	12	0	12
OV	%	OLFS-2406-MW43S	F25789-6	NM	07/29/2004	08/11/2004	08/11/2004	13	0	13
OV	%	OLFS-2406-MW44S	F25789-8	NM	07/28/2004	08/10/2004	08/10/2004	13	0	13
OV	%	OLFS-2406-DMW44D	F25789-9	NM	07/29/2004	08/11/2004	08/11/2004	13	0	13
OV	%	OLFS-2406-MW29	F25789-2	NM	07/29/2004	08/11/2004	08/11/2004	13	0	13
OV	%	OLFS-2406-MW39	F25789-11	NM	07/30/2004	08/11/2004	08/11/2004	12	0	12

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	%	OLFS-2406-MW40	F25789-12	NM	07/30/2004	08/11/2004	08/11/2004	12	0	12
OV	%	OLFS-2406-MW42S	F25789-4	NM	07/28/2004	08/10/2004	08/10/2004	13	0	13
OV	%	TRIP BLANK	F25789-13	NM	07/30/2004	08/11/2004	08/11/2004	12	0	12
OV	UG/L	OLFS-2406-MW42S	F25789-4	NM	07/28/2004	08/10/2004	08/10/2004	13	0	13
OV	UG/L	TRIP BLANK	F25789-13	NM	07/30/2004	08/11/2004	08/11/2004	12	0	12
OV	UG/L	OLFS-2406-MW4S	F25789-10	NM	07/30/2004	08/11/2004	08/11/2004	12	0	12
OV	UG/L	OLFS-2406-MW43S	F25789-6	NM	07/29/2004	08/11/2004	08/11/2004	13	0	13
OV	UG/L	OLFS-2406-DMW44D	F25789-9	NM	07/29/2004	08/11/2004	08/11/2004	13	0	13
OV	UG/L	OLFS-2406-MW40	F25789-12	NM	07/30/2004	08/11/2004	08/11/2004	12	0	12
OV	UG/L	OLFS-2406-MW39	F25789-11	NM	07/30/2004	08/11/2004	08/11/2004	12	0	12
OV	UG/L	OLFS-2406-MW29	F25789-2	NM	07/29/2004	08/11/2004	08/11/2004	13	0	13
OV	UG/L	OLFS-2406-DMW42D	F25789-5	NM	07/28/2004	08/10/2004	08/10/2004	13	0	13
OV	UG/L	OLFS-2406-DMW43D	F25789-7	NM	07/28/2004	08/10/2004	08/10/2004	13	0	13
OV	UG/L	OLFS-2406-MW44S	F25789-8	NM	07/28/2004	08/10/2004	08/10/2004	13	0	13
TPH	MG/L	OLFS-2406-MW40	F25789-12	NM	07/30/2004	08/06/2004	08/07/2004	7	1	8
TPH	MG/L	OLFS-2406-MW39	F25789-11	NM	07/30/2004	08/06/2004	08/07/2004	7	1	8
TPH	MG/L	OLFS-2406-MW4S	F25789-10	NM	07/30/2004	08/06/2004	08/07/2004	7	1	8

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Tetra-Tech NUS **Job No:** F25789

Site: NAS Pensacola CTO# 274 N2642 **Report Date** 9/1/2004 9:53:53 AM

12 Samples, 1 Trip Blank were collected on between 07/28/2004 and 07/30/2004 and were received at Accutest on 07/31/2004 properly preserved, at 3.4 Deg. C and intact. These Samples received an Accutest job number of F25789.A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix: AQ **Batch ID:** VM3

All samples were analyzed within the recommended method holding time.

Sample(s) F25763-1MS, F25763-1MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

MS/MSD Recovery for 2-Chloroethyl vinyl ether is outside control limits due to sample preservation. For method performance in clean matrix refer to Blank Spike data.

Matrix: AQ **Batch ID:** VM4

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F25811-1MS, F25811-1MSD were used as the QC samples indicated.

MS/MSD Recovery for 2-Chloroethyl vinyl ether is outside control limits. See above

Matrix: AQ **Batch ID:** VN8

All samples were analyzed within the recommended method holding time.

Sample(s) F25751-1MS, F25751-1MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

Blank Spike Recovery for Tetrachloroethylene is outside control limits. The recovery biased high, TCE not detected in the samples. Data integrity not compromised.

Matrix Spike Recoveries for 1,2-Dichloroethane, 2-Chloroethyl vinyl ether, p-Dichlorobenzene, 1,1-Dichloroethane are outside control limits. Outside control limits due to high level in sample relative to spike amount and matrix interference. For method performance in clean matrix refer to Blank Spike data.

Matrix Spike Duplicate Recovery(s) for 1,1-Dichloroethane, 1,2-Dichloroethane, 2-Chloroethyl vinyl ether, Benzene, Chlorobenzene, cis-1,2-Dichloroethylene, p-Dichlorobenzene are outside control limits. See above.

Matrix Spike Recovery(s) for Benzene, Chlorobenzene, cis-1,2-Dichloroethylene are outside control limits. Outside control limits due to high level in sample relative to spike amount.

Extractables by GCMS By Method SW846 8270C BY SIM

Matrix: AQ **Batch ID:** OP11065

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

Sample(s) F25789-10MS, F25789-10MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

F25789-10 for 2-Fluorobiphenyl: Surrogate recoveries corrected for double spike.

F25789-10 for Terphenyl-d14: Surrogate recoveries corrected for double spike.

F25789-10 for Nitrobenzene-d5: Surrogate recoveries corrected for double spike.

Volatiles by GC By Method EPA 504.1

Matrix: AQ **Batch ID:** OP11047

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

Sample(s) F25819-8MS, F25819-8MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

Extractables by GC By Method FLORIDA-PRO

Matrix: AQ **Batch ID:** OP11063

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

Sample(s) F25795-2MS, F25795-2MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

Matrix Spike Recovery(s) for TPH (C8-C40) are outside control limits. Outside control limits due to high level in sample relative to spike amount.

Metals By Method SW846 6010B

Matrix: AQ **Batch ID:** MP7000

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F25930-1MS, F25930-1MSD, F25930-1SDL, F25930-1DUP were used as the QC samples for metals.

RPD(s) for Duplicate for Lead are outside control limits. RPD acceptable due to low duplicate and sample concentrations.

RPD(s) for Serial Dilution for Lead are outside control limits. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used

Narrative prepared by:

Svetlana Izosimova, QAO

Date: September 01, 2004

TETRA TECH NUS, INC.

CHAIN OF CUSTODY

NUMBER 4244 F25789 PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
N2642	OLF Saufley	Gerry Walker	850-385-9899	Accutest Lab SE
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
William Howard Engle, Jason Kizzie		Howard Engle	850-385-9899	4405 Vineland Rd Ste C15
		CARRIER/WAYBILL NUMBER		CITY, STATE
		8350-5454-9023 (Fed-Ex)		Orlando FL 32811-7363

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

	DATE YEAR	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAP (G) COMP (C)	No. OF CONTAINERS	VOCs (8260)	EDB (504.1)	PAHs (8270 Sim)	TRPH (FL-PRO)	Total Lead (6010B)				COMMENTS
CONTAINER TYPE PLASTIC (P) or GLASS (G)										3G	3G	2G	2G	1P				
PRESERVATIVE USED										HCl	$Na_2S_2O_3$	N/A	H_2SO_4	HNO_3				
1	7/30	0955	OLFS-2406-MW28	MW28	46.03'	80'	GW	G	1					X				All times
2	7/29	1845	OLFS-2406-MW29	MW29	38.37	80'			4	X				X				are Central
3	7/30	1130	OLFS-2406-DMW34	DMW34	27.3'	77'			1					X				
4	7/28	1015	OLFS-2406-MW42S	MW42S	33.27'				4	X				X				see work
5	7/28	1030	OLFS-2406-DMW42D	DMW42D	48.14				4	X				X				Release #
6	7/29	1515	OLFS-2406-MW43S	MW43S	18.8	51.3			4	X				X				N2642-WR452
7	7/28	1335	OLFS-2406-DMW43D	DMW43D	19.33	133.2			4	X				X				for detailed
8	7/28	1745	OLFS-2406-MW44S	MW44S	29.04	56			4	X				X				parameter list
9	7/29	1740	OLFS-2406-DMW44D	DMW44D	28.89	130			4	X				X				
10	7/30	1450	OLFS-2406-MW45	MW45	35.25				11	X	X	X	X	X				
11	7/30	1545	OLFS-2406-MW39	MW39	36.02	56			11	X	X	X	X	X				
12	7/30	1645	OLFS-2406-MW40	MW40	41.15	56			11	X	X	X	X	X				
13			Trip Blank				QC		6	X	X							

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY: William Howard Engle	7/30/04	19:00	1. RECEIVED BY: FX	7/29/04	
2. RELINQUISHED BY: FX	7/31/04	9:00	2. RECEIVED BY:	7/31/04	9:00
3. RELINQUISHED BY			3. RECEIVED BY		

COMMENTS: 2.6 3.4

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R

Instrument Performance Check (BFB)

Job Number: F25789
Account: TETRFLTA Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

Sample: VM1-BFB
Lab File ID: M0000001.D
Instrument ID: GCMSM
Injection Date: 08/06/04
Injection Time: 09:54

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	40600	32.3	Pass
75	30.0 - 60.0% of mass 95	50752	40.3	Pass
95	Base peak, 100% relative abundance	125866	100.0	Pass
96	5.0 - 9.0% of mass 95	8206	6.5	Pass
173	Less than 2.0% of mass 174	597	0.47 (0.55) [a]	Pass
174	50.0 - 100.0% of mass 95	108026	85.8	Pass
175	5.0 - 9.0% of mass 174	8242	6.5 (7.6) [a]	Pass
176	95.0 - 101.0% of mass 174	103914	82.6 (96.2) [a]	Pass
177	5.0 - 9.0% of mass 176	6925	5.5 (6.7) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VM1-IC1	M0000002.D	08/06/04	10:09	00:15	Initial cal 1
VM1-IC1	M0000003.D	08/06/04	10:36	00:42	Initial cal 5
VM1-IC1	M0000004.D	08/06/04	11:03	01:09	Initial cal 20
VM1-ICC1	M0000005.D	08/06/04	11:31	01:37	Initial cal 40
VM1-IC1	M0000006.D	08/06/04	11:59	02:05	Initial cal 70
VM1-IC1	M0000007.D	08/06/04	12:26	02:32	Initial cal 100
VM1-MB	M0000009.D	08/06/04	13:21	03:27	Method Blank
F25856-1	M0000010.D	08/06/04	14:55	05:01	(used for QC only; not part of job F25789)
ZZZZZZ	M0000011.D	08/06/04	15:23	05:29	(unrelated sample)
ZZZZZZ	M0000012.D	08/06/04	15:50	05:56	(unrelated sample)
ZZZZZZ	M0000013.D	08/06/04	16:18	06:24	(unrelated sample)
ZZZZZZ	M0000014.D	08/06/04	16:46	06:52	(unrelated sample)
ZZZZZZ	M0000015.D	08/06/04	17:13	07:19	(unrelated sample)
VM1-BS	M0000016.D	08/06/04	17:41	07:47	Blank Spike
F25856-1MS	M0000017.D	08/06/04	18:09	08:15	Matrix Spike
F25856-1MSD	M0000018.D	08/06/04	18:37	08:43	Matrix Spike Duplicate
ZZZZZZ	M0000019.D	08/06/04	19:05	09:11	(unrelated sample)
ZZZZZZ	M0000020.D	08/06/04	19:33	09:39	(unrelated sample)
ZZZZZZ	M0000021.D	08/06/04	20:01	10:07	(unrelated sample)
ZZZZZZ	M0000022.D	08/06/04	20:29	10:35	(unrelated sample)
ZZZZZZ	M0000023.D	08/06/04	20:57	11:03	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: F25789
Account: TETRFLTA Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

Sample: VM3-BFB
Lab File ID: M0000051.D
Instrument ID: GCMSM
Injection Date: 08/10/04
Injection Time: 12:04

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	32842	31.3		Pass
75	30.0 - 60.0% of mass 95	41277	39.3		Pass
95	Base peak, 100% relative abundance	105026	100.0		Pass
96	5.0 - 9.0% of mass 95	7157	6.8		Pass
173	Less than 2.0% of mass 174	0	0.0	(0.0) [a]	Pass
174	50.0 - 100.0% of mass 95	88306	84.1		Pass
175	5.0 - 9.0% of mass 174	6304	6.0	(7.1) [a]	Pass
176	95.0 - 101.0% of mass 174	84621	80.6	(95.8) [a]	Pass
177	5.0 - 9.0% of mass 176	5584	5.3	(6.6) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VM3-CC1	M0000052.D	08/10/04	12:23	00:19	Continuing cal 40
VM3-BS	M0000053.D	08/10/04	12:53	00:49	Blank Spike
VM3-MB	M0000054.D	08/10/04	13:21	01:17	Method Blank
ZZZZZZ	M0000055.D	08/10/04	13:53	01:49	(unrelated sample)
ZZZZZZ	M0000056.D	08/10/04	14:23	02:19	(unrelated sample)
ZZZZZZ	M0000057.D	08/10/04	14:51	02:47	(unrelated sample)
ZZZZZZ	M0000058.D	08/10/04	15:19	03:15	(unrelated sample)
ZZZZZZ	M0000059.D	08/10/04	15:47	03:43	(unrelated sample)
ZZZZZZ	M0000060.D	08/10/04	16:25	04:21	(unrelated sample)
ZZZZZZ	M0000061.D	08/10/04	16:54	04:50	(unrelated sample)
F25789-7	M0000062.D	08/10/04	17:23	05:19	OLFS-2406-DMW43D
F25789-8	M0000063.D	08/10/04	17:51	05:47	OLFS-2406-MW44S
F25763-1	M0000064.D	08/10/04	18:19	06:15	(used for QC only; not part of job F25789)
F25763-1MS	M0000065.D	08/10/04	18:46	06:42	Matrix Spike
F25763-1MSD	M0000066.D	08/10/04	19:14	07:10	Matrix Spike Duplicate
ZZZZZZ	M0000067.D	08/10/04	19:41	07:37	(unrelated sample)
ZZZZZZ	M0000068.D	08/10/04	20:08	08:04	(unrelated sample)
ZZZZZZ	M0000069.D	08/10/04	20:36	08:32	(unrelated sample)
ZZZZZZ	M0000070.D	08/10/04	21:03	08:59	(unrelated sample)
ZZZZZZ	M0000071.D	08/10/04	21:31	09:27	(unrelated sample)
ZZZZZZ	M0000072.D	08/10/04	21:58	09:54	(unrelated sample)
ZZZZZZ	M0000073.D	08/10/04	22:25	10:21	(unrelated sample)
ZZZZZZ	M0000074.D	08/10/04	22:53	10:49	(unrelated sample)
ZZZZZZ	M0000075.D	08/10/04	23:20	11:16	(unrelated sample)

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F25789
Account: TETRFLTA Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F25763-1MS	M0000065.D	1	08/10/04	NJ	n/a	n/a	VM3
F25763-1MSD	M0000066.D	1	08/10/04	NJ	n/a	n/a	VM3
F25763-1 [a]	M0000064.D	1	08/10/04	NJ	n/a	n/a	VM3

The QC reported here applies to the following samples: **Method:** SW846 8260B

F25789-7, F25789-8

CAS No.	Compound	F25763-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	1.0 U		25	26.2	105	25.5	102	3	72-125/7
75-27-4	Bromodichloromethane	2.0 U		25	23.6	94	23.4	94	1	72-120/8
75-25-2	Bromoform	2.0 U		25	23.9	96	23.6	94	1	55-127/11
108-90-7	Chlorobenzene	2.0 U		25	24.8	99	24.4	98	2	79-113/7
75-00-3	Chloroethane	2.0 U		25	30.6	122	29.4	118	4	56-164/14
67-66-3	Chloroform	2.0 U		25	25.3	101	24.4	98	4	75-120/8
110-75-8	2-Chloroethyl vinyl ether	5.0 U		125	ND	0*	ND	0*	nc	8-137/18
56-23-5	Carbon tetrachloride	2.0 U		25	25.6	102	24.5	98	4	56-145/12
75-34-3	1,1-Dichloroethane	2.0 U		25	25.9	104	25.4	102	2	70-122/10
75-35-4	1,1-Dichloroethylene	2.0 U		25	23.9	96	22.9	92	4	61-137/15
107-06-2	1,2-Dichloroethane	2.0 U		25	24.3	97	23.8	95	2	64-124/7
78-87-5	1,2-Dichloropropane	2.0 U		25	25.0	100	24.4	98	2	74-123/8
124-48-1	Dibromochloromethane	2.0 U		25	24.2	97	23.9	96	1	63-119/9
156-59-2	cis-1,2-Dichloroethylene	2.0 U		25	25.9	104	25.3	101	2	74-125/9
10061-01-5	cis-1,3-Dichloropropene	2.0 U		25	24.0	96	23.3	93	3	65-112/10
541-73-1	m-Dichlorobenzene	2.0 U		25	25.0	100	24.4	98	2	74-114/7
95-50-1	o-Dichlorobenzene	2.0 U		25	24.7	99	24.2	97	2	73-114/8
106-46-7	p-Dichlorobenzene	2.0 U		25	24.7	99	24.2	97	2	74-112/7
156-60-5	trans-1,2-Dichloroethylene	2.0 U		25	24.8	99	24.1	96	3	70-127/11
10061-02-6	trans-1,3-Dichloropropene	2.0 U		25	23.2	93	23.1	92	0	59-116/11
100-41-4	Ethylbenzene	2.0 U		25	25.4	102	25.1	100	1	73-119/8
74-83-9	Methyl bromide	2.0 U		25	33.7	135	31.2	125	8	52-172/16
74-87-3	Methyl chloride	2.0 U		25	33.5	134	31.4	126	6	53-155/19
75-09-2	Methylene chloride	5.0 U		25	23.7	95	22.9	92	3	61-129/11
1634-04-4	Methyl Tert Butyl Ether	2.0 U		25	28.0	112	27.2	109	3	61-129/9
71-55-6	1,1,1-Trichloroethane	2.0 U		25	26.2	105	25.1	100	4	72-133/8
79-34-5	1,1,2,2-Tetrachloroethane	2.0 U		25	26.4	106	25.5	102	3	64-120/10
79-00-5	1,1,2-Trichloroethane	2.0 U		25	24.5	98	24.3	97	1	72-116/9
127-18-4	Tetrachloroethylene	2.0 U		25	25.1	100	25.0	100	0	70-126/9
108-88-3	Toluene	2.0 U		25	25.0	100	24.4	98	2	67-123/8
79-01-6	Trichloroethylene	2.0 U		25	24.4	98	24.4	98	0	73-117/10
75-01-4	Vinyl chloride	1.0 U		25	32.1	128	29.7	119	8	63-161/18
1330-20-7	Xylene (total)	6.0 U		75	76.1	101	75.2	100	1	73-122/7

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F25789
Account: TETRFLTA Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F25763-1MS	M0000065.D	1	08/10/04	NJ	n/a	n/a	VM3
F25763-1MSD	M0000066.D	1	08/10/04	NJ	n/a	n/a	VM3
F25763-1 [a]	M0000064.D	1	08/10/04	NJ	n/a	n/a	VM3

The QC reported here applies to the following samples: **Method:** SW846 8260B

F25789-7, F25789-8

CAS No.	Surrogate Recoveries	MS	MSD	F25763-1	Limits
1868-53-7	Dibromofluoromethane	103%	102%	103%	86-115%
17060-07-0	1,2-Dichloroethane-D4	101%	102%	103%	73-126%
2037-26-5	Toluene-D8	98%	98%	98%	86-112%
460-00-4	4-Bromofluorobenzene	100%	99%	99%	83-119%

(a) Sample was not preserved to a pH < 2. confirmation run.

Instrument Performance Check (BFB)

Job Number: F25789
Account: TETRFLTA Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

Sample: VM4-BFB
Lab File ID: M0000078.D
Instrument ID: GCMSM
Injection Date: 08/11/04
Injection Time: 09:01

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	32288	31.5		Pass
75	30.0 - 60.0% of mass 95	40365	39.3		Pass
95	Base peak, 100% relative abundance	102637	100.0		Pass
96	5.0 - 9.0% of mass 95	7137	7.0		Pass
173	Less than 2.0% of mass 174	234	0.23	(0.27) [a]	Pass
174	50.0 - 100.0% of mass 95	86554	84.3		Pass
175	5.0 - 9.0% of mass 174	6243	6.1	(7.2) [a]	Pass
176	95.0 - 101.0% of mass 174	83237	81.1	(96.2) [a]	Pass
177	5.0 - 9.0% of mass 176	5431	5.3	(6.5) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VM4-CC1	M0000079.D	08/11/04	09:27	00:26	Continuing cal 40
VM4-BS	M0000080.D	08/11/04	09:57	00:56	Blank Spike
VM4-MB	M0000081.D	08/11/04	10:25	01:24	Method Blank
F25789-2	M0000082.D	08/11/04	11:00	01:59	OLFS-2406-MW29
F25789-6	M0000083.D	08/11/04	11:27	02:26	OLFS-2406-MW43S
F25789-9	M0000084.D	08/11/04	11:54	02:53	OLFS-2406-DMW44D
F25789-12	M0000085.D	08/11/04	12:22	03:21	OLFS-2406-MW40
F25789-13	M0000086.D	08/11/04	12:50	03:49	TRIP BLANK
F25811-1	M0000087.D	08/11/04	13:19	04:18	(used for QC only; not part of job F25789)
ZZZZZZ	M0000088.D	08/11/04	13:46	04:45	(unrelated sample)
ZZZZZZ	M0000089.D	08/11/04	14:16	05:15	(unrelated sample)
F25789-2	M0000090.D	08/11/04	14:45	05:44	OLFS-2406-MW29
ZZZZZZ	M0000092.D	08/11/04	15:43	06:42	(unrelated sample)
ZZZZZZ	M0000093.D	08/11/04	16:11	07:10	(unrelated sample)
ZZZZZZ	M0000094.D	08/11/04	16:39	07:38	(unrelated sample)
ZZZZZZ	M0000095.D	08/11/04	17:07	08:06	(unrelated sample)
ZZZZZZ	M0000096.D	08/11/04	17:35	08:34	(unrelated sample)
ZZZZZZ	M0000097.D	08/11/04	18:03	09:02	(unrelated sample)
F25811-1MS	M0000098.D	08/11/04	18:31	09:30	Matrix Spike
F25811-1MSD	M0000099.D	08/11/04	18:59	09:58	Matrix Spike Duplicate
F25789-10	M0000100.D	08/11/04	19:26	10:25	OLFS-2406-MW4S
F25789-11	M0000101.D	08/11/04	19:54	10:53	OLFS-2406-MW39
ZZZZZZ	M0000102.D	08/11/04	20:21	11:20	(unrelated sample)

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F25789
Account: TETRFLTA Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F25811-1MS	M0000098.D	1	08/11/04	NJ	n/a	n/a	VM4
F25811-1MSD	M0000099.D	1	08/11/04	NJ	n/a	n/a	VM4
F25811-1	M0000087.D	1	08/11/04	NJ	n/a	n/a	VM4

The QC reported here applies to the following samples: **Method:** SW846 8260B

F25789-2, F25789-6, F25789-9, F25789-10, F25789-11, F25789-12, F25789-13

CAS No.	Compound	F25811-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		25	26.7	107	25.8	103	3	72-125/7
75-27-4	Bromodichloromethane	ND		25	23.7	95	23.7	95	0	72-120/8
75-25-2	Bromoform	ND		25	23.5	94	23.2	93	1	55-127/11
108-90-7	Chlorobenzene	ND		25	24.9	100	24.1	96	3	79-113/7
75-00-3	Chloroethane	ND		25	32.6	130	29.8	119	9	56-164/14
67-66-3	Chloroform	ND		25	25.2	101	24.8	99	2	75-120/8
110-75-8	2-Chloroethyl vinyl ether	ND		125	ND	0*	ND	0*	nc	8-137/18
56-23-5	Carbon tetrachloride	ND		25	25.1	100	24.8	99	1	56-145/12
75-34-3	1,1-Dichloroethane	ND		25	26.8	107	25.7	103	4	70-122/10
75-35-4	1,1-Dichloroethylene	ND		25	23.6	94	23.1	92	2	61-137/15
107-06-2	1,2-Dichloroethane	ND		25	24.9	100	24.3	97	2	64-124/7
78-87-5	1,2-Dichloropropane	ND		25	25.8	103	25.3	101	2	74-123/8
124-48-1	Dibromochloromethane	ND		25	24.0	96	23.9	96	0	63-119/9
156-59-2	cis-1,2-Dichloroethylene	ND		25	25.9	104	25.3	101	2	74-125/9
10061-01-5	cis-1,3-Dichloropropene	ND		25	24.0	96	23.8	95	1	65-112/10
541-73-1	m-Dichlorobenzene	ND		25	24.3	97	23.8	95	2	74-114/7
95-50-1	o-Dichlorobenzene	ND		25	23.8	95	24.0	96	1	73-114/8
106-46-7	p-Dichlorobenzene	ND		25	24.2	97	23.9	96	1	74-112/7
156-60-5	trans-1,2-Dichloroethylene	ND		25	25.5	102	24.3	97	5	70-127/11
10061-02-6	trans-1,3-Dichloropropene	ND		25	22.7	91	22.5	90	1	59-116/11
100-41-4	Ethylbenzene	ND		25	25.4	102	24.5	98	4	73-119/8
74-83-9	Methyl bromide	ND		25	32.9	132	28.7	115	14	52-172/16
74-87-3	Methyl chloride	ND		25	36.4	146	33.7	135	8	53-155/19
75-09-2	Methylene chloride	ND		25	24.3	97	24.2	97	0	61-129/11
1634-04-4	Methyl Tert Butyl Ether	ND		25	27.5	110	28.1	112	2	61-129/9
71-55-6	1,1,1-Trichloroethane	ND		25	26.0	104	25.2	101	3	72-133/8
79-34-5	1,1,2,2-Tetrachloroethane	ND		25	25.1	100	25.0	100	0	64-120/10
79-00-5	1,1,2-Trichloroethane	ND		25	24.4	98	24.4	98	0	72-116/9
127-18-4	Tetrachloroethylene	ND		25	25.2	101	24.3	97	4	70-126/9
108-88-3	Toluene	0.53	J	25	25.3	99	24.4	95	4	67-123/8
79-01-6	Trichloroethylene	ND		25	24.7	99	23.8	95	4	73-117/10
75-01-4	Vinyl chloride	ND		25	34.5	138	31.4	126	9	63-161/18
1330-20-7	Xylene (total)	6.8		75	76.9	93	74.3	90	3	73-122/7

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F25789
Account: TETRFLTA Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F25811-1MS	M0000098.D	1	08/11/04	NJ	n/a	n/a	VM4
F25811-1MSD	M0000099.D	1	08/11/04	NJ	n/a	n/a	VM4
F25811-1	M0000087.D	1	08/11/04	NJ	n/a	n/a	VM4

The QC reported here applies to the following samples: **Method:** SW846 8260B

F25789-2, F25789-6, F25789-9, F25789-10, F25789-11, F25789-12, F25789-13

CAS No.	Surrogate Recoveries	MS	MSD	F25811-1	Limits
1868-53-7	Dibromofluoromethane	105%	104%	103%	86-115%
17060-07-0	1,2-Dichloroethane-D4	102%	103%	102%	73-126%
2037-26-5	Toluene-D8	100%	97%	100%	86-112%
460-00-4	4-Bromofluorobenzene	96%	97%	97%	83-119%

Instrument Performance Check (BFB)

Job Number: F25789
Account: TETRFLTA Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

Sample:	VN7-BFB	**Injection Date:**	08/09/04
Lab File ID:	N0000086.D	**Injection Time:**	10:36
Instrument ID:	GCMSN		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	17230	24.2	Pass
75	30.0 - 60.0% of mass 95	30640	43.1	Pass
95	Base peak, 100% relative abundance	71160	100.0	Pass
96	5.0 - 9.0% of mass 95	4989	7.0	Pass
173	Less than 2.0% of mass 174	236	0.33 (0.46) [a]	Pass
174	50.0 - 100.0% of mass 95	50965	71.6	Pass
175	5.0 - 9.0% of mass 174	3869	5.4 (7.6) [a]	Pass
176	95.0 - 101.0% of mass 174	48776	68.5 (95.7) [a]	Pass
177	5.0 - 9.0% of mass 176	3388	4.8 (6.9) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VN7-IC7	N0000087.D	08/09/04	11:43	01:07	Initial cal 1
VN7-IC7	N0000088.D	08/09/04	12:10	01:34	Initial cal 5
VN7-IC7	N0000089.D	08/09/04	12:37	02:01	Initial cal 20
VN7-ICC7	N0000090.D	08/09/04	13:03	02:27	Initial cal 40
VN7-IC7	N0000091.D	08/09/04	13:30	02:54	Initial cal 70
VN7-IC7	N0000092.D	08/09/04	13:57	03:21	Initial cal 100

Instrument Performance Check (BFB)

Job Number: F25789
Account: TETRFLTA Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

Sample: VN8-BFB
Lab File ID: N0000098.D
Instrument ID: GCMSN
Injection Date: 08/10/04
Injection Time: 11:33

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	16585	24.5	Pass
75	30.0 - 60.0% of mass 95	28829	42.7	Pass
95	Base peak, 100% relative abundance	67594	100.0	Pass
96	5.0 - 9.0% of mass 95	4801	7.1	Pass
173	Less than 2.0% of mass 174	0	0.0 (0.0) [a]	Pass
174	50.0 - 100.0% of mass 95	51261	75.8	Pass
175	5.0 - 9.0% of mass 174	3610	5.3 (7.0) [a]	Pass
176	95.0 - 101.0% of mass 174	48944	72.4 (95.5) [a]	Pass
177	5.0 - 9.0% of mass 176	3298	4.9 (6.7) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VN8-CC7	N0000099.D	08/10/04	11:59	00:26	Continuing cal 40
VN8-BS	N0000100.D	08/10/04	12:28	00:55	Blank Spike
VN8-MB	N0000101.D	08/10/04	12:55	01:22	Method Blank
ZZZZZZ	N0000102.D	08/10/04	13:29	01:56	(unrelated sample)
ZZZZZZ	N0000103.D	08/10/04	13:56	02:23	(unrelated sample)
F25751-1	N0000105.D	08/10/04	14:52	03:19	(used for QC only; not part of job F25789)
F25751-1MS	N0000106.D	08/10/04	15:18	03:45	Matrix Spike
F25751-1MSD	N0000107.D	08/10/04	15:45	04:12	Matrix Spike Duplicate
ZZZZZZ	N0000108.D	08/10/04	16:12	04:39	(unrelated sample)
ZZZZZZ	N0000109.D	08/10/04	16:39	05:06	(unrelated sample)
ZZZZZZ	N0000110.D	08/10/04	17:05	05:32	(unrelated sample)
ZZZZZZ	N0000111.D	08/10/04	17:32	05:59	(unrelated sample)
ZZZZZZ	N0000112.D	08/10/04	17:59	06:26	(unrelated sample)
ZZZZZZ	N0000113.D	08/10/04	18:25	06:52	(unrelated sample)
ZZZZZZ	N0000114.D	08/10/04	18:52	07:19	(unrelated sample)
ZZZZZZ	N0000115.D	08/10/04	19:19	07:46	(unrelated sample)
ZZZZZZ	N0000116.D	08/10/04	19:45	08:12	(unrelated sample)
ZZZZZZ	N0000117.D	08/10/04	20:15	08:42	(unrelated sample)
ZZZZZZ	N0000119.D	08/10/04	21:08	09:35	(unrelated sample)
F25789-4	N0000121.D	08/10/04	22:04	10:31	OLFS-2406-MW42S
F25789-5	N0000122.D	08/10/04	22:31	10:58	OLFS-2406-DMW42D

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F25789
Account: TETRFLTA Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F25751-1MS	N0000106.D	2	08/10/04	NJ	n/a	n/a	VN8
F25751-1MSD	N0000107.D	2	08/10/04	NJ	n/a	n/a	VN8
F25751-1	N0000105.D	2	08/10/04	NJ	n/a	n/a	VN8

The QC reported here applies to the following samples: **Method:** SW846 8260B

F25789-4, F25789-5

CAS No.	Compound	F25751-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	223	E	50	155	-136* [a]	152	-142* [a]	2	72-125/7
75-27-4	Bromodichloromethane	ND		50	49.4	99	49.1	98	1	72-120/8
75-25-2	Bromoform	ND		50	53.5	107	53.5	107	0	55-127/11
108-90-7	Chlorobenzene	247	E	50	134	-226* [a]	133	-228* [a]	1	79-113/7
75-00-3	Chloroethane	ND		50	43.2	86	38.9	78	10	56-164/14
67-66-3	Chloroform	ND		50	50.1	100	49.4	99	1	75-120/8
110-75-8	2-Chloroethyl vinyl ether	ND		250	ND	0*	ND	0*	nc	8-137/18
56-23-5	Carbon tetrachloride	ND		50	51.5	103	50.5	101	2	56-145/12
75-34-3	1,1-Dichloroethane	121		50	93.0	-56* [a]	90.6	-61* [a]	3	70-122/10
75-35-4	1,1-Dichloroethylene	10.3		50	49.4	78	48.1	76	3	61-137/15
107-06-2	1,2-Dichloroethane	63.0		50	76.4	27*	74.6	23*	2	64-124/7
78-87-5	1,2-Dichloropropane	ND		50	50.5	101	50.7	101	0	74-123/8
124-48-1	Dibromochloromethane	ND		50	50.3	101	50.4	101	0	63-119/9
156-59-2	cis-1,2-Dichloroethylene	322	E	50	165	-314* [a]	162	-320* [a]	2	74-125/9
10061-01-5	cis-1,3-Dichloropropene	ND		50	45.2	90	45.0	90	0	65-112/10
541-73-1	m-Dichlorobenzene	7.8		50	53.5	91	53.8	92	1	74-114/7
95-50-1	o-Dichlorobenzene	5.9		50	53.3	95	53.3	95	0	73-114/8
106-46-7	p-Dichlorobenzene	61.8		50	69.7	16*	69.8	16*	0	74-112/7
156-60-5	trans-1,2-Dichloroethylene	ND		50	48.3	97	47.4	95	2	70-127/11
10061-02-6	trans-1,3-Dichloropropene	ND		50	47.1	94	46.5	93	1	59-116/11
100-41-4	Ethylbenzene	14.0		50	56.0	84	55.3	83	1	73-119/8
74-83-9	Methyl bromide	ND		50	47.3	95	44.2	88	7	52-172/16
74-87-3	Methyl chloride	ND		50	54.9	110	51.3	103	7	53-155/19
75-09-2	Methylene chloride	2.6		50	45.3	85	44.5	84	2	61-129/11
1634-04-4	Methyl Tert Butyl Ether	ND		50	56.6	113	56.2	112	1	61-129/9
71-55-6	1,1,1-Trichloroethane	ND		50	50.6	101	49.5	99	2	72-133/8
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	54.2	108	55.0	110	1	64-120/10
79-00-5	1,1,2-Trichloroethane	ND		50	49.5	99	49.9	100	1	72-116/9
127-18-4	Tetrachloroethylene	ND		50	52.0	104	51.1	102	2	70-126/9
108-88-3	Toluene	1.1	J	50	50.0	98	50.2	98	0	67-123/8
79-01-6	Trichloroethylene	1.8	J	50	51.4	99	51.5	99	0	73-117/10
75-01-4	Vinyl chloride	ND		50	50.6	101	47.5	95	6	63-161/18
1330-20-7	Xylene (total)	ND		150	154	103	152	101	1	73-122/7

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F25789
Account: TETRFLTA Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F25751-1MS	N0000106.D	2	08/10/04	NJ	n/a	n/a	VN8
F25751-1MSD	N0000107.D	2	08/10/04	NJ	n/a	n/a	VN8
F25751-1	N0000105.D	2	08/10/04	NJ	n/a	n/a	VN8

The QC reported here applies to the following samples: **Method:** SW846 8260B

F25789-4, F25789-5

CAS No.	Surrogate Recoveries	MS	MSD	F25751-1	Limits
1868-53-7	Dibromofluoromethane	100%	100%	99%	86-115%
17060-07-0	1,2-Dichloroethane-D4	101%	101%	101%	73-126%
2037-26-5	Toluene-D8	97%	97%	97%	86-112%
460-00-4	4-Bromofluorobenzene	100%	101%	101%	83-119%

(a) Outside control limits due to high level in sample relative to spike amount.

Blank Spike Summary

Job Number: F25789
Account: TETRFLTA Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN8-BS	N0000100.D	1	08/10/04	NJ	n/a	n/a	VN8

The QC reported here applies to the following samples: **Method:** SW846 8260B

F25789-4, F25789-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	25.4	102	80-120
75-27-4	Bromodichloromethane	25	25.5	102	75-120
75-25-2	Bromoform	25	27.7	111	60-129
108-90-7	Chlorobenzene	25	25.8	103	82-112
75-00-3	Chloroethane	25	20.0	80	67-148
67-66-3	Chloroform	25	25.1	100	78-118
110-75-8	2-Chloroethyl vinyl ether	125	123	98	23-132
56-23-5	Carbon tetrachloride	25	27.4	110	69-137
75-34-3	1,1-Dichloroethane	25	25.2	101	75-117
75-35-4	1,1-Dichloroethylene	25	23.4	94	67-134
107-06-2	1,2-Dichloroethane	25	24.4	98	68-121
78-87-5	1,2-Dichloropropane	25	25.3	101	78-122
124-48-1	Dibromochloromethane	25	26.4	106	68-118
156-59-2	cis-1,2-Dichloroethylene	25	25.7	103	81-120
10061-01-5	cis-1,3-Dichloropropene	25	26.1	104	73-115
541-73-1	m-Dichlorobenzene	25	26.5	106	78-116
95-50-1	o-Dichlorobenzene	25	26.2	105	77-115
106-46-7	p-Dichlorobenzene	25	25.7	103	77-113
156-60-5	trans-1,2-Dichloroethylene	25	24.5	98	74-125
10061-02-6	trans-1,3-Dichloropropene	25	24.8	99	69-115
100-41-4	Ethylbenzene	25	25.6	102	82-115
74-83-9	Methyl bromide	25	21.7	87	60-165
74-87-3	Methyl chloride	25	23.1	92	58-152
75-09-2	Methylene chloride	25	23.1	92	66-125
1634-04-4	Methyl Tert Butyl Ether	25	28.0	112	67-127
71-55-6	1,1,1-Trichloroethane	25	26.4	106	78-132
79-34-5	1,1,2,2-Tetrachloroethane	25	24.3	97	67-119
79-00-5	1,1,2-Trichloroethane	25	24.6	98	74-115
127-18-4	Tetrachloroethylene	25	36.7	147*	75-126
108-88-3	Toluene	25	25.6	102	81-114
79-01-6	Trichloroethylene	25	26.8	107	80-115
75-01-4	Vinyl chloride	25	22.5	90	70-151
1330-20-7	Xylene (total)	75	79.0	105	81-118

Blank Spike Summary

Job Number: F25789
Account: TETRFLTA Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN8-BS	N0000100.D	1	08/10/04	NJ	n/a	n/a	VN8

The QC reported here applies to the following samples: **Method:** SW846 8260B

F25789-4, F25789-5

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	101%	86-115%
17060-07-0	1,2-Dichloroethane-D4	102%	73-126%
2037-26-5	Toluene-D8	97%	86-112%
460-00-4	4-Bromofluorobenzene	99%	83-119%

Instrument Performance Check (DFTPP)

Job Number: F25789
Account: TETRFLTA Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

Sample: SW1116-DFTPP
Lab File ID: W021248.D
Instrument ID: GCMSW
Injection Date: 07/31/04
Injection Time: 11:24

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 80.0% of mass 198	35994	41.0	Pass
68	Less than 2.0% of mass 69	0	0.0 (0.0) [a]	Pass
69	Mass 69 relative abundance	34067	38.9	Pass
70	Less than 2.0% of mass 69	179	0.2 (0.53) [a]	Pass
127	25.0 - 75.0% of mass 198	43504	49.6	Pass
197	Less than 1.0% of mass 198	0	0.0	Pass
198	Base peak, 100% relative abundance	87685	100.0	Pass
199	5.0 - 9.0% of mass 198	6164	7.0	Pass
275	10.0 - 30.0% of mass 198	16508	18.8	Pass
365	1.0 - 100.0% of mass 198	1406	1.6	Pass
441	Present, but less than mass 443	6883	7.8 (78.6) [b]	Pass
442	40.0 - 100.0% of mass 198	42443	48.4	Pass
443	17.0 - 23.0% of mass 442	8756	10.0 (20.6) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
SW1116-IC1116	W021250.D	07/31/04	12:14	00:50	Initial cal 1
SW1116-IC1116	W021251.D	07/31/04	12:45	01:21	Initial cal 2
SW1116-IC1116	W021252.D	07/31/04	13:17	01:53	Initial cal 3
SW1116-ICC1116	W021253.D	07/31/04	13:49	02:25	Initial cal 4
SW1116-IC1116	W021254.D	07/31/04	14:20	02:56	Initial cal 5
SW1116-IC1116	W021255.D	07/31/04	14:52	03:28	Initial cal 6
SW1116-IC1116	W021256.D	07/31/04	15:23	03:59	Initial cal 7
SW1116-ICV1116	W021257.D	07/31/04	15:54	04:30	Initial cal verification 5
OP10945-BS	W021258.D	07/31/04	16:26	05:02	Blank Spike
OP10945-MB	W021259.D	07/31/04	16:57	05:33	Method Blank
F25412-1	W021263.D	07/31/04	19:00	07:36	(used for QC only; not part of job F25789)
OP10945-MS	W021264.D	07/31/04	19:31	08:07	Matrix Spike
OP10945-MSD	W021265.D	07/31/04	20:02	08:38	Matrix Spike Duplicate
ZZZZZZ	W021266.D	07/31/04	20:32	09:08	(unrelated sample)
ZZZZZZ	W021267.D	07/31/04	21:03	09:39	(unrelated sample)
ZZZZZZ	W021268.D	07/31/04	21:34	10:10	(unrelated sample)
ZZZZZZ	W021269.D	07/31/04	22:05	10:41	(unrelated sample)
ZZZZZZ	W021270.D	07/31/04	22:35	11:11	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: F25789
Account: TETRFLTA Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

Sample:	SW1127-DFTPP	**Injection Date:**	08/12/04
Lab File ID:	W021463.D	**Injection Time:**	09:35
Instrument ID:	GCMSW		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 80.0% of mass 198	46529	43.5		Pass
68	Less than 2.0% of mass 69	309	0.29	(0.76) [a]	Pass
69	Mass 69 relative abundance	40533	37.9		Pass
70	Less than 2.0% of mass 69	223	0.21	(0.55) [a]	Pass
127	25.0 - 75.0% of mass 198	53659	50.1		Pass
197	Less than 1.0% of mass 198	162	0.15		Pass
198	Base peak, 100% relative abundance	107061	100.0		Pass
199	5.0 - 9.0% of mass 198	7158	6.7		Pass
275	10.0 - 30.0% of mass 198	20775	19.4		Pass
365	1.0 - 100.0% of mass 198	1935	1.8		Pass
441	Present, but less than mass 443	8926	8.3	(77.4) [b]	Pass
442	40.0 - 100.0% of mass 198	57120	53.4		Pass
443	17.0 - 23.0% of mass 442	11535	10.8	(20.2) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
SW1127-CC1116	W021465.D	08/12/04	10:25	00:50	Continuing cal 4
OP11065-BS	W021467.D	08/12/04	11:27	01:52	Blank Spike
OP11065-MB	W021468.D	08/12/04	11:58	02:23	Method Blank
F25789-10	W021469.D	08/12/04	12:30	02:55	OLFS-2406-MW4S
OP11065-MS	W021470.D	08/12/04	13:01	03:26	Matrix Spike
OP11065-MSD	W021471.D	08/12/04	13:33	03:58	Matrix Spike Duplicate
F25789-11	W021472.D	08/12/04	14:04	04:29	OLFS-2406-MW39
F25789-12	W021473.D	08/12/04	14:35	05:00	OLFS-2406-MW40
ZZZZZZ	W021474.D	08/12/04	15:07	05:32	(unrelated sample)
ZZZZZZ	W021475.D	08/12/04	15:38	06:03	(unrelated sample)
ZZZZZZ	W021476.D	08/12/04	16:09	06:34	(unrelated sample)

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F25789
Account: TETRFLTA Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11063-MS	OP41471.D	5	08/09/04	AA	08/06/04	OP11063	GOP1269
OP11063-MSD	OP41472.D	5	08/09/04	AA	08/06/04	OP11063	GOP1269
F25795-2	OP41470.D	10	08/09/04	AA	08/06/04	OP11063	GOP1269

The QC reported here applies to the following samples: **Method:** FLORIDA-PRO

F25789-10, F25789-11, F25789-12

CAS No.	Compound	F25795-2 mg/l	Q	Spike mg/l	MS mg/l	MS %	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH (C8-C40)	10.7		1.77	11.2	28* [4]	11.3	34* [4]	1	52-140/20

CAS No.	Surrogate Recoveries	MS	MSD	F25795-2	Limits
84-15-1	o-Terphenyl	77%	81%	72%	50-125%

(a) Outside control limits due to high level in sample relative to spike amount.

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO:	**G. WALKER**	**DATE:**	**OCTOBER 4, 2004**
FROM:	**ERIN M. FAUST**	**COPIES:**	**DV FILE**

SUBJECT: **INORGANIC DATA VALIDATION – LEAD**
CTO – 274 NAS PENSACOLA
SAMPLE DELIVERY GROUP (SDG) – F25789

SAMPLES: 11/Aqueous/

OLFS-2406-DMW34	OLFS-2406-DMW42D	OLFS-2406-DMW43D
OLFS-2406-DMW44D	OLFS-2406-MW28	OLFS-2406-MW39
OLFS-2406-MW40	OLFS-2406-MW42S	OLFS-2406-MW43S
OLFS-2406-MW44S	OLFS-2406-MW4S	

Overview

The sample set for CTO 274, NAS Pensacola, SDG F25789, consists of eleven (11) groundwater environmental samples.

All samples were analyzed for lead. The samples were collected by TetraTech NUS on July 28, 29 and 30, 2004 and analyzed by Accutest Laboratories, Southeast under Naval Facilities Engineering Service Center (NFESC) Quality Assurance/Quality Control (QA/QC) criteria. Lead analyses were conducted using SW-846 method 6010B.

These data were evaluated based on the following parameters:

* • Data Completeness
* • Holding Times
* • Calibration Recoveries
• Laboratory Blank Analyses
* • Detection Limits

* - All quality control criteria were met for this parameter.

Laboratory Blank Analyses

The following contaminant was detected in the laboratory method/preparation blanks at the following maximum concentration:

Analyte	Maximum Concentration	Action Level
Lead	4.0 µg/L	20.0 µg/L

An action level of 5X the maximum concentration has been used to evaluate the sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Positive results, less than the action level, reported for lead were qualified "U" as a result of laboratory blank contamination.

Executive Summary

Laboratory Performance: Lead was present in the laboratory method/preparation blanks.

Other Factors Affecting Data Quality: None.

The data for these analyses were reviewed with reference to the "National Functional Guidelines for Inorganic Review", July 2002 and the NFESC document entitled "Navy IRCDQM" (September 1999).

The text of this report has been formulated to address only those problem areas affecting data quality.

"I attest that the data referenced herein were validated according to the agreed upon validation criteria as specified in the NFESC Guidelines and the Quality Assurance Project Plan (QAPP)."

Erin M Faust

Tetra Tech NUS
Erin M. Faust
Environmental Scientist

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:

1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as reported by the Laboratory
3. Appendix C - Support Documentation

APPENDIX A
QUALIFIED ANALYTICAL RESULTS

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is less than sample activity

PROJ_NO: 2642

SDG: F25789 MEDIA: WATER DATA FRACTION: M

nsample	OLFS-2406-DMW34	nsample	OLFS-2406-DMW42D	nsample	OLFS-2406-DMW43D
samp_date	7/30/2004	samp_date	7/28/2004	samp_date	7/28/2004
lab_id	F25789-3	lab_id	F25789-5	lab_id	F25789-7
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/L	units	UG/L	units	UG/L
Pct_Solids		Pct_Solids		Pct_Solids	
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
LEAD	15.2	U	A

Parameter	Result	Val Qual	Qual Code
LEAD	2.9	U	A

Parameter	Result	Val Qual	Qual Code
LEAD	8.9	U	A

PROJ_NO: 2642

SDG: F25789 MEDIA: WATER DATA FRACTION: M

nsample	OLFS-2406-DMW44D
samp_date	7/29/2004
lab_id	F25789-9
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
LEAD	2.9	U	

nsample	OLFS-2406-MW28
samp_date	7/30/2004
lab_id	F25789-1
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
LEAD	19.3	U	A

nsample	OLFS-2406-MW39
samp_date	7/30/2004
lab_id	F25789-11
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
LEAD	2.9	U	

PROJ_NO: 2642

SDG: F25789 MEDIA: WATER DATA FRACTION: M

nsample	OLFS-2406-MW40	nsample	OLFS-2406-MW42S	nsample	OLFS-2406-MW43S
samp_date	7/30/2004	samp_date	7/28/2004	samp_date	7/29/2004
lab_id	F25789-12	lab_id	F25789-4	lab_id	F25789-6
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/L	units	UG/L	units	UG/L
Pct_Solids		Pct_Solids		Pct_Solids	
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
LEAD	3.1	U	A

Parameter	Result	Val Qual	Qual Code
LEAD	2.9	U	

Parameter	Result	Val Qual	Qual Code
LEAD	5.1	U	A

PROJ_NO: 2642

SDG: F25789 MEDIA: WATER DATA FRACTION: M

nsample	OLFS-2406-MW44S	nsample	OLFS-2406-MW4S
samp_date	7/28/2004	samp_date	7/30/2004
lab_id	F25789-8	lab_id	F25789-10
qc_type	NM	qc_type	NM
units	UG/L	units	UG/L
Pct_Solids		Pct_Solids	
DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
LEAD	4.1	U	A

Parameter	Result	Val Qual	Qual Code
LEAD	2.9	U	

APPENDIX B
RESULTS AS REPORTED BY THE LABORATORY

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-DMW34		
Lab Sample ID:	F25789-3	**Date Sampled:**	07/30/04
Matrix:	AQ - Ground Water	**Date Received:**	07/31/04
		Percent Solids:	n/a
Project:	NAS Pensacola CTO# 274 N2642		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Lead	15.2	5.0	2.9	ug/l	1	08/18/04	08/20/04	DM	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA3937
(2) Prep QC Batch: MP7000

RL = Reporting Limit
MDL = Method Detection Limit

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

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-DMW42D		
Lab Sample ID:	F25789-5	**Date Sampled:**	07/28/04
Matrix:	AQ - Ground Water	**Date Received:**	07/31/04
		Percent Solids:	n/a
Project:	NAS Pensacola CTO# 274 N2642		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By		Method	Prep Method
Lead	2.9 I	5.0	2.9	ug/l	1	08/18/04	08/20/04	DM	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA3937
(2) Prep QC Batch: MP7000

RL = Reporting Limit
MDL = Method Detection Limit

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

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-DMW43D		
Lab Sample ID:	F25789-7	**Date Sampled:**	07/28/04
Matrix:	AQ - Ground Water	**Date Received:**	07/31/04
		Percent Solids:	n/a
Project:	NAS Pensacola CTO# 274 N2642		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By		Method	Prep Method
Lead	8.9	5.0	2.9	ug/l	1	08/18/04	08/20/04	DM	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA3937
(2) Prep QC Batch: MP7000

RL = Reporting Limit
MDL = Method Detection Limit

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

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-DMW44D		
Lab Sample ID:	F25789-9	**Date Sampled:**	07/29/04
Matrix:	AQ - Ground Water	**Date Received:**	07/31/04
		Percent Solids:	n/a
Project:	NAS Pensacola CTO# 274 N2642		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Lead	2.9 U	5.0	2.9	ug/l	1	08/18/04	08/20/04	DM	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA3937
(2) Prep QC Batch: MP7000

RL = Reporting Limit
MDL = Method Detection Limit

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

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-MW28		
Lab Sample ID:	F25789-1	**Date Sampled:**	07/30/04
Matrix:	AQ - Ground Water	**Date Received:**	07/31/04
		Percent Solids:	n/a
Project:	NAS Pensacola CTO# 274 N2642		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By		Method	Prep Method
Lead	19.3	5.0	2.9	ug/l	1	08/18/04	08/20/04	DM	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA3937
(2) Prep QC Batch: MP7000

RL = Reporting Limit
MDL = Method Detection Limit

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

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-MW39		
Lab Sample ID:	F25789-11	**Date Sampled:**	07/30/04
Matrix:	AQ - Ground Water	**Date Received:**	07/31/04
		Percent Solids:	n/a
Project:	NAS Pensacola CTO# 274 N2642		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By		Method	Prep Method
Lead	2.9 U	5.0	2.9	ug/l	1	08/18/04	08/20/04	DM	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA3937
(2) Prep QC Batch: MP7000

RL = Reporting Limit
MDL = Method Detection Limit

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

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-MW40		
Lab Sample ID:	F25789-12	**Date Sampled:**	07/30/04
Matrix:	AQ - Ground Water	**Date Received:**	07/31/04
		Percent Solids:	n/a
Project:	NAS Pensacola CTO# 274 N2642		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Lead	3.1 I	5.0	2.9	ug/l	1	08/18/04	08/20/04	DM	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA3937
(2) Prep QC Batch: MP7000

RL = Reporting Limit
MDL = Method Detection Limit

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

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-MW42S		
Lab Sample ID:	F25789-4	**Date Sampled:**	07/28/04
Matrix:	AQ - Ground Water	**Date Received:**	07/31/04
		Percent Solids:	n/a
Project:	NAS Pensacola CTO# 274 N2642		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	2.9 U	5.0	2.9	ug/l	1	08/18/04	08/20/04 DM	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA3937
(2) Prep QC Batch: MP7000

RL = Reporting Limit
MDL = Method Detection Limit

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

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-MW43S		
Lab Sample ID:	F25789-6	**Date Sampled:**	07/29/04
Matrix:	AQ - Ground Water	**Date Received:**	07/31/04
		Percent Solids:	n/a
Project:	NAS Pensacola CTO# 274 N2642		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By		Method	Prep Method
Lead	5.1	5.0	2.9	ug/l	1	08/18/04	08/20/04	DM	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA3937
(2) Prep QC Batch: MP7000

RL = Reporting Limit
MDL = Method Detection Limit

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

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-MW44S		
Lab Sample ID:	F25789-8	**Date Sampled:**	07/28/04
Matrix:	AQ - Ground Water	**Date Received:**	07/31/04
		Percent Solids:	n/a
Project:	NAS Pensacola CTO# 274 N2642		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Lead	4.1 I	5.0	2.9	ug/l	1	08/18/04	08/20/04	DM	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA3937
(2) Prep QC Batch: MP7000

RL = Reporting Limit
MDL = Method Detection Limit

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

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-MW4S		
Lab Sample ID:	F25789-10	**Date Sampled:**	07/30/04
Matrix:	AQ - Ground Water	**Date Received:**	07/31/04
		Percent Solids:	n/a
Project:	NAS Pensacola CTO# 274 N2642		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By		Method	Prep Method
Lead	2.9 U	5.0	2.9	ug/l	1	08/18/04	08/20/04	DM	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA3937
(2) Prep QC Batch: MP7000

RL = Reporting Limit
MDL = Method Detection Limit

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

APPENDIX C
SUPPORT DOCUMENTATION

TETRA TECH NUS, INC.

CHAIN OF CUSTODY

NUMBER 4244 F25789 PAGE 1 OF 1

PROJECT NO: N2642	FACILITY: OLF Saufley	PROJECT MANAGER: Gerry Walker	PHONE NUMBER: 850-385-9899
SAMPLERS (SIGNATURE): [signature]		FIELD OPERATIONS LEADER: Howard Engle	PHONE NUMBER: 850-385-9899
		CARRIER/WAYBILL NUMBER: 8350-5454-9023 (Fed-Ex)	

LABORATORY NAME AND CONTACT: Accutest Lab SE
ADDRESS: 4405 Vineland Rd Ste C150
CITY, STATE: Orlando FL 32811-7363

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): 3G 3G 2G 2G 1P
PRESERVATIVE USED: HCl, $Na_2S_2O_3$, N/A, H_2SO_4, HNO_3

	DATE YEAR	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	VOCs (8260)	EDB (504.1)	PAHs (8270 Sim)	TRPH (FL-PRO)	Total Lead (6010B)	COMMENTS
1	7/30	0955	OLFS-2406-MW28	MW28	46.03'	80'	GW	G	1				X		All times
2	7/29	1845	OLFS-2406-MW29	MW29	38.37	80'			4	X			X		are Central
3	7/30	1130	OLFS-2406-DMW34	DMW34	27.3'	77'			1				X		
4	7/28	1015	OLFS-2406-MW42S	MW42S	33.27'				4	X			X		see work
5	7/28	1030	OLFS-2406-DMW42D	DMW42D	45.14				4	X			X		Release #
6	7/29	1545	OLFS-2406-MW43S	MW43S	18.8	51.3			4	X			X		N2642-WR452
7	7/28	1335	OLFS-2406-DMW43D	DMW43D	19.33	133.2			4	X			X		for detailed
8	7/28	1745	OLFS-2406-MW44S	MW44S	29.04	56			4	X			X		parameter list
9	7/29	1740	OLFS-2406-DMW44D	DMW44D	28.89	130			4	X			X		
10	7/30	1450	OLFS-2406-MW45	MW45	35.25				11	X	X	X	X	X	
11	7/30	1545	OLFS-2406-MW39	MW39	36.02	56			11	X	X	X	X	X	
12	7/30	1645	OLFS-2406-MW40	MW40	41.15	56			11	X	X	X	X	X	
13			Trip Blank				QC		6	X	X				

1. RELINQUISHED BY: William Howard Engle	DATE: 7/30/04	TIME: 19:00	1. RECEIVED BY: FX	DATE: 7/29/04	TIME:
2. RELINQUISHED BY: FX	DATE: 7/31/04	TIME: 9:00	2. RECEIVED BY: [signature]	DATE: 7/31/04	TIME: 9:00
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS: 2.6 3.4

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R

HOLDTIME

SDG F25789

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
M	UG/L	OLFS-2406-MW4S	F25789-10	NM	07/30/2004	08/18/2004	08/20/2004	19	2	21
M	UG/L	OLFS-2406-DMW34	F25789-3	NM	07/30/2004	08/18/2004	08/20/2004	19	2	21
M	UG/L	OLFS-2406-DMW42D	F25789-5	NM	07/28/2004	08/18/2004	08/20/2004	21	2	23
M	UG/L	OLFS-2406-DMW43D	F25789-7	NM	07/28/2004	08/18/2004	08/20/2004	21	2	23
M	UG/L	OLFS-2406-DMW44D	F25789-9	NM	07/29/2004	08/18/2004	08/20/2004	20	2	22
M	UG/L	OLFS-2406-MW28	F25789-1	NM	07/30/2004	08/18/2004	08/20/2004	19	2	21
M	UG/L	OLFS-2406-MW39	F25789-11	NM	07/30/2004	08/18/2004	08/20/2004	19	2	21
M	UG/L	OLFS-2406-MW40	F25789-12	NM	07/30/2004	08/18/2004	08/20/2004	19	2	21
M	UG/L	OLFS-2406-MW42S	F25789-4	NM	07/28/2004	08/18/2004	08/20/2004	21	2	23
M	UG/L	OLFS-2406-MW43S	F25789-6	NM	07/29/2004	08/18/2004	08/20/2004	20	2	22
M	UG/L	OLFS-2406-MW44S	F25789-8	NM	07/28/2004	08/18/2004	08/20/2004	21	2	23
	%	OLFS-2406-MW40	F25789-12	NM	07/30/2004	08/06/2004	08/12/2004	7	6	13
	%	OLFS-2406-MW4S	F25789-10	NM	07/30/2004	08/06/2004	08/12/2004	7	6	13
	%	OLFS-2406-MW39	F25789-11	NM	07/30/2004	08/06/2004	08/12/2004	7	6	13
	UG/L	OLFS-2406-MW39	F25789-11	NM	07/30/2004	08/06/2004	08/12/2004	7	6	13

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
	UG/L	OLFS-2406-MW4S	F25789-10	NM	07/30/2004	08/06/2004	08/12/2004	7	6	13
	UG/L	OLFS-2406-MW40	F25789-12	NM	07/30/2004	08/06/2004	08/12/2004	7	6	13
EDB	%	OLFS-2406-MW39	F25789-11	NM	07/30/2004	08/04/2004	08/05/2004	5	1	6
EDB	%	TRIP BLANK	F25789-13	NM	07/30/2004	08/04/2004	08/05/2004	5	1	6
EDB	%	OLFS-2406-MW4S	F25789-10	NM	07/30/2004	08/04/2004	08/05/2004	5	1	6
EDB	%	OLFS-2406-MW40	F25789-12	NM	07/30/2004	08/04/2004	08/05/2004	5	1	6
EDB	UG/L	OLFS-2406-MW4S	F25789-10	NM	07/30/2004	08/04/2004	08/05/2004	5	1	6
EDB	UG/L	OLFS-2406-MW40	F25789-12	NM	07/30/2004	08/04/2004	08/05/2004	5	1	6
EDB	UG/L	OLFS-2406-MW39	F25789-11	NM	07/30/2004	08/04/2004	08/05/2004	5	1	6
EDB	UG/L	TRIP BLANK	F25789-13	NM	07/30/2004	08/04/2004	08/05/2004	5	1	6
OV	%	OLFS-2406-DMW42D	F25789-5	NM	07/28/2004	08/10/2004	08/10/2004	13	0	13
OV	%	OLFS-2406-DMW43D	F25789-7	NM	07/28/2004	08/10/2004	08/10/2004	13	0	13
OV	%	OLFS-2406-MW4S	F25789-10	NM	07/30/2004	08/11/2004	08/11/2004	12	0	12
OV	%	OLFS-2406-MW43S	F25789-6	NM	07/29/2004	08/11/2004	08/11/2004	13	0	13
OV	%	OLFS-2406-MW44S	F25789-8	NM	07/28/2004	08/10/2004	08/10/2004	13	0	13
OV	%	OLFS-2406-DMW44D	F25789-9	NM	07/29/2004	08/11/2004	08/11/2004	13	0	13
OV	%	OLFS-2406-MW29	F25789-2	NM	07/29/2004	08/11/2004	08/11/2004	13	0	13
OV	%	OLFS-2406-MW39	F25789-11	NM	07/30/2004	08/11/2004	08/11/2004	12	0	12

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	%	OLFS-2406-MW40	F25789-12	NM	07/30/2004	08/11/2004	08/11/2004	12	0	12
OV	%	OLFS-2406-MW42S	F25789-4	NM	07/28/2004	08/10/2004	08/10/2004	13	0	13
OV	%	TRIP BLANK	F25789-13	NM	07/30/2004	08/11/2004	08/11/2004	12	0	12
OV	UG/L	OLFS-2406-MW42S	F25789-4	NM	07/28/2004	08/10/2004	08/10/2004	13	0	13
OV	UG/L	TRIP BLANK	F25789-13	NM	07/30/2004	08/11/2004	08/11/2004	12	0	12
OV	UG/L	OLFS-2406-MW4S	F25789-10	NM	07/30/2004	08/11/2004	08/11/2004	12	0	12
OV	UG/L	OLFS-2406-MW43S	F25789-6	NM	07/29/2004	08/11/2004	08/11/2004	13	0	13
OV	UG/L	OLFS-2406-DMW44D	F25789-9	NM	07/29/2004	08/11/2004	08/11/2004	13	0	13
OV	UG/L	OLFS-2406-MW40	F25789-12	NM	07/30/2004	08/11/2004	08/11/2004	12	0	12
OV	UG/L	OLFS-2406-MW39	F25789-11	NM	07/30/2004	08/11/2004	08/11/2004	12	0	12
OV	UG/L	OLFS-2406-MW29	F25789-2	NM	07/29/2004	08/11/2004	08/11/2004	13	0	13
OV	UG/L	OLFS-2406-DMW42D	F25789-5	NM	07/28/2004	08/10/2004	08/10/2004	13	0	13
OV	UG/L	OLFS-2406-DMW43D	F25789-7	NM	07/28/2004	08/10/2004	08/10/2004	13	0	13
OV	UG/L	OLFS-2406-MW44S	F25789-8	NM	07/28/2004	08/10/2004	08/10/2004	13	0	13
TPH	MG/L	OLFS-2406-MW40	F25789-12	NM	07/30/2004	08/06/2004	08/07/2004	7	1	8
TPH	MG/L	OLFS-2406-MW39	F25789-11	NM	07/30/2004	08/06/2004	08/07/2004	7	1	8
TPH	MG/L	OLFS-2406-MW4S	F25789-10	NM	07/30/2004	08/06/2004	08/07/2004	7	1	8

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Tetra-Tech NUS **Job No:** F25789

Site: NAS Pensacola CTO# 274 N2642 **Report Date** 9/1/2004 9:53:53 AM

12 Samples, 1 Trip Blank were collected on between 07/28/2004 and 07/30/2004 and were received at Accutest on 07/31/2004 properly preserved, at 3.4 Deg. C and intact. These Samples received an Accutest job number of F25789.A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix: AQ **Batch ID:** VM3

All samples were analyzed within the recommended method holding time.

Sample(s) F25763-1MS, F25763-1MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

MS/MSD Recovery for 2-Chloroethyl vinyl ether is outside control limits due to sample preservation. For method performance in clean matrix refer to Blank Spike data.

Matrix: AQ **Batch ID:** VM4

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F25811-1MS, F25811-1MSD were used as the QC samples indicated.

MS/MSD Recovery for 2-Chloroethyl vinyl ether is outside control limits. See above

Matrix: AQ **Batch ID:** VN8

All samples were analyzed within the recommended method holding time.

Sample(s) F25751-1MS, F25751-1MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

Blank Spike Recovery for Tetrachloroethylene is outside control limits. The recovery biased high, TCE not detected in the samples. Data integrity not compromised.

Matrix Spike Recoveries for 1,2-Dichloroethane, 2-Chloroethyl vinyl ether, p-Dichlorobenzene, 1,1-Dichloroethane are outside control limits. Outside control limits due to high level in sample relative to spike amount and matrix interference. For method performance in clean matrix refer to Blank Spike data.

Matrix Spike Duplicate Recovery(s) for 1,1-Dichloroethane, 1,2-Dichloroethane, 2-Chloroethyl vinyl ether, Benzene, Chlorobenzene, cis-1,2-Dichloroethylene, p-Dichlorobenzene are outside control limits. See above.

Matrix Spike Recovery(s) for Benzene, Chlorobenzene, cis-1,2-Dichloroethylene are outside control limits. Outside control limits due to high level in sample relative to spike amount.

Extractables by GCMS By Method SW846 8270C BY SIM

Matrix: AQ **Batch ID:** OP11065

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

Sample(s) F25789-10MS, F25789-10MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

F25789-10 for 2-Fluorobiphenyl: Surrogate recoveries corrected for double spike.

F25789-10 for Terphenyl-d14: Surrogate recoveries corrected for double spike.

F25789-10 for Nitrobenzene-d5: Surrogate recoveries corrected for double spike.

Volatiles by GC By Method EPA 504.1

Matrix: AQ **Batch ID:** OP11047

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

Sample(s) F25819-8MS, F25819-8MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

Extractables by GC By Method FLORIDA-PRO

Matrix: AQ **Batch ID:** OP11063

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

Sample(s) F25795-2MS, F25795-2MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

Matrix Spike Recovery(s) for TPH (C8-C40) are outside control limits. Outside control limits due to high level in sample relative to spike amount.

Metals By Method SW846 6010B

Matrix: AQ **Batch ID:** MP7000

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F25930-1MS, F25930-1MSD, F25930-1SDL, F25930-1DUP were used as the QC samples for metals.

RPD(s) for Duplicate for Lead are outside control limits. RPD acceptable due to low duplicate and sample concentrations.

RPD(s) for Serial Dilution for Lead are outside control limits. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used

Narrative prepared by:

Svetlana Izosimova, QAO

Date: September 01, 2004

Accutest Laboratories

Sample Summary

Tetra-Tech NUS

Job No: F25789

NAS Pensacola CTO# 274 N2642
Project No: N2642-WR452

Sample Number	Collected Date	Collected Time By	Received	Matrix Code	Matrix Type	Client Sample ID
F25789-1	07/30/04	09:55 WE	07/31/04	AQ	Ground Water	OLFS-2406-MW28
F25789-2	07/29/04	18:45 WE	07/31/04	AQ	Ground Water	OLFS-2406-MW29
F25789-3	07/30/04	11:30 WE	07/31/04	AQ	Ground Water	OLFS-2406-DMW34
F25789-4	07/28/04	10:15 WE	07/31/04	AQ	Ground Water	OLFS-2406-MW42S
F25789-5	07/28/04	10:30 WE	07/31/04	AQ	Ground Water	OLFS-2406-DMW42D
F25789-6	07/29/04	15:45 WE	07/31/04	AQ	Ground Water	OLFS-2406-MW43S
F25789-7	07/28/04	13:35 WE	07/31/04	AQ	Ground Water	OLFS-2406-DMW43D
F25789-8	07/28/04	17:45 WE	07/31/04	AQ	Ground Water	OLFS-2406-MW44S
F25789-9	07/29/04	17:40 WE	07/31/04	AQ	Ground Water	OLFS-2406-DMW44D
F25789-10	07/30/04	14:50 WE	07/31/04	AQ	Ground Water	OLFS-2406-MW4S
F25789-11	07/30/04	15:45 WE	07/31/04	AQ	Ground Water	OLFS-2406-MW39
F25789-12	07/30/04	16:45 WE	07/31/04	AQ	Ground Water	OLFS-2406-MW40
F25789-13	07/30/04	00:00 WE	07/31/04	AQ	Trip Blank Water	TRIP BLANK

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F25789
Account: TETRFLTA - Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

File ID: IR082006.ASC
QC Limits: 90 to 110 % Recovery

Date Analyzed: 08/20/04
Run ID: MA3937

Methods: SW846 6010B
Units: ug/l

Metal	ICV True	ICV Results	% Rec	CCV True	CCV Results	% Rec	CCV True	CCV Results	% Rec
Aluminum	anr								
Antimony									
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt									
Copper	anr								
Iron	anr								
Lead	2000	2030	101.5	2000	2020	101.0	2000	2060	103.0
Magnesium									
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Thallium									
Tin									
Vanadium									
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

0619

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F25789
Account: TETRFLTA - Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

File ID: IR082006.ASC
QC Limits: 90 to 110 % Recovery

Date Analyzed: 08/20/04
Run ID: MA3937

Methods: SW846 6010B
Units: ug/l

Metal	CCV True	CCV Results	% Rec	CCV True	CCV Results	% Rec	CCV True	CCV Results	% Rec
Aluminum	anr								
Antimony									
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt									
Copper	anr								
Iron	anr								
Lead	2000	2050	102.5	2000	2040	102.0	2000	2020	101.0
Magnesium									
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Thallium									
Tin									
Vanadium									
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

0620

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F25789
Account: TETRFLTA - Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

File ID: IR082006.ASC
QC Limits: 90 to 110 % Recovery

Date Analyzed: 08/20/04
Run ID: MA3937

Methods: SW846 6010B
Units: ug/l

Metal	CCV True	CCV Results	% Rec	CCV True	CCV Results	% Rec	CCV True	CCV Results	% Rec
Aluminum	anr								
Antimony									
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt									
Copper	anr								
Iron	anr								
Lead	2000	2000	100.0	2000	2000	100.0	2000	1990	99.5
Magnesium									
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Thallium									
Tin									
Vanadium									
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F25789
Account: TETRFLTA - Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

File ID: IR082006.ASC Date Analyzed: 08/20/04 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA3937 Units: ug/l

Metal	CCV True	CCV Results	% Rec	CCV True	CCV Results	% Rec	CCV True	CCV Results	% Rec
Aluminum	anr								
Antimony									
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt									
Copper	anr								
Iron	anr								
Lead	2000	2030	101.5	2000	1970	98.5	2000	1970	98.5
Magnesium									
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Thallium									
Tin									
Vanadium									
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

0622

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F25789
Account: TETRFLTA - Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

File ID: IR082006.ASC
QC Limits: 90 to 110 % Recovery

Date Analyzed: 08/20/04
Run ID: MA3937

Methods: SW846 6010B
Units: ug/l

Metal	CCV True	CCV Results	% Rec	CCV True	CCV Results	% Rec	CCV True	CCV Results	% Rec
Aluminum	anr								
Antimony									
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt									
Copper	anr								
Iron	anr								
Lead	2000	1980	99.0	2000	1940	97.0	2000	1900	95.0
Magnesium									
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Thallium									
Tin									
Vanadium									
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F25789
Account: TETRFLTA - Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

File ID: IR082006.ASC Date Analyzed: 08/20/04 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA3937 Units: ug/l

Metal	CCV True	CCV Results	% Rec
Aluminum	anr		
Antimony			
Arsenic	anr		
Barium	anr		
Beryllium	anr		
Cadmium	anr		
Calcium	anr		
Chromium	anr		
Cobalt			
Copper	anr		
Iron	anr		
Lead	2000	1960	98.0
Magnesium			
Manganese	anr		
Molybdenum	anr		
Nickel	anr		
Potassium	anr		
Selenium	anr		
Silver	anr		
Sodium	anr		
Thallium			
Tin			
Vanadium			
Zinc	anr		

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F25789
Account: TETRFLTA - Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

File ID: IR082006.ASC
QC Limits: result < RL

Date Analyzed: 08/20/04
Run ID: MA3937

Methods: SW846 6010B
Units: ug/l

Metal	RL	IDL	ICB raw	final	CCB raw	final	CCB raw	final	CCB raw	final
Aluminum	200	6.6	anr							
Antimony	5.0	1.5								
Arsenic	10	2.8	anr							
Barium	200	.5	anr							
Beryllium	4.0	.3	anr							
Cadmium	5.0	.3	anr							
Calcium	1000	3.8	anr							
Chromium	10	.4	anr							
Cobalt	50	.5								
Copper	25	.44	anr							
Iron	300	7.1	anr							
Lead	5.0	1.2	3.5	<5.0	1.8	<5.0	4.0	<5.0	3.5	<5.0
Magnesium	5000	9.9								
Manganese	15	.16	anr							
Molybdenum	50	.75	anr							
Nickel	40	1.1	anr							
Potassium	5000	14	anr							
Selenium	10	2	anr							
Silver	10	.6	anr							
Sodium	5000	150	anr							
Thallium	10	1.5								
Tin	50	1.5								
Vanadium	50	.47								
Zinc	20	.59	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F25789
Account: TETRFLTA - Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

File ID: IR082006.ASC
QC Limits: result < RL

Date Analyzed: 08/20/04
Run ID: MA3937

Methods: SW846 6010B
Units: ug/l

Metal	RL	IDL	CCB raw	final	CCB raw	final	CCB raw	final	CCB raw	final
Aluminum	200	6.6	anr							
Antimony	5.0	1.5								
Arsenic	10	2.8	anr							
Barium	200	.5	anr							
Beryllium	4.0	.3	anr							
Cadmium	5.0	.3	anr							
Calcium	1000	3.8	anr							
Chromium	10	.4	anr							
Cobalt	50	.5								
Copper	25	.44	anr							
Iron	300	7.1	anr							
Lead	5.0	1.2	2.8	<5.0	0.97	<5.0	1.0	<5.0	2.4	<5.0
Magnesium	5000	9.9								
Manganese	15	.16	anr							
Molybdenum	50	.75	anr							
Nickel	40	1.1	anr							
Potassium	5000	14	anr							
Selenium	10	2	anr							
Silver	10	.6	anr							
Sodium	5000	150	anr							
Thallium	10	1.5								
Tin	50	1.5								
Vanadium	50	.47								
Zinc	20	.59	anr							

(*) Outside of QC limits
(anr) Analyte not requested

0615

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F25789
Account: TETRFLTA - Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

File ID: IR082006.ASC
QC Limits: result < RL

Date Analyzed: 08/20/04
Run ID: MA3937

Methods: SW846 6010B
Units: ug/l

Metal	RL	IDL	CCB raw	final	CCB raw	final	CCB raw	final	CCB raw	final
Aluminum	200	6.6	anr							
Antimony	5.0	1.5								
Arsenic	10	2.8	anr							
Barium	200	.5	anr							
Beryllium	4.0	.3	anr							
Cadmium	5.0	.3	anr							
Calcium	1000	3.8	anr							
Chromium	10	.4	anr							
Cobalt	50	.5								
Copper	25	.44	anr							
Iron	300	7.1	anr							
Lead	5.0	1.2	1.5	<5.0	2.1	<5.0	1.9	<5.0	2.0	<5.0
Magnesium	5000	9.9								
Manganese	15	.16	anr							
Molybdenum	50	.75	anr							
Nickel	40	1.1	anr							
Potassium	5000	14	anr							
Selenium	10	2	anr							
Silver	10	.6	anr							
Sodium	5000	150	anr							
Thallium	10	1.5								
Tin	50	1.5								
Vanadium	50	.47								
Zinc	20	.59	anr							

(*) Outside of QC limits
(anr) Analyte not requested

0616

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F25789
Account: TETRFLTA - Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

File ID: IR082006.ASC
QC Limits: result < RL

Date Analyzed: 08/20/04
Run ID: MA3937

Methods: SW846 6010B
Units: ug/l

Metal	RL	IDL	CCB raw	final	CCB raw	final	CCB raw	final	CCB raw	final
Aluminum	200	6.6	anr							
Antimony	5.0	1.5								
Arsenic	10	2.8	anr							
Barium	200	.5	anr							
Beryllium	4.0	.3	anr							
Cadmium	5.0	.3	anr							
Calcium	1000	3.8	anr							
Chromium	10	.4	anr							
Cobalt	50	.5								
Copper	25	.44	anr							
Iron	300	7.1	anr							
Lead	5.0	1.2	1.3	<5.0	2.9	<5.0	2.5	<5.0	2.5	<5.0
Magnesium	5000	9.9								
Manganese	15	.16	anr							
Molybdenum	50	.75	anr							
Nickel	40	1.1	anr							
Potassium	5000	14	anr							
Selenium	10	2	anr							
Silver	10	.6	anr							
Sodium	5000	150	anr							
Thallium	10	1.5								
Tin	50	1.5								
Vanadium	50	.47								
Zinc	20	.59	anr							

(*) Outside of QC limits
(anr) Analyte not requested

0617

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F25789
Account: TETRFLTA - Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

QC Batch ID: MP7000
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 08/18/04

Metal	RL	IDL	MB raw	final
Aluminum	200	6.6		
Antimony	5.0	1.5		
Arsenic	10	2.8		
Barium	200	.5		
Beryllium	4.0	.3		
Cadmium	5.0	.3		
Calcium	1000	3.8		
Chromium	10	.4		
Cobalt	50	.5		
Copper	25	.44		
Iron	300	7.1	anr	
Lead	5.0	1.2	1.7	<5.0
Magnesium	5000	9.9		
Manganese	15	.16	anr	
Molybdenum	50	.75		
Nickel	40	1.1		
Potassium	5000	14		
Selenium	10	2		
Silver	10	.6		
Sodium	5000	150		
Thallium	10	1.5		
Tin	50	1.5		
Vanadium	50	.47		
Zinc	20	.59		

Associated samples MP7000: F25789-1, F25789-3, F25789-4, F25789-5, F25789-6, F25789-7, F25789-8, F25789-9, F25789-10, F25789-11, F25789-12

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

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F25789
Account: TETRFLTA - Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

QC Batch ID: MP7000
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 08/18/04

Metal	BSP Result	Spikelot MPFLICP	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron	anr			
Lead	1000	1000	100.0	80-120
Magnesium				
Manganese	anr			
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Thallium				
Tin				
Vanadium				
Zinc				

Associated samples MP7000: F25789-1, F25789-3, F25789-4, F25789-5, F25789-6, F25789-7, F25789-8, F25789-9, F25789-10, F25789-11, F25789-12

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

MP 2000

Metals Digestion Log: Water

Method of Digestion: SW846-3010A/3005A/EPA 200.7/3030C (CIRCLE ONE) Temp: 94° Thermometer ID 104

	HNO3	HCl	Spk. Sol.*	Amount Used*
Added:			1 Acc 833	.25ml
			2 Acc 344	1.0ml
			3 Mct 1264	.5ml
Mfg:	Fisher	Fisher		
Lot#	1103040	~~0274480~~ 4103101	Digestion Tube Lot#	A 311LS162

Sample #	Init. Vol/Wt	Fin. Vol/Wt	Date	Comments
MB 8/18/04	50 mL	50ml	8/18/04	
SB				
MS ~~F25882-2~~ F25930-1.11				
MSD				
Dup				
1 QC				
2 F25930-2.11				
3 -3.11				
4 -4.11				
5 F25789-1.1				
6 -3.1				
7 -4.5				
8 -5.5				
9 -6.5				Sediment
10 -7.5				
11 -8.5				
12 -9.5				
13 -10.13				
14 -11.13				Sediment
15 -12.13				Sediment
16 F26045-1.7				Sediment
17 F25932-1.16				
18 -2.16				
19 -5.16				Sediment
20				

Analyst [signature] Date 8/18/04

QC Review [signature] Date 8.18.04

Rev. 01/12/04 DJM * Used For SB, MS, MSD Page Number: 000035

0646

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F25789
Account: TETRFLTA - Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

File ID: IR082006.ASC
Analyst: DM
Parameters: Pb

Date Analyzed: 08/20/04
Run ID: MA3937

Methods: SW846 6010B

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:13	MA3937-ICV1	1		
10:15	MA3937-ICB1	1		
10:21	MA3937-CRI1	1		
10:27	MA3937-ICSA1	1		
10:28	MA3937-ICSAB1	1		
10:30	MA3937-CCV1	1		
10:35	MA3937-CCB1	1		
10:39	MP6984-MB1	1		
10:42	MP6984-B1	1		
10:48	F25756-11	1		(sample used for QC only; not part of login F25789)
10:52	MP6984-D1	1		
10:55	MP6984-SD1	5		
10:59	MP6984-S1	1		
11:02	MP6984-S2	1		
11:08	ZZZZZZ	1		
11:12	ZZZZZZ	1		
11:16	ZZZZZZ	1		
11:19	MA3937-CCV2	1		
11:24	MA3937-CCB2	1		
11:28	ZZZZZZ	1		
11:32	ZZZZZZ	1		
11:36	ZZZZZZ	1		
11:39	ZZZZZZ	1		
11:43	ZZZZZZ	1		
11:46	ZZZZZZ	1		
11:50	ZZZZZZ	1		
11:54	ZZZZZZ	1		
11:57	ZZZZZZ	1		
12:01	ZZZZZZ	1		
12:05	MA3937-CCV3	1		
12:09	MA3937-CCB3	1		
12:28	ZZZZZZ	1		
12:32	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F25789
Account: TETRFLTA - Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

File ID: IR082006.ASC Date Analyzed: 08/20/04 Methods: SW846 6010B
Analyst: DM Run ID: MA3937
Parameters: Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:35	ZZZZZZ	1		
12:39	ZZZZZZ	1		
12:42	ZZZZZZ	1		
12:46	ZZZZZZ	1		
12:52	MP6986-MB1	1		
12:56	MP6986-B1	1		
13:02	F25860-3	1		(sample used for QC only; not part of login F25789)
13:06	MP6986-D1	1		
13:10	MA3937-CCV4	1		
13:14	MA3937-CCB4	1		
13:18	MP6986-SD1	5		
13:21	MP6986-S1	1		
13:25	MP6986-S2	1		
13:32	ZZZZZZ	1		
13:35	ZZZZZZ	1		
13:39	ZZZZZZ	1		
13:42	ZZZZZZ	1		
13:46	ZZZZZZ	1		
13:50	ZZZZZZ	1		
13:53	ZZZZZZ	1		
13:57	MA3937-CCV5	1		
14:02	MA3937-CCB5	1		
14:05	ZZZZZZ	1		
14:09	ZZZZZZ	1		
14:12	ZZZZZZ	1		
14:16	ZZZZZZ	1		
14:20	ZZZZZZ	1		
14:23	ZZZZZZ	1		
14:27	ZZZZZZ	1		
14:31	ZZZZZZ	1		
14:34	ZZZZZZ	1		
14:38	ZZZZZZ	1		
14:41	MA3937-CCV6	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F25789
Account: TETRFLTA - Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

File ID: IR082006.ASC Date Analyzed: 08/20/04 Methods: SW846 6010B
Analyst: DM Run ID: MA3937
Parameters: Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:46	MA3937-CCB6	1		
14:50	ZZZZZZ	1		
14:53	ZZZZZZ	1		
14:57	MP6998-MB1	1		
15:01	MP6998-B1	1		
15:07	F26029-3	1		(sample used for QC only; not part of login F25789)
15:11	MP6998-D1	1		
15:14	MP6998-SD1	5		
15:18	MP6998-S1	1		
15:22	MP6998-S2	1		
15:28	ZZZZZZ	1		
15:32	MA3937-CCV7	1		
15:36	MA3937-CCB7	1		
15:40	ZZZZZZ	1		
15:44	ZZZZZZ	1		
15:47	ZZZZZZ	1		
15:51	ZZZZZZ	1		
15:55	ZZZZZZ	1		
15:58	ZZZZZZ	1		
16:02	ZZZZZZ	1		
16:05	ZZZZZZ	1		
16:09	ZZZZZZ	1		
16:13	ZZZZZZ	1		
16:16	MA3937-CCV8	1		
16:21	MA3937-CCB8	1		
16:25	ZZZZZZ	1		
16:28	ZZZZZZ	1		
16:33	MA3937-CRI2	1		
16:36	MA3937-CCV9	1		
16:41	MA3937-CCB9	1		
16:51	MP7005-MB1	1		
17:06	MP7005-B1	1		
17:11	F25933-4	1		(sample used for QC only; not part of login F25789)

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F25789
Account: TETRFLTA - Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

File ID: IR082006.ASC Date Analyzed: 08/20/04 Methods: SW846 6010B
Analyst: DM Run ID: MA3937
Parameters: Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
17:15	MP7005-D1	1		
17:19	MP7005-SD1	5		
17:22	MP7005-S1	1		
17:26	MP7005-S2	1		
17:31	ZZZZZZ	1		
17:35	ZZZZZZ	1		
17:39	ZZZZZZ	1		
17:42	MA3937-CCV10	1		
17:47	MA3937-CCB10	1		
17:50	ZZZZZZ	1		
17:54	ZZZZZZ	1		
17:58	ZZZZZZ	1		
18:01	ZZZZZZ	1		
18:05	ZZZZZZ	1		
18:09	ZZZZZZ	1		
18:12	ZZZZZZ	1		
18:16	ZZZZZZ	1		
18:19	ZZZZZZ	1		
18:23	ZZZZZZ	1		
18:27	MA3937-CCV11	1		
18:31	MA3937-CCB11	1		
18:35	ZZZZZZ	1		
18:39	ZZZZZZ	1		
18:42	ZZZZZZ	1		
18:46	ZZZZZZ	1		
18:49	MP7005-MB2	1		
18:53	MP7004-MB1	1		
18:57	MP7004-B1	1		
19:01	F25768-1	1		(sample used for QC only; not part of login F25789)
19:05	MP7004-D1	1		
19:08	ZZZZZZ	1		
19:12	MA3937-CCV12	1		
19:17	MA3937-CCB12	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F25789
Account: TETRFLTA - Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

File ID: IR082006.ASC Date Analyzed: 08/20/04 Methods: SW846 6010B
Analyst: DM Run ID: MA3937
Parameters: Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
19:20	MP7004-B2	1		
19:25	MP7004-MB2	1		
19:29	MP7004-B3	1		
19:33	MP7004-SD1	5		
19:37	MP7000-MB1	1		
19:40	MP7000-B1	1		
19:46	F25930-1	1		(sample used for QC only; not part of login F25789)
19:50	MP7000-D1	1		
19:53	MP7000-SD1	5		
19:57	MP7000-S1	1		
20:01	MA3937-CCV13	1		
20:06	MA3937-CCB13	1		
20:10	MP7000-S2	1		
20:15	ZZZZZZ	1		
20:19	ZZZZZZ	1		
20:23	ZZZZZZ	1		
20:26	F25789-1	1		
20:30	F25789-3	1		
20:33	F25789-4	1		
20:37	F25789-5	1		
20:41	F25789-6	1		
20:44	F25789-7	1		
20:48	MA3937-CCV14	1		
20:53	MA3937-CCB14	1		
20:56	F25789-8	1		
21:00	F25789-9	1		
21:03	F25789-10	1		
21:07	F25789-11	1		
21:11	F25789-12	1		
----------> Last reportable sample/prep for job F25789				
21:14	ZZZZZZ	1		
21:18	ZZZZZZ	1		
21:22	ZZZZZZ	1		
21:25	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F25789
Account: TETRFLTA - Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

File ID: IR082006.ASC Date Analyzed: 08/20/04 Methods: SW846 6010B
Analyst: DM Run ID: MA3937
Parameters: Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
21:30	MA3937-CRI3	1		
21:33	MA3937-CCV15	1		
21:38	MA3937-CCB15	1		

----------> Last reportable CCB for job F25789
Refer to raw data for calibration curve and standards.

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO:	**G. WALKER**	**DATE:**	**SEPTEMBER 15, 2004**
FROM:	**ETHAN G. LEE**	**COPIES:**	**DV FILE**

SUBJECT: **INORGANIC DATA VALIDATION – LEAD**
NAS PENSACOLA – CTO 274
SAMPLE DELIVERY GROUP (SDG) – F25819

SAMPLES: 6/AQUEOUS/

OLFS-2406-DMW13	OLFS-2406-DMW32	OLFS-2406-DMW37
OLFS-2406-MW38	OLFS-2406-MW41	OLFS-2406-RB01

Overview

The sample set for NAS Pensacola, CTO 274, SDG F25819, consists of five (5) aqueous environmental samples and one (1) rinse blank.

The samples were analyzed for lead. The samples were collected by Tetra Tech NUS on July 31, 2004 and analyzed by Accutest Laboratories Southeast, Inc. Lead analyses were conducted using SW846 method 6010B.

Metals analyses were conducted using Inductively Coupled Plasma (ICP) methodologies.

These data were evaluated based on the following parameters:

* • Data Completeness
* • Holding Times
* • Calibration Recoveries
  • Laboratory Blank Analyses
* • Detection Limits

* - All quality control criteria were met for this parameter.

Laboratory Blank Analyses

The following contaminant was detected in the laboratory method/preparation blanks at the following maximum concentration:

Analyte	Maximum Concentration	Action Level
Lead	2.7 ug/L	13.5 ug/L

An action level of 5X the maximum concentration was used to evaluate the sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. The positive result below the action level for lead was qualified as nondetected (U) due to laboratory blank contamination.

Executive Summary

Laboratory Performance: Lead was present in the laboratory method/preparation blanks.

Other Factors Affecting Data Quality: None.

The data for these analyses were reviewed with reference to the "National Functional Guidelines for Inorganic Review", July 2002 and the NFESC document entitled "Navy IRCDQM" (September 1999).

The text of this report has been formulated to address only those problem areas affecting data quality.

"I attest that the data referenced herein were validated according to the agreed upon validation criteria as specified in the NFESC Guidelines and the Quality Assurance Project Plan (QAPP)."

Tetra Tech NUS
Ethan G. Lee
Environmental Scientist

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:

1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as reported by the Laboratory
3. Appendix C - Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is less than sample activity

PROJ_NO: 2642

SDG: F25819 MEDIA: WATER DATA FRACTION: M

nsample	OLFS-2406-DMW13
samp_date	7/31/2004
lab_id	F25819-4
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
LEAD	2.9	U	

nsample	OLFS-2406-DMW32
samp_date	7/31/2004
lab_id	F25819-3
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
LEAD	2.9	U	

nsample	OLFS-2406-DMW37
samp_date	7/31/2004
lab_id	F25819-5
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
LEAD	2.9	U	

PROJ_NO: 2642

SDG: F25819 MEDIA: WATER DATA FRACTION: M

nsample	OLFS-2406-MW38
samp_date	7/31/2004
lab_id	F25819-2
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
LEAD	2.9	U	

nsample	OLFS-2406-MW41
samp_date	7/31/2004
lab_id	F25819-1
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
LEAD	11.8	U	A

nsample	OLFS-2406-RB01
samp_date	7/31/2004
lab_id	F25819-8
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
LEAD	2.9	U	

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-DMW13		
Lab Sample ID:	F25819-4	**Date Sampled:**	07/31/04
Matrix:	AQ - Ground Water	**Date Received:**	08/03/04
		Percent Solids:	n/a
Project:	NAS Pensacola CTO# 274 N2642		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Lead	2.9 U	5.0	2.9	ug/l	1	08/21/04	08/24/04	DM	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA3944
(2) Prep QC Batch: MP7017

RL = Reporting Limit
MDL = Method Detection Limit

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

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-DMW32		
Lab Sample ID:	F25819-3	**Date Sampled:**	07/31/04
Matrix:	AQ - Ground Water	**Date Received:**	08/03/04
		Percent Solids:	n/a
Project:	NAS Pensacola CTO# 274 N2642		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Lead	2.9 U	5.0	2.9	ug/l	1	08/21/04	08/24/04	DM	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA3944
(2) Prep QC Batch: MP7017

RL = Reporting Limit
MDL = Method Detection Limit

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

0538

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-DMW37		
Lab Sample ID:	F25819-5	**Date Sampled:**	07/31/04
Matrix:	AQ - Ground Water	**Date Received:**	08/03/04
		Percent Solids:	n/a
Project:	NAS Pensacola CTO# 274 N2642		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By		Method	Prep Method
Lead	2.9 U	5.0	2.9	ug/l	1	08/21/04	08/24/04	DM	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA3944
(2) Prep QC Batch: MP7017

RL = Reporting Limit
MDL = Method Detection Limit

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

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-MW38		
Lab Sample ID:	F25819-2	**Date Sampled:**	07/31/04
Matrix:	AQ - Ground Water	**Date Received:**	08/03/04
		Percent Solids:	n/a
Project:	NAS Pensacola CTO# 274 N2642		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Lead	2.9 U	5.0	2.9	ug/l	1	08/21/04	08/24/04	DM	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA3944
(2) Prep QC Batch: MP7017

RL = Reporting Limit
MDL = Method Detection Limit

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

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-MW41		
Lab Sample ID:	F25819-1	**Date Sampled:**	07/31/04
Matrix:	AQ - Ground Water	**Date Received:**	08/03/04
		Percent Solids:	n/a
Project:	NAS Pensacola CTO# 274 N2642		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Lead	11.8	5.0	2.9	ug/l	1	08/21/04	08/24/04	DM	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA3944
(2) Prep QC Batch: MP7017

RL = Reporting Limit
MDL = Method Detection Limit

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

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-RB01		
Lab Sample ID:	F25819-8	**Date Sampled:**	07/31/04
Matrix:	AQ - Equipment Blank	**Date Received:**	08/03/04
		Percent Solids:	n/a
Project:	NAS Pensacola CTO# 274 N2642		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By		Method	Prep Method
Lead	2.9 U	5.0	2.9	ug/l	1	08/21/04	08/24/04	DM	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA3944
(2) Prep QC Batch: MP7017

RL = Reporting Limit
MDL = Method Detection Limit

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

APPENDIX C

SUPPORT DOCUMENTATION

HOLDTIME

SDG F25819

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
M	UG/L	OLFS-2406-RB01	F25819-8	NM	07/31/2004	08/21/2004	08/24/2004	21	3	24
M	UG/L	OLFS-2406-DMW13	F25819-4	NM	07/31/2004	08/21/2004	08/24/2004	21	3	24
M	UG/L	OLFS-2406-DMW32	F25819-3	NM	07/31/2004	08/21/2004	08/24/2004	21	3	24
M	UG/L	OLFS-2406-DMW37	F25819-5	NM	07/31/2004	08/21/2004	08/24/2004	21	3	24
M	UG/L	OLFS-2406-MW41	F25819-1	NM	07/31/2004	08/21/2004	08/24/2004	21	3	24
M	UG/L	OLFS-2406-MW38	F25819-2	NM	07/31/2004	08/21/2004	08/24/2004	21	3	24
	%	OLFS-2406-MW41-PAH	F25819-1	NM	07/31/2004	08/06/2004	08/12/2004	6	6	12
	%	OLFS-2406-RB01-PAH	F25819-8	NM	07/31/2004	08/06/2004	08/12/2004	6	6	12
	%	OLFS-2406-MW38-PAH	F25819-2	NM	07/31/2004	08/06/2004	08/12/2004	6	6	12
	UG/L	OLFS-2406-MW41-PAH	F25819-1	NM	07/31/2004	08/06/2004	08/12/2004	6	6	12
	UG/L	OLFS-2406-RB01-PAH	F25819-8	NM	07/31/2004	08/06/2004	08/12/2004	6	6	12
	UG/L	OLFS-2406-MW38-PAH	F25819-2	NM	07/31/2004	08/06/2004	08/12/2004	6	6	12
EDB	%	OLFS-2406-MW38	F25819-2	NM	07/31/2004	08/04/2004	08/05/2004	4	1	5
EDB	%	OLFS-2406-MW41	F25819-1	NM	07/31/2004	08/04/2004	08/05/2004	4	1	5
EDB	%	OLFS-2406-RB01	F25819-8	NM	07/31/2004	08/04/2004	08/05/2004	4	1	5

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
EDB	%	TRIP BLANK	F25819-7	NM	07/31/2004	08/04/2004	08/05/2004	4	1	5
EDB	UG/L	OLFS-2406-MW41	F25819-1	NM	07/31/2004	08/04/2004	08/05/2004	4	1	5
EDB	UG/L	OLFS-2406-RB01	F25819-8	NM	07/31/2004	08/04/2004	08/05/2004	4	1	5
EDB	UG/L	TRIP BLANK	F25819-7	NM	07/31/2004	08/04/2004	08/05/2004	4	1	5
EDB	UG/L	OLFS-2406-MW38	F25819-2	NM	07/31/2004	08/04/2004	08/05/2004	4	1	5
OV	%	OLFS-2406-DMW32	F25819-3	NM	07/31/2004	08/11/2004	08/11/2004	11	0	11
OV	%	OLFS-2406-DMW37	F25819-5	NM	07/31/2004	08/11/2004	08/11/2004	11	0	11
OV	%	OLFS-2406-MW38	F25819-2	NM	07/31/2004	08/11/2004	08/11/2004	11	0	11
OV	%	OLFS-2406-MW41	F25819-1	NM	07/31/2004	08/12/2004	08/12/2004	12	0	12
OV	%	OLFS-2406-RB01	F25819-8	NM	07/31/2004	08/11/2004	08/11/2004	11	0	11
OV	%	TRIP BLANK	F25819-6	NM	07/31/2004	08/11/2004	08/11/2004	11	0	11
OV	%	OLFS-2406-DMW13	F25819-4	NM	07/31/2004	08/11/2004	08/11/2004	11	0	11
OV	UG/L	OLFS-2406-RB01	F25819-8	NM	07/31/2004	08/11/2004	08/11/2004	11	0	11
OV	UG/L	TRIP BLANK	F25819-6	NM	07/31/2004	08/11/2004	08/11/2004	11	0	11
OV	UG/L	OLFS-2406-DMW13	F25819-4	NM	07/31/2004	08/11/2004	08/11/2004	11	0	11
OV	UG/L	OLFS-2406-DMW32	F25819-3	NM	07/31/2004	08/11/2004	08/11/2004	11	0	11
OV	UG/L	OLFS-2406-DMW37	F25819-5	NM	07/31/2004	08/11/2004	08/11/2004	11	0	11
OV	UG/L	OLFS-2406-MW38	F25819-2	NM	07/31/2004	08/11/2004	08/11/2004	11	0	11

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	UG/L	OLFS-2406-MW41	F25819-1	NM	07/31/2004	08/12/2004	08/12/2004	12	0	12
TPH	MG/L	OLFS-2406-MW38	F25819-2	NM	07/31/2004	08/06/2004	08/08/2004	6	2	8
TPH	MG/L	OLFS-2406-RB01	F25819-8	NM	07/31/2004	08/06/2004	08/08/2004	6	2	8
TPH	MG/L	OLFS-2406-MW41	F25819-1	NM	07/31/2004	08/06/2004	08/08/2004	6	2	8

TETRA TECH NUS, INC.

CHAIN OF CUSTODY

NUMBER 42 F25817

PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
N2642	OLF Sanford	Gerry Walker	385-9899 (850)	Accutest Labs SE (Sue Bell)
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
William Howard Engle		Howard Engle	850-385-9899	4405 Vineland Rd Ste C15
		CARRIER/WAYBILL NUMBER		CITY, STATE
				Orlando, FL 32811-7363

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): 3G 3G 2G 2G 1P

PRESERVATIVE USED: HCl, $H_2S_2O_3$, N/A, H_2SO_4, HNO_3

	DATE YEAR 2004	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	VOCs (8260)	EDB (504.1)	PAHs (8270 sim)	TRPH (FL-PRO)	Total Lead (6010)			COMMENTS
1	7/31	1050	OLFS-2406-MW41	MW41	40.2	56	GW	G	11	X	X	X	X	X✓			All times are
2		1140	OLFS-2406-MW38	MW38	41.22	56			11	X	X	X	X	X✓			Central
3		1300	OLFS-2406-DMW32	MW32	28.13	135.7			4	X				X✓			
4		1430	OLFS-2406-DMW13	DMW13	43.73	142			4	X				X✓			see Work Release
5		1550	OLFS-2406-DMW37	DMW37	47.09	136			4	X				X✓			N2642-WR452
6/7			Trip Blank				QC		6	X	X						for detailed
8	7/31	1450	OLFS-2406-RB1						11	X	X	X	X	X✓			parameter list

1. RELINQUISHED BY: William Howard Engle	DATE 8/2/04	TIME 1630	1. RECEIVED BY: FX	DATE	TIME
2. RELINQUISHED BY: FX	DATE	TIME	2. RECEIVED BY: Carla	DATE 8/3/04	TIME 09:00
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS: 3:2 3-6

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

FORM NO. TINUS 4/0

Southeast
ACCUTEST
Laboratories

09/02/04

Technical Report for

Tetra-Tech NUS

NAS Pensacola CTO# 274 N2642

N2642-WR452

Accutest Job Number: F25819

Sampling Date: 07/31/04

Report to:

Tetra-Tech,Inc.
661 Andersen Drive
Foster Plaza 7
Pittsburgh, PA 15520-2745

ATTN: Amy Thomson

Total number of pages in report: 773

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

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.

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Tetra-Tech NUS **Job No:** F25819

Site: NAS Pensacola CTO# 274 N2642 **Report Date** 9/2/2004 1:47:12 PM

6 Samples and 1 Trip Blank were collected on 07/31/2004 and were received at Accutest on 08/03/2004 properly preserved, at 3.6 Deg. C and intact. These Samples received an Accutest job number of F25819.A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix: AQ **Batch ID:** VB1034

All samples were analyzed within the recommended method holding time.

Sample(s) F25844-1MS, F25844-1MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

MS/MSD Recovery for Trichloroethylene is outside control limits. Outside control limits due to high level in sample relative to spike amount. For method performance in clean matrix refer to Blank Spike data

RPD(s) for MSD for 1,2-Dichloropropane, 2-Chloroethyl vinyl ether are outside control limits for sample F25844-1MSD, F25844-1MSD. Probable cause due to sample non-homogeneity.

Matrix: AQ **Batch ID:** VM4

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F25811-1MS, F25811-1MSD were used as the QC samples indicated.

MS/MSD Recovery for 2-Chloroethyl vinyl ether is outside control limits due to sampe preservation.

Extractables by GCMS By Method SW846 8270C BY SIM

Matrix: AQ **Batch ID:** OP11065

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F25789-10MS, F25789-10MSD were used as the QC samples indicated.

Volatiles by GC By Method EPA 504.1

Matrix: AQ **Batch ID:** OP11047

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F25819-8MS, F25819-8MSD were used as the QC samples indicated.

F25819-8 for 4-Bromofluorobenzene: Surrogate recoveries corrected for double spike.

F25819-7 for 4-Bromofluorobenzene: Surrogate recoveries corrected for double spike.

Extractables by GC By Method FLORIDA-PRO

Matrix: AQ **Batch ID:** OP11063

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

Sample(s) F25795-2MS, F25795-2MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

Matrix Spike Recovery(s) for TPH (C8-C40) are outside control limits. Outside control limits due to high level in sample relative to spike amount.

Metals By Method SW846 6010B

Matrix: AQ **Batch ID:** MP7017

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F25954-1DUP, F25954-1MS, F25954-1MSD, F25954-1SDL were used as the QC samples for metals.

RPD(s) for Serial Dilution for Lead are outside control limits. Probable cause due to sample non-homogeneity.

MP7017-SD1 for Lead: Serial dilution indicates possible matrix interference.

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data QualityObjectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used

Narrative prepared by:

Svetlana Izosimova, QAO

Date: September 02, 2004

Accutest Laboratories

Sample Summary

Tetra-Tech NUS

Job No: F25819

NAS Pensacola CTO# 274 N2642
Project No: N2642-WR452

Sample Number	Collected Date	Collected Time By	Received	Matrix Code	Matrix Type	Client Sample ID
F25819-1	07/31/04	10:50 WH	08/03/04	AQ	Ground Water	OLFS-2406-MW41
F25819-2	07/31/04	11:40 WH	08/03/04	AQ	Ground Water	OLFS-2406-MW38
F25819-3	07/31/04	13:00 WH	08/03/04	AQ	Ground Water	OLFS-2406-DMW32
F25819-4	07/31/04	14:30 WH	08/03/04	AQ	Ground Water	OLFS-2406-DMW13
F25819-5	07/31/04	15:50 WH	08/03/04	AQ	Ground Water	OLFS-2406-DMW37
F25819-6	07/31/04	00:00 WH	08/03/04	AQ	Trip Blank Water	TRIP BLANK
F25819-7	07/31/04	00:00 WH	08/03/04	AQ	Trip Blank Water	TRIP BLANK
F25819-8	07/31/04	14:50 WH	08/03/04	AQ	Equipment Blank	OLFS-2406-RB01

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F25819
Account: TETRFLTA - Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

File ID: IR082407.ASC Date Analyzed: 08/24/04 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA3944 Units: ug/l

Metal	ICV True	ICV Results	% Rec	CCV True	CCV Results	% Rec	CCV True	CCV Results	% Rec
Aluminum									
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt									
Copper	anr								
Iron	anr								
Lead	2000	2040	102.0	2000	2050	102.5	2000	1970	98.5
Magnesium									
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium									
Selenium	anr								
Silver	anr								
Sodium	anr								
Thallium	anr								
Tin									
Vanadium									
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

0546

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F25819
Account: TETRFLTA - Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

File ID: IR082407.ASC Date Analyzed: 08/24/04 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA3944 Units: ug/l

Metal	CCV True	CCV Results	% Rec	CCV True	CCV Results	% Rec	CCV True	CCV Results	% Rec
Aluminum									
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt									
Copper	anr								
Iron	anr								
Lead	2000	1970	98.5	2000	1990	99.5	2000	1990	99.5
Magnesium									
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium									
Selenium	anr								
Silver	anr								
Sodium	anr								
Thallium	anr								
Tin									
Vanadium									
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

0547

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F25819
Account: TETRFLTA - Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

File ID: IR082407.ASC Date Analyzed: 08/24/04 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA3944 Units: ug/l

Metal	CCV True	CCV Results	% Rec
Aluminum			
Antimony	anr		
Arsenic	anr		
Barium	anr		
Beryllium	anr		
Cadmium	anr		
Calcium			
Chromium	anr		
Cobalt			
Copper	anr		
Iron	anr		
Lead	2000	2010	100.5
Magnesium			
Manganese	anr		
Molybdenum			
Nickel	anr		
Potassium			
Selenium	anr		
Silver	anr		
Sodium	anr		
Thallium	anr		
Tin			
Vanadium			
Zinc	anr		

(*) Outside of QC limits
(anr) Analyte not requested

0548

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F25819
Account: TETRFLTA - Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

QC Batch ID: MP7017
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 08/21/04

Metal	RL	IDL	MB raw	final
Aluminum	200	6.6		
Antimony	5.0	1.5		
Arsenic	10	2.8		
Barium	200	.5		
Beryllium	4.0	.3		
Cadmium	5.0	.3		
Calcium	1000	3.8		
Chromium	10	.4		
Cobalt	50	.5		
Copper	25	.44		
Iron	300	7.1		
Lead	5.0	1.2	1.7	<5.0
Magnesium	5000	9.9		
Manganese	15	.16		
Molybdenum	50	.75		
Nickel	40	1.1		
Potassium	5000	14		
Selenium	10	2		
Silver	10	.6		
Sodium	5000	150		
Thallium	10	1.5		
Tin	50	1.5		
Vanadium	50	.47		
Zinc	20	.59		

Associated samples MP7017: F25819-1, F25819-2, F25819-3, F25819-4, F25819-5, F25819-8

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

0554

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F25819
Account: TETRFLTA - Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

File ID: IR082407.ASC
QC Limits: result < RL

Date Analyzed: 08/24/04
Run ID: MA3944

Methods: SW846 6010B
Units: ug/l

Metal	RL	IDL	ICB raw	final	CCB raw	final	CCB raw	final	CCB raw	final
Aluminum	200	6.6								
Antimony	5.0	1.5	anr							
Arsenic	10	2.8	anr							
Barium	200	.5	anr							
Beryllium	4.0	.3	anr							
Cadmium	5.0	.3	anr							
Calcium	1000	3.8								
Chromium	10	.4	anr							
Cobalt	50	.5								
Copper	25	.44	anr							
Iron	300	7.1	anr							
Lead	5.0	1.2	2.7	<5.0	1.7	<5.0	2.6	<5.0	1.6	<5.0
Magnesium	5000	9.9								
Manganese	15	.16	anr							
Molybdenum	50	.75								
Nickel	40	1.1	anr							
Potassium	5000	14								
Selenium	10	2	anr							
Silver	10	.6	anr							
Sodium	5000	150	anr							
Thallium	10	1.5	anr							
Tin	50	1.5								
Vanadium	50	.47								
Zinc	20	.59	anr							

(*) Outside of QC limits
(anr) Analyte not requested

0543

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F25819
Account: TETRFLTA - Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

File ID: IR082407.ASC
QC Limits: result < RL

Date Analyzed: 08/24/04
Run ID: MA3944

Methods: SW846 6010B
Units: ug/l

Metal	RL	IDL	CCB raw	final	CCB raw	final	CCB raw	final
Aluminum	200	6.6						
Antimony	5.0	1.5						
Arsenic	10	2.8	anr					
Barium	200	.5	anr					
Beryllium	4.0	.3	anr					
Cadmium	5.0	.3	anr					
Calcium	1000	3.8						
Chromium	10	.4	anr					
Cobalt	50	.5						
Copper	25	.44	anr					
Iron	300	7.1	anr					
Lead	5.0	1.2	1.8	<5.0	2.4	<5.0	0.57	<5.0
Magnesium	5000	9.9						
Manganese	15	.16	anr					
Molybdenum	50	.75						
Nickel	40	1.1	anr					
Potassium	5000	14						
Selenium	10	2	anr					
Silver	10	.6	anr					
Sodium	5000	150	anr					
Thallium	10	1.5	anr					
Tin	50	1.5						
Vanadium	50	.47						
Zinc	20	.59	anr					

(*) Outside of QC limits
(anr) Analyte not requested

0544

MP 7017

Metals Digestion Log: Water

Method of Digestion: SW846-3010A/3005A/EPA 200.7/3030C (CIRCLE ONE) Temp: 73° Thermometer ID 104

	HNO3	HCl	Spk. Sol.*	Amount Used*
Added:			1 Acc 353	.25 ml
			2 Acc 344	1.0 ml
			3 Met 1264	.5 ml
Mfg:	Fisher	Fisher		
Lot#	1103 4030 exp 8/21	4103101	Digestion Tube Lot#	A3115162

Sample #	Init. Vol/Wt	Fin. Vol/Wt	Date	Comments
MB 8/21/04	50 mL	50ml	8/21/04	
SB ↓	↓	↓	↓	
MS F25954-1.6				
MSD ↓				
Dup				
1 QC ↓				
2 F25943-1.9				
3 2.9				
4 3.9				
5 4.9				
6 5.9				
7 F25819-1.13				sediment
8 -2.13				
9 -3.5				
10 -4.5				
11 -5.5				
12 F25819-8.13				WEB
13 F25960-2.4				cloudy
14 -3.4				
15 -4.5				
16 F25972-2.6				
17 F25975 -7.9				sediment
18 F25977-1.11				
19 -2.11				
20				

Analyst [signature] Date 8/21/04

QC Review [signature] Date 8/23/04

Rev. 01/12/04 DJM * Used For SB, MS, MSD Page Number: 000040

0570

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F25819
Account: TETRFLTA - Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

File ID: IR082407.ASC Date Analyzed: 08/24/04 Methods: SW846 6010B
Analyst: DM Run ID: MA3944
Parameters: Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:47	MA3944-ICV1	1		
10:49	MA3944-ICB1	1		
10:55	MA3944-CRI1	1		
11:05	MA3944-ICSA1	1		
11:08	MA3944-ICSAB1	1		
11:15	MA3944-CCV1	1		
11:20	MA3944-CCB1	1		
11:23	MP7016-MB1	1		
11:27	MP7016-B1	1		
11:33	F26066-10	1		(sample used for QC only; not part of login F25819)
11:36	MP7016-D1	1		
11:40	MP7016-SD1	5		
11:43	MP7016-S1	1		
11:47	MP7016-S2	1		
11:53	ZZZZZZ	1		
11:56	ZZZZZZ	1		
12:00	ZZZZZZ	1		
12:03	MA3944-CCV2	1		
12:08	MA3944-CCB2	1		
12:12	MP7016-B2	1		
12:17	MP7016-MB2	1		
12:25	MP7024-MB1	1		
12:28	MP7024-B1	1		
12:34	F25753-2A	1		(sample used for QC only; not part of login F25819)
12:37	MP7024-D1	1		
12:41	MP7024-SD1	5		
12:45	MP7024-S1	1		
12:48	MP7024-S2	1		
12:57	MA3944-CCV3	1		
13:02	MA3944-CCB3	1		
13:06	ZZZZZZ	1		
13:09	ZZZZZZ	1		
13:13	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F25819
Account: TETRFLTA - Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

File ID: IR082407.ASC
Analyst: DM
Parameters: Pb

Date Analyzed: 08/24/04
Run ID: MA3944

Methods: SW846 6010B

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:17	ZZZZZZ	1		
13:20	MP7024-MB2	1		
13:24	MP7024-B2	1		
13:29	MP7025-MB1	1		
13:33	MP7025-B1	1		
13:39	ZZZZZZ	1		
13:42	MP7025-B2	1		
13:47	MA3944-CCV4	1		
13:51	MA3944-CCB4	1		
13:55	MP7017-MB1	1		
13:59	MP7017-B1	1		
14:04	F25954-1	1		(sample used for QC only; not part of login F25819)
14:08	MP7017-D1	1		
14:11	MP7017-SD1	5		
14:15	MP7017-S1	1		
14:19	MP7017-S2	1		
14:24	ZZZZZZ	1		
14:28	ZZZZZZ	1		
14:31	ZZZZZZ	1		
14:35	MA3944-CCV5	1		
14:40	MA3944-CCB5	1		
14:43	ZZZZZZ	1		
14:47	ZZZZZZ	1		
14:51	F25819-1	1		
14:54	F25819-2	1		
14:58	F25819-3	1		
15:01	F25819-4	1		
15:05	F25819-5	1		
15:09	F25819-8	1		
---------->	Last reportable sample/prep for job F25819			
15:12	ZZZZZZ	1		
15:16	ZZZZZZ	1		
15:20	MA3944-CCV6	1		
15:24	MA3944-CCB6	1		
---------->	Last reportable CCB for job F25819			

0564

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F25819
Account: TETRFLTA - Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

File ID: IR082407.ASC Date Analyzed: 08/24/04 Methods: SW846 6010B
Analyst: DM Run ID: MA3944
Parameters: Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:28	ZZZZZZ	1		
15:31	ZZZZZZ	1		
15:35	ZZZZZZ	1		
15:39	ZZZZZZ	1		
15:42	ZZZZZZ	1		
15:46	MA3944-CCV7	1		
15:51	MA3944-CCB7	1		
16:04	MP7018-MB1	1		
16:08	MP7018-B1	1		
16:14	F25979-1	1		(sample used for QC only; not part of login F25819)
16:17	MP7018-D1	1		
16:21	MP7018-SD1	5		
16:24	MP7018-S1	1		
16:28	MP7018-S2	1		
16:34	ZZZZZZ	1		
16:37	ZZZZZZ	1		
16:41	ZZZZZZ	1		
16:45	MA3944-CCV8	1		
16:49	MA3944-CCB8	1		
16:53	ZZZZZZ	1		
16:56	ZZZZZZ	1		
17:00	ZZZZZZ	1		
17:04	ZZZZZZ	1		
17:07	ZZZZZZ	1		
17:11	ZZZZZZ	1		
17:15	ZZZZZZ	1		
17:18	ZZZZZZ	1		
17:22	ZZZZZZ	1		
17:25	ZZZZZZ	1		
17:29	MA3944-CCV9	1		
17:34	MA3944-CCB9	1		
17:37	ZZZZZZ	1		
17:41	ZZZZZZ	1		

0365

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F25819
Account: TETRFLTA - Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

File ID: IR082407.ASC
Analyst: DM
Parameters: Pb

Date Analyzed: 08/24/04
Run ID: MA3944

Methods: SW846 6010B

Time	Sample Description	Dilution Factor	PS Recov	Comments
17:45	MP7029-MB1	1		
17:48	MP7029-B1	1		
17:54	F25850-18	1		(sample used for QC only; not part of login F25819)
17:57	MP7029-D1	1		
18:01	MP7029-SD1	5		
18:05	MP7029-S1	1		
18:08	MP7029-S2	1		
18:14	ZZZZZZ	1		
18:18	MA3944-CCV10	1		
18:22	MA3944-CCB10	1		
18:26	ZZZZZZ	1		
18:29	ZZZZZZ	1		
18:33	ZZZZZZ	1		
18:37	ZZZZZZ	1		
18:40	ZZZZZZ	1		
18:44	ZZZZZZ	1		
18:47	ZZZZZZ	1		
18:51	ZZZZZZ	1		
18:55	ZZZZZZ	1		
18:58	ZZZZZZ	1		
19:02	MA3944-CCV11	1		
19:07	MA3944-CCB11	1		
19:10	ZZZZZZ	1		
19:14	ZZZZZZ	1		
19:22	MP7022-MB1	1		
19:26	MP7022-B1	1		
19:31	F25992-2	1		(sample used for QC only; not part of login F25819)
19:35	MP7022-D1	1		
19:39	MP7022-SD1	5		
19:42	MP7022-S1	1		
19:46	MP7022-S2	1		
19:50	MA3944-CCV12	1		
19:55	MA3944-CCB12	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F25819
Account: TETRFLTA - Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

File ID: IR082407.ASC
Analyst: DM
Parameters: Pb

Date Analyzed: 08/24/04
Run ID: MA3944

Methods: SW846 6010B

Time	Sample Description	Dilution Factor	PS Recov	Comments
19:59	ZZZZZZ	1		
20:02	ZZZZZZ	1		
20:06	ZZZZZZ	1		
20:10	ZZZZZZ	1		
20:13	ZZZZZZ	1		
20:17	ZZZZZZ	1		
20:20	ZZZZZZ	1		
20:24	MP7022-MB2	1		
20:28	ZZZZZZ	1		
20:35	MA3944-CCV13	1		
20:40	MA3944-CCB13	1		
20:43	ZZZZZZ	1		
20:47	ZZZZZZ	1		
20:50	ZZZZZZ	1		
20:54	ZZZZZZ	1		
20:58	ZZZZZZ	1		
21:05	MP7026-MB1	1		
21:09	MP7026-B1	1		
21:14	F25850-1	1		(sample used for QC only; not part of login F25819)
21:18	MP7026-D1	1		
21:21	MA3944-CCV14	1		
21:26	MA3944-CCB14	1		
21:30	MP7026-SD1	5		
21:33	MP7026-S1	1		
21:37	MP7026-S2	1		
21:42	ZZZZZZ	1		
21:46	ZZZZZZ	1		
21:50	ZZZZZZ	1		
21:53	ZZZZZZ	1		
21:57	ZZZZZZ	1		
22:01	ZZZZZZ	1		
22:04	ZZZZZZ	1		
22:08	MA3944-CCV15	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F25819
Account: TETRFLTA - Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

File ID: IR082407.ASC
Analyst: DM
Parameters: Pb

Date Analyzed: 08/24/04
Run ID: MA3944

Methods: SW846 6010B

Time	Sample Description	Dilution Factor	PS Recov	Comments
22:12	MA3944-CCB15	1		
22:16	ZZZZZZ	1		
22:20	ZZZZZZ	1		
22:23	ZZZZZZ	1		
22:27	ZZZZZZ	1		
22:31	ZZZZZZ	1		
22:34	ZZZZZZ	1		
22:38	ZZZZZZ	1		
22:42	ZZZZZZ	1		
22:45	ZZZZZZ	1		
22:49	ZZZZZZ	1		
22:52	MA3944-CCV16	1		
22:57	MA3944-CCB16	1		
23:01	ZZZZZZ	1		
23:04	ZZZZZZ	1		
23:09	MA3944-CRI2	1		
23:13	MA3944-CCV17	1		
23:17	MA3944-CCB17	1		

Refer to raw data for calibration curve and standards.

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO:	**G. WALKER**	**DATE:**	**OCTOBER 1, 2004**
FROM:	**ETHAN G. LEE**	**COPIES:**	**DV FILE**

SUBJECT: **INORGANIC DATA VALIDATION – LEAD**
NAS PENSACOLA – CTO 274
SAMPLE DELIVERY GROUP (SDG) – F26160

SAMPLES: 1/AQUEOUS/

OLFS-2406-MW43D

Overview

The sample set for NAS Pensacola, CTO 274, SDG F26160, consists of one (1) aqueous environmental sample.

The sample was analyzed for lead. The sample was collected by Tetra Tech NUS on August 18, 2004 and analyzed by Accutest Laboratories Southeast, Inc. Lead analyses were conducted using SW846 method 6010B.

Metals analyses were conducted using Inductively Coupled Plasma (ICP) methodologies.

These data were evaluated based on the following parameters:

* • Data Completeness
* • Holding Times
* • Calibration Recoveries
  • Laboratory Blank Analyses
* • Detection Limits

* - All quality control criteria were met for this parameter.

Laboratory Blank Analyses

The following contaminant was detected in the laboratory method/preparation blanks at the following maximum concentration:

Analyte	Maximum Concentration	Action Level
Lead	3.7 ug/L	18.5 ug/L

An action level of 5X the maximum concentration was used to evaluate the sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. The positive result below the action level for lead was qualified as nondetected (U) due to laboratory blank contamination.

Executive Summary

Laboratory Performance: Lead was present in the laboratory method/preparation blanks.

Other Factors Affecting Data Quality: None.

The data for these analyses were reviewed with reference to the "National Functional Guidelines for Inorganic Review", July 2002 and the NFESC document entitled "Navy IRCDQM" (September 1999).

The text of this report has been formulated to address only those problem areas affecting data quality.

"I attest that the data referenced herein were validated according to the agreed upon validation criteria as specified in the NFESC Guidelines and the Quality Assurance Project Plan (QAPP)."

Tetra Tech NUS
Ethan G. Lee
Environmental Scientist

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:

1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as reported by the Laboratory
3. Appendix C - Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is less than sample activity

PROJ_NO: 2642

SDG: F26160 MEDIA: WATER DATA FRACTION: M

nsample	OLFS-2406-MW43D
samp_date	8/18/2004
lab_id	F26160-1
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
LEAD	3.6	U	A

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLFS-2406-MW43D		
Lab Sample ID:	F26160-1	**Date Sampled:**	08/18/04
Matrix:	AQ - Ground Water	**Date Received:**	08/19/04
		Percent Solids:	n/a
Project:	NAS Pensacola CTO# 274 N2642		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By		Method	Prep Method
Lead	3.61	5.0	2.9	ug/l	1	09/13/04	09/14/04	DM	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA3969
(2) Prep QC Batch: MP7092

RL = Reporting Limit
MDL = Method Detection Limit

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

APPENDIX C

SUPPORT DOCUMENTATION

HOLDTIME

SDG F26160

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
M	UG/L	OLFS-2406-MW43D	F26160-1	NM	08/18/2004	09/13/2004	09/14/2004	26	1	27

ACCUTEST

CHAIN OF CUSTODY

495 TECHNOLOGY CENTER WEST • BUILDING ONE
MARLBOROUGH, MA 01752
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #: F26160
ACCUTEST QUOTE #:

CLIENT INFORMATION

NAME: Tetra Tech NUS
ADDRESS: 1401 Oven Park Dr. Ste 201
CITY, STATE, ZIP: Tall FL 32301
SEND REPORT TO: Gerald Walker
PHONE #: 850-385-8887

FACILITY INFORMATION

PROJECT NAME: OLF Saufley
LOCATION: Site 2406
PROJECT NO.: N2642
FAX #: 850-385-9866

ANALYTICAL INFORMATION

Total Lead (6010)

MATRIX CODES

DW - DRINKING WATER
GW - GROUND WATER
WW - WASTE WATER
SO - SOIL
SL - SLUDGE
OI - OIL
LIQ - OTHER LIQUID
SOL - OTHER SOLID

ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION DATE	COLLECTION TIME	SAMPLED BY:	MATRIX	# OF BOTTLES	PRESERVATION HCl	NaOH	HNO3	H2SO4	NONE	Total Lead (6010)	LAB USE ONLY
1	OLFS-2406-MW43D	8/18/04	1515	HE	GW	1			X			X	

DATA TURNAROUND INFORMATION

- ☐ 14 DAYS STANDARD
- ☐ 7 DAYS *RUSH*
- ☐ 48 HOUR EMERGENCY
- ☒ OTHER 3rd day

APPROVED BY:

14 DAY TURNAROUND HARDCOPY. EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED

DATA DELIVERABLE INFORMATION

- ☐ STANDARD
- ☐ COMMERCIAL "B"
- ☐ DISK DELIVERABLE
- ☐ STATE FORMS
- ☒ OTHER (SPECIFY) See Comments Section

COMMENTS/REMARKS

See MSA# MSA-0402-N4113-06
WR# N2642-WR452(SS)

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESION, INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE TIME:	RECEIVED BY:	RELINQUISHED BY:	DATE TIME:	RECEIVED BY:
1. [signature]	8/18/04 1600	1. Fx	2. Fx	8/19/04 09:00	2. [signature]
RELINQUISHED BY: 3.	DATE TIME:	RECEIVED BY: 3.	RELINQUISHED BY: 4.	DATE TIME:	RECEIVED BY: 4.
RELINQUISHED BY: 5.	DATE TIME:	RECEIVED BY: 5.	SEAL # 26	PRESERVE WHERE APPLICABLE ☐	ON ICE ☐ TEMPERATURE ____ C

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Tetra-Tech NUS **Job No:** F26160

Site: NAS Pensacola CTO# 274 N2642 **Report Date:** 9/17/2004 2:57:24 PM

1 Sample was collected on 08/18/2004 and received at Accutest on 08/19/2004 properly preserved, at 2.6 Deg. C and intact. This Sample received an Accutest job number of F26160. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Metals by Method SW846 6010B

Matrix: AQ **Batch ID:** MP7092

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F26304-8MS, F26304-8MSD, F26304-8SDL, F26304-8DUP were used as the QC samples for metals.

RPD for Duplicate for Lead is outside control limits for sample MP7092-D1. RPD acceptable due to low duplicate and sample concentrations.

RPD for Serial Dilution for Lead is outside control limits for sample MP7092-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used.

Narrative prepared by:

Date: Sept 17, 2004

Ellen Pampel, Inorganic QA (signature on file)

Friday, September 17, 2004

Accutest Laboratories

Sample Summary

Tetra-Tech NUS

Job No: F26160

NAS Pensacola CTO# 274 N2642
Project No: N2642-WR#452(SS)/ Site 2406

Sample Number	Collected Date	Collected Time By	Received	Matrix Code	Matrix Type	Client Sample ID
F26160-1	08/18/04	15:13 HE	08/19/04	AQ	Ground Water	OLFS-2406-MW43D

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F26160
Account: TETRFLTA - Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

File ID: IR091404.ASC Date Analyzed: 09/14/04 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA3969 Units: ug/l

Metal	ICV True	ICV Results	% Rec	CCV True	CCV Results	% Rec	CCV True	CCV Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	1960	98.0	2000	2000	100.0	2000	2010	100.5
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Thallium	anr								
Tin									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F26160
Account: TETRFLTA - Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

File ID: IR091404.ASC Date Analyzed: 09/14/04 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA3969 Units: ug/l

Metal	CCV True	CCV Results	% Rec	CCV True	CCV Results	% Rec
Aluminum	anr					
Antimony	anr					
Arsenic	anr					
Barium	anr					
Beryllium	anr					
Cadmium	anr					
Calcium	anr					
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron	anr					
Lead	2000	2030	101.5	2000	2040	102.0
Magnesium	anr					
Manganese	anr					
Molybdenum						
Nickel	anr					
Potassium	anr					
Selenium	anr					
Silver	anr					
Sodium	anr					
Thallium	anr					
Tin						
Vanadium	anr					
Zinc	anr					

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F26160
Account: TETRFLTA - Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

QC Batch ID: MP7092
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 09/13/04

Metal	RL	IDL	MB raw	final
Aluminum	200	6.6		
Antimony	5.0	1.5		
Arsenic	10	2.8		
Barium	200	.5	anr	
Beryllium	4.0	.3		
Cadmium	5.0	.3		
Calcium	1000	3.8		
Chromium	10	.4		
Cobalt	50	.5		
Copper	25	.44	anr	
Iron	300	7.1	anr	
Lead	5.0	1.2	0.68	<5.0
Magnesium	5000	9.9		
Manganese	15	.16		
Molybdenum	50	.75		
Nickel	40	1.1		
Potassium	5000	14		
Selenium	10	2		
Silver	10	.6		
Sodium	5000	150		
Thallium	10	1.5		
Tin	50	1.5		
Vanadium	50	.47		
Zinc	20	.59	anr	

Associated samples MP7092: F26160-1

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

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F26160
Account: TETRFLTA - Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

File ID: IR091404.ASC
QC Limits: result < RL

Date Analyzed: 09/14/04
Run ID: MA3969

Methods: SW846 6010B
Units: ug/l

Metal	RL	IDL	ICB raw	final	CCB raw	final	CCB raw	final	CCB raw	final
Aluminum	200	6.6	anr							
Antimony	5.0	1.5	anr							
Arsenic	10	2.8	anr							
Barium	200	.5	anr							
Beryllium	4.0	.3	anr							
Cadmium	5.0	.3	anr							
Calcium	1000	3.8	anr							
Chromium	10	.4	anr							
Cobalt	50	.5	anr							
Copper	25	.44	anr							
Iron	300	7.1	anr							
Lead	5.0	1.2	3.7	<5.0	3.0	<5.0	2.2	<5.0	2.6	<5.0
Magnesium	5000	9.9	anr							
Manganese	15	.16	anr							
Molybdenum	50	.75								
Nickel	40	1.1	anr							
Potassium	5000	14	anr							
Selenium	10	2	anr							
Silver	10	.6	anr							
Sodium	5000	150	anr							
Thallium	10	1.5	anr							
Tin	50	1.5								
Vanadium	50	.47	anr							
Zinc	20	.59	anr							

(*) Outside of QC limits
(anr) Analyte not requested

0016

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F26160
Account: TETRFLTA - Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

File ID: IR091404.ASC
QC Limits: result < RL

Date Analyzed: 09/14/04
Run ID: MA3969

Methods: SW846 6010B
Units: ug/l

Metal	RL	IDL	CCB raw	final
Aluminum	200	6.6	anr	
Antimony	5.0	1.5	anr	
Arsenic	10	2.8	anr	
Barium	200	.5	anr	
Beryllium	4.0	.3	anr	
Cadmium	5.0	.3	anr	
Calcium	1000	3.8	anr	
Chromium	10	.4	anr	
Cobalt	50	.5	anr	
Copper	25	.44	anr	
Iron	300	7.1	anr	
Lead	5.0	1.2	1.3	<5.0
Magnesium	5000	9.9	anr	
Manganese	15	.16	anr	
Molybdenum	50	.75		
Nickel	40	1.1	anr	
Potassium	5000	14	anr	
Selenium	10	2	anr	
Silver	10	.6	anr	
Sodium	5000	150	anr	
Thallium	10	1.5	anr	
Tin	50	1.5		
Vanadium	50	.47	anr	
Zinc	20	.59	anr	

(*) Outside of QC limits
(anr) Analyte not requested

MP 7092

Metals Digestion Log: Water

Method of Digestion: SW846-3010A/3005A/EPA 200.7/3030C (CIRCLE ONE) Temp: 93° Thermometer ID 104

	HNO3	HCl	Spk. Sol.*	Amount Used*
Added:			1 Acc 333	.25ml
			2 Met 1204	.50ml
			3 Acc 352	1.0 ml
Mfg:	Fisher	Fisher		
Lot#	1104030	4103101	Digestion Tube Lot#	~~A405C5149~~ A405C5149 exp 9/13

Sample #	Init. Vol/Wt	Fin. Vol/Wt	Date	Comments
MB 9/13/04	50 mL	50ml	9/13/04	
SB ↓	↓	↓	↓	
MS F26304-8.19				Qc requested
MSD ↓				↓
Dup				
1 QC ↓				↓
2 F26160-1.1				
3 F26304-1.7				
4 -2.7				
5 -3.7				
6 -4.7				
7 -5.7				
8 -6.7				
9 -7.7				
10 -9.7				sediment
11 -10.7				
12 F26308-1.14				Sediment
13 F26308-2.14				
14 F26308-4.14				
15 F26302-2.9				
16 ↓ -3.9				
17 F26309-4.11				sediment, yellow color, odor
18 -5.11				sediment, odor
19 -6.11				sediment
20 -7.11	↓	↓	↓	sediment

Analyst [signature] Date 9/13/04

QC Review DMitzgm Date 9/13/04

Rev. 01/12/04 DJM *Used For SB, MS, MSD Page Number: 0040

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F26160
Account: TETRFLTA - Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

File ID: IR091404.ASC Date Analyzed: 09/14/04 Methods: SW846 6010B
Analyst: DM Run ID: MA3969
Parameters: Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:08	MA3969-ICV1	1		
09:10	MA3969-ICB1	1		
09:14	MA3969-CRI1	1		
09:20	MA3969-ICSA1	1		
09:21	MA3969-ICSAB1	1		
09:24	MA3969-CCV1	1		
09:29	MA3969-CCB1	1		
09:33	MP7094-MB1	1		
09:37	MP7094-B1	1		
09:43	F26327-1	1		(sample used for QC only; not part of login F26160)
09:47	MP7094-D1	1		
09:51	MP7094-SD1	5		
09:54	MP7094-S1	1		
09:58	MP7094-S2	1		
10:04	ZZZZZZ	1		
10:08	ZZZZZZ	1		
10:12	ZZZZZZ	1		
10:16	MA3969-CCV2	1		
10:21	MA3969-CCB2	1		
10:24	ZZZZZZ	1		
10:28	ZZZZZZ	1		
10:32	ZZZZZZ	1		
10:36	ZZZZZZ	1		
10:40	ZZZZZZ	1		
10:44	MP7092-MB1	1		
10:47	MP7092-B1	1		
10:53	F26304-8	1		(sample used for QC only; not part of login F26160)
10:57	MP7092-D1	1		
11:01	MP7092-SD1	5		
11:05	MA3969-CCV3	1		
11:10	MA3969-CCB3	1		
12:04	MP7092-S1	1		
12:08	MP7092-S2	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F26160
Account: TETRFLTA - Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

File ID: IR091404.ASC Date Analyzed: 09/14/04 Methods: SW846 6010B
Analyst: DM Run ID: MA3969
Parameters: Pb

	Time	Sample Description	Dilution Factor	PS Recov	Comments
	12:14	F26160-1	1		
---------->	Last reportable sample/prep for job F26160				
	12:18	ZZZZZZ	1		
	12:22	ZZZZZZ	1		
	12:26	ZZZZZZ	1		
	12:30	ZZZZZZ	1		
	12:33	ZZZZZZ	1		
	12:37	ZZZZZZ	1		
	12:41	ZZZZZZ	1		
	12:45	MA3969-CCV4	1		
	12:50	MA3969-CCB4	1		
---------->	Last reportable CCB for job F26160				
	12:54	ZZZZZZ	1		
	12:57	ZZZZZZ	1		
	13:01	ZZZZZZ	1		
	13:05	ZZZZZZ	1		
	13:09	ZZZZZZ	1		
	13:13	ZZZZZZ	1		
	13:16	ZZZZZZ	1		
	13:20	ZZZZZZ	1		
	13:27	ZZZZZZ	1		
	13:31	ZZZZZZ	1		
	13:35	MA3969-CCV5	1		
	13:40	MA3969-CCB5	1		
	13:47	ZZZZZZ	1		
	13:50	MP7093-MB1	1		
	14:00	F26316-3	1		(sample used for QC only; not part of login F26160)
	14:04	MP7093-D1	1		
	14:08	MP7093-SD1	5		
	14:12	MP7093-S1	1		
	14:16	MP7093-S2	1		
	14:22	ZZZZZZ	1		
	14:25	ZZZZZZ	1		
	14:29	MA3969-CCV6	1		
	14:34	MA3969-CCB6	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F26160
Account: TETRFLTA - Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

File ID: IR091404.ASC
Analyst: DM
Parameters: Pb

Date Analyzed: 09/14/04
Run ID: MA3969

Methods: SW846 6010B

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:38	ZZZZZZ	1		
14:42	ZZZZZZ	1		
14:46	ZZZZZZ	1		
14:50	ZZZZZZ	1		
14:53	ZZZZZZ	1		
14:57	ZZZZZZ	1		
15:01	ZZZZZZ	1		
15:05	ZZZZZZ	1		
15:09	ZZZZZZ	1		
15:12	ZZZZZZ	1		
15:16	MA3969-CCV7	1		
15:21	MA3969-CCB7	1		
15:25	ZZZZZZ	1		
15:29	ZZZZZZ	1		
15:33	ZZZZZZ	1		
15:36	ZZZZZZ	1		
15:40	ZZZZZZ	1		
15:44	ZZZZZZ	1		
15:48	ZZZZZZ	1		
15:54	MA3969-CCV8	1		
15:59	MA3969-CCB8	1		
16:10	MP7093-B1	1		
16:18	MP7091-MB1	1		
16:21	MP7091-B1	1		
16:27	F26281-2A	1		(sample used for QC only; not part of login F26160)
16:31	MP7091-D1	1		
16:35	MP7091-SD1	5		
16:39	MP7091-S1	1		
16:43	MP7091-S2	1		
16:49	ZZZZZZ	1		
16:53	ZZZZZZ	1		
16:56	MA3969-CCV9	1		
17:01	MA3969-CCB9	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F26160
Account: TETRFLTA - Tetra-Tech NUS
Project: NAS Pensacola CTO# 274 N2642

File ID: IR091404.ASC
Analyst: DM
Parameters: Pb

Date Analyzed: 09/14/04
Run ID: MA3969

Methods: SW846 6010B

Time	Sample Description	Dilution Factor	PS Recov	Comments
17:05	ZZZZZZ	1		
17:09	ZZZZZZ	1		
17:13	ZZZZZZ	1		
17:17	ZZZZZZ	1		
17:20	ZZZZZZ	1		
17:24	ZZZZZZ	1		
17:28	ZZZZZZ	1		
17:32	ZZZZZZ	1		
17:36	ZZZZZZ	1		
17:39	ZZZZZZ	1		
17:43	MA3969-CCV10	1		
17:48	MA3969-CCB10	1		
17:52	ZZZZZZ	1		
17:56	ZZZZZZ	1		
18:00	ZZZZZZ	1		
18:03	ZZZZZZ	1		
18:07	ZZZZZZ	1		
18:11	MP7091-MB2	1		
18:15	ZZZZZZ	1		
18:20	MA3969-CRI2	1		
18:24	MA3969-CCV11	1		
18:29	MA3969-CCB11	1		

Refer to raw data for calibration curve and standards.

PROJ_NO: 2642

SDG: 7769 MEDIA: WATER DATA FRACTION: OV

nsample	OLFS-2406-MW46
samp_date	3/4/2005
lab_id	7769-001
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Lab Qual	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	1	U	U	
1,1,2,2-TETRACHLOROETHANE	1	U	U	
1,1,2-TRICHLOROETHANE	1	U	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	1	U	U	
1,1-DICHLOROETHANE	1	U	U	
1,1-DICHLOROETHENE	1	U	U	
1,2,4-TRICHLOROBENZENE	1	U	U	
1,2-DIBROMO-3-CHLOROPROPANE	1	U	U	
1,2-DIBROMOETHANE	1	U	U	
1,2-DICHLOROBENZENE	1	U	U	
1,2-DICHLOROETHANE	1	U	U	
1,2-DICHLOROPROPANE	1	U	U	
1,3-DICHLOROBENZENE	1	U	U	
1,4-DICHLOROBENZENE	1	U	U	
2-BUTANONE	5	U	U	
2-HEXANONE	5	U	U	
4-METHYL-2-PENTANONE	5	U	U	
ACETONE	7.1			
BENZENE	1	U	U	
BROMODICHLOROMETHANE	1	U	U	
BROMOFORM	1	U	U	
BROMOMETHANE	1	U	U	
CARBON DISULFIDE	1	U	U	
CARBON TETRACHLORIDE	1	U	U	
CHLOROBENZENE	1	U	U	
CHLORODIBROMOMETHANE	1	U	U	
CHLOROETHANE	1	U	U	
CHLOROFORM	1	U	U	
CHLOROMETHANE	1	U	U	
CIS-1,2-DICHLOROETHENE	1	U	U	
CIS-1,3-DICHLOROPROPENE	1	U	U	
CYCLOHEXANE	1	U	U	

nsample	OLFS-2406-MW46
samp_date	3/4/2005
lab_id	7769-001
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Lab Qual	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	1	U	U	
ETHYLBENZENE	1	U	U	
ISOPROPYLBENZENE	1	U	U	
METHYL ACETATE	1	U	U	
METHYL CYCLOHEXANE	1	U	U	
METHYL TERT-BUTYL ETHER	1	U	U	
METHYLENE CHLORIDE	2	U	U	
STYRENE	1	U	U	
TETRACHLOROETHENE	1	U	U	
TOLUENE	0.58	I	J	P
TOTAL 1,2-DICHLOROETHENE	1	U	U	
TOTAL XYLENES	3	U	U	
TRANS-1,2-DICHLOROETHENE	1	U	U	
TRANS-1,3-DICHLOROPROPENE	1	U	U	
TRICHLOROETHENE	1	U	U	
TRICHLOROFLUOROMETHANE	1	U	U	
VINYL CHLORIDE	1	U	U	

nsample	OLFS-2406-MW47
samp_date	3/4/2005
lab_id	7769-002
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Lab Qual	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	1	U	U	
1,1,2,2-TETRACHLOROETHANE	1	U	U	
1,1,2-TRICHLOROETHANE	1	U	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	1	U	U	
1,1-DICHLOROETHANE	1	U	U	
1,1-DICHLOROETHENE	1	U	U	
1,2,4-TRICHLOROBENZENE	1	U	U	
1,2-DIBROMO-3-CHLOROPROPANE	1	U	U	
1,2-DIBROMOETHANE	1	U	U	
1,2-DICHLOROBENZENE	1	U	U	
1,2-DICHLOROETHANE	1	U	U	
1,2-DICHLOROPROPANE	1	U	U	
1,3-DICHLOROBENZENE	1	U	U	
1,4-DICHLOROBENZENE	1	U	U	
2-BUTANONE	5	U	U	
2-HEXANONE	5	U	U	
4-METHYL-2-PENTANONE	5	U	U	
ACETONE	4.3	I	J	P
BENZENE	1	U	U	
BROMODICHLOROMETHANE	1	U	U	
BROMOFORM	1	U	U	
BROMOMETHANE	1	U	U	
CARBON DISULFIDE	1	U	U	
CARBON TETRACHLORIDE	1	U	U	
CHLOROBENZENE	1	U	U	
CHLORODIBROMOMETHANE	1	U	U	
CHLOROETHANE	1	U	U	
CHLOROFORM	1	U	U	
CHLOROMETHANE	1	U	U	
CIS-1,2-DICHLOROETHENE	1	U	U	
CIS-1,3-DICHLOROPROPENE	1	U	U	
CYCLOHEXANE	1	U	U	

PROJ_NO: 2642

SDG: 7769 MEDIA: WATER DATA FRACTION: OV

nsample	OLFS-2406-MW47
samp_date	3/4/2005
lab_id	7769-002
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Lab Qual	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	1	U	U	
ETHYLBENZENE	1	U	U	
ISOPROPYLBENZENE	1	U	U	
METHYL ACETATE	1	U	U	
METHYL CYCLOHEXANE	1	U	U	
METHYL TERT-BUTYL ETHER	0.35	I	J	P
METHYLENE CHLORIDE	2	U	U	
STYRENE	1	U	U	
TETRACHLOROETHENE	1	U	U	
TOLUENE	0.35	I	J	P
TOTAL 1,2-DICHLOROETHENE	1	U	U	
TOTAL XYLENES	3	U	U	
TRANS-1,2-DICHLOROETHENE	1	U	U	
TRANS-1,3-DICHLOROPROPENE	1	U	U	
TRICHLOROETHENE	1	U	U	
TRICHLOROFLUOROMETHANE	1	U	U	
VINYL CHLORIDE	1	U	U	

nsample	TB02413
samp_date	3/4/2005
lab_id	7769-003
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Lab Qual	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	1	U	U	
1,1,2,2-TETRACHLOROETHANE	1	U	U	
1,1,2-TRICHLOROETHANE	1	U	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	1	U	U	
1,1-DICHLOROETHANE	1	U	U	
1,1-DICHLOROETHENE	1	U	U	
1,2,4-TRICHLOROBENZENE	1	U	U	
1,2-DIBROMO-3-CHLOROPROPANE	1	U	U	
1,2-DIBROMOETHANE	1	U	U	
1,2-DICHLOROBENZENE	1	U	U	
1,2-DICHLOROETHANE	1	U	U	
1,2-DICHLOROPROPANE	1	U	U	
1,3-DICHLOROBENZENE	1	U	U	
1,4-DICHLOROBENZENE	1	U	U	
2-BUTANONE	5	U	U	
2-HEXANONE	5	U	U	
4-METHYL-2-PENTANONE	5	U	U	
ACETONE	5	U	U	
BENZENE	1	U	U	
BROMODICHLOROMETHANE	1	U	U	
BROMOFORM	1	U	U	
BROMOMETHANE	1	U	U	
CARBON DISULFIDE	1	U	U	
CARBON TETRACHLORIDE	1	U	U	
CHLOROBENZENE	1	U	U	
CHLORODIBROMOMETHANE	1	U	U	
CHLOROETHANE	1	U	U	
CHLOROFORM	0.52	I	J	P
CHLOROMETHANE	0.78	I	J	P
CIS-1,2-DICHLOROETHENE	1	U	U	
CIS-1,3-DICHLOROPROPENE	1	U	U	
CYCLOHEXANE	1	U	U	

nsample	TB02413
samp_date	3/4/2005
lab_id	7769-003
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Lab Qual	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	1	U	U	
ETHYLBENZENE	1	U	U	
ISOPROPYLBENZENE	1	U	U	
METHYL ACETATE	1	U	U	
METHYL CYCLOHEXANE	1	U	U	
METHYL TERT-BUTYL ETHER	1	U	U	
METHYLENE CHLORIDE	2	U	U	
STYRENE	1	U	U	
TETRACHLOROETHENE	1	U	U	
TOLUENE	1	U	U	
TOTAL 1,2-DICHLOROETHENE	1	U	U	
TOTAL XYLENES	3	U	U	
TRANS-1,2-DICHLOROETHENE	1	U	U	
TRANS-1,3-DICHLOROPROPENE	1	U	U	
TRICHLOROETHENE	1	U	U	
TRICHLOROFLUOROMETHANE	1	U	U	
VINYL CHLORIDE	1	U	U	

PROJ_NO: 2642

SDG: 7769 MEDIA: WATER DATA FRACTION: PAH

nsample	OLFS-2406-MW46
samp_date	3/4/2005
lab_id	7769-001
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Lab Qual	Val Qual	Qual Code
1-METHYLNAPHTHALENE	0.2	U	U	
2-METHYLNAPHTHALENE	0.059	I	J	P
ACENAPHTHENE	0.2	U	U	
ACENAPHTHYLENE	0.2	U	U	
ANTHRACENE	0.2	U	U	
BENZO(A)ANTHRACENE	0.2	U	U	
BENZO(A)PYRENE	0.2	U	U	
BENZO(B)FLUORANTHENE	0.2	U	U	
BENZO(G,H,I)PERYLENE	0.2	U	U	
BENZO(K)FLUORANTHENE	0.2	U	U	
CHRYSENE	0.2	U	U	
DIBENZO(A,H)ANTHRACENE	0.2	U	U	
FLUORANTHENE	0.2	U	U	
FLUORENE	0.2	U	U	
INDENO(1,2,3-CD)PYRENE	0.2	U	U	
NAPHTHALENE	0.075	I	J	P
PHENANTHRENE	0.2	U	U	
PYRENE	0.2	U	U	

nsample	OLFS-2406-MW47
samp_date	3/4/2005
lab_id	7769-002
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Lab Qual	Val Qual	Qual Code
1-METHYLNAPHTHALENE	0.2	U	U	
2-METHYLNAPHTHALENE	0.2	U	U	
ACENAPHTHENE	0.2	U	U	
ACENAPHTHYLENE	0.2	U	U	
ANTHRACENE	0.2	U	U	
BENZO(A)ANTHRACENE	0.2	U	U	
BENZO(A)PYRENE	0.2	U	U	
BENZO(B)FLUORANTHENE	0.2	U	U	
BENZO(G,H,I)PERYLENE	0.2	U	U	
BENZO(K)FLUORANTHENE	0.2	U	U	
CHRYSENE	0.2	U	U	
DIBENZO(A,H)ANTHRACENE	0.2	U	U	
FLUORANTHENE	0.2	U	U	
FLUORENE	0.2	U	U	
INDENO(1,2,3-CD)PYRENE	0.2	U	U	
NAPHTHALENE	0.2	U	U	
PHENANTHRENE	0.2	U	U	
PYRENE	0.2	U	U	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SDG 7769

PAH

EPA SAMPLE NO.

OLFS-2406-MW46

Lab Name:	ACCURA ANALYTICAL LAB	Contract:	N2642
Lab Code:	ACCURA	SAS NO. :	
Case No. :	7769	SDG NO. :	
Matrix (soil/water):	WATER	Lab Sample Id:	7769-001
Sample wt/vol:	25.00 (g/mL) ML	Lab File ID:	J030905\J15788
Level (low/med):	LOW	Date Received:	03/07/05
% Moisture: not dec.		Date Analyzed:	03/09/05
GC Column:	ZB-624 ID: .25 (mm)	Dilution Factor:	1.0
Soil Extract Volume	(µ L)	Soil Aliquot Volume:	(µ L)

CONCENTRATION UNITS (ug/L or ug/Kg) ug/L

CAS NO.	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
540-59-0	1,2-Dichloroethene (total)	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U
78-93-3	2-Butanone	5.0	U
591-78-6	2-Hexanone	5.0	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
67-64-1	Acetone	7.1	
71-43-2	Benzene	1.0	U
75-27-4	Bromodichloromethane	1.0	U
75-25-2	Bromoform	1.0	U
74-83-9	Bromomethane	1.0	U
75-15-0	Carbon Disulfide	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U
108-90-7	Chlorobenzene	1.0	U
75-00-3	Chloroethane	1.0	U
67-66-3	Chloroform	1.0	U
74-87-3	Chloromethane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

QLFS-2406-MW46

Lab Name: ACCURA ANALYTICAL LAB

Contract: N2642

Lab Code: ACCURA

SAS NO. :

Case No. : 7769

SDG NO. :

Matrix (soil/water): WATER

Lab Sample Id: 7769-001

Sample wt/vol: 25.00 (g/mL) ML

Lab File ID: J030905\J15788

Level (low/med): LOW

Date Received: 03/07/05

% Moisture: not dec.

Date Analyzed: 03/09/05

GC Column: ZB-624 ID: .25 (mm)

Dilution Factor: 1.0

Soil Extract Volume (μ L)

Soil Aliquot Volume: (μ L)

CONCENTRATION UNITS (ug/L or ug/Kg) ug/L

CAS NO.	COMPOUND		Q
10061-01-5	cis-1,3-Dichloropropene	1.0	U
110-82-7	Cyclohexane	1.0	U
124-48-1	Dibromochloromethane	1.0	U
75-71-8	Dichlorodifluoromethane	1.0	U
100-41-4	Ethylbenzene	1.0	U
98-82-8	Isopropylbenzene	1.0	U
79-20-9	Methyl Acetate	1.0	U
1634-04-4	Methyl tert-butyl ether	1.0	U
108-87-2	Methylcyclohexane	1.0	U
75-09-2	Methylene Chloride	2.0	U
100-42-5	Styrene	1.0	U
127-18-4	Tetrachloroethene	1.0	U
108-88-3	Toluene	0.58	I
156-60-5	trans-1,2-dichloroethene	1.0	U
10061-02-6	trans-1,3-dichloropropene	1.0	U
79-01-6	Trichloroethene	1.0	U
75-69-4	Trichlorofluoromethane	1.0	U
75-01-4	Vinyl Chloride	1.0	U
1330-20-7	Xylenes, Total	3.0	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

QLFS-2406-MW47

Lab Name: ACCURA ANALYTICAL LAB

Contract: N2642

Lab Code: ACCURA

SAS NO. :

Case No. : 7769

SDG NO. :

Matrix (soil/water): WATER

Lab Sample Id: 7769-002

Sample wt/vol: 25.00 (g/mL) ML

Lab File ID: J030905\J15789

Level (low/med): LOW

Date Received: 03/07/05

% Moisture: not dec.

Date Analyzed: 03/09/05

GC Column: ZB-624 ID: .25 (mm)

Dilution Factor: 1.0

Soil Extract Volume (µ L)

Soil Aliquot Volume: (µ L)

CONCENTRATION UNITS (ug/L or ug/Kg) ug/L

CAS NO.	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
540-59-0	1,2-Dichloroethene (total)	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U
78-93-3	2-Butanone	5.0	U
591-78-6	2-Hexanone	5.0	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
67-64-1	Acetone	4.3	I
71-43-2	Benzene	1.0	U
75-27-4	Bromodichloromethane	1.0	U
75-25-2	Bromoform	1.0	U
74-83-9	Bromomethane	1.0	U
75-15-0	Carbon Disulfide	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U
108-90-7	Chlorobenzene	1.0	U
75-00-3	Chloroethane	1.0	U
67-66-3	Chloroform	1.0	U
74-87-3	Chloromethane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OLFS-2406-MW47

Lab Name: ACCURA ANALYTICAL LAB

Contract: N2642

Lab Code: ACCURA

SAS NO. :

Case No. : 7769

SDG NO. :

Matrix (soil/water): WATER

Lab Sample Id: 7769-002

Sample wt/vol: 25.00 (g/mL) ML

Lab File ID: J030905\J15789

Level (low/med): LOW

Date Received: 03/07/05

% Moisture: not dec.

Date Analyzed: 03/09/05

GC Column: ZB-624 ID: .25 (mm)

Dilution Factor: 1.0

Soil Extract Volume (μ L)

Soil Aliquot Volume: (μ L)

CONCENTRATION UNITS (ug/L or ug/Kg) ug/L

CAS NO.	COMPOUND		Q
10061-01-5	cis-1,3-Dichloropropene	1.0	U
110-82-7	Cyclohexane	1.0	U
124-48-1	Dibromochloromethane	1.0	U
75-71-8	Dichlorodifluoromethane	1.0	U
100-41-4	Ethylbenzene	1.0	U
98-82-8	Isopropylbenzene	1.0	U
79-20-9	Methyl Acetate	1.0	U
1634-04-4	Methyl tert-butyl ether	0.35	I
108-87-2	Methylcyclohexane	1.0	U
75-09-2	Methylene Chloride	2.0	U
100-42-5	Styrene	1.0	U
127-18-4	Tetrachloroethene	1.0	U
108-88-3	Toluene	0.35	I
156-60-5	trans-1,2-dichloroethene	1.0	U
10061-02-6	trans-1,3-dichloropropene	1.0	U
79-01-6	Trichloroethene	1.0	U
75-69-4	Trichlorofluoromethane	1.0	U
75-01-4	Vinyl Chloride	1.0	U
1330-20-7	Xylenes, Total	3.0	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TB02413

Lab Name: ACCURA ANALYTICAL LAB

Contract: N2642

Lab Code: ACCURA

SAS NO. :

Case No. : 7769

SDG NO. :

Matrix (soil/water): WATER

Lab Sample Id: 7769-003

Sample wt/vol: 25.00 (g/mL) ML

Lab File ID: J030905\J15785

Level (low/med): LOW

Date Received: 03/07/05

% Moisture: not dec.

Date Analyzed: 03/09/05

GC Column: ZB-624 ID: .25 (mm)

Dilution Factor: 1.0

Soil Extract Volume (µ L)

Soil Aliquot Volume: (µ L)

CONCENTRATION UNITS (ug/L or ug/Kg) ug/L

CAS NO.	COMPOUND		Q
71-55-6	1,1,1-Trichloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
540-59-0	1,2-Dichloroethene (total)	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U
78-93-3	2-Butanone	5.0	U
591-78-6	2-Hexanone	5.0	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
67-64-1	Acetone	5.0	U
71-43-2	Benzene	1.0	U
75-27-4	Bromodichloromethane	1.0	U
75-25-2	Bromoform	1.0	U
74-83-9	Bromomethane	1.0	U
75-15-0	Carbon Disulfide	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U
108-90-7	Chlorobenzene	1.0	U
75-00-3	Chloroethane	1.0	U
67-66-3	Chloroform	0.52	I
74-87-3	Chloromethane	0.78	I
156-59-2	cis-1,2-Dichloroethene	1.0	U

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TB02413

Lab Name: ACCURA ANALYTICAL LAB

Contract: N2642

Lab Code: ACCURA

SAS NO. :

Case No. : 7769

SDG NO. :

Matrix (soil/water): WATER

Lab Sample Id: 7769-003

Sample wt/vol: 25.00 (g/mL) ML

Lab File ID: J030905\J15785

Level (low/med): LOW

Date Received: 03/07/05

% Moisture: not dec.

Date Analyzed: 03/09/05

GC Column: ZB-624 ID: .25 (mm)

Dilution Factor: 1.0

Soil Extract Volume (µ L)

Soil Aliquot Volume: (µ L)

CONCENTRATION UNITS (ug/L or ug/Kg) ug/L

CAS NO.	COMPOUND		Q
10061-01-5	cis-1,3-Dichloropropene	1.0	U
110-82-7	Cyclohexane	1.0	U
124-48-1	Dibromochloromethane	1.0	U
75-71-8	Dichlorodifluoromethane	1.0	U
100-41-4	Ethylbenzene	1.0	U
98-82-8	Isopropylbenzene	1.0	U
79-20-9	Methyl Acetate	1.0	U
1634-04-4	Methyl tert-butyl ether	1.0	U
108-87-2	Methylcyclohexane	1.0	U
75-09-2	Methylene Chloride	2.0	U
100-42-5	Styrene	1.0	U
127-18-4	Tetrachloroethene	1.0	U
108-88-3	Toluene	1.0	U
156-60-5	trans-1,2-dichloroethene	1.0	U
10061-02-6	trans-1,3-dichloropropene	1.0	U
79-01-6	Trichloroethene	1.0	U
75-69-4	Trichlorofluoromethane	1.0	U
75-01-4	Vinyl Chloride	1.0	U
1330-20-7	Xylenes, Total	3.0	U

1D

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

OLFS-2406-MW46

Lab Name : ACCURA ANALYTICAL LAB

Contract: N2642

Lab Code : ACCURA

Case No.: 7769

SAS No.

SDG No.: N/A

Matrix : (soil/water) WATER

Lab Sample Id: 7769-001

Sample wt/vol: 1000 (g/ml): ML

Lab File ID: 1B031505\B47887

Level : (low/med) LOW

Date Received: 03/07/05

% Moisture:

Decanted: (Y/N) N

Date Extracted: 03/09/05

Concentrated Extract Volume: 1000 (µ L)

Date Analyzed: 03/15/05

Injection Volume: 2.0 (µ L)

Dilution Factor: 1.0

GPC Cleanup (Y/N): N

pH: N/A

Extraction : (Type) SW3520C

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
90-12-0	1-Methylnaphthalene	0.20	U
91-57-6	2-Methylnaphthalene	0.059	I
83-32-9	Acenaphthene	0.20	U
208-96-8	Acenaphthylene	0.20	U
120-12-7	Anthracene	0.20	U
56-55-3	Benzo(a)anthracene	0.20	U
50-32-8	Benzo(a)pyrene	0.20	U
205-99-2	Benzo(b)fluoranthene	0.20	U
191-24-2	Benzo(g,h,i)perylene	0.20	U
207-08-9	Benzo(k)fluoranthene	0.20	U
218-01-9	Chrysene	0.20	U
53-70-3	Dibenz(a,h)Anthracene	0.20	U
206-44-0	Fluoranthene	0.20	U
86-73-7	Fluorene	0.20	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	0.20	U
91-20-3	Naphthalene	0.075	I
85-01-8	Phenanthrene	0.20	U
129-00-0	Pyrene	0.20	U

1C

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

OLFS-2406-MW47

Lab Name : ACCURA ANALYTICAL LAB

Contract: N2642

Lab Code : ACCURA

Case No.: 7769

SAS No.

SDG No.: N/A

Matrix : (soil/water) WATER

Lab Sample Id: 7769-002

Sample wt/vol: 1000 (g/ml): ML

Lab File ID: 1B031505\B47888

Level : (low/med) LOW

Date Received: 03/07/05

% Moisture:

Decanted: (Y/N) N

Date Extracted: 03/09/05

Concentrated Extract Volume: 1000 (µ L)

Date Analyzed: 03/15/05

Injection Volume: 2.0 (µ L)

Dilution Factor: 1.0

GPC Cleanup (Y/N): N

pH: N/A

Extraction : (Type) SW3520C

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L

CAS NO.	COMPOUND		Q
90-12-0	1-Methylnaphthalene	0.20	U
91-57-6	2-Methylnaphthalene	0.20	U
83-32-9	Acenaphthene	0.20	U
208-96-8	Acenaphthylene	0.20	U
120-12-7	Anthracene	0.20	U
56-55-3	Benzo(a)anthracene	0.20	U
50-32-8	Benzo(a)pyrene	0.20	U
205-99-2	Benzo(b)fluoranthene	0.20	U
191-24-2	Benzo(g,h,i)perylene	0.20	U
207-08-9	Benzo(k)fluoranthene	0.20	U
218-01-9	Chrysene	0.20	U
53-70-3	Dibenz(a,h)Anthracene	0.20	U
206-44-0	Fluoranthene	0.20	U
86-73-7	Fluorene	0.20	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	0.20	U
91-20-3	Naphthalene	0.20	U
85-01-8	Phenanthrene	0.20	U
129-00-0	Pyrene	0.20	U

TETRA TECH NUS, INC.

CHAIN OF CUSTODY | NUMBER 1801 | PAGE 1 OF 1

WO# 7769

PROJECT NO: 2642

FACILITY: OLF Sandtop

PROJECT MANAGER: Gerry Walker

PHONE NUMBER: 850-385-9858

LABORATORY NAME/AND CONTACT: Accura Analytical / David Fuller

SAMPLERS (SIGNATURE): William Howard Eple

FIELD OPERATIONS LEADER: Howard Eple

PHONE NUMBER: 850-385-9859

ADDRESS: 6017 Financial Dr

CARRIER/WAYBILL NUMBER:

CITY, STATE: Norcross, GA 30071

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

DATE YEAR 2005	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	CONTAINER TYPE PLASTIC (P) or GLASS (G)		PRESERVATIVE USED							COMMENTS 7769
									TYPE OF ANALYSIS									
									PAH (8310 STM)	VOC (TCL List)								
3/4	1240	OLFS-2406-MW#6	MW46	40.97	52.05	GW	G	5	2	3								See WR# 001
↓	1345	-MW47	MW47	42.68	56.68	↓	↓	5	↓	↓								1001473 002
		TB02413	N/A				→	3		↓								under 003
																		MSA #
																		MSA-0402-N4113-05

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY	3/4/05	1600	1. RECEIVED BY	3/7/05	0925
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

HOLDTIME

SDG 7769

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	%	TB02413	7769-003	NM	3/4/2005	3/9/2005	3/9/2005	5	0	5
OV	%	OLFS-2406-MW47	7769-002	NM	3/4/2005	3/9/2005	3/9/2005	5	0	5
OV	%	OLFS-2406-MW46	7769-001	NM	3/4/2005	3/9/2005	3/9/2005	5	0	5
OV	UG/L	TB02413	7769-003	NM	3/4/2005	3/9/2005	3/9/2005	5	0	5
OV	UG/L	OLFS-2406-MW47	7769-002	NM	3/4/2005	3/9/2005	3/9/2005	5	0	5
OV	UG/L	OLFS-2406-MW46	7769-001	NM	3/4/2005	3/9/2005	3/9/2005	5	0	5
SIM	%	OLFS-2406-MW47	7769-002	NM	3/4/2005	3/9/2005	3/15/2005	5	6	11
SIM	%	OLFS-2406-MW46	7769-001	NM	3/4/2005	3/9/2005	3/15/2005	5	6	11
SIM	UG/L	OLFS-2406-MW47	7769-002	NM	3/4/2005	3/9/2005	3/15/2005	5	6	11
SIM	UG/L	OLFS-2406-MW46	7769-001	NM	3/4/2005	3/9/2005	3/15/2005	5	6	11