N00204.AR.002106
NAS PENSACOLA
5090.3a

TETRA TECH NUS, INC.
3360 Capital Circle N.E. ■ Suite B ■ Tallahassee, Florida 32308
(850) 385-9899 ■ FAX (850) 385-9860 ■ www.tetratech.com

TTNUS/TLH-06-46/0055-6.4

June 21, 2006

Project Number N00055

Commander, Southeast
Naval Facilities Engineering Command
ATTN: Mr. Bill Hill (Code EV4)
2155 Eagle Drive
North Charleston, South Carolina 29406

Reference: CLEAN Contract Number N62467-94-D-0888
Contract Task Order Number 0380

Subject: Site Rehabilitation Completion Report – Site 1140NW
Outlying Landing Field (OLF) Bronson, Pensacola, Florida

Dear Mr. Hill:

Tetra Tech NUS, Inc. (TtNUS) is pleased to submit this letter report for the referenced Contract Task Order (CTO). This report was prepared for the United States Navy (Navy) Southern Division, Naval Facilities Engineering Command under CTO 0380 for the Comprehensive Long-term Environmental Action Navy (CLEAN) Contract Number N62467-94-D-0888. This letter report provides the results of the 2nd Quarter, Year 4 groundwater sampling event conducted on April 18, 2006, as the 14th post-injection (15th event overall) sampling event of the treatability study for Site 1140NW, OLF Bronson, Pensacola, Florida.

Site Summary

Site 1140NW is located on the western edge of OLF Bronson in Pensacola, Florida. The site is bordered on the west by Perdido Bay, the east by a recreational vehicle (RV) parking compound, the north by a miniature golf course, and the south by a parking lot. An unnamed access road runs through the middle of the site. The site area is shown on Figure 1. The foundation of former Building 1140 is located on the western edge of the site.

From 1996 to 2000, contamination assessment activities were performed at Site 1140NW to determine the extent of petroleum impact to soil and groundwater at the site. A Contamination Assessment Report (CAR) and a CAR Addendum were completed for Site 1140NW in 1997 and 1998, respectively. The results of the assessment activities at Site 1140NW indicated that the site was suitable for Monitored Natural Attenuation (MNA) under the provisions of Chapter 62-770, Florida Administrative Code (F.A.C.). A Monitored Natural Attenuation Plan (MNAP) was prepared by TtNUS and approved by the Florida Department of Environmental Protection (FDEP) on May 8, 2000. Following approval of the MNAP, TtNUS performed the initial MNA groundwater sampling in May 2000. Sixteen (16) monitoring wells were originally installed at the site. One well (MW-16) has been destroyed or is abandoned; one well (MW-11) is located inside the locked gate of the RV parking compound, and is therefore inaccessible; and two wells (MW-07 and MW-10) are either buried or destroyed and have not been located. Groundwater samples were collected from monitoring wells MW-02, MW-03, MW-08, MW-09, and MW-13. Monitoring wells MW-03, MW-08, and MW-09 were designated as source area wells. Monitoring wells MW-02 and

MW-13 were designated as perimeter wells. Results of the initial MNA sampling event indicated dissolved petroleum contaminants in the groundwater exceeded FDEP site-specific action levels. As a result, TtNUS conducted a supplemental site assessment sampling event in May 2001.Based on the results of the supplemental site assessment, TtNUS recommended that a groundwater treatability study be completed at the site. In July 2002, TtNUS completed a work plan for Enhanced Natural Attenuation at Site 1140NW and in September 2002, TtNUS conducted the baseline groundwater sampling event (designated as the first quarter sampling event) followed by the installation of the iSOC™ system. Five iSOC™ injection points were installed as part of the treatability study and the quarterly groundwater monitoring program was initiated.

Fourteen quarterly monitoring events and monitoring letter reports have been completed in addition to a treatability study evaluation event and report completed after the fourth quarter, year 1 sampling event (15th event overall). The Treatability Study Evaluation Report presented the data collected to date for the treatability study, interpreted the data, and provided conclusions and recommendations for the treatability study at this site. The Treatability Study Evaluation Report recommended continued operation of the iSOC™ system, as well as groundwater monitoring, until contaminant of concern (COC) concentrations were less than the appropriate Groundwater Cleanup Target Levels (GCTLs) or until sampling results indicate that the iSOC™ system is no longer reducing COC concentrations. Eight quarterly performance monitoring letter reports have been prepared and submitted to date during Year 2 and 3 sampling. This quarterly monitoring report presents the data collected during the second quarter, Year 4.

iSOC™ Operation and Maintenance (O&M)

On August 18, 2004, TtNUS field personnel met at the site with the iSOC™ vendor to assess the status of the iSOC™ diffusers and controllers. The iSOC™ units installed at the site had first generation control panels. These panels have push compression fittings and polyethylene tubing and have a history of persistent leaks. Because of previous oxygen gas leaks at the site, as evident by the prematurely empty oxygen bottles, the iSOC™ vendor recommended that the iSOC™ components be removed from the wells and taken off-site to be refurbished and upgraded. The units were removed August 18, 2004 and were in the process of being refurbished in Tallahassee when Hurricane Ivan made landfall in the Pensacola area on September 16, 2004. The iSOC™ units were not re-installed, instead a Monitored Natural Attenuation Program was initiated.

Groundwater Sampling Activities

TtNUS personnel conducted the second quarter, Year 4 groundwater-monitoring event on April 18, 2006. The quarterly groundwater-monitoring event included:

- Measurement of static water levels (SWLs) to determine groundwater elevation and flow direction.
- Collection of groundwater samples from five on-site monitoring wells for laboratory analysis.
- Field and laboratory analyses for natural attenuation parameters.

The locations of site features and monitoring wells are shown on Figure 1. Groundwater samples for field and laboratory analysis were collected from the following monitoring wells as specified in the Treatability Study Work Plan:

Source Area Wells	Perimeter Wells
MW-03	MW-02
MW-08	MW-13
MW-09	

Groundwater samples were collected from the monitoring wells in general accordance with the current FDEP Standard Operating Procedures (SOPs). Depth-to-water was measured, and the wells were purged prior to sample collection. Purging was accomplished with a peristaltic pump using the low flow purge technique. During purging, field parameters [pH, conductivity, temperature, dissolved oxygen (DO), and oxidation-reduction potential] were measured at approximately 3 to 6 minute intervals using a YSI® 556MPS multi-parameter water quality instrument equipped with a flow-through cell. The instrument was calibrated according to the manufacturer's specifications at the beginning of the day. Sample turbidity was monitored using a LaMotte Model 2020 Turbidimeter.

Following the well purging activities, the groundwater samples were analyzed in the field for the following natural attenuation parameters: ferrous iron, alkalinity, carbon dioxide, DO, and hydrogen sulfide. Groundwater Sample Log Sheets compiled during purging and sampling at each location are also provided in Attachment A.

Laboratory Analysis

Groundwater samples were collected from the selected monitoring wells for off-site analysis of:

- Polynuclear aromatic hydrocarbons (PAHs) by United States Environmental Protection Agency (USEPA) SW 846 Method 8270C with selective ion monitoring (SIM).
- Total Organic Carbon (TOC) by SW9060.
- Sulfate by SW9056.

After collection, groundwater samples were placed on ice and shipped overnight via Federal Express to Emperical Laboraties Inc., in Nashville, Tennessee. The validated groundwater analytical reports are included in Attachment B.

Groundwater Elevation and Flow Direction

The water level data collected on April 18, 2006 are presented in Attachment A. The groundwater elevations for the second quarter, Year 4 monitoring event are summarized in Table 1. The water level data were used to estimate groundwater elevation and flow direction at the site (Figure 2). Free product was not detected in any on-site monitoring wells.

The water level data collected during the second quarter monitoring event indicates that groundwater flow in the Site 1140NW area is generally to the west-southwest towards Perdido Bay. This flow direction is consistent with previously reported groundwater flow data. The relative groundwater elevations measured during the second quarter, Year 1 monitoring event ranged from 22.10 to 22.46 feet above the reference datum.

Groundwater Analytical Results

Analytical results from the Baseline, Year 2, Year 3 and Year 4 quarterly groundwater sampling events at Site 1140NW are summarized in Tables 2 and 3. Figure 3 provides a graphical representation of detected constituents exceeding GCTLs from the same period as the tables. The FDEP stated site-specific action levels for Site 1140NW are equivalent to the FDEP GCTLs for the COC. Long term trends in COC concentrations for the individual source area wells are shown in Figures 4, 5, and 6.

Currently, groundwater samples from site 1140NW are analyzed for 18 PAH compounds. No exceedances were reported for any of these compounds during this sampling event. The last groundwater exceedance recorded was from source area well MW-03 in October 2005. No PAHs were detected in MW-02. PAHs were detected in the remaining wells, but at concentrations below GCTLs. MW-03 has been the only well at site 1140NW with an exceedance since 2004.

Natural Attenuation Parameter Analysis

Table 4 provides a summary of the field analytical results and a list of the preferred range of natural attenuation parameters necessary for conditions conducive to biodegradation. The concentration of each parameter and concentration changes between monitoring events, with respect to background levels, indicate whether the site is undergoing aerobic degradation by naturally occurring microbes. This geochemical data provides a secondary line of evidence to determine if enhanced natural attenuation is occurring. The first measurements were recorded on September 4, 2002, and were considered baseline values of the parameters because they were recorded prior to the iSOC™ installation. The trends of the natural attenuation parameter measurements and comparison to the baseline values are discussed below.

Alkalinity is the amount of dissolved minerals in groundwater. The interaction between carbon dioxide and ground minerals is the responsible mechanism behind the dissolution of the minerals. One source of the carbon dioxide is bacterial respiration. High alkalinity levels usually indicate that a site has a high buffering capacity and/or is an indication of biotic respiration. Alkalinity levels were in the preferred range of two times background concentration in source area monitoring well MW-09. Since the last event, alkalinity concentrations in all wells have decreased. The highest concentration of 90 mg/L was found in MW-09. Conversely, the lowest concentration of 19 mg/L was found in MW-02.

Carbon dioxide is the daughter product of aerobic and anaerobic biological reactions. Two monitoring wells, MW-09 and MW-13, had concentrations of carbon dioxide in the preferred range of two times background. The remaining wells had carbon dioxide levels similar to the results recorded during baseline sampling. Carbon dioxide concentrations ranged from 18 mg/L in MW-02 to 90 mg/L in MW-08.

The presence of ferrous iron is indicative of a site in the process of bioremediation via anaerobic microbial activity. Concentrations of ferrous iron were in the preferred range (greater than 1 mg/L) in perimeter monitoring well MW-13 and source area monitoring wells MW-08 and MW-09. All sampled wells had increased concentrations of ferrous iron when compared to the previous sampling event. The concentration of ferrous iron detected in the sampled wells ranged from 0.2 mg/L to 2.5 mg/L.

The presence of sulfide (i.e. hydrogen sulfide) is indicative of reductive conditions or anaerobic biodegradation. The highest concentrations of hydrogen sulfide recorded during the April 2006 sampling event were from MW-09 and MW-13. Results of field test kits indicated 1.5 mg/L of

hydrogen sulfide in each well. Hydrogen sulfide was not detected in MW-02. Hydrogen sulfide levels have remained relatively constant in all wells in the study area throughout the study period. DO readings observed in the monitoring wells during the current sampling event are included in Table 4 along with the other natural attenuation parameters. The DO concentrations for all wells decreased slightly since the last sampling event in January 2006. This reduction may in part be attributed to higher groundwater temperatures and the associated loss of dissolved oxygen capacity, or increased oxygen demand from soil microbes. Oxygen concentrations continue to remain below the preferred range of greater than 5 mg/L for all sampled wells.

The pH measurements have remained consistent and are within the preferred range for biodegradation. The groundwater temperature measured in site monitoring wells has increased between 2 and 4 degrees across the site from the previous quarter. The increase in water temperature is attributed to seasonal temperature changes in the area. The temperature of the groundwater is within the range that provides an environment conducive to biodegradation.

When the amount of biologically available ferric iron decreases, sulfate reducing bacteria will begin utilizing petroleum hydrocarbons if sulfate is available. During this process, sulfate levels decrease and sulfide levels increase. Sulfate concentrations have increased in every well except MW-13 since the January 2006 sampling event. The concentration of in sulfate MW-13 dropped slightly. In addition, MW-13 is the only well with lower than baseline amounts of sulfate. The highest concentration of sulfate was 18.10 mg/L detected in perimeter area well MW-02. This concentration is also the highest recorded from MW-02 since monitoring began. The lowest concentration of sulfate was 2.50 mg/L detected well MW-03.

ORP is the measure of the oxidizing or reducing potential of a given groundwater sample. A malfunctioning sensor on one of the YSIs was responsible for the ORP unusually low results recorded in MW-08, MW-09 and MW-13. The sensor on the other YSI was working properly and yielded results of 62.6 mV in MW-02 and -69.4 mV from MW-03. ORP results from both of these wells put them in the desired range of between -100 mV and 50 mV.

Conclusions and Recommendations

Laboratory results from the April 2006 sampling event indicated that PAH concentrations in groundwater at Site 1140NW were less than the Florida GCTLs. Groundwater samples from monitoring wells designated as source area monitoring wells continue to have detected concentrations of PAHs, however all concentrations were less than the Florida GCTLs. This represents the second consecutive quarter of no groundwater exceedances of Florida GCTLs.

At the time of the April 2006 sampling event, the iSOC™ system had been offline for approximately 21 months and only quarterly monitoring operations were completed. The State of Florida requires 1 year of quarterly groundwater monitoring following operation of an active remediation system (Chapter 62-770.690 FAC). That time requirement has been completed. Therefore, as per Chapter 62-770.680, TtNUS recommends site 1140NW for No Further Action Without Institutional Controls.

If you have any questions with regard to this submittal, please contact me by calling (850) 385-9899 or via e-mail at walkerg@ttnus.com.

Sincerely,

Gerald Walker

Gerald Walker, PG
Florida License Number PG-0001180
Task Order Manager

GW/co
Attachments (4)
c: T. Vaught, FDEP
G. Campbell, NAS Pensacola
D. Humbert, TtNUS (cover letter only)
M. Perry/File, TtNUS (unbound copy)
Project File, Tallahassee

TABLES

TABLE 1

GROUNDWATER ELEVATION SUMMARY - SITE 1140NW
APRIL 18, 2006
FOURTH QUARTER, YEAR 3 GROUNDWATER MONITORING LETTER REPORT
OUTLYING LANDING FIELD BRONSON
PENSACOLA, FLORIDA

Well or Piezometer Number	Date	Time	Elevation of Reference Point (feet)*	Total Well Depth (feet BTOC)	Water Level Indicator Reading (feet BTOC)	Thickness of Free Product (feet)	Groundwater Elevation (feet)*
MW-1	4/18/2006	0827	30.00	23.59	7.64	NP	22.36
MW-2	4/18/2006	0838	30.10	13.13	7.76	NP	22.34
MW-3	4/18/2006	0845	29.96	10.76	7.78	NP	22.18
MW-4	4/18/2006	0843	30.03	12.55	7.73	NP	22.30
MW-5	4/18/2006	0841	30.03	12.54	7.65	NP	22.38
MW-6	4/18/2006	0840	30.26	12.66	7.80	NP	22.46
MW-7	4/18/2006		30.02	Not Located	Not Located	NP	Not Located
MW-8	4/18/2006	0834	29.80	12.82	7.61	NP	22.19
MW-9	4/18/2006	0831	29.80	12.99	7.58	NP	22.22
MW-10	4/18/2006		29.86	Not Located	Not Located	NP	Not Located
MW-11	4/18/2006		30.24	Not Accessible	Not Accessible	NP	Not Accessible
MW-12	4/18/2006	0829	30.05	14.75	7.68	NP	22.37
MW-13	4/18/2006	0833	29.73	12.92	7.63	NP	22.10
MW-14	4/18/2006	0836	30.12	12.66	7.82	NP	22.30
MW-15	4/18/2006		29.87	NA	NA	NP	destroyed
MW-16	4/18/2006		30.23	Not Located	Not Located	NP	Not Located

Notes:
* = Elevation based on an arbituary elevation of 30 feet at monitoring well MW-1
BTOC = Below top of casing
NA = Not Available
NP = Not Present

TABLE 2

SUMMARY OF COMPOUNDS DETECTED IN GROUNDWATER - SITE 1140NW
SOURCE AREA MONITORING WELLS
FIRST QUARTER, YEAR 4 GROUNDWATER MONITORING LETTER REPORT
OUTLYING LANDING FIELD BRONSON
PENSACOLA, FLORIDA

Sample Location			MW-03										
Sample No.			OLFB-1140-MW03-01	OLFB-1140-MW03-06	OLFB-1140-MW03-07	OLFB-1140-MW03-08	OLFB-1140-MW03-07*	OLFB-1140-MW03-10	OLFB-1140-MW03-10**	.FB-1140-MW03-12/13	OLFB-1140-MW03-14	OLFB-1140-MW03-15	OLFB-1140-MW03-16
Event			Baseline	Year 2, Quarter 1	Year 2, Quarter 2	Year 2, Quarter 3	Year 2, Quarter 4	Year 3, Quarter 1	Year 3, Quarter 2	Year 3, Quarter 3	Year 3, Quarter 4	Year 4, Quarter 1	Year 4, Quarter 2
Collect Date			9/4/2002	11/17/2003	3/9/2004	6/7/2004	9/1/2004	12/1/2004	3/1/2005	6/8/2005 / 9/07/2005	10/25/2005	1/26/2006	4/18/2006
	FDEP Action Level[1] (µg/L)	GCTL[2] (µg/L)											
Polynuclear Aromatic Hydrocarbons[3] (µg/L)													
1-Methylnaphthalene	280	**28**	**160**	**53**	**40**	**23**	**31[J] (43)[J]**	**28**	12	**21 / 27**	**36**	24	19
2-Methylnaphthalene	280	**28**	**72**	**21**	7.3	8.4	19 (**24**)	2	<0.2	3.9 / 10	13	14	12
Acenaphthene	2100	210	4.2[J]	3[J]	2.8	2.7	1.4[J] (2.4[J])	2	1.9	1.5 / 1.6	3.0	1.8	1.8
Anthracene	21000	2100	<1.0	<1.9	<0.079	0.24	0.12[J](0.18[J])	<0.08	0.11[J]	.11[J] / .15[J]	0.2[J]	0.52 U	0.051 U
Benzo(a)pyrene	20	0.2	<1.0	<2.2	<0.089	<0.09	<0.2(<0.2)	<0.08	<0.2	<0.030 / <0.030	<0.08	0.21 U	0.051 U
Fluoranthene	2800	280	10	<2.6	<0.11	<0.11	<0.2(<0.2)	0.1	<0.2	<0.039 / 0.039	<0.07	0.52 U	0.051 U
Fluorene	2800	280	9.2[J]	4.9	3.2	3.8	2.7[J] (4.1[J])	4	3.1	2.6 / 3.3	4	3.1	3.2
Naphthalene	140	**14**	**21**	6.3	5.8	3.4	3.4[J] (4.7[J])	6	0.37	1.0 / 2.0	4	2.1	2.2
Phenanthrene	2100	210	4.7[J]	2.4[J]	1.6	1.9 [J]	1.3 [J] (2.1[J])	2	1.4	0.93 / 1.4	2	1.3	1.4
Natural Attenuation Parameters[4] (mg/L)													
Sulfate	NC	NC	1.3	12.0	8.4	6.1	3.0 (3.2)	86	14	12	5.5	1.49	2.50
Total Organic Carbon	NC	NC	9.3	3.6	5	2.5	3.1 (2.91)	5.0	3.46	4.53	3.3	4.08	3.36

[1] FDEP Action Levels for Source Area Monitoring Wells from Natural Attenuation Default Criteria, Chapter 62-770, F.A.C.
[2] Groundwater Cleanup Target Levels from Chapter 62-777, F.A.C.
[3] SW-846 8310
[4] Sulfate (USEPA 375.4); Total Organic Carbon (USEPA 415.1)

Notes:
Bold indicates an exceedance of regulatory limits. **Bold** indicates which regulatory limit has been exceeded.
***** Sample labeled incorrectly in the field. Correct ID should be OLFB-1140-MW03-09 indicating the ninth sampling event of the study.
****** Sample labeled incorrectly in the field. Correct ID should be OLFB-1140-MW03-11 indicating the eleventh sampling event of the study.
******* Denotes confirmatory sample taken on 9/07/2005
Results in parentheses are from field duplicate sample OLFB-1140-DU01-07 (Correct ID should be OLFB-1140-DU01-09)
µg/L = micrograms per liter
[J] Indicates the presence of a chemical at an estimated concentration.
ND = not detected above regulatory criteria
mg/L = milligrams per liter
NC = no criteria, parameter measured for natural attenuation monitoring
F.A.C. = Florida Administrative Code
USEPA = United States Environmental Protection Agency

TABLE 2

SUMMARY OF COMPOUNDS DETECTED IN GROUNDWATER - SITE 1140NW
SOURCE AREA MONITORING WELLS
FIRST QUARTER, YEAR 4 GROUNDWATER MONITORING LETTER REPORT
OUTLYING LANDING FIELD BRONSONPENSACOLA, FLORIDA
PENSACOLA, FLORIDA

Sample Location			MW-08										
Sample No.			OLFB-1140-MW08-01	OLFB-1140-MW08-06	OLFB-1140-MW08-07	OLFB-1140-MW08-08	OLFB-1140-MW08-07*	OLFB-1140-MW08-10	OLFB-1140-MW08-10**	OLFB-1140-MW08-12	OLFB-1140-MW08-13	OLFB-1140-MW08-14	OLFB-1140-MW08-15
Event			Baseline	Year 2, Quarter 1	Year 2, Quarter 2	Year 2, Quarter 3	Year 2, Quarter 4	Year 3, Quarter 1	Year 3, Quarter 2	Year 3, Quarter 3	Year 3, Quarter 4	Year 4, Quarter 1	Year 4, Quarter 2
Collect Date			9/4/2002	11/17/2003	3/9/2004	6/7/2004	9/1/2004	12/1/2004	3/2/2005	6/8/2005	10/25/2005	1/26/2006	4/18/2006
	FDEP Action Level[1] (µg/L)	GCTL[2] (µg/L)											
Polynuclear Aromatic Hydrocarbons[3] (µg/L)													
1-Methylnaphthalene	280	**28**	1.7[J]	0.59	**26**	<.082	0.11[J]	<0.08	<0.2	<0.024	1	6.4	22
2-Methylnaphthalene	280	**28**	2.3	0.65	**35**	<.082	0.1[J]	<0.08	<0.2	<0.031	0.8	5.4	24
Acenaphthene	2100	210	3.8	1.0	1.4	1.6	0.58	0.4	0.34	0.46	0.7	0.89 J	1.5
Anthracene	21000	2100	0.48[J]	<0.076	<0.076	0.88[J]	0.065[J]	<0.08	<0.2	<0.050	<0.07	0.54 U	0.51 U
Benzo(a)pyrene	20	0.2	<0.1	0.11[J]	<0.086	<0.093	<0.2	<0.08	<0.2	<0.030	<0.08	0.22 U	0.51 U
Fluoranthene	2800	280	<0.1	<0.10	<1.0	<0.11	<0.2	<0.1	<0.2	<0.039	<0.07	0.54 U	0.51 U
Fluorene	2800	280	1.9	1.4	2	2.2	0.85	0.6	0.61	0.81	0.8	1.4	2.4
Naphthalene	140	**14**	<2.0	1.0	16	0.2J	<0.2	<0.05	<0.2	<0.034	0.5	3.4	9.6
Phenanthrene	2100	210	<1.0	<.076	0.35	0.23	<0.2	<0.08	<0.2	<0.041	0.1[J]	0.54	0.32
Natural Attenuation Parameters[4] (mg/L)													
Sulfate	NC	NC	5.64	7.8	8.8	5.0	6.1	24	25	20	5.6	3.47	6.24
Total Organic Carbon	NC	NC	8.2	6.5	6.5	6.0	3.74	5.6	1.88 [J]	5.41	8.6	6.58	9.93

[1] FDEP Action Levels for Source Area Monitoring Wells from Natural Attenuation Default Criteria, Chapter 62-770, F.A.C.
[2] Groundwater Cleanup Target Levels from Chapter 62-777, F.A.C.
[3] SW-846 8310
[4] Sulfate (USEPA 375.4); Total Organic Carbon (USEPA 415.1)

Notes:
Bold indicates an exceedance of regulatory limits. **Bold** indicates which regulatory limit has been exceeded.
* Sample labeled incorrectly in the field. Correct ID should be OLFB-1140-MW08-09 indicating the ninth sampling event of the study.
** Sample labeled incorrectly in the field. Correct ID should be OLFB-1140-MW08-11 indicating the eleventh sampling event of the study.
µg/L = micrograms per liter
[J] Indicates the presence of a chemical at an estimated concentration.
ND = not detected above regulatory criteria
mg/L = milligrams per liter
NC = no criteria, parameter measured for natural attenuation monitoring
F.A.C. = Florida Administrative Code
USEPA = United States Environmental Protection Agency

TABLE 2

SUMMARY OF COMPOUNDS DETECTED IN GROUNDWATER - SITE 1140NW
SOURCE AREA MONITORING WELLS
FIRST QUARTER, YEAR 4 GROUNDWATER MONITORING LETTER REPORT
OUTLYING LANDING FIELD BRONSON
PENSACOLA, FLORIDA

Sample Location			MW-09										
Sample No.			OLFB-1140-MW09-01	OLFB-1140-MW09-06	OLFB-1140-MW09-07	OLFB-1140-MW09-08	OLFB-1140-MW09-07*	OLFB-1140-MW09-10	OLFB-1140-MW09-10**	OLFB-1140-MW09-12	OLFB-1140-MW09-13	OLFB-1140-MW09-14	OLFB-1140-MW09-15
Event			Baseline	Year 2, Quarter 1	Year 2, Quarter 2	Year 2, Quarter 3	Year 2, Quarter 4	Year 3, Quarter 1	Year 3, Quarter 2	Year 3, Quarter 3	Year 3, Quarter 4	Year 4, Quarter 1	Year 4, Quarter 2
Collect Date			9/4/2003	11/17/2003	3/9/2004	6/7/2004	9/1/2004	12/1/2004	3/2/2005	6/8/2005	10/25/2005	1/26/2006	4/18/2006
	FDEP Action Level[1] (µg/L)	GCTL[2] (µg/L)											
Polynuclear Aromatic Hydrocarbons[3] (µg/L)													
1-Methylnaphthalene	280	**28**	**35**	13	7.9	1.4[J]	1.3	<0.08	0.25	0.69	11	9.6	8.7
2-Methylnaphthalene	280	**28**	**52**	**33**	**22**	16	1.5	<0.08	<0.2	<.031	4	4.1	3.2
Acenaphthene	2100	210	8.1	1.7[J]	1.1	1.0[J]	0.71	0.6	0.90	0.72	2	1.4	1.2
Anthracene	21000	2100	<5.0	<1.5	<.077	<0.082	0.057[J]	<0.08	0.089[J]	<0.050	<0.07	0.53 U	0.054 U
Benzo(a)pyrene	20	0.2	<0.5	<1.7	<0.086	<0.093	<0.2	<0.09	<0.2	<0.030	<0.08	0.21 U	0.054 U
Fluoranthene	2800	280	<0.5	<2.1	<0.1	<0.11	<0.2	<0.1	<0.2	<0.039	<0.07	0.53 U	0.054 U
Fluorene	2800	280	1.9[J]	1.2[J]	1.2	1.4[J]	1.4	0.8	1.4	1.1	2	2.4	2.2
Naphthalene	140	**14**	**46**	12	4.4	4.7	2.8	<0.05	<0.2	0.27	4	4.4	0.83
Phenanthrene	2100	210	0.55[J]	<1.5	0.38	<0.082	0.52	0.1[J]	0.26	<0.041	<0.08	0.53 U	0.054 U
Natural Attenuation Parameters[4] (mg/L)													
Sulfate	NC	NC	3.6	4.1	4.5	4.6	5.2	46	40.0	20.0	5.1	8.69	10.70
Total Organic Carbon	NC	NC	7.9	7.8	5.3	4.2	4.84	3.4	2.27	5.56	8.5	12.2	4.85

[1] FDEP Action Levels for Source Area Monitoring Wells from Natural Attenuation Default Criteria, Chapter 62-770, F.A.C.
[2] Groundwater Cleanup Target Levels from Chapter 62-777, F.A.C.
[3] SW-846 8310
[4] Sulfate (USEPA 375.4); Total Organic Carbon (USEPA 415.1)
Notes:
Bold indicates an exceedance of regulatory limits. **Bold** indicates which regulatory limit has been exceeded.
* Sample labeled incorrectly in the field. Correct ID should be OLFB-1140-MW09-09 indicating the ninth sampling event of the study.
** Sample labeled incorrectly in the field. Correct ID should be OLFB-1140-MW09-11 indicating the eleventh sampling event of the study.
µg/L = micrograms per liter
[J] Indicates the presence of a chemical at an estimated concentration.
ND = not detected above regulatory criteria
mg/L = milligrams per liter
NC = no criteria, parameter measured for natural attenuation monitoring
F.A.C. = Florida Administrative Code
USEPA = United States Environmental Protection Agency
An equipment blank was collected and analyzed for the same analytes; no analytes were detected above instrument detection limits.

TABLE 3

SUMMARY OF COMPOUNDS DETECTED IN GROUNDWATER - SITE 1140 NW
PERIMETER AREA MONITORING WELLS/DUPLICATES
FIRST QUARTER, YEAR 4 GROUNDWATER MONITORING LETTER REPORT
OUTLYING LANDING FIELD BRONSON
PENSACOLA, FLORIDA
PAGE 1 OF 3

Sample Location			MW-02										
Sample No.			OLFB-1140-MW02-01	OLFB-1140-MW02-06	OLFB-1140-MW02-07	OLFB-1140-MW02-08	OLFB-1140-MW02-07*	OLFB-1140-MW02-10	OLFB-1140-MW02-10**	OLFB-1140-MW02-12	OLFB-1140-MW02-13	OLFB-1140-MW02-14	OLFB-1140-MW02-15
Event			Baseline	Year 2, Quarter 1	Year 2, Quarter 2	Year 2, Quarter 3	Year 2, Quarter 4	Year 3, Quarter 1	Year 3, Quarter 2	Year 3, Quarter 3	Year 3, Quarter 4	Year 4, Quarter 1	Year 4, Quarter 2
Collect Date			9/4/2002	11/17/2003	3/9/2004	6/7/2004	9/1/2004	12/1/2004	3/2/2005	6/8/2005	10/25/2005	1/26/2006	4/18/2006
	FDEP Action Level[1] (µg/L)	GCTL[2] (µg/L)											
Polynuclear Aromatic Hydrocarbons[3] (µg/L)													
1-Methylnaphthalene	280	28	<2.0	<0.077	<0.078	<0.077	<0.2	<0.08	<0.2	<0.024	<0.09	1 U	0.051 U
2-Methylnaphthalene	280	28	<2.0	<0.077	0.079[J]	<0.077	<0.2	<0.08	<0.2	<0.031	<0.06	1 U	0.051 U
Acenaphthene	2100	210	<1.0	<0.077	<0.078	<0.077	<0.2	<0.08	<0.2	<0.087	<0.08	1 U	0.051 U
Anthracene	21000	2100	<1.0	<0.077	<0.078	<0.077	<0.2	<0.08	<0.2	<0.050	<0.07	0.51 U	0.051 U
Fluorene	2800	280	<1.0	<0.058	<0.059	<0.058	<0.2	<0.06	<0.2	<0.024	<0.06	0.51 U	0.051 U
Naphthalene	140	14	<2.0	<0.048	<0.049	<0.048	<0.2	<0.05	<0.2	<0.034	<0.05	1 U	0.051 U
Phenanthrene	2100	210	<1.0	<0.077	<0.078	<0.077	<0.2	<0.08	<0.2	<0.041	<0.08	0.51 U	0.051 U
Natural Attenuation Parameters[4] (mg/L)													
Sulfate	NC	NC	8.2	8.6	7.2	5.2	5.5	7.5	12.0	7.6	4.8	6.84	18.10
Total Organic Carbon	NC	NC	1.1	0.64	0.72[J]	0.62[J]	1.04	0.73[J]	<2.0	1.41[J]	0.45[J]	5 U	0.542

[1] FDEP Action Levels for Source Area Monitoring Wells from Natural Attenuation Default Criteria, Chapter 62-770, F.A.C.
[2] Groundwater Cleanup Target Levels from Chapter 62-777, F.A.C.
[3] SW-846 8310
[4] Sulfate (USEPA 375.4); Total Organic Carbon (USEPA 415.1)

Notes:
***** Sample labeled incorrectly in the field. Correct ID should be OLFB-1140-MW02-09.
****** Sample labeled incorrectly in the field. Correct ID should be OLFB-1140-MW02-11.
µg/L = micrograms per liter
[J] Indicates the presence of a chemical at an estimated concentration.
ND = not detected above instrument detection limits.
mg/L = milligrams per liter
NC = no criteria
F.A.C. = Florida Administrative Code
USEPA = United States Environmental Protection Agency

TABLE 3

SUMMARY OF COMPOUNDS DETECTED IN GROUNDWATER - SITE 1140 NW
PERIMETER AREA MONITORING WELLS/DUPLICATES
FIRST QUARTER, YEAR 4 GROUNDWATER MONITORING LETTER REPORT
OUTLYING LANDING FIELD BRONSON
PENSACOLA, FLORIDA

Sample Location			MW-13										
Sample No.			OLFB-1140-MW13-01	OLFB-1140-MW13-06	OLFB-1140-MW13-07	OLFB-1140-MW13-08	OLFB-1140-MW13-07*	OLFB-1140-MW13-10	OLFB-1140-MW13-10**	OLFB-1140-MW13-12	OLFB-1140-MW13-13	OLFB-1140-MW13-14	OLFB-1140-MW13-14
Event			Baseline	Year 2, Quarter 1	Year 2, Quarter 2	Year 2, Quarter 3	Year 2, Quarter 4	Year 3, Quarter 1	Year 3, Quarter 2	Year 3, Quarter 3	Year 3, Quarter 4	Year 4, Quarter 1	Year 4, Quarter 2
Collect Date			9/4/2002	11/17/2003	3/9/2004	6/7/2004	9/1/2004	12/1/2004	3/2/2005	6/8/2005	10/25/2005	1/26/2006	4/18/2006
	FDEP Action Level[1] (µg/L)	GCTL[2] (µg/L)											
Polynuclear Aromatic Hydrocarbons[3] (µg/L)													
1-Methylnaphthalene	280	28	<2.0	0.17[J]	16	15	<.2	<0.08	<0.2	3.9	<0.10	1.2	12
2-Methylnaphthalene	280	28	0.83[J]	0.16[J]	19	15	<.2	<0.08	<0.2	<0.031	<0.06	0.5 J	9
Acenaphthene	2100	210	7.8	1.3	1.2	1.6[J]	0.68	0.6	0.39	0.78	0.2	0.35 J	0.96
Anthracene	21000	2100	0.19[J]	<0.076	<0.078	0.085[J]	0.06[J]	<0.08	<0.2	<0.050	<0.07	0.51 U	0.052 U
Fluorene	2800	280	0.95[J]	1.4	1.8	2.1	1.6	1.0	0.6	1.1	0.5	0.47 J	1.2
Naphthalene	140	14	<2.0	0.24	13	8.4	<.2	<0.05	<0.2	0.21	<0.05	0.7 J	9.4
Phenanthrene	2100	210	0.37[J]	<0.076	<0.078	0.14[J]	0.061[J]	<0.08	<0.2	<0.041	<0.08	0.51 U	0.052 U
Natural Attenuation Parameters[4] (mg/L)													
Sulfate	NC	NC	6.41	9.0	3.8	1.6	6.6	29	33	32.0	5.1	2.87	2.64
Total Organic Carbon	NC	NC	4.6	5.3	7.2	7.8	3.96	3.2	1.83[J]	4.62	5	5.43	4.78

[1] FDEP Action Levels for Source Area Monitoring Wells from Natural Attenuation Default Criteria, Chapter 62-770, F.A.C.
[2] Groundwater Cleanup Target Levels from Chapter 62-777, F.A.C.
[3] SW-846 8310
[4] Sulfate (USEPA 375.4); Total Organic Carbon (USEPA 415.1)

Notes:
***** Sample labeled incorrectly in the field. Correct ID should be OLFB-1140-MW13-09.
****** Sample labeled incorrectly in the field. Correct ID should be OLFB-1140-MW13-11.
µg/L = micrograms per liter
[J] Indicates the presence of a chemical at an estimated concentration.
ND = not detected above instrument detection limits.
mg/L = milligrams per liter
NC = no criteria
F.A.C. = Florida Administrative Code
USEPA = United States Environmental Protection Agency

TABLE 3

SUMMARY OF COMPOUNDS DETECTED IN GROUNDWATER - SITE 1140 NW
PERIMETER AREA MONITORING WELLS/DUPLICATES
FIRST QUARTER, YEAR 4 GROUNDWATER MONITORING LETTER REPORT
OUTLYING LANDING FIELD BRONSON PENSACOLA, FLORIDA
PENSACOLA, FLORIDA
PAGE 3 OF 3

Sample Location			Duplicate Sample										
Sample No.			OLFB-1140-DUP01-01	OLFB-1140-DUP01-06	OLFB-1140-DUP01-07	OLFB-1140-DUP01-08	OLFB-1140-MW13-07*	OLFB-1140-DUP01-10	OLFB-1140-DU01-10**	OLFB-1140-MW08-12	OLFB-1140-MW03-14D	OLFB-1140-MW03-15D	OLFB-1140-MW03-16D
Duplicate of Sample			MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-3	MW-8	MW-3	MW-3	MW-3
Event			Baseline	Year 2, Quarter 1	Year 2, Quarter 2	Year 2, Quarter 3	Year 2, Quarter 4	Year 3, Quarter 1	Year 3, Quarter 2	Year 3, Quarter 3	Year 3, Quarter 4	Year 4, Quarter 1	Year 4, Quarter 2
Collect Date			9/4/2002	11/17/2003	3/9/2004	6/7/2004	9/1/2004	12/1/2004	3/1/2005	6/8/2005	10/25/2005	1/26/2006	4/18/2006
	FDEP Action Level[1] (µg/L)	GCTL[2] (µg/L)											
Polynuclear Aromatic Hydrocarbons[3] (µg/L)													
1-Methylnaphthalene	280	28	<2.0	0.17[J]	16	15	<.2	<0.08	12	<0.024	**44**	22	20
2-Methylnaphthalene	280	28	0.83[J]	0.16[J]	19	15	<.2	<0.08	<0.2	<0.031	16	12	13
Acenaphthene	2100	210	7.8	1.3	1.2	1.6[J]	0.68	0.6	1.5	0.43	4	1.8	2
Anthracene	21000	2100	0.19[J]	<0.076	<0.078	0.085[J]	0.06[J]	<0.08	0.089[J]	<0.050	0.2	0.5 U	0.051 U
Fluorene	2800	280	0.95[J]	1.4	1.8	2.1	1.6	1.0	<0.2	0.74	4	3.1	3.5
Naphthalene	140	14	<2.0	0.24	13	8.4	<0.2	<0.05	0.33	<0.034	4	2	2.7
Phenanthrene	2100	210	0.37[J]	<0.076	<0.078	0.14[J]	0.061[J]	<0.08	1.3	<0.041	2	1.3	1.5
Natural Attenuation Parameters[4] (mg/L)													
Sulfate	NC	NC	6.41	9.0	3.8	1.6	6.6	29	14.0	20.0	5.4	1.53	2.38
Total Organic Carbon	NC	NC	4.6	5.3	7.2	7.8	3.96	3.2	2.87	7.48	3.3	4.08	3.37

[1] FDEP Action Levels for Source Area Monitoring Wells from Natural Attenuation Default Criteria, Chapter 62-770, F.A.C.
[2] Groundwater Cleanup Target Levels from Chapter 62-777, F.A.C.
[3] SW-846 8310
[4] Sulfate (USEPA 375.4); Total Organic Carbon (USEPA 415.1)

Notes:
***** Sample labeled incorrectly in the field. Correct ID should be OLFB-1140-MW13-09.
****** Sample labeled incorrectly in the field. Correct ID should be OLFB-1140-MW13-11.
µg/L = micrograms per liter
[J] Indicates the presence of a chemical at an estimated concentration.
NA = duplicate was not detected.
ND = not detected above instrument detection limits.
mg/L = milligrams per liter
NC = no criteria
F.A.C. = Florida Administrative Code
USEPA = United States Environmental Protection Agency
An equipment blank was collected an analyzed for the same analytes; no analytes were detected above instrument detection limits.

TABLE 4

SUMMARY OF NATURAL ATTENUATION PARAMETERS IN GROUNDWATER - SITE 1140 NW
SECOND QUARTER, YEAR 4 GROUNDWATER MONITORING LETTER REPORT
OUTLYING LANDING FIELD BRONSON
PENSACOLA, FLORIDA

Sample Location			MW-02									
Sample No.			OLFB-1140-MW02-01	OLFB-1140-MW02-07	OLFB-1140-MW02-08	OLFB-1140-MW02-09	OLFB-1140-MW02-10	OLFB-1140-MW02-11	OLFB-1140-MW02-12	OLFB-1140-MW02-13	OLFB-1140-MW02-14	OLFB-1140-MW02-15
Event			Baseline	Year 2, Quarter 2	Year 2, Quarter 3	Year 2, Quarter 4	Year 3, Quarter 1	Year 3, Quarter 2	Year 3, Quarter 3	Year 3, Quarter 4	Year 4, Quarter 1	Year 4, Quarter 2
Collect Date			9/4/2002	3/9/2004	6/7/2004	9/1/2004	12/1/2004	3/1/2005	6/7/2005	10/25/2005	1/26/2006	4/18/2006
	Preferred Range	Units										
Field Natural Attenuation Parameters												
Alkalinity	> 2X	mg/L	30	20.0	20.0	40	20	16	33	12	21	19
Carbon Dioxide	> 2X	mg/L	23	13.0	20.0	>2500	25	<10.0	22	24	11	18
Ferrous Iron	> 1 mg/L	mg/L	0.2	0.06	0.75	0.24	1.27	0.0	0.0	0.0	0.05	0.20
Hydrogen Sulfide	NA	mg/L	ND	ND	ND	0	0.1	0.0	NM	0.0	0.0	0.0
Sulfide	NA	mg/L	NM	0.06	0.02	NM	0.04	0.02	0	NM	NM	NM
Dissolved Oxygen (CHEMetrics)	> 5 mg/L	mg/L	NM	3.0	3.0	1.0	1.0	4.0	1.5	0.9	1.5	1.5
Dissolved Oxygen (YSI®)	> 5 mg/L	mg/L	0.79	18%	16.2%	1.04	0.83	1.86	1.04	0.96	1.25	0.92
pH	5 < pH < 9	standard units	5.87	6.50	5.84	5.92	5.98	6.20	6.01	6.35	6.11	5.94
Temperature	> 20 ºC	ºC	28.37	20.44	24.81	28.44	24.76	21.06	25.39	27.49	21.64	23.42
Sulfate	NC	NC	8.2	7.2	5.2	5.5	7.5	12.0	7.6	4.8	6.84	18.10
Oxidation Reduction Potential	<50 mV or <-100 mV	mV	+ 79	-35.6	151	184.9	-97.4	88.5	10.1	39.6	-17.6	62.6
Total Organic Carbon	NC	NC	1.1	0.72[J]	0.62[J]	1.04	0.73[J]	<2.0	1.41[J]	0.45[J]	5 U	0.542
Specific Conductivity	NA	mS / cm	0.109	0.139	0.095	0.083	0.154	0.216	0.097	0.399	0.257	0.272

Notes:

2X = two times background concentration
mg/L = milligrams per liter
NA = not applicable
ND = not detected
NM = not measured
mS/cm = millisiemen per centimeter
mV = millivolts
ºC = degrees Celsius
NC = no criteria
J = estimated concentration

TABLE 4

SUMMARY OF NATURAL ATTENUATION PARAMETERS IN GROUNDWATER - SITE 1140 NW
SECOND QUARTER, YEAR 4 GROUNDWATER MONITORING LETTER REPORT
OUTLYING LANDING FIELD BRONSON
PENSACOLA, FLORIDA

Sample Location			MW-03									
Sample No.			OLFB-1140-MW03-01	OLFB-1140-MW03-07	OLFB-1140-MW03-08	OLFB-1140-MW03-09	OLFB-1140-MW03-10	OLFB-1140-MW03-11	OLFB-1140-MW03-12	OLFB-1140-MW03-13	OLFB-1140-MW03-14	OLFB-1140-MW03-15
Event			Baseline	Year 2, Quarter 2	Year 2, Quarter 3	Year 2, Quarter 4	Year 3, Quarter 1	Year 3, Quarter 2	Year 3, Quarter 3	Year 3, Quarter 4	Year 4, Quarter 1	Year 4, Quarter 2
Collect Date			9/4/2002	3/9/2004	6/7/2004	9/1/2004	12/1/2004	3/1/2005	6/7/2005	10/25/2005	1/26/2006	4/18/2006
	Preferred Range	Units										
Field Natural Attenuation Parameters												
Alkalinity	> 2X	mg/L	90	40	25	25	25	34	46	16	70	60
Carbon Dioxide	> 2X	mg/L	40	14	35	20	28	15	22	20	22	35
Ferrous Iron	> 1 mg/L	mg/L	1.6	0.88	0.88	0.29	1.5	0.43	0.7	0.6	0.5	0.7
Hydrogen Sulfide	NA	mg/L	5	0.30	0.30	0.1	75	5	NM	2.0	4.5	0.5
Sulfide	NA	mg/L	NM	0.61	0.25	0.37	0.8	0.8	0.46	NM	NM	NM
Dissolved Oxygen (CHEMetrics)	> 5 mg/L	mg/L	NM	1.0	0.8	1.0	1.0	2.0	0.3	0.35	1.0	0.9
Dissolved Oxygen (YSI®)	> 5 mg/L	mg/L	0.22	3.4%	6.3%	0.14	0.3	0.62	0.18	0.13	1.77	0.27
pH	5 < pH < 9	standard units	6.13	6.29	5.93	6.06	6.05	6.45	6.35	6.54	6.35	6.14
Temperature	> 20 ºC	ºC	28.70	19.65	24.50	27.66	24.08	20.22	24.92	27.46	20.90	22.76
Sulfate	NC	NC	1.3	8.4	6.1	3.0 (3.2)	86	14	12	5.5	1.49	2.50
Oxidation Reduction Potential	<50 mV or <-100 mV	mV	- 54	-55.6	31	-91	-219.7	-94.5	-153.9	-131.3	-114.9	-69.4
Total Organic Carbon	NC	NC	9.3	5	2.5	3.1 (2.91)	5.0	3.46	4.53	3.3	4.08	3.36
Specific Conductivity	NA	mS / cm	0.181	0.211	0.132	0.86	3.091	0.880	0.138	0.243	0.161	0.144

Notes:

2X = two times background concentration
mg/L = milligrams per liter
NA = not applicable
ND = not detected
NM = not measured
mS/cm = millisiemen per centimeter
mV = millivolts
ºC = degrees Celsius
NC = no criteria
J = estimated concentration

TABLE 4

SUMMARY OF NATURAL ATTENUATION PARAMETERS IN GROUNDWATER - SITE 1140 NW
SECOND QUARTER, YEAR 4 GROUNDWATER MONITORING LETTER REPORT
OUTLYING LANDING FIELD BRONSON PENSACOLA, FLORIDA
PENSACOLA, FLORIDA

Sample Location			MW-08									
Sample No.			OLFB-1140-MW08-01	OLFB-1140-MW08-07	OLFB-1140-MW08-08	OLFB-1140-MW08-09	OLFB-1140-MW08-10	OLFB-1140-MW08-11	OLFB-1140-MW08-12	OLFB-1140-MW08-13	OLFB-1140-MW08-13	OLFB-1140-MW08-14
Event			Baseline	Year 2, Quarter 2	Year 2, Quarter 3	Year 2, Quarter 4	Year 3, Quarter 1	Year 3, Quarter 2	Year 3, Quarter 3	Year 3, Quarter 4	Year 4, Quarter 1	Year 4, Quarter 2
Collect Date			9/4/2002	3/9/2004	6/7/2004	9/1/2004	12/1/2004	3/1/2005	6/7/2005	10/25/2005	1/26/2006	4/18/2006
	Preferred Range	Units										
Field Natural Attenuation Parameters												
Alkalinity	> 2X	mg/L	42	25	23	25	1	23	42	60	120	80
Carbon Dioxide	> 2X	mg/L	50	14	45	20	25	22	28	<100	80	90
Ferrous Iron	> 1 mg/L	mg/L	1.8	1.23	2.43	0.64	1.21	2.93	1.67	2.2	0.8	2.1
Hydrogen Sulfide	NA	mg/L	5.0	0.30	1.00	0.3	0.3	0.0	NM	0.3	0.0	0.8
Sulfide	NA	mg/L	NM	0.46	0.13	0.13	0.7	0.03	0.13	NM	NM	NM
Dissolved Oxygen (CHEMetrics)	> 5 mg/L	mg/L	NM	1.5	1.0	1.0	1.0	2.5	0.35	0.3	1.0	1.0
Dissolved Oxygen (YSI®)	> 5 mg/L	mg/L	0.13	0.29	2.13	0.2	6.7	0.32	0.36	0.20	0.95	0.34
pH	5 < pH < 9	standard units	6.06	6.0	5.91	6.01	5.98	6.16	6.11	6.38	6.64	5.87
Temperature	> 20 ºC	ºC	28.92	20.63	26.03	28.7	23.85	21.55	24.95	27.25	21.10	23.70
Sulfate	NC	NC	5.64	8.8	5.0	6.1	24	25	20	5.6	3.47	6.24
Oxidation Reduction Potential	<50 mV or <-100 mV	mV	- 23.2	-149.4	99.4	-53.7	-99.5	-89.4	-88	-125.4	-56.6	-159.8
Total Organic Carbon	NC	NC	8.2	6.5	6.0	3.74	5.6	1.88 J	5.41	8.6	6.58	9.93
Specific Conductivity	NA	mS / cm	0.158	0.169	0.138	0.098	0.694	0.71	0.355	0.257	0.177	0.180

Notes:
- 2X = two times background concentration
- mg/L = milligrams per liter
- NA = not applicable
- NM = not measured
- mS/cm = millisiemen per centimeter
- mV = millivolts
- ºC = degrees Celsius
- NC = no criteria
- J = estimated concentration

TABLE 4

SUMMARY OF NATURAL ATTENUATION PARAMETERS IN GROUNDWATER - SITE 1140 NW
SECOND QUARTER, YEAR 4 GROUNDWATER MONITORING LETTER REPORT
OUTLYING LANDING FIELD BRONSON
PENSACOLA, FLORIDA

Sample Location			MW-09									
Sample No.			OLFB-1140-MW09-01	OLFB-1140-MW09-07	OLFB-1140-MW09-08	OLFB-1140-MW09-09	OLFB-1140-MW09-10	OLFB-1140-MW09-11	OLFB-1140-MW09-12	OLFB-1140-MW09-13	OLFB-1140-MW09-14	OLFB-1140-MW09-15
Event			Baseline	Year 2, Quarter 2	Year 2, Quarter 3	Year 2, Quarter 4	Year 3, Quarter 1	Year 3, Quarter 2	Year 3, Quarter 3	Year 3, Quarter 4	Year 4, Quarter 1	Year 4, Quarter 2
Collect Date			9/4/2002	3/9/2004	6/7/2004	9/1/2004	12/1/2004	3/1/2005	6/7/2005	10/25/2005	1/26/2006	1/26/2006
	Preferred Range	Units										
Field Natural Attenuation Parameters												
Alkalinity	> 2X	mg/L	24	40	42	20	35	35	45	60	140	90
Carbon Dioxide	> 2X	mg/L	30	16	35	20	29	24	34	<100	130	60
Ferrous Iron	> 1 mg/L	mg/L	1.4	0.9	0.01	1	1.66	2.71	0.64	0.6	0.1	2.2
Hydrogen Sulfide	NA	mg/L	1.0	0.50	0.30	0.3	4	0.2	NM	1.5	0.0	1.5
Sulfide	NA	mg/L	NM	0.35	0.01	0.33	0.32	0.09	0.16	NM	NM	NM
Dissolved Oxygen (CHEMetrics)	> 5 mg/L	mg/L	NM	2.0	2.0	1.0	1.0	1.0	0.9	0.2	1.1	1.0
Dissolved Oxygen (YSI®)	> 5 mg/L	mg/L	0.30	0.37	8.20%	0.19	0.47	0.46	0.72	0.12	0.63	0.40
pH	5 < pH < 9	standard units	5.81	6.14	6.10	5.96	6.22	6.19	6.27	6.48	6.47	5.77
Temperature	> 20 ºC	ºC	29.09	20.85	25.82	28.63	24.08	21.62	25.18	27.48	20.01	24.06
Sulfate	NC	NC	3.6	4.5	4.6	5.2	46	40.0	20.0	5.1	8.69	10.70
Oxidation Reduction Potential	<50 mV or <-100 mV	mV	- 2.5	-172.4	-60	-88	-153.3	5.4	-111.8	-112.2	-50.2	-404.5
Total Organic Carbon	NC	NC	7.9	5.3	4.2	4.84	3.4	2.27	5.56	8.5	12.2	4.85
Specific Conductivity	NA	mS / cm	0.124	0.186	0.131	0.107	1.473	1.20	0.38	0.350	0.243	0.205

Notes:
- 2X = two times background concentration
- mg/L = milligrams per liter
- NA = not applicable
- NM = not measured
- mS/cm = millisiemen per centimeter
- mV = millivolts
- ºC = degrees Celsius
- NC = no criteria
- J = estimated concentration

TABLE 4

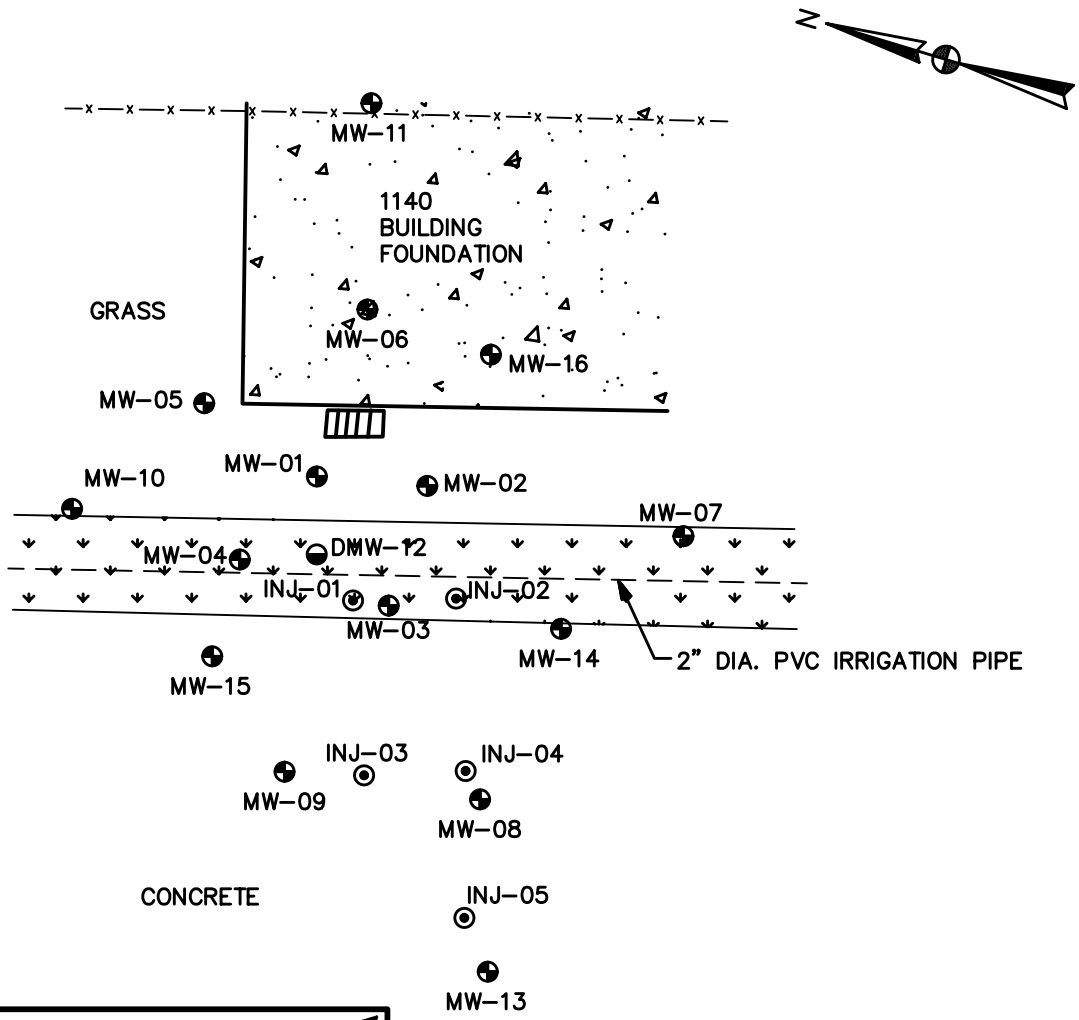
SUMMARY OF NATURAL ATTENUATION PARAMETERS IN GROUNDWATER - SITE 1140 NW
SECOND QUARTER, YEAR 4 GROUNDWATER MONITORING LETTER REPORT
OUTLYING LANDING FIELD BRONSON
PENSACOLA, FLORIDA

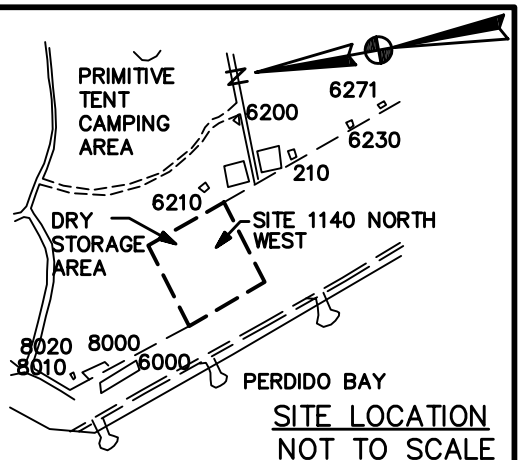
Sample Location			MW-13									
Sample No.			OLFB-1140-MW13-01	OLFB-1140-MW13-07	OLFB-1140-MW13-08	OLFB-1140-MW13-09	OLFB-1140-MW13-10	OLFB-1140-MW13-11	OLFB-1140-MW13-12	OLFB-1140-MW13-13	OLFB-1140-MW13-14	OLFB-1140-MW13-15
Event			Baseline	Year 2, Quarter 2	Year 2, Quarter 3	Year 2, Quarter 4	Year 3, Quarter 1	Year 3, Quarter 1	Year 3, Quarter 3	Year 3, Quarter 4	Year 4, Quarter 1	Year 4, Quarter 2
Collect Date			9/4/2002	3/9/2004	6/7/2004	9/1/2004	12/1/2004	3/1/2005	6/7/2005	10/25/2005	1/26/2006	4/18/2006
	Preferred Range	Units										
Field Natural Attenuation Parameters												
Alkalinity	> 2X	mg/L	35	27.5	30.0	20	20	22	43	<10	110	40
Carbon Dioxide	> 2X	mg/L	15	15	28	12	25	20	33	<10	145	50
Ferrous Iron	> 1 mg/L	mg/L	1.2	0.74	0.16	0.69	1.27	0.86	1.41	0.6	1.8	2.5
Hydrogen Sulfide	NA	mg/L	0.3	0.5	0.5	0.0	0.1	0.0	NM	0.0	0.0	1.5
Sulfide	NA	mg/L	NM	0.19	0.02	0.03	0.04	0.04	0.08	NM	NM	NM
Dissolved Oxygen (CHEMetrics)	> 5 mg/L	mg/L	NM	3.0	2.0	1.0	1.0	3.0	1.5	1.0	1.0	0.8
Dissolved Oxygen (YSI®)	> 5 mg/L	mg/L	1.04	16.5%	13.7%	0.96	1.25	1.10	1.20	0.68	1.44	0.73
pH	5 < pH < 9	standard units	4.84	6.18	4.72	5.98	5.97	6.03	6.06	6.44	6.72	5.83
Temperature	> 20 ºC	ºC	29.40	21.08	25.77	28.81	24.75	21.75	25.25	27.56	20.47	23.84
Sulfate	NC	NC	6.41	3.8	1.6	6.6	29	33	32.0	5.1	2.87	2.64
Oxidation Reduction Potential	<50 mV or <-100 mV	mV	+ 74.4	-46.3	40.0	-18.5	-54.4	-36.8	-53.8	-72.7	1.2	-299.0
Total Organic Carbon	NC	NC	4.6	5.3	7.2	7.8	3.96	3.2	1.83[J]	4.62	5	5.43
Specific Conductivity	NA	mS / cm	0.115	0.176	0.126	0.102	0.792	0.93	0.497	0.245	0.156	0.166

Notes:
- 2X = two times background concentration
- mg/L = milligrams per liter
- NA = not applicable
- NM = not measured
- mS/cm = millisiemen per centimeter
- mV = millivolts
- ºC = degrees Celsius
- NC = no criteria
- J = estimated concentration

FIGURES

ACAD: 0055CP14.dwg 05/25/06 MF PIT





SITE LOCATION
NOT TO SCALE

LEGEND:

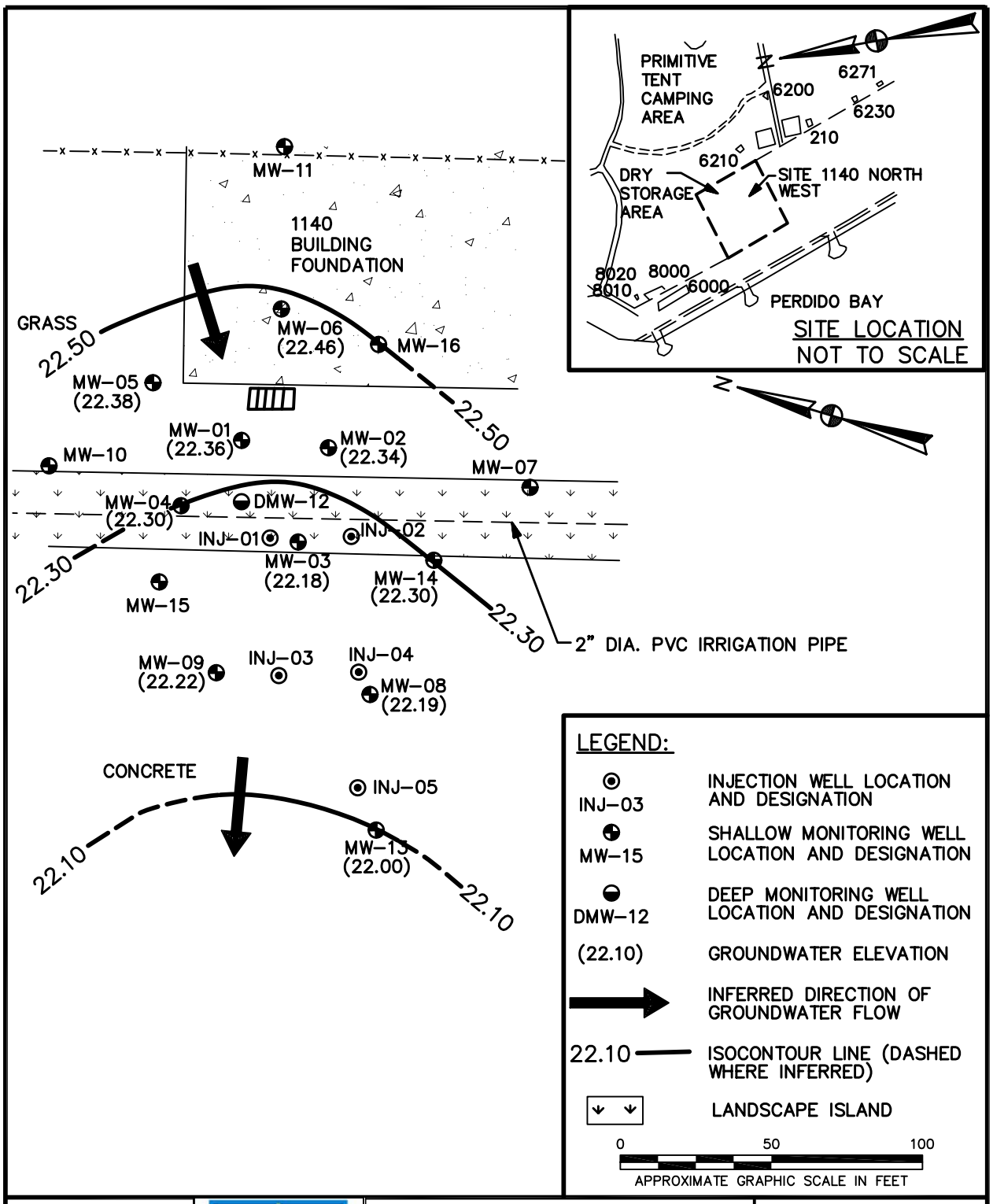
INJ-03	INJECTION WELL LOCATION AND DESIGNATION
MW-15	SHALLOW MONITORING WELL LOCATION AND DESIGNATION
DMW-12	DEEP MONITORING WELL LOCATION AND DESIGNATION
	LANDSCAPE ISLAND

0 50 100
APPROXIMATE GRAPHIC SCALE IN FEET

DRAWN BY MF	DATE 5/25/06	SITE PLAN SITE 1140 NW SECOND QUARTER YEAR 4 GROUNDWATER MONITORING LETTER REPORT OLF BRONSON PENSACOLA, FLORIDA	CONTRACT NO. 0055
CHECKED BY	DATE		OWNER NO.
REVISED BY	DATE		APPROVED BY / DATE
SCALE AS NOTED			DRAWING NO. FIGURE 1 / REV. 0

NAVFAC

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

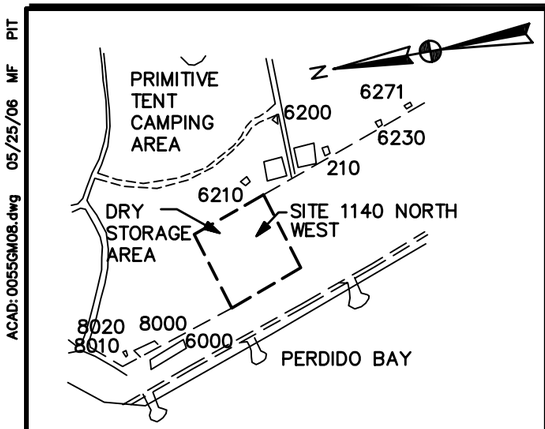


DRAWN BY MF	DATE 5/25/06	POTENTIOMETRIC SURFACE MAP APRIL 18, 2006 SITE 1140 NW SECOND QUARTER YEAR 4 GROUNDWATER MONITORING LETTER REPORT - OLF BRONSON PENSACOLA, FLORIDA	CONTRACT NO. 0055
CHECKED BY	DATE		OWNER NO.
REVISED BY	DATE		APPROVED BY / DATE
SCALE AS NOTED			DRAWING NO. FIGURE 2 / REV. 0

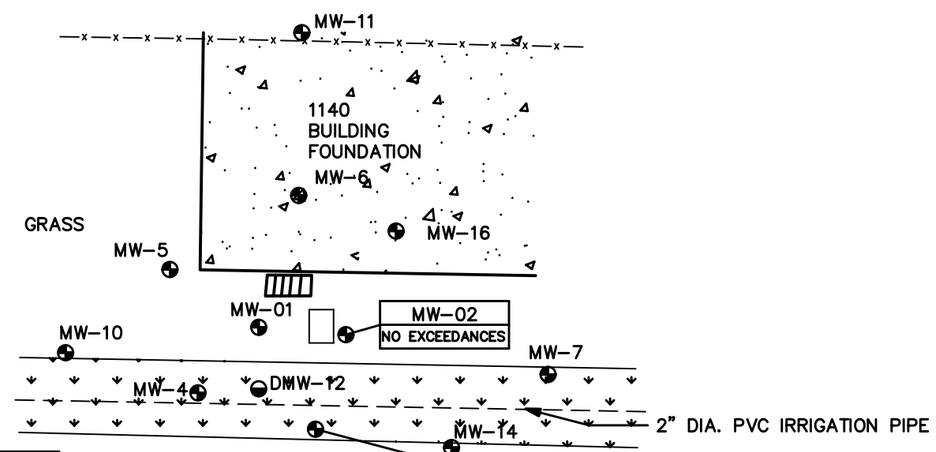
NAVFAC

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

ACAD: 0055GM08.dwg 05/25/06 MF PIT



SITE LOCATION
NOT TO SCALE



MW-09												
PARAMETER	GCTL	BL	Y2,Q1	Y2,Q2	Y2,Q3	Y2,Q4	Y3,Q1	Y3,Q2	Y3,Q3	Y3,Q4	Y4,Q1	Y4,Q2
1-METHYLNAPHTHALENE	28	35	13	7.9	1.4J	1.3	<.08	0.25	.69	11	9.6	8.7
2-METHYLNAPHTHALENE	28	52	33	22	16	1.5	<.08	<0.2	<.031	4	4.1	3.2
NAPHTHALENE	14	46	12	4.4	4.7	2.8	<.08	<0.2	<.27	4	4.4	0.83

MW-03														
PARAMETER	GCTL	BL	Y2,Q1	Y2,Q2	Y2,Q3	Y2,Q4+	Y3,Q1	Y3,Q2+	Y3,Q3	*	Y3,Q4+	Y4,Q1+	Y4,Q2+
1-METHYLNAPHTHALENE	28	160	53	40	23	31J	2.8	12	21	27	36	24	20
2-METHYLNAPHTHALENE	28	72	21	7.3	8.4	19	2	<0.2	3.9	10	13	14	13
NAPHTHALENE	14	21	6.3	5.8	3.4	3.4J	6	0.37	1.0	2.0	4	2.1	2.7

MW-08												
PARAMETER	GCTL	BL	Y2,Q1	Y2,Q2	Y2,Q3	Y2,Q4	Y3,Q1	Y3,Q2	Y3,Q3	Y3,Q4	Y4,Q1	Y4,Q2
1-METHYLNAPHTHALENE	28	1.7J	0.59	26	<.082	0.11J	<.08	<0.2	<.024	1	6.4	22
2-METHYLNAPHTHALENE	28	2.3	0.65	35	<.082	0.1J	<.08	<0.2	<.031	0.8	5.4	24

MW-13											
PARAMETER	GCTL	BL	Y2,Q1+	Y2,Q2+	Y2,Q3+	Y3,Q1+	Y3,Q3	Y3,Q4	Y4,Q1	Y4,Q2
1-METHYLNAPHTHALENE	28	ND	0.17J	16	15	<0.8	3.9	<.1	1.2	12
2-METHYLNAPHTHALENE	28	0.83J	0.16J	19	15	<0.8	<.031	0.06	0.5J	9

LEGEND:

- SHALLOW MONITORING WELL
- DEEP MONITORING WELL
- J — COMPOUND DETECTED AT AN ESTIMATED CONCENTRATION
- ND — NOT DETECTED
- * — CONFIRMATORY SAMPLE, TAKEN 9/7/2005
- + — A DUPLICATE SAMPLE WAS ALSO COLLECTED

GCTL | BL | Y2,Q1 | Y2,Q2 SAMPLING EVENT

- BL = BASELINE, PRE-INJECTION EVENT (1ST QUARTER, 9/4/2002)
- Y2,Q1 = YEAR 2, QUARTER 1 (6TH QUARTER, 11/17/2003)
- Y2,Q2 = YEAR 2, QUARTER 2 (7TH QUARTER, 3/9/2004)
- Y2,Q3 = YEAR 2, QUARTER 3 (8TH QUARTER, 6/7/2004)
- Y2,Q4 = YEAR 2, QUARTER 4 (9TH QUARTER, 9/1/2004)
- Y3,Q1 = YEAR 3, QUARTER 1 (10TH QUARTER, 12/1/2004)
- Y3,Q2 = YEAR 3, QUARTER 2 (11TH QUARTER, 3/1/2005)
- Y3,Q3 = YEAR 3, QUARTER 3 (12TH QUARTER, 6/8/2005)
- Y3,Q4 = YEAR 3, QUARTER 4 (13TH QUARTER, 10/25/2005)
- Y4,Q1 = YEAR 4, QUARTER 1 (13TH QUARTER, 1/26/2006
- Y4,Q2 = YEAR 4, QUARTER 2 (14TH QUARTER, 4/1/2006

NOTES:

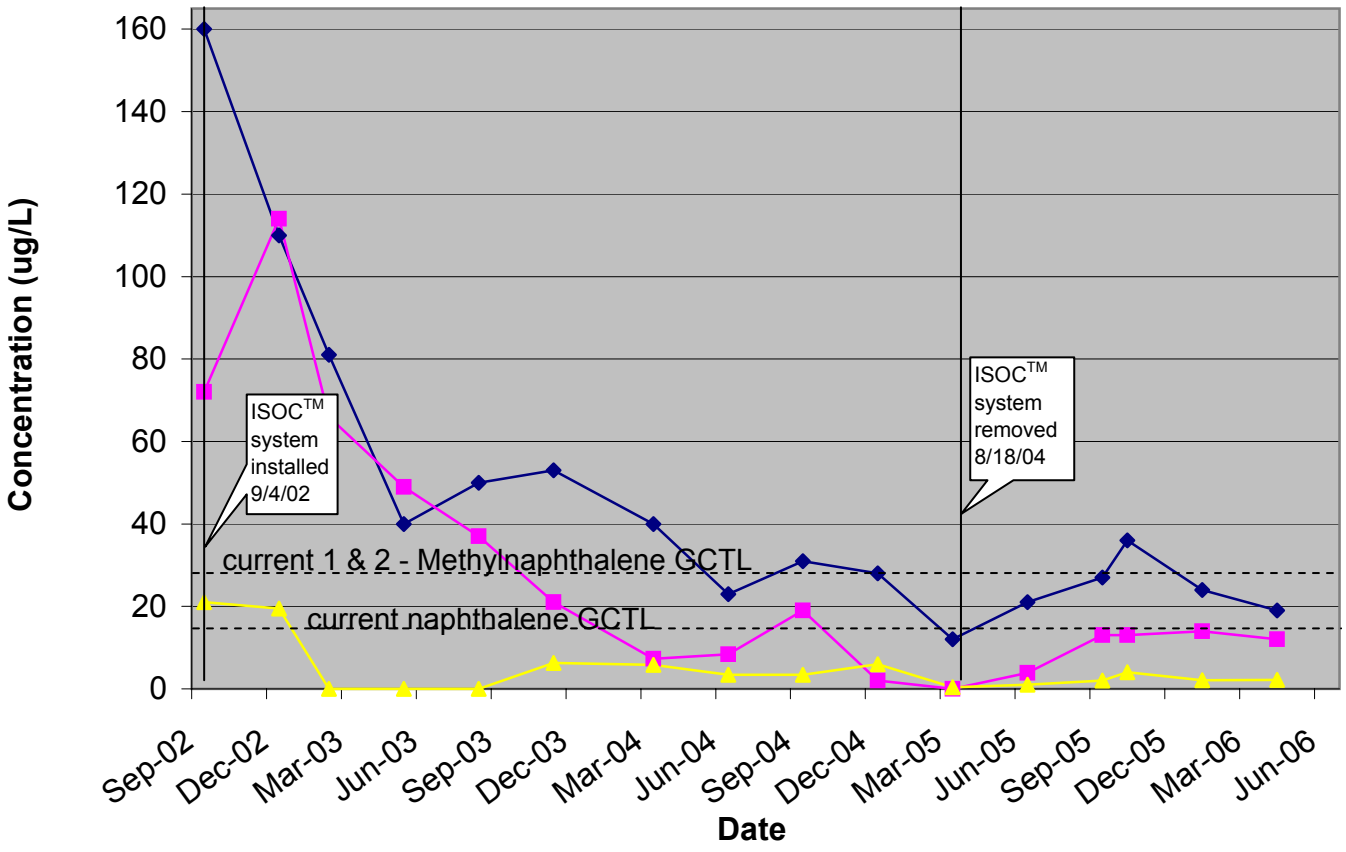
1. ALL CONCENTRATIONS ARE REPORTED IN MICROGRAMS PER LITER (ug/L)
2. GCTL = GROUNDWATER CLEANUP TARGET LEVEL FROM CHAPTER 62-777, F.A.C.

0 50 100
GRAPHIC SCALE IN FEET

DRAWN BY MF	DATE 5/25/06	SUMMARY OF GROUNDWATER ANALYTICAL RESULTS SITE 1140 NW SECOND QUARTER, YEAR 4 GROUNDWATER MONITORING LETTER REPORT OLF BRONSON PENSACOLA, FLORIDA	CONTRACT NO. 5967
CHECKED BY	DATE		OWNER NO.
REVISED BY	DATE		APPROVED BY / DATE
SCALE AS NOTED			DRAWING NO. FIGURE 3 / REV. 0

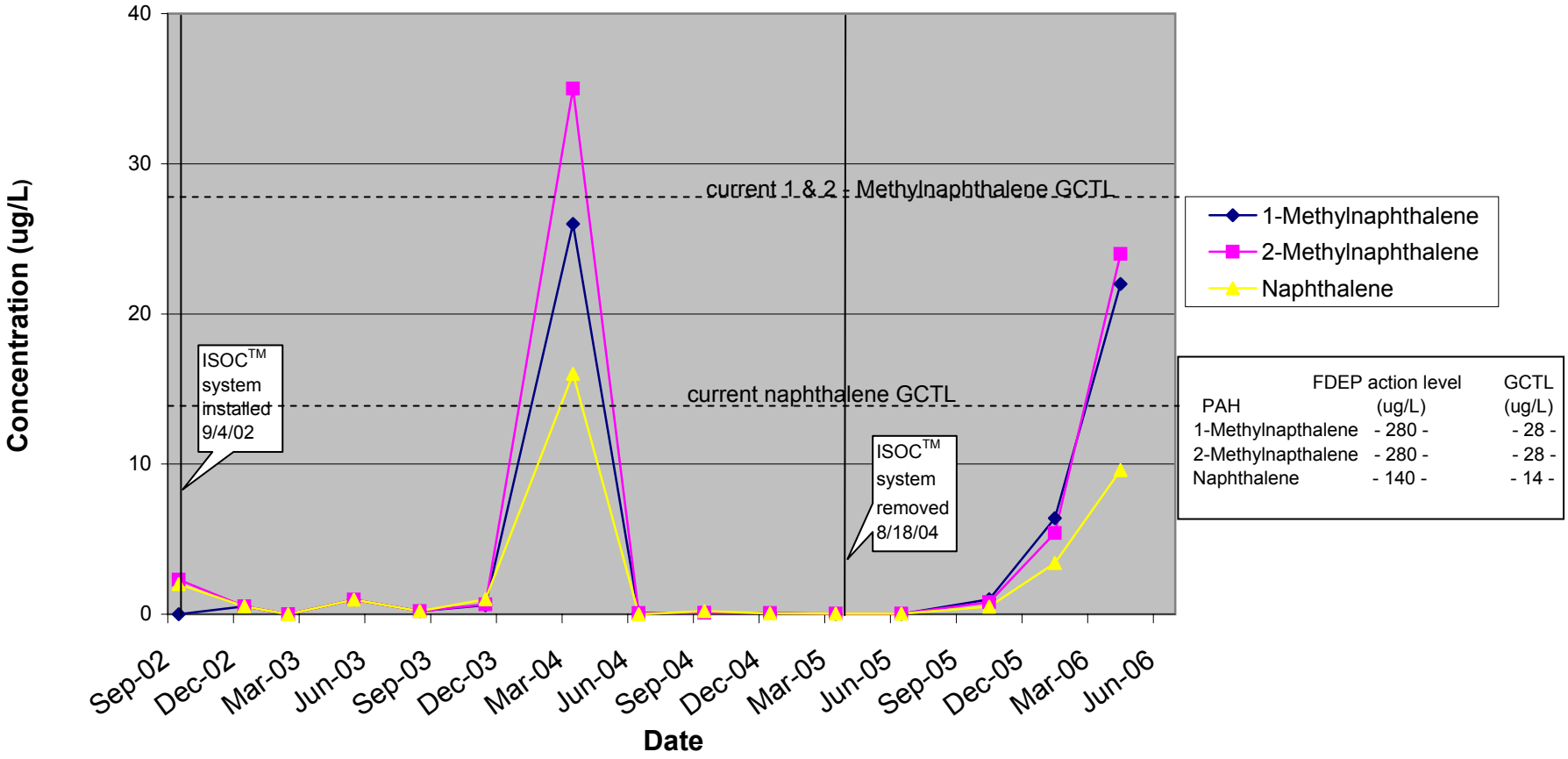
FORM CADD NO. SDIV-BH.DWG - REV 1 - 9/10/98

FIGURE 4
SOURCE AREA MONITORING WELL MW-03
OUTLYING LANDING FIELD BRONSON, PENSACOLA FLORIDA



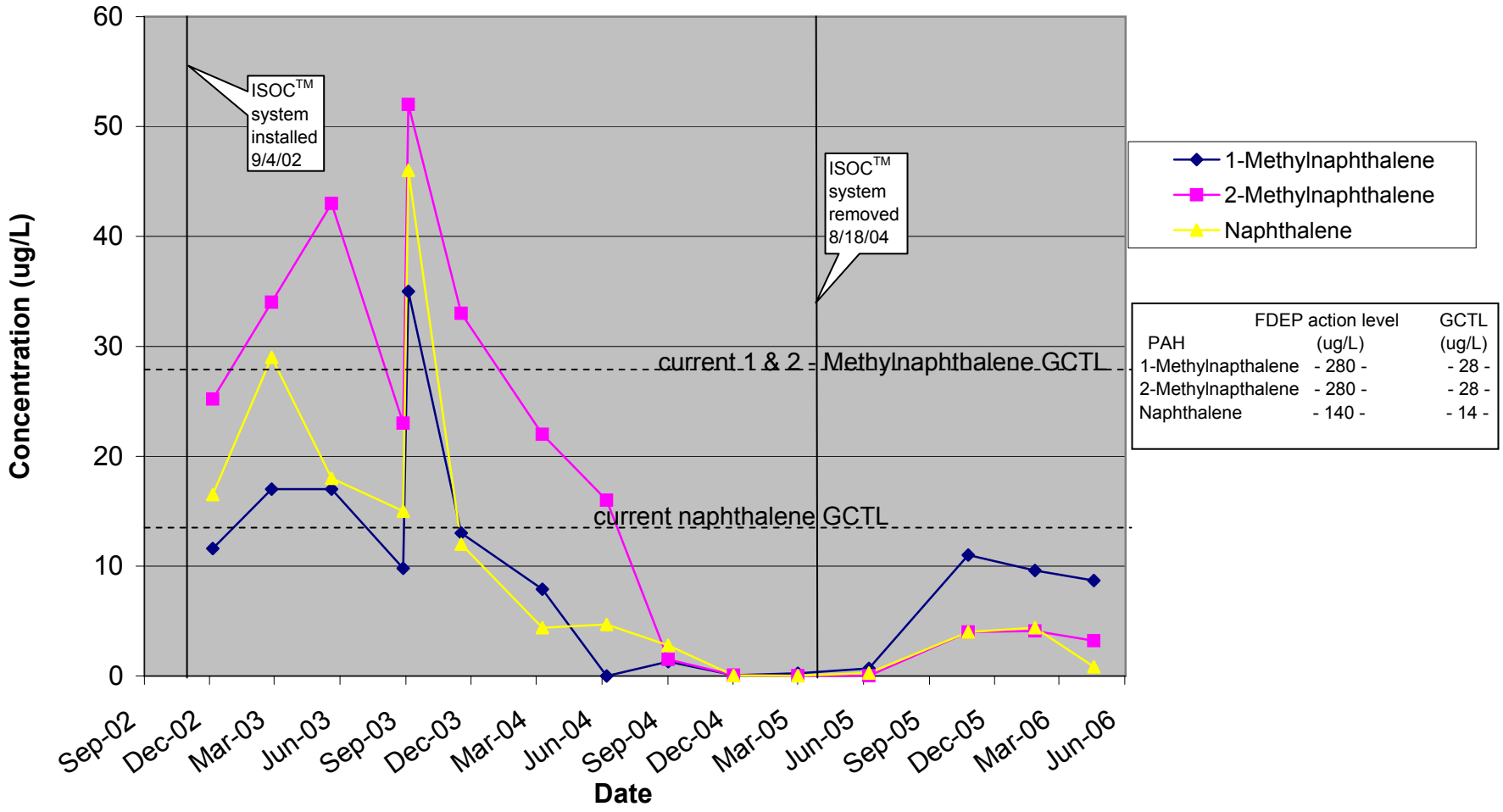
PAH	FDEP action level (ug/L)	GCTL (ug/L)
1-Methylnapthalene	- 280 -	- 28 -
2-Methylnapthalene	- 280 -	- 28 -
Naphthalene	- 140 -	- 14 -

FIGURE 5
SOURCE AREA MONITORING WELL MW-08
OUTLYING LANDING FIELD BRONSON, PENSACOLA, FLORIDA



PAH	FDEP action level (ug/L)	GCTL (ug/L)
1-Methylnapthalene	- 280 -	- 28 -
2-Methylnapthalene	- 280 -	- 28 -
Naphthalene	- 140 -	- 14 -

FIGURE 6
SOURCE AREA MONITORING WELL MW-09
OULYING LANDING FIELD BRONSON, PENSACOLA, FLORIDA



PAH	FDEP action level (ug/L)	GCTL (ug/L)
1-Methylnapthalene	- 280 -	- 28 -
2-Methylnapthalene	- 280 -	- 28 -
Naphthalene	- 140 -	- 14 -

ATTACHMENT A

FIELD DATA FORMS

Tetra Tech NUS, Inc.

GROUNDWATER LEVEL MEASUREMENT SHEET

Project Name: OLF Bronson
Project No.: N00055
Location: Site 140NW
Personnel: J. Bourgeois; C. Odom
Weather Conditions sunny; 82 F
Measuring Device: Slope Indicator
Tidally Influenced: Yes _X_ No ___
Remarks:

Well or Piezometer Number	Date	Time	Elevation of Reference Point (feet)*	Total Well Depth (feet)*	Water Level Indicator Reading (feet)*	Thickness of Free Product (feet)*	Groundwater Elevation (feet)*	Comments
MW-1	4/18/2006	0827	30.00	23.59	7.64	NA	22.36	
MW-2	4/18/2006	0838	30.10	13.13	7.76	NA	22.34	
MW-3	4/18/2006	0845	29.96	10.76	7.78	NA	22.18	
MW-4	4/18/2006	0843	30.03	12.55	7.73	NA	22.30	
MW-5	4/18/2006	0841	30.03	12.54	7.65	NA	22.38	
MW-6	4/18/2006	0840	30.26	12.66	7.80	NA	22.46	
MW-7	4/18/2006		30.02	Not Located	Not Located	NA	Not Located	
MW-8	4/18/2006	0834	29.80	12.82	7.61	NA	22.19	
MW-9	4/18/2006	0831	29.80	12.99	7.58	NA	22.22	
MW-10	4/18/2006		29.86	Not Located	Not Located	NA	Not Located	
MW-11	4/18/2006		30.24	Not Accessible	Not Accessible	NA	Not Accessible	
MW-12	4/18/2006	0829	30.05	14.75	7.68	NA	22.37	
MW-13	4/18/2006	0833	29.73	12.92	7.63	NA	22.10	
MW-14	4/18/2006	0836	30.12	12.66	7.82	NA	22.30	
MW-15	4/18/2006		29.87	Not Accessible	Not Accessible	Not Accessible	Not Accessible	destroyed
MW-16	4/18/2006		30.23	Not Located	Not Located	NA	Not Located	

* All measurements to the nearest 0.01 foot

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Page___ of ___

Project Site Name:
Project No.:

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

Sample ID No.: DLFB-1140-MW02-15
Sample Location:
Sampled By:
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date:								
Time: 1210								
Method:								

PURGE DATA:

Date: 4-19-6	Volume	pH	S.C.	Temp.	Turbidity	DO	~~Salinity~~ ORP	~~Other~~ Time	SWL
Method:									
Monitor Reading (ppm):	3.0	6.10	.146	23.48	16	1.52	22.7	1150	7.76
Well Casing Diameter & Material Type: 2.0" PVC	6.0	6.07	.234	23.46	10	.99	49.4	1155	7.76
	9.0	5.95	.256	23.49	9	.93	59.7	1200	7.76
Total Well Depth (TD): 13.12	12.0	5.94	.272	23.42	7	.92	62.6	1205	7.77
Static Water Level (WL): 7.76									
One Casing Volume(gal/L): 3.25									
Start Purge (hrs): 1145									
End Purge (hrs): 1205									
Total Purge Time (min): 20									
Total Vol. Purged (gal/L): 12.0									

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected

OBSERVATIONS / NOTES:

Alk - 19
CO_2 - 18
DO - 1.5
Ferrous Fe - 0.2
H_2S = 0.0

Circle if Applicable:

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

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Page___ of___

Project Site Name:
Project No.:

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

Sample ID No.: OLFB-1140-MW03-16
Sample Location: 1140 MW03
Sampled By:
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 4-18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	~~Salinity (%)~~ ORP	Other
Time:								
Method:								

PURGE DATA:

Date:	Volume	pH	S.C.	Temp.	Turbidity	DO	~~Salinity~~ ORP	~~Other~~ Time	SWL
Method:								1040	7.78
Monitor Reading (ppm):	3.0L	6.10	.143	22.96	15	.38	-66.6	1045	7.89
Well Casing Diameter & Material Type: 1.0" PVC	6.0L	6.13	.142	22.80	11	.34	-67.7	1050	7.89
	9.0L	6.14	.144	22.76	8	.27	-69.4	1055	7.90
Total Well Depth (TD): 10.81									
Static Water Level (WL): 7.76									
One Casing Volume(gal/L):									
Start Purge (hrs): 1040									
End Purge (hrs): 1055									
Total Purge Time (min): 15									
Total Vol. Purged (gal/L): 9.0L									

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
PAH's			
TOC			
SO4			

OBSERVATIONS / NOTES:

DO 0.9
CO_2 35
H_2S 0.5
ALK 60
Ferrous Iron 0.7

Circle if Applicable:

MS/MSD	Duplicate ID No.: OLFB-1140-MW03-16D

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Page___ of ___

Project Site Name:
Project No.:

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

Sample ID No.: OLFB-1140-MW08-15
Sample Location: OLFB-1140-MW08
Sampled By:
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 4/18/06								
Time: 1115								
Method: peristaltic								

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	~~Other~~ ORP	WL
Date: 4/18/06									
Method: peristaltic	Initial	5.97	184	23.74	6.6	0.65		-85.1	7.65
Monitor Reading (ppm): Ø	1 gal	5.88	180	23.76	5.9	0.61		-95.6	7.63
Well Casing Diameter & Material	2 gal	5.86	180	23.69	6.2	0.45		-123.6	7.63
Type: 2" PV	3 gal	5.88	181	23.95	7.1	0.38		-135.1	7.64
Total Well Depth (TD): 29.80	3.6	5.87	180	23.70	6.6	0.34		-159.8	7.64
Static Water Level (WL): 7.61									
One Casing Volume(gal/L): 3.6									
Start Purge (hrs): 1035									
End Purge (hrs): 1106									
Total Purge Time (min):									
Total Vol. Purged (gal/L):									

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected

OBSERVATIONS / NOTES:

Screened interval - 3-13'
DO - 1.0 mg/L
Alk - 80 mg/L
CO_2 - 90 ppm
HS-C - .8 mg/L
Fe - 2.1 mg/L

Circle if Applicable:

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

04-07
1105

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Site 1140
Project No.:

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

Sample ID No.: OLFB-1140-MW09-15
Sample Location: OLFB-1140-MW09
Sampled By:
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 4/18/06								
Time: 1325								
Method: peristaltic	Clear	5.77	205	24.06	7.8	0.40	N/A	-404.5

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	~~Other~~ ORP	WL
Date: 4/18/06									
Method: peristaltic	Initial	6.10	153	24.52	24	1.94		-242.3	7.63
Monitor Reading (ppm): Ø	1 gal	5.74	179	24.09	13	0.66		-364.8	7.64
Well Casing Diameter & Material	2 gal	5.77	194	24.03	9.4	0.49		-387.9	7.64
Type: 2" PVC	3 gal	5.77	205	24.06	7.8	0.40		-404.5	7.64
Total Well Depth (TD): 29.78									
Static Water Level (WL): 7.58									
One Casing Volume(gal/L): 3.6									
Start Purge (hrs): 1235									
End Purge (hrs): 1320									
Total Purge Time (min): 45									
Total Vol. Purged (gal/L): 3.9									

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TOC			
Sulfate			
PAH			

OBSERVATIONS / NOTES:

Screened Interval - 3-13

DO - 1 mg/L
CO_2 - 60 mg/L
HS-C - 1.5 mg/L
Fe - 2.2 mg/L
Alk = 90 mg/L

Circle If Applicable:

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

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name:
Project No.:

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

Sample ID No.:
Sample Location: ~~[illegible]~~
Sampled By: OLF-B-1140-MW13-15
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 4/18/06								
Time: 1220								
Method: peristaltic								

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	~~Other~~ ORP	WL
Date: 4/18/06									
Method: peristaltic	Initial	6.07	170	24.10	21	.89		-158.3	7.75
Monitor Reading (ppm): Ø	1 gal	5.94	160	23.85	6.5	.60		-237.4	7.75
Well Casing Diameter & Material	2 gal	5.86	167	23.92	4.5	.72		-276.0	7.75
Type: 2" PVC	3 gal	5.84	166	23.89	4.3	.71		-295.5	
Total Well Depth (TD): 29.72	3.5	5.83	166	23.84	2.9	.73		-299.0	
Static Water Level (WL): 7.68									
One Casing Volume(gal/L): 3.5									
Start Purge (hrs):									
End Purge (hrs):									
Total Purge Time (min):									
Total Vol. Purged (gal/L):									

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected

OBSERVATIONS / NOTES:

DO - .8 mg/L Alk - 40 mg/L
CO_2 - 50 mg/L
H_2S - 1.5 mg/L
Fe - 2.5 mg/L

Circle if Applicable:

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

Tetra Tech NUS, Inc.

EQUIPMENT CALIBRATION LOG

PROJECT NAME : 1140

SITE NAME:

PROJECT No.:

INSTRUMENT NAME/MODEL: YSI 556

MANUFACTURER: YSI

SERIAL NUMBER: 0150897

Date of Calibration	Instrument I.D. Number	Person Performing Calibration	Instrument Settings		Instrument Readings		Calibration Standard (Lot No.)	Remarks and Comments
			Pre-calibration	Post-calibration	Pre-calibration	Post-calibration		
4-18-06		C. Dodson			3.99	4.01	pH 4.0	
					10.11	10.00	pH 10.0	
					1.393	1.414	SC	
					236.2	243.6	ORP	

Tetra Tech NUS, Inc.

EQUIPMENT CALIBRATION LOG

PROJECT NAME : MKD

SITE NAME:

PROJECT No.:

INSTRUMENT NAME/MODEL: YSI 556

MANUFACTURER: YSI

SERIAL NUMBER: 05D2372

Date of Calibration	Instrument I.D. Number	Person Performing Calibration	Instrument Settings		Instrument Readings		Calibration Standard (Lot No.)	Remarks and Comments
			Pre-calibration	Post-calibration	Pre-calibration	Post-calibration		
4/18/06		[illegible]			4.07	3.99	pH ~~[illegible]~~	
					10.01	10.00	pH 10.0	
					1.357	1.412	SC	
					256.6	241.0	ORP	

ATTACHMENT B

GROUNDWATER ANALYTICAL REPORT

PROJ_NO: 00055

SDG: 0604201 MEDIA: WATER DATA FRACTION: PAH

nsample	OLFB-1140-MW02-15
samp_date	4/18/2006
lab_id	0604201-04
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Lab Qual	Val Qual	Qual Code
1-METHYLNAPHTHALENE	0.051	U	U	
2-METHYLNAPHTHALENE	0.051	U	U	
ACENAPHTHENE	0.051	U	U	
ACENAPHTHYLENE	0.051	U	U	
ANTHRACENE	0.051	U	U	
BENZO(A)ANTHRACENE	0.051	U	U	
BENZO(A)PYRENE	0.051	U	U	
BENZO(B)FLUORANTHENE	0.051	U	U	
BENZO(G,H,I)PERYLENE	0.051	U	U	
BENZO(K)FLUORANTHENE	0.051	U	U	
CHRYSENE	0.051	U	U	
DIBENZO(A,H)ANTHRACENE	0.051	U	U	
FLUORANTHENE	0.051	U	U	
FLUORENE	0.051	U	U	
INDENO(1,2,3-CD)PYRENE	0.051	U	U	
NAPHTHALENE	0.051	U	U	
PHENANTHRENE	0.051	U	U	
PYRENE	0.051	U	U	

nsample	OLFB-1140-MW03-16
samp_date	4/18/2006
lab_id	0604201-02DL
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Lab Qual	Val Qual	Qual Code
1-METHYLNAPHTHALENE	19			
2-METHYLNAPHTHALENE	12			
ACENAPHTHENE	1.8			
ACENAPHTHYLENE	0.051	U	U	
ANTHRACENE	0.051	U	U	
BENZO(A)ANTHRACENE	0.051	U	U	
BENZO(A)PYRENE	0.051	U	U	
BENZO(B)FLUORANTHENE	0.051	U	U	
BENZO(G,H,I)PERYLENE	0.051	U	U	
BENZO(K)FLUORANTHENE	0.051	U	U	
CHRYSENE	0.051	U	U	
DIBENZO(A,H)ANTHRACENE	0.051	U	U	
FLUORANTHENE	0.051	U	U	
FLUORENE	3.2			
INDENO(1,2,3-CD)PYRENE	0.051	U	U	
NAPHTHALENE	2.2			
PHENANTHRENE	1.4			
PYRENE	0.051	U	U	

nsample	OLFB-1140-MW03-16D
samp_date	4/18/2006
lab_id	0604201-05DL
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	OLFB-1140-MW03-16

Parameter	Result	Lab Qual	Val Qual	Qual Code
1-METHYLNAPHTHALENE	20			
2-METHYLNAPHTHALENE	13			
ACENAPHTHENE	2.0			
ACENAPHTHYLENE	0.051	U	U	
ANTHRACENE	0.051	U	U	
BENZO(A)ANTHRACENE	0.051	U	U	
BENZO(A)PYRENE	0.051	U	U	
BENZO(B)FLUORANTHENE	0.051	U	U	
BENZO(G,H,I)PERYLENE	0.051	U	U	
BENZO(K)FLUORANTHENE	0.051	U	U	
CHRYSENE	0.051	U	U	
DIBENZO(A,H)ANTHRACENE	0.051	U	U	
FLUORANTHENE	0.051	U	U	
FLUORENE	3.5			
INDENO(1,2,3-CD)PYRENE	0.051	U	U	
NAPHTHALENE	2.7			
PHENANTHRENE	1.5			
PYRENE	0.049	I	J	P

PROJ_NO: 00055

SDG: 0604201 MEDIA: WATER DATA FRACTION: PAH

nsample	OLFB-1140-MW08-15	nsample	OLFB-1140-MW09-15	nsample	OLFB-1140-MW13-15
samp_date	4/18/2006	samp_date	4/18/2006	samp_date	4/18/2006
lab_id	0604201-01DL	lab_id	0604201-06	lab_id	0604201-03DL
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/L	units	UG/L	units	UG/L
Pct_Solids		Pct_Solids		Pct_Solids	
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Lab Qual	Val Qual	Qual Code
1-METHYLNAPHTHALENE	22			
2-METHYLNAPHTHALENE	24			
ACENAPHTHENE	1.5			
ACENAPHTHYLENE	0.051	U	U	
ANTHRACENE	0.051	U	U	
BENZO(A)ANTHRACENE	0.051	U	U	
BENZO(A)PYRENE	0.051	U	U	
BENZO(B)FLUORANTHENE	0.051	U	U	
BENZO(G,H,I)PERYLENE	0.051	U	U	
BENZO(K)FLUORANTHENE	0.051	U	U	
CHRYSENE	0.051	U	U	
DIBENZO(A,H)ANTHRACENE	0.051	U	U	
FLUORANTHENE	0.051	U	U	
FLUORENE	2.4			
INDENO(1,2,3-CD)PYRENE	0.051	U	U	
NAPHTHALENE	9.6			
PHENANTHRENE	0.32			
PYRENE	0.051	U	U	

Parameter	Result	Lab Qual	Val Qual	Qual Code
1-METHYLNAPHTHALENE	8.7			
2-METHYLNAPHTHALENE	3.2			
ACENAPHTHENE	1.2			
ACENAPHTHYLENE	0.054	U	U	
ANTHRACENE	0.054	U	U	
BENZO(A)ANTHRACENE	0.054	U	U	
BENZO(A)PYRENE	0.054	U	U	
BENZO(B)FLUORANTHENE	0.054	U	U	
BENZO(G,H,I)PERYLENE	0.054	UJ	U	
BENZO(K)FLUORANTHENE	0.054	U	U	
CHRYSENE	0.054	U	U	
DIBENZO(A,H)ANTHRACENE	0.054	U	U	
FLUORANTHENE	0.054	U	U	
FLUORENE	2.2			
INDENO(1,2,3-CD)PYRENE	0.054	U	U	
NAPHTHALENE	0.83			
PHENANTHRENE	0.054	U	U	
PYRENE	0.054	U	U	

Parameter	Result	Lab Qual	Val Qual	Qual Code
1-METHYLNAPHTHALENE	12			
2-METHYLNAPHTHALENE	9.0			
ACENAPHTHENE	0.96			
ACENAPHTHYLENE	0.052	U	U	
ANTHRACENE	0.052	U	U	
BENZO(A)ANTHRACENE	0.052	U	U	
BENZO(A)PYRENE	0.052	U	U	
BENZO(B)FLUORANTHENE	0.052	U	U	
BENZO(G,H,I)PERYLENE	0.052	U	U	
BENZO(K)FLUORANTHENE	0.052	U	U	
CHRYSENE	0.052	U	U	
DIBENZO(A,H)ANTHRACENE	0.052	U	U	
FLUORANTHENE	0.052	U	U	
FLUORENE	1.2			
INDENO(1,2,3-CD)PYRENE	0.052	U	U	
NAPHTHALENE	9.4			
PHENANTHRENE	0.052	U	U	
PYRENE	0.052	U	U	

PROJ_NO: 00055

SDG: 0604201 MEDIA: WATER DATA FRACTION: MISC

nsample	OLFB-1140-MW02-15
samp_date	4/18/2006
lab_id	0604201-04
qc_type	NM
Pct_Solids	
DUP_OF:	

Parameter	units	Result	Lab Qual	Val Qual	Qual Code
SULFATE	UG/L	18100			
TOTAL ORGANIC CARBON	UG/L	542	I	J	P

nsample	OLFB-1140-MW03-16
samp_date	4/18/2006
lab_id	0604201-02
qc_type	NM
Pct_Solids	
DUP_OF:	

Parameter	units	Result	Lab Qual	Val Qual	Qual Code
SULFATE	UG/L	2500			
TOTAL ORGANIC CARBON	UG/L	3360			

nsample	OLFB-1140-MW03-16D
samp_date	4/18/2006
lab_id	0604201-05
qc_type	NM
Pct_Solids	
DUP_OF:	OLFB-1140-MW03-16

Parameter	units	Result	Lab Qual	Val Qual	Qual Code
SULFATE	UG/L	2380			
TOTAL ORGANIC CARBON	UG/L	3370			

PROJ_NO: 00055

SDG: 0604201 MEDIA: WATER DATA FRACTION: MISC

nsample	OLFB-1140-MW08-15
samp_date	4/18/2006
lab_id	0604201-01
qc_type	NM
Pct_Solids	
DUP_OF:	

Parameter	units	Result	Lab Qual	Val Qual	Qual Code
SULFATE	UG/L	6240			
TOTAL ORGANIC CARBON	UG/L	9930			

nsample	OLFB-1140-MW09-15
samp_date	4/18/2006
lab_id	0604201-06
qc_type	NM
Pct_Solids	
DUP_OF:	

Parameter	units	Result	Lab Qual	Val Qual	Qual Code
SULFATE	UG/L	10700			
TOTAL ORGANIC CARBON	UG/L	4850			

nsample	OLFB-1140-MW13-15
samp_date	4/18/2006
lab_id	0604201-03
qc_type	NM
Pct_Solids	
DUP_OF:	

Parameter	units	Result	Lab Qual	Val Qual	Qual Code
SULFATE	UG/L	2640			
TOTAL ORGANIC CARBON	UG/L	4780			

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

1140-MW02-15

Lab Name: EMPIRICAL LABS Contract: TETRATECH

Lab Code: ELABN Case No.: NA SAS No.: NA SDG No.: TET.B04201

Matrix: (soil/water) WATER Lab Sample ID: 0604201-04

Sample wt/vol: 980.0 (g/mL) ML Lab File ID: 0420104

% Moisture: _____ decanted: (Y/N)___ Date Sampled: 04/18/06 12:10

Extraction: (SepF/Cont/Sonc/Soxh) SEPF Date Extracted:04/24/06

Concentrated Extract Volume: 500.0(uL) Date Analyzed: 04/26/06 21:40

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: NA

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	MDL	RL	CONC	Q
83-32-9	Acenaphthene	0.010	0.051		U
208-96-8	Acenaphthylene	0.0087	0.051		U
120-12-7	Anthracene	0.0097	0.051		U
56-55-3	Benzo(a)anthracene	0.011	0.051		U
205-99-2	Benzo(b)fluoranthene	0.016	0.051		U
207-08-9	Benzo(k)fluoranthene	0.013	0.051		U
191-24-2	Benzo(g,h,i)perylene	0.013	0.051		U
50-32-8	Benzo(a)pyrene	0.0097	0.051		U
218-01-9	Chrysene	0.0092	0.051		U
53-70-3	Dibenz(a,h)anthracene	0.012	0.051		U
206-44-0	Fluoranthene	0.012	0.051		U
86-73-7	Fluorene	0.013	0.051		U
193-39-5	Indeno(1,2,3-cd)pyrene	0.018	0.051		U
91-57-6	2-Methylnaphthalene	0.016	0.051		U
90-12-0	1-Methylnaphthalene	0.010	0.051		U
91-20-3	Naphthalene	0.019	0.051		U
85-01-8	Phenanthrene	0.014	0.051		U
129-00-0	Pyrene	0.011	0.051		U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

1140-MW03-16

Lab Name: EMPIRICAL LABS Contract: TETRATECH

Lab Code: ELABN Case No.: NA SAS No.: NA SDG No.: TET.B04201

Matrix: (soil/water) WATER Lab Sample ID: 0604201-02

Sample wt/vol: 980.0 (g/mL) ML Lab File ID: 0420102

% Moisture: _____ decanted: (Y/N)___ Date Sampled: 04/18/06 11:00

Extraction: (SepF/Cont/Sonc/Soxh) SEPF Date Extracted:04/24/06

Concentrated Extract Volume: 500.0(uL) Date Analyzed: 04/26/06 20:21

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: NA

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	MDL	RL	CONC	Q
83-32-9	Acenaphthene	0.010	0.051	1.8	
208-96-8	Acenaphthylene	0.0087	0.051		U
120-12-7	Anthracene	0.0097	0.051		U
56-55-3	Benzo(a)anthracene	0.011	0.051		U
205-99-2	Benzo(b)fluoranthene	0.016	0.051		U
207-08-9	Benzo(k)fluoranthene	0.013	0.051		U
191-24-2	Benzo(g,h,i)perylene	0.013	0.051		U
50-32-8	Benzo(a)pyrene	0.0097	0.051		U
218-01-9	Chrysene	0.0092	0.051		U
53-70-3	Dibenz(a,h)anthracene	0.012	0.051		U
206-44-0	Fluoranthene	0.012	0.051		U
86-73-7	Fluorene	0.013	0.051	3.2	
193-39-5	Indeno(1,2,3-cd)pyrene	0.018	0.051		U
91-57-6	2-Methylnaphthalene	0.016	0.051	14	L
90-12-0	1-Methylnaphthalene	0.010	0.051	19	L
91-20-3	Naphthalene	0.019	0.051	2.2	
85-01-8	Phenanthrene	0.014	0.051	1.4	
129-00-0	Pyrene	0.011	0.051		U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

1140-MW03-16

Lab Name: EMPIRICAL LABS Contract: TETRATECH

Lab Code: ELABN Case No.: NA SAS No.: NA SDG No.: TET.B04201

Matrix: (soil/water) WATER Lab Sample ID: 0604201-02DL

Sample wt/vol: 980.0 (g/mL) ML Lab File ID: 0420102D

% Moisture: _____ decanted: (Y/N)___ Date Sampled: 04/18/06 11:00

Extraction: (SepF/Cont/Sonc/Soxh) SEPF Date Extracted:04/24/06

Concentrated Extract Volume: 500.0(uL) Date Analyzed: 05/01/06 12:56

Injection Volume: 2.0(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N pH: NA

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	MDL	RL	CONC	Q
83-32-9	Acenaphthene	0.10	0.51	1.9	D
208-96-8	Acenaphthylene	0.087	0.51		UD
120-12-7	Anthracene	0.097	0.51		UD
56-55-3	Benzo(a)anthracene	0.11	0.51		UD
205-99-2	Benzo(b)fluoranthene	0.16	0.51		UD
207-08-9	Benzo(k)fluoranthene	0.13	0.51		UD
191-24-2	Benzo(g,h,i)perylene	0.13	0.51		UD
50-32-8	Benzo(a)pyrene	0.097	0.51		UD
218-01-9	Chrysene	0.092	0.51		UD
53-70-3	Dibenz(a,h)anthracene	0.12	0.51		UD
206-44-0	Fluoranthene	0.12	0.51		UD
86-73-7	Fluorene	0.13	0.51	3.5	D
193-39-5	Indeno(1,2,3-cd)pyrene	0.18	0.51		UD
91-57-6	2-Methylnaphthalene	0.16	0.51	12	D
90-12-0	1-Methylnaphthalene	0.10	0.51	19	D
91-20-3	Naphthalene	0.19	0.51	2.0	D
85-01-8	Phenanthrene	0.14	0.51	1.2	D
129-00-0	Pyrene	0.11	0.51		UD

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

1140-MW03-16D

Lab Name: EMPIRICAL LABS Contract: TETRATECH

Lab Code: ELABN Case No.: NA SAS No.: NA SDG No.: TET.B04201

Matrix: (soil/water) WATER Lab Sample ID: 0604201-05

Sample wt/vol: 980.0 (g/mL) ML Lab File ID: 0420105

% Moisture: _____ decanted: (Y/N)___ Date Sampled: 04/18/06 11:00

Extraction: (SepF/Cont/Sonc/Soxh) SEPF Date Extracted:04/24/06

Concentrated Extract Volume: 500.0(uL) Date Analyzed: 04/26/06 22:20

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: NA

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	MDL	RL	CONC	Q
83-32-9	Acenaphthene	0.010	0.051	2.0	
208-96-8	Acenaphthylene	0.0087	0.051		U
120-12-7	Anthracene	0.0097	0.051		U
56-55-3	Benzo(a)anthracene	0.011	0.051		U
205-99-2	Benzo(b)fluoranthene	0.016	0.051		U
207-08-9	Benzo(k)fluoranthene	0.013	0.051		U
191-24-2	Benzo(g,h,i)perylene	0.013	0.051		U
50-32-8	Benzo(a)pyrene	0.0097	0.051		U
218-01-9	Chrysene	0.0092	0.051		U
53-70-3	Dibenz(a,h)anthracene	0.012	0.051		U
206-44-0	Fluoranthene	0.012	0.051		U
86-73-7	Fluorene	0.013	0.051	3.5	
193-39-5	Indeno(1,2,3-cd)pyrene	0.018	0.051		U
91-57-6	2-Methylnaphthalene	0.016	0.051	17	L
90-12-0	1-Methylnaphthalene	0.010	0.051	22	L
91-20-3	Naphthalene	0.019	0.051	2.7	
85-01-8	Phenanthrene	0.014	0.051	1.5	
129-00-0	Pyrene	0.011	0.051	0.049	I

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

1140-MW03-16D

Lab Name: EMPIRICAL LABS Contract: TETRATECH

Lab Code: ELABN Case No.: NA SAS No.: NA SDG No.: TET.B04201

Matrix: (soil/water) WATER Lab Sample ID: 0604201-05DL

Sample wt/vol: 980.0 (g/mL) ML Lab File ID: 0420105D

% Moisture: _____ decanted: (Y/N)___ Date Sampled: 04/18/06 11:00

Extraction: (SepF/Cont/Sonc/Soxh) SEPF Date Extracted: 04/24/06

Concentrated Extract Volume: 500.0(uL) Date Analyzed: 05/01/06 14:16

Injection Volume: 2.0(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N pH: NA

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	MDL	RL	CONC	Q
83-32-9	Acenaphthene	0.10	0.51	1.9	D
208-96-8	Acenaphthylene	0.087	0.51		UD
120-12-7	Anthracene	0.097	0.51		UD
56-55-3	Benzo(a)anthracene	0.11	0.51		UD
205-99-2	Benzo(b)fluoranthene	0.16	0.51		UD
207-08-9	Benzo(k)fluoranthene	0.13	0.51		UD
191-24-2	Benzo(g,h,i)perylene	0.13	0.51		UD
50-32-8	Benzo(a)pyrene	0.097	0.51		UD
218-01-9	Chrysene	0.092	0.51		UD
53-70-3	Dibenz(a,h)anthracene	0.12	0.51		UD
206-44-0	Fluoranthene	0.12	0.51		UD
86-73-7	Fluorene	0.13	0.51	3.4	D
193-39-5	Indeno(1,2,3-cd)pyrene	0.18	0.51		UD
91-57-6	2-Methylnaphthalene	0.16	0.51	13	D
90-12-0	1-Methylnaphthalene	0.10	0.51	20	D
91-20-3	Naphthalene	0.19	0.51	2.1	D
85-01-8	Phenanthrene	0.14	0.51	1.2	D
129-00-0	Pyrene	0.11	0.51		UD

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

1140-MW08-15

Lab Name: EMPIRICAL LABS Contract: TETRATECH

Lab Code: ELABN Case No.: NA SAS No.: NA SDG No.: TET.B04201

Matrix: (soil/water) WATER Lab Sample ID: 0604201-01

Sample wt/vol: 980.0 (g/mL) ML Lab File ID: 0420101

% Moisture: _____ decanted: (Y/N)___ Date Sampled: 04/18/06 11:15

Extraction: (SepF/Cont/Sonc/Soxh) SEPF Date Extracted: 04/24/06

Concentrated Extract Volume: 500.0(uL) Date Analyzed: 04/26/06 19:41

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: NA

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	MDL	RL	CONC	Q
83-32-9	Acenaphthene	0.010	0.051	1.5	
208-96-8	Acenaphthylene	0.0087	0.051		U
120-12-7	Anthracene	0.0097	0.051		U
56-55-3	Benzo(a)anthracene	0.011	0.051		U
205-99-2	Benzo(b)fluoranthene	0.016	0.051		U
207-08-9	Benzo(k)fluoranthene	0.013	0.051		U
191-24-2	Benzo(g,h,i)perylene	0.013	0.051		U
50-32-8	Benzo(a)pyrene	0.0097	0.051		U
218-01-9	Chrysene	0.0092	0.051		U
53-70-3	Dibenz(a,h)anthracene	0.012	0.051		U
206-44-0	Fluoranthene	0.012	0.051		U
86-73-7	Fluorene	0.013	0.051	2.4	
193-39-5	Indeno(1,2,3-cd)pyrene	0.018	0.051		U
91-57-6	2-Methylnaphthalene	0.016	0.051	24	L
90-12-0	1-Methylnaphthalene	0.010	0.051	21	L
91-20-3	Naphthalene	0.019	0.051	9.6	
85-01-8	Phenanthrene	0.014	0.051	0.32	
129-00-0	Pyrene	0.011	0.051		U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

1140-MW08-15

Lab Name: EMPIRICAL LABS Contract: TETRATECH

Lab Code: ELABN Case No.: NA SAS No.: NA SDG No.: TET.B04201

Matrix: (soil/water) WATER Lab Sample ID: 0604201-01DL

Sample wt/vol: 980.0 (g/mL) ML Lab File ID: 0420101D

% Moisture: _____ decanted: (Y/N)___ Date Sampled: 04/18/06 11:15

Extraction: (SepF/Cont/Sonc/Soxh) SEPF Date Extracted:04/24/06

Concentrated Extract Volume: 500.0(uL) Date Analyzed: 05/01/06 12:16

Injection Volume: 2.0(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N pH: NA

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	MDL	RL	CONC	Q
83-32-9	Acenaphthene	0.10	0.51	1.2	D
208-96-8	Acenaphthylene	0.087	0.51		UD
120-12-7	Anthracene	0.097	0.51		UD
56-55-3	Benzo(a)anthracene	0.11	0.51		UD
205-99-2	Benzo(b)fluoranthene	0.16	0.51		UD
207-08-9	Benzo(k)fluoranthene	0.13	0.51		UD
191-24-2	Benzo(g,h,i)perylene	0.13	0.51		UD
50-32-8	Benzo(a)pyrene	0.097	0.51		UD
218-01-9	Chrysene	0.092	0.51		UD
53-70-3	Dibenz(a,h)anthracene	0.12	0.51		UD
206-44-0	Fluoranthene	0.12	0.51		UD
86-73-7	Fluorene	0.13	0.51	2.0	D
193-39-5	Indeno(1,2,3-cd)pyrene	0.18	0.51		UD
91-57-6	2-Methylnaphthalene	0.16	0.51	24	D
90-12-0	1-Methylnaphthalene	0.10	0.51	22	D
91-20-3	Naphthalene	0.19	0.51	8.1	D
85-01-8	Phenanthrene	0.14	0.51	0.28	ID
129-00-0	Pyrene	0.11	0.51		UD

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

1140-MW09-15

Lab Name: EMPIRICAL LABS Contract: TETRATECH

Lab Code: ELABN Case No.: NA SAS No.: NA SDG No.: TET.B04201

Matrix: (soil/water) WATER Lab Sample ID: 0604201-06

Sample wt/vol: 920.0 (g/mL) ML Lab File ID: 0420106

% Moisture: _____ decanted: (Y/N)___ Date Sampled: 04/18/06 13:25

Extraction: (SepF/Cont/Sonc/Soxh) SEPF Date Extracted:04/24/06

Concentrated Extract Volume: 500.0(uL) Date Analyzed: 04/26/06 23:55

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: NA

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	MDL	RL	CONC	Q
83-32-9	Acenaphthene	0.011	0.054	1.2	
208-96-8	Acenaphthylene	0.0092	0.054		U
120-12-7	Anthracene	0.010	0.054		U
56-55-3	Benzo(a)anthracene	0.011	0.054		U
205-99-2	Benzo(b)fluoranthene	0.017	0.054		U
207-08-9	Benzo(k)fluoranthene	0.014	0.054		U
191-24-2	Benzo(g,h,i)perylene	0.014	0.054		UJ3
50-32-8	Benzo(a)pyrene	0.010	0.054		U
218-01-9	Chrysene	0.0098	0.054		U
53-70-3	Dibenz(a,h)anthracene	0.013	0.054		U
206-44-0	Fluoranthene	0.012	0.054		U
86-73-7	Fluorene	0.014	0.054	2.2	
193-39-5	Indeno(1,2,3-cd)pyrene	0.020	0.054		U
91-57-6	2-Methylnaphthalene	0.017	0.054	3.2	
90-12-0	1-Methylnaphthalene	0.011	0.054	8.7	
91-20-3	Naphthalene	0.021	0.054	0.83	
85-01-8	Phenanthrene	0.015	0.054		U
129-00-0	Pyrene	0.011	0.054		U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

1140-MW13-15

Lab Name: EMPIRICAL LABS Contract: TETRATECH

Lab Code: ELABN Case No.: NA SAS No.: NA SDG No.: TET.B04201

Matrix: (soil/water) WATER Lab Sample ID: 0604201-03

Sample wt/vol: 960.0 (g/mL) ML Lab File ID: 0420103

% Moisture: _____ decanted: (Y/N)___ Date Sampled: 04/18/06 12:20

Extraction: (SepF/Cont/Sonc/Soxh) SEPF Date Extracted:04/24/06

Concentrated Extract Volume: 500.0(uL) Date Analyzed: 04/26/06 21:01

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: NA

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	MDL	RL	CONC	Q
83-32-9	Acenaphthene	0.010	0.052	0.96	
208-96-8	Acenaphthylene	0.0088	0.052		U
120-12-7	Anthracene	0.0099	0.052		U
56-55-3	Benzo(a)anthracene	0.011	0.052		U
205-99-2	Benzo(b)fluoranthene	0.017	0.052		U
207-08-9	Benzo(k)fluoranthene	0.014	0.052		U
191-24-2	Benzo(g,h,i)perylene	0.014	0.052		U
50-32-8	Benzo(a)pyrene	0.0099	0.052		U
218-01-9	Chrysene	0.0094	0.052		U
53-70-3	Dibenz(a,h)anthracene	0.012	0.052		U
206-44-0	Fluoranthene	0.012	0.052		U
86-73-7	Fluorene	0.013	0.052	1.2	
193-39-5	Indeno(1,2,3-cd)pyrene	0.019	0.052		U
91-57-6	2-Methylnaphthalene	0.017	0.052	12	L
90-12-0	1-Methylnaphthalene	0.010	0.052	16	L
91-20-3	Naphthalene	0.020	0.052	9.4	
85-01-8	Phenanthrene	0.014	0.052		U
129-00-0	Pyrene	0.011	0.052		U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

1140-MW13-15

Lab Name: EMPIRICAL LABS Contract: TETRATECH

Lab Code: ELABN Case No.: NA SAS No.: NA SDG No.: TET.B04201

Matrix: (soil/water) WATER Lab Sample ID: 0604201-03DL

Sample wt/vol: 960.0 (g/mL) ML Lab File ID: 0420103D

% Moisture: _____ decanted: (Y/N)___ Date Sampled: 04/18/06 12:20

Extraction: (SepF/Cont/Sonc/Soxh) SEPF Date Extracted: 04/24/06

Concentrated Extract Volume: 500.0(uL) Date Analyzed: 05/01/06 13:36

Injection Volume: 2.0(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N pH: NA

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	MDL	RL	CONC	Q
83-32-9	Acenaphthene	0.10	0.52	0.76	D
208-96-8	Acenaphthylene	0.088	0.52		UD
120-12-7	Anthracene	0.099	0.52		UD
56-55-3	Benzo(a)anthracene	0.11	0.52		UD
205-99-2	Benzo(b)fluoranthene	0.17	0.52		UD
207-08-9	Benzo(k)fluoranthene	0.14	0.52		UD
191-24-2	Benzo(g,h,i)perylene	0.14	0.52		UD
50-32-8	Benzo(a)pyrene	0.099	0.52		UD
218-01-9	Chrysene	0.094	0.52		UD
53-70-3	Dibenz(a,h)anthracene	0.12	0.52		UD
206-44-0	Fluoranthene	0.12	0.52		UD
86-73-7	Fluorene	0.13	0.52	1.0	D
193-39-5	Indeno(1,2,3-cd)pyrene	0.19	0.52		UD
91-57-6	2-Methylnaphthalene	0.17	0.52	9.0	D
90-12-0	1-Methylnaphthalene	0.10	0.52	12	D
91-20-3	Naphthalene	0.20	0.52	7.6	D
85-01-8	Phenanthrene	0.14	0.52		UD
129-00-0	Pyrene	0.11	0.52		UD

Empirical Laboratories

CLIENT: Tetra Tech NUS, Inc.
DATE RECEIVED: 04/19/06
DATE REPORTED: 05/16/06

EMPIRICAL LABORATORIES SAMPLE NUMBER						0604201-04
CLIENT SAMPLE DESCRIPTION/SAMPLING DATE						OLFB-1140-MW02-15 4/18/06 12:10:00 PM
ANALYTES	USEPA METHOD	UNITS	MDL	REPORTING LIMITS	DILUTION FACTOR	CONC
Sulfate	300.0	µg/L	150	500	1	18100
TOC (NPOC)	415.1	µg/L	500	2000	1	542 I

See attached page for definitions of terms and qualifiers.

Empirical Laboratories
227 French Landing Drive ▪ Suite 550 ▪ Nashville, TN 37228 ▪ Tel (615) 345-1115 ▪ Fax (615) 846-5426

Empirical Laboratories

CLIENT: Tetra Tech NUS, Inc.
DATE RECEIVED: 04/19/06
DATE REPORTED: 05/16/06

EMPIRICAL LABORATORIES SAMPLE NUMBER						0604201-02
CLIENT SAMPLE DESCRIPTION/SAMPLING DATE						OLFB-1140-MW03-16 4/18/06 11:00:00 AM
ANALYTES	USEPA METHOD	UNITS	MDL	REPORTING LIMITS	DILUTION FACTOR	CONC
Sulfate	300.0	µg/L	150	500	1	2500
TOC (NPOC)	415.1	µg/L	500	2000	1	3360

See attached page for definitions of terms and qualifiers.

mpirical Laboratories
227 French Landing Drive ▮ Suite 550 ▮ Nashville, TN 37228 ▮ Tel (615) 345-1115 ▮ Fax (615) 846-5426

Empirical Laboratories

CLIENT: Tetra Tech NUS, Inc.
DATE RECEIVED: 04/19/06
DATE REPORTED: 05/16/06

EMPIRICAL LABORATORIES SAMPLE NUMBER						0604201-05
CLIENT SAMPLE DESCRIPTION/SAMPLING DATE						OLFB-1140-MW03-16D 4/18/06 11:00:00 AM
ANALYTES	USEPA METHOD	UNITS	MDL	REPORTING LIMITS	DILUTION FACTOR	CONC
Sulfate	300.0	µg/L	150	500	1	2380
TOC (NPOC)	415.1	µg/L	500	2000	1	3370

See attached page for definitions of terms and qualifiers.

Empirical Laboratories
227 French Landing Drive ▪ Suite 550 ▪ Nashville, TN 37228 ▪ Tel (615) 345-1115 ▪ Fax (615) 846-5426

Empirical Laboratories

CLIENT: Tetra Tech NUS, Inc.
DATE RECEIVED: 04/19/06
DATE REPORTED: 05/16/06

EMPIRICAL LABORATORIES SAMPLE NUMBER						0604201-01
CLIENT SAMPLE DESCRIPTION/SAMPLING DATE						OLFB-1140-MW08-15 4/18/06 11:15:00 AM
ANALYTES	USEPA METHOD	UNITS	MDL	REPORTING LIMITS	DILUTION FACTOR	CONC
Sulfate	300.0	µg/L	150	500	1	6240
TOC (NPOC)	415.1	µg/L	500	2000	1	9930

See attached page for definition of terms and qualifiers.

Empirical Laboratories

CLIENT: Tetra Tech NUS, Inc.
DATE RECEIVED: 04/19/06
DATE REPORTED: 05/16/06

EMPIRICAL LABORATORIES SAMPLE NUMBER						0604201-06
CLIENT SAMPLE DESCRIPTION/SAMPLING DATE						OLFB-1140-MW09-15 4/18/06 1:25:00 PM
ANALYTES	USEPA METHOD	UNITS	MDL	REPORTING LIMITS	DILUTION FACTOR	CONC
Sulfate	300.0	µg/L	150	500	1	10700
TOC (NPOC)	415.1	µg/L	500	2000	1	4850

See attached page for definitions of terms and qualifiers.

EMPIRICAL LABORATORIES

Betty DeVille for

D. Rick Davis
Vice President

Empirical Laboratories
227 French Landing Drive ▪ Suite 550 ▪ Nashville, TN 37228 ▪ Tel (615) 345-1115 ▪ Fax (615) 846-5426

Empirical Laboratories

CLIENT: Tetra Tech NUS, Inc.
DATE RECEIVED: 04/19/06
DATE REPORTED: 05/16/06

EMPIRICAL LABORATORIES SAMPLE NUMBER						0604201-03
CLIENT SAMPLE DESCRIPTION/SAMPLING DATE						OLFB-1140-MW13-15 4/18/06 12:20:00 PM
ANALYTES	USEPA METHOD	UNITS	MDL	REPORTING LIMITS	DILUTION FACTOR	CONC
Sulfate	300.0	µg/L	150	500	1	2640
TOC (NPOC)	415.1	µg/L	500	2000	1	4780

See attached page for definitions of terms and qualifiers.

Empirical Laboratories
227 French Landing Drive ▮ Suite 550 ▮ Nashville, TN 37228 ▮ Tel (615) 345-1115 ▮ Fax (615) 846-5426

EMPIRICAL LABORATORIES, LLC - CHAIN OF CUSTODY RECORD

55814

Ship to:
EMPIRICAL LABORATORIES, LLC
227 French Landing Drive
Suite 550
Nashville, TN 37228
Attn: Analytical Laboratory
(615) 345-1115 (phone)
(615) 846-5426 (fax)

Send Results to:
Name Gerry Walker
Company Tetra-Tech NUS
Address 3360 Capital Circle NE Ste B
City,State,Zip Tally, FL 32308
Phone (850) 385-9899
Fax
E-mail walkerg@tnus.com

Send Invoice To: Same
Name
Company
Address
City,State,Zip
Phone
Purchase Order
E-mail

Details:
Page ____ of ____
Cooler No. 1 of 1
Date Shipped 4-18-6
Shipped By C. Odom
Turnaround
(Std. Turn unless noted otherwise / There may be a surcharge for RUSH-contact lab)

Project No./Name
Samplers (Signature)*

Lab Use Only Lab #	Date Sampled	Time	Comp./ Grab	Sample Location/Description	Sample Matrix	Field pH/Temp	Field Cond.	ANALYSIS REQUIRED	No. of Bottles	*Lab Use Only* Containers/Pres.
4201-01	4/18/06	1115		OLFB-1140-MW08-15	Aq			TOC, Sulfate, PAHs	4	2H 1C UNPRES 1D H2SO4 PHLo
02	"	1100		OLFB-1140-MW03-16	Aq			"	4	
03	"	1220		OLFB-1140-MW13-15	Aq			"	4	
04	"	1210		OLFB-1140-MW02-15	Aq			"	4	
05	"	1100		OLFB-1140-MW03-16D	Aq			"	4	
06	"	1325		OLFB-1140-MW09-15	Aq			"	4	

	Date/Time	Received By: (Signature)
Sample Kit Prep'd by: (Signature)	4-17-06	
Relinquished by: (Signature)	4-18-6/1405	Received By: (Signature)
Relinquished by: (Signature)	Date/Time	Received By: (Signature)
Received for Laboratory by: (Signature)	4-19-06/9a	Temperature 13.0°C

REMARKS
*Signature required to ensure validity

Lab Use Only

VOA Headspace	Y	N	NA
Field Filtered	Y	N	NA
Correct Containers	Y	N	NA
Discrepancies	Y	N	NA (TOM
Cust. Seals intact	Y	N	NA
Containers Intact	Y	N	NA

Airbill # FX
CAR #

Distribution: Original and yellow copies accompany sample shipment to laboratory; Pink retained by samplers.

HOLDTIME

SDG 0604201

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
SO4	UG/L	OLFB-1140-MW03-16	0604201-02	NM	4/18/2006	4/19/2006	4/19/2006	1	0	1
SO4	UG/L	OLFB-1140-MW02-15	0604201-04	NM	4/18/2006	4/19/2006	4/19/2006	1	0	1
SO4	UG/L	OLFB-1140-MW03-16D	0604201-05	NM	4/18/2006	4/19/2006	4/19/2006	1	0	1
SO4	UG/L	OLFB-1140-MW08-15	0604201-01	NM	4/18/2006	4/19/2006	4/19/2006	1	0	1
SO4	UG/L	OLFB-1140-MW09-15	0604201-06	NM	4/18/2006	4/19/2006	4/19/2006	1	0	1
SO4	UG/L	OLFB-1140-MW13-15	0604201-03	NM	4/18/2006	4/19/2006	4/19/2006	1	0	1
TOC	UG/L	OLFB-1140-MW13-15	0604201-03	NM	4/18/2006	4/20/2006	4/20/2006	2	0	2
TOC	UG/L	OLFB-1140-MW03-16	0604201-02	NM	4/18/2006	4/20/2006	4/20/2006	2	0	2
TOC	UG/L	OLFB-1140-MW03-16D	0604201-05	NM	4/18/2006	4/20/2006	4/20/2006	2	0	2
TOC	UG/L	OLFB-1140-MW08-15	0604201-01	NM	4/18/2006	4/20/2006	4/20/2006	2	0	2
TOC	UG/L	OLFB-1140-MW09-15	0604201-06	NM	4/18/2006	4/20/2006	4/20/2006	2	0	2
TOC	UG/L	OLFB-1140-MW02-15	0604201-04	NM	4/18/2006	4/20/2006	4/20/2006	2	0	2
OS	%	OLFB-1140-MW13-15	0604201-03	NM	4/18/2006	4/24/2006	4/26/2006	6	2	8
OS	%	OLFB-1140-MW09-15	0604201-06	NM	4/18/2006	4/24/2006	4/26/2006	6	2	8
OS	%	OLFB-1140-MW08-15DL	0604201-01DL	NM	4/18/2006	4/24/2006	5/1/2006	6	7	13

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OS	%	OLFB-1140-MW08-15	0604201-01	NM	4/18/2006	4/24/2006	4/26/2006	6	2	8
OS	%	OLFB-1140-MW02-15	0604201-04	NM	4/18/2006	4/24/2006	4/26/2006	6	2	8
OS	%	OLFB-1140-MW03-16DL	0604201-02DL	NM	4/18/2006	4/24/2006	5/1/2006	6	7	13
OS	%	OLFB-1140-MW03-16	0604201-02	NM	4/18/2006	4/24/2006	4/26/2006	6	2	8
OS	%	OLFB-1140-MW03-16D	0604201-05	NM	4/18/2006	4/24/2006	4/26/2006	6	2	8
OS	%	OLFB-1140-MW13-15DL	0604201-03DL	NM	4/18/2006	4/24/2006	5/1/2006	6	7	13
OS	%	OLFB-1140-MW03-16DDL	0604201-05DL	NM	4/18/2006	4/24/2006	5/1/2006	6	7	13
OS	UG/L	OLFB-1140-MW08-15DL	0604201-01DL	NM	4/18/2006	4/24/2006	5/1/2006	6	7	13
OS	UG/L	OLFB-1140-MW02-15	0604201-04	NM	4/18/2006	4/24/2006	4/26/2006	6	2	8
OS	UG/L	OLFB-1140-MW03-16	0604201-02	NM	4/18/2006	4/24/2006	4/26/2006	6	2	8
OS	UG/L	OLFB-1140-MW03-16D	0604201-05	NM	4/18/2006	4/24/2006	4/26/2006	6	2	8
OS	UG/L	OLFB-1140-MW03-16DDL	0604201-05DL	NM	4/18/2006	4/24/2006	5/1/2006	6	7	13
OS	UG/L	OLFB-1140-MW08-15	0604201-01	NM	4/18/2006	4/24/2006	4/26/2006	6	2	8
OS	UG/L	OLFB-1140-MW09-15	0604201-06	NM	4/18/2006	4/24/2006	4/26/2006	6	2	8
OS	UG/L	OLFB-1140-MW13-15	0604201-03	NM	4/18/2006	4/24/2006	4/26/2006	6	2	8
OS	UG/L	OLFB-1140-MW13-15DL	0604201-03DL	NM	4/18/2006	4/24/2006	5/1/2006	6	7	13
OS	UG/L	OLFB-1140-MW03-16DL	0604201-02DL	NM	4/18/2006	4/24/2006	5/1/2006	6	7	13

NAS PENSACOLA
WATER DATA
0604201

FRACTION	CHEMICAL	OLFB-1140-MW03-16	UNITS	OLFB-1140-MW03-16D	RPD	D
PAH	ACENAPHTHENE	1.8	UG/L	2	10.53	0.20
PAH	FLUORENE	3.2	UG/L	3.5	8.96	0.30
PAH	NAPHTHALENE	2.2	UG/L	2.7	20.41	0.50
PAH	PHENANTHRENE	1.4	UG/L	1.5	6.90	0.10
PAH	PYRENE	ND	UG/L	0.049 J	NC	NC

Current RPD Quality Control Limit: 30 %.
Shaded cells indicate RPDs that exceed the applicable quality control limit.
ND = Compound not detected.
NC = Statistic not calculated

NAS PENSACOLA
WATER DATA
0604201

FRACTION	CHEMICAL	OLFB-1140-MW03-16DL	UNITS	OLFB-1140-MW03-16DD	RPD	D
PAH	1-METHYLNAPHTHALENE	19	UG/L	20	5.13	1.00
PAH	2-METHYLNAPHTHALENE	12	UG/L	13	8.00	1.00

Current RPD Quality Control Limit: 30 %.
Shaded cells indicate RPDs that exceed the applicable quality control limit.

NAS PENSACOLA
WATER DATA
0604201

FRACTION	CHEMICAL	OLFB-1140-MW03-16	UNITS	OLFB-1140-MW03-16D	RPD	D
MISC	SULFATE	2500	UG/L	2380	4.92	120.00
MISC	TOTAL ORGANIC CARBON	3360	UG/L	3370	0.30	10.00

Current RPD Quality Control Limit: 30 %.
Shaded cells indicate RPDs that exceed the applicable quality control limit.