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NAS PENSACOLA
5090.3a

SITE ASSESSMENT ADDENDUM FOR SITE 1116 OUTLYING LANDING FIELD BRONSON
NAS PENSACOLA FL
3/14/2001
TETRA TECH



TETRA TECH NUS, INC.

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TtNUS/TAL-01-025/0401-7.2.3

March 14, 2001

Project Number 0401

Joe Fugitt, 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-D0888
Contract Task Order No. 0112

Subject: Site Assessment Report Addendum
For Site 1116, Outlying Landing Field (OLF) Bronson
Pensacola, Florida

Tetra Tech NUS, Inc. (TtNUS) is pleased to submit the Site Assessment Report Addendum (SARA) for the referenced Contract Task Order (CTO). This report has been prepared for the U.S. Navy Southern Division Naval Facilities Engineering Command under CTO-0112, for the Comprehensive Long-term Environmental Action Navy (CLEAN) Contract Number N62467-94-D-0888.

Site Assessment Report Addendum Objectives. The objective of the SARA is to address concerns about the Site Assessment Report (SAR) expressed by the Florida Department of Environmental Protection (FDEP) in a technical review letter dated October 1, 1997.

Previous Investigations. In June 1994, the petroleum soil contamination was discovered, contaminated soil was removed, and a closure assessment was performed by Naval Air Station (NAS) Pensacola Navy Public Works Center (NPWC). In March 1997, a Site Assessment Report (SAR) for Outlying Landing Field Bronson, Site 1116, Pensacola, Florida was submitted by NAS Pensacola NPWC to the FDEP for review. Upon review of the SAR, FDEP issued a letter providing comments on the SAR and requiring the preparation of a SAR Addendum for the site. The letter detailed three (3) comments to be addressed in order to meet the requirements of Chapter 62-770, Florida Administrative Code (F.A.C.). A copy of the letter is provided in Attachment A. This letter report addresses these comments and, in so doing, provides a summary of the work performed by TtNUS and the resulting data.

Response To Comments.

Comment 1. Two additional monitoring wells need to be installed. One should be upgradient of well MW-1 as near as possible to soil boring B-1. The second should be placed approximately 30 feet southwest of well MW-1 near soil boring B-11.

Two additional monitoring wells were installed as outlined above. Monitoring well MW-7 is the new well located upgradient of monitoring well MW-1 and near soil boring B-1. Monitoring well MW-8 is the new well located approximately 30 feet southwest of monitoring well MW-1 near soil boring B-11. In addition, one new monitoring well, designated MW-9, was installed approximately

fifteen feet east of monitoring well MW-5. The new monitoring well was installed because monitoring well MW-5, a flush-mounted well, could not be found. The monitoring well locations are shown on Figure 1, Attachment B. The monitoring wells were installed by Groundwater Protection, Inc. using a hollow-stem auger to a depth of 19 feet below land surface (bls). The monitoring wells consist of 2-inch diameter solid polyvinyl chloride (PVC) casing to 9 feet bls attached to 0.010-inch slotted, 2-inch diameter PVC screen from 9 to 19 feet bls.

Comment 2. Monitoring wells MW-5, MW-1, and the two new wells should be sampled and analyzed for naphthalene and PAHs using USEPA method 610, 625, 8100, 8250, 8270, or 8310. TRPH should be analyzed using FL-PRO.

On July 9, 2000, TiNUS personnel collected groundwater samples from monitoring wells MW-3, MW-6, MW-8, and MW-9 located on Site 1116. Monitoring wells MW-1 and MW-7 were not sampled due to the presence of free product. The monitoring well locations are shown on Figure 1, Attachment B. All sampling activities were conducted in accordance with Tetra Tech NUS, Inc., FDEP approved, Comp QAP #980038.

All monitoring wells were purged prior to collecting groundwater samples. Purging and sampling were performed with a peristaltic pump using the low flow quiescent method. Following collection of the groundwater samples, the sample bottles were packed on ice and shipped via overnight transport to Accutest Laboratories in Orlando, Florida. The groundwater samples were analyzed for volatile organic compounds (VOCs) by method 8260B, polycyclic aromatic hydrocarbons (PAHs) by method 8310 and total recoverable petroleum hydrocarbons (TRPHs) by FL-PRO. Groundwater sampling field forms are provided in Attachment C. The analytical results for the monitoring wells are summarized in Table 1, Attachment D. A copy of the validated laboratory report is provided in Attachment E. The validated laboratory report sample group contains samples that are not included in Site 1116 and that are therefore not addressed in this SARA.

No VOCs or PAHs were detected in the groundwater samples collected from Site 1116 monitoring wells. TRPH was detected in the groundwater sample from monitoring well MW-8 at a concentration less than Groundwater Cleanup Target Levels (GCTLs).

Comment 3. The new upgradient well and MW-1 should be measured for free product.

On February 16, 2001, free product thickness measurements and a water level elevation survey were completed at Site 1116 using an oil/water interface probe. The free product encountered was a very viscous material similar to "Bunker C" oil. Free product measurements recorded during the survey indicated that monitoring wells MW-1 and MW-7 contained thicknesses of 1.20 feet and 2.50 feet, respectively. The free product and water level measurements are summarized in Table 2, Attachment D. An estimate of the extent of free product present at the site is shown in Figure 2, Attachment B. Figure 3, Attachment B depicts the groundwater elevations recorded on February 16, 2001.

Conclusions.

- A "Bunker-C" oil tar type free product plume is present at the site over an approximately 524 square foot area with a thickness up to 2.50 feet.
- Groundwater samples collected from onsite monitoring wells did not contain any analytes at concentrations exceeding FDEP's GCTLs.

Mr. Joe Fugitt, P.G.
Florida Department of Environmental Protection
March 14, 2001-Page 3

Recommendations. Results of the groundwater sampling performed in July 2000 support the findings of the SAR. The analytical results for all four groundwater samples were nondetect for all PAH analytes, and below the most stringent GCTL for TRPH. TiNUS recommends the immediate recovery of free product at this site and the completion of a Remedial Action Plan.

If you have any questions with regard to this submittal, please contact me at (850) 385 -9899.

Sincerely,



Gerald A. Walker, P.G.
Task Order Manager
Florida License No. PG-0001180

GW/gw

Enclosures

CC: B. Glover, SOUTHNAVFACENCOM
D. Wroblewski (cover letter only), TiNUS
M. Perry/file, TiNUS

ATTACHMENT A
FDEP Technical Review Letter

Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

October 1, 1997

Mr. Andy Hutto
Code 1844
Southern Division
Naval Facilities Engineering Command
2155 Eagle Drive
P.O. Box 190010
North Charleston, South Carolina 29419-9010

RE: U.S. Navy Outlying Field (OLF) Bronson Site 1116
Pensacola, Florida
FDEP #179300938

Dear Mr. Hutto:

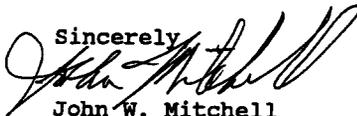
I have completed the technical review of the Contamination Assessment Report (CAR) and Monitoring Only Proposal (MOP) dated March 1997 (received March 18, 1997), submitted for this site 1116 OLF Bronson. In a subsequent phone conversation with Greg Campbell of PWC Pensacola in May, he indicated that in one of the monitoring wells there was a heavy Bunker C coating on the bailers and that he was unable to adequately determine if there was free product. He stated further information would be submitted in a letter for the CAR, but none has yet been received. Due to the questions concerning the conditions at the site, please submit a Site Assessment Report Addendum as per the September 23, 1997 revision to Chapter 62-770 which addresses the following:

1. Two additional monitoring wells need to be installed. One should be upgradient of well MW-1 as near as possible to soil boring B-1. The second should be placed approximately 30 feet southwest of well MW-1 near soil boring B-11.
2. Monitoring wells MW-5, MW-1, and the two new wells should be sampled and analyzed for naphthalene and PAHs using USEPA method 610, 625, 8100, 8250, 8270, or 8310. TRPH should be analyzed using FL-PRO.
3. The new upgradient well and MW-1 should be measured for free product.

Mr. Andy Hutto
October 1, 1997
Site 1116, Bronson Field
Page 2

If I can be of any further assistance with this matter,
please contact me at (904) 921-9989.

Sincerely



John W. Mitchell
Remedial Project Manager

cc: Dean Spencer, NAS Pensacola
Greg Campbell, NAS Pensacola
Tom Moody, FDEP Northwest District

TJB

B

JJC

JJC

ESN

ESN

ATTACHMENT B
Figures

LOCATIONS OF ROADS AND FORMER LOCATIONS OF BUILDINGS AND TANKS TAKEN FROM N.A.S. DRAWING NO. 23032 DATED JUNE 24, 1944 AND OBSERVATIONS. WELL LOCATIONS ARE APPROXIMATE.

LEGEND

- ⊙ MW-7 MONITORING WELL LOCATION AND DESIGNATION
- ⊕ DMW-6 DEEP MONITORING WELL LOCATION AND DESIGNATION
- GROUNDWATER ELEVATION¹
- ESCORTOUR (DASHED WHERE INFERRED)
- (35.60) GROUNDWATER ELEVATION¹
- (NM) NOT MEASURED
- ▶ GROUNDWATER FLOW DIRECTION
- (NL) NOT LOCATED
- (FP) WELL CONTAINS ONLY FREE PRODUCT

¹ - ELEVATION IN FEET ABOVE MEAN SEA LEVEL

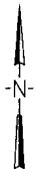
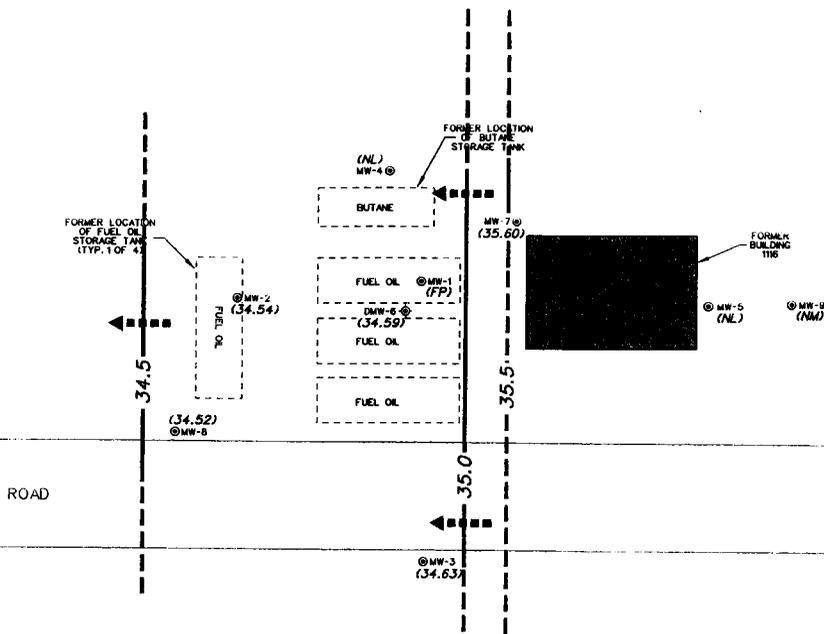


FIGURE 3



GROUNDWATER POTENTIOMETRIC SURFACE MAP FOR FEBRUARY 15, 2011
SITE 116
SITE ASSESSMENT REPORT ADDENDUM

OUTLYING FIELD BRONSON
PENSACOLA, FLORIDA

NOTE:
 LOCATIONS OF ROADS AND FORMER LOCATIONS OF BUILDINGS AND TANKS
 TAKEN FROM N.A.S. DRAWING NO. 23032 DATED JUNE 24, 1944 AND
 D OBSERVATIONS. WELL LOCATIONS ARE APPROXIMATE.

LEGEND
 ⊙ MW-7 MONITORING WELL LOCATION AND DESIGNATION
 ⊕ DMW-6 DEEP MONITORING WELL LOCATION AND DESIGNATION
 (NL) NOT LOCATED

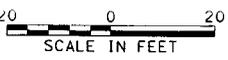
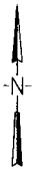
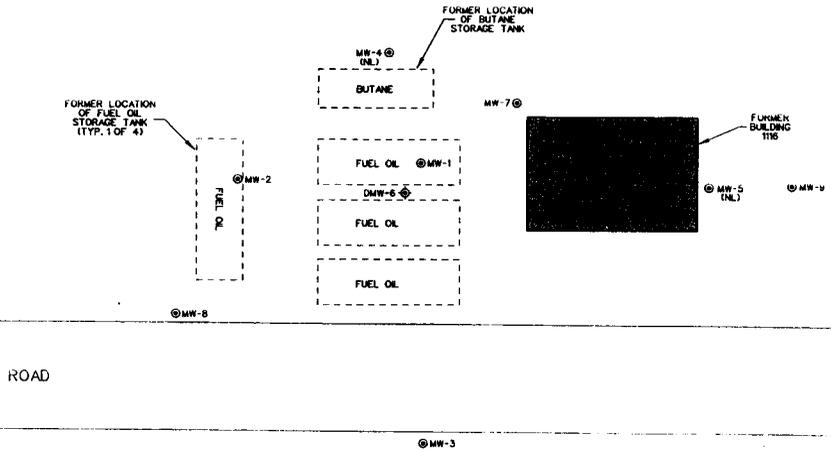


FIGURE 1



MONITORING WELL LOCATION MAP
 SITE 1116
 SITE ASSESSMENT REPORT ADDEND
 OUTLYING FIELD BRONSON
 PENSACOLA, FLORIDA

SOURCE:
 LOCATIONS OF ROADS AND FORMER LOCATIONS OF BUILDINGS AND TANKS
 WERE TAKEN FROM N.A.S. DRAWING NO. 23032 DATED JUNE 24, 1944 AND
 FIELD OBSERVATIONS. WELL LOCATIONS ARE APPROXIMATE.

LEGEND

- ⊙ MW-7 MONITORING WELL LOCATION AND DESIGNATION
- ⊕ DMW-6 DEEP MONITORING WELL LOCATION AND DESIGNATION
-  FREE PRODUCT AREA (DASHED WHERE APPROX.)
- (2.50) FREE PRODUCT THICKNESS¹
- (NS) NOT SAMPLED

¹ - THICKNESS IN FEET

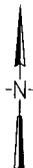
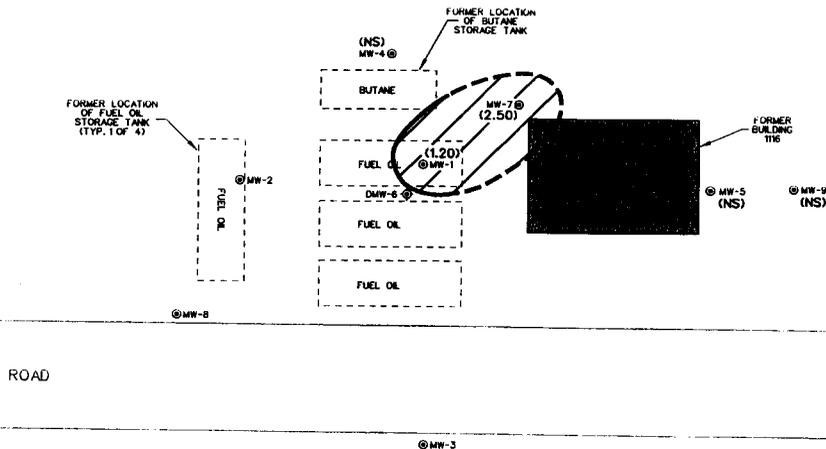


FIGURE 2



**FREE PRODUCT DELINEATION MAP
 SITE 1116
 SITE ASSESSMENT REPORT ADDENDUM**

**OUTLYING FIELD BRONSON
 PENSACOLA, FLORIDA**

ATTACHMENT C
Groundwater Sampling Field Forms



GROUNDWATER SAMPLE LOG SHEET

Page 1 of 1

Project Site Name: OLF Bronson # 1116
 Project No.: 0401

Sample ID No.: OLF016MW03GwSample Location: 1116 MW3Sampled By: JA

C.O.C. No.: _____

Type of Sample: _____

- Domestic Well Data
 Monitoring Well Data
 Other Well Type: _____
 QA Sample Type: _____

- Low Concentration
 High Concentration

SAMPLING DATA:

Date:	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
7-29-00								
Time: 1130								
Method: peristaltic	clear	5.34	.092	23.7	9	7.06	0.00	

PURGE DATA:

Date:	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
7-9-00								
Method: peristaltic	Initial	5.86	.149	24.6	860	5.57	0.00	
Monitor Reading (ppm):	1st	5.70	.097	23.7	393	5.18	0.00	
Well Casing Diameter & Material	2nd	5.65	.093	23.7	159	5.09	0.00	
Type: 2" PVC	3rd	5.47	.086	23.6	49	5.26	0.00	
Total Well Depth (TD): 18.12	4th	5.35	.083	23.8	12	5.19	0.00	
Static Water Level (WL): 14.35	5th	5.34	.082	23.7	9	7.06	0.00	
One Casing Volume(gal/L): .6								
Start Purge (hrs): 1034								
End Purge (hrs): 1130								
Total Purge Time (min): 56								
Total Vol. Purged (gal/L): ~3.9								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2 x 40ml glass	
TRPH	H ₂ SO ₄	2 x 1.8 amber	
PAH	None	" " "	

OBSERVATIONS / NOTES:

13.12 7.80
 14.35 .16

 22.80
 3800
 6080

DO = 6.3 mg/L ORP = 167.3 mV

Fe = 0.01 mg/L

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):



Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Page 1 of 1

Project Site Name: OLFB BRONGSONProject No.: 0401Sample ID No.: OLFB/07/mw06/GWSample Location: Site 6Sampled By: POB

C.O.C. No.:

Type of Sample:

 Low Concentration High Concentration

- Domestic Well Data
 Monitoring Well Data
 Other Well Type:
 QA Sample Type:

SAMPLING DATA:

Date:	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
19/00								
Time: 1145								
Method: <u>LOW FLOW / STRAN</u>	<u>CLEAR</u>	<u>3.84</u>	<u>.073</u>	<u>23.0</u>	<u>2.40</u>	<u>4.90</u>	<u>A</u>	

PURGE DATA:

Date:	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
19/00								
Method: <u>LOW FLOW</u>	<u>INITIAL</u>	<u>4.14</u>	<u>.014</u>	<u>23.0</u>	<u>2.96</u>	<u>5.05</u>	<u>-</u>	<u>CLOUDY</u>
Monitor Reading (ppm): <u>-</u>	<u>1010</u>	<u>4.16</u>	<u>.073</u>	<u>23.0</u>	<u>1.51</u>	<u>4.99</u>	<u>-</u>	<u>CLOUDY</u>
Well Casing Diameter & Material	<u>1020</u>	<u>4.14</u>	<u>.073</u>	<u>23.0</u>	<u>66.5</u>	<u>5.11</u>	<u>-</u>	<u>CLOUDY / CLEAR</u>
Type: <u>2" PVC</u>	<u>1030</u>	<u>4.13</u>	<u>.073</u>	<u>23.0</u>	<u>23.8</u>	<u>5.19</u>	<u>-</u>	<u>CLEAR</u>
Total Well Depth (TD): <u>35.00</u>	<u>1040</u>	<u>3.98</u>	<u>.073</u>	<u>22.9</u>	<u>10.8</u>	<u>5.12</u>	<u>-</u>	<u>CLEAR</u>
Static Water Level (WL): <u>15.50</u>	<u>1050</u>	<u>3.89</u>	<u>.073</u>	<u>22.9</u>	<u>9.05</u>	<u>5.25</u>	<u>-</u>	<u>CLEAR</u>
One Casing Volume (gal): <u>3.25</u>	<u>1100</u>	<u>3.78</u>	<u>.073</u>	<u>22.8</u>	<u>4.33</u>	<u>5.29</u>	<u>-</u>	<u>CLEAR</u>
Start Purge (hrs): <u>1000</u>	<u>1110</u>	<u>3.75</u>	<u>.073</u>	<u>22.9</u>	<u>5.13</u>	<u>4.95</u>	<u>-</u>	<u>CLEAR</u>
End Purge (hrs): <u>1140</u>	<u>1120</u>	<u>3.83</u>	<u>.073</u>	<u>23.0</u>	<u>2.42</u>	<u>4.98</u>	<u>-</u>	<u>CLEAR</u>
Total Purge Time (min): <u>100</u>	<u>1130</u>	<u>3.83</u>	<u>.073</u>	<u>22.9</u>	<u>2.40</u>	<u>4.97</u>	<u>-</u>	<u>CLEAR</u>
Total Vol. Purged (gal): <u>1000</u>	<u>1140</u>	<u>3.84</u>	<u>.073</u>	<u>23.0</u>	<u>2.40</u>	<u>4.98</u>	<u>-</u>	<u>CLEAR</u>

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
<u>VOC</u>	<u>HCL, ICE</u>	<u>2 x 40 ml</u>	<u>2</u>
<u>TRPH</u>	<u>H2SO4, ICE</u>	<u>2 x 100 ml</u>	<u>2</u>
<u>PAH</u>	<u>ICE</u>	<u>2 x 100 ml</u>	<u>2</u>

OBSERVATIONS / NOTES:

SAMPLES PLACED ON ICE IMMEDIATELY
 SAMPLE ID. OLFB/07/mw06/GW

DO = 5.6 mg/L Fe = 0.42 mg/L ORP = 127.6 mV

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

10 GALS

OLFB/07
07
06

high



Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Page 1 of 1

Project Site Name: OLEB
Project No.: 0401Sample ID No.: OLEB16M0804
Sample Location: SH-116 MU08
Sampled By: BH
C.O.C. No.: _____

- Domestic Well Data
 Monitoring Well Data
 Other Well Type: _____
 QA Sample Type: _____

- Type of Sample:
 Low Concentration
 High Concentration

SAMPLING DATA:

Date:	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/L)	Salinity (%)	Other ORP
7-9-00	Clear	5.07	.085	24.1	1.6	1.70	0.0	116.1

PURGE DATA:

Date:	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
7-9-00	INT-	5.35	.115	25.0	2.99	1.66	0.0	117.0
Method: Pump								
Monitor Reading (ppm):	0.7	5.00	.085	24.3	2.0	2.58	0.0	104.5
Well Casing Diameter & Material	1.4	5.10	.085	24.1	4.5	1.67	0.0	112.9
Type: 2" PVC	2.1	5.07	.085	24.1	1.6	1.70	0.0	116.1
Total Well Depth (TD):	19.27							
Static Water Level (WL):	14.93							
One Casing Volume (gal/L):	0.47							
Start Purge (hrs):	1000							
End Purge (hrs):	1040							
Total Purge Time (min):	40							
Total Vol. Purged (gal/L):	2.3							

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	2x40 ml vials	
PAH	None	2x1000 ml ambers	
TRPN	H2SO4	" " " "	

OBSERVATIONS / NOTES:

DO = 4.3 mg/L ORP = 164.7 mV
 Pe = 0.00 mg/L

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):



Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Page 1 of 1

Project Site Name: OLF BronsonProject No.: 0401Sample ID No.: OLF B16 MW0901Sample Location: Site #107 MW09Sampled By: 1196 JLB

C.O.C. No.:

Type of Sample:

- Domestic Well Data
 Monitoring Well Data
 Other Well Type:
 QA Sample Type:

- Low Concentration
 High Concentration

SAMPLING DATA:

Date:	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
7-9-00								
Time: 1023								
Method: peristaltic	Clear	4.81	.093	24.5	1.80	4.14	0.00	

PURGE DATA:

Date:	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
7-9-00								
Method: peristaltic	Initial	4.59	.154	26.6	5.12	4.08	0.00	
Monitor Reading (ppm): -	1 st	4.60	.112	24.9	2.17	4.49	0.00	
Well Casing Diameter & Material	2 nd	4.64	.105	24.6	1.55	3.29	0.00	
Type: 2" PVC	3 rd	4.87	.093	24.5	1.80	4.14	0.00	
Total Well Depth (TD): 2200								
Static Water Level (WL): 18.41								
66 ft Casing Volume (gal/L): 248								
Start Purge (hrs): 0948								
End Purge (hrs): 1020								
Total Purge Time (min): 32 min								
2.18 gal Total Vol. Purged (gal/L): 72 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	40 mL	2
PAH	-	16 Amber	2
TRPH	H ₂ SO ₄	16 Amber	2

OBSERVATIONS / NOTES:

DO = 4.5 mg/L ORP = 143.3 mV

Fe = 0.01 mg/L

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

ATTACHMENT D

Table 1 – Groundwater Analytical Results

Table 2 – Groundwater Elevation and Free Product Thickness

TABLE 1
SUMMARY OF DETECTED ANALYTES IN GROUNDWATER-SITE 1116
OUTLYING LANDING FIELD BRONSON, PENSACOLA, FLORIDA

Sample No.	OLFB16MW03GW	OLFB16MW06GW	OLFB16MW08GW	OLFB16MW09GW
Sample Location	MW-03	MW-06	MW-08	MW-09
Collect Date	7/9/2000	7/9/2000	7/9/2000	7/9/2000
Groundwater Clean-up Criteria ¹ (µg/L)				
<u>Volatile</u> ² (µg/L)				
none detected	--	--	--	--
<u>Polycyclic Aromatic Hydrocarbons</u> ³ (µg/L)				
none detected	--	--	--	--
<u>Total Recoverable Petroleum Hydrocarbons</u> ⁴ (µg/L)	5000	--	434	--

¹ Groundwater Clean-up Criteria as provided in Chapter 62-777, F.A.C.

² SW-846 8260B, ³ SW-846 8310, ⁴ FDEP FL-PRO

-- = not detected

**TABLE 2
GROUNDWATER AND FREE PRODUCT LEVEL DATA-SITE 1116
OUTLYING LANDING FIELD BRONSON, PENSACOLA, FLORIDA**

Well Number	Top of Casing Elevation ⁽¹⁾ (ft)	Depth to Product BTOC (ft) July 9, 2000	Depth to Water BTOC (ft) July 9, 2000	Free Product Thickness (ft) July 9, 2000	Groundwater Elevation ^{(1) (2)} (ft) July 9, 2000	Depth to Product BTOC (ft) February 15, 2001	Depth to Water BTOC (ft) February 15, 2001	Free Product Thickness (ft) February 15, 2001	I F
MW-1	48.95	NM	NM	NM	NM	14.20	NA	1.20 ⁽³⁾	
MW-2	48.64	NM	NM	NM	NM	NA	14.10	NA	
MW-3	47.73	NA	14.35	NA	33.38	NA	13.10	NA	
MW-4	NL	NM	NM	NM	NM	NL	NL	NL	
MW-5	NL	NL	NL	NL	NL	NL	NL	NL	
DMW-6	48.82	NA	15.50	NA	33.32	NA	14.23	NA	
MW-7	48.95	NM	NM	NM	NM	13.10	15.6(13.35) ⁽²⁾	2.50	
MW-8	48.23	NA	14.93	NA	33.30	NA	13.71	NA	
MW-9	51.69	NA	18.41	NA	33.28	NMI	NMI	NMI	

Notes:

BTOC - Below Top of Casing

MSL - Mean Sea Level Datum

⁽¹⁾ Elevations based upon arbitrary elevation of 50 ft. above MSL assigned to the southeast corner of an existing concrete slab, the remnant of Bldg. 1116. MW-1 through MW-4

TOC measurements are taken from Table 2-2 of the SAR.

⁽²⁾ A specific gravity of 0.9 (for Bunker "C" oil) used in water level calculations to correct for free product :
depth to water - (free product thickness*0.90) = corrected depth to water. Corrected depth to water measurement is given in parentheses.

⁽³⁾ Based on a total well depth of 15.40 ft.

NL - not located

NM - not measured

NMI - not measured due to inaccessability

NA - not applicable

ATTACHMENT E
Laboratory Analytical Reports
Data Validation Reports



Tetra Tech NUS, Inc.

Internal Correspondence

TO: Mr. Gerald Walker **DATE:** August 24, 2000
FROM: William Howard Engle **CC:** File
SUBJECT: Organic Data Validation – VOA, EDB, PAH, and TRPH
CTO112 – NAS Pensacola
SDG F7009

SAMPLES: 41/Aqueous

16TB070900	20TB070800	59TB070900
OLFB16001 *	OLFB16MW03GW *	OLFB16MW06GW *
OLFB16MW08GW *	OLFB16MW09GW *	OLFB20001 *
OLFB20D002 *	OLFB20MW02GW *	OLFB20MW11GW *
OLFB20MW12GW *	OLFB20MW17GW *	OLFB20MW18GW *
OLFB20MW19GW *	OLFB20MW24GW *	OLFB20MW25GW *
OLFB20MW26GW *	OLFB20MW30GW *	OLFB20MW34GW *
OLFB69001	OLFB59D001	OLFB59D002
OLFB59MW01GW	OLFB59MW02GW	OLFB59MW04GW
OLFB59MW21GW	OLFB59MW22GW	OLFB59MW23GW
OLFB59MW27GW	OLFB59MW28GW	OLFB59MW34GW
OLFB59MW47GW	OLFB59MW52GW	OLFB59MW60GW
OLFB59MW63GW	OLFB59MW67GW	OLFB59MW68GW
OLFB59MW69GW		

OVERVIEW

The sample set for CTO112, SDG F7009; Naval Air Station Pensacola, Pensacola, Florida consists of thirty-eight (38) aqueous environmental samples, three (3) trip blanks. Three duplicate pairs; OLFB29MW25GW / OLFB20D002, OLFB59MW60GW / OLFB59D001, and OLFB59MW23GW / OLFB59D002, were included in this SDG. The environmental samples, with the exception of samples 16TB070900, 20TB070800, and 59TB070900, were analyzed for Benzene, Toluene, Ethylbenzene, Total Xylenes, and Methyl-tert-butyl ether (MTBE) (VOCs), and Total Residual Petroleum Hydrocarbons (TRPHs). Samples 16TB070900, 20TB070800, and 59TB070900 were analyzed for VOCs only. The samples with a **** were also analyzed for Polycyclic Aromatic Hydrocarbons (PAHs). Sample OLFB59MW23GW was also analyzed for ethylene dibromide (EDB).

The samples were collected by Tetra Tech NUS on July 8-10, 2000 and analyzed by Accutest Southeast Laboratory. All analyses were performed in accordance with Naval Facilities Engineering Service Center (NFESC) Quality Assurance/Quality Control (QA/QC) criteria and analyzed according to SW-846 Method 8021B (VOCs), EPA method 504.1 (EDB), SW-846 method 8310 (PAHs), and FL-PRO (TRPHs) analytical and reporting protocols.

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Memo: Mr. G. Walker
August 24, 2000

The data in this SDG was validated with regard to the following parameters:

- * • Data Completeness
- * • Holding Times
- * • Laboratory method/field quality control blank results
- * • Detection Limits

The symbol (*) indicates that all quality control criteria were met for this parameter. Supporting documentation is presented in Appendix C. Qualified analytical results are presented in Appendix A. The original laboratory data is contained in Appendix B.

Volatile Fraction

All quality control criteria were met for this fraction.

EDB

All quality control criteria were met for this fraction.

Polycyclic Aromatic Hydrocarbon Fraction

All quality control criteria were met for this fraction.

Total Residual Petroleum Fraction

All quality control criteria were met for this fraction.

Field Duplicate Summary

<u>Analyte</u>	<u>OLFB20MW25GW (ug/L)</u>	<u>OLFB20D002 (ug/L)</u>	<u>%D</u>
Ethylbenzene	4.2	4.3	2.3
Total xylenes	17.5	17.2	1.7
1-methylnaphthalene	94.6	86.1	9.4
2-methylnaphthalene	127	115	9.9
naphthalene	42.9	40.5	5.8
TRPH	2.88 mg/L	2.32 mg/L	22
	<u>OLFB59MW60GW (ug/L)</u>	<u>OLFB59D001 (ug/L)</u>	<u>%D</u>
	No positives reported	No positives reported	
	<u>OLFB59MW23GW (ug/L)</u>	<u>OLFB59D002 (ug/L)</u>	<u>%D</u>
Benzene	225	214	5.0
Ethylbenzene	173	177	2.2
MTBE	10U	9.2J	N/A
Toluene	1750	1590	4.8
Total xylenes	1040	1030	1.0
TRPH	4.24 mg/L	3.34 mg/L	24

Notes

Samples -24 and -14 were reported with estimated "E" results for toluene due to the exceedence of the linear calibration range for the instrument. Sample -24 was analyzed twice, once at a dilution, but the result was still above the linear calibration range. No uncompromised vial was available so the lab did not perform another dilution. Sample -14 was analyzed twice at two dilutions, but the results did not match. Another dilution was not performed because no uncompromised vial was available. The higher concentration was reported. The lab has been asked to analyze compromised vials when additional dilutions are needed to obtain results within the linear calibration range.

Executive Summary

Laboratory performance: All quality control criteria were met for this fraction.

Other factors affecting data quality: None.

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Memo: Mr. G. Walker
August 24, 2000

The data for these analyses were reviewed with reference to the EPA Functional Guidelines for Organic Data Validation (February, 1996), and the NFESC guidelines "Navy Installation Restoration Chemical Data Quality Manual" (September, 1999). The text of the report has been formulated to address only those problems affecting data quality.

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



William Howard Engle

Project Chemist
Tetra Tech NUS, Inc.

Joseph A. Samchuck

Data Validation Quality Assurance Officer
Tetra Tech NUS, Inc.

Attachments:

1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as reported by the laboratory
3. Appendix C - Supporting Documentation

Qualifier Codes:

- A = Lab Blank Contamination
- B = Field Blank Contamination
- C = Calibration (i.e., % RSDs, %Ds, ICVs, CCVs, RPDs, RRFs, etc.) Noncompliance
- D = MS/MSD Noncompliance
- E = LCS/LCSD 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 - include ICSAB % R's
- L = Instrument Calibration Range Exceedance
- M = Sample Preservation
- N = Internal Standard Noncompliance
- O = Poor Instrument Performance (i.e., base-time drifting)
- P = Uncertainty near detection limit ($< 2 \times$ IDL for inorganics and $<$ CRQL for organics)
- Q = Other problems (can encompass a number of issues)
- R = Surrogates Recovery Noncompliance
- S = Pesticide/PCB Resolution
- T = % Breakdown Noncompliance for DDT and Endrin
- U = Pest/PCB D% between columns for positive results
- V = Non-linear calibrations, tuning $r < 0.995$ (correlation coefficient)
- W = EMPC result
- X = Signal to noise response drop
- Y = % Solid content is less than 30%

DATA QUALIFIER DEFINITIONS:

- U - Value is a nondetected result as reported by the laboratory and should not be considered present.
- J - Positive result is estimated as a result of a value below the CRQL or a technical noncompliance.
- UJ - Nondetected result is considered to be estimated as a result of technical noncompliances.

APPENDIX A
Qualified Analytical Results

F7009

HOLDING TIME
08/21/00

Units	Nsample	Lab Id	Qc Type	Sdg	Sort	Samp Date	Extr Date	Anal Date	SAMP_DATE TO EXTR_DATE	EXTR_DATE TO ANAL_DATE	SAMP_DATE TO ANAL_DATE
UG/L	OLFB59001	F7009-34	NORMAL	F7009	M	07/09/00	07/13/00	07/17/00	4	4	8
UG/L	OLFB59D001	F7009-29	NORMAL	F7009	M	07/09/00	07/13/00	07/17/00	4	4	8
UG/L	OLFB59D002	F7009-30	NORMAL	F7009	M	07/10/00	07/13/00	07/17/00	3	4	7
UG/L	OLFB59MW01GW	F7009-24	NORMAL	F7009	M	07/10/00	07/13/00	07/17/00	3	4	7
UG/L	OLFB59MW02GW	F7009-23	NORMAL	F7009	M	07/10/00	07/13/00	07/14/00	3	1	4
UG/L	OLFB59MW04GW	F7009-25	NORMAL	F7009	M	07/10/00	07/13/00	07/17/00	3	4	7
UG/L	OLFB59MW20GW	F7009-21	NORMAL	F7009	M	07/10/00	07/13/00	07/14/00	3	1	4
UG/L	OLFB59MW21GW	F7009-22	NORMAL	F7009	M	07/10/00	07/13/00	07/14/00	3	1	4
UG/L	OLFB59MW22GW	F7009-17	NORMAL	F7009	M	07/10/00	07/17/00	07/20/00	7	3	10
UG/L	OLFB59MW23GW	F7009-18	NORMAL	F7009	M	07/10/00	07/17/00	07/20/00	7	3	10
UG/L	OLFB59MW27GW	F7009-14	NORMAL	F7009	M	07/09/00	07/17/00	07/30/00	8	13	21
UG/L	OLFB59MW28GW	F7009-11	NORMAL	F7009	M	07/09/00	07/14/00	07/17/00	5	3	8
UG/L	OLFB59MW34GW	F7009-16	NORMAL	F7009	M	07/10/00	07/17/00	07/20/00	7	3	10
UG/L	OLFB59MW47GW	F7009-12	NORMAL	F7009	M	07/09/00	07/14/00	07/17/00	5	3	8
UG/L	OLFB59MW52GW	F7009-28	NORMAL	F7009	M	07/10/00	07/13/00	07/17/00	3	4	7
UG/L	OLFB59MW60GW	F7009-15	NORMAL	F7009	M	07/09/00	07/17/00	07/30/00	8	13	21
UG/L	OLFB59MW63GW	F7009-13	NORMAL	F7009	M	07/09/00	07/17/00	07/30/00	8	13	21
UG/L	OLFB59MW67GW	F7009-26	NORMAL	F7009	M	07/10/00	07/13/00	07/17/00	3	4	7
UG/L	OLFB59MW68GW	F7009-27	NORMAL	F7009	M	07/10/00	07/13/00	07/17/00	3	4	7
UG/L	OLFB59MW69GW	F7009-19	NORMAL	F7009	M	07/10/00	07/17/00	07/20/00	7	3	10
UG/L	16TB070900	F7009-42	NORMAL	F7009	OV	07/09/00	//	07/23/00	0	0	14
UG/L	20TB070800	F7009-36	NORMAL	F7009	OV	07/08/00	//	07/22/00	0	0	14
UG/L	59TB070900	F7009-31	NORMAL	F7009	OV	07/08/00	//	07/22/00	0	0	14
UG/L	OLFB16001	F7009-32	NORMAL	F7009	OV	07/09/00	//	07/22/00	0	0	13

Units	Nsample	Lab Id	Qc Type	Sdg	Sort	Samp Date	Extr Date	Anal Date	SAMP_DATE TO EXTR_DATE	EXTR_DATE TO ANAL_DATE	SAMP_DATE TO ANAL_DATE
UGL	OLFB16MW03GW	F7009-40	NORMAL	F7009	OV	07/09/00	//	07/22/00	0	0	13
UGL	OLFB16MW06GW	F7009-41	NORMAL	F7009	OV	07/09/00	//	07/22/00	0	0	13
UGL	OLFB16MW08GW	F7009-39	NORMAL	F7009	OV	07/09/00	//	07/22/00	0	0	13
UGL	OLFB16MW09GW	F7009-38	NORMAL	F7009	OV	07/09/00	//	07/22/00	0	0	13
UGL	OLFB20001	F7009-33	NORMAL	F7009	OV	07/09/00	//	07/22/00	0	0	13
UGL	OLFB20D002	F7009-35	NORMAL	F7009	OV	07/08/00	//	07/22/00	0	0	14
UGL	OLFB20MW02GW	F7009-4	NORMAL	F7009	OV	07/08/00	//	07/22/00	0	0	14
UGL	OLFB20MW11GW	F7009-7	NORMAL	F7009	OV	07/08/00	//	07/22/00	0	0	14
UGL	OLFB20MW12GW	F7009-1	NORMAL	F7009	OV	07/08/00	//	07/21/00	0	0	13
UGL	OLFB20MW17GW	F7009-3	NORMAL	F7009	OV	07/08/00	//	07/21/00	0	0	13
UGL	OLFB20MW18GW	F7009-5	NORMAL	F7009	OV	07/08/00	//	07/22/00	0	0	14
UGL	OLFB20MW19GW	F7009-37	NORMAL	F7009	OV	07/08/00	//	07/22/00	0	0	14
UGL	OLFB20MW24GW	F7009-6	NORMAL	F7009	OV	07/08/00	//	07/22/00	0	0	14
UGL	OLFB20MW25GW	F7009-9	NORMAL	F7009	OV	07/08/00	//	07/22/00	0	0	14
UGL	OLFB20MW26GW	F7009-8	NORMAL	F7009	OV	07/08/00	//	07/22/00	0	0	14
UGL	OLFB20MW30GW	F7009-10	NORMAL	F7009	OV	07/08/00	//	07/22/00	0	0	14
UGL	OLFB20MW34GW	F7009-2	NORMAL	F7009	OV	07/08/00	//	07/21/00	0	0	13
UGL	OLFB59001	F7009-34	NORMAL	F7009	OV	07/09/00	//	07/22/00	0	0	13
UGL	OLFB59D001	F7009-29	NORMAL	F7009	OV	07/09/00	//	07/22/00	0	0	13
UGL	OLFB59D002	F7009-30	NORMAL	F7009	OV	07/10/00	//	07/23/00	0	0	13
UGL	OLFB59MW01GW	F7009-24	NORMAL	F7009	OV	07/10/00	//	07/23/00	0	0	13
UGL	OLFB59MW02GW	F7009-23	NORMAL	F7009	OV	07/10/00	//	07/23/00	0	0	13
UGL	OLFB59MW04GW	F7009-25	NORMAL	F7009	OV	07/10/00	//	07/23/00	0	0	13
UGL	OLFB59MW20GW	F7009-21	NORMAL	F7009	OV	07/10/00	//	07/23/00	0	0	13
UGL	OLFB59MW21GW	F7009-22	NORMAL	F7009	OV	07/10/00	//	07/23/00	0	0	13
UGL	OLFB59MW22GW	F7009-17	NORMAL	F7009	OV	07/10/00	//	07/23/00	0	0	13
UGL	OLFB59MW23GW	F7009-18	NORMAL	F7009	OV	07/10/00	//	07/21/00	0	0	11

Units	Nsample	Lab Id	Qc Type	Sdg	Sort	Samp Date	Extr Date	Anal Date	SAMP_DATE TO EXTR_DATE	EXTR_DATE TO ANAL_DATE	SAMP_DATE TO ANAL_DATE
UGL	OLFB59MW27GW	F7009-14	NORMAL	F7009	OV	07/09/00	//	07/22/00	0	0	13
UGL	OLFB59MW28GW	F7009-11	NORMAL	F7009	OV	07/09/00	//	07/22/00	0	0	13
UGL	OLFB59MW34GW	F7009-16	NORMAL	F7009	OV	07/10/00	//	07/23/00	0	0	13
UGL	OLFB59MW47GW	F7009-12	NORMAL	F7009	OV	07/09/00	//	07/22/00	0	0	13
UGL	OLFB59MW52GW	F7009-28	NORMAL	F7009	OV	07/10/00	//	07/23/00	0	0	13
UGL	OLFB59MW60GW	F7009-15	NORMAL	F7009	OV	07/09/00	//	07/22/00	0	0	13
UGL	OLFB59MW63GW	F7009-13	NORMAL	F7009	OV	07/09/00	//	07/22/00	0	0	13
UGL	OLFB59MW67GW	F7009-26	NORMAL	F7009	OV	07/10/00	//	07/24/00	0	0	14
UGL	OLFB59MW68GW	F7009-27	NORMAL	F7009	OV	07/10/00	//	07/23/00	0	0	13
UGL	OLFB59MW69GW	F7009-19	NORMAL	F7009	OV	07/10/00	//	07/23/00	0	0	13
UGL	OLFB16001	F7009-32	NORMAL	F7009	PAH	07/09/00	07/13/00	07/22/00	4	9	13
UGL	OLFB16MW03GW	F7009-40	NORMAL	F7009	PAH	07/09/00	07/13/00	07/23/00	4	10	14
UGL	OLFB16MW06GW	F7009-41	NORMAL	F7009	PAH	07/09/00	07/13/00	07/23/00	4	10	14
UGL	OLFB16MW08GW	F7009-39	NORMAL	F7009	PAH	07/09/00	07/13/00	07/23/00	4	10	14
UGL	OLFB16MW09GW	F7009-38	NORMAL	F7009	PAH	07/09/00	07/13/00	07/23/00	4	10	14
UGL	OLFB20001	F7009-33	NORMAL	F7009	PAH	07/09/00	07/13/00	07/22/00	4	9	13
UGL	OLFB20D002	F7009-35	NORMAL	F7009	PAH	07/08/00	07/13/00	07/22/00	5	9	14
UGL	OLFB20MW02GW	F7009-4	NORMAL	F7009	PAH	07/08/00	07/13/00	07/24/00	5	11	16
UGL	OLFB20MW11GW	F7009-7	NORMAL	F7009	PAH	07/08/00	07/13/00	07/22/00	5	9	14
UGL	OLFB20MW12GW	F7009-1	NORMAL	F7009	PAH	07/08/00	07/13/00	07/24/00	5	11	16
UGL	OLFB20MW17GW	F7009-3	NORMAL	F7009	PAH	07/09/00	07/13/00	07/24/00	5	11	16
UGL	OLFB20MW18GW	F7009-5	NORMAL	F7009	PAH	07/08/00	07/13/00	07/24/00	5	11	16
UGL	OLFB20MW19GW	F7009-37	NORMAL	F7009	PAH	07/08/00	07/13/00	07/22/00	5	9	14
UGL	OLFB20MW24GW	F7009-6	NORMAL	F7009	PAH	07/08/00	07/13/00	07/24/00	5	11	16
UGL	OLFB20MW25GW	F7009-9	NORMAL	F7009	PAH	07/08/00	07/13/00	07/24/00	5	11	16
UGL	OLFB20MW26GW	F7009-8	NORMAL	F7009	PAH	07/08/00	07/13/00	07/22/00	5	9	14
UGL	OLFB20MW30GW	F7009-10	NORMAL	F7009	PAH	07/08/00	07/13/00	07/22/00	5	9	14

Units	Nsample	Lab Id	Qc Type	Sdg	Sort	Samp Date	Extr Date	Anal Date	SAMP_DATE TO EXTR_DATE	EXTR_DATE TO ANAL_DATE	SAMP_DATE TO ANAL_DATE
UG/L	OLFB20MW34GW	F7009-2	NORMAL	F7009	PAH	07/08/00	07/13/00	07/22/00	5	9	14
MG/L	OLFB16001	F7009-32	NORMAL	F7009	TPH	07/09/00	07/14/00	07/20/00	5	6	11
MG/L	OLFB16MW03GW	F7009-40	NORMAL	F7009	TPH	07/09/00	07/14/00	07/21/00	5	7	12
MG/L	OLFB16MW06GW	F7009-41	NORMAL	F7009	TPH	07/09/00	07/14/00	07/21/00	5	7	12
MG/L	OLFB16MW08GW	F7009-39	NORMAL	F7009	TPH	07/09/00	07/14/00	07/21/00	5	7	12
MG/L	OLFB16MW09GW	F7009-38	NORMAL	F7009	TPH	07/09/00	07/14/00	07/21/00	5	7	12
MG/L	OLFB20001	F7009-33	NORMAL	F7009	TPH	07/09/00	07/14/00	07/20/00	5	6	11
MG/L	OLFB20D002	F7009-35	NORMAL	F7009	TPH	07/08/00	07/14/00	07/20/00	6	6	12
MG/L	OLFB20MW02GW	F7009-4	NORMAL	F7009	TPH	07/08/00	07/13/00	07/17/00	5	4	9
MG/L	OLFB20MW11GW	F7009-7	NORMAL	F7009	TPH	07/08/00	07/13/00	07/14/00	5	1	6
MG/L	OLFB20MW12GW	F7009-1	NORMAL	F7009	TPH	07/08/00	07/13/00	07/14/00	5	1	6
MG/L	OLFB20MW17GW	F7009-3	NORMAL	F7009	TPH	07/08/00	07/13/00	07/14/00	5	1	6
MG/L	OLFB20MW18GW	F7009-5	NORMAL	F7009	TPH	07/08/00	07/13/00	07/17/00	5	4	9
MG/L	OLFB20MW19GW	F7009-37	NORMAL	F7009	TPH	07/08/00	07/14/00	07/20/00	6	6	12
MG/L	OLFB20MW24GW	F7009-6	NORMAL	F7009	TPH	07/08/00	07/13/00	07/14/00	5	1	6
MG/L	OLFB20MW25GW	F7009-9	NORMAL	F7009	TPH	07/08/00	07/13/00	07/17/00	5	4	9
MG/L	OLFB20MW26GW	F7009-8	NORMAL	F7009	TPH	07/08/00	07/13/00	07/17/00	5	4	9
MG/L	OLFB20MW30GW	F7009-10	NORMAL	F7009	TPH	07/08/00	07/13/00	07/17/00	5	4	9
MG/L	OLFB20MW34GW	F7009-2	NORMAL	F7009	TPH	07/08/00	07/13/00	07/14/00	5	1	6
MG/L	OLFB59001	F7009-34	NORMAL	F7009	TPH	07/09/00	07/14/00	07/21/00	5	7	12
MG/L	OLFB59D001	F7009-29	NORMAL	F7009	TPH	07/09/00	07/14/00	07/20/00	5	6	11
MG/L	OLFB59D002	F7009-30	NORMAL	F7009	TPH	07/10/00	07/14/00	07/21/00	4	7	11
MG/L	OLFB59MW01GW	F7009-24	NORMAL	F7009	TPH	07/10/00	07/14/00	07/20/00	4	6	10
MG/L	OLFB59MW02GW	F7009-23	NORMAL	F7009	TPH	07/10/00	07/14/00	07/20/00	4	6	10
MG/L	OLFB59MW04GW	F7009-25	NORMAL	F7009	TPH	07/10/00	07/14/00	07/21/00	4	7	11
MG/L	OLFB59MW20GW	F7009-21	NORMAL	F7009	TPH	07/10/00	07/13/00	07/17/00	3	4	7
MG/L	OLFB59MW21GW	F7009-22	NORMAL	F7009	TPH	07/10/00	07/14/00	07/20/00	4	6	10

Units	Nsample	Lab Id	Qc Type	Sdg	Sort	Samp Date	Extr Date	Anal Date	SAMP_DATE TO EXTR_DATE	EXTR_DATE TO ANAL_DATE	SAMP_DATE TO ANAL_DATE
MG/L	OLFB59MW22GW	F7009-17	NORMAL	F7009	TPH	07/10/00	07/13/00	07/17/00	3	4	7
MG/L	OLFB59MW23GW	F7009-18	NORMAL	F7009	TPH	07/10/00	07/13/00	07/15/00	3	2	5
MG/L	OLFB59MW27GW	F7009-14	NORMAL	F7009	TPH	07/09/00	07/13/00	07/14/00	4	1	5
MG/L	OLFB59MW28GW	F7009-11	NORMAL	F7009	TPH	07/09/00	07/13/00	07/14/00	4	1	5
MG/L	OLFB59MW34GW	F7009-16	NORMAL	F7009	TPH	07/10/00	07/13/00	07/15/00	3	2	5
MG/L	OLFB59MW47GW	F7009-12	NORMAL	F7009	TPH	07/09/00	07/13/00	07/17/00	4	4	8
MG/L	OLFB59MW52GW	F7009-28	NORMAL	F7009	TPH	07/10/00	07/14/00	07/20/00	4	6	10
MG/L	OLFB59MW60GW	F7009-15	NORMAL	F7009	TPH	07/09/00	07/13/00	07/15/00	4	2	6
MG/L	OLFB59MW63GW	F7009-13	NORMAL	F7009	TPH	07/09/00	07/13/00	07/14/00	4	1	5
MG/L	OLFB59MW67GW	F7009-26	NORMAL	F7009	TPH	07/10/00	07/14/00	07/20/00	4	6	10
MG/L	OLFB59MW68GW	F7009-27	NORMAL	F7009	TPH	07/10/00	07/14/00	07/20/00	4	6	10
MG/L	OLFB59MW69GW	F7009-19	NORMAL	F7009	TPH	07/10/00	07/13/00	07/15/00	3	2	5

CTO112-NAS PENSACOLA

WATER DATA

Accutest, NJ

SDG: F7009

SAMPLE NUMBER:	16TB070900	20TB070800	59TB070900	OLFB16001
SAMPLE DATE:	07/09/00	07/08/00	07/08/00	07/09/00
LABORATORY ID:	F7009-42	F7009-36	F7009-31	F7009-32
QC_TYPE:	NORMAL	NORMAL	NORMAL	NORMAL
% SOLIDS:	0.0 %	0.0 %	0.0 %	0.0 %
UNITS:	UG/L	UG/L	UG/L	UG/L
FIELD DUPLICATE OF:				

	RESULT	QUAL	CODE									
VOLATILES												
BENZENE	1	U		1	U		1	U		1	U	
ETHYLBENZENE	1	U		1	U		1	U		1	U	
METHYL TERT-BUTYL ETHER	1	U		1	U		1	U		1	U	
TOLUENE	1	U		1	U		1	U		1	U	
XYLENES, TOTAL	3	U		3	U		3	U		3	U	

**CTO112-NAS PENSACOLA
 WATER DATA
 Accutest, NJ
 SDG: F7009**

SAMPLE NUMBER:	OLFB16MW03GW	OLFB16MW06GW	OLFB16MW08GW	OLFB16MW09GW
SAMPLE DATE:	07/09/00	07/09/00	07/09/00	07/09/00
LABORATORY ID:	F7009-40	F7009-41	F7009-39	F7009-38
QC_TYPE:	NORMAL	NORMAL	NORMAL	NORMAL
% SOLIDS:	0.0 %	0.0 %	0.0 %	0.0 %
UNITS:	UG/L	UG/L	UG/L	UG/L
FIELD DUPLICATE OF:				

	RESULT	QUAL	CODE									
VOLATILES												
BENZENE	1	U		1	U		1	U		1	U	
ETHYLBENZENE	1	U		1	U		1	U		1	U	
METHYL TERT-BUTYL ETHER	1	U		1	U		1	U		1	U	
TOLUENE	1	U		1	U		1	U		1	U	
XYLENES, TOTAL	3	U		3	U		3	U		3	U	

CTO112-NAS PENSACOLA

WATER DATA

Accutest, NJ

SDG: F7009

SAMPLE NUMBER:	OLFB16001	OLFB16MW03GW	OLFB16MW06GW	OLFB16MW08GW
SAMPLE DATE:	07/09/00	07/09/00	07/09/00	07/09/00
LABORATORY ID:	F7009-32	F7009-40	F7009-41	F7009-39
QC_TYPE:	NORMAL	NORMAL	NORMAL	NORMAL
% SOLIDS:	0.0 %	0.0 %	0.0 %	0.0 %
UNITS:	UG/L	UG/L	UG/L	UG/L
FIELD DUPLICATE OF:				

	RESULT	QUAL	CODE									
POLYNUCLEAR AROMATIC HYDROCARBONS												
1-METHYLNAPHTHALENE	2	U		2.2	U		2.2	U		2.2	U	
2-METHYLNAPHTHALENE	2	U		2.2	U		2.2	U		2.2	U	
ACENAPHTHENE	2	U		2.2	U		2.2	U		2.2	U	
ACENAPHTHYLENE	2	U		2.2	U		2.2	U		2.2	U	
ANTHRACENE	2	U		2.2	U		2.2	U		2.2	U	
BENZO(A)ANTHRACENE	0.2	U		0.22	U		0.22	U		0.22	U	
BENZO(A)PYRENE	0.2	U		0.22	U		0.22	U		0.22	U	
BENZO(B)FLUORANTHENE	0.2	U		0.22	U		0.22	U		0.22	U	
BENZO(G,H,I)PERYLENE	0.2	U		0.22	U		0.22	U		0.22	U	
BENZO(K)FLUORANTHENE	0.2	U		0.22	U		0.22	U		0.22	U	
CHRYSENE	2	U		2.2	U		2.2	U		2.2	U	
DIBENZO(A,H)ANTHRACENE	0.2	U		0.22	U		0.22	U		0.22	U	
FLUORANTHENE	2	U		2.2	U		2.2	U		2.2	U	
FLUORENE	2	U		2.2	U		2.2	U		2.2	U	
INDENO(1,2,3-CD)PYRENE	0.2	U		0.22	U		0.22	U		0.22	U	
NAPHTHALENE	2	U		2.2	U		2.2	U		2.2	U	
PHENANTHRENE	2	U		2.2	U		2.2	U		2.2	U	
PYRENE	2	U		2.2	U		2.2	U		2.2	U	

CTO112-NAS PENSACOLA

WATER DATA

Accutest, NJ

SDG: F7009

SAMPLE NUMBER:	OLFB16MW09GW	OLFB20001	OLFB20D002	OLFB20MW02GW
SAMPLE DATE:	07/09/00	07/09/00	07/08/00	07/08/00
LABORATORY ID:	F7009-38	F7009-33	F7009-35	F7009-4
QC_TYPE:	NORMAL	NORMAL	NORMAL	NORMAL
% SOLIDS:	0.0 %	0.0 %	0.0 %	0.0 %
UNITS:	UG/L	UG/L	UG/L	UG/L
FIELD DUPLICATE OF:				

	RESULT	QUAL	CODE									
POLYNUCLEAR AROMATIC HYDROCARBONS												
1-METHYLNAPHTHALENE	2.2	U		2.2	U		86.1			6		
2-METHYLNAPHTHALENE	2.2	U		2.2	U		115			7		
ACENAPHTHENE	2.2	U		2.2	U		8.4	U		2.2	U	
ACENAPHTHYLENE	2.2	U		2.2	U		8.4	U		2.2	U	
ANTHRACENE	2.2	U		2.2	U		8.4	U		2.2	U	
BENZO(A)ANTHRACENE	0.22	U		0.22	U		0.84	U		0.22	U	
BENZO(A)PYRENE	0.22	U		0.22	U		0.84	U		0.22	U	
BENZO(B)FLUORANTHENE	0.22	U		0.22	U		0.84	U		0.22	U	
BENZO(G,H,I)PERYLENE	0.22	U		0.22	U		0.84	U		0.22	U	
BENZO(K)FLUORANTHENE	0.22	U		0.22	U		0.84	U		0.22	U	
CHRYSENE	2.2	U		2.2	U		8.4	U		4.4	U	
DIBENZO(A,H)ANTHRACENE	0.22	U		0.22	U		0.84	U		0.22	U	
FLUORANTHENE	2.2	U		2.2	U		8.4	U		2.2	U	
FLUORENE	2.2	U		2.2	U		8.4	U		2.2	U	
INDENO(1,2,3-CD)PYRENE	0.22	U		0.22	U		0.84	U		0.22	U	
NAPHTHALENE	2.2	U		2.2	U		40.5			3		
PHENANTHRENE	2.2	U		2.2	U		8.4	U		2.2	U	
PYRENE	2.2	U		2.2	U		8.4	U		2.2	U	

CTO112-NAS PENSACOLA

WATER DATA

Accutest, NJ

SDG: F7009

SAMPLE NUMBER:	OLFB16001	OLFB16MW03GW	OLFB16MW06GW	OLFB16MW08GW
SAMPLE DATE:	07/09/00	07/09/00	07/09/00	07/09/00
LABORATORY ID:	F7009-32	F7009-40	F7009-41	F7009-39
QC_TYPE:	NORMAL	NORMAL	NORMAL	NORMAL
% SOLIDS:	0.0 %	0.0 %	0.0 %	0.0 %
UNITS:	MG/L	MG/L	MG/L	MG/L
FIELD DUPLICATE OF:				

	RESULT	QUAL	CODE									
PETROLEUM HYDROCARBONS												
TOTAL PETROLEUM HYDROCARBONS	0.28	U		0.28	U		0.3	U		0.434		

**CTO112-NAS PENSACOLA
 WATER DATA
 Accutest, NJ
 SDG: F7009**

SAMPLE NUMBER:	OLFB16MW09GW	OLFB20001	OLFB20D002	OLFB20MW02GW
SAMPLE DATE:	07/09/00	07/09/00	07/08/00	07/08/00
LABORATORY ID:	F7009-38	F7009-33	F7009-35	F7009-4
QC_TYPE:	NORMAL	NORMAL	NORMAL	NORMAL
% SOLIDS:	0.0 %	0.0 %	0.0 %	0.0 %
UNITS:	MG/L	MG/L	MG/L	MG/L
FIELD DUPLICATE OF:				

	RESULT	QUAL	CODE									
PETROLEUM HYDROCARBONS												
TOTAL PETROLEUM HYDROCARBONS	0.28	U		0.28	U		2.32			1.14		

APPENDIX B

Results as Reported by the Laboratory

Report of Analysis

Client Sample ID: 16TB070900 Lab Sample ID: F7009-42 Matrix: AQ - Trip Blank Water Method: SW846 8021B Project: NAS Pensacola	Date Sampled: 07/09/00 Date Received: 07/11/00 Percent Solids: n/a
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Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD016560.D	1	07/23/00	RAW	n/a	n/a	GCD586
Run #2							

Purgcable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units Q
71-43-2	Benzene	ND	1.0	ug/l
108-88-3	Toluene	ND	1.0	ug/l
100-41-4	Ethylbenzene	ND	1.0	ug/l
1330-20-7	Xylenes (total)	ND	3.0	ug/l
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	82%		69-125%
98-08-8	aaa-Trifluorotoluene	91%		72-125%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Page 1 of 1

Client Sample ID: OLFB16001 Lab Sample ID: F7009-32 Matrix: AQ - Ground Water Method: SW846 8021B Project: NAS Pensacola	Date Sampled: 07/09/00 Date Received: 07/11/00 Percent Solids: n/a
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD016553.D	1	07/22/00	RAW	n/a	n/a	GCD586
Run #2							

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units Q
71-43-2	Benzene	ND	1.0	ug/l
108-88-3	Toluene	ND	1.0	ug/l
100-41-4	Ethylbenzene	ND	1.0	ug/l
1330-20-7	Xylenes (total)	ND	3.0	ug/l
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	88%		69-125%
98-08-8	aaa-Trifluorotoluene	95%		72-125%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID: OLFB16MW03GW	Date Sampled: 07/09/00
Lab Sample ID: F7009-40	Date Received: 07/11/00
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8021B	
Project: NAS Pensacola	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	CD016558.D	1	07/22/00	RAW	n/a	n/a	GCD586

Purgable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units Q
71-43-2	Benzene	ND	1.0	ug/l
108-88-3	Toluene	ND	1.0	ug/l
100-41-4	Ethylbenzene	ND	1.0	ug/l
1330-20-7	Xylenes (total)	ND	3.0	ug/l
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	88%		69-125%
98-08-8	aaa-Trifluorotoluene	94%		72-125%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID: OLFB16MW06GW Lab Sample ID: F7009-41 Matrix: AQ - Ground Water Method: SW846 8021B Project: NAS Pensacola	Date Sampled: 07/09/00 Date Received: 07/11/00 Percent Solids: n/a
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD016559.D	1	07/22/00	RAW	n/a	n/a	GCD586
Run #2							

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	90%		69-125%
98-08-8	aaa-Trifluorotoluene	99%		72-125%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Page 1 of 1

Client Sample ID: OLFB16MW08GW Lab Sample ID: F7009-39 Matrix: AQ - Ground Water Method: SW846 8021B Project: NAS Pensacola	Date Sampled: 07/09/00 Date Received: 07/11/00 Percent Solids: n/a
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Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	CD016557.D	1	07/22/00	RAW	n/a	n/a	GCD586

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	.87%		69-125%
98-08-8	aaa-Trifluorotoluene	.93%		72-125%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Page 1 of 1

Client Sample ID: OLFBI6MW09GW	
Lab Sample ID: F7009-38	Date Sampled: 07/09/00
Matrix: AQ - Ground Water	Date Received: 07/11/00
Method: SW846 8021B	Percent Solids: n/a
Project: NAS Pensacola	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD016556.D	1	07/22/00	RAW	n/a	n/a	GCD586
Run #2							

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units Q
71-43-2	Benzene	ND	1.0	ug/l
108-88-3	Toluene	ND	1.0	ug/l
100-41-4	Ethylbenzene	ND	1.0	ug/l
1330-20-7	Xylenes (total)	ND	3.0	ug/l
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	89%		69-125%
98-08-8	aaa-Trifluorotoluene	95%		72-125%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID: OLPB16001 Lab Sample ID: F7009-32 Matrix: AQ - Ground Water Method: EPA 8310 Project: NAS Pensacola	Date Sampled: 07/09/00 Date Received: 07/11/00 Percent Solids: n/a
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA003184.D	1	07/22/00	CCI	07/13/00	OP1825	GAA104
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	2.0	ug/l	
208-96-8	Acenaphthylene	ND	2.0	ug/l	
120-12-7	Anthracene	ND	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.20	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.20	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.20	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.20	ug/l	
218-01-9	Chrysene	ND	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.20	ug/l	
206-44-0	Fluoranthene	ND	2.0	ug/l	
86-73-7	Fluorene	ND	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.20	ug/l	
91-20-3	Naphthalene	ND	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.0	ug/l	
85-01-8	Phenanthrene	ND	2.0	ug/l	
129-00-0	Pyrene	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	57%		29-133%
92-94-4	p-Terphenyl	79%		33-133%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID: OLFB16MW03GW Lab Sample ID: F7009-40 Matrix: AQ - Ground Water Method: EPA 8310 Project: NAS Pensacola	Date Sampled: 07/09/00 Date Received: 07/11/00 Percent Solids: n/a
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	AA003191.D	1	07/23/00	CCJ	07/13/00	OP1825	GAA104

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	2.2	ug/l	
208-96-8	Acenaphthylene	ND	2.2	ug/l	
120-12-7	Anthracene	ND	2.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.22	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.22	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.22	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.22	ug/l	
218-01-9	Chrysene	ND	2.2	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.22	ug/l	
206-44-0	Fluoranthene	ND	2.2	ug/l	
86-73-7	Fluorene	ND	2.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.22	ug/l	
91-20-3	Naphthalene	ND	2.2	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.2	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.2	ug/l	
85-01-8	Phenanthrene	ND	2.2	ug/l	
129-00-0	Pyrene	ND	2.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	58%		29-133%
92-94-4	p-Terphenyl	87%		33-133%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Page 1 of 1

Client Sample ID: OLFB16MW06GW	Date Sampled: 07/09/00
Lab Sample ID: F7009-41	Date Received: 07/11/00
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: EPA 8310	
Project: NAS Pensacola	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	AA003192.D	1	07/23/00	CCJ	07/13/00	OP1825	GAA104

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	2.2	ug/l	
208-96-8	Acenaphthylene	ND	2.2	ug/l	
120-12-7	Anthracene	ND	2.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.22	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.22	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.22	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.22	ug/l	
218-01-9	Chrysene	ND	2.2	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.22	ug/l	
206-44-0	Fluoranthene	ND	2.2	ug/l	
86-73-7	Fluorene	ND	2.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.22	ug/l	
91-20-3	Naphthalene	ND	2.2	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.2	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.2	ug/l	
85-01-8	Phenanthrene	ND	2.2	ug/l	
129-00-0	Pyrene	ND	2.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	64%		29-133%
92-94-4	p-Terphenyl	94%		33-133%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

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Client Sample ID: OLFB16MW08GW Lab Sample ID: F7009-39 Matrix: AQ - Ground Water Method: EPA 8310 Project: NAS Pensacola	Date Sampled: 07/09/00 Date Received: 07/11/00 Percent Solids: n/a
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA003190.D	1	07/23/00	CCJ	07/13/00	OP1825	GAA104
Run #2							

CAS No.	Compound	Result	RL	Units Q
83-32-9	Acenaphthene	ND	2.2	ug/l
208-96-8	Acenaphthylene	ND	2.2	ug/l
120-12-7	Anthracene	ND	2.2	ug/l
56-55-3	Benzo(a)anthracene	ND	0.22	ug/l
50-32-8	Benzo(a)pyrene	ND	0.22	ug/l
205-99-2	Benzo(b)fluoranthene	ND	0.22	ug/l
191-24-2	Benzo(g,h,i)perylene	ND	0.22	ug/l
207-08-9	Benzo(k)fluoranthene	ND	0.22	ug/l
218-01-9	Chrysene	ND	2.2	ug/l
53-70-3	Dibenzo(a,h)anthracene	ND	0.22	ug/l
206-44-0	Fluoranthene	ND	2.2	ug/l
86-73-7	Fluorene	ND	2.2	ug/l
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.22	ug/l
91-20-3	Naphthalene	ND	2.2	ug/l
90-12-0	1-Methylnaphthalene	ND	2.2	ug/l
91-57-6	2-Methylnaphthalene	ND	2.2	ug/l
85-01-8	Phenanthrene	ND	2.2	ug/l
129-00-0	Pyrene	ND	2.2	ug/l

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	61%		29-133%
92-94-4	p-Terphenyl	90%		33-133%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

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Client Sample ID: OLFB16MW09GW Lab Sample ID: F7009-38 Matrix: AQ - Ground Water Method: EPA 8310 Project: NAS Pensacola	Date Sampled: 07/09/00 Date Received: 07/11/00 Percent Solids: n/a
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Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	AA003189.D	1	07/23/00	CCJ	07/13/00	OP1825	GAA104

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	2.2	ug/l	
208-96-8	Acenaphthylene	ND	2.2	ug/l	
120-12-7	Anthracene	ND	2.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.22	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.22	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.22	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.22	ug/l	
218-01-9	Chrysene	ND	2.2	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.22	ug/l	
206-44-0	Fluoranthene	ND	2.2	ug/l	
86-73-7	Fluorene	ND	2.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.22	ug/l	
91-20-3	Naphthalene	ND	2.2	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.2	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.2	ug/l	
85-01-8	Phenanthrene	ND	2.2	ug/l	
129-00-0	Pyrene	ND	2.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	64%		29-133%
92-94-4	p-Terphenyl	94%		33-133%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

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Client Sample ID:	OLFB16001	Date Sampled:	07/09/00
Lab Sample ID:	F7009-32	Date Received:	07/11/00
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	FLORIDA-PRO		
Project:	NAS Pensacola		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP09601.D	1	07/20/00	ME	07/14/00	OP1826	GOP412
Run #2							

CAS No.	Compound	Result	RL	Units	Q
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	TPH (C8-C40)	ND	0.28	mg/l	
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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
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84-15-1	o-Terphenyl	104%		40-140%
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ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

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Client Sample ID: OLFB16MW03GW Lab Sample ID: F7009-40 Matrix: AQ - Ground Water Method: FLORIDA-PRO Project: NAS Pensacola	Date Sampled: 07/09/00 Date Received: 07/11/00 Percent Solids: n/a
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP09606.D	1	07/21/00	ME	07/14/00	OP1826	GOP412
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	0.28	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	82%		40-140%

(a) Sample not preserved, adjusted to pH < 2 prior to extraction.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

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Client Sample ID: OLFB16MW06GW Lab Sample ID: F7009-41 Matrix: AQ - Ground Water Method: FLORIDA-PRO Project: NAS Pensacola	Date Sampled: 07/09/00 Date Received: 07/11/00 Percent Solids: n/a
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP09607.D	1	07/21/00	ME	07/14/00	OP1826	GOP412
Run #2							

CAS No.	Compound	Result	RL	Units Q
	TPH (C8-C40)	ND	0.30	mg/l

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	85%		40-140%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

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Client Sample ID: OLFB16MW08GW Lab Sample ID: F7009-39 Matrix: AQ - Ground Water Method: FLORIDA-PRO Project: NAS Pensacola	Date Sampled: 07/09/00 Date Received: 07/11/00 Percent Solids: n/a
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP09605.D	1	07/21/00	ME	07/14/00	OP1826	GOP412
Run #2							

CAS No.	Compound	Result	RL	Units Q
	TPH (C8-C40)	0.434	0.28	mg/l

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	92%		40-140%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

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Client Sample ID:	OLFB16MW09GW		Date Sampled:	07/09/00
Lab Sample ID:	F7009-38		Date Received:	07/11/00
Matrix:	AQ - Ground Water		Percent Solids:	n/a
Method:	FLORIDA-PRO			
Project:	NAS Pensacola			

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP09604.D	1	07/21/00	ME	07/14/00	OP1826	GOP412
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	0.28	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	96%		40-140%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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