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NAS PENSACOLA
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SITE ASSESSMENT LETTER REPORT ADDENDUM WITH TRANSMITTAL FOR SITE 1107
BRONSON PENSACOLA FL
01/05/2001
TETRA TECH INC



TETRA TECH NUS, INC.

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TtNUS/TAL-01-002/0401-7.2.3

January 5, 2001

Project Number 0401

Commanding Officer
Department of the Navy
SOUTHDIVFACENCOM
ATTN: Mr. Byas Glover
Remedial Project Manager
2155 Eagle Drive
North Charleston, South Carolina 29406

Reference: Clean Contract No. N62467-94-D-0888
Contract Task Order No. 0112

**Subject: Site Assessment Report Addendum for Underground Storage Tank Site 1107,
Outlying Landing Field Bronson, Pensacola, Florida**

Dear Mr. Glover:

Tetra Tech NUS is pleased to submit for your review the Draft Site Assessment Report Addendum for Underground Storage Tank Site 1107, Outlying Landing Field Bronson Pensacola, Florida. Upon receipt of your comments and incorporation of the comments into the draft document, the addendum report will be submitted to the Florida Department of Environmental Protection (FDEP). As indicated below, a copy of the draft report has also been forwarded to Mr. Greg Campbell at NAS Pensacola.

If you have any questions, please call me at (850) 385-9899.

Sincerely yours,

Gerald Walker, P.G.
Project Manager

GAW/gaw

Enclosure

c: Greg Campbell, NAS Pensacola PWC
Debbie Wroblewski (Cover Letter Only)
Mark Perry/file



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January 5, 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: Contamination Assessment Report Addendum
For Site 1107, Outlying Landing Field (OLF) Bronson
Pensacola, Florida**

Tetra Tech NUS, Inc. (TtNUS) is pleased to submit the Contamination Assessment Report Addendum (CARA) 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.

Contamination Assessment Report Addendum Objectives. The objective of the CARA is to address concerns expressed by the Florida Department of Environmental Protection (FDEP) in a technical review letter dated October 8, 1999.

Previous Investigations. In June 1997, a Contamination Assessment Report (CAR) for Outlying Field Bronson, Site 1107, Pensacola, Florida was submitted by Naval Air Station (NAS) Pensacola Navy Public Works Center (NPWC) to the FDEP for review. A technical review letter was received from FDEP on July 7, 1997 that commented on the CAR and requested further assessment and additional information. Those comments were addressed in a CARA also completed by NAS Pensacola NPWC on December 2, 1998.

Upon review of the primary CARA, FDEP issued a letter providing further comments on the CARA and requiring the preparation of a second CARA for Site 1107. The letter detailed four comments to be addressed in order for this site 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.

1. *The latest groundwater analytical results were from samples collected on August 26, 1998. Some groundwater samples were collected as early as March 11, 1996. Because conditions at the site have changed due to the spreading of free product, I recommend resampling all of the monitoring wells.*

On July 12, 2000, TtNUS personnel collected groundwater samples from twelve of the sixteen monitoring wells (MW-2, MW-3, MW-6, MW-7, MW-9, MW-10, MW-11, MW-12, MW-13, MW-14, MW-15, and MW-16) located on Site 1107. MW-1, MW-4, and MW-8 were not sampled due to the existence of free product.

During the groundwater-sampling event, Monitoring Well MW-5 was dry and was therefore not sampled. 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 compounds specified in the Gasoline and Kerosene analytical groups. Groundwater sampling field forms are provided in Attachment D. The analytical results for the monitoring wells are summarized in Table 1, Attachment C. A copy of the validated laboratory report is provided in Attachment E.

One Volatile Organic Compound (VOC; ethylbenzene) and three Polycyclic Aromatic Hydrocarbons (PAHs; 1-methylnaphthalene, 2-methylnaphthalene, and naphthalene) were detected in the groundwater samples collected from Site 1107 monitoring wells. None of the detected concentrations exceeded the Florida Groundwater Cleanup Target Levels (GCTL).

The groundwater samples were also analyzed for Total Recoverable Petroleum Hydrocarbons (TRPH) and Total Lead. TRPH was detected in groundwater samples from MW-3, MW-6, MW-7, and MW-9 at concentrations less than GCTLs. Lead was not detected in any of the groundwater samples.

- 2. Prior to groundwater sampling, water level elevations should be taken in all monitoring wells, including deep wells. The water level elevations should be used to confirm groundwater flow direction and to determine if there are vertical gradients.*

Prior to groundwater sampling, water level measurements were recorded for each onsite, monitoring well using an oil/water interface probe. The depth-to-water measurements, along with top of casing elevations (only fifteen of the sixteen top of casing elevations were available) and equations to account for free product, were used to calculate groundwater elevations. Based on these elevations, the groundwater table appears to be level in the measured area and, therefore, no flow is apparent. Any variations in groundwater elevations are so slight as to be accountable to measurement error. Figure 2, Attachment B depicts the groundwater elevations recorded on July 12, 2000. Monitoring wells MW-2 and DMW-15 were used to determine the vertical gradient at the site. Based on elevation difference of 0.02 feet over a distance of 10.58 feet, the calculated vertical gradient is upward at 0.0019 feet per foot. Depth to water measurements, top of casing elevations and groundwater elevation data are provided in Table 2, Attachment C. Historical and current data show no indication of vertical gradients at this site.

- 3. A free product assessment should be performed to delineate the extent and thickness of free product. Since the product viscosity may prevent a measurement using an electronic oil/water interface probe, I would recommend using a clear, disposable bailer to determine apparent product thickness. If free product is still present at the site, then the product recovery should be initiated in accordance with Chapter 62-770.300 (1) FAC. If any free product removal activities have been conducted at this site, they should be documented and submitted to this Department for review.*

On July 12, 2000, prior to groundwater sampling, free product thickness and water level elevation survey was completed at Site 1107 using an oil/water interface probe. The free product encountered was described as a very viscous material similar to a coal tar product. Free product measurements recorded during the survey indicated monitoring wells MW-1 and MW-4 contained thicknesses of 1.80 feet and 2.29 feet, respectively. A free product sheen was also reported in Monitoring Well MW-8, but was not measurable. The free product and water level measurements are summarized in Table 2, Attachment C. An estimate of the extent of free product present at the site is shown in Figure 4, Attachment B.

In addition, on August 9, 2000 TtNUS personnel completed eight soil borings (SB-1 through SB-8) to a depth of 20 feet below land surface (bls) at Site 1107 using Direct Push Technology (DPT). The soil borings were

completed to further characterize the extent of free product and collect subsurface soil samples. During soil boring operations an onsite Geologist recorded lithologic descriptions of the soil and identified the presence of free product. Soil boring locations are shown on Figure 3, Attachment B. All sampling activities were conducted in accordance with Tetra Tech NUS, Inc., FDEP approved, Comp QAP #980038.

Four of the eight soil borings completed at the site including SB-3, SB-4, SB-7, and SB-8 were reported to contain soils stained with a viscous, "coal tar" type free product. A single soil sample was collected from each of the eight soil borings. Following collection of the soil boring samples, the sample bottles were packed on ice and shipped via overnight transport to Accutest Laboratories in Orlando, Florida. The soil samples were analyzed for compounds specified in the Gasoline and Kerosene analytical groups. Soil sampling field forms and a lithologic description of the soils are provided in Attachment F. The analytical results for the soil samples are summarized in Table 3, Attachment C. A copy of the validated laboratory report is provided in Attachment E.

Three VOCs: ethylbenzene, toluene, and total xylenes were detected in the soil samples collected from Site 1107. Two of the VOCs, ethylbenzene (soil boring SB-8, 1.62 mg/kg) and total xylenes (soil borings SB-7, 0.83 mg/kg estimated; SB-7, 1.74 mg/kg estimated; and SB-8, 3.12 mg/kg) were detected at concentrations exceeding leachability limits for groundwater of 0.6 mg/kg and 0.2 mg/kg, respectively, from Chapter 62-777, F.A.C.

Eleven PAHs were detected in the soil samples collected from Site 1107. Two of the PAHs, 1-methylnaphthalene, 2-methylnaphthalene, were both detected in soil samples from four soil borings (SB-3, SB-4, SB-7 and SB-8) at concentrations exceeding the leachability for groundwater limits of 2.2 mg/kg and 6.1 mg/kg, respectively, from Chapter 62-777, F.A.C. Naphthalene was detected in the sample from soil boring SB-8 at a concentration (2.38 mg/kg estimated) exceeding the leachability limits for groundwater of 1.7 mg/kg from Chapter 62-777, F.A.C.

Benzo (a) pyrene was detected in the sample from soil boring SB-8 at a concentration (0.76 mg/kg) exceeding the direct exposure limit for both residential (0.1 mg/kg) and industrial areas (0.5 mg/kg) from Chapter 62-777, F.A.C. However, given that the soil sample was collected from a depth of 18 to 20 feet bls, a direct exposure is unlikely.

The soil samples were also analyzed for TPH. Concentrations of TPH were detected in soil samples from four (SB-3, SB-4, SB-7 and SB-8) of the eight soil borings. All of the detected TPH concentrations exceeded both the direct exposure limit (340 mg/kg) and the leachability limit for groundwater (340 mg/kg) from Chapter 62-777, F.A.C. However, given that the soil samples were collected from a depth of 18 to 20 feet bls, a direct exposure is unlikely.

4. *The location of integral piping and dispensers should also be included in the figures. This information would be valuable in interpreting the results of the soil and groundwater analytical data.*

A detailed search of available files and drawings indicated that figures and information showing the location of piping and dispensers for Site 1107 is not available.

Conclusions.

- A coal tar type free product plume is present at the site over a 1,540 square foot area with a thickness up to 2.29 feet.
- Current and historic groundwater flow data indicate that flow is typically stagnant in the study area.
- Groundwater samples collected from onsite monitoring wells did not contain any analytes at concentrations exceeding FDEP's GCTLs.

- Soil samples from four onsite soil borings (SB-3, SB-4, SB-7, and SB-8) contained analytes that exceeded FDEP's leachability for groundwater limit from Chapter 62-777 F. A. C. However with the exception of TPH detected in the sample from monitoring well MW-9, none of the analytes were detected in the groundwater samples collected on site.
- Benzo (a) pyrene was detected in a soil sample from one soil boring (SB-8) at a concentration that exceeded the FDEP's direct exposure limits for both residential (0.1 mg/kg) and industrial areas (0.5 mg/kg) from Chapter 62-777, F.A.C. However, given that the soil sample was collected from a depth of 18 to 20 feet below land surface (bls), a direct exposure is unlikely to occur.

Recommendations. Based upon the findings of the current CARA and historical data, TtNUS recommends that a Remedial Action Plan be prepared for Outlying Landing Field, Bronson, Site 1107 located at Pensacola, Florida. In addition, TtNUS recommends the expeditious recovery of free product at this site.

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

c: B. Glover, Southern Division
D. Wroblewski (cover letter only), TtNUS
M. Perry/file, TtNUS

ATTACHMENT A

**FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
CAR TECHNICAL REVIEW LETTER**



Department of Environmental Protection

CTO 112
0401

Jeb Bush
Governor

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

David B. Struhs
Secretary

October 8, 1999

Mr. Byas Glover
Code 18410
Southern Division
Naval Facilities Engineering Command
2155 Eagle Drive
P.O. Box 190010
North Charleston, South Carolina 29419-9010

RE: Contamination Assessment Report Addendum, U.S. Navy
Outlying Landing Field (OLF) Bronson, Site 1107,
Pensacola, Florida

Dear Mr. Glover:

I have completed the technical review of the above referenced document dated November 1998 (received December 7, 1998). Please excuse the late review of this report.

I have the following comments that must be addressed in an Addendum Report for this site in order to meet the requirements of Chapter 62-770, Florida Administrative Code (FAC).

1. The latest groundwater analytical results were from samples collected on August 26, 1998. Some groundwater samples were collected as early as March 11, 1996. Because conditions at the site have changed due to the spreading of free product, I recommend resampling all of the monitoring wells.
2. Prior to groundwater sampling, water level elevations should be taken in all monitoring wells, including deep wells. The water level elevations should be used to confirm groundwater flow direction and to determine if there are vertical gradients.
3. A free product assessment should be performed to delineate the extent and thickness of free product. Since the product viscosity may prevent a measurement using an electronic oil/water interface probe, I would recommend using a clear disposable bailer to determine apparent product thickness. If free product is still present at the site, then product recovery should be

"Protect, Conserve and Manage Florida's Environment and Natural Resources"

Mr. Byas Glover
Page Two
October 8, 1999

initiated in accordance with Chapter 62-770.300(1) FAC.
If any free product removal activities have been
conducted at this site, they should be documented and
submitted to the Department for review.

4. The location of integral piping and dispensers should
also be included on the figures. This information
would be valuable in interpreting the results of soil
and groundwater analytical data.

If I can be of any further assistance with this matter,
please contact me at (850) 921-9989.

Sincerely,

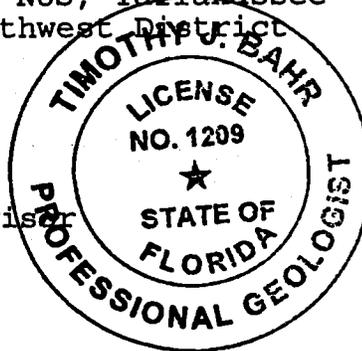
Joseph F. Fugitt

Joseph F. Fugitt, P.G.
Remedial Project Manager

cc: Greg Campbell, NAS Pensacola
Gerry Walker, Tetra Tech NUS, Tallahassee
Tom Lubozynski, FDEP Northwest District

Reviewed by:

T. J. Bahr
Timothy J. Bahr, P.G.
Professional Geologist Supervisor
Bureau of Waste Cleanup



Date

10/8/99

JJC

JJC

ESN

ESN

ATTACHMENT B

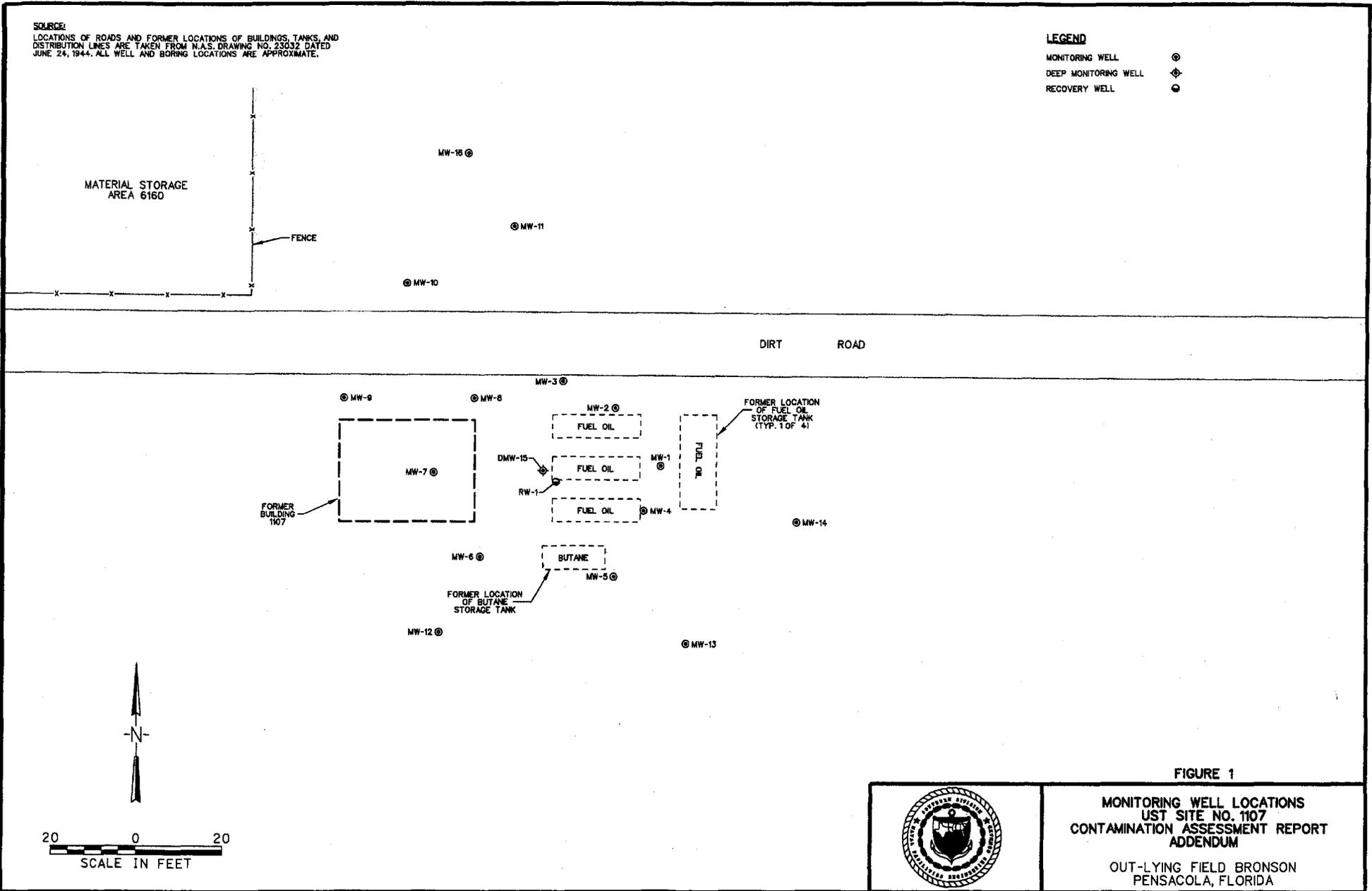
FIGURES

SOURCE:

LOCATIONS OF ROADS AND FORMER LOCATIONS OF BUILDINGS, TANKS, AND DISTRIBUTION LINES ARE TAKEN FROM N.A.S. DRAWING NO. 23532 DATED JUNE 24, 1944. ALL WELL AND BORING LOCATIONS ARE APPROXIMATE.

LEGEND

- MONITORING WELL
- ⊕ DEEP MONITORING WELL
- RECOVERY WELL



SOURCE:
 LOCATIONS OF ROADS AND FORMER LOCATIONS OF BUILDINGS, TANKS, AND
 DISTRIBUTION LINES ARE TAKEN FROM N.A.S. DRAWING NO. 23032 DATED
 JUNE 24, 1944. ALL WELL AND BORING LOCATIONS ARE APPROXIMATE.

LEGEND

- MONITORING WELL
- DEEP MONITORING WELL +
- RECOVERY WELL o
- GROUNDWATER ELEVATION IN FEET **27.85**
- NOT MEASURED **NM**

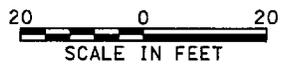
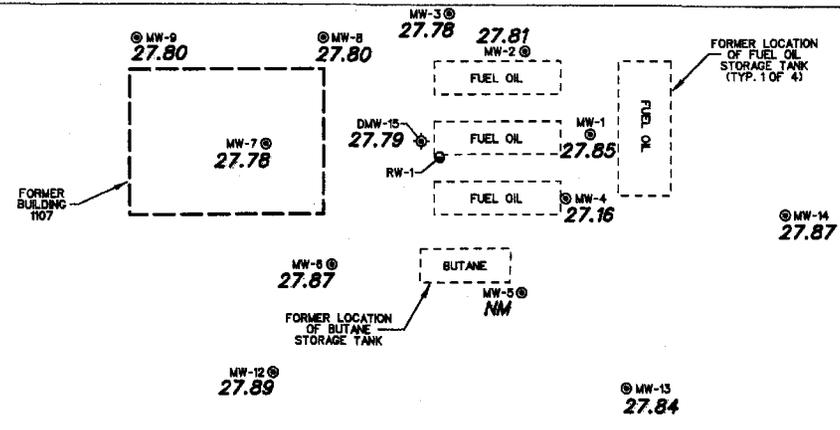
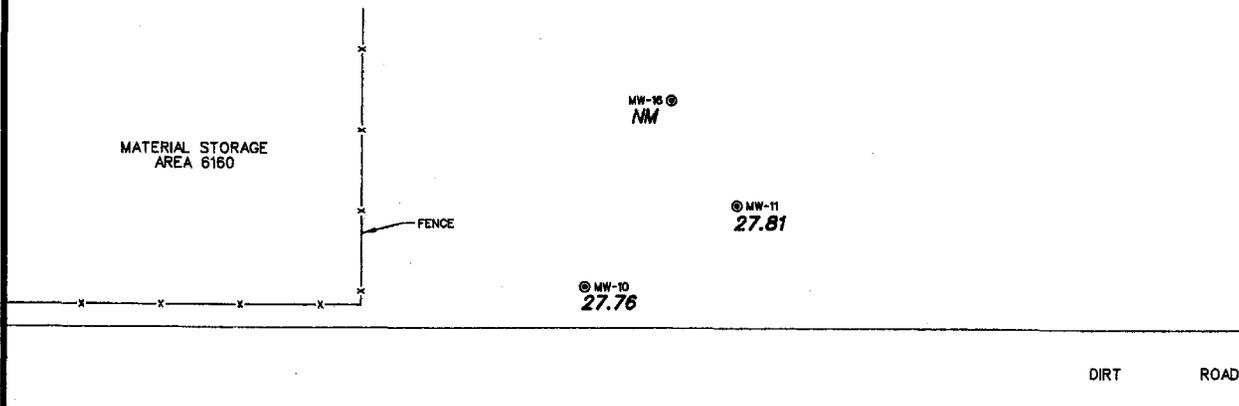


FIGURE 2



**GROUNDWATER ELEVATION MAP
 UST SITE NO. 1107
 CONTAMINATION ASSESSMENT REPORT
 ADDENDUM**

OUT-LYING FIELD BRONSON
 PENSACOLA, FLORIDA

01114170.dgn

SOURCE:
 LOCATIONS OF ROADS AND FORMER LOCATIONS OF BUILDINGS, TANKS, AND
 DISTRIBUTION LINES ARE TAKEN FROM N.A.S. DRAWING NO. 23032 DATED
 JUNE 24, 1944. ALL WELL AND BORING LOCATIONS ARE APPROXIMATE.

LEGEND
 SOL. BORING □

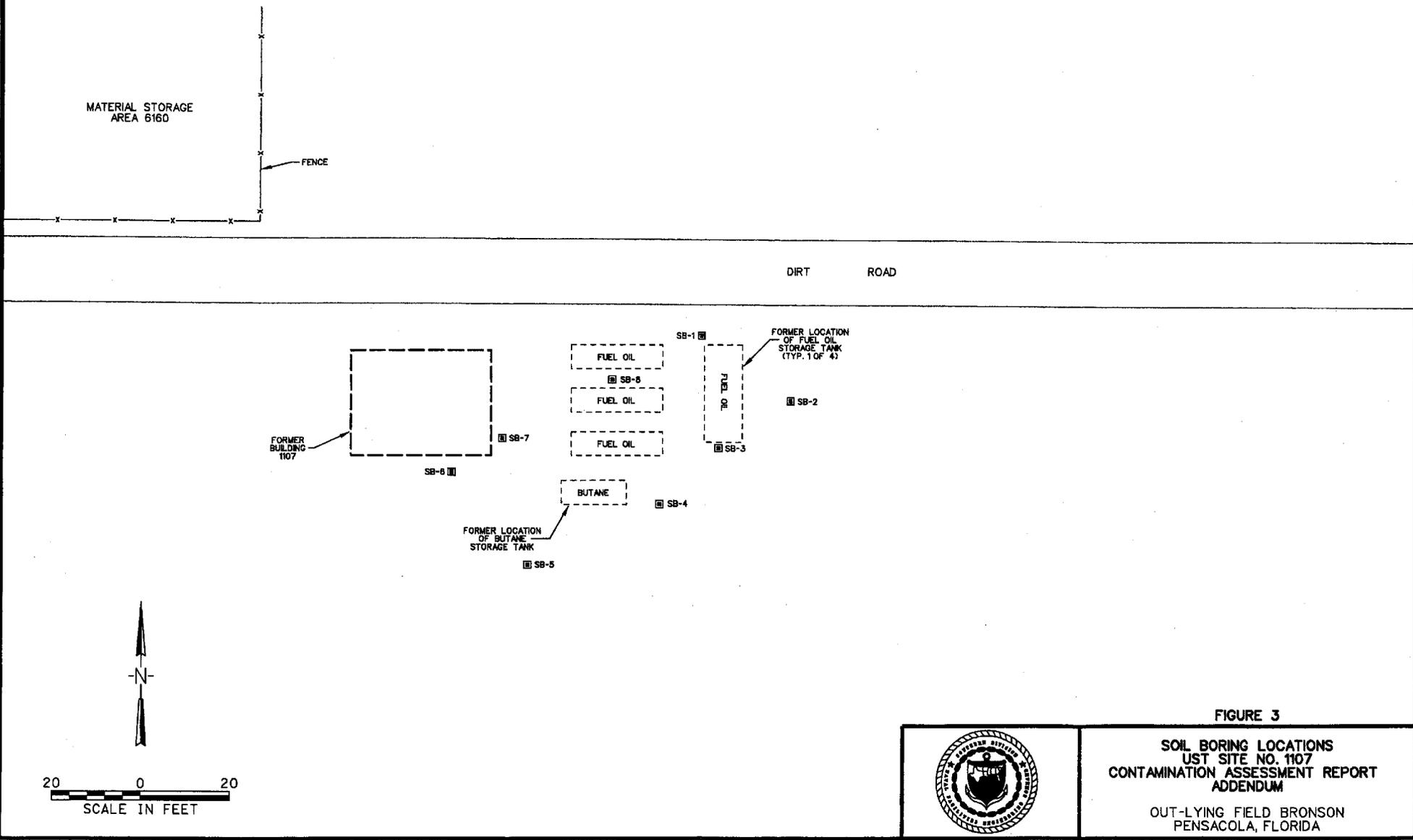


FIGURE 3

**SOIL BORING LOCATIONS
 UST SITE NO. 1107
 CONTAMINATION ASSESSMENT REPORT
 ADDENDUM**

**OUT-LYING FIELD BRONSON
 PENSACOLA, FLORIDA**



SOURCE:

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

LEGEND

- MONITORING WELL 
- DEEP MONITORING WELL 
- RECOVERY WELL 
- SOIL BORING 
- FREE PRODUCT AREA 
- FREE PRODUCT THICKNESS IN FEET 1.80

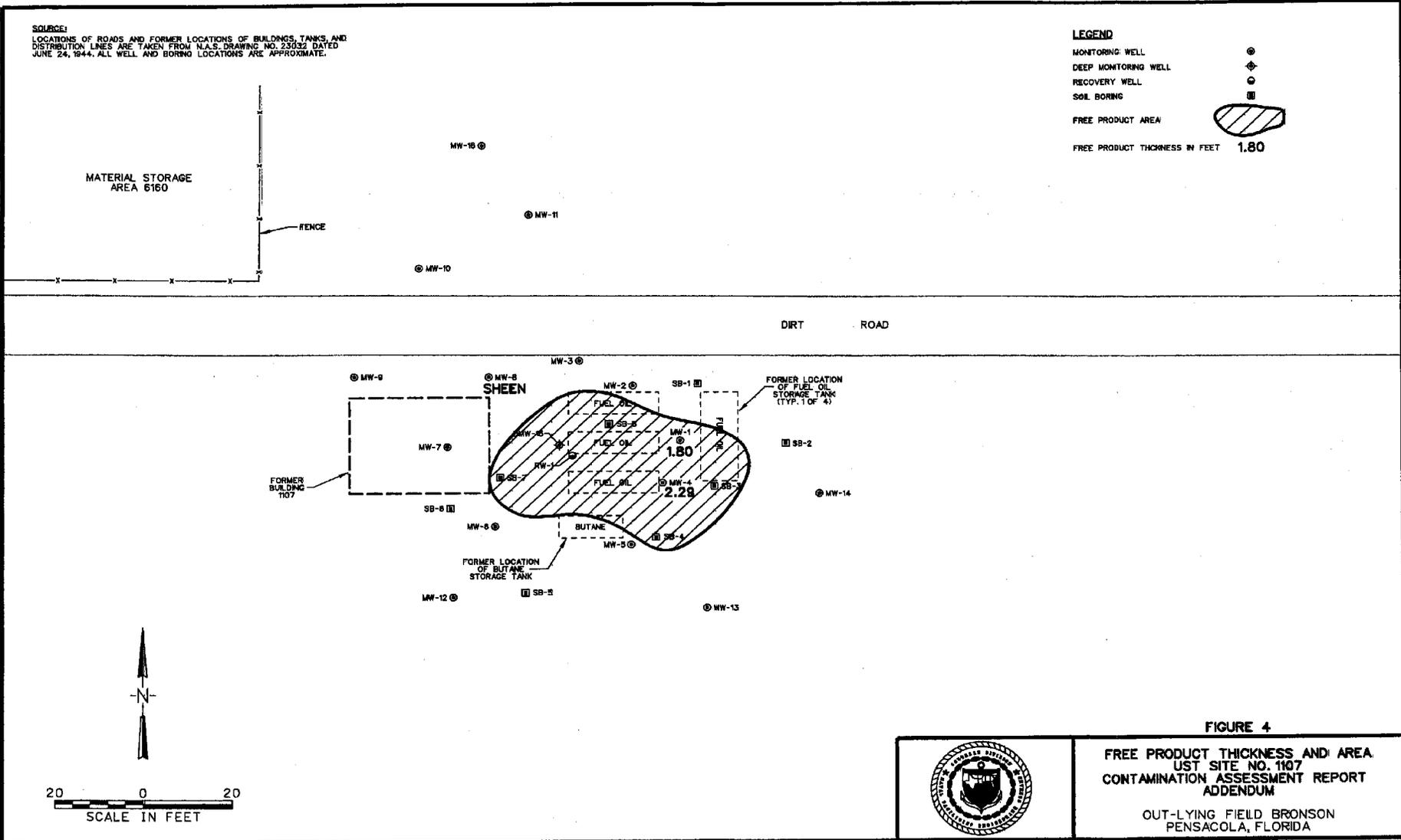


FIGURE 4

FREE PRODUCT THICKNESS AND AREA
UST SITE NO. 1107
CONTAMINATION ASSESSMENT REPORT
ADDENDUM

OUT-LYING FIELD BRONSON
PENSACOLA, FLORIDA



ATTACHMENT C

TABLES

TABLE 1

SUMMARY OF ANALYTES DETECTED IN GROUNDWATER - SITE 1107
 OUTLYING LANDING FIELD BRONSON, PENSACOLA FLORIDA

PAGE 1 OF 3

Sample No.	OLFB07MW02GW	OLFB07W03GW	OLFB07MW06GW	OLFB07MW07GW	OLFB07D001
Sample Location	MW-2	MW-3	MW-6	MW-7	MW-7 Duplicate
Collect Date	7/12/00	7/12/00	7/12/00	7/12/00	7/12/00
Sample Depth (bls)	23 feet	20 feet	23 feet	23 feet	23 feet
Groundwater Clean-up Criteria ⁽¹⁾ (ug/L)					
<u>Volatile</u> ⁽²⁾ (ug/L)					
Ethylbenzene	30	--	0.98 ^J	--	--
<u>Polycyclic Aromatic Hydrocarbons</u> ⁽³⁾ (ug/L)					
1-Methylnaphthalene	20	--	12.3	2 ^J	--
2-Methylnaphthalene	20	--	14.2	2.2	--
Naphthalene	20	--	11.5	1.8 ^J	--
<u>Total Petroleum Hydrocarbons</u> ⁽⁴⁾ (ug/L)					
	5,000	--	1,650	843	1,860
<u>Metals</u> ⁽⁵⁾ (ug/L)					
None detected					

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

² SW-846 8021B and EPA 504.1, ³ SW-846 8310, ⁴ FL-PRO, ⁵ SW-846 6010B

^J indicates the presence of a chemical at an estimated concentration.

TABLE 1

SUMMARY OF ANALYTES DETECTED IN GROUNDWATER - SITE 1107
 OUTLYING LANDING FIELD BRONSON, PENSACOLA FLORIDA

PAGE 2 OF 3

Sample No.	OLFB07MW09GW	OLFB07MW10GW	OLFB07MW11GW	OLFB07MW12GW	OLFB07MW13GW
Sample Location	MW-09	MW-10	MW-11	MW-12	MW-13
Collect Date	7/12/00	7/12/00	7/12/00	7/12/00	7/12/00
Sample Depth (bls)	21 feet				

	Groundwater Clean-up Criteria ⁽¹⁾ (ug/L)				
Volatile ⁽²⁾ (ug/L)					
Ethylbenzene	30	--	--	--	--
Polycyclic Aromatic Hydrocarbons ³ (ug/L)					
1-Methylnaphthalene	20	--	--	--	--
2-Methylnaphthalene	20	--	--	--	--
Naphthalene	20	--	--	--	--
Total Petroleum Hydrocarbons ⁴ (ug/L)					
	5,000	278 ^J	--	--	--
Metals ⁵ (ug/L)					
None detected					

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

² SW-846 8021B and EPA 504.1, ³ SW-846 8310, ⁴ FL-PRO, ⁵ SW-846 6010B

^J indicates the presence of a chemical at an estimated concentration.

TABLE 1

SUMMARY OF ANALYTES DETECTED IN GROUNDWATER - SITE 1107
 OUTLYING LANDING FIELD BRONSON, PENSACOLA FLORIDA

PAGE 3 OF 3

Sample No.		OLFB07MW14GW	OLFB07MW15GW	OLFB07MW16GW
Sample Location		MW-14	DMW-15	MW-16
Collect Date		7/12/00	7/12/00	7/12/00
Sample Depth (bls)		21 feet	34 feet	24 feet
Groundwater Clean-up Criteria ⁽¹⁾ (ug/L)				
<u>Volatile ⁽²⁾ (ug/L)</u>				
Ethylbenzene		--	--	--
<u>Polycyclic Aromatic Hydrocarbons³ (ug/L)</u>				
1-Methylnaphthalene	20	--	--	--
2-Methylnaphthalene	20	--	--	--
Naphthalene	20	--	--	--
<u>Total Petroleum Hydrocarbons⁴ (ug/L)</u>				
	5,000	--	--	--
<u>Metals⁵ (ug/L)</u>				
None detected				

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

² SW-846 8021B and EPA 504.1, ³ SW-846 8310, ⁴ FL-PRO, ⁵ SW-846 6010B

³ indicates the presence of a chemical at an estimated concentration.

**TABLE 2
TOP OF CASING ELEVATIONS, WATER TABLE ELEVATIONS, AND TOTAL DEPTHS
SITE 1107, OUTLYING LANDING FIELD BRONSON
PENSACOLA, FLORIDA**

Well ID	Monitoring Well Diameter	Current Well Depth	Top of Casing Elevation ⁽¹⁾	Thickness of Free Product	July 12, 2000	
					Depth to Water	Groundwater Elevation
MW-1	2 inches	NM	48.22	1.80	22.12	27.85*
MW-2	2 inches	23.45	47.96	--	20.15	27.81
MW-3	2 inches	20.52	47.35	--	19.57	27.78
MW-4	2 inches	NM	48.00	2.29	22.28	28.16*
MW-5 ⁽²⁾	2 inches	NM	48.42	--	NM	NM
MW-6	2 inches	23.33	48.65	--	20.78	27.87
MW-7	2 inches	23.80	49.98	--	22.20	27.78
MW-8	2 inches	NM	48.24	**	20.44	27.80
MW-9	2 inches	21.46	47.73	--	19.93	27.80
MW-10	2 inches	21.61	48.63	--	20.87	27.76
MW-11	2 inches	21.65	48.88	--	21.07	27.81
MW-12	2 inches	21.86	48.92	--	21.03	27.89
MW-13	2 inches	21.78	47.56	--	19.72	27.84
MW-14	2 inches	21.41	48.10	--	20.23	27.87
DMW-15	2 inches	34.03	49.97	--	21.18	27.79
MW-16	2 inches	24.24	NA	--	21.88	NM

NOTES:

(1) Top of casing and groundwater elevations are relative to an arbitrary site reference.

(2) Monitoring Well MW-5 was dry.

All measurements reported in feet.

* indicates correction for free product (free product thickness*0.75 - depth to water = corrected depth to water)

** indicates that a petroleum sheen was noted.

NM - not measured.

NA - not available.

TABLE 3

SUMMARY OF ANALYTES DETECTED IN SOIL SAMPLES - SITE 1107
OUTLYING LANDING FIELD BRONSON, PENSACOLA, FLORIDA

PAGE 1 OF 2

Sample No.		OLFB1107SB-1	OLFB1107SB-2	OLFB1107SB-3	OLFB1107SB-4	OLFB1107SB-5
Sample Location		SB-1	SB-2	SB-3	SB-4	SB-5
Collect Date		8/9/00	8/9/00	8/9/00	8/9/00	8/9/00
Sample Depth (bls)		17-20'	18-20'	18-20'	19-20'	19-20'
	DE1 ¹ /DE2 ² /LE ³ (mg/kg)					
Volatile⁴ (mg/kg)						
Ethylbenzene	1100/8400/0.6	--	--	--	--	--
Toluene	380/2600/0.5	--	--	--	--	--
Total Xylenes	5900/40000/0.2	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons⁵ (mg/kg)						
1-Methylnaphthalene	68/470/2.2	--	--	11^J	8.71^J	--
2-Methylnaphthalene	80/560/6.1	--	--	9.06^J	9.82^J	--
Benzo(a)pyrene	0.1/0.5/8	--	--	--	--	--
Benzo(b)fluoranthene	1.4/4.8/10	--	--	--	--	--
Benzo(g,h,i)perylene	2300/41000/32000	--	--	--	--	--
Benzo(k)fluoranthene	15/52/25	--	--	--	--	--
Fluorene	2200/28000/160	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	1.5/5.3/28	--	--	--	--	--
Naphthalene	40/270/1.7	--	--	--	--	--
Phenanthrene	2000/30000/250	--	--	6.07 ^J	--	--
Pyrene	2200/37000/880	--	--	7.86 ^J	4.46 ^J	--
Total Petroleum Hydrocarbons⁵ (mg/kg)						
	340/2500/340	--	--	19800	11400	--

¹ DE1= Direct Exposure limit for residential area from Chapter 62-777, F.A.C.² DE2= Direct Exposure limit for industrial area from Chapter 62-777, F.A.C.³ LE= Leachability for groundwater limit from Chapter 62-777, F.A.C.⁴ SW-846 8260B, ⁵ SW-846 8310, ⁶ FL-PRO^J Indicates the presence of a chemical at an estimated concentration.**Bold** indicates an exceedance of regulatory limits.

TABLE 3

SUMMARY OF ANALYTES DETECTED IN SOIL SAMPLES - SITE 1107
OUTLYING LANDING FIELD BRONSON, PENSACOLA, FLORIDA

PAGE 2 OF 2

Sample No.	OLFB1107SB-6	OLFB1107SB-7	OLFB1107DUP-1	OLFB1107SB-8
Sample Location	SB-6	SB-7	SB-7 Duplicate	SB-8
Collect Date	8/9/00	8/9/00	8/9/00	8/9/00
Sample Depth (bls)	18-20'	18-20'		18-20'
DE1 ¹ /DE2 ² /LE ³ (mg/kg)				
<u>Volatile⁴ (mg/kg)</u>				
Ethylbenzene	1100/8400/0.6	--	0.175 ^J	0.364 ^J
Toluene	380/2600/0.5	--	--	0.0513 ^J
Total Xylenes	5900/40000/0.2	--	0.83^J	1.74^J
<u>Polycyclic Aromatic Hydrocarbons⁵ (mg/kg)</u>				
1-Methylnaphthalene	68/470/2.2	--	5.9^J	20^J
2-Methylnaphthalene	80/560/6.1	--	7.16^J	23.6^J
Benzo(a)pyrene	0.1/0.5/8	--	--	0.76
Benzo(b)fluoranthene	1.4/4.8/10	--	--	1.11
Benzo(g,h,i)perylene	2300/41000/32000	--	--	0.903
Benzo(k)fluoranthene	15/52/25	--	--	0.444 ^J
Fluorene	2200/28000/160	--	--	3.95 ^J
Indeno(1,2,3-cd)pyrene	1.5/5.3/28	--	--	0.964
Naphthalene	40/270/1.7	--	--	2.38^J
Phenanthrene	2000/30000/250	--	--	7.36 ^J
Pyrene	2200/37000/880	--	--	9.42 ^J
Total Petroleum Hydrocarbons⁶ (mg/kg)	340/2500/340	--	13,300	16,300
¹ DE1= Direct Exposure limit for residential area from Chapter 62-777, F.A.C. ² DE2= Direct Exposure limit for industrial area from Chapter 62-777, F.A.C. ³ LE= Leachability for groundwater limit from Chapter 62-777, F.A.C. ⁴ SW-846 8260B, ⁵ SW-846 8310, ⁶ FL-PRO ^J Indicates the presence of a chemical at an estimated concentration. Bold indicates an exceedance of regulatory limits.				

ATTACHMENT D

GROUNDWATER SAMPLING FIELD FORMS



Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Page 1 of 1

Project Site Name: OLEB07
 Project No.: 0401

Sample ID No.: OLEB07MWOJGLSample Location: Site 1107Sampled By: JRH

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 ORP
7-12-00								
Time: 1000								
Method: Pump	Clear	5.34	0.067	24.9	10	3.60	0.0	41.5

PURGE DATA:

Date:	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other ORP
7-12-00								
Method: Pump	Init:	5.38	0.111	25.1	799	1.86	0.0	119.3
Monitor Reading (ppm):	0.5	5.32	0.086	24.8	90	2.60	0.0	64.5
Well Casing Diameter & Material	1.0	5.35	0.076	24.9	30	3.16	0.0	37.3
Type: 2" PVC	1.5	5.35	0.072	24.8	18	3.21	0.0	41.8
Total Well Depth (TD): 23.45	2.0	5.36	0.069	24.9	13	3.45	0.0	40.0
Static Water Level (WL): 20.15	2.5	5.34	0.067	24.9	10	3.60	0.0	41.5
One Casing Volume (gal/L): 0.5								
Start Purge (hrs): 0845								
End Purge (hrs): 1000								
Total Purge Time (min): 15 min								
Total Vol. Purged (gal/L): 2.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOG	HCl	2 x 40 ml vials	
EDB	None	3 x 40 ml vials	
PAH	"	2 x 1000 ml ambers	
TRPH	H2SO4	" " " "	
Lead	HNO3	1 x 500 ml Plastic	

OBSERVATIONS / NOTES:

DO = 6.4 mg/L ORP = 272.4 mV
 Fe = 0.03 mg/L HS = 0.00 mg/L

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):



GROUNDWATER SAMPLE LOG SHEET

Project Site Name: OLF Bronson
Project No.: 0401

Sample ID No.: OLF B07 MW03 GW
Sample Location: Site 1107 MW03
Sampled By: JK
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
<u>7-12-00</u>	<u>clear</u>	<u>5.67</u>	<u>266</u>	<u>24.2</u>	<u>21</u>	<u>2.17</u>	<u>0.00</u>	

PURGE DATA:

Date:	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
<u>7-12-00</u>		<u>5.72</u>	<u>273</u>	<u>25.3</u>	<u>999</u>	<u>2.19</u>	<u>0.00</u>	
Method: <u>peristaltic</u>		<u>5.76</u>	<u>275</u>	<u>24.6</u>	<u>279</u>	<u>1.22</u>	<u>0.00</u>	
Monitor Reading (ppm): _____		<u>5.72</u>	<u>269</u>	<u>24.2</u>	<u>94</u>	<u>0.81</u>	<u>0.00</u>	
Well Casing Diameter & Material Type: <u>2" PVC</u>		<u>5.65</u>	<u>289</u>	<u>24.0</u>	<u>62</u>	<u>1.82</u>	<u>0.00</u>	
Total Well Depth (TD): <u>20.52</u>		<u>5.72</u>	<u>265</u>	<u>24.5</u>	<u>87</u>	<u>1.94</u>	<u>0.00</u>	
Static Water Level (WL): <u>7.57</u>		<u>5.73</u>	<u>267</u>	<u>24.4</u>	<u>87</u>	<u>2.18</u>	<u>0.00</u>	
One Casing Volume (gal/L): <u>165</u>		<u>5.69</u>	<u>287</u>	<u>24.2</u>	<u>23</u>	<u>1.70</u>	<u>0.00</u>	
Start Purge (hrs): <u>1510</u>		<u>5.67</u>	<u>266</u>	<u>24.2</u>	<u>21</u>	<u>2.17</u>	<u>0.00</u>	
End Purge (hrs): <u>1655</u>								
Total Purge Time (min): <u>45 min</u>								
Total Vol. Purged (gal/L): <u>ml, 1.65</u>								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
<u>VOC</u>	<u>HCl</u>	<u>40ml Vial</u>	<u>2</u>
<u>TRPH</u>	<u>H2SO4</u>	<u>1 L Amber</u>	<u>2</u>
<u>Lead</u>	<u>HNO3</u>	<u>15 L Amber</u>	<u>1</u>

OBSERVATIONS / NOTES:

DO = 8.0 mg/L ORP = 318.2 mV
Fe = 0.00 mg/L HS = 0.00 mg/L

Circle if Applicable:

<input type="checkbox"/> MS/MSD	Duplicate ID No.: _____
---------------------------------	-------------------------

Signature(s):

[Handwritten Signature]



Project Site Name: 0LEB1107
 Project No.: 0401
 Domestic Well Data
 Monitoring Well Data
 Other Well Type:
 QA Sample Type:

Sample ID No.: 0LEB07MWS6GW
 Sample Location: Site 1107
 Sampled By:
 C.O.C. No.:
 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
7-12-00	clear	5.58	.068	26.5	9.8	0.44	0.0	-213.8
Time: 1210								
Method: Pump								

PURGE DATA:

Date:	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
7-12-00	Init	5.83	.144	25.8	624	0.83	0.0	-341.6
Method: Pump								
Monitor Reading (ppm):	0.5	5.43	.080	25.0	100	0.30	0.0	-311.9
Well Casing Diameter & Material	1.0	5.47	.073	25.1	60	0.38	0.0	-278.2
Type: 2" PVC	1.5	5.46	.069	25.6	45	0.32	0.0	-281.0
Total Well Depth (TD): 23.80	2.0	5.53	.068	26.1	18	0.44	0.0	-248.7
Static Water Level (WL): 20.78	2.5	5.56	.068	26.3	11	0.50	0.0	-233.7
One Casing Volume (gal/L): 0.5	3.0	5.58	.068	26.5	9.8	0.44	0.0	-213.8
Start Purge (hrs): 1100								
End Purge (hrs): 1210								
Total Purge Time (min): 70								
Total Vol. Purged (gal/L): 3.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	2 x 40 ml vials	
EDB	None	3 x 40 ml vials	
PAH	"	2 x 1000 ml ampers	
TRPH	H2SO4	" " " "	
lead	HNO3	1 x 500 ml Plastic	

OBSERVATIONS / NOTES:

DO = 5.1 mg/L
 Fe = 3.30 mg/L (11 mt)
 ORP = 186.1 mV
 HS = 0.00 mg/L

Circle if Applicable:

MS/MSD	Duplicate ID No.:	Signature(s): <i>J. R. Hill</i>
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MU07



Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: OLFR Sample ID No.: OLFB/07/MU07/SIN
 Project No.: N0901 Sample Location: SIDE 1107
 Domestic Well Data
 Monitoring Well Data
 Other Well Type: _____
 QA Sample Type: _____
 Sampled By: MDA
 C.O.C. No.: _____
 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
7/12/00	CLEAR	5.81	204	23.4	2.34	1.20	-	

PURGE DATA:

Date:	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
7/12/00	INITIAL	5.79	162	23.8	1.35	1.64	-	POUR
Method: <u>LOW FLOW</u>	0900	5.83	205	23.8	10.36	0.67	-	CLEAR
Monitor Reading (ppm): _____	0905	5.19	199	23.9	2.32	0.51	-	CLEAR
Well Casing Diameter & Material	0910	5.79	199	23.7	2.34	0.53	-	CLEAR
Type: <u>2" PVC</u>	0915	5.90	199	23.7	2.40	1.21	-	CLEAR
Total Well Depth (TD): <u>23.80</u>	0920	5.81	192	23.5	2.34	1.23	-	CLEAR
Static Water Level (WL): <u>22.29</u>	0925	5.81	204	23.4	2.34	1.20	-	CLEAR
One Casing Volume(gal/L): <u>1.30</u>	0930							
Start Purge (hrs): <u>08:53</u>								
End Purge (hrs): <u>09:25</u>								
Total Purge Time (min): <u>35</u>								
Total Vol. Purged (gal/L): <u>4.2</u>								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCL	2x40ml VIAL	2
ICP/MS	H2SO4	2x1000 ml AMBER	2
PAH	ICE	2x1000 ml AMBER	2
TOTAL Pb	HNO3	2x500 ml PLASTIC	1
FDB	ICE	3x40ml VIAL	3

OBSERVATIONS / NOTES:

DO = 7.2 mg/L SAMPLES PLACED ON ICE.
 ORP = 250.8 mV
 HS = 0.00 mg/L
 Fe = 0.22 mg/L
 OLFB/07/MSD001
 OLFR/07/MSD001

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



Project Site Name: OLF Bronson
 Project No.: 8401

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

Sample ID No.: OLFBOTMw096w
 Sample Location: Site 1107 MW09
 Sampled By: RH
 C.O.C. No.: _____
 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
<u>7-12-00</u>	<u>Clear</u>	<u>5.94</u>	<u>.107</u>	<u>25.0</u>	<u>3.5</u>	<u>5.50</u>	<u>0.00</u>	

PURGE DATA:

Date:	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
<u>7-12-00</u>	<u>Total</u>	<u>5.85</u>	<u>.104</u>	<u>24.1</u>	<u>481</u>	<u>7.62</u>	<u>0.00</u>	
Method: <u>peristaltic</u>	<u>1st</u>	<u>5.87</u>	<u>.104</u>	<u>24.5</u>	<u>25.4</u>	<u>4.94</u>	<u>0.00</u>	
Monitor Reading (ppm): <u>-</u>	<u>2nd</u>	<u>5.96</u>	<u>.108</u>	<u>25.1</u>	<u>4.9</u>	<u>5.41</u>	<u>0.00</u>	
Well Casing Diameter & Material Type: <u>2" PVC</u>	<u>3rd</u>	<u>5.94</u>	<u>.107</u>	<u>25.0</u>	<u>3.5</u>	<u>5.50</u>	<u>0.00</u>	
Total Well Depth (TD): <u>21.46</u>								
Static Water Level (WL): <u>19.93</u>								
One Casing Volume (gal/L): <u>.3 gal</u>								
Start Purge (hrs): <u>1650</u>								
End Purge (hrs): <u>1719</u>								
Total Purge Time (min): <u>29 min</u>								
Total Vol. Purged (gal/L): <u>~.9 gal</u>								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
<u>VOC</u>	<u>HCl</u>	<u>40ml vial</u>	<u>2</u>
<u>TRPH</u>	<u>H₂SO₄</u>	<u>1L Amber</u>	<u>2</u>
<u>Lead</u>	<u>HNO₃</u>	<u>.5L Plastic</u>	<u>1</u>
<u>EDB</u>	<u>40C</u>	<u>40ml VOA</u>	<u>3</u>
<u>PAH</u>	<u>40C</u>	<u>1L Amber</u>	<u>2</u>

OBSERVATIONS / NOTES:

DO = 7.1 mg/L ORP = 139.7 mV
Fe = 0.00 mg/L HS = 0.00 mg/L

Circle if Applicable:

<input type="checkbox"/> MS/MSD	<input type="checkbox"/> Duplicate ID No.:
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Signature(s):



Project Site Name: OLF Bronson
Project No.: 0401

Sample ID No.: OLF1307MW106W

Sample Location: Site 1107 MW10

Sampled By: JB

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
7-12-00		6.83	.208	25.9	0.45	2.85	0.00	
Time: 1058	clear							
Method: peristaltic								

PURGE DATA:

Date:	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
7-12-00	Initial	6.82	.246	25.4	972	9.03	0.00	
Method: peristaltic	1st	6.64	.200	25.3	40	4.89	0.00	
Monitor Reading (ppm):	2nd	6.83	.203	25.5	6.9	6.68	0.00	
Well Casing Diameter & Material	3rd	6.80	.206	25.5	2.8	5.49	0.00	
Type: 2" PVC	4th	6.83	.206	25.7	1.6	6.44	0.00	
Total Well Depth (TD): 21.61	5th	6.83	.208	25.9	0.45	7.85	0.00	
Static Water Level (WL): 20.87								
One Casing Volume (gal/L): 2 gal								
Start Purge (hrs): 0916								
End Purge (hrs): 1056								
Total Purge Time (min): 100 min								
Total Vol. Purged (gal/L): ~1 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	40 mL VOA	2
PAH	—	1L Amber	2
TRPH	H ₂ SO ₄	1L Amber	2
Lead	HNO ₃	500 mL Plastic	1
EDB	—	40 mL VOA	3

OBSERVATIONS / NOTES:

DO = 6.5 mg/L ORP = 317.8 mV
Fe = 0.00 mg/L HS = 0.00 mg/L

Circle If Applicable:

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



GROUNDWATER SAMPLE LOG SHEET

Project Site Name: OLF Branson site 1107 Sample ID No.: OLFBD7MW11GW
 Project No.: 0401 Sample Location: 1107 MW11
 Sampled 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
<u>7 12 00</u>	<u>clear</u>	<u>4.17</u>	<u>.166</u>	<u>23.8</u>	<u>1</u>	<u>4.96</u>	<u>0.00</u>	

PURGE DATA:

Date:	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
<u>7 12 00</u>	<u>Initial</u>	<u>4.99</u>	<u>.077</u>	<u>24.3</u>	<u>999</u>	<u>4.50</u>	<u>0.00</u>	
Method: <u>peristaltic</u>								
Monitor Reading (ppm): <u>—</u>	<u>1st</u>	<u>4.85</u>	<u>.071</u>	<u>23.6</u>	<u>170</u>	<u>88.92</u>	<u>0.00</u>	
Well Casing Diameter & Material Type: <u>2" PVC</u>	<u>2nd</u>	<u>4.21</u>	<u>.071</u>	<u>23.4</u>	<u>184</u>	<u>5.51</u>	<u>0.00</u>	
	<u>3rd</u>	<u>4.78</u>	<u>.074</u>	<u>23.4</u>	<u>3</u>	<u>4.39</u>	<u>0.00</u>	<u>pulled tubing up</u>
Total Well Depth (TD): <u>21.65</u>	<u>4th</u>	<u>4.62</u>	<u>.073</u>	<u>23.2</u>	<u>2</u>	<u>4.24</u>	<u>0.00</u>	
Static Water Level (WL): <u>21.07</u>	<u>5th</u>	<u>4.17</u>	<u>.166</u>	<u>23.8</u>	<u>1</u>	<u>4.96</u>	<u>0.00</u>	
One Casing Volume (gal/L): <u>.19</u>								
Start Purge (hrs): <u>1015</u>								
End Purge (hrs): <u>1055</u>								
Total Purge Time (min): <u>40min</u>								
Total Vol. Purged (gal/L): <u>~1.5g</u>								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
<u>VOC</u>	<u>HCl</u>	<u>40 mL Vial</u>	<u>2</u>
<u>PAH</u>	<u>—</u>	<u>1 L Amber</u>	<u>2</u>
<u>TRPH</u>	<u>H₂SO₄</u>	<u>1 L Amber</u>	<u>2</u>
<u>Lead</u>	<u>HNO₃</u>	<u>500 mL Plastic</u>	<u>1</u>
<u>EDIS</u>	<u>—</u>	<u>40 mL Vial</u>	<u>3</u>

OBSERVATIONS / NOTES:

DO = 6.5 mg/L ORP = 302.7 mV
Fe = 0.03 mg/L HS = 0.00 mg/L

Circle if Applicable:

MS/MSD Duplicate ID No.: _____

Signature(s):



Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Page of

Project Site Name: OLPB 1107 Sample ID No.: OLPB07 MW TAGW
 Project No.: _____ Sample Location: Side 1107
 Domestic Well Data Sampled By: JRP
 Monitoring Well Data C.O.C. No.: _____
 Other Well Type: _____ Type of Sample:
 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
<u>7-12-00</u>	<u>clear</u>	<u>4.80</u>	<u>.067</u>	<u>27.1</u>	<u>5.9</u>	<u>5.69</u>	<u>0.00</u>	

PURGE DATA:

Date:	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
<u>7-12-00</u>	<u>Init.</u>	<u>4.68</u>	<u>.068</u>	<u>27.6</u>	<u>350</u>	<u>5.72</u>	<u>0.0</u>	<u>103.7</u>
Method: <u>Pump</u>	<u>2000 ml.</u>	<u>4.80</u>	<u>.057</u>	<u>27.1</u>	<u>5.9</u>	<u>5.69</u>	<u>0.0</u>	<u>115.3</u>
Well Casing Diameter & Material								
Type:	<u>2" PVC</u>							
Total Well Depth (TD):	<u>21.86</u>							
Static Water Level (WL):	<u>21.03</u>							
One Casing Volume (gal/L):	<u>15</u>							
Start Purge (hrs):	<u>1425</u>							
End Purge (hrs):	<u>1505</u>							
Total Purge Time (min):								
Total Vol. Purged (gal/L):	<u>2 L</u>							

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
<u>VOC</u>	<u>HCl</u>	<u>2x 40 ml vials</u>	
<u>EDB</u>	<u>None</u>	<u>3x 40 ml vials</u>	
<u>PAH</u>	<u>"</u>	<u>2x 1000 ml amber</u>	
<u>TRPH</u>	<u>H2SO4</u>	<u>" " " "</u>	

OBSERVATIONS / NOTES:
 Well Dry before I could get first Reading
 Well keeps going Dry. will start sampling @ 2000 ml.
 DO = 6.6 mg/L ORP = 298.9 mV
 Fe = 0.00 mg/L HS = 0.00 mg/L

Circle if Applicable: MS/MSD Duplicate ID No.: _____ Signature(s): J.R. Hill



GROUNDWATER SAMPLE LOG SHEET

Project Site Name: OLF Brenson 1107 Sample ID No.: OLFB07M013G4
 Project No.: 0401 Sample Location: 1107 MW3
 Sampled 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 12 00 Time: 1410	Clear	4.73	0.034	23.6	9	5.65	0.00	
Method: <u>peristaltic</u>								

PURGE DATA:

Date:	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
7 12 00		4.89	0.037	25.0	202	6.84	0.00	
Method: <u>peristaltic</u>		4.84	0.034	24.1	80	6.17	0.00	
Monitor Reading (ppm): _____		4.84	0.034	23.5	14	5.60	0.00	
Well Casing Diameter & Material Type: <u>2" PVC</u>		4.68	0.035	23.3	165	6.96	0.00	
Total Well Depth (TD): <u>21.78</u>		4.67	0.034	23.9	25	6.00	0.00	
Static Water Level (WL): <u>19.72</u>		4.73	0.034	23.6	9	5.65	0.00	
One Casing Volume (gal/L): <u>.35</u>								
Start Purge (hrs): <u>1335</u>								
End Purge (hrs): <u>1410</u>								
Total Purge Time (min): <u>35</u>								
Total Vol. Purged (gal/L): <u>1.75</u>								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
EDB	None	3 x 40ml glass	
VOCs	He1	2 x 40ml glass	
PAH	None	2 x 12 glass jar	
CRP14	H ₂ SO ₄	" " "	
Total Pb	HNO ₃	1 x .5L plastic	

OBSERVATIONS / NOTES:

DO = 6.9 mg/L ORP = 278.3mV
 Fe = 0.01 mg/L H₂S = 0.00 mg/L

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



Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

85 7/21

OLFB07 MW14 GW
may be mislabeled.
Page 1 of 1 but is
correct
on CO-

Project Site Name: OLF Brunson Sample ID No.: OLFB07 MW14
 Project No.: 0401 Sample Location: Site 1107
 Sampled By: JB C.O.C. No.: _____
 Domestic Well Data
 Monitoring Well Data
 Other Well Type: _____
 QA Sample Type: _____ Type of Sample:
 Low Concentration Site 1107
 High Concentration

SAMPLING DATA:

Date:	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
7-12-00								
Time: 1527								
Method: peristaltic	clean	5.37	.055	24.2	0.50	6.73	0.00	

PURGE DATA:

Date:	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
7-12-00								
Method: peristaltic	Initial	6.16	.062	26.9	450	14.07	0.00	
Monitor Reading (ppm):	1st	5.30	.060	25.5	19	7.23	0.00	
Well Casing Diameter & Material	2nd	5.31	.058	24.4	3.1	6.09	0.00	
Type: 2" PVC	3rd	5.36	.057	24.2	0.95	7.66	0.00	
Total Well Depth (TD): 21.41	4th	5.33	.056	24.7	1.3	7.60	0.00	
Static Water Level (WL): 20.23	5th	5.37	.055	24.2	0.60	6.73	0.00	
One Casing Volume (gal/L): 0.2								
Start Purge (hrs): 1411								
End Purge (hrs): 1525								
Total Purge Time (min): 74 min								
Total Vol. Purged (gal/L): 1.9								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
FAH VOC	HCl	40 mL Vial	2
TRPH	H ₂ SO ₄	1 L Amber	2
Lead	HNO ₃	.5 L Amber	1

OBSERVATIONS / NOTES:

DO = 6.7 mg/L ORP = 292.8 mV
 Fe = 0.00 mg/L HS = 0.00 mg/L

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):



Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: OLFB BRONSON
Project No.: N0401

Sample ID No.: OLFB/07/MW15/GW

Sample Location: SITE 1107

Sampled By: PDB

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: <u>7/12/00</u>	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Time: <u>1555</u>	<u>CLEAR</u>	<u>4.54</u>	<u>.035</u>	<u>23.4</u>	<u>9.83</u>	<u>5.45</u>	<u>-</u>	
Method: <u>LOW FLOW</u>								

PURGE DATA:

Date	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
<u>7/12/00</u>	<u>INITIAL</u>	<u>4.99</u>	<u>.039</u>	<u>24.3</u>	<u>298</u>	<u>6.43</u>	<u>-</u>	<u>CLOUDY</u>
Method: <u>LOW FLOW</u>	<u>1405</u>	<u>4.97</u>	<u>.040</u>	<u>24.2</u>	<u>210</u>	<u>5.99</u>	<u>-</u>	<u>CLOUDY</u>
Monitor Reading (ppm): <u>-</u>	<u>1410</u>	<u>4.52</u>	<u>.036</u>	<u>23.7</u>	<u>49.0</u>	<u>6.02</u>	<u>-</u>	<u>CLOUDY</u>
Well Casing Diameter & Material Type: <u>2" PVC</u>	<u>1415</u>	<u>4.43</u>	<u>.035</u>	<u>23.5</u>	<u>34.9</u>	<u>6.02</u>	<u>-</u>	<u>CLOUDY</u>
Total Well Depth (TD): <u>34.03</u>	<u>1420</u>	<u>4.50</u>	<u>.035</u>	<u>23.4</u>	<u>24.3</u>	<u>5.92</u>	<u>-</u>	<u>CLEAR</u>
Static Water Level (WL): <u>21.18</u>	<u>1425</u>	<u>4.49</u>	<u>.035</u>	<u>23.4</u>	<u>20.6</u>	<u>5.92</u>	<u>-</u>	<u>CLEAR</u>
One Casing Volume (gal/L): <u>2.1</u>	<u>1430</u>	<u>4.50</u>	<u>.035</u>	<u>23.4</u>	<u>18.7</u>	<u>5.93</u>	<u>-</u>	<u>CLEAR</u>
Start Purge (hrs): <u>1355</u>	<u>1435</u>	<u>4.51</u>	<u>.035</u>	<u>23.5</u>	<u>13.9</u>	<u>5.90</u>	<u>-</u>	<u>CLEAR</u>
End Purge (hrs): <u>1450</u>	<u>1440</u>	<u>4.51</u>	<u>.035</u>	<u>23.5</u>	<u>9.92</u>	<u>5.92</u>	<u>-</u>	<u>CLEAR</u>
Total Purge Time (min): <u>455</u>	<u>1445</u>	<u>4.54</u>	<u>.035</u>	<u>23.5</u>	<u>8.95</u>	<u>5.73</u>	<u>-</u>	<u>CLEAR</u>
Total Vol. Purged (gal/L): <u>6.3</u>	<u>1450</u>	<u>4.54</u>	<u>.035</u>	<u>23.4</u>	<u>9.33</u>	<u>5.45</u>	<u>-</u>	<u>CLEAR</u>

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
<u>VOC</u>	<u>HCL</u>	<u>2x40 mL VIAL</u>	<u>2</u>
<u>TRPH</u>	<u>H2SO4</u>	<u>2x1000 mL AMBER</u>	<u>2</u>
<u>PAH</u>	<u>ICE</u>	<u>2x1000 mL AMBER</u>	<u>2</u>
<u>EDB</u>	<u>ICE</u>	<u>3x40 mL VIAL</u>	<u>3</u>
<u>TOTAL Pb</u>	<u>HNO3</u>	<u>1x500 mL PLASTIC</u>	<u>1</u>

OBSERVATIONS / NOTES:

SAMPLES PLACED ON ICE

DO = 7.6 mg/L ORP = 293.8 mV
Fe = 0.08 mg/L HS = 0.00 mg/L

Circle if Applicable:

MS/MSD	Duplicate ID No.:
--------	-------------------

Signature(s): [Signature]

ESB 7/14
1500



Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: OLF Bronson site 1107
Project No.: 0461

Sample ID No.: OLFBD7MW16GW

Sample Location: 1107 MV16

Sampled By: JA

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
<u>7 12 00</u>	<u>Clear</u>	<u>4.71</u>	<u>.065</u>	<u>22.4</u>	<u>0.00</u>	<u>4.73</u>	<u>0.00</u>	
Time: <u>0910</u>								
Method: <u>peristaltic</u>								

PURGE DATA:

Date:	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
<u>7 12 00</u>		<u>3.98</u>	<u>.172</u>	<u>23.8</u>	<u>193</u>	<u>6.40</u>	<u>0.00</u>	
Method: <u>peristaltic</u>								
Monitor Reading (ppm): _____	<u>1st</u>	<u>4.60</u>	<u>.067</u>	<u>22.5</u>	<u>39</u>	<u>5.30</u>	<u>0.00</u>	
Well Casing Diameter & Material	<u>2nd</u>	<u>4.71</u>	<u>.065</u>	<u>22.4</u>	<u>16</u>	<u>5.08</u>	<u>0.00</u>	
Type: <u>2" PVC</u>	<u>3rd</u>	<u>4.71</u>	<u>.065</u>	<u>22.4</u>	<u>0</u>	<u>4.73</u>	<u>0.00</u>	
Total Well Depth (TD): <u>24.24</u>								
Static Water Level (WL): <u>2.98</u>								
One Casing Volume (gal/L): <u>0.4</u>								
Start Purge (hrs): <u>0845</u>								
End Purge (hrs): <u>0910</u>								
Total Purge Time (min): <u>25</u>								
Total Vol. Purged (gal/L): <u>2.9</u>								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
<u>VOCs</u>	<u>HCl</u>	<u>2 x 40ml glass</u>	
<u>EDR</u>	<u>none</u>	<u>3 x 40ml glass</u>	
<u>TRPH</u>	<u>H₂SO₄</u>	<u>2 x 1L amber</u>	
<u>PAH</u>	<u>none</u>	<u>" "</u>	
<u>Total Pb</u>	<u>HNO₃</u>	<u>1 x .5L plastic</u>	

OBSERVATIONS / NOTES:

DO = 6.6 mg/L ORP = 337.5 mV
 Fe = 0.00 mg/L HS = 0.00 mg/L

Circle if Applicable:

MS/MSD

Duplicate ID No.:

OLFBD002 OLFBD7MW16GW

Signature(s):

OTC
SB 7/20/03

ATTACHMENT E

GROUNDWATER AND SOIL LABORATORY REPORTS



Tetra Tech NUS, Inc.

Internal Correspondence

TO: Mr. Gerald Walker **DATE:** August 22, 2000

FROM: William Howard Engle **CC:** File

SUBJECT: Inorganic Data Validation – Total Lead
CTO112 – NAS Pensacola
SDG F7025

SAMPLES: 13/Aqueous

OLFB07D001	OLFB07MW02GW	OLFB07MW03GW
OLFB07MW06GW	OLFB07MW07GW	OLFB07MW09GW
OLFB07MW10GW	OLFB07MW11GW	OLFB07MW12GW
OLFB07MW13GW	OLFB07MW14GW	OLFB07MW15GW
OLFB07MW16GW		

OVERVIEW

The sample set for CTO112, SDG F7025; Naval Air Station Pensacola, Pensacola, Florida consists of thirteen (13) aqueous environmental samples. This SDG also contained one (1) duplicate pair (OLFB07D001 / OLFB07MW16GW). The environmental samples were analyzed for Total Lead.

The samples were collected by Tetra Tech NUS on July 12, 2000 and analyzed by Accutest Southeast Laboratories. 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 6010A analytical and reporting protocols. The data in this SDG was validated with regard to the following parameters:

- * • Data Completeness
- * • Holding Times
- * • Initial/continuing calibrations
- 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.

Laboratory Blank Analysis

Lead was detected in the laboratory method / preparation blanks at the following maximum concentration:

Affected samples: All, except samples OLFB07MW03GW,
OLF07MW06GW, OLF07MW07GW, and
OLF07MW13GW

<u>Analyte</u>	<u>Maximum Concentration (ug/L)</u>	<u>Action Level (ug/L)</u>
Lead	2.6	13

An action level of 5x the maximum concentration has been used to evaluate the sample for contamination in continuing calibration blank. Dilution factors and sample aliquots were taken into consideration when evaluating for blank contamination. Positive results < the action level for lead were qualified as nondetects (U) as a result of blank contamination.

All other quality control criteria were met for this fraction.

Field Duplicate Summary

<u>Analyte</u>	<u>OLF07MW16GW</u>	<u>OLF07D001</u>
	No positive results	No positive results

Executive Summary

Laboratory performance: Lead was detected in the calibration blanks. Several samples were qualified for blank contamination.

Other factors affecting data quality: None.

•Page - 3
Memo: Mr. G. Walker
August 22, 2000

The data for these analyses were reviewed with reference to the EPA Functional Guidelines for Inorganic Data Validation (February, 1994), 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

F7025

HOLDING TIME
08/08/00

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	OLFB07D001	F7025-12	NORMAL	F7025	M	07/12/00	07/14/00	07/17/00	2	3	5
UG/L	OLFB07MW02GW	F7025-3	NORMAL	F7025	M	07/12/00	07/14/00	07/17/00	2	3	5
UG/L	OLFB07MW03GW	F7025-10	NORMAL	F7025	M	07/12/00	07/14/00	07/17/00	2	3	5
UG/L	OLFB07MW06GW	F7025-6	NORMAL	F7025	M	07/12/00	07/14/00	07/17/00	2	3	5
UG/L	OLFB07MW07GW	F7025-2	NORMAL	F7025	M	07/12/00	07/14/00	07/17/00	2	3	5
UG/L	OLFB07MW09GW	F7025-11	NORMAL	F7025	M	07/12/00	07/14/00	07/17/00	2	3	5
UG/L	OLFB07MW10GW	F7025-5	NORMAL	F7025	M	07/12/00	07/14/00	07/17/00	2	3	5
UG/L	OLFB07MW11GW	F7025-4	NORMAL	F7025	M	07/12/00	07/14/00	07/17/00	2	3	5
UG/L	OLFB07MW12GW	F7025-14	NORMAL	F7025	M	07/12/00	07/14/00	07/17/00	2	3	5
UG/L	OLFB07MW13GW	F7025-7	NORMAL	F7025	M	07/12/00	07/14/00	07/17/00	2	3	5
UG/L	OLFB07MW14GW	F7025-9	NORMAL	F7025	M	07/12/00	07/14/00	07/17/00	2	3	5
UG/L	OLFB07MW15GW	F7025-8	NORMAL	F7025	M	07/12/00	07/14/00	07/17/00	2	3	5
UG/L	OLFB07MW16GW	F7025-1	NORMAL	F7025	M	07/12/00	07/14/00	07/17/00	2	3	5
UG/L	07TB071200	F7025-13	NORMAL	F7025	OV	07/12/00	//	07/23/00	0	0	11
UG/L	OLFB07D001	F7025-12	NORMAL	F7025	OV	07/12/00	//	07/23/00	0	0	11
UG/L	OLFB07MW02GW	F7025-3	NORMAL	F7025	OV	07/12/00	//	07/21/00	0	0	9
UG/L	OLFB07MW03GW	F7025-10	NORMAL	F7025	OV	07/12/00	//	07/21/00	0	0	9
UG/L	OLFB07MW06GW	F7025-6	NORMAL	F7025	OV	07/12/00	//	07/21/00	0	0	9
UG/L	OLFB07MW07GW	F7025-2	NORMAL	F7025	OV	07/12/00	//	07/21/00	0	0	9
UG/L	OLFB07MW09GW	F7025-11	NORMAL	F7025	OV	07/12/00	//	07/21/00	0	0	9
UG/L	OLFB07MW10GW	F7025-5	NORMAL	F7025	OV	07/12/00	//	07/21/00	0	0	9
UG/L	OLFB07MW11GW	F7025-4	NORMAL	F7025	OV	07/12/00	//	07/21/00	0	0	9
UG/L	OLFB07MW12GW	F7025-14	NORMAL	F7025	OV	07/12/00	//	07/23/00	0	0	11
UG/L	OLFB07MW13GW	F7025-7	NORMAL	F7025	OV	07/12/00	//	07/21/00	0	0	9
UG/L	OLFB07MW14GW	F7025-9	NORMAL	F7025	OV	07/12/00	//	07/21/00	0	0	9

CTO112-NAS PENSACOLA

WATER DATA

Accutest, NJ

SDG: F7025

SAMPLE NUMBER:	OLFB07D001	OLFB07MW02GW	OLFB07MW03GW	OLFB07MW06GW
SAMPLE DATE:	07/12/00	07/12/00	07/12/00	07/12/00
LABORATORY ID:	F7025-12	F7025-3	F7025-10	F7025-6
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									
INORGANICS												
LEAD	2.7	BU	A	2.0	BU	A	1.6	U		1.6	U	

CTO112-NAS PENSACOLA

WATER DATA

Accutest, NJ

SDG: F7025

SAMPLE NUMBER:	OLFB07MW07CW	OLFB07MW09CW	OLFB07MW10GW	OLFB07MW11GW
SAMPLE DATE:	07/12/00	07/12/00	07/12/00	07/12/00
LABORATORY ID:	F7025-2	F7025-11	F7025-5	F7025-4
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									
INORGANICS												
LEAD	1.6	U		2.6	BU	A	1.7	BU	A	1.7	BU	A

CTO112-NAS PENSACOLA

WATER DATA

Accutest, NJ

SDG: F7025

SAMPLE NUMBER:

OLFB07MW12GW

OLFB07MW13GW

OLFB07MW14GW

OLFB07MW15GW

SAMPLE DATE:

07/12/00

07/12/00

07/12/00

07/12/00

LABORATORY ID:

F7025-14

F7025-7

F7025-9

F7025-8

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									
INORGANICS												
LEAD	3.1	BU	A	1.6	U		2.8	BU	A	2.7	BU	A

APPENDIX B

Results as Reported by the Laboratory

Report of Analysis

Client Sample ID: OLFB07D001	
Lab Sample ID: F7025-12	Date Sampled: 07/12/00
Matrix: AQ - Ground Water	Date Received: 07/13/00
	Percent Solids: n/a
Project: NAS Pensacola	

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	2.7 B	5.0	ug/l	1	07/14/00	07/17/00 JK	SW846 6010A

Report of Analysis

Client Sample ID: OLFB07MW02GW	Date Sampled: 07/12/00
Lab Sample ID: F7025-3	Date Received: 07/13/00
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: NAS Pensacola	

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	2.0 B	5.0	ug/l	1	07/14/00	07/17/00 JK	SW846 6010A

RL = Reporting Limit

Report of Analysis

Client Sample ID: OLFB07MW03GW	Date Sampled: 07/12/00
Lab Sample ID: F7025-10	Date Received: 07/13/00
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: NAS Pensacola	

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	1.6 U	5.0	ug/l	1	07/14/00	07/17/00 JK	SW846 6010A

Report of Analysis

Client Sample ID: OLFB07MW06GW	Date Sampled: 07/12/00
Lab Sample ID: F7025-6	Date Received: 07/13/00
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: NAS Pensacola	

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	1.6 U	5.0	ug/l	1	07/14/00	07/17/00 JK	SW846 6010A

Report of Analysis

Client Sample ID: OLFB07MW07GW	Date Sampled: 07/12/00
Lab Sample ID: F7025-2	Date Received: 07/13/00
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: NAS Pensacola	

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	1.6 U	5.0	ug/l	1	07/14/00	07/17/00 JK	SW846 6010A

Report of Analysis

Client Sample ID: OLFB07MW09GW	Date Sampled: 07/12/00
Lab Sample ID: F7025-11	Date Received: 07/13/00
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: NAS Pensacola	

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	2.6 B	5.0	ug/l	1	07/14/00	07/17/00 JK	SW846 6010A

Report of Analysis

Client Sample ID: OLFB07MW10GW	Date Sampled: 07/12/00
Lab Sample ID: F7025-5	Date Received: 07/13/00
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: NAS Pensacola	

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	1.7 B	5.0	ug/l	1	07/14/00	07/17/00 JK	SW846 6010A

Report of Analysis

Client Sample ID: OLFB07MW11GW	Date Sampled: 07/12/00
Lab Sample ID: F7025-4	Date Received: 07/13/00
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: NAS Pensacola	

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	1.7 B	5.0	ug/l	1	07/14/00	07/17/00 JK	SW846 6010A

RL = Reporting Limit

Report of Analysis

Client Sample ID: OLFB07MW12GW	Date Sampled: 07/12/00
Lab Sample ID: F7025-14	Date Received: 07/13/00
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: NAS Pensacola	

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	3.1 B	5.0	ug/l	1	07/14/00	07/17/00 JK	SW846 6010A

Report of Analysis

Client Sample ID: OLFB07MW13GW	Date Sampled: 07/12/00
Lab Sample ID: F7025-7	Date Received: 07/13/00
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: NAS Pensacola	

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	1.6 U	5.0	ug/l	1	07/14/00	07/17/00 JK	SW846 6010A

Report of Analysis

Client Sample ID: OLFB07MW14GW	Date Sampled: 07/12/00
Lab Sample ID: F7025-9	Date Received: 07/13/00
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: NAS Pensacola	

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	2.8 B	5.0	ug/l	1	07/14/00	07/17/00 JK	SW846 6010A

Report of Analysis

Client Sample ID: OLFB07MW15GW

Lab Sample ID: F7025-8

Matrix: AQ - Ground Water

Project: NAS Pensacola

Date Sampled: 07/12/00

Date Received: 07/13/00

Percent Solids: n/a

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	2.7 B	5.0	ug/l	1	07/14/00	07/17/00 JK	SW846 6010A

Report of Analysis

Client Sample ID: OLFB07MW16GW	Date Sampled: 07/12/00
Lab Sample ID: F7025-1	Date Received: 07/13/00
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: NAS Pensacola	

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	2.3 B	5.0	ug/l	1	07/14/00	07/17/00 JK	SW846 6010A



Tetra Tech NUS, Inc.

Internal Correspondence

TO: Mr. Gerald Walker **DATE:** August 21, 2000
FROM: William Howard Engle **CC:** File
SUBJECT: Organic Data Validation – VOA, EDB, PAH, and TRPH
CTO112 – NAS Pensacola
SDG F7025
SAMPLES: 14/Aqueous

07TB071200	OLFB07D001	OLFB07MW02GW
OLFB07MW03GW	OLFB07MW06GW	OLFB07MW07GW
OLFB07MW09GW	OLFB07MW10GW	OLFB07MW11GW
OLFB07MW12GW	OLFB07MW13GW	OLFB07MW14GW
OLFB07MW15GW	OLFB07MW16GW	

OVERVIEW

The sample set for CTO112, SDG F7025; Naval Air Station Pensacola, Pensacola, Florida consists of thirteen (13) aqueous environmental samples and one (1) trip blank. A duplicate pair (OLFB07D001/OLFB07MW16GW) is also included in this SDG. The environmental samples, with the exception of sample 19TB071200, were analyzed for Benzene, Toluene, Ethylbenzene, Total Xylenes, and Methyl-tert-butyl ether (VOCs), ethylene dibromide (EDB), polycyclic aromatic hydrocarbons (PAHs), and total residual petroleum hydrocarbons (TRPHs). Sample 19TB070600 was analyzed for VOCs only.

The samples were collected by Tetra Tech NUS on July 12, 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. 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

The MS/MSD %R for chrysene was below the lower control limit, but the LCS %R for chrysene was acceptable. Therefore, only the sample spiked and its duplicate, OLFB07MW07GW & OLFB07D001, were qualified as estimated "J".

Total Residual Petroleum Fraction

The MS/MSD %R for TRPH was below the lower control limit, but the LCS %R for TROH was acceptable. Therefore, only the sample spiked and its duplicate, OLFB07MW07GW & OLFB07D001, were qualified as estimated "J".

Duplicate Summary

Analyte

OLFB07MW16GW
No positives reported

OLFB07D001
No positives reported

Executive Summary

Laboratory performance:

The MS/MSD %R for chrysene and TRPH was below the lower control limit. The sample spiked was qualified as estimated "J"

Other factors affecting data quality:

None.

•Page - 3
Memo: Mr. G. Walker
August 21, 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

F7025

HOLDING TIME
08/08/00

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	OLFB07D001	F7025-12	NORMAL	F7025	M	07/12/00	07/14/00	07/17/00	2	3	5
UG/L	OLFB07MW02GW	F7025-3	NORMAL	F7025	M	07/12/00	07/14/00	07/17/00	2	3	5
UG/L	OLFB07MW03GW	F7025-10	NORMAL	F7025	M	07/12/00	07/14/00	07/17/00	2	3	5
UG/L	OLFB07MW06GW	F7025-6	NORMAL	F7025	M	07/12/00	07/14/00	07/17/00	2	3	5
UG/L	OLFB07MW07GW	F7025-2	NORMAL	F7025	M	07/12/00	07/14/00	07/17/00	2	3	5
UG/L	OLFB07MW09GW	F7025-11	NORMAL	F7025	M	07/12/00	07/14/00	07/17/00	2	3	5
UG/L	OLFB07MW10GW	F7025-5	NORMAL	F7025	M	07/12/00	07/14/00	07/17/00	2	3	5
UG/L	OLFB07MW11GW	F7025-4	NORMAL	F7025	M	07/12/00	07/14/00	07/17/00	2	3	5
UG/L	OLFB07MW12GW	F7025-14	NORMAL	F7025	M	07/12/00	07/14/00	07/17/00	2	3	5
UG/L	OLFB07MW13GW	F7025-7	NORMAL	F7025	M	07/12/00	07/14/00	07/17/00	2	3	5
UG/L	OLFB07MW14GW	F7025-9	NORMAL	F7025	M	07/12/00	07/14/00	07/17/00	2	3	5
UG/L	OLFB07MW15GW	F7025-8	NORMAL	F7025	M	07/12/00	07/14/00	07/17/00	2	3	5
UG/L	OLFB07MW16GW	F7025-1	NORMAL	F7025	M	07/12/00	07/14/00	07/17/00	2	3	5
UG/L	07TB071200	F7025-13	NORMAL	F7025	OV	07/12/00	//	07/23/00	0	0	11
UG/L	OLFB07D001	F7025-12	NORMAL	F7025	OV	07/12/00	//	07/23/00	0	0	11
UG/L	OLFB07MW02GW	F7025-3	NORMAL	F7025	OV	07/12/00	//	07/21/00	0	0	9
UG/L	OLFB07MW03GW	F7025-10	NORMAL	F7025	OV	07/12/00	//	07/21/00	0	0	9
UG/L	OLFB07MW06GW	F7025-6	NORMAL	F7025	OV	07/12/00	//	07/21/00	0	0	9
UG/L	OLFB07MW07GW	F7025-2	NORMAL	F7025	OV	07/12/00	//	07/21/00	0	0	9
UG/L	OLFB07MW09GW	F7025-11	NORMAL	F7025	OV	07/12/00	//	07/21/00	0	0	9
UG/L	OLFB07MW10GW	F7025-5	NORMAL	F7025	OV	07/12/00	//	07/21/00	0	0	9
UG/L	OLFB07MW11GW	F7025-4	NORMAL	F7025	OV	07/12/00	//	07/21/00	0	0	9
UG/L	OLFB07MW12GW	F7025-14	NORMAL	F7025	OV	07/12/00	//	07/23/00	0	0	11
UG/L	OLFB07MW13GW	F7025-7	NORMAL	F7025	OV	07/12/00	//	07/21/00	0	0	9
UG/L	OLFB07MW14GW	F7025-9	NORMAL	F7025	OV	07/12/00	//	07/21/00	0	0	9

CTO112-NAS PENSACOLA

WATER DATA

Accutest, NJ

SDG: F7025

SAMPLE NUMBER:

07TB071200

OLFB07D001

OLFB07MW02GW

OLFB07MW03GW

SAMPLE DATE:

07/12/00

07/12/00

07/12/00

07/12/00

LABORATORY ID:

F7025-13

F7025-12

F7025-3

F7025-10

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												
1,2-DIBROMOETHANE				0.02	U		0.02	U		0.02	U	
BENZENE	1	U		1	U		1	U		1	U	
ETHYLBENZENE	2	U		2	U		2	U		0.98	J	P
METHYL TERT-BUTYL ETHER	2	U		2	U		2	U		2	U	
TOLUENE	2	U		2	U		2	U		2	U	
XYLENES, TOTAL	6	U		6	U		6	U		6	U	

CTO112-NAS PENSACOLA

WATER DATA

Accutest, NJ

SDG: F7025

SAMPLE NUMBER:

OLFB07MW06GW

OLFB07MW07GW

OLFB07MW09GW

OLFB07MW10GW

SAMPLE DATE:

07/12/00

07/12/00

07/12/00

07/12/00

LABORATORY ID:

F7025-6

F7025-2

F7025-11

F7025-5

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												
1,2-DIBROMOETHANE	0.02	U										
BENZENE	1	U		1	U		1	U		1	U	
ETHYLBENZENE	2	U		2	U		2	U		2	U	
METHYL TERT-BUTYL ETHER	2	U		2	U		2	U		2	U	
TOLUENE	2	U		2	U		2	U		2	U	
XYLENES, TOTAL	6	U		6	U		6	U		6	U	

CTO112-NAS PENSACOLA

WATER DATA

Accutest, NJ

SDG: F7025

SAMPLE NUMBER:

OLFB07MW11GW

OLFB07MW12GW

OLFB07MW13GW

OLFB07MW14GW

SAMPLE DATE:

07/12/00

07/12/00

07/12/00

07/12/00

LABORATORY ID:

F7025-4

F7025-14

F7025-7

F7025-9

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												
1,2-DIBROMOETHANE	0.02	U										
BENZENE	1	U		1	U		1	U		1	U	
ETHYLBENZENE	2	U		2	U		2	U		2	U	
METHYL TERT-BUTYL ETHER	2	U		2	U		2	U		2	U	
TOLUENE	2	U		2	U		2	U		2	U	
XYLENES, TOTAL	6	U		6	U		6	U		6	U	

CTO112-NAS PENSACOLA

WATER DATA

Accutest, NJ

SDG: F7025

SAMPLE NUMBER:

OLFB07MW15GW

OLFB07MW16GW

SAMPLE DATE:

07/12/00

07/12/00

//

//

LABORATORY ID:

F7025-8

F7025-1

QC_TYPE:

NORMAL

NORMAL

% SOLIDS:

0.0 %

0.0 %

100.0 %

100.0 %

UNITS:

UG/L

UG/L

FIELD DUPLICATE OF:

	RESULT	QUAL	CODE									
VOLATILES												
1,2-DIBROMOETHANE	0.02	U		0.02	U							
BENZENE	1	U		1	U							
ETHYLBENZENE	2	U		2	U							
METHYL TERT-BUTYL ETHER	2	U		2	U							
TOLUENE	2	U		2	U							
XYLENES, TOTAL	6	U		6	U							

CTO112-NAS PENSACOLA

WATER DATA

Accutest, NJ

SDG: F7025

SAMPLE NUMBER:

OLFB07D001

OLFB07MW02GW

OLFB07MW03GW

OLFB07MW06GW

SAMPLE DATE:

07/12/00

07/12/00

07/12/00

07/12/00

LABORATORY ID:

F7025-12

F7025-3

F7025-10

F7025-6

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		12.3			2	J	P
2-METHYLNAPHTHALENE	2	U		2.2	U		14.2			2.2		
ACENAPHTHENE	2	U		2.2	U		8	U		2.2	U	
ACENAPHTHYLENE	2	U		2.2	U		8	U		2.2	U	
ANTHRACENE	2	U		2.2	U		2	U		2.2	U	
BENZO(A)ANTHRACENE	0.2	U		0.22	U		0.2	U		0.22	U	
BENZO(A)PYRENE	0.2	U		0.22	U		0.2	U		0.22	U	
BENZO(B)FLUORANTHENE	0.2	U		0.22	U		0.2	U		0.22	U	
BENZO(G,H,I)PERYLENE	0.2	U		0.22	U		0.2	U		0.22	U	
BENZO(K)FLUORANTHENE	0.2	U		0.22	U		0.2	U		0.22	U	
CHRYSENE	2	U	D	2.2	U		2	U		4.4	U	
DIBENZO(A,H)ANTHRACENE	0.2	U		0.22	U		0.2	U		0.22	U	
FLUORANTHENE	2	U		2.2	U		2	U		2.2	U	
FLUORENE	2	U		2.2	U		8	U		2.2	U	
INDENO(1,2,3-CD)PYRENE	0.2	U		0.22	U		0.2	U		0.22	U	
NAPHTHALENE	2	U		2.2	U		11.5			1.8	J	
PHENANTHRENE	2	U		2.2	U		8	U		2.2	U	
PYRENE	2	U		2.2	U		2	U		2.2	U	

CTO112-NAS PENSACOLA

WATER DATA

Accutest, NJ

SDG: F7025

SAMPLE NUMBER:

OLFB07MW07GW

OLFB07MW09GW

OLFB07MW10GW

OLFB07MW11GW

SAMPLE DATE:

07/12/00

07/12/00

07/12/00

07/12/00

LABORATORY ID:

F7025-2

F7025-11

F7025-5

F7025-4

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	RESULT	QUAL	CODE	RESULT	QUAL	CODE	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 ^S	D	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: F7025

SAMPLE NUMBER:

OLFB07MW12GW

OLFB07MW13GW

OLFB07MW14GW

OLFB07MW15GW

SAMPLE DATE:

07/12/00

07/12/00

07/12/00

07/12/00

LABORATORY ID:

F7025-14

F7025-7

F7025-9

F7025-8

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	2.4	U		2.2	U		2.2	U		2.2	U	
2-METHYLNAPHTHALENE	2.4	U		2.2	U		2.2	U		2.2	U	
ACENAPHTHENE	2.4	U		2.2	U		2.2	U		2.2	U	
ACENAPHTHYLENE	2.4	U		2.2	U		2.2	U		2.2	U	
ANTHRACENE	2.4	U		2.2	U		2.2	U		2.2	U	
BENZO(A)ANTHRACENE	0.24	U		0.22	U		0.22	U		0.22	U	
BENZO(A)PYRENE	0.24	U		0.22	U		0.22	U		0.22	U	
BENZO(B)FLUORANTHENE	0.24	U		0.22	U		0.22	U		0.22	U	
BENZO(G,H,I)PERYLENE	0.24	U		0.22	U		0.22	U		0.22	U	
BENZO(K)FLUORANTHENE	0.24	U		0.22	U		0.22	U		0.22	U	
CHRYSENE	2.4	U		2.2	U		2.2	U		2.2	U	
DIBENZO(A,H)ANTHRACENE	0.24	U		0.22	U		0.22	U		0.22	U	
FLUORANTHENE	2.4	U		2.2	U		2.2	U		2.2	U	
FLUORENE	2.4	U		2.2	U		2.2	U		2.2	U	
INDENO(1,2,3-CD)PYRENE	0.24	U		0.22	U		0.22	U		0.22	U	
NAPHTHALENE	2.4	U		2.2	U		2.2	U		2.2	U	
PHENANTHRENE	2.4	U		2.2	U		2.2	U		2.2	U	
PYRENE	2.4	U		2.2	U		2.2	U		2.2	U	

CTO112-NAS PENSACOLA

WATER DATA

Accutest, NJ

SDG: F7025

SAMPLE NUMBER:	OLFB07D001	OLFB07MW02GW	OLFB07MW03GW	OLFB07MW06GW
SAMPLE DATE:	07/12/00	07/12/00	07/12/00	07/12/00
LABORATORY ID:	F7025-12	F7025-3	F7025-10	F7025-6
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												
TPH (C8-C40)	0.28	UJ	D	0.232	J	P	1.65			0.843		

CTO112-NAS PENSACOLA

WATER DATA

Accutest, NJ

SDG: F7025

SAMPLE NUMBER:

OLFB07MW07GW

OLFB07MW09GW

OLFB07MW10GW

OLFB07MW11GW

SAMPLE DATE:

07/12/00

07/12/00

07/12/00

07/12/00

LABORATORY ID:

F7025-2

F7025-11

F7025-5

F7025-4

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												
TPH (C8-C40)	1.86	J	D	0.278	J	P	0.28	U		0.25	U	

CTO112-NAS PENSACOLA

WATER DATA

Accutest, NJ

SDG: F7025

SAMPLE NUMBER:	OLFB07MW12GW	OLFB07MW13GW	OLFB07MW14GW	OLFB07MW15GW
SAMPLE DATE:	07/12/00	07/12/00	07/12/00	07/12/00
LABORATORY ID:	F7025-14	F7025-7	F7025-9	F7025-8
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												
TPH (C8-C40)	0.3	U		0.3	U		0.28	U		0.25	U	

APPENDIX B

Results as Reported by the Laboratory

Report of Analysis

Client Sample ID: 07TB071200		Date Sampled: 07/12/00
Lab Sample ID: F7025-13		Date Received: 07/13/00
Matrix: AQ - Trip Blank Water		Percent Solids: n/a
Method: SW846 8260B		
Project: NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B001305.D	1	07/23/00	JG	n/a	n/a	VB40
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	2.0	ug/l
100-41-4	Ethylbenzene	ND	2.0	ug/l
1330-20-7	Xylene (total)	ND	6.0	ug/l
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	ug/l

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		80-120%
17060-07-0	1,2-Dichloroethane-D4	87%		69-128%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	92%		80-120%

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: OLFB07D001	Date Sampled: 07/12/00
Lab Sample ID: F7025-12	Date Received: 07/13/00
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: NAS Pensacola	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B001306.D	1	07/23/00	JG	n/a	n/a	VB40
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	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	ug/l	
1330-20-7	Xylene (total)	ND	6.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		80-120%
17060-07-0	1,2-Dichloroethane-D4	81%		69-128%
2037-26-5	Toluene-D8	98%		80-120%
460-00-4	4-Bromofluorobenzene	90%		80-120%

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: OLFB07MW02GW	Date Sampled: 07/12/00
Lab Sample ID: F7025-3	Date Received: 07/13/00
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: NAS Pensacola	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B001288.D	1	07/21/00	JG	n/a	n/a	VB39
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	2.0	ug/l
100-41-4	Ethylbenzene	ND	2.0	ug/l
1330-20-7	Xylene (total)	ND	6.0	ug/l
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	ug/l

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		80-120%
17060-07-0	1,2-Dichloroethane-D4	84%		69-128%
2037-26-5	Toluene-D8	98%		80-120%
460-00-4	4-Bromofluorobenzene	91%		80-120%

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: OLFB07MW03GW	Date Sampled: 07/12/00
Lab Sample ID: F7025-10	Date Received: 07/13/00
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: NAS Pensacola	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B001295.D	1	07/21/00	JG	n/a	n/a	VB40
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	2.0	ug/l	
100-41-4	Ethylbenzene	0.98	2.0	ug/l	J
1330-20-7	Xylene (total)	ND	6.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		80-120%
17060-07-0	1,2-Dichloroethane-D4	83%		69-128%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	89%		80-120%

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: OLFB07MW06GW	
Lab Sample ID: F7025-6	Date Sampled: 07/12/00
Matrix: AQ - Ground Water	Date Received: 07/13/00
Method: SW846 8260B	Percent Solids: n/a
Project: NAS Pensacola	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B001291.D	1	07/21/00	JG	n/a	n/a	VB40
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	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	ug/l	
1330-20-7	Xylene (total)	ND	6.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		80-120%
17060-07-0	1,2-Dichloroethane-D4	84%		69-128%
2037-26-5	Toluene-D8	98%		80-120%
460-00-4	4-Bromofluorobenzene	88%		80-120%

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: OLFB07MW07GW	Date Sampled: 07/12/00
Lab Sample ID: F7025-2	Date Received: 07/13/00
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: NAS Pensacola	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B001287.D	1	07/21/00	JG	n/a	n/a	VB39
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	2.0	ug/l
100-41-4	Ethylbenzene	ND	2.0	ug/l
1330-20-7	Xylene (total)	ND	6.0	ug/l
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	ug/l

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		80-120%
17060-07-0	1,2-Dichloroethane-D4	85%		69-128%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	91%		80-120%

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: OLFB07MW09GW		Date Sampled: 07/12/00
Lab Sample ID: F7025-11		Date Received: 07/13/00
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8260B		
Project: NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B001296.D	1	07/21/00	JG	n/a	n/a	VB40
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	2.0	ug/l
100-41-4	Ethylbenzene	ND	2.0	ug/l
1330-20-7	Xylene (total)	ND	6.0	ug/l
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	ug/l

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		80-120%
17060-07-0	1,2-Dichloroethane-D4	85%		69-128%
2037-26-5	Toluene-D8	97%		80-120%
460-00-4	4-Bromofluorobenzene	89%		80-120%

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: OLFB07MW10GW	Date Sampled: 07/12/00
Lab Sample ID: F7025-5	Date Received: 07/13/00
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: NAS Pensacola	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B001290.D	1	07/21/00	JG	n/a	n/a	VB40
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	2.0	ug/l
100-41-4	Ethylbenzene	ND	2.0	ug/l
1330-20-7	Xylene (total)	ND	6.0	ug/l
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	ug/l

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		80-120%
17060-07-0	1,2-Dichloroethane-D4	85%		69-128%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	90%		80-120%

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: OLFB07MW11GW	
Lab Sample ID: F7025-4	Date Sampled: 07/12/00
Matrix: AQ - Ground Water	Date Received: 07/13/00
Method: SW846 8260B	Percent Solids: n/a
Project: NAS Pensacola	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B001289.D	1	07/21/00	JG	n/a	n/a	VB39
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	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	ug/l	
1330-20-7	Xylene (total)	ND	6.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		80-120%
17060-07-0	1,2-Dichloroethane-D4	80%		69-128%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	91%		80-120%

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: OLFB07MW12GW
Lab Sample ID: F7025-14
Matrix: AQ - Ground Water
Method: SW846 8260B
Project: NAS Pensacola

Date Sampled: 07/12/00
Date Received: 07/13/00
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B001307.D	1	07/23/00	JG	n/a	n/a	VB40
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	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	ug/l	
1330-20-7	Xylene (total)	ND	6.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		80-120%
17060-07-0	1,2-Dichloroethane-D4	80%		69-128%
2037-26-5	Toluene-D8	98%		80-120%
460-00-4	4-Bromofluorobenzene	91%		80-120%

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: OLFB07MW13GW
Lab Sample ID: F7025-7
Matrix: AQ - Ground Water
Method: SW846 8260B
Project: NAS Pensacola

Date Sampled: 07/12/00
Date Received: 07/13/00
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B001292.D	1	07/21/00	JG	n/a	n/a	VB40
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	2.0	ug/l
100-41-4	Ethylbenzene	ND	2.0	ug/l
1330-20-7	Xylene (total)	ND	6.0	ug/l
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	ug/l

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		80-120%
17060-07-0	1,2-Dichloroethane-D4	86%		69-128%
2037-26-5	Toluene-D8	98%		80-120%
460-00-4	4-Bromofluorobenzene	90%		80-120%

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: OLFB07MW14GW	Date Sampled: 07/12/00
Lab Sample ID: F7025-9	Date Received: 07/13/00
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: NAS Pensacola	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B001294.D	1	07/21/00	JG	n/a	n/a	VB40
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	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	ug/l	
1330-20-7	Xylene (total)	ND	6.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		80-120%
17060-07-0	1,2-Dichloroethane-D4	86%		69-128%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	90%		80-120%

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: OLFB07MW15GW	Date Sampled: 07/12/00
Lab Sample ID: F7025-8	Date Received: 07/13/00
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: NAS Pensacola	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B001293.D	1	07/21/00	JG	n/a	n/a	VB40
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	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	ug/l	
1330-20-7	Xylene (total)	ND	6.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		80-120%
17060-07-0	1,2-Dichloroethane-D4	85%		69-128%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	86%		80-120%

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: OLFB07MW16GW	Date Sampled: 07/12/00
Lab Sample ID: F7025-1	Date Received: 07/13/00
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: NAS Pensacola	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	B001286.D	1	07/21/00	JG	n/a	n/a	VB39
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	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	ug/l	
1330-20-7	Xylene (total)	ND	6.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		80-120%
17060-07-0	1,2-Dichloroethane-D4	85%		69-128%
2037-26-5	Toluene-D8	98%		80-120%
460-00-4	4-Bromofluorobenzene	88%		80-120%

(a) Sample was not preserved to a pH < 2; reported results are considered minimum values.

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: OLFB07D001	
Lab Sample ID: F7025-12	Date Sampled: 07/12/00
Matrix: AQ - Ground Water	Date Received: 07/13/00
Method: EPA 504.1	Percent Solids: n/a
Project: NAS Pensacola	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AB15103.D	1	07/21/00	SKW	n/a	n/a	GAB549
Run #2							

CAS No.	Compound	Result	RL	Units	Q
106-93-4	1,2-Dibromoethane	ND	0.020	ug/l	

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: OLFB07MW02GW	
Lab Sample ID: F7025-3	Date Sampled: 07/12/00
Matrix: AQ - Ground Water	Date Received: 07/13/00
Method: EPA 504.1	Percent Solids: n/a
Project: NAS Pensacola	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AB15093.D	1	07/21/00	SKW	n/a	n/a	GAB549
Run #2							

CAS No.	Compound	Result	RL	Units	Q
106-93-4	1,2-Dibromoethane	ND	0.020	ug/l	

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: OLFB07MW03GW	
Lab Sample ID: F7025-10	Date Sampled: 07/12/00
Matrix: AQ - Ground Water	Date Received: 07/13/00
Method: EPA 504.1	Percent Solids: n/a
Project: NAS Pensacola	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AB15101.D	1	07/21/00	SKW	n/a	n/a	GAB549
Run #2							

CAS No.	Compound	Result	RL	Units	Q
106-93-4	1,2-Dibromoethane	ND	0.020	ug/l	

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: OLFB07MW06GW	
Lab Sample ID: F7025-6	Date Sampled: 07/12/00
Matrix: AQ - Ground Water	Date Received: 07/13/00
Method: EPA 504.1	Percent Solids: n/a
Project: NAS Pensacola	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AB15096.D	1	07/21/00	SKW	n/a	n/a	GAB549
Run #2							

CAS No.	Compound	Result	RL	Units	Q
106-93-4	1,2-Dibromoethane	ND	0.020	ug/l	

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: OLFB07MW07GW	
Lab Sample ID: F7025-2	Date Sampled: 07/12/00
Matrix: AQ - Ground Water	Date Received: 07/13/00
Method: EPA 504.1	Percent Solids: n/a
Project: NAS Pensacola	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AB15089.D	1	07/21/00	SKW	n/a	n/a	GAB549
Run #2							

CAS No.	Compound	Result	RL	Units	Q
106-93-4	1,2-Dibromoethane	ND	0.020	ug/l	

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: OLFB07MW09GW
Lab Sample ID: F7025-11
Matrix: AQ - Ground Water
Method: EPA 504.1
Project: NAS Pensacola

Date Sampled: 07/12/00
Date Received: 07/13/00
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AB15102.D	1	07/21/00	SKW	n/a	n/a	GAB549
Run #2							

CAS No.	Compound	Result	RL	Units	Q
106-93-4	1,2-Dibromoethane	ND	0.020	ug/l	

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: OLF07MW10GW	
Lab Sample ID: F7025-5	Date Sampled: 07/12/00
Matrix: AQ - Ground Water	Date Received: 07/13/00
Method: EPA 504.1	Percent Solids: n/a
Project: NAS Pensacola	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AB15095.D	1	07/21/00	SKW	n/a	n/a	GAB549
Run #2							

CAS No.	Compound	Result	RL	Units	Q
106-93-4	1,2-Dibromoethane	ND	0.020	ug/l	

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: OLFB07MW11GW	
Lab Sample ID: F7025-4	Date Sampled: 07/12/00
Matrix: AQ - Ground Water	Date Received: 07/13/00
Method: EPA 504.1	Percent Solids: n/a
Project: NAS Pensacola	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AB15094.D	1	07/21/00	SKW	n/a	n/a	GAB549
Run #2							

CAS No.	Compound	Result	RL	Units	Q
106-93-4	1,2-Dibromoethane	ND	0.020	ug/l	

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: OLFB07MW12GW	
Lab Sample ID: F7025-14	Date Sampled: 07/12/00
Matrix: AQ - Ground Water	Date Received: 07/13/00
Method: EPA 504.1	Percent Solids: n/a
Project: NAS Pensacola	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AB15104.D	1	07/21/00	SKW	n/a	n/a	GAB549
Run #2							

CAS No.	Compound	Result	RL	Units	Q
106-93-4	1,2-Dibromoethane	ND	0.020	ug/l	

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: OLFB07MW13GW	
Lab Sample ID: F7025-7	Date Sampled: 07/12/00
Matrix: AQ - Ground Water	Date Received: 07/13/00
Method: EPA 504.1	Percent Solids: n/a
Project: NAS Pensacola	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AB15097.D	1	07/21/00	SKW	n/a	n/a	GAB549
Run #2							

CAS No.	Compound	Result	RL	Units	Q
106-93-4	1,2-Dibromoethane	ND	0.020	ug/l	

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: OLFB07MW14GW
Lab Sample ID: F7025-9
Matrix: AQ - Ground Water
Method: EPA 504.1
Project: NAS Pensacola

Date Sampled: 07/12/00
Date Received: 07/13/00
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AB15100.D	1	07/21/00	SKW	n/a	n/a	GAB549
Run #2							

CAS No.	Compound	Result	RL	Units	Q
106-93-4	1,2-Dibromoethane	ND	0.020	ug/l	

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: OLFB07MW15GW	
Lab Sample ID: F7025-8	Date Sampled: 07/12/00
Matrix: AQ - Ground Water	Date Received: 07/13/00
Method: EPA 504.1	Percent Solids: n/a
Project: NAS Pensacola	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AB15098.D	1	07/21/00	SKW	n/a	n/a	GAB549
Run #2							

CAS No.	Compound	Result	RL	Units	Q
106-93-4	1,2-Dibromoethane	ND	0.020	ug/l	

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: OLF07MW16GW	
Lab Sample ID: F7025-1	Date Sampled: 07/12/00
Matrix: AQ - Ground Water	Date Received: 07/13/00
Method: EPA 504.1	Percent Solids: n/a
Project: NAS Pensacola	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AB15088.D	1	07/21/00	SKW	n/a	n/a	GAB549
Run #2							

CAS No.	Compound	Result	RL	Units	Q
106-93-4	1,2-Dibromoethane	ND	0.020	ug/l	

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: OLFB07D001	Date Sampled: 07/12/00
Lab Sample ID: F7025-12	Date Received: 07/13/00
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: EPA 8310	
Project: NAS Pensacola	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA003105.D	1	07/20/00	CCJ	07/19/00	OP1844	GAA102
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	56%		29-133%
92-94-4	p-Terphenyl	85%		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: OLFB07MW02GW	Date Sampled: 07/12/00
Lab Sample ID: F7025-3	Date Received: 07/13/00
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: EPA 8310	
Project: NAS Pensacola	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA003095.D	1	07/20/00	CCJ	07/19/00	OP1844	GAA102
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	64%		29-133%
92-94-4	p-Terphenyl	78%		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: OLFB07MW03GW	Date Sampled: 07/12/00
Lab Sample ID: F7025-10	Date Received: 07/13/00
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: EPA 8310	
Project: NAS Pensacola	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA003103.D	1	07/20/00	CCJ	07/19/00	OP1844	GAA102
Run #2 ^a	AA003136.D	4	07/21/00	CCJ	07/19/00	OP1844	GAA102

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND ^b	8.0	ug/l	
208-96-8	Acenaphthylene	ND ^b	8.0	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 ^b	8.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.20	ug/l	
91-20-3	Naphthalene	11.5 ^b	8.0	ug/l	
90-12-0	1-Methylnaphthalene	12.3 ^b	8.0	ug/l	
91-57-6	2-Methylnaphthalene	14.2 ^b	8.0	ug/l	
85-01-8	Phenanthrene	ND ^b	8.0	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	68%	63%	29-133%
92-94-4	p-Terphenyl	89%	85%	33-133%

(a) Dilution required due to matrix interference.

(b) Result is from Run# 2

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: OLFB07MW06GW	Date Sampled: 07/12/00
Lab Sample ID: F7025-6	Date Received: 07/13/00
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: EPA 8310	
Project: NAS Pensacola	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA003098.D	1	07/20/00	CCJ	07/19/00	OP1844	GAA102
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 ^a	ND	4.4	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	1.8	2.2	ug/l	J
90-12-0	1-Methylnaphthalene	2.0	2.2	ug/l	J
91-57-6	2-Methylnaphthalene	2.2	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	52%		29-133%
92-94-4	p-Terphenyl	83%		33-133%

(a) Elevated reporting limits due to matrix interference.

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: OLFB07MW07GW Lab Sample ID: F7025-2 Matrix: AQ - Ground Water Method: EPA 8310 Project: NAS Pensacola	Date Sampled: 07/12/00 Date Received: 07/13/00 Percent Solids: n/a
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA003094.D	1	07/20/00	CCJ	07/19/00	OP1844	GAA102
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	43%		29-133%
92-94-4	p-Terphenyl	62%		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: OLFB07MW09GW	Date Sampled: 07/12/00
Lab Sample ID: F7025-11	Date Received: 07/13/00
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: EPA 8310	
Project: NAS Pensacola	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA003104.D	1	07/20/00	CCJ	07/19/00	OP1844	GAA102
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	64%		29-133%
92-94-4	p-Terphenyl	76%		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: OLFB07MW10GW	Date Sampled: 07/12/00
Lab Sample ID: F7025-5	Date Received: 07/13/00
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: EPA 8310	
Project: NAS Pensacola	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA003097.D	1	07/20/00	CCJ	07/19/00	OP1844	GAA102
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	63%		29-133%
92-94-4	p-Terphenyl	89%		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: OLFB07MW11GW	Date Sampled: 07/12/00
Lab Sample ID: F7025-4	Date Received: 07/13/00
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: EPA 8310	
Project: NAS Pensacola	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA003096.D	1	07/20/00	CCJ	07/19/00	OP1844	GAA102
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	69%		29-133 %
92-94-4	p-Terphenyl	92%		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: OLFB07MW12GW	Date Sampled: 07/12/00
Lab Sample ID: F7025-14	Date Received: 07/13/00
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: EPA 8310	
Project: NAS Pensacola	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA003106.D	1	07/20/00	CCJ	07/19/00	OP1844	GAA102
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	2.4	ug/l	
208-96-8	Acenaphthylene	ND	2.4	ug/l	
120-12-7	Anthracene	ND	2.4	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.24	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.24	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.24	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.24	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.24	ug/l	
218-01-9	Chrysene	ND	2.4	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.24	ug/l	
206-44-0	Fluoranthene	ND	2.4	ug/l	
86-73-7	Fluorene	ND	2.4	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.24	ug/l	
91-20-3	Naphthalene	ND	2.4	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.4	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.4	ug/l	
85-01-8	Phenanthrene	ND	2.4	ug/l	
129-00-0	Pyrene	ND	2.4	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	64%		29-133%
92-94-4	p-Terphenyl	77%		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: OLFB07MW13GW	Date Sampled: 07/12/00
Lab Sample ID: F7025-7	Date Received: 07/13/00
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: EPA 8310	
Project: NAS Pensacola	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA003099.D	1	07/20/00	CCJ	07/19/00	OP1844	GAA102
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	68%		29-133%
92-94-4	p-Terphenyl	91%		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: OLFB07MW14GW	Date Sampled: 07/12/00
Lab Sample ID: F7025-9	Date Received: 07/13/00
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: EPA 8310	
Project: NAS Pensacola	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA003102.D	1	07/20/00	CCJ	07/19/00	OP1844	GAA102
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	67%		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

Report of Analysis

Client Sample ID: OLFB07MW15GW	Date Sampled: 07/12/00
Lab Sample ID: F7025-8	Date Received: 07/13/00
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: EPA 8310	
Project: NAS Pensacola	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA003101.D	1	07/20/00	CCJ	07/19/00	OP1844	GAA102
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	64%		29-133%
92-94-4	p-Terphenyl	86%		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: OLFB07MW16GW	
Lab Sample ID: F7025-1	Date Sampled: 07/12/00
Matrix: AQ - Ground Water	Date Received: 07/13/00
Method: EPA 8310	Percent Solids: n/a
Project: NAS Pensacola	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA003093.D	1	07/20/00	CCJ	07/19/00	OP1844	GAA102
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	65%		29-133%
92-94-4	p-Terphenyl	93%		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: OLFB07D001	
Lab Sample ID: F7025-12	Date Sampled: 07/12/00
Matrix: AQ - Ground Water	Date Received: 07/13/00
Method: FLORIDA-PRO	Percent Solids: n/a
Project: NAS Pensacola	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP09763.D	1	07/26/00	CCJ	07/18/00	OP1843	GOP414
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	83%		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

Report of Analysis

Page 1 of 1

Client Sample ID: OLFB07MW02GW	Date Sampled: 07/12/00
Lab Sample ID: F7025-3	Date Received: 07/13/00
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	OP09753.D	1	07/25/00	CCJ	07/18/00	OP1843	GOP414
Run #2							

CAS No.	Compound	Result	RL	Units Q
	TPH (C8-C40)	0.232	0.25	mg/l J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	101%		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

Report of Analysis

Client Sample ID: OLFB07MW03GW	Date Sampled: 07/12/00
Lab Sample ID: F7025-10	Date Received: 07/13/00
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: FLORIDA-PRO	
Project: NAS Pensacola	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	OP09761.D	1	07/26/00	CCJ	07/18/00	OP1843	GOP414

CAS No.	Compound	Result	RL	Units Q
	TPH (C8-C40)	1.65	0.28	mg/l

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

Report of Analysis

Client Sample ID: OLFB07MW06GW	Date Sampled: 07/12/00
Lab Sample ID: F7025-6	Date Received: 07/13/00
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	OP09757.D	1	07/25/00	CCJ	07/18/00	OP1843	GOP414
Run #2							

CAS No.	Compound	Result	RL	Units Q
	TPH (C8-C40)	0.843	0.28	mg/l

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	97%		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

Report of Analysis

Client Sample ID: OLFB07MW07GW	
Lab Sample ID: F7025-2	Date Sampled: 07/12/00
Matrix: AQ - Ground Water	Date Received: 07/13/00
Method: FLORIDA-PRO	Percent Solids: n/a
Project: NAS Pensacola	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	OP09778.D	2	07/26/00	CCJ	07/18/00	OP1843	GOP415
Run #2							

CAS No.	Compound	Result	RL	Units Q
	TPH (C8-C40)	1.86	0.60	mg/l

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	94%		40-140%

(a) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.

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:	OLFB07MW09GW	Date Sampled:	07/12/00
Lab Sample ID:	F7025-11	Date Received:	07/13/00
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	FLORIDA-PRO		
Project:	NAS Pensacola		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	OP09762.D	1	07/26/00	CCJ	07/18/00	OP1843	GOP414

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	0.278	0.28	mg/l	J

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

Report of Analysis

Client Sample ID: OLFB07MW10GW	
Lab Sample ID: F7025-5	Date Sampled: 07/12/00
Matrix: AQ - Ground Water	Date Received: 07/13/00
Method: FLORIDA-PRO	Percent Solids: n/a
Project: NAS Pensacola	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP09755.D	1	07/25/00	CCJ	07/18/00	OP1843	GOP414
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	89%		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

Report of Analysis

Client Sample ID: OLFB07MW11GW	
Lab Sample ID: F7025-4	Date Sampled: 07/12/00
Matrix: AQ - Ground Water	Date Received: 07/13/00
Method: FLORIDA-PRO	Percent Solids: n/a
Project: NAS Pensacola	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP09754.D	1	07/25/00	CCJ	07/18/00	OP1843	GOP414
Run #2							

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

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

Report of Analysis

Client Sample ID: OLFB07MW12GW	
Lab Sample ID: F7025-14	Date Sampled: 07/12/00
Matrix: AQ - Ground Water	Date Received: 07/13/00
Method: FLORIDA-PRO	Percent Solids: n/a
Project: NAS Pensacola	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP09764.D	1	07/26/00	CCJ	07/18/00	OP1843	GOP414
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	75%		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

Report of Analysis

Client Sample ID: OLFB07MW13GW		Date Sampled: 07/12/00
Lab Sample ID: F7025-7		Date Received: 07/13/00
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	OP09758.D	1	07/25/00	CCJ	07/18/00	OP1843	GOP414
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	91%		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

Report of Analysis

Client Sample ID: OLFB07MW14GW	
Lab Sample ID: F7025-9	Date Sampled: 07/12/00
Matrix: AQ - Ground Water	Date Received: 07/13/00
Method: FLORIDA-PRO	Percent Solids: n/a
Project: NAS Pensacola	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP09760.D	1	07/26/00	CCJ	07/18/00	OP1843	GOP414
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%

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: OLFB07MW15GW		Date Sampled: 07/12/00
Lab Sample ID: F7025-8		Date Received: 07/13/00
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	OP09759.D	1	07/26/00	CCJ	07/18/00	OP1843	GOP414
Run #2							

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

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	94%		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

Report of Analysis

Page 1 of 1

Client Sample ID: OLFB07MW16GW	
Lab Sample ID: F7025-1	Date Sampled: 07/12/00
Matrix: AQ - Ground Water	Date Received: 07/13/00
Method: FLORIDA-PRO	Percent Solids: n/a
Project: NAS Pensacola	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP09751.D	1	07/25/00	CCJ	07/18/00	OP1843	GOP414
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	97%		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



Tetra Tech NUS, Inc.

Internal Correspondence

TO: Mr. Gerald Walker **DATE:** October 2, 2000

FROM: William Howard Engle **CC:** File

SUBJECT: Organic Data Validation – VOC, PAH, and TRPH
CTO112 – NAS Pensacola
SDG F7308

SAMPLES: 9/Solid

OLFB1107DUP	OLFB1107SB-1, 17-20'	OLFB1107SB-2, 18-20'
OLFB1107SB-3, 18-20'	OLFB1107SB-4, 19-20'	OLFB1107SB-5, 19-20'
OLFB1107SB-6, 18-20'	OLFB1107SB-7, 18-20'	OLFB1107SB-8, 18-20'

1/Aqueous

Trip Blank

OVERVIEW

The sample set for CTO112, SDG F7308; Naval Air Station Pensacola, Pensacola, Florida consists of nine (9) solid environmental samples and one (1) trip blank. This SDG contains one (1) duplicate set: OLFB1107DUP/OLFB1107SB-7, 18-20'. The environmental samples were analyzed for Volatile Organic Carbons (VOCs), Polycyclic Aromatic Hydrocarbons (PAHs), and Total Residual Petroleum Hydrocarbons (TRPHs). The trip blank was analyzed only for VOCs.

The samples were collected by Tetra Tech NUS on August 9, 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 8260B (VOCs), SW-846 method 8310 (PAHs), and FL-PRO (TRPHs) analytical and reporting protocols. 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

The MS/MSD %R for 2-CEVE was below the lower control limit. The sample spiked, OLFB1107SB-2, 18-20', was qualified estimated "J" due to MS/MSD analysis noncompliance.

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.

Duplicate Summary

<u>Compound</u>	<u>OLFB1107DUP (ug/kg)</u>	<u>OLFB1107SB-7, 18-20' (ug/kg)</u>	<u>%RPD</u>
Ethylbenzene	364	175	70
Xylenes	1740	830	71
1-methylnaphthalene	20000	5900	109
2-methylnaphthalene	23600	7160	192
Fluorene	3950	ND	--
Phenanthrene	7360	ND	--
Pyrene	9420	ND	--
TRPH	16300	13300	20

As a result of duplicate imprecision, the values for Ethylbenzene, Xylenes, 1-Methylnaphthalene, and 2-Methylnaphthalene were qualified estimated "J". Fluorene, Phenanthrene, and Pyrene were not because the detection limit for the sample is elevated above the detected hits.

Executive Summary

Laboratory performance:

The MS/MS %R for 2-CEVE was below the lower control limits. The spiked sample was qualified estimated "J", due to MS/MSD noncompliance.

Other factors affecting data quality:

None.

•Page - 3
Memo: Mr. G. Walker
October 2, 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

F7308

HOLDING TIME
08/31/00

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/KG	OLFB1107DUP-1	F7308-7	NORMAL	F7308	OV	08/09/00	//	08/22/00	0	0	13
UG/KG	OLFB1107SB-1, 17-20'	F7308-1	NORMAL	F7308	OV	08/09/00	//	08/22/00	0	0	13
UG/KG	OLFB1107SB-2, 18-20'	F7308-2	NORMAL	F7308	OV	08/09/00	//	08/22/00	0	0	13
UG/KG	OLFB1107SB-3, 18-20'	F7308-3	NORMAL	F7308	OV	08/09/00	//	08/22/00	0	0	13
UG/KG	OLFB1107SB-4, 19-20'	F7308-4	NORMAL	F7308	OV	08/09/00	//	08/22/00	0	0	13
UG/KG	OLFB1107SB-5, 19-20'	F7308-5	NORMAL	F7308	OV	08/09/00	//	08/23/00	0	0	14
UG/KG	OLFB1107SB-6, 18-20'	F7308-6	NORMAL	F7308	OV	08/09/00	//	08/22/00	0	0	13
UG/KG	OLFB1107SB-7, 18-20'	F7308-8	NORMAL	F7308	OV	08/09/00	//	08/22/00	0	0	13
UG/KG	OLFB1107SB-8, 18-20'	F7308-9	NORMAL	F7308	OV	08/09/00	//	08/22/00	0	0	13
UG/L	TRIP BLANK	F7308-10	NORMAL	F7308	OV	08/09/00	//	08/22/00	0	0	13
UG/KG	OLFB1107DUP-1	F7308-7	NORMAL	F7308	PAH	08/09/00	08/11/00	08/16/00	2	5	7
UG/KG	OLFB1107SB-1, 17-20'	F7308-1	NORMAL	F7308	PAH	08/09/00	08/11/00	08/15/00	2	4	6
UG/KG	OLFB1107SB-2, 18-20'	F7308-2	NORMAL	F7308	PAH	08/09/00	08/11/00	08/16/00	2	5	7
UG/KG	OLFB1107SB-3, 18-20'	F7308-3	NORMAL	F7308	PAH	08/09/00	08/11/00	08/16/00	2	5	7
UG/KG	OLFB1107SB-4, 19-20'	F7308-4	NORMAL	F7308	PAH	08/09/00	08/11/00	08/16/00	2	5	7
UG/KG	OLFB1107SB-5, 19-20'	F7308-5	NORMAL	F7308	PAH	08/09/00	08/11/00	08/16/00	2	5	7
UG/KG	OLFB1107SB-6, 18-20'	F7308-6	NORMAL	F7308	PAH	08/09/00	08/11/00	08/16/00	2	5	7
UG/KG	OLFB1107SB-7, 18-20'	F7308-8	NORMAL	F7308	PAH	08/09/00	08/11/00	08/16/00	2	5	7
UG/KG	OLFB1107SB-8, 18-20'	F7308-9	NORMAL	F7308	PAH	08/09/00	08/11/00	08/16/00	2	5	7
MG/KG	OLFB1107DUP-1	F7308-7	NORMAL	F7308	TPH	08/09/00	08/11/00	08/13/00	2	2	4
MG/KG	OLFB1107SB-1, 17-20'	F7308-1	NORMAL	F7308	TPH	08/09/00	08/11/00	08/12/00	2	1	3
MG/KG	OLFB1107SB-2, 18-20'	F7308-2	NORMAL	F7308	TPH	08/09/00	08/11/00	08/12/00	2	1	3
MG/KG	OLFB1107SB-3, 18-20'	F7308-3	NORMAL	F7308	TPH	08/09/00	08/11/00	08/13/00	2	2	4
MG/KG	OLFB1107SB-4, 19-20'	F7308-4	NORMAL	F7308	TPH	08/09/00	08/11/00	08/12/00	2	1	3
MG/KG	OLFB1107SB-5, 19-20'	F7308-5	NORMAL	F7308	TPH	08/09/00	08/11/00	08/13/00	2	2	4

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/KG	OLFB1107SB-6, 18-20'	F7308-6	NORMAL	F7308	TPH	08/09/00	08/11/00	08/13/00	2	2	4
MG/KG	OLFB1107SB-7, 18-20'	F7308-8	NORMAL	F7308	TPH	08/09/00	08/11/00	08/13/00	2	2	4
MG/KG	OLFB1107SB-8, 18-20'	F7308-9	NORMAL	F7308	TPH	08/09/00	08/11/00	08/13/00	2	2	4

NAS PENSACOLA

WATER DATA

Accutest, NJ

SDG: F7308

SAMPLE NUMBER:

SAMPLE DATE:

LABORATORY ID:

QC_TYPE:

% SOLIDS:

UNITS:

FIELD DUPLICATE OF:

TRIP BLANK

08/09/00

F7308-10

NORMAL

0.0 %

UG/L

//

100.0 %

//

100.0 %

//

100.0 %

	RESULT	QUAL	CODE									
VOLATILES												
1,1,1-TRICHLOROETHANE	2	U										
1,1,2,2-TETRACHLOROETHANE	2	U										
1,1,2-TRICHLOROETHANE	2	U										
1,1-DICHLOROETHANE	2	U										
1,1-DICHLOROETHENE	2	U										
1,2 DICHLOROBENZENE	2	U										
1,2-DICHLOROETHANE	2	U										
1,2-DICHLOROPROPANE	2	U										
1,3 DICHLOROBENZENE	2	U										
1,4-DICHLOROBENZENE	2	U										
2-CHLOROETHYL VINYL ETHER	5	U										
BENZENE	1	U										
BROMODICHLOROMETHANE	2	U										
BROMOFORM	2	U										
BROMOMETHANE	5	U										
CARBON TETRACHLORIDE	2	U										
CHLOROBENZENE	2	U										
CHLOROETHANE	5	U										
CHLOROFORM	2	U										
CHLOROMETHANE	5	U										
CIS-1,2-DICHLOROETHENE	2	U										
CIS-1,3-DICHLOROPROPENE	2	U										
DIBROMOCHLOROMETHANE	2	U										
DICHLORODIFLUOROMETHANE	5	U										
ETHYLBENZENE	2	U										
METHYL TERT-BUTYL ETHER	2	U										
METHYLENE CHLORIDE	5	U										
TETRACHLOROETHENE	2	U										
TOLUENE	2	U										
TRANS-1,2-DICHLOROETHENE	2	U										
TRANS-1,3-DICHLOROPROPENE	2	U										
TRICHLOROETHENE	2	U										
TRICHLOROFLUOROMETHANE	5	U										

**NAS PENSACOLA
 WATER DATA
 Accutest, NJ
 SDG: F7308**

SAMPLE NUMBER:
 SAMPLE DATE:
 LABORATORY ID:
 QC_TYPE:
 % SOLIDS:
 UNITS:
 FIELD DUPLICATE OF:

TRIP BLANK
 08/09/00
 F7308-10
 NORMAL
 0.0 %
 UG/L

//

//

//

100.0 %

100.0 %

100.0 %

	RESULT	QUAL	CODE									
--	--------	------	------	--------	------	------	--------	------	------	--------	------	------

VOLATILES

VINYL CHLORIDE

1

U

XYLENES, TOTAL

6

U

NAS PENSACOLA

SOIL DATA

Accutest, NJ

SDG: F7308

Page

1

SAMPLE NUMBER:

OLFB1107DUP-1

OLFB1107SB-1, 17-20'

OLFB1107SB-2, 18-20'

OLFB1107SB-3, 18-20'

SAMPLE DATE:

08/09/00

08/09/00

08/09/00

08/09/00

LABORATORY ID:

F7308-7

F7308-1

F7308-2

F7308-3

QC_TYPE:

NORMAL

NORMAL

NORMAL

NORMAL

% SOLIDS:

88.9 %

81.9 %

79.2 %

90.4 %

UNITS:

UG/KG

UG/KG

UG/KG

UG/KG

FIELD DUPLICATE OF:

OLFB1107SB-7, 18-20'

	RESULT	QUAL	CODE									
VOLATILES												
1,1,1-TRICHLOROETHANE	280	U		5.6	U		5.8	U		270	U	
1,1,2,2-TETRACHLOROETHANE	280	U		5.6	U		5.8	U		270	U	
1,1,2-TRICHLOROETHANE	280	U		5.6	U		5.8	U		270	U	
1,1-DICHLOROETHANE	280	U		5.6	U		5.8	U		270	U	
1,1-DICHLOROETHENE	280	U		5.6	U		5.8	U		270	U	
1,2-DICHLOROBENZENE	280	U		5.6	U		5.8	U		270	U	
1,2-DICHLOROETHANE	280	U		5.6	U		5.8	U		270	U	
1,2-DICHLOROPROPANE	280	U		5.6	U		5.8	U		270	U	
1,3-DICHLOROBENZENE	280	U		5.6	U		5.8	U		270	U	
1,4-DICHLOROBENZENE	280	U		5.6	U		5.8	U		270	U	
2-CHLOROETHYL VINYL ETHER	560	U		11	U		12	U	D	540	U	
BENZENE	280	U		5.6	U		5.8	U		270	U	
BROMODICHLOROMETHANE	280	U		5.6	U		5.8	U		270	U	
BROMOFORM	280	U		5.6	U		5.8	U		270	U	
BROMOMETHANE	280	U		5.6	U		5.8	U		270	U	
CARBON TETRACHLORIDE	280	U		5.6	U		5.8	U		270	U	
CHLOROBENZENE	280	U		5.6	U		5.8	U		270	U	
CHLOROETHANE	280	U		5.6	U		5.8	U		270	U	
CHLOROFORM	280	U		5.6	U		5.8	U		270	U	
CHLOROMETHANE	280	U		5.6	U		5.8	U		270	U	
CIS-1,2-DICHLOROETHENE	280	U		5.6	U		5.8	U		270	U	
CIS-1,3-DICHLOROPROPENE	280	U		5.6	U		5.8	U		270	U	
DIBROMOCHLOROMETHANE	280	U		5.6	U		5.8	U		270	U	
DICHLORODIFLUOROMETHANE	280	U		5.6	U		5.8	U		270	U	
ETHYLBENZENE	364	J	G	5.6	U		5.8	U		270	U	
METHYL TERT-BUTYL ETHER	280	U		5.6	U		5.8	U		270	U	
METHYLENE CHLORIDE	560	U		11	U		12	U		540	U	
TETRACHLOROETHENE	280	U		5.6	U		5.8	U		270	U	
TOLUENE	280	U		5.6	U		5.8	U		270	U	
TRANS-1,2-DICHLOROETHENE	280	U		5.6	U		5.8	U		270	U	
TRANS-1,3-DICHLOROPROPENE	280	U		5.6	U		5.8	U		270	U	
TRICHLOROETHENE	280	U		5.6	U		5.8	U		270	U	
TRICHLOROFLUOROMETHANE	280	U		5.6	U		5.8	U		270	U	

NAS PENSACOLA

SOIL DATA

Accutest, NJ

SDG: F7308

SAMPLE NUMBER:	OLFB1107DUP-1	OLFB1107SB-1, 17-20'	OLFB1107SB-2, 18-20'	OLFB1107SB-3, 18-20'
SAMPLE DATE:	08/09/00	08/09/00	08/09/00	08/09/00
LABORATORY ID:	F7308-7	F7308-1	F7308-2	F7308-3
QC_TYPE:	NORMAL	NORMAL	NORMAL	NORMAL
% SOLIDS:	88.9 %	81.9 %	79.2 %	90.4 %
UNITS:	UG/KG	UG/KG	UG/KG	UG/KG
FIELD DUPLICATE OF:				

	RESULT	QUAL	CODE									
VOLATILES												
VINYL CHLORIDE	280	U		5.6	U		5.8	U		270	U	
XYLENES, TOTAL	1740	J	G	17	U		18	U		810	U	

NAS PENSACOLA

SOIL DATA

Accutest, NJ

SDG: F7308

SAMPLE NUMBER:

OLFB1107SB-4, 19-20'

OLFB1107SB-5, 19-20'

OLFB1107SB-6, 18-20'

OLFB1107SB-7, 18-20'

SAMPLE DATE:

08/09/00

08/09/00

08/09/00

08/09/00

LABORATORY ID:

F7308-4

F7308-5

F7308-6

F7308-8

QC_TYPE:

NORMAL

NORMAL

NORMAL

NORMAL

% SOLIDS:

87.9 %

97.0 %

92.6 %

88.2 %

UNITS:

UG/KG

UG/KG

UG/KG

UG/KG

FIELD DUPLICATE OF:

	RESULT	QUAL	CODE									
VOLATILES												
1,1,1-TRICHLOROETHANE	300	U		5.8	U		6.2	U		270	U	
1,1,2,2-TETRACHLOROETHANE	300	U		5.8	U		6.2	U		270	U	
1,1,2-TRICHLOROETHANE	300	U		5.8	U		6.2	U		270	U	
1,1-DICHLOROETHANE	300	U		5.8	U		6.2	U		270	U	
1,1-DICHLOROETHENE	300	U		5.8	U		6.2	U		270	U	
1,2-DICHLOROBENZENE	300	U		5.8	U		6.2	U		270	U	
1,2-DICHLOROETHANE	300	U		5.8	U		6.2	U		270	U	
1,2-DICHLOROPROPANE	300	U		5.8	U		6.2	U		270	U	
1,3-DICHLOROBENZENE	300	U		5.8	U		6.2	U		270	U	
1,4-DICHLOROBENZENE	300	U		5.8	U		6.2	U		270	U	
2-CHLOROETHYL VINYL ETHER	600	U		12	U		12	U		540	U	
BENZENE	300	U		5.8	U		6.2	U		270	U	
BROMODICHLOROMETHANE	300	U		5.8	U		6.2	U		270	U	
BROMOFORM	300	U		5.8	U		6.2	U		270	U	
BROMOMETHANE	300	U		5.8	U		6.2	U		270	U	
CARBON TETRACHLORIDE	300	U		5.8	U		6.2	U		270	U	
CHLOROBENZENE	300	U		5.8	U		6.2	U		270	U	
CHLOROETHANE	300	U		5.8	U		6.2	U		270	U	
CHLOROFORM	300	U		5.8	U		6.2	U		270	U	
CHLOROMETHANE	300	U		5.8	U		6.2	U		270	U	
CIS-1,2-DICHLOROETHENE	300	U		5.8	U		6.2	U		270	U	
CIS-1,3-DICHLOROPROPENE	300	U		5.8	U		6.2	U		270	U	
DIBROMOCHLOROMETHANE	300	U		5.8	U		6.2	U		270	U	
DICHLORODIFLUOROMETHANE	300	U		5.8	U		6.2	U		270	U	
ETHYLBENZENE	300	U		5.8	U		6.2	U		175	J	G
METHYL TERT-BUTYL ETHER	300	U		5.8	U		6.2	U		270	U	
METHYLENE CHLORIDE	600	U		12	U		12	U		540	U	
TETRACHLOROETHENE	300	U		5.8	U		6.2	U		270	U	
TOLUENE	300	U		5.8	U		6.2	U		270	U	
TRANS-1,2-DICHLOROETHENE	300	U		5.8	U		6.2	U		270	U	
TRANS-1,3-DICHLOROPROPENE	300	U		5.8	U		6.2	U		270	U	
TRICHLOROETHENE	300	U		5.8	U		6.2	U		270	U	
TRICHLOROFLUOROMETHANE	300	U		5.8	U		6.2	U		270	U	

NAS PENSACOLA

SOIL DATA

Accutest, NJ

SDG: F7308

SAMPLE NUMBER:	OLFB1107SB-4, 19-20'	OLFB1107SB-5, 19-20'	OLFB1107SB-6, 18-20'	OLFB1107SB-7, 18-20'
SAMPLE DATE:	08/09/00	08/09/00	08/09/00	08/09/00
LABORATORY ID:	F7308-4	F7308-5	F7308-6	F7308-8
QC_TYPE:	NORMAL	NORMAL	NORMAL	NORMAL
% SOLIDS:	87.9 %	97.0 %	92.6 %	88.2 %
UNITS:	UG/KG	UG/KG	UG/KG	UG/KG
FIELD DUPLICATE OF:				

	RESULT	QUAL	CODE									
VOLATILES												
VINYL CHLORIDE	300	U		5.8	U		6.2	U		270	U	
XYLENES, TOTAL	910	U		17	U		19	U		830	J	G

NAS PENSACOLA

SOIL DATA

Accutest, NJ

SDG: F7308

SAMPLE NUMBER: OLFB1107SB-8, 18-20'
 SAMPLE DATE: 08/09/00
 LABORATORY ID: F7308-9
 QC_TYPE: NORMAL
 % SOLIDS: 92.1 %
 UNITS: UG/KG
 FIELD DUPLICATE OF:

//

//

//

100.0 %

100.0 %

100.0 %

	RESULT	QUAL	CODE									
VOLATILES												
1,1,1-TRICHLOROETHANE	270	U										
1,1,2,2-TETRACHLOROETHANE	270	U										
1,1,2-TRICHLOROETHANE	270	U										
1,1-DICHLOROETHANE	270	U										
1,1-DICHLOROETHENE	270	U										
1,2 DICHLOROBENZENE	270	U										
1,2-DICHLOROETHANE	270	U										
1,2-DICHLOROPROPANE	270	U										
1,3 DICHLOROBENZENE	270	U										
1,4-DICHLOROBENZENE	270	U										
2-CHLOROETHYL VINYL ETHER	540	U										
BENZENE	270	U										
BROMODICHLOROMETHANE	270	U										
BROMOFORM	270	U										
BROMOMETHANE	270	U										
CARBON TETRACHLORIDE	270	U										
CHLOROBENZENE	270	U										
CHLOROETHANE	270	U										
CHLOROFORM	270	U										
CHLOROMETHANE	270	U										
CIS-1,2-DICHLOROETHENE	270	U										
CIS-1,3-DICHLOROPROPENE	270	U										
DIBROMOCHLOROMETHANE	270	U										
DICHLORODIFLUOROMETHANE	270	U										
ETHYLBENZENE	1620											
METHYL TERT-BUTYL ETHER	270	U										
METHYLENE CHLORIDE	540	U										
TETRACHLOROETHENE	270	U										
TOLUENE	51.3	J										
TRANS-1,2-DICHLOROETHENE	270	U										
TRANS-1,3-DICHLOROPROPENE	270	U										
TRICHLOROETHENE	270	U										
TRICHLOROFLUOROMETHANE	270	U										

NAS PENSACOLA

SOIL DATA

Accutest, NJ

SDG: F7308

SAMPLE NUMBER: OLFB1107SB-8, 18-20'
 SAMPLE DATE: 08/09/00
 LABORATORY ID: F7308-9
 QC_TYPE: NORMAL
 % SOLIDS: 92.1 %
 UNITS: UG/KG
 FIELD DUPLICATE OF:

//	//	//
100.0 %	100.0 %	100.0 %

	RESULT	QUAL	CODE									
VOLATILES												
VINYL CHLORIDE	270	U										
XYLENES, TOTAL	3120											

**NAS PENSACOLA
SOIL DATA
Accutest, NJ
SDG: F7308**

SAMPLE NUMBER:	OLFB1107DUP-1	OLFB1107SB-1, 17-20'	OLFB1107SB-2, 18-20'	OLFB1107SB-3, 18-20'
SAMPLE DATE:	08/09/00	08/09/00	08/09/00	08/09/00
LABORATORY ID:	F7308-7	F7308-1	F7308-2	F7308-3
QC_TYPE:	NORMAL	NORMAL	NORMAL	NORMAL
% SOLIDS:	88.9 %	81.9 %	79.2 %	90.4 %
UNITS:	UG/KG	UG/KG	UG/KG	UG/KG
FIELD DUPLICATE OF:				

	RESULT	QUAL	CODE									
POLYNUCLEAR AROMATIC HYDROCARBONS												
1-METHYLNAPHTHALENE	20000	J	G	410	U		420	U		11000	J	P
2-METHYLNAPHTHALENE	23600	J	G	410	U		420	U		9060	J	P
ACENAPHTHENE	30000	U		810	U		840	U		30000	U	
ACENAPHTHYLENE	30000	U		810	U		840	U		30000	U	
ANTHRACENE	15000	U		410	U		420	U		15000	U	
BENZO(A)ANTHRACENE	15000	U		81	U		84	U		15000	U	
BENZO(A)PYRENE	3000	U		81	U		84	U		3000	U	
BENZO(B)FLUORANTHENE	3000	U		81	U		84	U		3000	U	
BENZO(G,H,I)PERYLENE	3000	U		81	U		84	U		3000	U	
BENZO(K)FLUORANTHENE	3000	U		81	U		84	U		3000	U	
CHRYSENE	15000	U		410	U		420	U		15000	U	
DIBENZO(A,H)ANTHRACENE	3000	U		81	U		84	U		3000	U	
FLUORANTHENE	30000	U		410	U		420	U		30000	U	
FLUORENE	3950	J		410	U		420	U		15000	U	
INDENO(1,2,3-CD)PYRENE	3000	U		81	U		84	U		3000	U	
NAPHTHALENE	15000	U		410	U		420	U		15000	U	
PHENANTHRENE	7360	J		410	U		420	U		6070	J	P
PYRENE	9420	J		410	U		420	U		7860	J	P

NAS PENSACOLA

SOIL DATA

Accutest, NJ

SDG: F7308

SAMPLE NUMBER: OLFB1107SB-4, 19-20'
 SAMPLE DATE: 08/09/00
 LABORATORY ID: F7308-4
 QC_TYPE: NORMAL
 % SOLIDS: 87.9 %
 UNITS: UG/KG
 FIELD DUPLICATE OF:

OLFB1107SB-5, 19-20'
 08/09/00
 F7308-5
 NORMAL
 97.0 %
 UG/KG

OLFB1107SB-6, 18-20'
 08/09/00
 F7308-6
 NORMAL
 92.6 %
 UG/KG

OLFB1107SB-7, 18-20'
 08/09/00
 F7308-8
 NORMAL
 88.2 %
 UG/KG

	RESULT	QUAL	CODE									
POLYNUCLEAR AROMATIC HYDROCARBONS												
1-METHYLNAPHTHALENE	8710	J	P	340	U		360	U		5900	J	PG
2-METHYLNAPHTHALENE	9820	J	P	340	U		360	U		7160	J	PG
ACENAPHTHENE	30000	U		690	U		720	U		30000	U	
ACENAPHTHYLENE	30000	U		690	U		720	U		30000	U	
ANTHRACENE	15000	U		340	U		360	U		15000	U	
BENZO(A)ANTHRACENE	15000	U		69	U		72	U		15000	U	
BENZO(A)PYRENE	3000	U		69	U		72	U		3000	U	
BENZO(B)FLUORANTHENE	3000	U		69	U		72	U		3000	U	
BENZO(G,H,I)PERYLENE	3000	U		69	U		72	U		3000	U	
BENZO(K)FLUORANTHENE	3000	U		69	U		72	U		3000	U	
CHRYSENE	15000	U		340	U		360	U		15000	U	
DIBENZO(A,H)ANTHRACENE	3000	U		69	U		72	U		3000	U	
FLUORANTHENE	30000	U		340	U		360	U		15000	U	
FLUORENE	15000	U		340	U		360	U		15000	U	
INDENO(1,2,3-CD)PYRENE	3000	U		69	U		72	U		3000	U	
NAPHTHALENE	15000	U		340	U		360	U		15000	U	
PHENANTHRENE	15000	U		340	U		360	U		15000	U	
PYRENE	4460	J	P	340	U		360	U		15000	U	

NAS PENSACOLA

SOIL DATA

Accutest, NJ

SDG: F7308

SAMPLE NUMBER:

OLFB1107SB-8, 18-20'

SAMPLE DATE:

08/09/00

LABORATORY ID:

F7308-9

QC_TYPE:

NORMAL

% SOLIDS:

92.1 %

UNITS:

UG/KG

FIELD DUPLICATE OF:

//

//

//

100.0 %

100.0 %

100.0 %

	RESULT	QUAL	CODE									
POLYNUCLEAR AROMATIC HYDROCARBONS												
1-METHYLNAPHTHALENE	8550											
2-METHYLNAPHTHALENE	11400											
ACENAPHTHENE	7200	U										
ACENAPHTHYLENE	7200	U										
ANTHRACENE	3600	U										
BENZO(A)ANTHRACENE	720	U										
BENZO(A)PYRENE	760											
BENZO(B)FLUORANTHENE	1110											
BENZO(G,H,I)PERYLENE	903											
BENZO(K)FLUORANTHENE	444	J	P									
CHRYSENE	3600	U										
DIBENZO(A,H)ANTHRACENE	720	U										
FLUORANTHENE	3600	U										
FLUORENE	3600	U										
INDENO(1,2,3-CD)PYRENE	964											
NAPHTHALENE	2380	J	P									
PHENANTHRENE	2140	J	P									
PYRENE	3600	U										

NAS PENSACOLA

SOIL DATA

Accutest, NJ

SDG: F7308

SAMPLE NUMBER:	OLFB1107DUP-1	OLFB1107SB-1, 17-20'	OLFB1107SB-2, 18-20'	OLFB1107SB-3, 18-20'
SAMPLE DATE:	08/09/00	08/09/00	08/09/00	08/09/00
LABORATORY ID:	F7308-7	F7308-1	F7308-2	F7308-3
QC_TYPE:	NORMAL	NORMAL	NORMAL	NORMAL
% SOLIDS:	88.9 %	81.9 %	79.2 %	90.4 %
UNITS:	MG/KG	MG/KG	MG/KG	MG/KG
FIELD DUPLICATE OF:				

	RESULT	QUAL	CODE									
PETROLEUM HYDROCARBONS												
TPH (C8-C40)	16300			10	U		10	U		19800		

NAS PENSACOLA

SOIL DATA

Accutest, NJ

SDG: F7308

SAMPLE NUMBER:	OLFB1107SB-4, 19-20'	OLFB1107SB-5, 19-20'	OLFB1107SB-6, 18-20'	OLFB1107SB-7, 18-20'
SAMPLE DATE:	08/09/00	08/09/00	08/09/00	08/09/00
LABORATORY ID:	F7308-4	F7308-5	F7308-6	F7308-8
QC_TYPE:	NORMAL	NORMAL	NORMAL	NORMAL
% SOLIDS:	87.9 %	97.0 %	92.6 %	88.2 %
UNITS:	MG/KG	MG/KG	MG/KG	MG/KG
FIELD DUPLICATE OF:				

	RESULT	QUAL	CODE									
PETROLEUM HYDROCARBONS												
TPH (C8-C40)	11400			8.6	U		9	U		13300		

NAS PENSACOLA

SOIL DATA

Accutest, NJ

SDG: F7308

SAMPLE NUMBER: OLFB1107SB-8, 18-20'
 SAMPLE DATE: 08/09/00
 LABORATORY ID: F7308-9
 QC_TYPE: NORMAL
 % SOLIDS: 92.1 %
 UNITS: MG/KG
 FIELD DUPLICATE OF:

//

//

//

100.0 %

100.0 %

100.0 %

	RESULT	QUAL	CODE									
--	--------	------	------	--------	------	------	--------	------	------	--------	------	------

PETROLEUM HYDROCARBONS

TPH (C8-C40)

5540

APPENDIX B

Results as Reported by the Laboratory

Report of Analysis

Client Sample ID: TRIP BLANK	
Lab Sample ID: F7308-10	Date Sampled: 08/09/00
Matrix: AQ - Trip Blank Soil	Date Received: 08/10/00
Method: SW846 8260B	Percent Solids: n/a
Project: NAS Pensacola	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C0000047.D	1	08/22/00	JG	n/a	n/a	VC2
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	2.0	ug/l	
75-25-2	Bromoform	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	2.0	ug/l	
75-00-3	Chloroethane	ND	5.0	ug/l	
67-66-3	Chloroform	ND	2.0	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	2.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	2.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
124-48-1	Dibromochloromethane	ND	2.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	2.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	2.0	ug/l	
95-50-1	o-Dichlorobenzene	ND	2.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	2.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	2.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	ug/l	
74-83-9	Methyl bromide	ND	5.0	ug/l	
74-87-3	Methyl chloride	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	2.0	ug/l	
108-88-3	Toluene	ND	2.0	ug/l	
79-01-6	Trichloroethylene	ND	2.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	6.0	ug/l	

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 2 of 2

Client Sample ID: TRIP BLANK	
Lab Sample ID: F7308-10	Date Sampled: 08/09/00
Matrix: AQ - Trip Blank Soil	Date Received: 08/10/00
Method: SW846 8260B	Percent Solids: n/a
Project: NAS Pensacola	

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		80-120%
17060-07-0	1,2-Dichloroethane-D4	108%		69-128%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	106%		80-120%

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: OLFB1107DUP-1	Date Sampled: 08/09/00
Lab Sample ID: F7308-7	Date Received: 08/10/00
Matrix: SO - Soil	Percent Solids: 88.9
Method: SW846 8260B	
Project: NAS Pensacola	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H009021.D	50	08/22/00	JG	n/a	n/a	VH126
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	280	ug/kg	
75-27-4	Bromodichloromethane	ND	280	ug/kg	
75-25-2	Bromoform	ND	280	ug/kg	
108-90-7	Chlorobenzene	ND	280	ug/kg	
75-00-3	Chloroethane	ND	280	ug/kg	
67-66-3	Chloroform	ND	280	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	560	ug/kg	
56-23-5	Carbon tetrachloride	ND	280	ug/kg	
75-34-3	1,1-Dichloroethane	ND	280	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	280	ug/kg	
107-06-2	1,2-Dichloroethane	ND	280	ug/kg	
78-87-5	1,2-Dichloropropane	ND	280	ug/kg	
124-48-1	Dibromochloromethane	ND	280	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	280	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	280	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	280	ug/kg	
541-73-1	m-Dichlorobenzene	ND	280	ug/kg	
95-50-1	o-Dichlorobenzene	ND	280	ug/kg	
106-46-7	p-Dichlorobenzene	ND	280	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	280	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	280	ug/kg	
100-41-4	Ethylbenzene	364	280	ug/kg	
74-83-9	Methyl bromide	ND	280	ug/kg	
74-87-3	Methyl chloride	ND	280	ug/kg	
75-09-2	Methylene chloride	ND	560	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	280	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	280	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	280	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	280	ug/kg	
127-18-4	Tetrachloroethylene	ND	280	ug/kg	
108-88-3	Toluene	ND	280	ug/kg	
79-01-6	Trichloroethylene	ND	280	ug/kg	
75-69-4	Trichlorofluoromethane	ND	280	ug/kg	
75-01-4	Vinyl chloride	ND	280	ug/kg	
1330-20-7	Xylene (total)	1740	850	ug/kg	

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 2 of 2

Client Sample ID: OLFB1107DUP-1
Lab Sample ID: F7308-7
Matrix: SO - Soil
Method: SW846 8260B
Project: NAS Pensacola

Date Sampled: 08/09/00
Date Received: 08/10/00
Percent Solids: 88.9

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		71-122%
2037-26-5	Toluene-D8	101%		73-128%
460-00-4	4-Bromofluorobenzene	109%		53-158%
17060-07-0	1,2-Dichloroethane-D4	95%		71-122%

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: OLFB1107SB-1, 17-20'	Date Sampled: 08/09/00
Lab Sample ID: F7308-1	Date Received: 08/10/00
Matrix: SO - Soil	Percent Solids: 81.9
Method: SW846 8260B	
Project: NAS Pensacola	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H009015.D	1	08/22/00	JG	n/a	n/a	VH126
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	5.6	ug/kg	
75-27-4	Bromodichloromethane	ND	5.6	ug/kg	
75-25-2	Bromoform	ND	5.6	ug/kg	
108-90-7	Chlorobenzene	ND	5.6	ug/kg	
75-00-3	Chloroethane	ND	5.6	ug/kg	
67-66-3	Chloroform	ND	5.6	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	11	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.6	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.6	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.6	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.6	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.6	ug/kg	
124-48-1	Dibromochloromethane	ND	5.6	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.6	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.6	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.6	ug/kg	
541-73-1	m-Dichlorobenzene	ND	5.6	ug/kg	
95-50-1	o-Dichlorobenzene	ND	5.6	ug/kg	
106-46-7	p-Dichlorobenzene	ND	5.6	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.6	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.6	ug/kg	
100-41-4	Ethylbenzene	ND	5.6	ug/kg	
74-83-9	Methyl bromide	ND	5.6	ug/kg	
74-87-3	Methyl chloride	ND	5.6	ug/kg	
75-09-2	Methylene chloride	ND	11	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	5.6	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.6	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.6	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.6	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.6	ug/kg	
108-88-3	Toluene	ND	5.6	ug/kg	
79-01-6	Trichloroethylene	ND	5.6	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.6	ug/kg	
75-01-4	Vinyl chloride	ND	5.6	ug/kg	
1330-20-7	Xylene (total)	ND	17	ug/kg	

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: OLFB1107SB-1, 17-20'
Lab Sample ID: F7308-1
Matrix: SO - Soil
Method: SW846 8260B
Project: NAS Pensacola

Date Sampled: 08/09/00
Date Received: 08/10/00
Percent Solids: 81.9

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		71-122%
2037-26-5	Toluene-D8	100%		73-128%
460-00-4	4-Bromofluorobenzene	99%		53-158%
17060-07-0	1,2-Dichloroethane-D4	97%		71-122%

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: OLFB1107SB-2, 18-20'	Date Sampled: 08/09/00
Lab Sample ID: F7308-2	Date Received: 08/10/00
Matrix: SO - Soil	Percent Solids: 79.2
Method: SW846 8260B	
Project: NAS Pensacola	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H009016.D	1	08/22/00	JG	n/a	n/a	VH126
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	5.8	ug/kg	
75-27-4	Bromodichloromethane	ND	5.8	ug/kg	
75-25-2	Bromoform	ND	5.8	ug/kg	
108-90-7	Chlorobenzene	ND	5.8	ug/kg	
75-00-3	Chloroethane	ND	5.8	ug/kg	
67-66-3	Chloroform	ND	5.8	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	12	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.8	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.8	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.8	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.8	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.8	ug/kg	
124-48-1	Dibromochloromethane	ND	5.8	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.8	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.8	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.8	ug/kg	
541-73-1	m-Dichlorobenzene	ND	5.8	ug/kg	
95-50-1	o-Dichlorobenzene	ND	5.8	ug/kg	
106-46-7	p-Dichlorobenzene	ND	5.8	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.8	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.8	ug/kg	
100-41-4	Ethylbenzene	ND	5.8	ug/kg	
74-83-9	Methyl bromide	ND	5.8	ug/kg	
74-87-3	Methyl chloride	ND	5.8	ug/kg	
75-09-2	Methylene chloride	ND	12	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	5.8	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.8	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.8	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.8	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.8	ug/kg	
108-88-3	Toluene	ND	5.8	ug/kg	
79-01-6	Trichloroethylene	ND	5.8	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.8	ug/kg	
75-01-4	Vinyl chloride	ND	5.8	ug/kg	
1330-20-7	Xylene (total)	ND	18	ug/kg	

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: OLFB1107SB-2, 18-20'	
Lab Sample ID: F7308-2	Date Sampled: 08/09/00
Matrix: SO - Soil	Date Received: 08/10/00
Method: SW846 8260B	Percent Solids: 79.2
Project: NAS Pensacola	

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		71-122%
2037-26-5	Toluene-D8	101%		73-128%
460-00-4	4-Bromofluorobenzene	102%		53-158%
17060-07-0	1,2-Dichloroethane-D4	98%		71-122%

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: OLFB1107SB-3, 18-20'	
Lab Sample ID: F7308-3	Date Sampled: 08/09/00
Matrix: SO - Soil	Date Received: 08/10/00
Method: SW846 8260B	Percent Solids: 90.4
Project: NAS Pensacola	

Run #1 ^a	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	H009017.D	50	08/22/00	JG	n/a	n/a	VH126

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	270	ug/kg	
75-27-4	Bromodichloromethane	ND	270	ug/kg	
75-25-2	Bromoform	ND	270	ug/kg	
108-90-7	Chlorobenzene	ND	270	ug/kg	
75-00-3	Chloroethane	ND	270	ug/kg	
67-66-3	Chloroform	ND	270	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	540	ug/kg	
56-23-5	Carbon tetrachloride	ND	270	ug/kg	
75-34-3	1,1-Dichloroethane	ND	270	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	270	ug/kg	
107-06-2	1,2-Dichloroethane	ND	270	ug/kg	
78-87-5	1,2-Dichloropropane	ND	270	ug/kg	
124-48-1	Dibromochloromethane	ND	270	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	270	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	270	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	270	ug/kg	
541-73-1	m-Dichlorobenzene	ND	270	ug/kg	
95-50-1	o-Dichlorobenzene	ND	270	ug/kg	
106-46-7	p-Dichlorobenzene	ND	270	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	270	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	270	ug/kg	
100-41-4	Ethylbenzene	ND	270	ug/kg	
74-83-9	Methyl bromide	ND	270	ug/kg	
74-87-3	Methyl chloride	ND	270	ug/kg	
75-09-2	Methylene chloride	ND	540	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	270	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	270	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	270	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	270	ug/kg	
127-18-4	Tetrachloroethylene	ND	270	ug/kg	
108-88-3	Toluene	ND	270	ug/kg	
79-01-6	Trichloroethylene	ND	270	ug/kg	
75-69-4	Trichlorofluoromethane	ND	270	ug/kg	
75-01-4	Vinyl chloride	ND	270	ug/kg	
1330-20-7	Xylene (total)	ND	810	ug/kg	

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: OLFB1107SB-3, 18-20'	
Lab Sample ID: F7308-3	Date Sampled: 08/09/00
Matrix: SO - Soil	Date Received: 08/10/00
Method: SW846 8260B	Percent Solids: 90.4
Project: NAS Pensacola	

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		71-122%
2037-26-5	Toluene-D8	103%		73-128%
460-00-4	4-Bromofluorobenzene	106%		53-158%
17060-07-0	1,2-Dichloroethane-D4	96%		71-122%

(a) Dilution required due to matrix interference (non-target analytes present above calibration range).

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: OLFB1107SB-4, 19-20'	
Lab Sample ID: F7308-4	Date Sampled: 08/09/00
Matrix: SO - Soil	Date Received: 08/10/00
Method: SW846 8260B	Percent Solids: 87.9
Project: NAS Pensacola	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	H009018.D	50	08/22/00	JG	n/a	n/a	VH126
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	300	ug/kg	
75-27-4	Bromodichloromethane	ND	300	ug/kg	
75-25-2	Bromoform	ND	300	ug/kg	
108-90-7	Chlorobenzene	ND	300	ug/kg	
75-00-3	Chloroethane	ND	300	ug/kg	
67-66-3	Chloroform	ND	300	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	600	ug/kg	
56-23-5	Carbon tetrachloride	ND	300	ug/kg	
75-34-3	1,1-Dichloroethane	ND	300	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	300	ug/kg	
107-06-2	1,2-Dichloroethane	ND	300	ug/kg	
78-87-5	1,2-Dichloropropane	ND	300	ug/kg	
124-48-1	Dibromochloromethane	ND	300	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	300	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	300	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	300	ug/kg	
541-73-1	m-Dichlorobenzene	ND	300	ug/kg	
95-50-1	o-Dichlorobenzene	ND	300	ug/kg	
106-46-7	p-Dichlorobenzene	ND	300	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	300	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	300	ug/kg	
100-41-4	Ethylbenzene	ND	300	ug/kg	
74-83-9	Methyl bromide	ND	300	ug/kg	
74-87-3	Methyl chloride	ND	300	ug/kg	
75-09-2	Methylene chloride	ND	600	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	300	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	300	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	300	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	300	ug/kg	
127-18-4	Tetrachloroethylene	ND	300	ug/kg	
108-88-3	Toluene	ND	300	ug/kg	
79-01-6	Trichloroethylene	ND	300	ug/kg	
75-69-4	Trichlorofluoromethane	ND	300	ug/kg	
75-01-4	Vinyl chloride	ND	300	ug/kg	
1330-20-7	Xylene (total)	ND	910	ug/kg	

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: OLFBI107SB-4, 19-20'	
Lab Sample ID: F7308-4	Date Sampled: 08/09/00
Matrix: SO - Soil	Date Received: 08/10/00
Method: SW846 8260B	Percent Solids: 87.9
Project: NAS Pensacola	

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		71-122%
2037-26-5	Toluene-D8	102%		73-128%
460-00-4	4-Bromofluorobenzene	104%		53-158%
17060-07-0	1,2-Dichloroethane-D4	92%		71-122%

(a) Dilution required due to matrix interference (non-target analytes present above calibration range).

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: OLFB1107SB-5, 19-20'	
Lab Sample ID: F7308-5	Date Sampled: 08/09/00
Matrix: SO - Soil	Date Received: 08/10/00
Method: SW846 8260B	Percent Solids: 97.0
Project: NAS Pensacola	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H009032.D	1	08/23/00	JG	n/a	n/a	VH126
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	5.8	ug/kg	
75-27-4	Bromodichloromethane	ND	5.8	ug/kg	
75-25-2	Bromoform	ND	5.8	ug/kg	
108-90-7	Chlorobenzene	ND	5.8	ug/kg	
75-00-3	Chloroethane	ND	5.8	ug/kg	
67-66-3	Chloroform	ND	5.8	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	12	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.8	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.8	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.8	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.8	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.8	ug/kg	
124-48-1	Dibromochloromethane	ND	5.8	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.8	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.8	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.8	ug/kg	
541-73-1	m-Dichlorobenzene	ND	5.8	ug/kg	
95-50-1	o-Dichlorobenzene	ND	5.8	ug/kg	
106-46-7	p-Dichlorobenzene	ND	5.8	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.8	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.8	ug/kg	
100-41-4	Ethylbenzene	ND	5.8	ug/kg	
74-83-9	Methyl bromide	ND	5.8	ug/kg	
74-87-3	Methyl chloride	ND	5.8	ug/kg	
75-09-2	Methylene chloride	ND	12	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	5.8	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.8	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.8	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.8	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.8	ug/kg	
108-88-3	Toluene	ND	5.8	ug/kg	
79-01-6	Trichloroethylene	ND	5.8	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.8	ug/kg	
75-01-4	Vinyl chloride	ND	5.8	ug/kg	
1330-20-7	Xylene (total)	ND	17	ug/kg	

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: OLFB1107SB-5, 19-20'	
Lab Sample ID: F7308-5	Date Sampled: 08/09/00
Matrix: SO - Soil	Date Received: 08/10/00
Method: SW846 8260B	Percent Solids: 97.0
Project: NAS Pensacola	

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		71-122%
2037-26-5	Toluene-D8	99%		73-128%
460-00-4	4-Bromofluorobenzene	100%		53-158%
17060-07-0	1,2-Dichloroethane-D4	101%		71-122%

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: OLFB1107SB-6, 18-20'	Date Sampled: 08/09/00
Lab Sample ID: F7308-6	Date Received: 08/10/00
Matrix: SO - Soil	Percent Solids: 92.6
Method: SW846 8260B	
Project: NAS Pensacola	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H009020.D	1	08/22/00	JG	n/a	n/a	VH126
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	6.2	ug/kg	
75-27-4	Bromodichloromethane	ND	6.2	ug/kg	
75-25-2	Bromoform	ND	6.2	ug/kg	
108-90-7	Chlorobenzene	ND	6.2	ug/kg	
75-00-3	Chloroethane	ND	6.2	ug/kg	
67-66-3	Chloroform	ND	6.2	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	12	ug/kg	
56-23-5	Carbon tetrachloride	ND	6.2	ug/kg	
75-34-3	1,1-Dichloroethane	ND	6.2	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	6.2	ug/kg	
107-06-2	1,2-Dichloroethane	ND	6.2	ug/kg	
78-87-5	1,2-Dichloropropane	ND	6.2	ug/kg	
124-48-1	Dibromochloromethane	ND	6.2	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	6.2	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	6.2	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	6.2	ug/kg	
541-73-1	m-Dichlorobenzene	ND	6.2	ug/kg	
95-50-1	o-Dichlorobenzene	ND	6.2	ug/kg	
106-46-7	p-Dichlorobenzene	ND	6.2	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	6.2	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	6.2	ug/kg	
100-41-4	Ethylbenzene	ND	6.2	ug/kg	
74-83-9	Methyl bromide	ND	6.2	ug/kg	
74-87-3	Methyl chloride	ND	6.2	ug/kg	
75-09-2	Methylene chloride	ND	12	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	6.2	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	6.2	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	6.2	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	6.2	ug/kg	
127-18-4	Tetrachloroethylene	ND	6.2	ug/kg	
108-88-3	Toluene	ND	6.2	ug/kg	
79-01-6	Trichloroethylene	ND	6.2	ug/kg	
75-69-4	Trichlorofluoromethane	ND	6.2	ug/kg	
75-01-4	Vinyl chloride	ND	6.2	ug/kg	
1330-20-7	Xylene (total)	ND	19	ug/kg	

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: OLFB1107SB-6, 18-20'	
Lab Sample ID: F7308-6	Date Sampled: 08/09/00
Matrix: SO - Soil	Date Received: 08/10/00
Method: SW846 8260B	Percent Solids: 92.6
Project: NAS Pensacola	

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		71-122%
2037-26-5	Toluene-D8	102%		73-128%
460-00-4	4-Bromofluorobenzene	101%		53-158%
17060-07-0	1,2-Dichloroethane-D4	98%		71-122%

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: OLFB1107SB-7, 18-20' Lab Sample ID: F7308-8 Matrix: SO - Soil Method: SW846 8260B Project: NAS Pensacola	Date Sampled: 08/09/00 Date Received: 08/10/00 Percent Solids: 88.2
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H009022.D	50	08/22/00	JG	n/a	n/a	VH126
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	270	ug/kg	
75-27-4	Bromodichloromethane	ND	270	ug/kg	
75-25-2	Bromoform	ND	270	ug/kg	
108-90-7	Chlorobenzene	ND	270	ug/kg	
75-00-3	Chloroethane	ND	270	ug/kg	
67-66-3	Chloroform	ND	270	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	540	ug/kg	
56-23-5	Carbon tetrachloride	ND	270	ug/kg	
75-34-3	1,1-Dichloroethane	ND	270	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	270	ug/kg	
107-06-2	1,2-Dichloroethane	ND	270	ug/kg	
78-87-5	1,2-Dichloropropane	ND	270	ug/kg	
124-48-1	Dibromochloromethane	ND	270	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	270	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	270	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	270	ug/kg	
541-73-1	m-Dichlorobenzene	ND	270	ug/kg	
95-50-1	o-Dichlorobenzene	ND	270	ug/kg	
106-46-7	p-Dichlorobenzene	ND	270	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	270	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	270	ug/kg	
100-41-4	Ethylbenzene	175	270	ug/kg	J
74-83-9	Methyl bromide	ND	270	ug/kg	
74-87-3	Methyl chloride	ND	270	ug/kg	
75-09-2	Methylene chloride	ND	540	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	270	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	270	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	270	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	270	ug/kg	
127-18-4	Tetrachloroethylene	ND	270	ug/kg	
108-88-3	Toluene	ND	270	ug/kg	
79-01-6	Trichloroethylene	ND	270	ug/kg	
75-69-4	Trichlorofluoromethane	ND	270	ug/kg	
75-01-4	Vinyl chloride	ND	270	ug/kg	
1330-20-7	Xylene (total)	830	800	ug/kg	

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: OLFB1107SB-7, 18-20'	
Lab Sample ID: F7308-8	Date Sampled: 08/09/00
Matrix: SO - Soil	Date Received: 08/10/00
Method: SW846 8260B	Percent Solids: 88.2
Project: NAS Pensacola	

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		71-122%
2037-26-5	Toluene-D8	103%		73-128%
460-00-4	4-Bromofluorobenzene	106%		53-158%
17060-07-0	1,2-Dichloroethane-D4	93%		71-122%

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: OLFB1107SB-8, 18-20' Lab Sample ID: F7308-9 Matrix: SO - Soil Method: SW846 8260B Project: NAS Pensacola	Date Sampled: 08/09/00 Date Received: 08/10/00 Percent Solids: 92.1
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H009023.D	50	08/22/00	JG	n/a	n/a	VH126
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	270	ug/kg	
75-27-4	Bromodichloromethane	ND	270	ug/kg	
75-25-2	Bromoform	ND	270	ug/kg	
108-90-7	Chlorobenzene	ND	270	ug/kg	
75-00-3	Chloroethane	ND	270	ug/kg	
67-66-3	Chloroform	ND	270	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	540	ug/kg	
56-23-5	Carbon tetrachloride	ND	270	ug/kg	
75-34-3	1,1-Dichloroethane	ND	270	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	270	ug/kg	
107-06-2	1,2-Dichloroethane	ND	270	ug/kg	
78-87-5	1,2-Dichloropropane	ND	270	ug/kg	
124-48-1	Dibromochloromethane	ND	270	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	270	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	270	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	270	ug/kg	
541-73-1	m-Dichlorobenzene	ND	270	ug/kg	
95-50-1	o-Dichlorobenzene	ND	270	ug/kg	
106-46-7	p-Dichlorobenzene	ND	270	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	270	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	270	ug/kg	
100-41-4	Ethylbenzene	1620	270	ug/kg	
74-83-9	Methyl bromide	ND	270	ug/kg	
74-87-3	Methyl chloride	ND	270	ug/kg	
75-09-2	Methylene chloride	ND	540	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	270	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	270	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	270	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	270	ug/kg	
127-18-4	Tetrachloroethylene	ND	270	ug/kg	
108-88-3	Toluene	51.3	270	ug/kg	J
79-01-6	Trichloroethylene	ND	270	ug/kg	
75-69-4	Trichlorofluoromethane	ND	270	ug/kg	
75-01-4	Vinyl chloride	ND	270	ug/kg	
1330-20-7	Xylene (total)	3120	810	ug/kg	

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 2 of 2

Client Sample ID: OLFB1107SB-8, 18-20'

Lab Sample ID: F7308-9

Matrix: SO - Soil

Method: SW846 8260B

Project: NAS Pensacola

Date Sampled: 08/09/00

Date Received: 08/10/00

Percent Solids: 92.1

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		71-122%
2037-26-5	Toluene-D8	102%		73-128%
460-00-4	4-Bromofluorobenzene	112%		53-158%
17060-07-0	1,2-Dichloroethane-D4	93%		71-122%

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



Sample Summary

Tetra-Tech, NUS

Job No: F7308

NAS Pensacola

Project No: CTO#112, JOB#0401

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
F7308-1	08/09/00	09:10 DH	08/10/00	SO	Soil	OLFB1107SB-1, 17-20'
F7308-2	08/09/00	09:45 DH	08/10/00	SO	Soil	OLFB1107SB-2, 18-20'
F7308-3	08/09/00	10:15 DH	08/10/00	SO	Soil	OLFB1107SB-3, 18-20'
F7308-4	08/09/00	11:20 DH	08/10/00	SO	Soil	OLFB1107SB-4, 19-20'
F7308-5	08/09/00	12:00 DH	08/10/00	SO	Soil	OLFB1107SB-5, 19-20'
F7308-6	08/09/00	12:30 DH	08/10/00	SO	Soil	OLFB1107SB-6, 18-20'
F7308-7	08/09/00	00:00 DH	08/10/00	SO	Soil	OLFB1107DUP-1
F7308-8	08/09/00	13:25 DH	08/10/00	SO	Soil	OLFB1107SB-7, 18-20'
F7308-9	08/09/00	13:45 DH	08/10/00	SO	Soil	OLFB1107SB-8, 18-20'
F7308-10	08/09/00	00:00 DH	08/10/00	AQ	Trip Blank Soil	TRIP BLANK

Report of Analysis

Client Sample ID: OLFB1107DUP-1	Date Sampled: 08/09/00
Lab Sample ID: F7308-7	Date Received: 08/10/00
Matrix: SO - Soil	Percent Solids: 88.9
Method: EPA 8310	
Project: NAS Pensacola	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	AA003807.D	40	08/16/00	NF	08/11/00	OP1938	GAA120
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	30000	ug/kg	
208-96-8	Acenaphthylene	ND	30000	ug/kg	
120-12-7	Anthracene	ND	15000	ug/kg	
56-55-3	Benzo(a)anthracene ^b	ND	15000	ug/kg	
50-32-8	Benzo(a)pyrene	ND	3000	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	3000	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	3000	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	3000	ug/kg	
218-01-9	Chrysene	ND	15000	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	3000	ug/kg	
206-44-0	Fluoranthene ^b	ND	30000	ug/kg	
86-73-7	Fluorene	3950	15000	ug/kg	J
193-39-5	Indeno(1,2,3-cd)pyrene	ND	3000	ug/kg	
91-20-3	Naphthalene	ND	15000	ug/kg	
90-12-0	1-Methylnaphthalene	20000	15000	ug/kg	
91-57-6	2-Methylnaphthalene	23600	15000	ug/kg	
85-01-8	Phenanthrene	7360	15000	ug/kg	J
129-00-0	Pyrene	9420	15000	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	0% ^c		22-130%
92-94-4	p-Terphenyl	0% ^c		53-130%

- (a) Dilution required due to matrix interference.
- (b) Estimated value due to matrix interference.
- (c) Outside control limits due to dilution.

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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Report of Analysis

Client Sample ID: OLFB1107SB-7, 18-20'	Date Sampled: 08/09/00
Lab Sample ID: F7308-8	Date Received: 08/10/00
Matrix: SO - Soil	Percent Solids: 88.2
Method: EPA 8310	
Project: NAS Pensacola	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	AA003808.D	40	08/16/00	NF	08/11/00	OP1938	GAA120
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	30000	ug/kg	
208-96-8	Acenaphthylene	ND	30000	ug/kg	
120-12-7	Anthracene	ND	15000	ug/kg	
56-55-3	Benzo(a)anthracene ^b	ND	15000	ug/kg	
50-32-8	Benzo(a)pyrene	ND	3000	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	3000	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	3000	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	3000	ug/kg	
218-01-9	Chrysene	ND	15000	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	3000	ug/kg	
206-44-0	Fluoranthene	ND	15000	ug/kg	
86-73-7	Fluorene	ND	15000	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	3000	ug/kg	
91-20-3	Naphthalene	ND	15000	ug/kg	
90-12-0	1-Methylnaphthalene	5900	15000	ug/kg	J
91-57-6	2-Methylnaphthalene	7160	15000	ug/kg	J
85-01-8	Phenanthrene	ND	15000	ug/kg	
129-00-0	Pyrene	ND	15000	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	0% ^c		22-130%
92-94-4	p-Terphenyl	0% ^c		53-130%

- (a) Dilution required due to matrix interference.
- (b) Elevated reporting limits due to matrix interference.
- (c) Outside control limits due to dilution.

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: OLFB1107SB-1, 17-20'	Date Sampled: 08/09/00
Lab Sample ID: F7308-1	Date Received: 08/10/00
Matrix: SO - Soil	Percent Solids: 81.9
Method: EPA 8310	
Project: NAS Pensacola	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA003798.D	1	08/15/00	NF	08/11/00	OP1938	GAA120
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	810	ug/kg	
208-96-8	Acenaphthylene	ND	810	ug/kg	
120-12-7	Anthracene	ND	410	ug/kg	
56-55-3	Benzo(a)anthracene	ND	81	ug/kg	
50-32-8	Benzo(a)pyrene	ND	81	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	81	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	81	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	81	ug/kg	
218-01-9	Chrysene	ND	410	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	81	ug/kg	
206-44-0	Fluoranthene	ND	410	ug/kg	
86-73-7	Fluorene	ND	410	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	81	ug/kg	
91-20-3	Naphthalene	ND	410	ug/kg	
90-12-0	1-Methylnaphthalene	ND	410	ug/kg	
91-57-6	2-Methylnaphthalene	ND	410	ug/kg	
85-01-8	Phenanthrene	ND	410	ug/kg	
129-00-0	Pyrene	ND	410	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	71%		22-130%
92-94-4	p-Terphenyl	94%		53-130%

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: OLFB1107SB-2, 18-20'	
Lab Sample ID: F7308-2	Date Sampled: 08/09/00
Matrix: SO - Soil	Date Received: 08/10/00
Method: EPA 8310	Percent Solids: 79.2
Project: NAS Pensacola	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA003799.D	1	08/16/00	NF	08/11/00	OP1938	GAA120
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	840	ug/kg	
208-96-8	Acenaphthylene	ND	840	ug/kg	
120-12-7	Anthracene	ND	420	ug/kg	
56-55-3	Benzo(a)anthracene	ND	84	ug/kg	
50-32-8	Benzo(a)pyrene	ND	84	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	84	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	84	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	84	ug/kg	
218-01-9	Chrysene	ND	420	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	84	ug/kg	
206-44-0	Fluoranthene	ND	420	ug/kg	
86-73-7	Fluorene	ND	420	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	84	ug/kg	
91-20-3	Naphthalene	ND	420	ug/kg	
90-12-0	1-Methylnaphthalene	ND	420	ug/kg	
91-57-6	2-Methylnaphthalene	ND	420	ug/kg	
85-01-8	Phenanthrene	ND	420	ug/kg	
129-00-0	Pyrene	ND	420	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	71%		22-130%
92-94-4	p-Terphenyl	93%		53-130%

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: OLFB1107SB-3, 18-20'	
Lab Sample ID: F7308-3	Date Sampled: 08/09/00
Matrix: SO - Soil	Date Received: 08/10/00
Method: EPA 8310	Percent Solids: 90.4
Project: NAS Pensacola	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	AA003805.D	40	08/16/00	NF	08/11/00	OP1938	GAA120
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	30000	ug/kg	
208-96-8	Acenaphthylene	ND	30000	ug/kg	
120-12-7	Anthracene	ND	15000	ug/kg	
56-55-3	Benzo(a)anthracene ^b	ND	15000	ug/kg	
50-32-8	Benzo(a)pyrene	ND	3000	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	3000	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	3000	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	3000	ug/kg	
218-01-9	Chrysene	ND	15000	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	3000	ug/kg	
206-44-0	Fluoranthene ^b	ND	30000	ug/kg	
86-73-7	Fluorene	ND	15000	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	3000	ug/kg	
91-20-3	Naphthalene	ND	15000	ug/kg	
90-12-0	1-Methylnaphthalene	11000	15000	ug/kg	J
91-57-6	2-Methylnaphthalene	9060	15000	ug/kg	J
85-01-8	Phenanthrene	6070	15000	ug/kg	J
129-00-0	Pyrene	7860	15000	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	0% ^c		22-130%
92-94-4	p-Terphenyl	0% ^c		53-130%

- (a) Dilution required due to matrix interference.
- (b) Elevated reporting limits due to matrix interference.
- (c) Outside control limits due to dilution.

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: OLFB1107SB-4, 19-20'	Date Sampled: 08/09/00
Lab Sample ID: F7308-4	Date Received: 08/10/00
Matrix: SO - Soil	Percent Solids: 87.9
Method: EPA 8310	
Project: NAS Pensacola	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	AA003806.D	40	08/16/00	NF	08/11/00	OP1938	GAA120
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	30000	ug/kg	
208-96-8	Acenaphthylene	ND	30000	ug/kg	
120-12-7	Anthracene	ND	15000	ug/kg	
56-55-3	Benzo(a)anthracene ^b	ND	15000	ug/kg	
50-32-8	Benzo(a)pyrene	ND	3000	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	3000	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	3000	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	3000	ug/kg	
218-01-9	Chrysene	ND	15000	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	3000	ug/kg	
206-44-0	Fluoranthene ^b	ND	30000	ug/kg	
86-73-7	Fluorene	ND	15000	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	3000	ug/kg	
91-20-3	Naphthalene	ND	15000	ug/kg	
90-12-0	1-Methylnaphthalene	8710	15000	ug/kg	J
91-57-6	2-Methylnaphthalene	9820	15000	ug/kg	J
85-01-8	Phenanthrene	ND	15000	ug/kg	
129-00-0	Pyrene	4460	15000	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	0% ^c		22-130%
92-94-4	p-Terphenyl	0% ^c		53-130%

- (a) Dilution required due to matrix interference.
- (b) Elevated reporting limits due to matrix interference.
- (c) Outside control limits due to dilution.

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: OLFB1107SB-5, 19-20'	Date Sampled: 08/09/00
Lab Sample ID: F7308-5	Date Received: 08/10/00
Matrix: SO - Soil	Percent Solids: 97.0
Method: EPA 8310	
Project: NAS Pensacola	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA003800.D	1	08/16/00	NF	08/11/00	OP1938	GAA120
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	690	ug/kg	
208-96-8	Acenaphthylene	ND	690	ug/kg	
120-12-7	Anthracene	ND	340	ug/kg	
56-55-3	Benzo(a)anthracene	ND	69	ug/kg	
50-32-8	Benzo(a)pyrene	ND	69	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	69	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	69	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	69	ug/kg	
218-01-9	Chrysene	ND	340	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	69	ug/kg	
206-44-0	Fluoranthene	ND	340	ug/kg	
86-73-7	Fluorene	ND	340	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	69	ug/kg	
91-20-3	Naphthalene	ND	340	ug/kg	
90-12-0	1-Methylnaphthalene	ND	340	ug/kg	
91-57-6	2-Methylnaphthalene	ND	340	ug/kg	
85-01-8	Phenanthrene	ND	340	ug/kg	
129-00-0	Pyrene	ND	340	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	73%		22-130%
92-94-4	p-Terphenyl	95%		53-130%

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: OLFB1107SB-6, 18-20'	
Lab Sample ID: F7308-6	Date Sampled: 08/09/00
Matrix: SO - Soil	Date Received: 08/10/00
Method: EPA 8310	Percent Solids: 92.6
Project: NAS Pensacola	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA003801.D	1	08/16/00	NF	08/11/00	OP1938	GAA120
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	720	ug/kg	
208-96-8	Acenaphthylene	ND	720	ug/kg	
120-12-7	Anthracene	ND	360	ug/kg	
56-55-3	Benzo(a)anthracene	ND	72	ug/kg	
50-32-8	Benzo(a)pyrene	ND	72	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	72	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	72	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	72	ug/kg	
218-01-9	Chrysene	ND	360	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	72	ug/kg	
206-44-0	Fluoranthene	ND	360	ug/kg	
86-73-7	Fluorene	ND	360	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	72	ug/kg	
91-20-3	Naphthalene	ND	360	ug/kg	
90-12-0	1-Methylnaphthalene	ND	360	ug/kg	
91-57-6	2-Methylnaphthalene	ND	360	ug/kg	
85-01-8	Phenanthrene	ND	360	ug/kg	
129-00-0	Pyrene	ND	360	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	74%		22-130%
92-94-4	p-Terphenyl	98%		53-130%

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: OLFB1107SB-8, 18-20'	Date Sampled: 08/09/00
Lab Sample ID: F7308-9	Date Received: 08/10/00
Matrix: SO - Soil	Percent Solids: 92.1
Method: EPA 8310	
Project: NAS Pensacola	

Run #1 ^a	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	AA003809.D	10	08/16/00	NF	08/11/00	OP1938	GAA120

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	7200	ug/kg	
208-96-8	Acenaphthylene	ND	7200	ug/kg	
120-12-7	Anthracene	ND	3600	ug/kg	
56-55-3	Benzo(a)anthracene	ND	720	ug/kg	
50-32-8	Benzo(a)pyrene	760	720	ug/kg	
205-99-2	Benzo(b)fluoranthene	1110	720	ug/kg	
191-24-2	Benzo(g,h,i)perylene	903	720	ug/kg	
207-08-9	Benzo(k)fluoranthene	444	720	ug/kg	J
218-01-9	Chrysene	ND	3600	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	720	ug/kg	
206-44-0	Fluoranthene	ND	3600	ug/kg	
86-73-7	Fluorene	ND	3600	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	964	720	ug/kg	
91-20-3	Naphthalene	2380	3600	ug/kg	J
90-12-0	1-Methylnaphthalene	8550	3600	ug/kg	
91-57-6	2-Methylnaphthalene	11400	3600	ug/kg	
85-01-8	Phenanthrene	2140	3600	ug/kg	J
129-00-0	Pyrene	ND	3600	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	95%		22-130%
92-94-4	p-Terphenyl	26% ^b		53-130%

(a) Dilution required due to matrix interference.

(b) Outside control limits due to dilution.

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: OLFB1107DUP-1	Date Sampled: 08/09/00
Lab Sample ID: F7308-7	Date Received: 08/10/00
Matrix: SO - Soil	Percent Solids: 88.9
Method: FLORIDA-PRO	
Project: NAS Pensacola	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP10205.D	500	08/13/00	ME	08/11/00	OP1936	GOP424
Run #2							

CAS No.	Compound	Result	RL	Units Q
	TPH (C8-C40)	16300	4700	mg/kg

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	0% ^a		40-140%

(a) Outside control limits due to dilution.

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: OLFB1107SB-1, 17-20'
Lab Sample ID: F7308-1
Matrix: SO - Soil
Method: FLORIDA-PRO
Project: NAS Pensacola

Date Sampled: 08/09/00
Date Received: 08/10/00
Percent Solids: 81.9

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP10178.D	1	08/12/00	ME	08/11/00	OP1936	GOP423
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	10	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	88%		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

Report of Analysis

Client Sample ID: OLFB1107SB-2, 18-20'	
Lab Sample ID: F7308-2	Date Sampled: 08/09/00
Matrix: SO - Soil	Date Received: 08/10/00
Method: FLORIDA-PRO	Percent Solids: 79.2
Project: NAS Pensacola	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP10179.D	1	08/12/00	ME	08/11/00	OP1936	GOP423
Run #2							

CAS No.	Compound	Result	RL	Units Q
	TPH (C8-C40)	ND	10	mg/kg

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

Report of Analysis

Page 1 of 1

Client Sample ID: OLFB1107SB-3, 18-20'	Date Sampled: 08/09/00
Lab Sample ID: F7308-3	Date Received: 08/10/00
Matrix: SO - Soil	Percent Solids: 90.4
Method: FLORIDA-PRO	
Project: NAS Pensacola	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP10204.D	500	08/13/00	ME	08/11/00	OP1936	GOP424
Run #2							

CAS No.	Compound	Result	RL	Units Q
	TPH (C8-C40)	19800	4600	mg/kg
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	0% *		40-140%

(a) Outside control limits due to dilution.

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: OLFB1107SB-4, 19-20'	
Lab Sample ID: F7308-4	Date Sampled: 08/09/00
Matrix: SO - Soil	Date Received: 08/10/00
Method: FLORIDA-PRO	Percent Solids: 87.9
Project: NAS Pensacola	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP10181.D	200	08/12/00	ME	08/11/00	OP1936	GOP423
Run #2							

CAS No.	Compound	Result	RL	Units Q
	TPH (C8-C40)	11400	1900	mg/kg

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	0% ^a		40-140%

(a) Outside control limits due to dilution.

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: OLFB1107SB-5, 19-20'	
Lab Sample ID: F7308-5	Date Sampled: 08/09/00
Matrix: SO - Soil	Date Received: 08/10/00
Method: FLORIDA-PRO	Percent Solids: 97.0
Project: NAS Pensacola	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP10184.D	1	08/13/00	ME	08/11/00	OP1936	GOP423
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	8.6	mg/kg	

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

Report of Analysis

Client Sample ID: OLFB1107SB-6, 18-20'	
Lab Sample ID: F7308-6	Date Sampled: 08/09/00
Matrix: SO - Soil	Date Received: 08/10/00
Method: FLORIDA-PRO	Percent Solids: 92.6
Project: NAS Pensacola	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP10185.D	1	08/13/00	ME	08/11/00	OP1936	GOP423
Run #2							

CAS No.	Compound	Result	RL	Units Q
	TPH (C8-C40)	ND	9.0	mg/kg

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	89%		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

Report of Analysis

Client Sample ID: OLFB1107SB-7, 18-20'	Date Sampled: 08/09/00
Lab Sample ID: F7308-8	Date Received: 08/10/00
Matrix: SO - Soil	Percent Solids: 88.2
Method: FLORIDA-PRO	
Project: NAS Pensacola	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP10206.D	400	08/13/00	ME	08/11/00	OP1936	GOP424
Run #2							

CAS No.	Compound	Result	RL	Units Q
	TPH (C8-C40)	13300	3800	mg/kg

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	0% *		40-140%

(a) Outside control limits due to dilution.

<p>ND = Not detected</p> <p>RL = Reporting Limit</p> <p>E = Indicates value exceeds calibration range</p>	<p>J = Indicates an estimated value</p> <p>B = Indicates analyte found in associated method blank</p> <p>N = Indicates presumptive evidence of a compound</p>
---	---

Report of Analysis

Client Sample ID: OLFB1107SB-8, 18-20'	Date Sampled: 08/09/00
Lab Sample ID: F7308-9	Date Received: 08/10/00
Matrix: SO - Soil	Percent Solids: 92.1
Method: FLORIDA-PRO	
Project: NAS Pensacola	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP10188.D	200	08/13/00	ME	08/11/00	OP1936	GOP423
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	5540	1800	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	0% ^a		40-140%

(a) Outside control limits due to dilution.

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

ATTACHMENT F

**SOIL SAMPLING FIELD FORMS
AND LITHOLOGIC LOGS**



Project Site Name: OLF Bronson
Project No.: 0401

Sample ID No.: OLF B11075B-1
Sample Location: Site 1107
Sampled By: OH, GD
C.O.C. No.: _____

- Surface Soil
- Subsurface Soil
- Sediment
- Other: _____
- QA Sample Type: _____

- Type of Sample:
- Low Concentration
 - High Concentration

GRAB SAMPLE DATA:

Date:	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
<u>8/9/00</u>	<u>17-20"</u>		
Time: <u>0910</u>			
Method: <u>DPT</u>			
Monitor Reading (ppm): <u>0</u>			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
<u>VOL</u>	<u>Encon X 3</u>	<input checked="" type="checkbox"/>	
<u>TBPH</u>	<u>40Z w/m X 1</u>	<input checked="" type="checkbox"/>	
<u>PAH</u>	<u>" " "</u>	<input checked="" type="checkbox"/>	
<u>% Solid</u>	<u>" " "</u>	<input checked="" type="checkbox"/>	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

Signature(s):

MS/MSD

Duplicate ID No.:

Dan Hartwell



Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: OLF.B PAS Pensacola
Bronson Site 1107
 PROJECT NUMBER: CTO 112 Nafol
 DRILLING COMPANY: ATI
 DRILLING RIG: Geoprobe

BORING No: SB-1
 DATE: 06-09-00
 GEOLOGIST: Gary J. Davis
 DRILLER: Nick D.

Sample No and Type or ROD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION			U S C S	Remarks	PID/FID Reading (ppm)			
					Sell Density/ Consistency or Rock Hardness	Color	Material Classification			Sample	Sampler BZ	Borehole	Driller BZ
					Soil to buff to light brown silty sand		SC	stand auger to 4' BGS					
					Yellowish brown silty sand (moist)			fine-med. grad	0000				
	5		48"		Same		SC	moist to odor	0000				
	10		48"		color change to predominantly light brown to buff to white		SC	No odor	0000				
	15		48"				SC		0000				
	20		48"		sharp contact with med. dense silty clayey sand Yellowish brown		SC	wet sandy ~20% silt & clay	0000				
			48"		sharp change to silty sand light brown to buff		SC	Saturated No odor					
	25				Terminated at 24' BGS								

18-20 med. dense sample

Remarks: _____
 Drilling Area Background (ppm): 0

Converted to Well: Yes No Well I.D. # _____



Project Site Name: OLF Breason
Project No.: _____

Sample ID No.: OLF B1107SB-2

Sample Location: Site 1107

Sampled By: DH, GD

C.O.C. No.: _____

- Surface Soil
- Subsurface Soil
- Sediment
- Other: _____
- QA Sample Type: _____

- Type of Sample:
- Low Concentration
 - High Concentration

GRAB SAMPLE DATA:

Date:	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
<u>8/9/00</u>	<u>18-20"</u>		
Time: <u>0945</u>			
Method: <u>DPT</u>			
Monitor Reading (ppm): <u>0</u>			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
<u>VOC</u>	<u>3 x Encore</u>	<input checked="" type="checkbox"/>	
<u>TRPH</u>	<u>1 x 4oz w/m</u>	<input checked="" type="checkbox"/>	
<u>% Solid</u>	<u>1 x 4oz w/m</u>	<input checked="" type="checkbox"/>	
<u>PAH</u>	<u>1 x 4oz w/m</u>	<input checked="" type="checkbox"/>	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

Signature(s):

MS/MSD

Duplicate ID No.:

Daniel Hartnett



Tetra Tech NUS, Inc.

BORING LOG

Page 1 of 1

PROJECT NAME: OLF B NAs Pensacola
 PROJECT NUMBER: Brown Site 1107
 DRILLING COMPANY: ATI
 DRILLING RIG: Geoprobe

BORING No.: S B-2
 DATE: 08-29-00
 GEOLOGIST: Gary J. Davis
 DRILLER: N.R.D.

Sample No. and Type or ROD	Depth (Fl.) or Run No	Blows / 6" or ROD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft) or Screened Interval	MATERIAL DESCRIPTION			U S C S	Remarks	PID/FID Reading (ppm)							
					Soil Density/Consistency or Rock Hardness	Color	Material Classification			Sample	Sampler BZ	Borehole	Driller BZ				
	5		NA														
			48"														
			48"														
	10		42"														
			48"														
	15		76"														
			48"														
	20		30"														
			48"														
			42"														
			46"														
	25																

1820 Analytical Samples

When rock coring, enter rock brokenness
 Include monitor reading in 6 foot intervals for borehole and reading frequency if elevated response read

Remarks: Terminated at 24' PLS

Drilling Area Background (ppm) 0

Converted to Well Yes No Well I.D. # _____



Project Site Name: OLF Bronson
Project No.: _____

Sample ID No.: OLF B1107SB-3
Sample Location: site 1107
Sampled By: DH GD
C.O.C. No.: _____

- Surface Soil
- Subsurface Soil
- Sediment
- Other: _____
- QA Sample Type: _____

Type of Sample:
 Low Concentration
 High Concentration

GRAB SAMPLE DATA:

Date:	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
<u>8/9/00</u>	<u>18-20</u>		
Time: <u>1015</u>			
Method: <u>DPT</u>			
Monitor Reading (ppm): <u>100</u>			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
<u>VOC</u>	<u>ENCORE X 3</u>	<input checked="" type="checkbox"/>	
<u>TRPH</u>	<u>4 OZ W/M X 1</u>	<input checked="" type="checkbox"/>	
<u>PAH</u>	<u>↓</u>	<input checked="" type="checkbox"/>	
<u>% Solid</u>		<input checked="" type="checkbox"/>	

OBSERVATIONS / NOTES:

MAP:

Observations and notes area (empty).

Map area (empty).

Circle if Applicable:

Signature(s):

MS/MSD

Duplicate ID No.:

Dan Hartwell



Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NAs Pensacola
 PROJECT NUMBER: ONE BRANSON SITE 1107
 DRILLING COMPANY: ATE
 DRILLING RIG: Geoprobe

BORING No.: SB-3
 DATE: 08-09-00
 GEOLOGIST: Gary J. Davis
 DRILLER: Nick D.

Sample No. and Type of ROD	Depth (FL) or Run No	Blows / 6" or ROD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/FL) or Screened Interval	MATERIAL DESCRIPTION			U S C S	Remarks	PID/FID Reading (ppm)					
					Soil Density/ Consistency or Rock Hardness	Color	Material Classification			Sample	Sampler BZ	Barrels	Drifter BZ		
	5		18"												
			48"												
	10		42"												
			48"												
			36"												
	15		48"												
			36"												
			48"												
	20		36"												
			48"												
			30"												
			48"												
	25														

1920 *

Concrete 100

When rock coring, enter rock breaking...
 Include monitor reading at 6 foot intervals...
 Remarks: Blade staining from trace product of "Zumbo" oil
2 1/2" thick silty sandy clay
Sharp contact
light brown to buff
silty clay
biting at 2 & 3 BGS

Drilling Area Background (ppm): 0

Converted to Well: Yes No Well I.D. # _____



Project Site Name: OLF BRONSON
Project No.: _____

Sample ID No.: OLFB11075B-4
Sample Location: _____
Sampled By: _____
C.O.C. No.: _____

- Surface Soil
- Subsurface Soil
- Sediment
- Other: _____
- QA Sample Type: _____

Type of Sample:
 Low Concentration
 High Concentration

GRAB SAMPLE DATA:

Date: <u>8/9/00</u>	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: <u>1120</u>	<u>19-20"</u>		
Method: <u>DPT</u>			
Monitor Reading (ppm): <u>150</u>			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
<u>VOC</u>	<u>ENCLONE X 3</u>	<input checked="" type="checkbox"/>	
<u>TRPH</u>	<u>4 OZ W/M X 1</u>	<input checked="" type="checkbox"/>	
<u>PAH</u>	<u>↓</u>	<input checked="" type="checkbox"/>	
<u>1/2 Solid</u>		<input checked="" type="checkbox"/>	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

Signature(s):

MS/MSD	Duplicate ID No.:

Daniel H. Barrett



Project Site Name: OLF Bronson
Project No.: _____

Sample ID No.: OLFB107SB-5
Sample Location: Site 1107
Sampled By: DH, GD
C.O.C. No.: _____

- Surface Soil
- Subsurface Soil
- Sediment
- Other: _____
- QA Sample Type: _____

Type of Sample:
 Low Concentration
 High Concentration

GRAB SAMPLE DATA:

Date:	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
<u>8/9/00</u>	<u>19-20"</u>		
Time: <u>1200</u>			
Method: <u>DPT</u>			
Monitor Reading (ppm): <u>0</u>			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
<u>VOC</u>	<u>ENCLOSURE X 3</u>	<input checked="" type="checkbox"/>	
<u>TRPH</u>	<u>403 w/m x 1</u>	<input checked="" type="checkbox"/>	
<u>PAH</u>	<u>↓</u>	<input checked="" type="checkbox"/>	
<u>% Solid</u>		<input checked="" type="checkbox"/>	

OBSERVATIONS / NOTES:

MAP:

Observations and notes area (empty).

Map area (empty).

Circle if Applicable:

Signature(s):

MS/MSD Duplicate ID No.: _____

Dan Hartnett



Tetra Tech NUS, Inc

BORING LOG

NAS Pensacola

PROJECT NAME: OLE Benson Site 1107
 PROJECT NUMBER: CTO 112 N6401
 DRILLING COMPANY: ATF
 DRILLING RIG: Geoprobe

BORING No.: SB-5
 DATE: 08-09-00
 GEOLOGIST: Gary J. Davis
 DRILLER: Nick D.

Sample No and Type or ROD	Depth (ft.) or Run No.	Blows / s' or ROD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION			U S C S *	Remarks	PI/D/FID Reading (ppm)			
					Soil Density/ Consistency or Rock Hardness	Color	Material Classification			Sample	Sampler BZ	Borehole "	Driller BZ "
					loose	Buff to light brown silty sand	SC	Hand Auger to 4'	0	0	0	0	
					to very loose	reddish yellowish brown to buff to white silty sand	SC	No odor	0	0	0	0	
	5		11" / 116"			Same	SC		0	0	0	0	
	10		7 1/2" / 146"			Same	SC		0	0	0	0	
	15		12" / 146"			Same	SC	No odor	0	0	0	0	
	18-20		12" / 146"		gradational color change to buff to white		CL		2/0			2	
	20				Same		SC		2/2			0	
					yellowish brown silty clayey sand at bottom		SC	No Odor					
Terminated boring at 20 ft													

* When rock coring, enter rock brokenness.

** Include monitor reading in 6 foot intervals of borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes No Well ID # _____



Project Site Name: OLF Bronson
Project No.: _____

Sample ID No.: OLFB1107SB-6
Sample Location: Site 1107
Sampled By: DH, GD
C.O.C. No.: _____

- Surface Soil
- Subsurface Soil
- Sediment
- Other: _____
- QA Sample Type: _____

- Type of Sample:
- Low Concentration
 - High Concentration

GRAB SAMPLE DATA:

Date:	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
<u>8/9/00</u>	<u>18-20"</u>		
Time: <u>1230</u>			
Method: <u>DPT</u>			
Monitor Reading (ppm): <u>0</u>			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
<u>VOC</u>	<u>Encore x 3</u>	<u>8/9/00</u>	
<u>TRPH</u>	<u>4 ozl x 1</u>	↓	
<u>PAH</u>	↓	↓	
<u>1/2 Solid</u>			

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

Signature(s):

MS/MSD _____ Duplicate ID No.: _____

Dan Hartnett



Tetra Tech NUS, Inc.

NAS Pensacola

BORING LOG

PROJECT NAME: OLF Brownson site 1107

BORING No: SB-6

PROJECT NUMBER: CSD 112 N0401

DATE: 08-09-00

DRILLING COMPANY: ATE

GEOLOGIST: Gary J. Davis

DRILLING RIG: Geoprobe

DRILLER: Nick D

Sample No and Type or ROD	Depth (Ft.) or Run No.	Blows / 5' or RDO (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION			U S C S	Remarks	PID/MID Reading (ppm)									
					Soil Density/ Consistency or Rock Hardness	Color	Material Classification			Sample	Sampler BZ	Retrolg ¹	Driller BZ ²						
			NA																
	5				loose to very loose		Buff to light brown silty sand	SL	Hand Auger to 4'										
			42"				moist yellowish brown to buff to white silty sand	SL	moist No odor										
			48"					SL											
	10		36"				Same	SL	moist										
			48"					SL	No odor										
	15		42"				Same	SL											
			48"					SL											
	20		42"				Same	SL	clay										
			48"				yellowish brown silty clayey sand	SL	wet										
							Terminated boring @ 20' BGS												

Analyzed #

* When rock coring, enter rock brokenness.

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

Remarks: _____

Drilling Area Background (ppm) 0

Converted to Well Yes _____ No Well ID #: _____



Project Site Name: OLF Bronson
Project No.: _____

Sample ID No.: OLFB1107SB-7
Sample Location: Site 1107
Sampled By: DH ED
C.O.C. No.: _____

- Surface Soil
- Subsurface Soil
- Sediment
- Other: _____
- QA Sample Type: _____

Type of Sample:
 Low Concentration
 High Concentration

GRAB SAMPLE DATA:

Date: <u>8/9/00</u>	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: <u>1325</u>	<u>18-20"</u>		
Method: <u>DPT</u>			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
<u>VOC</u>	<u>Encore x 3</u>	<input checked="" type="checkbox"/>	
<u>PAH</u>	<u>4oz W/M x 1</u>	<input checked="" type="checkbox"/>	
<u>TRPH</u>	<u>↓</u>	<input checked="" type="checkbox"/>	
<u>% Solid.</u>		<input checked="" type="checkbox"/>	

OBSERVATIONS / NOTES:

MAP:

Observations and notes area (empty).

Map area (empty).

Circle if Applicable:

Signature(s):

MS/MSD Duplicate ID No.: _____

Don Hartwell



Tetra Tech NUS, Inc

BORING LOG

Page 1 of 1

NAS Pascagoula

PROJECT NAME: OLF Bronson Site 1107
 PROJECT NUMBER: CTD12 NOKAL
 DRILLING COMPANY: ATT
 DRILLING RIG: Geoprobe

BORING No: SB-7
 DATE: 08-09-00
 GEOLOGIST: Gary J. Davis
 DRILLER: Nick D

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 8" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft) or Screened Interval	MATERIAL DESCRIPTION			U S C S *	Remarks	PID/FID Reading (ppm)					
					Soil Density/ Consistency or Rock Hardness	Color	Material Classification			Sample	Sampler BZ	Borehole	Driller BZ		
					loose to very loose	buff to light brown silty sand	SC	Hand Hugs to 4'							
	5		4 1/2" / 46"												
	10		3 1/2" / 46"				SC	moist							
	15		4 2 1/2" / 46"				SC	moist							
	20		4 1/2" / 46"		gradational color change to buff to white	Reddish brown silty sand with sand	SC	damp?							
	20		4 1/2" / 46"		Dark gray to black silty soil with Free Product		SC								
					Terminated boring at 20' BGS										

18-20 Analytical Sample

Cancelled 150

* When rock coring enter rock breakness

** In hole monitor reactivity in 8 foot intervals or less. Increase reading frequency if elevated response read

Remarks: Taking duplicate analytical samples

Drilling Area Background (ppm) 0

Converted to Well. Yes No Well I.D. # _____



Project Site Name: OLF Bronson
Project No.: _____

Sample ID No.: OLFBS11075 B-8
Sample Location: Site 1107
Sampled By: DH, GD
C.O.C. No.: _____

- Surface Soil
- Subsurface Soil
- Sediment
- Other: _____
- QA Sample Type: _____

- Type of Sample:
- Low Concentration
 - High Concentration

GRAB SAMPLE DATA:

Date:	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
<u>8/9/00</u>	<u>18-20"</u>		
Time: <u>1345</u>			
Method: <u>DPT</u>			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
<u>VOC</u>	<u>Encore x 3</u>	<input checked="" type="checkbox"/>	
<u>TRPH</u>	<u>4 oz w/m x 1</u>	<input checked="" type="checkbox"/>	
<u>PAH</u>	<u>"</u>	<input checked="" type="checkbox"/>	
<u>% Solid</u>	<u>"</u>	<input checked="" type="checkbox"/>	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

Signature(s):

MS/MSD Duplicate ID No.: _____

Dan Hawthell

