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# SECOND ANNUAL MONITORING AND FREE PRODUCT REMOVAL REPORT



Former Underground Storage Tank 117 Building 7009 Bulk Fuel Facility (HAA-09) Facility ID #9-025113\*2 Hunter Army Airfield, Georgia

**Prepared for** 



U.S. ARMY CORPS OF ENGINEERS SAVANNAH DISTRICT

Contract No. DACA21-02-D-0004 Delivery Order 0044

December 2005



# SECOND ANNUAL MONITORING AND FREE PRODUCT REMOVAL REPORT FOR FORMER UNDERGROUND STORAGE TANK 117 BUILDING 7009 BULK FUEL FACILITY (HAA-09) FACILITY ID #9-025113\*2 HUNTER ARMY AIRFIELD, GEORGIA

**Prepared** for

U. S. Army Corps of Engineers, Savannah District and Fort Stewart Directorate of Public Works Under Contract Number DACA21-02-D-0004 Delivery Order 0044

Prepared by

Science Applications International Corporation P.O. Box 2501 Oak Ridge, TN 37831

December 2005

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List of Abbreviations and Acronyms

ACL	alternate concentration limit
AST	aboveground storage tank
BTEX	benzene, toluene, ethylbenzene, and xylenes
CAP	Corrective Action Plan
EPA	U. S. Environmental Protection Agency
GA EPD	Georgia Environmental Protection Division
IWQS	In-Stream Water Quality Standard
MCL	maximum contaminant level
PAH	polynuclear aromatic hydrocarbon
SAIC	Science Applications International Corporation
UST	underground storage tank

# MONITORING AND FREE PRODUCT REMOVAL REPORT

ate: <u>November 2005</u> Monitoring Re	port Number:	2nd Annual
Covering: July 2004 to January 2	2005	
ne: Former UST 117 Stre	et Address:	Bulk Fuel Facility, Building 7002
<u>9-025113*2</u> City: <u>Savannah</u> C	ounty: <u>Cha</u>	tham Zip Code: 31409
32°01'43" Longitude: 81°08'37"		
y UST Owner/Operator:	Prepared by	Consultant/Contractor:
Thomas C. Fry/Environmental Branch	Name:	Patricia A. Stoll
U. S. Army/HQ 3d, Inf. Div. (Mech)	Company:	SAIC
Directorate of Public Works, Building 1137	Address:	P.O. Box 2501
1550 Frank Cochran Drive		
Fort Stewart State: GA	City:	Oak Ridge State: TN
31314-4927	Zip Code:	37831
(912) 767-2010	Telephone:	(865) 481-8792
	Covering:       July 2004       to       January 2         De:       Former UST 117       Stre         9-025113*2       City:       Savannah       C         32°01'43"       Longitude:       81°08'37"         y       UST Owner/Operator:       Thomas C. Fry/Environmental Branch       C         U. S. Army/HQ 3d, Inf. Div. (Mech)       Directorate       of       Public       Works,         Building 1137       1550 Frank Cochran Drive       Fort Stewart       State:       GA         31314-4927	Covering:July 2004toJanuary 2005Dee:Former UST 117Street Address:9-025113*2City:SavannahCounty:9-025113*2City:SavannahCounty:9-025113*2City:SavannahCounty:32°01'43"Longitude:81°08'37"yUST Owner/Operator:Prepared byThomas C. Fry/Environmental BranchName:U. S. Army/HQ 3d, Inf. Div. (Mech)Company:DirectorateofPublicBuilding 1137Address:1550 Frank Cochran DriveFort StewartFort StewartState:GACity:Zip Code:

#### I. REGISTERED PROFESSIONAL ENGINEER OR PROFESSIONAL GEOLOGIST CERTIFICATION

I hereby certify that I have directed and supervised the fieldwork and preparation of this plan in accordance with State Rules and Regulations. As a registered professional geologist and/or professional engineer, I certify that I am a qualified groundwater professional, as defined by the Georgia State Board of Professional Geologists. All of the information and laboratory data in this plan and in all of the attachments are true, accurate, complete, and in accordance with applicable State Rules and Regulations.

Name: Pat	Name: Patricia A. Stoll						
Signature:	Pate: C. Jol						
Date:	12/6/05						

Georgia Stamp or

#### II. PROJECT SUMMARY

(Appendix I, Figure 1: Site Location Map)

# *Provide a brief description or explanation of the site and a brief chronology of environmental events leading up to this report.*

Former Underground Storage Tank (UST) 117, Facility ID #9-025113\*1, was located near Building 7002 at the Bulk Fuel Facility at Hunter Army Airfield, Georgia. The Bulk Fuel Facility is approximately 600 by 1,200 ft and covers an area of approximately 16.5 acres. Currently, the facility contains three aboveground storage tanks (ASTs) for the storage of jet propellant (JP)-8 with capacities of approximately 500,000 gal each, aboveground and underground piping, and off-loader and pump stations for the distribution of fuel to and from the tanks. The tank was removed and the piping abandoned in place on September 30, 1996. Science Applications International Corporation (SAIC) performed a soil gas survey in January 1999 to identify areas of significant contaminant concentrations (SAIC 1999). SAIC conducted a Corrective Action Plan (CAP)-Part A investigation in December 1999 and January 2000 and a CAP-Part B investigation from November 2000 to March 2001 to determine the extent of petroleum contamination at the site. Thirty-four monitoring wells, seven soil borings, and six vertical-profile borings were installed during these investigations, and surface water and sediment samples were collected from Lamar Canal. The CAP-Part B Report (SAIC 2001) was submitted to the Georgia Environmental Protection Division (GA EPD) UST Management Program in July 2001. The report recommended that a well be installed to replace BF-MW-21, which had been destroyed, and that seven monitoring wells (i.e., BF-MW-19, BF-MW-20, BF-MW-21R, BF-MW-22, BF-MW-32, BF-MW-33, and BF-MW-34) be sampled on a semiannual basis for benzene, toluene, ethylbenzene, and xylenes (BTEX) and polynuclear aromatic hydrocarbons (PAHs) because benzene and naphthalene were selected as constituents of potential concern in groundwater. The fate and transport modeling performed as part of the CAP-Part B Report reflected a continuous source of contamination. The results are summarized in Attachment A of this document.

In July 2002 and January 2003, free product was observed in well BF-MW-E5, which is located in the vicinity of AST 7009. This tank is approximately 500 ft northeast of AST 7003, which is where the groundwater plume is being monitored. Free product was not observed in this well during the CAP–Part B investigation. During that investigation, the BTEX and PAH constituents detected in the well were below the maximum contaminant level (MCL), the In-Stream Water Quality Standard (IWQS), and the alternate concentration limit (ACL); therefore, groundwater monitoring of this area was not warranted.

It was apparent that there were two separate releases at the Bulk Fuel Facility. For clarification, Release #1 is associated with the groundwater plume in the vicinity of AST 7003 where the original semiannual monitoring only program was conducted. GA EPD granted no further action for Release #1 in correspondence dated October 6, 2003 (Lewis 2003). Release #2 is associated with the free product observed in well BF-MW-E5, which is in the vicinity of AST 7009 and has been assigned Facility ID #9-025113\*2.

As recommended in the First Annual Monitoring Only Report (SAIC 2003), three additional wells were installed around the perimeter of the bermed area in the vicinity of AST 7009 to confirm that free product in BF-MW-E5 was not from an upgradient source or migrating downgradient of the AST containment area. Well construction diagrams are provided in Attachment D. Due to the construction of the containment area around the AST, the "E" series of monitoring wells could not be overdrilled and screened across the water table. Also, additional wells could not be installed within the containment area do to accessibility issues.

The purpose of the semiannual monitoring, summarized in this report, was to confirm that natural attenuation is taking place at the site and to document the free product removal activities at the site. In accordance with recommendations made in the First Annual Monitoring Only Report (SAIC 2003), ACLs will be developed for any constituent exceeding its respective IWQS by conducting fate and transport modeling specifically for Release #2. During the year of semiannual monitoring associated with Release #2, none of the constituents exceeded its respective IWQS, thus ACLs were not developed at this time. The monitoring only plan for Release #2 will be terminated if contaminant concentrations are less that their respective IWQS or ACL and if free product is less that 1/8-in. The monitoring only program may be terminated regardless of the site ranking score.

#### III. ACTIVITIES AND ASSESSMENT OF EXISTING CONDITIONS

#### A. <u>Potentiometric Data</u>:

(Appendix I, Figure 2: Potentiometric Surface Map) (Appendix II, Table 1: Groundwater Elevations)

#### Discuss groundwater flow at this site and implications for this project.

During the water level measurement activities at the site during the semiannual monitoring for Release #1, free product was identified in well BF-MW-E5 (i.e., Release #2). This well is located within the containment system of active AST 7009 and is approximately 500 ft northeast of AST 7003 and Release #1. During the CAP–Part B investigation, free product was not observed in well BF-MW-E5. In June 2004, three additional wells were installed around the perimeter of the containment area associated with AST 7009 to confirm that free product was not migrating beyond the perimeter of the containment area and that free product was not coming from an upgradient source. Well BF-MW-E5 is the only well at the site that contains free product.

At various times throughout the year, the water level in BF-MW-E5 is above the screened interval, thus free product is being removed by aggressively pumping the well on a bi-monthly basis with absorbent socks placed in the well in between pumping events when the presence of free product warrants absorbent sock placement. This alternative ensures the active AST system for the Army's Southeastern Power Projection Platform stays operational and that the integrity of the associated system remains intact. The free product removal activities were initiated in June 2004, when there was 3.14 ft of free product present in BF-MW-05. The free product thickness has continued to decrease since June 2004 with the bi-monthly pumping events. Absorbent socks have not been placed in the well since July 2004. Since October 2004, the maximum free product thickness was 0.01 ft in February 2005. In the other monthly measurements, there has either been a sheen or no product present. A summary of free product removal activities is provided in Table 4.

During the third semiannual monitoring event in July 2004, groundwater elevations were measured in the site monitoring wells to determine the groundwater flow direction (Table 1). In July 2004, the groundwater flow direction ranged from the south to the southeast toward Lamar Canal, and the average groundwater gradient was approximately 0.008 ft/ft. Free product was observed in well BF-MW-E5, which is associated with Release #2.

During the fourth semiannual monitoring event in January 2005, groundwater elevations were measured in the site monitoring wells to determine the groundwater flow direction (Table 1). In January 2005, the groundwater flow direction was to the southeast toward Lamar Canal, and the average groundwater gradient was approximately 0.007 ft/ft. A sheen was observed in well BF-MW-E5, which is associated with Release #2.

#### B. <u>Analytical Data</u>:

(Appendix I, Figure 3: Groundwater Quality Map) (Appendix I, Figure 4: Trend of Contaminant Concentrations) (Appendix II, Table 2: Groundwater Analytical Results) (Appendix II, Table 3: Soil Analytical Results) (Appendix III: Laboratory Analytical Results)

Discuss groundwater analysis results, trend of contaminant concentrations, and implications for this project.

During the third semiannual sampling event in July 2004, which is associated with Release #2, monitoring wells BF-MW-E1, BF-MW-E2, BF-MW-E3, BF-MW-E4, BF-MW-E5, BF-MW-E6, BF-MW-04, BF-MW-25, BF-MW-26, BF-MW-27, BF-MW-35, BF-MW-36, and BF-MW-37 were sampled for BTEX using U. S. Environmental Protection Agency (EPA) Method 8021B/8260B and PAHs using EPA Method 8270C. Analytical results from the sampling event are summarized below.

- Benzene was detected in 1 of 13 groundwater samples at a concentration of 2.0  $\mu$ g/L. The concentration did not exceed the IWQS of 71.28  $\mu$ g/L or the ACL of 634  $\mu$ g/L associated with Release #1.
- Toluene was not detected in any of the groundwater samples.
- Ethylbenzene was detected in 1 of 13 groundwater samples at a concentration of 17.3  $\mu$ g/L. The concentration did not exceed the IWQS of 28,718  $\mu$ g/L.
- Total xylenes were detected in 1 of 13 groundwater samples at a concentration of  $42.7 \ \mu g/L$ . There is no ACL or IWQS for total xylenes; however, the concentration did not exceed the MCL of 10,000  $\mu g/L$ .
- 2-Methylnaphthalene was detected in 4 of 13 groundwater samples at concentrations ranging from 0.6J to  $8.4 \mu g/L$ . There is no ACL or IWQS for 2-methylnaphthalene.
- Acenaphthene was detected in 2 of 13 groundwater samples at concentrations of 1.6 and  $2.8 \mu g/L$ . There is no ACL or IWQS for acenaphthene.
- Fluorene was detected in 2 of 13 groundwater samples at concentrations of 2.6 and 5.7  $\mu$ g/L. The concentrations did not exceed the IWQS of 14,000  $\mu$ g/L.
- Naphthalene was detected in 4 of 13 groundwater samples at concentrations ranging from 0.49J to 17.3 µg/L. There is no IWQS for naphthalene; however, the concentrations did not exceed the ACL of 820 µg/L associated with Release #1.
- Phenanthrene was detected in 2 of 13 groundwater samples at concentrations of 0.57J and 5.28 µg/L. There is no ACL or IWQS for phenanthrene.

None of the constituents exceeded its respective IWQS or ACLs calculated for Release #1. Since none of the constituents associated with Release #2 exceed their respective IWQS, the development of ACLs for Release #2 is not necessary. Figure 4 shows the trend in benzene concentrations in groundwater for the wells in the monitoring only program for Release #2.

During the fourth semiannual sampling event in January 2005, which is associated with Release #2, monitoring wells BF-MW-E1, BF-MW-E2, BF-MW-E3, BF-MW-E4, BF-MW-E5, BF-MW-E6, BF-MW-04, BF-MW-25, BF-MW-26, BF-MW-27, BF-MW-35, BF-MW-36, and BF-MW-37 were sampled for BTEX using EPA Method 8021B/8260B and PAHs using EPA Method 8270C. Analytical results from the sampling event are summarized below.

- Benzene was not detected in any of the groundwater samples.
- Toluene was detected in 2 of 13 groundwater samples at concentrations of 0.43J and 0.47J  $\mu$ g/L. The concentrations did not exceed the IWQS of 200,000  $\mu$ g/L.
- Ethylbenzene was detected in 1 of 13 groundwater samples at a concentration of  $10.4 \mu g/L$ . The concentration did not exceed the IWQS of 28,718  $\mu g/L$ .
- Total xylenes were detected in 2 of 13 groundwater samples at concentration of 0.9J and 34.9  $\mu$ g/L. There is no ACL or IWQS for total xylenes; however, the concentration did not exceed the MCL of 10,000  $\mu$ g/L.
- 2-Methylnaphthalene was detected in 3 of 13 groundwater samples at concentrations ranging from 1.4 and 43.2  $\mu$ g/L. There is no ACL or IWQS for 2-methylnaphthalene.
- Acenaphthene was detected in 2 of 13 groundwater samples at concentrations of 1.6 and 5.4 µg/L. There is no ACL or IWQS for acenaphthene.
- Fluorene was detected in 2 of 13 groundwater samples at concentrations of 3.1 and  $10.3 \mu g/L$ . The concentrations did not exceed the IWQS of 14,000  $\mu g/L$ .
- Naphthalene was detected in 3 of 12 groundwater samples at concentrations ranging from 0.31J to 32.9 µg/L. There is no IWQS for naphthalene; however, the concentrations did not exceed the ACL of 820 µg/L associated with Release #1.
- Phenanthrene was detected in 2 of 12 groundwater samples at concentrations of 1.2 and 10.7  $\mu$ g/L. There is no ACL or IWQS for phenanthrene.
- Pyrene was detected in 1 of 13 groundwater samples at a concentration of 2.4  $\mu$ g/L. The concentration did not exceed the IWQS of 11,000  $\mu$ g/L.

None of the constituents exceeded its respective IWQS or ACLs calculated for Release #1. Since none of the constituents associated with Release #2 exceed their respective IWQS, the development of ACLs for Release #2 is not necessary. Figure 4 shows the trend in benzene concentrations in groundwater for the wells in the monitoring only program for Release #2.

05-039(E)/120605

### IV. SITE RANKING (Note: Re-rank site after each monitoring event.)

(Appendix IV: Site Ranking Form)

Environmental Site Sensitivity Score: (April 1999 version of the Site Ranking Form was used for all scores.)	Release #1 3,250 (CAP–Part B Report) 3,250 (July 2002 – First semiannual sampling event) 3,250 (Jan. 2003 – Second semiannual sampling event) Release #2 65,250 (July 2004 – Third semiannual sampling event)
	12,750 (Jan. 2005 – Fourth semiannual sampling event)

#### V. CONCLUSIONS/RECOMMENDATIONS

Provide justification of no-further-action-required recommendation or briefly discuss future monitoring plans for this site.

The Monitoring Only Plan for the plume in the vicinity of BF-MW-21 (i.e., Release #1) was conducted in accordance with Section III.D of the CAP–Part B Report (SAIC 2001). Termination conditions in the CAP–Part B Report were achieved and GA EPD granted no further action for Release #1 in correspondence dated October 6, 2003 (Lewis 2003).

The Monitoring Only Plan for the plume in the vicinity of BF-MW-E5 (i.e., Release #2) is being conducted in accordance with the technical approach provided in the First Annual Monitoring Only Report (SAIC 2003). Termination for Release #2 will be requested once the measured contaminants remain below their respective IWQS or ACL for 1 year and the free product thickness is less than 1/8-in. The Monitoring Only Plan may be terminated regardless of the site ranking score if the above conditions are met.

During the last year of the monitoring program, a free-product mixture has been pumped from well BF-MW-E5 on a bi-monthly basis. Free product has measured between 0 and 0.1 ft since September 20, 2004. Because BTEX and PAH concentrations associated with Release #2 have not exceeded their respective IWQS and ACLs since the CAP–Part B Investigation (Release #2) – 2000, it is recommended that semiannual groundwater sampling of the site be discontinued. Due to the presence of a sporadic sheen, the pumping of well BF-MW-05 will be continued on a bi-monthly basis for 1 year, with product levels measured prior to each pumping event. The results of the free product removal and final confirmatory sampling will be documented in the Third Annual Monitoring Report, which will be submitted to GA EPD in May 2006.

#### VI. REIMBURSEMENT

(Appendix V: Reimbursement Application)

Fort Stewart is a federally owned facility and has funded the investigation for the former UST 117 site, Facility ID #9-025113\*2, using U. S. Department of Defense Environmental Restoration Account Funds. Application for Georgia UST Trust Fund reimbursement is not being pursued at this time.

Attached N/A X

# **APPENDIX I**

# **REPORT FIGURES**







Figure 2a. Potentiometric Surface Map of the Former UST 117 Site (July 2004)



Figure 2b. Potentiometric Surface Map of the Former UST 117 Site (January 2005)



Figure 3a. Groundwater Quality Map of the Former UST 117 Site, Release #2 (July 2004)



Figure 3b. Groundwater Quality Map of the Former UST 117 Site, Release #2 (January 2005)



Figure 4. Trend of Benzene Concentrations for the Former UST 117 Site

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# **APPENDIX II**

# **REPORT TABLES**

#### **Table 1. Groundwater Elevations**

		Top of	Depth of	Depth to			Corrected
		Casing	Screened	Free	Depth to	Product	Groundwater
Well Number	Date Measured	Elevation (ft AMSL)	Interval (ft BGS)	Product (ft BTOC)	Water (ft BTOC)	Thickness (ft)	Elevation <sup>a</sup> (ft AMSL)
Number	Measureu					(11)	(It AMSL)
	07/11/02	1	iannual Monit	bring Eveni –		0	11.42
BF-MW-01	07/11/02	15.47	3.5 - 12.5		4.04	0	11.43
BF-MW-02	07/11/02	16.24	3.5 - 13.0		3.88	0	12.36
BF-MW-03	07/11/02	16.39	3.6 - 13.1		3.88	0	12.51
BF-MW-04	07/11/02	17.11	2.8 - 12.3		4.63	0	12.48
BF-MW-05	07/11/02	16.99	2.9 - 12.4		4.40	0	12.59
BF-MW-06	07/11/02	16.80	2.7 - 12.2		4.26	0	12.54
BF-MW-07	07/11/02	16.74	2.9 - 12.4		4.44	0	12.30
BF-MW-08	07/11/02	16.40	2.3 - 11.8		4.00	0	12.40
BF-MW-09	07/11/02	16.60	2.9 - 12.4		4.62	0	11.98
BF-MW-10	07/11/02	15.33	2.3 - 11.8		3.56	0	11.77
BF-MW-11	07/11/02	15.42	2.3 - 11.8		3.52	0	11.90
BF-MW-12	07/11/02	16.35	3.0 - 12.5		4.79	0	11.56
BF-MW-13	07/11/02	13.72	2.3 - 11.8		4.84	0	8.88
BF-MW-14	07/11/02	15.26	28 - 12.3		5.04	0	10.22
BF-MW-15	07/11/02	15.01	2.5 - 12.0		3.56	0	11.45
BF-MW-16	07/11/02	12.61	2.7 - 12.2		4.74	0	7.87
BF-MW-17	07/11/02	13.15	3.0 - 12.5	_	3.08	0	10.07
BF-MW-18	07/11/02	12.99	3.4 - 12.9		3.80	0	9.19
BF-MW-19	07/11/02	13.88	2.0 - 11.5		3.61	0	10.27
BF-MW-20	07/11/02	14.79	2.2 - 11.7		3.38	0	11.41
BF-MW-21R	07/11/02	14.57	4.8 - 14.8		3.55	0	11.02
BF-MW-22	07/11/02	14.60	2.4 - 11.9		3.19	0	11.41
BF-MW-23	07/11/02	14.74	2.7 - 12.2		3.13	0	11.61
BF-MW-25	07/11/02	13.60	3.6 - 13.1		3.90	0	9.70
BF-MW-27	07/11/02	14.90	2.5 - 12.0		2.72	0	12.18
BF-MW-28	07/11/02	15.49	2.0 - 11.5		4.07	0	11.42
BF-MW-29	07/11/02	14.49	2.0 - 11.5		2.82	0	11.67
BF-MW-30	07/11/02	14.19	1.9 – 11.4		2.85	0	11.34
BF-MW-31	07/11/02	14.46	1.5 - 11.0		3.53	0	10.93
BF-MW-32	07/11/02	15.74	1.4 - 11.2		5.12	0	10.62
BF-MW-33	07/11/02	13.95	1.6 - 11.4		4.75	0	9.20
BF-MW-34	07/11/02	14.87	3.1 - 13.1		5.24	0	9.63
BF-MW-E1	07/11/02	14.00	4.6 - 14.6		3.77	0	10.23
BF-MW-E2	07/11/02	13.76	3.94 - 13.94		3.91	0	9.85
BF-MW-E3	07/11/02	13.99	4.4 - 14.4		4.31	0	9.68

NOTES:

<sup>*a*</sup> Corrected groundwater elevation based on a product density of 880 kg/m<sup>3</sup>.

AMSL Above mean sea level.

BGS Below ground surface.

BTOC Below top of casing.

		Top of Casing	Depth of Screened	Depth to Free	Depth to	Product	Corrected Groundwater				
Well	Date	Elevation	Interval	Product	Water	Thickness	Elevation <sup><i>a</i></sup>				
Number	Measured	(ft AMSL)	(ft BGS)	(ft BTOC)	(ft BTOC)	( <b>ft</b> )	(ft AMSL)				
BF-MW-E4	07/11/02	13.88	4.6 - 14.6		4.42	0	9.46				
BF-MW-E5	07/11/02	14.00	4.8 - 14.8	4.34	4.41	0.07	9.65 <sup><i>a</i></sup>				
BF-MW-E6	07/11/02	13.76	3.7 – 13.7		3.69	0	10.07				
	Second Semiannual Monitoring Event – January 2003										
BF-MW-01	01/27/03	15.47	3.5 - 12.5		3.71	0	11.76				
BF-MW-03	01/27/03	16.39	3.6 - 13.1		3.79	0	12.60				
BF-MW-09	01/27/03	16.60	2.9 - 12.4		4.29	0	12.31				
BF-MW-12	01/27/03	16.35	3.0 - 12.5		4.39	0	11.96				
BF-MW-17	01/27/03	13.15	3.0 - 12.5		2.47	0	10.68				
BF-MW-18	01/27/03	12.99	3.4 - 12.9		3.32	0	9.67				
BF-MW-19	01/27/03	13.88	2.0 - 11.5		3.38	0	10.50				
BF-MW-20	01/27/03	14.79	2.2 - 11.7		3.08	0	11.71				
BF-MW-21R	01/27/03	14.57	4.8 - 14.8		3.45	0	11.12				
BF-MW-22	01/27/03	14.60	2.4 - 11.9		3.05	0	11.55				
BF-MW-23	01/27/03	14.74	2.7 - 12.2		3.12	0	11.62				
BF-MW-25	01/27/03	13.60	3.6 - 13.1		3.72	0	9.88				
BF-MW-26	01/27/03	13.62	2.4 - 11.9		2.01	0	11.61				
BF-MW-28	01/27/03	15.49	2.0 - 11.5		4.02	0	11.47				
BF-MW-32	01/27/03	15.74	1.4 - 11.2		4.88	0	10.86				
BF-MW-33	01/27/03	13.95	1.6 - 11.4		4.54	0	9.41				
BF-MW-E1	01/27/03	14.00	4.6 - 14.6		3.99	0	10.01				
BF-MW-E2	01/27/03	13.76	3.94 - 13.94		4.02	0	9.74				
BF-MW-E3	01/27/03	13.99	4.4 - 14.4		4.38	0	9.61				
BF-MW-E4	01/27/03	13.88	4.6 - 14.6		4.22	0	9.66				
BF-MW-E5	01/27/03	14.00	4.8 - 14.8	4.44	4.54	0.1	9.55 <sup><i>a</i></sup>				
BF-MW-E6	01/27/03	13.76	3.7 – 13.7		3.87	0	9.89				
	-	Third Sem	iannual Moni	toring Event -	July 2004	_	-				
BF-MW-01	07/16/04	15.47	3.5 - 12.5		4.42	0	11.05				
BF-MW-02	07/16/04	16.24	3.5 - 13.0		4.06	0	12.18				
BF-MW-03	07/16/04	16.39	3.6 - 13.1		4.01	0	12.38				
BF-MW-04	07/16/04	17.11	2.8 - 12.3		4.72	0	12.39				
BF-MW-05	07/16/04	16.99	2.9 - 12.4		4.52	0	12.47				
BF-MW-06	07/16/04	16.80	2.7 - 12.2		5.42	0	11.38				
BF-MW-07	07/16/04	16.74	2.9 - 12.4		4.46	0	12.28				
BF-MW-08	07/16/04	16.40	2.3 - 11.8		4.18	0	12.22				
BF-MW-09	07/16/04	16.60	2.9 - 12.4		4.52	0	12.08				

#### Table 1. Groundwater Elevations (continued)

#### NOTES:

<sup>*a*</sup> Corrected groundwater elevation based on a product density of 880 kg/m<sup>3</sup>.

AMSL Above mean sea level.

BGS Below ground surface.

BTOC Below top of casing.

Well Number	Date Measured	Top of Casing Elevation (ft AMSL)	Depth of Screened Interval (ft BGS)	Depth to Free Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Corrected Groundwater Elevation <sup>a</sup> (ft AMSL)
BF-MW-10	07/16/04	15.33	2.3 - 11.8		3.53	0	11.80
BF-MW-11	07/16/04	15.42	2.3 - 11.8		3.32	0	12.10
BF-MW-12	07/16/04	16.35	3.0 - 12.5		4.77	0	11.58
BF-MW-13	07/16/04	13.72	2.3 - 11.8		5.00	0	8.72
BF-MW-14	07/16/04	15.26	28-12.3	_	5.14	0	10.12
BF-MW-15	07/16/04	15.01	2.5 - 12.0	NM	NM	NM	NM
BF-MW-16	07/16/04	12.61	2.7 - 12.2	NM	NM	NM	NM
BF-MW-17	07/16/04	13.15	3.0 - 12.5		3.14	0	10.01
BF-MW-18	07/16/04	12.99	3.4 - 12.9		4.02	0	8.97
BF-MW-19	07/16/04	13.88	2.0 - 11.5		3.98	0	9.90
BF-MW-20	07/16/04	14.79	2.2 - 11.7		3.27	0	11.52
BF-MW-21R	07/16/04	14.57	4.8 - 14.8		3.56	0	11.01
BF-MW-22	07/16/04	14.60	2.4 - 11.9		3.02	0	11.58
BF-MW-23	07/16/04	14.74	2.7 - 12.2		3.09	0	11.65
BF-MW-25	07/16/04	13.60	3.6 - 13.1	NM	NM	NM	NM
BF-MW-27	07/16/04	14.90	2.5 - 12.0		2.74	0	12.16
BF-MW-28	07/16/04	15.49	2.0 - 11.5		4.02	0	11.47
BF-MW-29	07/16/04	14.49	2.0 - 11.5		2.71	0	11.78
BF-MW-30	07/16/04	14.19	1.9 - 11.4		2.84	0	11.35
BF-MW-31	07/16/04	14.46	1.5 - 11.0		3.46	0	11.00
BF-MW-32	07/16/04	15.74	1.4 - 11.2		5.24	0	10.50
BF-MW-33	07/16/04	13.95	1.6 - 11.4		4.88	0	9.07
BF-MW-34	07/16/04	14.87	3.1 – 13.1		4.92	0	9.95
BF-MW-35	07/16/04	14.94	2.4 - 12.4		3.91	0	11.03
BF-MW-36	07/16/04	15.16	2.6 - 12.6		5.90	0	9.26
BF-MW-37	07/16/04	16.07	2.3 - 12.3		5.07	0	11.00
BF-MW-E1	07/16/04	14.00	4.6 - 14.6		3.92	0	10.08
BF-MW-E2	07/16/04	13.76	3.94 - 13.94		4.64	0	9.12
BF-MW-E3	07/16/04	13.99	4.4 - 14.4		4.64	0	9.35
BF-MW-E4	07/16/04	13.88	4.6 - 14.6		4.80	0	9.08
BF-MW-E5	07/16/04	14.00	4.8 - 14.8	4.48	5.71	1.23	9.37 <sup><i>a</i></sup>
BF-MW-E6	07/16/04	13.76	3.7 – 13.7		3.87	0	9.89
		Fourth Semi	annual Monito	ring Event – J	anuary 2005		1
BF-MW-01	01/12/05	15.47	3.5 - 12.5		3.90	0	11.57
BF-MW-02	01/12/05	16.24	3.5 - 13.0		3.85	0	12.39
BF-MW-03	01/12/05	16.39	3.6 - 13.1		3.80	0	12.59
BF-MW-04	01/12/05	17.11	2.8 - 12.3		4.56	0	12.55
BF-MW-05	01/12/05	16.99	2.9 - 12.4		4.51	0	12.48
BF-MW-06	01/12/05	16.80	2.7 - 12.2		3.91	0	12.89

#### Table 1. Groundwater Elevations (continued)

NOTES:

<sup>a</sup> Corrected groundwater elevation based on a product density of 880 kg/m<sup>3</sup>.

AMSL Above mean sea level.

BGS Below ground surface.

BTOC Below top of casing.

NM Not measured.

		Top of Casing	Depth of Screened	Depth to Free	Depth to	Product	Corrected Groundwater
Well	Date	Elevation	Interval	Product	Water	Thickness	Elevation <sup>a</sup>
Number	Measured	(ft AMSL)	(ft BGS)	(ft BTOC)	(ft BTOC)	(ft)	(ft AMSL)
BF-MW-07	01/12/05	16.74	2.9 - 12.4		4.43	0	12.31
BF-MW-08	01/12/05	16.40	2.3 - 11.8		3.93	0	12.47
BF-MW-09	01/12/05	16.60	2.9 - 12.4	_	4.56	0	12.04
BF-MW-10	01/12/05	15.33	2.3 - 11.8	_	3.48	0	11.85
BF-MW-11	01/12/05	15.42	2.3 - 11.8		3.38	0	12.04
BF-MW-12	01/12/05	16.35	3.0 - 12.5	_	4.63	0	11.72
BF-MW-13	01/12/05	13.72	2.3 - 11.8		3.49	0	10.23
BF-MW-14	01/12/05	15.26	28 - 12.3		4.41	0	10.85
BF-MW-15	01/12/05	15.01	2.5 - 12.0	NM	NM	NM	NM
BF-MW-16	01/12/05	12.61	2.7 - 12.2	NM	NM	NM	NM
BF-MW-17	01/12/05	13.15	3.0 - 12.5		3.07	0	10.08
BF-MW-18	01/12/05	12.99	3.4 - 12.9	_	3.83	0	9.16
BF-MW-19	01/12/05	13.88	2.0 - 11.5		3.85	0	10.03
BF-MW-20	01/12/05	14.79	2.2 - 11.7		3.22	0	11.57
BF-MW-21R	01/12/05	14.57	4.8 - 14.8		3.55	0	11.02
BF-MW-22	01/12/05	14.60	2.4 - 11.9		3.20	0	11.40
BF-MW-23	01/12/05	14.74	2.7 - 12.2		3.19	0	11.55
BF-MW-25	01/12/05	13.60	3.6 - 13.1		4.28	0	9.32
BF-MW-27	01/12/05	14.90	2.5 - 12.0		3.27	0	11.63
BF-MW-28	01/12/05	15.49	2.0 - 11.5		4.21	0	11.28
BF-MW-29	01/12/05	14.49	2.0 - 11.5		2.78	0	11.71
BF-MW-30	01/12/05	14.19	1.9 – 11.4		2.90	0	11.29
BF-MW-31	01/12/05	14.46	1.5 - 11.0		3.39	0	11.07
BF-MW-32	01/12/05	15.74	1.4 - 11.2		5.02	0	10.72
BF-MW-33	01/12/05	13.95	1.6 - 11.4	NM	NM	NM	NM
BF-MW-34	01/12/05	14.87	3.1 – 13.1		4.95	0	9.92
BF-MW-35	01/12/05	14.94	2.4 - 12.4		3.76	0	11.18
BF-MW-36	01/12/05	15.16	2.6 - 12.6		5.69	0	9.47
BF-MW-37	01/12/05	16.07	2.3 - 12.3		4.87	0	11.20
BF-MW-E1	01/12/05	14.00	4.6 - 14.6		4.09	0	9.91
BF-MW-E2	01/12/05	13.76	3.94 - 13.94	_	4.28	0	9.48
BF-MW-E3	01/12/05	13.99	4.4 - 14.4		4.72	0	9.27
BF-MW-E4	01/12/05	13.88	4.6 - 14.6		5.18	0	8.70
BF-MW-E5	01/12/05	14.00	4.8 - 14.8	sheen	4.90	sheen	9.10
BF-MW-E6	01/12/05	13.76	3.7 – 13.7		3.99	0	9.77

#### Table 1. Groundwater Elevations (continued)

#### NOTES:

<sup>*a*</sup> Corrected groundwater elevation based on a product density of 880 kg/m<sup>3</sup>.

AMSL Above mean sea level.

BGS Below ground surface.

BTOC Below top of casing.

NM Not measured.

Sample Location	Sample ID	Date Sampled	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	Total BTEX (µg/L)				
	Corrective Action Plan-Part B Investigation (Release #1) – 2000										
BF-MW-19	BF1922	12/02/00	1 U	1 U	1 U	3 U	ND				
BF-MW-20	BF2022	12/03/00	3.1 =	1 U	2.1 =	7.3 =	12.5				
BF-MW-21	BF2122	12/02/00	251 =	1.3 =	17.4 =	734 =	1,003.7				
BF-MW-22	BF2222	12/02/00	174 =	5.7 =	128 =	662 =	969.7				
BF-MW-32	BF3222	12/01/00	109 J	0.65 J	1.1 =	115 =	225.75				
BF-MW-33	BF3322	12/01/00	1 =	1 U	1 U	3 U	1				
BF-MW-34	BF3422	12/01/00	1 U	1 U	1 U	0.36 J	0.36				
		Semiannual	Sampling E	vent (Releas	se #1) – July 200	02					
BF-MW-19	BF1932	07/11/02	1 U	1 U	1 U	3 U	ND				
BF-MW-20	BF2032	07/11/02	2.5 =	6 =	32.1 =	136 =	176.6				
BF-MW-21R	BF2132	07/11/02	178 =	1.2 =	11.6 =	356 =	546.8				
BF-MW-22	BF2232	07/11/02	45 =	2.5 =	207 =	911 =	1,165.5				
BF-MW-32	BF3232	07/11/02	1.7 =	1 U	20.7 =	103 =	125.4				
BF-MW-33	BF3332	07/11/02	0.99 J	1 U	1 U	3 U	0.99				
BF-MW-34	BF3432	07/11/02	1 U	1 U	1 U	3 U	ND				
			Sampling Ev		e #1) – January						
BF-MW-19	BF1942	01/24/03	1 U	1 U	1 U	1 U	ND				
BF-MW-20	BF2042	01/24/03	3.6 =	1 U	20.4 =	130 =	154				
BF-MW-21R	BF2142	01/24/03	183 =	1.2 =	9.9 =	296 =	490				
BF-MW-22	BF2242	01/24/03	47 =	1 J	105 =	328 =	481				
BF-MW-32	BF3242	01/24/03	1 U	1 U	1 U	1 U	ND				
BF-MW-33	BF3342	01/24/03	1.8 =	0.56 J	1 U	1 U	2.36				
BF-MW-34	BF3442	01/24/03	1 U	1 U	1 U	1 U	ND				
	In-Stream Water Quality Standards (Georgia Rule 391-3-6)			200,000	28,718	NRC	NRC				
Alternate	Concentration	n Limits	634	_		_	_				

#### Table 2a. Groundwater Analytical Results (Volatile Organic Compounds)

#### NOTES:

Bold values exceed In-Stream Water Quality Standards.

BTEX Benzene, toluene, ethylbenzene, and xylenes.

ND Not detected.

NRC No regulatory criteria.

#### Data Qualifiers

J Indicates that the value for the compound is an estimated value.

U Indicates that the compound was not detected above the reported sample quantitation limit.

Sample		Date	Benzene	Toluene	Ethylbenzene	Xylenes	Total BTEX					
Location	Sample ID	Sampled	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)					
	CAP-Part B Investigation (Release #2) – 2000											
BF-MW-04	BF0422	12/02/00	1 U	1 U	1 U	3 U	ND					
BF-MW-25	BF2522	12/02/00	1 U	1 U	1 U	3 U	ND					
BF-MW-26	BF2622	12/02/00	1 U	1 U	1 U	3 U	ND					
BF-MW-27	BF2722	12/03/00	1 U	1 U	1 U	3 U	ND					
BF-MW-E1	BFE122	12/01/00	1 U	1 U	0.99 J	0.45 J	1.44					
BF-MW-E2	BFE222	12/02/00	1 U	0.3 J	1 U	3 U	0.3					
BF-MW-E3	BFE322	12/02/00	1 U	0.48 J	1 U	0.3 J	0.78					
BF-MW-E4	BFE422	12/02/00	0.29 J	0.27 J	0.28 J	0.36 J	1.2					
BF-MW-E5	BFE522	12/02/00	3.6 =	1 =	17.2 =	19 =	40.8					
BF-MW-E6	BFE622	12/01/00	1 U	1 U	1 U	3 U	ND					
	Third	Semiannual	Sampling E	Event (Relea	se #2) – July 20	04						
BF-MW-04	BF0452	07/16/04	1 U	1 U	1 U	1 U	ND					
BF-MW-25	BF2552	07/16/04	1 U	1 U	1 U	1 U	ND					
BF-MW-26	BF2652	07/16/04	1 U	1 U	1 U	1 U	ND					
BF-MW-27	BF2752	07/16/04	1 U	1 U	1 U	1 U	ND					
BF-MW-35	BF3552	07/17/04	1 U	1 U	1 U	1 U	ND					
BF-MW-36	BF3652	07/17/04	1 U	1 U	1 U	1 U	ND					
BF-MW-37	BF3752	07/17/04	1 U	1 U	1 U	1 U	ND					
BF-MW-E1	BFE152	07/16/04	1 U	1 U	1 U	1 U	ND					
BF-MW-E2	BFE252	07/16/04	1 U	1 U	1 U	1 U	ND					
BF-MW-E3	BFE352	07/16/04	1 U	1 U	1 U	1 U	ND					
BF-MW-E4	BFE452	07/16/04	1 U	1 U	1 U	1 U	ND					
BF-MW-E5	BFE552	07/16/04	2 =	1 U	17.3 =	42.7 =	62.0					
BF-MW-E6	BFE652	07/16/04	1 U	1 U	1 U	1 U	ND					
	In-Stream Water Quality Standards (Georgia Rule 391-3-6)			200,000	28,718	NRC	NRC					
Alternate	Concentratior	n Limits	634									

#### Table 2a. Groundwater Analytical Results (Volatile Organic Compounds) (continued)

NOTES:

BTEX Benzene, toluene, ethylbenzene, and xylenes.

ND Not detected.

NRC No regulatory criteria.

#### Data Qualifiers

J Indicates that the value for the compound is an estimated value.

U Indicates that the compound was not detected above the reported sample quantitation limit.

Sample Location	Sample ID	Date Sampled	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	Total BTEX (µg/L)
	Fourth S	emiannual S	Sampling Ev	ent (Releas	e #2) – January	2005	
BF-MW-04	BF0462	01/12/05	1 U	1 U	1 U	1 U	ND
BF-MW-25	BF2562	01/12/05	1 U	1 U	1 U	1 U	ND
BF-MW-26	BF2662	01/13/05	1 U	1 U	1 U	1 U	ND
BF-MW-27	BF2762	01/13/05	1 U	1 U	1 U	1 U	ND
BF-MW-35	BF3562	01/14/05	1 U	1 U	1 U	1 U	ND
BF-MW-36	BF3662	01/14/05	1 U	1 U	1 U	1 U	ND
BF-MW-37	BF3762	01/14/05	1 U	1 U	1 U	1 U	ND
BF-MW-E1	BFE162	01/13/05	1 U	1 U	1 U	1 U	ND
BF-MW-E2	BFE262	01/13/05	1 U	1 U	1 U	1 U	ND
BF-MW-E3	BFE362	01/13/05	1 U	1 U	1 U	1 U	ND
BF-MW-E4	BFE462	01/13/05	1 U	1 U	1 U	0.9 J	0.9
BF-MW-E5	BFE562	01/13/05	1 U	0.43 J	10.4 =	34.9 =	45.73
BF-MW-E6	BFE662	01/13/05	1 U	0.47 J	1 U	1 U	ND
	In-Stream Water Quality Standards (Georgia Rule 391-3-6)			200,000	28,718	NRC	NRC
Alternate	Concentratior	n Limits	634	_		_	

#### Table 2a. Groundwater Analytical Results (Volatile Organic Compounds) (continued)

NOTES:

BTEX Benzene, toluene, ethylbenzene, and xylenes.

ND Not detected.

NRC No regulatory criteria.

Data Qualifiers

- J Indicates that the value for the compound is an estimated value.
- U Indicates that the compound was not detected above the reported sample quantitation limit.
- = Indicates that the compound was detected at the concentration reported.

			Detected Compounds						
Sample Location	Sample ID	Date Sampled	2-Methylnaphthalene (μg/L)	2-Choronaphthalene (µg/L)	Acenaphthylene (µg/L)	Fluorene (µg/L)	Naphthalene (µg/L)		
	Corrective	Action Plan	n–Part B In	vestigation (	Release #1)	- 2000			
BF-MW-19	BF1922	12/02/00	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U		
BF-MW-20	BF2022	12/03/00	0.99 U	0.99 U	0.99 U	0.99 U	7.8 =		
BF-MW-21	BF2122	12/02/00	1 U	1 U	1 U	1 U	22 =		
BF-MW-22	BF2222	12/02/00	19 U	19 U	19 U	19 U	528 =		
BF-MW-32	BF3222	12/01/00	1.1 U	1.1 U	1.1 U	1.1 U	2 =		
BF-MW-33	BF3322	12/01/00	1 U	1 U	1 U	1 U	1 U		
BF-MW-34	BF3422	12/01/00	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U		
	First Se	emiannual S	ampling Event (Release #1) – July 2002						
BF-MW-19	BF1932	07/11/02	0.98 U	0.98 U	0.98 U	0.98 U	1 =		
BF-MW-20	BF2032	07/11/02	11.2 =	0.98 U	0.98 U	0.98 U	19.9 =		
BF-MW-21R	BF2132	07/11/02	1.8 =	41.5 =	1.8 =	5.9 =	19 =		
BF-MW-22	BF2232	07/11/02	133 =	9.8 U	9.8 U	9.8 U	168 =		
BF-MW-32	BF3232	07/11/02	2.2 =	0.98 U	0.98 U	0.98 U	7.1 =		
BF-MW-33	BF3332	07/11/02	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U		
BF-MW-34	BF3432	07/11/02	2.6 =	0.98 U	0.98 U	0.98 U	5.8 =		
			ampling Event (Release #1) – January 2003						
BF-MW-19	BF1942	01/24/03	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U		
BF-MW-20	BF2042	01/24/03	32 =	0.98 U	0.98 U	0.98 U	40.5 =		
BF-MW-21R	BF2142	01/24/03	2.4 =	0.99 U	0.99 U	0.99 U	37.9 =		
BF-MW-22	BF2242	01/24/03	42 =	0.99 U	0.99 U	0.99 U	110 =		
BF-MW-32	BF3242	01/24/03	0.99 U	0.99 U	0.99 U	0.99 U	0.78 J		
BF-MW-33	BF3342	01/24/03	0.98 U	0.98 U	0.98 U	0.98 U	0.22 J		
BF-MW-34	BF3442	01/24/03	0.98 U	0.98 U	0.98 U	0.98 U	1.1 =		
	ater Quality		NRC	NRC	NRC	14,000	NRC		
Alternate	Concentration	Limits					820		

#### Table 2b. Groundwater Analytical Results (Polynuclear Aromatic Compounds)

NOTES:

NRC No regulatory criteria.

Data Qualifiers

J Indicates that the value for the compound is an estimated value.

U Indicates that the compound was not detected above the reported sample quantitation limit.

				Dete	cted Compo	ounds	Detected Compounds								
Sample Location	Sample ID	Date Sampled	2-Methylnaphthalene (µg/L)	Acenaphthene (µg/L)	Fluorene (µg/L)	Naphthalene (μg/L)	Phenanthrene (µg/L)								
	(	CAP-Part B	Investigatio	n (Release #	<i>#2) – 2000</i>										
BF-MW-04	BF0422	12/2/00	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U								
BF-MW-25	BF2522	12/2/00	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U								
BF-MW-26	BF2622	12/2/00	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U								
BF-MW-27	BF2722	12/3/00	1 U	1 U	1 U	1 U	1 U								
BF-MW-E1	BFE122	12/1/00	1 U	2.2 =	4 =	9.1 =	1 U								
BF-MW-E2	BFE222	12/2/00	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U								
BF-MW-E3	BFE322	12/2/00	0.96 U	0.96 U	0.96 U	0.96 U	0.96 U								
BF-MW-E4	BFE422	12/2/00	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U								
BF-MW-E5	BFE522	12/2/00	NA	0.55 J	1 =	16.6 =	0.73 J								
BF-MW-E6	BFE622	12/1/00	1 U	1 U	1 U	1 U	1 U								
	Third S	emiannual S	ampling Event (Release #2) – July 2004												
BF-MW-04	BF0452	7/16/04	1 U	1 U	1 U	1 U	1 U								
BF-MW-25	BF2552	7/16/04	0.6 J	0.99 U	0.99 U	0.56 J	0.99 U								
BF-MW-26	BF2652	7/16/04	0.66 J	1.1 U	1.1 U	0.65 J	1.1 U								
BF-MW-27	BF2752	7/16/04	0.96 U	0.96 U	0.96 U	0.96 U	0.96 U								
BF-MW-35	BF3552	7/17/04	1 U	1 U	1 U	1 U	1 U								
BF-MW-36	BF3652	7/17/04	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U								
BF-MW-37	BF3752	7/17/04	1 U	1 U	1 U	1 U	1 U								
BF-MW-E1	BFE152	7/16/04	1 U	2.8 =	5.7 =	1 U	5.8 =								
BF-MW-E2	BFE252	7/16/04	1 U	1 U	1 U	1 U	1 U								
BF-MW-E3	BFE352	7/16/04	1 U	1 U	1 U	1 U	1 U								
BF-MW-E4	BFE452	7/16/04	0.64 J	0.97 U	0.97 U	0.49 J	0.97 U								
BF-MW-E5	BFE552	7/16/04	8.4 =	1.6 =	2.6 =	17.3 =	0.57 J								
BF-MW-E6	BFE652	7/16/04	1 U	1 U	1 U	1 U	1 U								
	/ater Quality gia Rule 391-3	NRC	NRC	14,000	NRC	NRC									
	Concentration						820								

#### Table 2b. Groundwater Analytical Results (Polynuclear Aromatic Compounds) (continued)

#### NOTES:

NA Not analyzed.

NRC No regulatory criteria.

#### Data Qualifiers

J Indicates that the value for the compound is an estimated value.

U Indicates that the compound was not detected above the reported sample quantitation limit.

			Detected Compounds							
Sample Location	Sample ID	Date Sampled	2-Methylnaphthalene (μg/L)	Acenaphthene (μg/L)	Fluorene (µg/L)	Naphthalene (µg/L)	Phenanthrene (µg/L)	Pyrene (µg/L)		
	Fourth Se	miannual S	ampling Ev	vent (Relea	ase #2) – J	anuary 20	05			
BF-MW-04	BF0462	01/12/05	1 U	1 U	1 U	1 U	1 U	1 U		
BF-MW-25	BF2562	01/12/05	1 U	1 U	1 U	1 U	1 U	1 U		
BF-MW-26	BF2662	01/13/05	1 U	1 U	1 U	1 U	1 U	1 U		
BF-MW-27	BF2762	01/13/05	1 U	1 U	1 U	1 U	1 U	1 U		
BF-MW-35	BF3562	01/14/05	1 U	1 U	1 U	1 U	1 U	1 U		
BF-MW-36	BF3662	01/14/05	1 U	1 U	1 U	1 U	1 U	1 U		
BF-MW-37	BF3762	01/14/05	1 U	1 U	1 U	1 U	1 U	1 U		
BF-MW-E1	BFE162	01/13/05	1 U	1.6 =	3.1 =	1 U	1.2 =	1 U		
BF-MW-E2	BFE262	01/13/05	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U		
BF-MW-E3	BFE362	01/13/05	1.4 =	1 U	1 U	0.31 J	1 U	1 U		
BF-MW-E4	BFE462	01/13/05	1.5 J	1 U	1 U	0.61 J	1 U	1 U		
BF-MW-E5	BFE562	01/13/05	43.2 =	5.4 =	10.3 =	32.9 =	10.7 =	2.4 =		
BF-MW-E6	BF-MW-E6 BFE662 01/13/05				1 U	1 U	1 U	1 U		
In-Stream W (Georg	NRC	NRC	14,000	NRC	NRC	11,000				
Alternate	Concentration	n Limits					820			

#### Table 2b. Groundwater Analytical Results (Polynuclear Aromatic Compounds) (continued)

#### NOTES:

NRC No regulatory criteria.

Data Qualifiers

J Indicates that the value for the compound is an estimated value.

U Indicates that the compound was not detected above the reported sample quantitation limit.

#### Second Annual Monitoring and Free Product Removal Report Former UST 117, Bulk Fuel Facility (HAA-09), Facility ID #9-025113\*2

#### **Table 3. Well Construction Details**

		Boring	Screened		Coordinat	es (NAD83)	Elevation	(NAVD88)	
Boring/Well Number	Date Installed	Depth (ft BGS)	Interval (ft BGS)	Type of Completion	Northing	Easting	Ground Surface	Top of Casing	
Additional Well Installation – June 2002									
BF-MW-21R	06/21/02	15.0	4.8 - 14.8	2-in. PVC	739331.22	973250.78	14.7	14.57	
	Additional Well Installation – June 2004								
BR-MW-35	06/22/04	13.0	2.4 - 12.4	2-in. PVC	739834.57	973604.28	15.14	14.94	
BR-MW-36	06/23/04	13.0	2.6-12.6	2-in. PVC	739725.51	973679.39	15.45	15.16	
BR-MW-37	06/23/04	13.0	2.3 - 12.3	2-in. PVC	739657.72	973622.11	16.10	16.07	

NOTES:

BGS Below ground surface.

NAD North American Datum.

PVC Polyvinyl chloride.

#### Second Annual Monitoring and Free Product Removal Report Former UST 117, Bulk Fuel Facility (HAA-09), Facility ID #9-025113\*2

Well Number	Date	Depth of Screened Interval (ft BTOC)	Depth to Free Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Description
BF-MW-E5	06/18/04	4.7 – 14.7	4.51	7.65	3.14	40 gal of water/product mixture pumped from well. An absorbent sock was placed in the well upon completion of pumping
BF-MW-E5	07/16/04	4.7 – 14.7	4.48	5.71	1.23	2 gal of water/product mixture pumped from well prior to sampling. Absorbent socks were not placed in the well because the free product was removed during well purging
BF-MW-E5	08/23/04	4.7 – 14.7	4.57	4.64	0.07	40 gal of water/product mixture pumped from well. Absorbent socks were not placed in the well because the free product was removed during pumping
BF-MW-E5	09/20/04	4.7 – 14.7	_	4.09	0	No pumping of the well was conducted. Absorbent socks were not placed in the well because free product was not present
BF-MW-E5	10/18/04	4.7 – 14.7	_	4.07	0	50 gal of water/product mixture pumped from well. Absorbent socks were not placed in the well because free product was not present
BF-MW-E5	11/19/04	4.7 – 14.7	sheen	5.08	sheen	No pumping of the well was conducted. Absorbent socks were not placed in the well because only a sheen of free product was present
BF-MW-E5	12/16/04	4.7 – 14.7	sheen	5.11	sheen	40 gal of water/product mixture pumped from well. Absorbent socks were not placed in the well because only a sheen of free product was present
BF-MW-E5	01/13/05	4.7 – 14.7	_	4.81	0	1 gal of water/product mixture pumped from well prior to sampling. Absorbent socks were not placed in the well because free product was not present
BF-MW-E5	02/16/05	4.7 – 14.7	4.54	4.55	0.01	40 gal of water/product mixture pumped from well. Absorbent socks were not placed in the well because free product was removed during pumping
BF-MW-E5	03/16/05	4.7 – 14.7	sheen	3.92	sheen	No pumping of the well was conducted. Absorbent socks were not placed in the well because only a sheen of free product was present
BF-MW-E5	04/28/05	4.7 – 14.7	4.06	4.13	0.07	~35 gal of water/product mixture pumped from well. Absorbent socks were not placed in the well because free product was removed during pumping
BF-MW-E5	05/16/05	4.7 – 14.7		3.95	0	No pumping of the well was conducted. Absorbent socks were not placed in the well because free product was not present

#### **Table 4. Free Product Removal Activities**

NOTES:

**Bold** indicates the water table is above the screened interval.

BTOC Below top of casing.

Well Number	Date	Depth of Screened Interval (ft BTOC)	Depth to Free Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Description
BF-MW-E5	06/16/05	4.7 – 14.7	3.68	3.70	0.02	45 gal of water/product mixture pumped from well. Absorbent socks were not placed in the well because free product was removed during pumping
BF-MW-E5	07/19/05	4.7 – 14.7	_	4.09	0	No pumping of the well was conducted. Absorbent socks were not placed in the well because free product was not present
BF-MW-E5	Aug. 2005	4.7 – 14.7				No free product pumping or measurements were conducted due to activities taking place at the site
BF-MW-E6	09/20/05	4.7 – 14.7		4.98	0	No pumping of the well was conducted. Absorbent socks were not placed in the well because free product was not present
BF-MW-E7	10/13/05	4.7 – 14.7		3.71	0	30 gal of water/product mixture pumped from well. Absorbent socks were not placed in the well because free product was removed during pumping

#### Table 4. Free Product Removal Activities (continued)

NOTES:

**Bold** indicates the water table is above the screened interval. BTOC Below top of casing.

# **APPENDIX III**

# LABORATORY ANALYTICAL RESULTS

# ANALYTICAL LABORATORY INFORMATION AND DATA VALIDATION CODES

#### STATE OF GEORGIA ENVIRONMENTAL LABORATORY ACCREDITATION

Name of Laboratory: Address:	<b>General Engineering Laboratories, Inc.</b> P.O. Box 30712 2040 Savage Road Charleston, SC 29407
Contact:	Wendy Dimmick
Telephone number:	(843) 556-8171
Fax number:	(843) 766-1178
Accrediting Authority:	State of South Carolina
Accreditation Number:	SC-10120001
Effective Date:	Extension granted while recertification in process; January 27, 2003
Expiration Date:	March 26, 2006
Accreditation Scope:	SDWA, CWA, RCRA, CERCLA
Accrediting Authority: Accreditation Number: Effective Date: Expiration Date:	<b>State of Florida</b> E-87156 July 1, 2001 (initial and reaccredited on July 1 each year thereafter) June 30, 2006
Accreditation Scope:	SDWA, CWA, RCRA, CERCLA

#1

#2

#### DATA VALIDATION REASON CODES

	Organic, Inorganic, and Radiological Analytical Data								
Holdi	ng Times	GC/	MS Tuning						
A01	Extraction holding times were exceeded.	B01	Mass calibration was in error, even after applying expanded						
A02	Extraction holding times were grossly exceeded.		criteria.						
A03	Analysis holding times were exceeded.	B02	Mass calibration was not performed every 12 hours.						
A04	Analysis holding times were grossly exceeded.		Mass calibration did not meet ion abundance criteria.						
A05	Samples were not preserved properly.		Professional judgment was used to qualify the data.						
A06	Professional judgment was used to qualify the data.		5 6 1 5						
	I/Continuing Calibration – Organics	Initi	al/Continuing Calibration – Inorganics						
C01	Initial calibration RRF was <0.05.		ICV or CCV was not performed for every analyte.						
C02	Initial calibration RDS was >30%.		ICV recovery was above the upper control limit.						
C03	Initial calibration sequence was not followed as required.		ICV recovery was below the lower control limit.						
C04	Continuing calibration RRF was <0.05.		CCV recovery was above the upper control limit.						
C04	Continuing calibration %D was $>25\%$ .		CCV recovery was below the lower control limit.						
C05	Continuing calibration <i>x</i> <sub>D</sub> was <i>&gt;</i> 25 <i>x</i> <sub>0</sub> . Continuing calibration was not performed at the required		Standard curve was not established with the minimum						
000	frequency.	D00	number of standards.						
C07	Resolution criteria were not met.	D07							
C07		D07	Instrument was not calibrated daily or each time the						
C08	RPD criteria were not met.	Doo	instrument was set up.						
C09	RDS criteria were not met.		Correlation coefficient was <0.995.						
C10	Retention time of compounds was outside windows.		Mid-range cyanide standard was not distilled.						
C11	Compounds were not adequately resolved.	D10	Professional judgment was used to qualify the data.						
C12	Breakdown of endrin or DDT was >30%.								
C13	Combined breakdown of endrin/DDT was >30%.								
C14	Professional judgment was used to qualify the data.								
	nd Furnace Requirements	Blan							
E01	Interference check sample recovery was outside the	F01							
	control limit.	F02	1 1						
E02	Duplicate injections were outside the control limit.	F03	Sample data were qualified as a result of the equipment						
E03	Post-digestion spike recovery was outside the control		rinsate.						
	limit.	F04	Sample data were qualified as a result of the trip blank.						
E04	MSA was required but not performed.	F05	Gross contamination exists.						
E05	MSA correlation coefficient was <0.995.	F06	Concentration of the contaminant was detected at a level						
E06	MSA spikes were not at the correct concentration.		below the CRQL.						
E07	Serial dilution criteria were not met.	F07	Concentration of the contaminant was detected at a level						
E08	Professional judgment was used to qualify the data.		less than the action limit, but greater than the CRQL.						
		F08	Concentration of the contaminant was detected at a level						
			that exceeds the action level.						
		F09	No laboratory blanks were analyzed.						
			Blank had a negative value $>2$ times the IDL.						
			Blanks were not analyzed at required frequency.						
			Professional judgment was used to qualify the data.						
Surro	gate/Radiological Chemical Recovery		rix Spike/Matrix Spike Duplicate (MS/MSD)						
G01	Surrogate/radiological chemical recovery was above		MS/MSD recovery was above the upper control limit.						
201	the upper control limit.		MS/MSD recovery was below the lower control limit.						
G02	Surrogate/radiological chemical recovery was below the		MD/MSD recovery was <10%.						
002	lower control limit.		MS/MSD pairs exceeded the RPD limit.						
G03	Surrogate recovery was <10%.		No action was taken on MS/MSD limit.						
G03 G04	Surrogate recovery was zero.		Professional judgment was used to qualify the data.						
G04 G05	Surrogate/radiological chemical recovery data was not		Radiological MS/MSD recovery was <20%.						
005			Radiological MS/MSD recovery was <20%.						
G06	present. Professional judgment was used to qualify the data.								
		1109	Radiological MS/MSD samples were not analyzed at the required frequency.						
G07	Radiological chemical recovery was <20%.		required frequency.						
G08	Radiological chemical recovery was >150%.	Т.1	natorn Drackooto						
	ix Spike		Diratory Duplicate						
I01	MS recovery was above the upper control limit.	J01	Duplicate RPD/radiological duplicate error ratio (DER)						
I02	MS recovery was below the lower control limit.	102	was outside the control limit.						
I03	MS recovery was <30%.	J02	Duplicate sample results were $>5$ times the CRDL.						
I04	No action was taken on MS data.	J03	Duplicate sample results were <5 times the CRDL.						
I05	Professional judgment was used to qualify the data.	J04	Professional judgment was used to qualify the data.						
105		J05	Duplicate was not analyzed at the required frequency.						

# Organic, Inorganic, and Radiological Analytical Data

#### DATA VALIDATION REASON CODES (continued)

	Organic, Inorganic, and Ki	· · · · · ·	· ·
Interr	nal Area Summary		cide Cleanup Checks
K01	Area counts were outside the control limits.	L01	10% recovery was obtained during either check.
K02	Extremely low area counts or performance was exhibited		Recoveries during either check were >120%.
	by a major drop-off.	L03	GPC cleanup recoveries were outside the control limits.
K03	IS retention time varied by more than 30 sec.		Florisil cartridge cleanup recoveries were outside the control
K04	Professional judgment was used to qualify the data.		limits.
-	<b>J J</b>	L05	Professional judgment was used to qualify the data.
Targe	et Compound Identification		pound Quantitation and Reported CRQLs
M01	Incorrect identifications were made.		Quantitation limits were affected by large off-scale peaks.
M02	Qualitative criteria were not met.		MDLs reported by the laboratory exceeded corresponding
M02 M03	Cross contamination occurred.		CRQLs.
M03	Confirmatory analysis was not performed.		Professional judgment used to qualify the data.
M04 M05	No results were provided.	1105	rioressional judgment used to quarry the data.
M05 M06	Analysis occurred outside 12-hour GC/MS window.		
M07	Professional judgment was used to qualify the data.		
M07 M08	The %D between the two pesticide/PCB column checks		
10100	was >25%.		
Tente	was >2.5%. tively Identified Compounds (TICs)	Laba	ratory Control Samples (LCSs)
O01	Compound was suspected laboratory contaminant and		LCS recovery was above upper control limit.
001	was not detected in the blank.		LCS recovery was above upper control limit.
O02	TIC result was not above 10 times the level found in		
002	the blank.		LCS recovery was <50%. No action was taken on the LCS data.
002			
O03	Professional judgment was used to qualify analytical data.		LCS was not analyzed at required frequency.
			Radiological LCS recovery was <50% for aqueous samples,
			<40% for solid samples. Radiological LCS recovery was >150% for aqueous
			samples, >160% for solid samples.
Fold	Duplicate		Professional judgment was used to qualify the data. ological Calibration
	Field duplicate RPDs were >30% for waters and/or >50%		Efficiency calibration criteria were not met.
Q01	-		
002	for soils.		Energy calibration criteria were not met.
Q02	Radiological field duplicate error ratio (DER) was outside		Resolution calibration criteria were not met.
002	the control limit.		Background determination criteria were not met.
Q03	Duplicate sample results were >5 times the CRDL.		Quench curve criteria were not met.
Q04	Duplicate sample results were <5 times the CRDL.		Absorption curve criteria were not met.
			Plateau curve criteria were not met.
D !!	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	R08	Professional judgment was used to qualify the data.
	logical Calibration Verification		
S01	Efficiency verification criteria were not met.		
S02	Energy verification criteria were not met.		
S03	Resolution verification criteria were not met.		
S04	Background verification criteria were not met.		
S05	Cross-talk verification criteria were not met.		
S06	Professional judgment was used to qualify the data.		

#### Organic, Inorganic, and Radiological Analytical Data
### THIRD SEMIANNUAL SAMPLING EVENT

## **JULY 2004**

VOLATILE	IA ORGANICS ANALYSIS	DATA SHEET	EPA SAMPLE NO.
Lab Name: GEL, LLC.	c	Contract: N/A	BF0452
Lab Code: N/A	Case No.: N/A	SAS NO.: N/A SDG	No.: 117167
Matrix: (soil/water)	WATER	Lab Sample ID:	117167014
Sample wt/vol:	5.000 (g/ml) ML	Lab File ID:	7U437
Level: (low/med)	LOW	Date Received:	07/19/04
% Moisture: not dec.		Date Analyzed:	07/30/04
GC Column: DB-624	ID: 0.25 (mm)	Dilution Facto	or: 1.0
Soil Extract Volume:_	(uL)	Soil Aliquot V	Volume:(uL)



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FORM I VOA

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III-7

- 1B SVOA ORGANICS ANALYSIS DATA SHE	EPA SAMPLE NO.
	BF0452
Lab Name: GEL, LLC. Contract	:: N/A
Lab Code: N/A Case No.: N/A SAS No.	: N/A SDG No.: 117167
Matrix: (soil/water) WATER	Lab Sample ID: 117167014
Sample wt/vol: 990.0 (g/mL) ML	Lab File ID: S2G2122
Level: (low/med) LOW	Date Received: 07/19/04
% Moisture: decanted: (Y/N)	Date Extracted:07/20/04
Concentrated Extract Volume: 1.00(mL)	Date Analyzed: 07/21/04
Injection Volume: 0.5(uL)	Dilution Factor: 1.0
GPC Cleanup: (Y/N) N	

CAS NO.	CONCENTRAT COMPOUND (ug/L or u	ION UNITS: g/Kg) UG/L	Q
91-20-3	Naphthalene	1.0	υ
91-57-6	2-Methylnaphthalene	1.0	U
91-58-7	2-Chloronaphthalene	1.0	U
208-96-8	Acenaphthylene	1.0	U
83-32-9	Acenaphthene	1.0	U
86-73-7	Fluorene	1.0	U
	Phenanthrene	1.0	U
120-12-7	Anthracene	1.0	U
	Fluoranthene	1.0	U
	Pyrene	1.0	U
	Benzo(a)anthracene	1.0	U
205-99-2	Benzo(b) fluoranthene	1.0	U
	Benzo(k)fluoranthene		U
50-32-8	Benzo(a)pyrene	1.0	U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	U
	Dibenzo(a,h)anthracene		U
	Benzo(ghi)perylene	1.0	U

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#### FORM I SV-1

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VOLATILE	IA ORGANICS ANALYSIS DA	TA SHEET	EPA SAMPLE NO.
Lab Name: GEL, LLC.	Cont	ract: N/A	BF2552
Lab Code: N/A	Case No.: N/A SAS	No.: N/A SDG	No.: 117167
Matrix: (soil/water)	WATER	Lab Sample ID:	: 117167013
Sample wt/vol:	5.000 (g/ml) ML	Lab File ID:	7U436
Level: (low/med)	LOW	Date Received:	: 07/19/04
% Moisture: not dec.		Date Analyzed:	: 07/30/04
GC Column: DB-624	ID: 0.25 (mm)	Dilution Facto	pr: 1.0
Soil Extract Volume:	(uL)	Soil Aliquot V	Jolume:(uL)





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III-9

-18 EPA SAMPLE NO. SVOA ORGANICS ANALYSIS DATA SHEET BF2552 Lab Name: GEL, LLC. Contract: N/A Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 117167 Lab Sample ID: 117167013 Matrix: (soil/water) WATER Sample wt/vol: 1010 (g/mL) ML Lab File ID: S2G2121 Date Received: 07/19/04 Level: (low/med) LOW % Moisture: \_\_\_\_\_ decanted: (Y/N) \_\_\_ Date Extracted:07/20/04 Concentrated Extract Volume: 1.00(mL) Date Analyzed: 07/21/04 Injection Volume: 0.5(uL) Dilution Factor: 1.0 GPC Cleanup: (Y/N) N

CAS NO.	17	ONCENTRATION UN ug/L or ug/Kg)		Q
91-20-3	Naphthalene		0.56	J
91-57-6	2-Methylnaphthalen	e	0.60	J
91-58-7	2-Chloronaphthalen	e	0.99	U
208-96-8	Acenaphthylene		0.99	U
83-32-9	Acenaphthene		0.99	U
86-73-7	Fluorene		0.99	U
85-01-8	Phenanthrene		0.99	U
	Anthracene		0.99	U
	Fluoranthene		0.99	U
	Pyrene		0.99	υ
	Benzo(a)anthracene		0.99	U
	Benzo(b) fluoranther		0.99	υ
207-08-9	Benzo(k) fluoranther	ne	0.99	U
	Benzo(a)pyrene		0.99	U
	Indeno (1, 2, 3-cd) py:		0.99	U
	Dibenzo(a,h)anthrac		0.99	υ
191-24-2	Benzo(ghi)perylene		0.99	U

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FORM I SV-1

III-10

VOLATILE	_ 1A ORGANICS ANALYSIS	EPA SAMPLE NO.
Lab Name: GEL, LLC.	Co	ntract: N/A
Lab Code: N/A	Case No.: N/A S	AS No.: N/A SDG No.: 117167
Matrix: (soil/water)	WATER	Lab Sample ID: 117167012
Sample wt/vol:	5.000 (g/ml) ML	Lab File ID: 7U435
Level: (low/med)	LOW	Date Received: 07/19/04
% Moisture: not dec.		Date Analyzed: 07/30/04
GC Column: DB-624	ID: 0.25 (mm)	Dilution Factor: 1.0
Soil Extract Volume:	(uL)	Soil Aliquot Volume:(uL)

CAS NO.	COMPOUND	CONCENTRATION U (ug/L or ug/Kg)			Q	
108-88-3	Benzene Toluene Ethylbenzene Xylenes (tota	.1)	1.0	1.0 0.17 1.0 1.0	U U	U U F07, F06

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SVOA O	1B RGANICS ANALYSIS DATA SHE	EPA SAMPLE NO.
Lab Name: GEL, LLC.	Contract	BF2652
and the second s		: N/A SDG No.: 117167
Matrix: (soil/water)	WATER	Lab Sample ID: 117167012
Sample wt/vol:	940.0 (g/mL) ML	Lab File ID: S2G2120
Level: (low/med)	LOW	Date Received: 07/19/04
% Moisture:	decanted: (Y/N)	Date Extracted:07/20/04
Concentrated Extract	Volume: 1.00(mL)	Date Analyzed: 07/21/04
Injection Volume:	0.5(uL)	Dilution Factor: 1.0
GPC Cleanup: (V/N)	N	

CAS NO. COMPOUND	(ug/L or ug/Kg)	ITS: UG/L Q
91-20-3Naphthale	ne	0.65 J
91-57-62-Methyln	aphthalene	0.66 J
91-58-72-Chloron		1.1 U
208-96-8Acenaphth	vlene	1.10
83-32-9Acenaphth		1.10
86-73-7Fluorene_		1.10
85-01-8Phenanthr		1.10
120-12-7Anthracen		1.1 0
206-44-0Fluoranth		1.1 U
L29-00-0Pyrene		1.1 U
56-55-3Benzo(a)a		1.1 U
205-99-2Benzo(b)f		1.1 U
207-08-9Benzo(k) f	luoranthene	1.1 U
50-32-8Benzo(a)p	yrene	1.1 U
193-39-5Indeno(1,		1.1 U
53-70-3Dibenzo(a		1.1 U
91-24-2Benzo (ghi	)perylene	1.1 U



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III-12

1A VOLATILE ORGANICS ANALYSIS DATA SHEET		EPA SAMPLE NO.
	Contract	BF2656
Lab Name: GEL, LLC.	Concrace	· N/A
Lab Code: N/A	Case No.: N/A SAS No.	: N/A SDG No.: 117167
Matrix: (soil/water)	WATER	Lab Sample ID: 117167003
Sample wt/vol:	5.000 (g/ml) ML	Lab File ID: 7U433
Level: (low/med)	LOW	Date Received: 07/19/04
% Moisture: not dec.		Date Analyzed: 07/30/04
GC Column: DB-624	ID: 0.25 (mm)	Dilution Factor: 1.0
Soil Extract Volume:	(uL)	Soil Aliquot Volume:(uL)



FORM I VOA

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DATA VALIDATION

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1B SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: GEL, LLC. Contract	BF2656
Lab Code: N/A Case No.: N/A SAS No.	
Matrix: (soil/water) WATER	Lab Sample ID: 117167003
Sample wt/vol: 1030 (g/mL) ML	Lab File ID: S2G2111
Level: (low/med) LOW	Date Received: 07/19/04
<pre>% Moisture: decanted: (Y/N)</pre>	Date Extracted:07/20/04
Concentrated Extract Volume: 1.00(mL)	Date Analyzed: 07/21/04
Injection Volume: 0.5(uL)	Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CONCENTRATION UNITS: Q CAS NO. COMPOUND (ug/L or ug/Kg) UG/L 0.97 U 91-20-3-----Naphthalene\_ U 91-57-6----2-Methylnaphthalene 0.97 U 91-58-7-----2-Chloronaphthalene\_ 0.97 U 0.97 U 208-96-8-----Acenaphthylene\_ 0.97 U 83-32-9-----Acenaphthene\_ 86-73-7-----Fluorene\_ 0.97 0 0.97 U 85-01-8-----Phenanthrene\_ 0.97 U 120-12-7-----Anthracene\_ 206-44-0-----Fluoranthene 0.97 U 0.97 U 129-00-0----Pyrene\_ 0.97 U 56-55-3-----Benzo(a)anthracene\_ 0.97 U 205-99-2-----Benzo (b) fluoranthene\_ 0.97 U 207-08-9-----Benzo(k) fluoranthene\_ 0.97 0 50-32-8-----Benzo(a)pyrene\_ 0.97 0 193-39-5-----Indeno(1,2,3-cd)pyrene 0.97 U 53-70-3-----Dibenzo(a,h)anthracene\_ 0.97 U 191-24-2----Benzo(ghi)perylene\_\_\_



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III-14

VOLATILE	I IA ORGANICS ANALYSI	S DATA SHEET	EPA SAMPLE NO.
			BF2752
Lab Name: GEL, LLC.		Contract: N/A	I
Lab Code: N/A	Case No.: N/A	SAS No.: N/A SDG	No.: 117167
Matrix: (soil/water)	WATER	Lab Sample ID:	117167002
Sample wt/vol:	5.000 (g/ml) ML	Lab File ID:	7U432
Level: (low/med)	LOW	Date Received:	07/19/04
% Moisture: not dec.		Date Analyzed:	07/30/04
GC Column: DB-624	ID: 0.25 (mm)	Dilution Facto	r: 1.0
Soil Extract Volume:	(uL)	Soil Aliquot V	olume:(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/I		Q	
108-88-3	Benzene Toluene Ethylbenzene_ Xylenes (tota		1.0 0.11 1.0 1.0	J U	и И F04, F06 Ц





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III-15

	1B	EPA SAMPLE NO.
SVOA ORO	GANICS ANALYSIS DATA SHEE	ET
		BF2752
Lab Name: GEL, LLC.	Contract	: N/A
Lab Code: N/A Ca	ase No.: N/A SAS No.	: N/A SDG No.: 117167
Matrix: (soil/water)	WATER	Lab Sample ID: 117167002
Sample wt/vol:	1040 (g/mL) ML	Lab File ID: S2G2110
Level: (low/med)	LOW	Date Received: 07/19/04
% Moisture: 0	decanted: (Y/N)	Date Extracted:07/20/04
Concentrated Extract	Volume: 1.00(mL)	Date Analyzed: 07/21/04
Injection Volume:	0.5(uL)	Dilution Factor: 1.0
GPC Cleanup: (Y/N)	N	

CAS NO.	COMPOUND	CONCENTRATION (ug/L or ug/K		Q
91-20-3	Naphthalene		0.96	υ
	2-Methylnaphtha		0.96	U
91-58-7	2-Chloronaphtha	lene	0.96	U
	Acenaphthylene_		0.96	U
	Acenaphthene		0.96	U
	Fluorene		0.96	U
	Phenanthrene		0.96	U
	Anthracene		0.96	U
	Fluoranthene		0.96	U
129-00-0	Pyrene		0.96	U
	Benzo (a) anthrac		0.96	U
	Benzo(b)fluoran		0.96	U
	Benzo(k)fluoran		0.96	U
	Benzo(a)pyrene_		0.96	U
	Indeno (1, 2, 3-cd		0.96	U
	Dibenzo(a,h)ant		0.96	U
	Benzo(ghi)peryl		0.96	U



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III-16

VOLATILE	- 1A ORGANICS ANALYSIS DATA	EPA SAMPLE NO.
	Contrac	BF3552
Lab Name: GEL, LLC.	concrac	(, N/A)
Lab Code: N/A	Case No.: N/A SAS No	.: N/A SDG No.: 117167
Matrix: (soil/water)	WATER	Lab Sample ID: 117167015
Sample wt/vol:	5.000 (g/ml) ML	Lab File ID: 7U438
Level: (low/med)	LOW	Date Received: 07/19/04
% Moisture: not dec.	r	Date Analyzed: 07/30/04
GC Column: DB-624	ID: 0.25 (mm)	Dilution Factor: 1.0
Soil Extract Volume:	(uL)	Soil Aliquot Volume:(uL)

CAS NO.	COMPOUND	CONCENTRATION U (ug/L or ug/Kg)			Q	_
108-88-3	Benzene Toluene Ethylbenzene_ Xylenes (tota		1.0	1.0 0-59 1.0 1.0	U U	u u Foy, Fod u u

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- 1B SVOA ORGANICS ANALYSIS DATA SHEET EPA SAMPLE NO.

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Lab Name: GEL, LLC.	Contract:	BF3552
Lab Name: GEL, LLC.	concease.	1
Lab Code: N/A Ca	ase No.: N/A SAS No.:	: N/A SDG No.: 117167
Matrix: (soil/water) W	VATER	Lab Sample ID: 117167015
Sample wt/vol: 9	990.0 (g/mL) ML	Lab File ID: S2G2123
Level: (low/med) I	LOW	Date Received: 07/19/04
% Moisture: d	lecanted: (Y/N)	Date Extracted:07/20/04
Concentrated Extract V	Volume: 1.00(mL)	Date Analyzed: 07/21/04
Injection Volume:	0.5(uL)	Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO. COMPOUND

CONCEN	TRA	ATION (	UNI	TS:
(ug/L	or	ug/Kg	) (	JG/L

91-20-3Naphthalene	1.0	U
91-57-62-Methylnaphthalene	1.0	1.127.12
91-58-72-Chloronaphthalene	1.0	U
208-96-8Acenaphthylene	1.0	U
83-32-9Acenaphthene	1.0	U
86-73-7Fluorene	1.0	U
85-01-8Phenanthrene	1.0	U
120-12-7Anthracene	1.0	U
206-44-0Fluoranthene	1.0	U
129-00-0Pyrene	1.0	U
56-55-3Benzo (a) anthracene	1.0	U
205-99-2Benzo (b) fluoranthene	1.0	U
207-08-9Benzo(k) fluoranthene	1.0	U
50-32-8Benzo(a)pyrene	1.0	U
193-39-5Indeno (1, 2, 3-cd) pyrene	1.0	U
53-70-3Dibenzo (a, h) anthracene	1.0	U
191-24-2Benzo(ghi)perylene	1.0	U

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III-18

- 1A VOLATILE ORGANICS AN	EPA SAMPLE NO.
Lab Name: GEL, LLC.	Contract: N/A BF3652
Lab Code: N/A Case No.: N/	A SAS NO.: N/A SDG NO.: 117167
Matrix: (soil/water) WATER	Lab Sample ID: 117167001
Sample wt/vol: 5.000 (g/ml	) ML Lab File ID: 7U431
Level: (low/med) LOW	Date Received: 07/19/04
% Moisture: not dec	Date Analyzed: 07/30/04
GC Column: DB-624 ID: 0.25 (	mm) Dilution Factor: 1.0
Soil Extract Volume:(uL)	Soil Aliquot Volume:(uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L or ug/Kg			Q	
108-88-3	Benzene Toluene Ethylbenzene_ Xylenes (tota		1.0	1.0 0-19 1.0 1.0	J U	4 4 4

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III-19

1B SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

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		BF3652
Lab Name: GEL, LLC.	Contract:	N/A
Lab Code: N/A C	Case No.: N/A SAS No.:	N/A SDG No.: 117167
Matrix: (soil/water)	WATER	Lab Sample ID: 117167001
Sample wt/vol:	1020 (g/mL) ML	Lab File ID: S2G2107
Level: (low/med)	LOW	Date Received: 07/19/04
% Moisture:	decanted: (Y/N)	Date Extracted:07/20/04
Concentrated Extract	Volume: 1.00(mL)	Date Analyzed: 07/21/04
Injection Volume:	0.5(uL)	Dilution Factor: 1.0
The second se	62.W	

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND		RATION UNI r ug/Kg) U(		Q
91-20-3	Naphthalene			0.98	U
	2-Methylnaphth			0.98	υ
	2-Chloronaphth			0.98	U
	Acenaphthylene			0.98	U
	Acenaphthene_			0.98	U
	Fluorene			0.98	U
	Phenanthrene			0.98	U
	Anthracene			0.98	U
	Fluoranthene_			0.98	U
	Pyrene			0.98	U
	Benzo(a) anthra			0.98	U
	Benzo (b) fluora			0.98	U
	Benzo(k) fluora	and the property of the second s		0.98	-
	Benzo(a)pyrene			0.98	-
	Indeno(1,2,3-0			0.98	
	Dibenzo(a,h)an			0.98	
	Benzo(ghi)per			0.98	

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FORM I SV-1

	_ 1A	0.000	EPA SAMPLE NO.
VOLATILE	ORGANICS ANALYSIS DATA	SHEET	
Lab Name: GEL, LLC.	Contra	ct: N/A	BF3752
Lab Code: N/A	Case No.: N/A SAS N	Io.: N/A SDG	No.: 117157
Matrix: (soil/water)	WATER	Lab Sample ID:	117167004
Sample wt/vol:	5.000 (g/ml) ML	Lab File ID:	7U434
Level: (low/med)	LOW	Date Received:	07/19/04
% Moisture: not dec.		Date Analyzed:	07/30/04
GC Column: DB-624	ID: 0.25 (mm)	Dilution Facto	r: 1.0
Soil Extract Volume:	(uL)	Soil Aliquot V	olume:(uL)

		CONCENTRATION UNITS:
CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L
		1

71-43-2Benzene	1.0	U 4
108-88-3Toluene	1.0	U
100-41-4Ethylbenzene	1.0	U
1330-20-7Xylenes (total)	1.0	UIL
		4

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FORM I VOA

III-21

.: 1B EPA SAMPLE NO. SVOA ORGANICS ANALYSIS DATA SHEET BF3752 Lab Name: GEL, LLC. Contract: N/A Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 117167 Lab Sample ID: 117167004 Matrix: (soil/water) WATER Lab File ID: S2G2112 Sample wt/vol: 970.0 (g/mL) ML Date Received: 07/19/04 Level: (low/med) LOW % Moisture: \_\_\_\_\_ decanted: (Y/N) \_\_\_ Date Extracted:07/20/04 Concentrated Extract Volume: 1.00(mL) Date Analyzed: 07/21/04 Dilution Factor: 1.0 Injection Volume: 0.5(uL) GPC Cleanup: (Y/N) N

CAS NO.		NCENTRATION UNITS: 1/L or ug/Kg) UG/L		Q
91-20-3	Naphthalene		1.0	u
91-57-6	2-Methylnaphthalene		1.0	U
91-58-7	2-Chloronaphthalene		1.0	U
208-96-8	Acenaphthylene		1.0	U
	Acenaphthene		1.0	U
	Fluorene		1.0	U
85-01-8	Phenanthrene		1.0	U
120-12-7	Anthracene		1.0	U
206-44-0	Fluoranthene		1.0	U
	Pyrene		1.0	U
	Benzo(a)anthracene		1.0	U
205-99-2	Benzo(b)fluoranthene		1.0	U
	Benzo(k)fluoranthene		1.0	U
	Benzo(a)pyrene		1.0	U
	Indeno(1,2,3-cd)pyre		1.0	U
	Dibenzo(a,h)anthrace		1.0	U
	Benzo(ghi)perylene		1.0	U



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III-22

- 1A VOLATILE ORGANICS ANALYSIS DATA S	EPA SAMPLE NO.
Lab Name: GEL, LLC. Contract	BFE152
Lab Code: N/A Case No.: N/A SAS No.	
Matrix: (soil/water) WATER	Lab Sample ID: 117167011
Sample wt/vol: 5.000 (g/ml) ML	Lab File ID: 9U517
Level: (low/med) LOW	Date Received: 07/19/04
% Moisture: not dec.	Date Analyzed: 07/30/04
GC Column: RTX-VOLATILES ID: 0.25 (mm)	Dilution Factor: 1.0
Soil Extract Volume:(uL)	Soil Aliquot Volume:(uL)



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III-23

SVOA ORGANICS ANALYSIS DATA SH	EPA SAMPLE NO.
Lab Name: GEL, LLC. Contrac	t: N/A
Lab Code: N/A Case No.: N/A SAS No	.: N/A SDG No.: 117167
Matrix: (soil/water) WATER	Lab Sample ID: 117167011
Sample wt/vol: 980.0 (g/mL) ML	Lab File ID: S2G2119
Level: (low/med) LOW	Date Received: 07/19/04
% Moisture: decanted: (Y/N)	Date Extracted:07/20/04
Concentrated Extract Volume: 1.00(mL)	Date Analyzed: 07/21/04
Injection Volume: 0.5(uL)	Dilution Factor: 1.0
GPC Cleanup: (Y/N) N	

CAS NO.	COMPOUND	CONCENTRATION UN (ug/L or ug/Kg)		Q	
91-20-3	Naphthalene		1.0	υ	u
91-57-6	2-Methylnapht	halene	1.0	U	11
91-58-7	2-Chloronapht	halene	1.0	U	11
208-96-8	Acenaphthyler	ne	1.0	U	4
83-32-9	Acenaphthene		2.8		=
86-73-7	Fluorene		5.7		=
85-01-8	Phenanthrene		5.8		=
120-12-7	Anthracene		1.0	U	4
206-44-0	Fluoranthene_		1.0	U	1
	Pyrene		1.0	U	il
	Benzo(a) anthr		1.0	U	i I
205-99-2	Benzo(b)fluor	anthene	1.0	U	i I
	Benzo(k) fluor		1.0	U	i I
	Benzo(a)pyrer	Service and the service of the servi	1.0	U	11
	Indeno(1,2,3-		1.0		11
	Dibenzo(a,h)a		1.0	0.000	
유사장에는 감압하는 문양이 좋아.	Benzo(ghi)per		1.0		

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	- 1A		PA SAMPLE NO.
VOLATILE (	DRGANICS ANALYSIS DATA SP		BFE252
Lab Name: GEL, LLC.	Contract	N/A	I
Lab Code: N/A Ca	ase No.: N/A SAS No.:	N/A SDG No.	: 117167
Matrix: (soil/water) V	NATER	Lab Sample ID: 11	17167010
Sample wt/vol:	5.000 (g/ml) ML	Lab File ID: 70	J423
Level: (low/med)	LOW	Date Received: 07	7/19/04
% Moisture: not dec.		Date Analyzed: 07	7/29/04
GC Column: DB-624	ID: 0.25 (mm)	Dilution Factor:	1.0
Soil Extract Volume:	(uL)	Soil Aliquot Volu	ume:(uL)





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1B SVCA ORGANICS ANALYSIS DATA SHEET EPA SAMPLE NO.

	- 3 - 37	BFE252
Lab Name: GEL, LLC.	Contract	: N/A
Lab Code: N/A	Case No.: N/A SAS No.	: N/A SDG No.: 117167
Matrix: (soil/water)	WATER	Lab Sample ID: 117167010
Sample wt/vol:	970.0 (g/mL) ML	Lab File ID: S2G2118
Level: (low/med)	LOW	Date Received: 07/19/04
% Moisture:	decanted: (Y/N)	Date Extracted:07/20/04
Concentrated Extract	Volume: 1.00(mL)	Date Analyzed: 07/21/04
Injection Volume:	0.5(uL)	Dilution Factor: 1.0

GPC Cleanup: (Y/N) N



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FORM I SV-1

III-26

	- 1A NICS ANALYSIS DATA	A SHEET	EPA SAMPLE NO.	-
Lab Name: GEL, LLC.		act: N/A	BFE254	
Lab Code: N/A Case	NO.: N/A SAS	No.: N/A SDG	No.: 117167	
Matrix: (soil/water) WATE	ER	Lab Sample ID:	117167009	
Sample wt/vol: 5.00	)0 (g/ml) ML	Lab File ID:	70422	
Level: (low/med) LOW		Date Received:	07/19/04	
% Moisture: not dec		Date Analyzed:	07/29/04	
GC Column: DB-624 ID:	0.25 (mm)	Dilution Facto	r: 1.0	
Soil Extract Volume:	(uL)	Soil Aliquot V	olume:	(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/		Q	
108-88-3	Benzene Toluene Ethylbenzene_ Xylenes (tota	/. *	1.0 0.00 1.0 1.0	JU	4 U F04, F06 U

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SVOA	ORGANICS	ANALYSIS	DATA	SHEET

EPA SAMPLE NO.

		BFE254
Lab Name: GEL, LLC.	Contract	: N/A
Lab Code: N/A	Case No.: N/A SAS No.	: N.A SDG No.: 117167
Matrix: (soil/water)	WATER	Lab Sample ID: 117167009
Sample wt/vol:	990.0 (g/mL) ML	Lab File ID: S2G2117
Level: (low/med)	LOW	Date Received: 07/19/04
% Moisture:	decanted: (Y/N)	Date Extracted:07/20/04
Concentrated Extract	Volume: 1.00(mL)	Date Analyzed: 07/21/04
Injection Volume:	0.5(uL)	Dilution Factor: 1.0
GPC Cleanup: (Y/N)	N	

CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q 1.0 U 91-20-3-----Naphthalene U 91-57-6-----2-Methylnaphthalene\_ 1.0 U 1.0 U 91-58-7----2-Chloronaphthalene\_ 1.0 U 208-96-8-----Acenaphthylene\_ 83-32-9----Acenaphthene 1.0 U 1.0 0 86-73-7----Fluorene\_ 85-01-8-----Phenanthrene\_ 1.0 U 120-12-7-----Anthracene\_ 1.0 U 1.0 0 206-44-0----Fluoranthene\_ 1.0 U 129-00-0----Pyrene\_ 56-55-3-----Benzo(a) anthracene\_ 1.0 0 205-99-2----Benzo(b) fluoranthene\_ 1.0 U 1.0 0 207-08-9-----Benzo(k) fluoranthene\_ 50-32-8-----Benzo(a)pyrene\_ 1.0 0 1.0 0 193-39-5-----Indeno(1,2,3-cd)pyrene\_ 1.0 U 53-70-3-----Dibenzo(a,h)anthracene 191-24-2----Benzo(ghi)perylene\_ 1.0 U

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III-28

VOLATILE	- 1A ORGANICS ANALYSIS DATA :	SHEET .	EPA SAMPLE NO.
Lab Name: GEL, LLC.	Contrac	t: N/A	BFE352
Lab Code: N/A	Case No.: N/A SAS No	.: N/A SDG I	No.: 117167
Matrix: (soil/water)	WATER	Lab Sample ID:	117167007
Sample wt/vol:	5.000 (g/ml) ML	Lab File ID:	90516
Level: (low/med)	LOW	Date Received:	07/19/04
% Moisture: not dec.		Date Analyzed:	07/30/04
GC Column: RTX-VOLAT	ILES ID: 0.25 (mm)	Dilution Fa	actor: 1.0
Soil Extract Volume:	(uL)	Soil Aliquot Vo	olume:(uL)





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1B SVOA ORGANICS ANALYSIS DAT	EPA SAMPLE NO.
SVOA ORGANICS ANALISIS DAI	BFE352
Lab Name: GEL, LLC. Cor	tract: N/A
Lab Code: N/A Case No.: N/A SA	S No.: N/A SDG No.: 117167
Matrix: (soil/water) WATER	Lab Sample ID: 117167007
Sample wt/vol: 970.0 (g/mL) ML	Lab File ID: S2G2115
Level: (low/med) LOW	Date Received: 07/19/04
<pre>% Moisture: decanted: (Y/N)</pre>	Date Extracted:07/20/04
Concentrated Extract Volume: 1.00(mL)	Date Analyzed: 07/21/04
Injection Volume: 0.5(uL)	Dilution Factor: 1.0
GPC Cleanup: (Y/N) N	

CAS NO.	COMPOUND	CONCENTRATION (ug/L or ug/K		Q
91-20-3	Naphthalene_		1.0	U
91-57-6	2-Methylnapht	halene	1.0	U
	2-Chloronapht		1.0	U
	Acenaphthylen		1.0	U
	Acenaphthene_		1.0	U
86-73-7	Fluorene		1.0	U
	Phenanthrene_		1.0	U
120-12-7Anthracene		1.0	U	
206-44-0	Fluoranthene_		1.0	U
129-00-0Pyrene		1.0	U	
56-55-3	Benzo(a) anthr	acene	1.0	U
	Benzo(b) fluor		1.0	U
207-08-9	Benzo(k) fluor	anthene	1.0	U
50-32-8	Benzo(a)pyren	le	1.0	U
193-39-5	Indeno (1, 2, 3-	cd)pyrene	1.0	U
	Dibenzo(a,h)a		1.0	U
191-24-2	Benzo(ghi)per	vlene	1.0	U

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III-30

VOLATILE	IA ORGANICS ANALYSIS I	DATA SHEET	EPA SAMPLE NO.
Lab Name: GEL, LLC.	Cor	htract: N/A	BFE452
Lab Code: N/A	Case No.: N/A S	AS NO.: N/A SDG 1	No.: 117167
Matrix: (soil/water)	WATER	Lab Sample ID:	117167005
Sample wt/vol:	5.000 (g/ml) ML	Lab File ID:	7U418
Level: (low/med)	LOW	Date Received:	07/19/04
% Moisture: not dec.	Constitution of the later	Date Analyzed:	07/29/04
GC Column: DB-624	ID: 0.25 (mm)	Dilution Factor	r: 1.0
Soil Extract Volume:	(uL)	Soil Aliquot Vo	olume:(uL)



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1B SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

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Lab Name: GEL, LLC.	Contract	BFE452
	Case No.: N/A SAS No.	: N/A SDG No.: 117167
Matrix: (soil/water)	WATER	Lab Sample ID: 117167005
Sample wt/vol:	1030 (g/mL) ML	Lab File ID: S2G2113
Level: (low/med)	LOW	Date Received: 07/19/04
% Moisture:	decanted: (Y/N)	Date Extracted:07/20/04
Concentrated Extract	Volume: 1.00(mL)	Date Analyzed: 07/21/04
Injection Volume:	0.5(uL)	Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO.	COMPOUND		TION UNITS: ug/Kg) UG/I		Q
91-20-3	Naphthalene_			0.49	J
91-57-6	2-Methylnaphi	thalene		0.64	J
91-58-7	2-Chloronaph	thalene		0.97	U
	Acenaphthyle			0.97	U
	Acenaphthene			0.97	U
86-73-7	Fluorene			0.97	U
85-01-8	Phenanthrene			0.97	U
	Anthracene			0.97	U
	Fluoranthene			0.97	U
	Pyrene			0.97	U
	Benzo(a) anthi			0.97	U
	Benzo(b)fluor			0.97	U
	Benzo(k)fluor			0.97	U
	Benzo(a)pyrei			0.97	U
	Indeno(1,2,3-			0.97	U
	Dibenzo(a,h)a			0.97	U
	Benzo(ghi)per			0.97	U

OLM03.0

DATA VALIDATION COPY

FORM I SV-1

260

VOLATILE	IA ORGANICS ANALYSI	S DATA SHEET	EPA SAMPLE NO.
Lab Name: GEL, LLC.		Contract: N/A	BFE552
Lab Code: N/A	Case No.: N/A	SAS No.: N/A SDG	No.: 117167
Matrix: (soil/water)	WATER	Lab Sample ID:	117167006
Sample wt/vol:	5.000 (g/ml) ML	Lab File ID:	7U419
Level: (low/med)	LOW	Date Received:	07/19/04
% Moisture: not dec.		Date Analyzed:	07/29/04
GC Column: DB-624	ID: 0.25 (mm)	Dilution Facto	r: 1.0
Soil Extract Volume:	(uL)	Soil Aliquot V	olume:(uL)

CAS NO.

COMPOUND

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

71-43-2Benzene	2.0
108-88-3Toluene	1.0 0 4
100-41-4Ethylbenzene	17.3=
1330-20-7Xylenes (total)	42.7

FORM I VOA

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· DATA VALIDATION COPY

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III-33

... 1B SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

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Lab Name: GEL, LLC.	BFE552
	SAS No.: N/A SDG No.: 117167
Matrix: (soil/water) WATER	Lab Sample ID: 117167006
Sample wt/vol: 980.0 (g/mL) ML	Lab File ID: S2G2114
Level: (low/med) LOW	Date Received: 07/19/04
<pre>% Moisture: decanted: (Y/N)</pre>	Date Extracted:07/20/04
Concentrated Extract Volume: 1.00(m	L) Date Analyzed: 07/21/04
Injection Volume: 0.5(uL)	Dilution Factor: 1.0
GPC Cleanup: (Y/N) N	

CONCENTRATION UNITS: Q COMPOUND (ug/L or ug/Kg) UG/L CAS NO. 17.3 91-20-3-----Naphthalene\_ 111221111 91-57-6----2-Methylnaphthalene\_ 8.4 91-58-7----2-Chloronaphthalene\_ 1.0 U 208-96-8-----Acenaphthylene\_ 1.0 U 83-32-9-----Acenaphthene\_ 1.6 86-73-7----Fluorene 2.6 85-01-8-----Phenanthrene 0.57 J 120-12-7-----Anthracene\_ 1.0 U u 1.0 U 206-44-0----Fluoranthene 1.0 0 129-00-0----Pyrene\_ 56-55-3-----Benzo(a) anthracene 1.0 U 205-99-2----Benzo(b) fluoranthene 1.0 U 1.0 U 207-08-9-----Benzo(k) fluoranthene\_ 50-32-8-----Benzo (a) pyrene\_ 1.0 U 193-39-5-----Indeno(1,2,3-cd)pyrene 1.0 U 53-70-3-----Dibenzo(a,h)anthracene\_ 1.0 U 191-24-2-----Benzo(ghi)perylene\_ 1.0 0



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FORM I SV-1

III-34

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	- 1A		EPA SAMPLE NO.
	ORGANICS ANALYSIS DATA S		BFE652
Lab Name: GEL, LLC.			I
Lab Code: N/A	Case No.: N/A SAS No.	: N/A SDG I	No.: 117167
Matrix: (soil/water)	WATER	Lab Sample ID:	117167008
Sample wt/vol:	5.000 (g/ml) ML	Lab File ID:	70421
Level: (low/med)	LOW	Date Received:	07/19/04
% Moisture: not dec.		Date Analyzed:	07/29/04
GC Column: DB-624	ID: 0.25 (mm)	Dilution Factor	r: 1.0
Soil Extract Volume:	(uL)	Soil Aliquot Vo	olume:(uL)



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III-35

. 1B SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

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tab Name Opt 110	Contract	BFE652
Lab Name: GEL, LLC.	Contract	. N/A
Lab Code: N/A	Case No.: N/A SAS No.	: N/A SDG No.: 117167
Matrix: (soil/water)	WATER	Lab Sample ID: 117167008
Sample wt/vol:	980.0 (g/mL) ML	Lab File ID: S2G2116
Level: (low/med)	LOW	Date Received: 07/19/04
% Moisture:	decanted: (Y/N)	Date Extracted:07/20/04
Concentrated Extract	Volume: 1.00(mL)	Date Analyzed: 07/21/04
Injection Volume:	0.5(uL)	Dilution Factor: 1.0
GPC Cleanup: (Y/N)	N	

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L 0 COMPOUND CAS NO. 1.0 U 91-20-3-----Naphthalene ν 1.0 U 91-57-6-----2-Methylnaphthalene\_ 1.0 U 91-58-7----2-Chloronaphthalene\_ 1.0 U 208-96-8-----Acenaphthylene\_ 1.0 U 83-32-9----Acenaphthene 1.0 U 86-73-7----Fluorene\_ 85-01-8-----Phenanthrene 1.0 U 1.0 U 120-12-7-----Anthracene\_ 1.0 0 206-44-0----Fluoranthene 129-00-0----Pyrene\_ 1.0 U 1.0 U 56-55-3----Benzo(a) anthracene\_ 205-99-2----Benzo(b) fluoranthene\_ 1.0 U 207-08-9-----Benzo(k) fluoranthene\_ 1.0 U 1.0 U 50-32-8-----Benzo(a)pyrene\_ 1.0 0 193-39-5-----Indeno(1,2,3-cd)pyrene\_ 1.0 U 53-70-3-----Dibenzo(a,h)anthracene\_ 1.0 0 191-24-2----Benzo(ghi)perylene\_



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**III-36** 

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- 1A VOLATILE ORGANICS ANALYSIS DATA SH	EPA SAMPLE NO.
Lab Name: GEL, LLC. Contract:	TH0401
Lab Code: N/A Case No.: N/A SAS No.:	N/A SDG No.: 117167-1
Matrix: (soil/water) WATER	Lab Sample ID: 117169001
Sample wt/vol: 5.000 (g/ml) ML	Lab File ID: 7U439
Level: (low/med) LOW	Date Received: 07/19/04
% Moisture: not dec.	Date Analyzed: 07/30/04
GC Column: DB-624 ID: 0.25 (mm)	Dilution Factor: 1.0
Soil Extract Volume:(uL)	Soil Aliquot Volume:(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L		Q
108-88-3	Benzene Toluene Ethylbenzene_ Xylenes (tota	al)	1.0 1.0 1.0 1.0	U

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III-37

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- 1A VOLATILE ORGANICS ANALYSIS DATA SI	HEET R
Lab Name: GEL, LLC. Contract	: N/A TH0402
Lab Code: N/A Case No.: N/A SAS No.	: N/A SDG No.: 117157-1
Matrix: (soil/water) WATER	Lab Sample ID: 117169011
Sample wt/vol: 5.000 (g/ml) ML	Lab File ID: 9U604
Level: (low/med) LOW	Date Received: 07/19/04
% Moisture: not dec	Date Analyzed: 07/31/04
GC Column: RTX-VOLATILES ID: 0.25 (mm)	Dilution Factor: 1.0
Soil Extract Volume:(uL)	Soil Aliquot Volume:(uL)

CAS NO.

COMPOUND

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

Q

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			1
71-43-2Benzene	1.0	U	16
108-88-3Toluene	0.80	J	17
100-41-4Ethylbenzene	1.0	U	C
1330-20-7Xylenes (total)	1.0	U	i

FORM I VOA

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DATA VALIDATION

III-38

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MARRIE -	An Employee Oward Company
Science Applications	latz must local Corporation

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## CHAIN OF CUSTODY RECORD

# COC NO .: HLTM46

PO Box 2501, 151 Lefayette Dr.		REQUESTED PARAMETERS													T	LABORATORY NAME:										
PROJECT NAME: HAA	F Long Term	Monitoring, D.C	), 44		-	T	Т	T	T	T	RE	QUI	EST			ME	TEH	T	Т	Т	T	Т	Т		General Engineeri	
PROJECT NUMBER: 0 PROJECT MANAGER:			ler																						LABORATORY Al 2040 Savage Rao Charleston, SC 2	d
Sampler (Signature)		(Printed Name)			-																			~ *	PHONE NO: (843	556-8171
Patient (Signature) (140 PATRCIA A. UTOL																							1	8	OVA SCREENING	OBSERVATIONS, COMMEN
Sempte ID	Dete Collecte			Motrix		20	-		-	<u> </u>			_		4	-	4	+	+	-	+	+	-	2	SCHEENING	SPECIALITY
BF2552	7/10/04	1456	,	with		1	Z	_		3				-	+	-	+	-+	+	+	+		-	2		
BF\$452		1225				1	2	-	+	1		14.4. 194		2	+	-	+		+	+	+	+		-+		
BF2652		1410			_		2		-	1	-	1			+	-	+	+	+	+	+	+		2	terra de la composición de la composici	
BFE252		1400				1	2	-	+-	1.	-	3.			$\rightarrow$	+	+	+	+	+	+	+		2		
BFE652	V	1125			_	1.	2		-	N		13. 14		-		10	-		+	+	+	-	-	z		
-BF3552	7/17/04	931		V	_	-	Z	-	+		<u> </u>	_	-	34 - K	+		-	+	+	+	÷	-	+	-		
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STUDIOUS DW		Date/Time	RECE	VED BY:			-	1	Di	ate/T	Ime	T	TOT	AL N	UME	BER	OF	CON	ITAI	NEF	IS:	1	12		Cooler Temperat	ure: 4°C
RELINGUISHED BY	Still 7	119/04	D	Your	14	-			71	191	104	h	Cool	er ID:	:		1.3								FEDEX NUMBER	
COMPANY NAME:	1		COMP	ANY NAM	<b>E</b> :	-												30	03	S					M	A
COMPANY NAME:		1140		GEL				-		43		+					R.									
REDEIVED BT:	QUISHED	BY:				D	a19/1	Ime																		
COMPANY NAME		1140	COMP	ANY NAM	E:																					
REPRIQUISHED BY:	- 1	Date/Time	RECE	VED BY:					D	ate/1	rime														2	
CC MPANY NAME:	_	14:30	COMP	ANY NAM	E:																			_		

mplayee-Owned Company tional Corporation

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## CHAIN OF CUSTODY RECORD

COC NO .: HLTM 41

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P	Box 2501, 151 Laiayelle Dr.	. Tennessee 37830 (42.	3) 481-4600			C	HA	IN	OF	÷ C	US	T	יסכ	YR	EC	COF	RD									nL/m2	11
PI	IOJECT NAME: HAA	F Long Term Mor	litoring, D.O. 44		F	Г	Г	T	Г	T	RE		EST	EDF	PAR	AME	TER	RS						$\neg$	LABORATORY General Engine		
100	OJECT NUMBER: 01-1055-04-8991-200																							Viais:	LABORATORY 2040 Savage Ri Charleston, SC	boe	
Se	ak- Offe	(. O	Inted Name)		1																			Bottles/	PHONE NO: (84		
_	Sample ID	Date Collected	Time Collected	Metrix	EX I	Noc	PAH																	No. of	OVA SCREENING	OBSERVATIONS, C SPECIAL INSTR	COMMENTS,
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	F3752	7/17/04	1000			•	Z	14												•		•		2		4	
	FESSZ	7/16/04	1540				2					1					_		_			_	_	Z			
	3FE452	7/16/04	1215				Z					Ľ											_	2			
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1	MPANY NAME:	ANY NAME:	k	2		-	<b>T</b> /	191 43		L.	TOTAL NUMBER OF CONTAINERS: 12 Cooler Temperature: 4 °C   Cooler ID: ZZ FEDEX NUMBER: N/A																
R	Tal Loca		e/Time RELIN	IQUISHED BY	:					te/Ti																	
c	MPANY NAME			PANY NAME:			•																				
R /	MUSHED BY:		ATIME RECE	IVED BY:					Dal	te/Ti	me																
c	MPANY NAME:	- 14	30 COM	ANY NAME:															5								

Owned Company Science Applications later

117167, 117169

Pg 10/2

## COC NO .: HLTM42

Science Applications Internation PO Box 2501, 151 Lalayette Dr		3) 461-4500			C	HAI	IN C	OF	CUS	STC	DD	RE	CO	RD								HLTM4.	2
PROJECT NAME: HAA	F Long Term Mo	niloring, D.O. 44		-		1			R	EQU	EST	ED P/	RAME	TEP	IS		Т	1			LABORATORY NA General Engineering		
PROJECT NUMBER: 0																					LABORATORY AL 2040 Savage Rao Charleston, SC 25	đ	
PROJECT MANAGER:	Patty Stoll- Jh	aren stolla																		Viais:	Chanesion, SC 21	407	
Sampler (Signature)		Inted Name)							•											Bottles/	PHONE NO: (843)	556-8171	
Patriz Cil	Patriz albou PATRICIA A. Jour				<u>م</u> ا ۵	×														6	OVA SCREENING	OBSERVATIONS, COMIL	
Sample ID	Date Collected	Time Collected	Mat	And a local division of the local division o	VOC VOC		_		_		-			-	-	+	+	+	+	2 No	JUNEERING		
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BF2656	7116/04	1336			Z ·	2				E.			-			-	4	+	-	3			
DF3752	7/17/04	1000			2				<u></u>	195	-	-	-			-	+	+	$\vdash$				
BFE452	7/16/04	1215			2	-	·		2	5	1	·	15		et .	_		1.		S			
BF6552	7/16/04	1540			2	1.			1	4	and inclusion of the			$\square$	-24	_	-	-	-	2			
BREBSZ	7/10/04	1310			2	-	·		45	8	-				_	·	-		-	2			
BFE652	7/16/04	1125			2	1_	·		1. A.	23			·		-	-l:	-	1	-	2	and the second of the second o		
BFEZ54	7/10/04	1400		++	2	1_					1_		_		-	-	+		+	2			
BFEZSZ	7/16/04	1400		-	2_	1_	Ŀ		-		1	-	_		Ĩ	-	-	_	+	2			
BFEISZ	7/14/04_	1500			2-2-					-		1								2			
BF2452	7/16/04	1410	1	-	-	_			_	-	-	H				_	+	-	+-	2			
BF2552	7/16/04	1456		V	Z	1							_						1_	2	1		
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RELINGUISHED BY	1/00 7/1	9/04.	41	ano	U		4	Her	MA		Cool	er ID:			0						FEDEX NUMBER	11.	
COMPANY NAME:	11	40 COMP	ANYNA					17.0	30						3							1/4	
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The lan	< 7/1	9/94																					
COMPANY NAME	- 11	YO COMP	ANY NA	AME:														•					
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COMPANY NAME:		1/04 COMF	PANY NA	AME:			1																


P9 209 2

# COC NO .: HLTM42

PO Bax 2501, 151 Lafayelle D						111-		01						-							LABORATORY	NAME	1	
PROJECT NAME: HAP	ROJECT NAME: HAAF Long Term Monitoring, D.O. 44				REQUESTED PARAMETERS							-	LABORATORY NAME: General Engineering Laboratory											
ROJECT NUMBER: 01-1055-04-8981-200																		Vials:	LABORATORY 2040 Savage R Charleston, SC	aod				
Sampler (Signature)	NII DIP	rinted Name)	P																1	Bottles	PHONE NO: (84	13) 556-8171	1	
Alt= a Sample 10	Dele Collected	Time Collected	Matrix	-1	ĕ s	PAH														No. of	OVA SCREENING	OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS	1	
Br-\$452	7/16/04	1225	water		Z			+	1.1	1	3		+	+	1.		- ;	$\uparrow \uparrow$		Z			1	
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AN1864	7/17/04	1353			2			1			3	1			1.1		-		1	z			]	
ANØZLOZ	7/17/04	1515			z				1		÷.	126		1.				·	_	2			]	
AN2362	7/17/04	1435			2			•	$\phi_{1}$		4	18					•		_	2				
ANZZGZ	7/17/04	1400			2		1.			-	ji.	- *		÷.,		*			-	S				
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fat Ge		9/04	U. handly			COMPANY NAME:		-	//	190	τ	Co	ooler ID:				3					FEDEX NUMBE	IR: ALA	
COMPANY NAME:	110	40 COM	BEL					1	43	2						5						/V/H		
RECEIVED BY:	Dat	e/Time RELIN	IQUISHED				十		te/Tin		T										Annonement of the contract of		1	
Buller		19/05-																						
COLIPANY NAME:	- 11	. COMP	PANY NAM	IE:																		3		
HELMOUNSHED BY	Dat		IVED BY:					Da	ta/T <i>i</i> n	ne														
COLIPANY NAME:		/	PANY NAM	IE:			1																	

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## FOURTH SEMIANNUAL SAMPLING EVENT

## JANUARY 2005

1A VOLATILE ORGANICS ANALYSIS	EPA SAMPLE NO.
VOLATILE ORGANICS ANALISIS	BF0462
Lab Name: GEL, LLC. Co	ontract: N/A
Lab Code: N/A Case No.: N/A	SAS No.: N/A SDG No.: 129001
Matrix: (soil/water) WATER	Lab Sample ID: 129001011
Sample wt/vol: 5.000 (g/ml) ML	Lab File ID: 9U119
Level: (low/med) LOW	Date Received: 01/17/05
% Moisture: not dec.	Date Analyzed: 01/25/05
GC Column: RTX-VOLATILES ID: 0.25 (mm)	Dilution Factor: 1.0
Soil Extract Volume:(uL)	Soil Aliquot Volume:(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L		Q
108-88-3	Benzene Toluene Ethylbenzene Xylenes (tota		1.0 1.0 1.0 1.0	U U

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Page 34 of 204

1. 1

EPA SAMPLE NO.

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	Contract	BF0462
Lab Name: GEL, LLC.	Contract	: N/A
Lab Code: N/A	Case No.: N/A SAS No.	: N/A SDG No.: 129001
Matrix: (soil/water)	WATER	Lab Sample ID: 129001011
Sample wt/vol:	1000 (g/mL) ML	Lab File ID: S7A2023
Level: (low/med)	LOW	Date Received: 01/17/05
% Moisture:	decanted: (Y/N)	Date Extracted:01/19/05
Concentrated Extract	Volume: 1.00(mL)	Date Analyzed: 01/20/05
Injection Volume:	0.5(uL)	Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO. COMPOUND

CONCEN	TRA	ATION	UN	ITS:
(ug/L	or	ug/Kg	)	UG/L

1-20-3Naphthalene	1.0 0	
1-57-62-Methylnaphthalene	1.0 U	
1-58-72-Chloronaphthalene	1.0 U	
208-96-8Acenaphthylene	1.0 U	
33-32-9Acenaphthene	1.0 0	
36-73-7Fluorene	1.0 0	- 1
35-01-8Phenanthrene	1.0 U	
20-12-7Anthracene	1.0 U	- 1
06-44-0Fluoranthene	1.0 0	
29-00-0Pyrene	1.0 0	1
6-55-3Benzo(a)anthracene	1.0 0	
05-99-2Benzo(b)fluoranthene	1.0 U	
07-08-9Benzo(k)fluoranthene	1.0 U	
0-32-8Benzo(a)pyrene	1.0 0	
93-39-5Indeno(1,2,3-cd)pyrene	1.0 0	
3-70-3Dibenzo(a,h)anthracene	1.0 U	1
.91-24-2Benzo(ghi)perylene	1.0 0	
		-1

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1A VOLATILE ORGANICS ANALYSIS DATA	EPA SAMPLE NO.
Lab Name: GEL, LLC. Contra	BF2562
Lab Code: N/A Case No.: N/A SAS N	o.: N/A SDG No.: 129001
Matrix: (soil/water) WATER	Lab Sample ID: 129001012
Sample wt/vol: 5.000 (g/ml) ML	Lab File ID: 9U120
Level: (low/med) LOW	Date Received: 01/17/05
% Moisture: not dec.	Date Analyzed: 01/25/05
GC Column: RTX-VOLATILES ID: 0.25 (mm)	Dilution Factor: 1.0
Soil Extract Volume:(uL)	Soil Aliquot Volume:(uL)

CAS NO.	COMPOUND	CONCENTRATION UN: (ug/L or ug/Kg) [		Q
108-88-3	Benzene		1.0	U
	Ethylbenzene_ Xylenes (tota		1.0	127.1

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FORM I VOA

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EPA SAMPLE NO.

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BF2562
SDG No.: 129001
mple ID: 129001012
le ID: \$7A2024
leceived: 01/17/05
Extracted:01/19/05
malyzed: 01/20/05
on Factor: 1.0

GPC Cleanup: (Y/N) N

CONCEN	TR	ATION	U	NITS:	
(ug/L	or	ug/Kg	T)	UG/L	

CAS NO.	COMPOUND (1	ug/L or ug/Kg)	UG/L	Q
91-20-3	Naphthalene		1.0	บ
91-57-6	2-Methylnaphthalene	e	1.0	U
	2-Chloronaphthalene		1.0	U
	Acenaphthylene		1.0	U
83-32-9	Acenaphthene		1.0	U
86-73-7	Fluorene		1.0	U
85-01-8	Phenanthrene		1.0	U
120-12-7	Anthracene		1.0	U
206-44-0	Fluoranthene		1.0	U
	Pyrene		1.0	U
	Benzo(a) anthracene		1.0	U
	Benzo (b) fluoranther		1.0	U
	Benzo(k) fluoranthe		1.0	U
	Benzo(a)pyrene		1.0	U
	Indeno (1, 2, 3-cd) py:		1.0	U
53-70-3	Dibenzo(a,h)anthrac	cene	1.0	U
	Benzo(ghi)perylene		1.0	U

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OLM03.0

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1A VOLATILE ORGANICS ANALYSIS DATA S	EPA SAMPLE NO.
	BF2662
Lab Name: GEL, LLC. Contract	N/A
Lab Code: N/A Case No.: N/A SAS No.	: N/A SDG No.: 129001
Matrix: (soil/water) WATER	Lab Sample ID: 129001003
Sample wt/vol: 5.000 (g/ml) ML	Lab File ID: 9Ulll
Level: (low/med) LOW	Date Received: 01/17/05
% Moisture: not dec	Date Analyzed: 01/25/05
GC Column: RTX-VOLATILES ID: 0.25 (mm)	Dilution Factor: 1.0
Soil Extract Volume:(uL)	Soil Aliquot Volume:(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L		Q
71-43-2	Benzene		1.0	U
	Toluene		1.0	U
	Ethylbenzene		1.0	U
1330-20-7	Xylenes (tota	al)	1.0	U

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DATA VALIDATION

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EPA SAMPLE NO.

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		BF2662
Lab Name: GEL, LLC.	Contract	: N/A
Lab Code: N/A (	Case No.: N/A SAS No.	: N/A SDG No.: 129001
Matrix: (soil/water)	WATER	Lab Sample ID: 129001003
Sample wt/vol:	995.0 (g/mL) ML	Lab File ID: \$7A2015
Level: (low/med)	LOW	Date Received: 01/17/05
% Moisture:	decanted: (Y/N)	Date Extracted:01/19/05
Concentrated Extract	Volume: 1.00(mL)	Date Analyzed: 01/20/05
Injection Volume:	0.5(uL)	Dilution Factor: 1.0
GPC Cleanup: (Y/N)	N	
CAS NO.		NTRATION UNITS: or ug/kg) UG/L Q

91-20-3Naphthalene	1.0	U
91-57-62-Methylnaphthalene	1.0	U
91-58-72-Chloronaphthalene	1.0	U
208-96-8Acenaphthylene	1.0	U
83-32-9Acenaphthene	1.0	U
86-73-7Fluorene	1.0	U
85-01-8Phenanthrene	1.0	
120-12-7Anthracene	1.0	1.34
206-44-0Fluoranthene	1.0	
129-00-0Pyrene	1.0	100
56-55-3Benzo(a)anthracene	1.0	
205-99-2Benzo(b)fluoranthene	1.0	
207-08-9Benzo(k) fluoranthene	1.0	1.21
50-32-8Benzo(a)pyrene	1.0	
193-39-5Indeno(1,2,3-cd)pyrene	1.0	1.2
53-70-3Dibenzo(a,h)anthracene	1.0	U
191-24-2Benzo(ghi)perylene	1.0	U

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## RINSATE

1A VOLATILE ORGANICS ANALYSIS DATA	EPA SAMPLE NO.
VOLATILE ORGANICS ANALISIS DATA	BF2666
Lab Name: GEL, LLC. Contrac	t: N/A
Lab Code: N/A Case No.: N/A SAS No	.: N/A SDG No.: 129001
Matrix: (soil/water) WATER	Lab Sample ID: 129001001
Sample wt/vol: 5.000 (g/ml) ML	Lab File ID: 90109
Level: (low/med) LOW	Date Received: 01/17/05
% Moisture: not dec.	Date Analyzed: 01/25/05
GC Column: RTX-VOLATILES ID: 0.25 (mm)	Dilution Factor: 1.0
Soil Extract Volume:(uL)	Soil Aliquot Volume:(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-88-3	Benzene Toluene Ethylbenzene Xylenes (tota		1.0 U 1.0 U 1.0 U 1.0 U 1.0 U

#### FORM I VOA

OLM03.0

DATA VALIDATION COPY

### RINSATE EPA SAMPLE NO.

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18 SVOA ORGANICS ANALYSIS DATA SHEET

BF2666 Lab Name: GEL, LLC. Contract: N/A SDG No.: 129001 Lab Code: N/A Case No.: N/A SAS No.: N/A Lab Sample ID: 129001001 Matrix: (soil/water) WATER Sample wt/vol: 990.0 (g/mL) ML Lab File ID: S7A2013 Date Received: 01/17/05 Level: (low/med) LOW Date Extracted:01/19/05 % Moisture: \_\_\_\_\_ decanted: (Y/N) \_\_\_\_ Date Analyzed: 01/20/05 Concentrated Extract Volume: 1.00(mL) Injection Volume: 0.5(uL) Dilution Factor: 1.0 GPC Cleanup: (Y/N) N

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

91-20-3Naphthalene	1.0		1
91-57-62-Methylnaphthalene	1.0	U	
91-58-72-Chloronaphthalene	1.0	U	1
208-96-8Acenaphthylene	1.0	U	1
33-32-9Acenaphthene	1.0	U	1
36-73-7Fluorene	1.0	U	
35-01-8Phenanthrene	1.0	U	1
20-12-7Anthracene	1.0	U	
206-44-0Fluoranthene	1.0	U	1
29-00-0Pyrene	1.0	U	1
6-55-3Benzo(a)anthracene	1.0	U	1
205-99-2Benzo(b) fluoranthene	1.0	U	
207-08-9Benzo(k)fluoranthene	1.0	U	
50-32-8Benzo(a)pyrene	1.0	U	
193-39-5Indeno(1,2,3-cd)pyrene	1.0	U	1
3-70-3Dibenzo(a,h)anthracene	1.0	U	
191-24-2Benzo(ghi)perylene	1.0	U	

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CAS NO. COMPOUND

VOLATIE	1A ORGANICS ANALYSIS DATA	SHEET	EPA SAMPLE NO.
VOLATILE	ORGANICS MEMbrolo Sate		BF2762
Lab Name: GEL, LLC.	Contra	ct: N/A	
Lab Code: N/A C	ase No.: N/A SAS N	IO.: N/A SDG	No.: 129001
Matrix: (soil/water)	WATER	Lab Sample ID:	129001015
Sample wt/vol:	5.000 (g/ml) ML	Lab File ID:	90123
Level: (low/med)	LOW	Date Received:	01/17/05
% Moisture: not dec.		Date Analyzed:	01/25/05
GC Column: RTX-VOLATI	LES ID: 0.25 (mm)	Dilution F	actor: 1.0
Soil Extract Volume:_	(uL)	Soil Aliquot V	olume:(uL)

CONCEN	ITR!	ATION	UN	ITS:
(ug/L	or	ug/Kg	)	UG/L

COMPOUND

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Q

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CAS NO.

EPA SAMPLE NO.

1

		BF2762
Lab Name: GEL, LLC.	Contract	: N/A
Lab Code: N/A	Case No.: N/A SAS No.	: N/A SDG No.: 129001
Matrix: (soil/water)	WATER	Lab Sample ID: 129001015
Sample wt/vol:	1000 (g/mL) ML	Lab File ID: S7A2027
Level: (low/med)	LOW	Date Received: 01/17/05
% Moisture:	decanted: (Y/N)	Date Extracted:01/19/05
Concentrated Extract	Volume: 1.00(mL)	Date Analyzed: 01/20/05
Injection Volume:	0.5(uL)	Dilution Factor: 1.0
GPC Cleanup: (Y/N)	N	

CONCENTRATION UNITS:

CAS NO.	COMPOUND (ug/L or u	lg/Kg) UG/L	Q
91-20-3	Naphthalene	1.0	U
	2-Methylnaphthalene		U
91-58-7	2-Chloronaphthalene	1.0	U
208-96-8	Acenaphthylene	1.0	U
83-32-9	Acenaphthene	1.0	U
	Fluorene	1.0	U
85-01-8	Phenanthrene	1.0	U
120-12-7	Anthracene	1.0	U
206-44-0	Fluoranthene	1.0	U
129-00-0	Pyrene	1.0	U
56-55-3	Benzo(a)anthracene	1.0	U
	Benzo(b) fluoranthene		U
207-08-9	Benzo(k) fluoranthene	1.0	U
	Benzo(a)pyrene		U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	U
	Dibenzo(a,h)anthracene		U
	Benzo(ghi)perylene		U
			·

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1A VOLATILE ORGANICS ANALYSIS DA	EPA SAMPLE NO.
Lab Name: GEL, LLC. Cont	BF3562
Lab Code: N/A Case No.: N/A SAS	S No.: N/A SDG No.: 129001
Matrix: (soil/water) WATER	Lab Sample ID: 129001007
Sample wt/vol: 5.000 (g/ml) ML	Lab File ID: 90115
Level: (low/med) LOW	Date Received: 01/17/05
% Moisture: not dec	Date Analyzed: 01/25/05
GC Column: RTX-VOLATILES ID: 0.25 (mm)	Dilution Factor: 1.0
Soil Extract Volume:(uL)	Soil Aliquot Volume:(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L		Q	
71-43-2Benzene 108-88-3Toluene 100-41-4Ethylbenzene			1.0		4
	Ethylbenzene Xylenes (tota		1.0	U U	1

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FORM I VOA

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EPA SAMPLE NO.

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		BF3562
Lab Name: GEL, LLC.	Contract	: N/A
Lab Code: N/A	Case No.: N/A SAS No.	: N/A SDG No.: 129001
Matrix: (soil/water)	WATER	Lab Sample ID: 129001007
Sample wt/vol:	1000 (g/mL) ML	Lab File ID: S7A2019
Level: (low/med)	LOW	Date Received: 01/17/05
% Moisture:	decanted: (Y/N)	Date Extracted:01/19/05
Concentrated Extract	Volume: 1.00(mL)	Date Analyzed: 01/20/05
Injection Volume:	0.5(uL)	Dilution Factor: 1.0
GPC Cleanup: (Y/N)	N	

CONCEN	VTR.	ATION	S	ITS:
(ug/L	or	ug/Kg	()	UG/L

91-20-3Naphthalene	1.0	U	
91-57-62-Methylnaphthalene	1.0	U	
91-58-72-Chloronaphthalene	1.0	U	1
208-96-8Acenaphthylene	1.0	U	1
83-32-9Acenaphthene	1.0	U	1
86-73-7Fluorene	1.0	U	1
85-01-8Phenanthrene	1.0	U	1
120-12-7Anthracene	1.0	U	
206-44-0Fluoranthene	1.0	U	
129-00-0Pyrene	1.0	U	
56-55-3Benzo(a)anthracene	1.0	U	
205-99-2Benzo(b) fluoranthene	1.0	U	
207-08-9Benzo(k) fluoranthene	1.0	U	
50-32-8Benzo(a)pyrene	1.0	U	
193-39-5Indeno (1, 2, 3-cd) pyrene	1.0	U	
53-70-3Dibenzo(a,h)anthracene	1.0	U	
191-24-2Benzo(ghi)perylene	1.0	U	

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CAS NO. COMPOUND

1A VOLATILE ORGANICS ANALYSIS DATA S	EPA SAMPLE NO.
Lab Name - GEL LLC Contract	BF3662
Lab Name: GEL, LLC. Contract Lab Code: N/A Case No.: N/A SAS No.	
Matrix: (soil/water) WATER	Lab Sample ID: 129001006
Sample wt/vol: 5.000 (g/ml) ML	Lab File ID: 90114
Level: (low/med) LOW	Date Received: 01/17/05
<pre>% Moisture: not dec</pre>	Date Analyzed: 01/25/05
GC Column: RTX-VOLATILES ID: 0.25 (mm)	Dilution Factor: 1.0
Soil Extract Volume:(uL)	Soil Aliquot Volume:(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L		Q
71-43-2		1.0 0		
	Ethylbenzene Xylenes (tota		1.0 t 1.0 t	



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EPA SAMPLE NO.

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18 SVOA ORGANICS ANALYSIS DATA SHEET

15/

Lab Name: GEL, LLC.	Contract	N/A	Br Jooz
Lab Code: N/A (	Case No.: N/A SAS No.	N/A SDG I	No.: 129001
Matrix: (soil/water)	WATER	Lab Sample ID:	129001006
Sample wt/vol:	990.0 (g/mL) ML	Lab File ID:	S7A2018
Level: (low/med)	LOW	Date Received:	01/17/05
% Moisture:	decanted: (Y/N)	Date Extracted	:01/19/05
Concentrated Extract	Volume: 1.00(mL)	Date Analyzed:	01/20/05
Injection Volume:	0.5(uL)	Dilution Facto	r: 1.0
GPC Cleanup: (Y/N)	Ν		

Q COMPOUND (ug/L or ug/Kg) UG/L CAS NO. U 1.0 U 91-20-3-----Naphthalene\_ 1.0 0 91-57-6-----2-Methylnaphthalene\_ 1.0 0 91-58-7-----2-Chloronaphthalene\_ 1.0 0 208-96-8-----Acenaphthylene\_ 1.000 83-32-9-----Acenaphthene 1.0 U 86-73-7----Fluorene\_ 1.0 U 85-01-8-----Phenanthrene 1.0 U 120-12-7-----Anthracene\_ 1.0 U 206-44-0----Fluoranthene 1.0 0 129-00-0-----Pyrene\_ 1.0 U 56-55-3-----Benzo(a) anthracene\_ 1.0 U 205-99-2----Benzo(b) fluoranthene 1.0 U 207-08-9-----Benzo(k) fluoranthene\_ 1.0 U 50-32-8----Benzo(a)pyrene\_ 193-39-5-----Indeno(1,2,3-cd)pyrene\_ 1.0 U 1.0 U 53-70-3-----Dibenzo(a,h)anthracene\_ 1.0 U 191-24-2----Benzo(ghi)perylene\_

CONCENTRATION UNITS:

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VOLATILE	1A ORGANICS ANALYS	IS DATA SHEET	EPA SAMPLE NO.
Lab Name: GEL, LLC.		Contract: N/A	BF3762
Lab Code: N/A	Case No.: N/A	SAS No.: N/A SDG	No.: 129001
Matrix: (soil/water)	WATER	Lab Sample ID	: 129001008
Sample wt/vol:	5.000 (g/ml) ML	Lab File ID:	90116
Level: (low/med)	LOW	Date Received	: 01/17/05
% Moisture: not dec.		Date Analyzed	: 01/25/05
GC Column: RTX-VOLAT	ILES ID: 0.25 (r	mm) Dilution	Factor: 1.0
Soil Extract Volume:	(uL)	Soil Aliquot	Volume:(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/I		Q
108-88-3	Benzene Toluene Ethylbenzene_		1.0 1.0 1.0	UU
1330-20-7	Xylenes (tota	al)	1.0	U

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COMPOUND

CAS NO.

EPA SAMPLE NO.

Q

1

			BF3762
Lab Name: GEL, LLC.	Contract:	N/A	
Lab Code: N/A C	ase No.: N/A SAS No.:	N/A SDG N	No.: 129001
Matrix: (soil/water)	WATER	Lab Sample ID:	129001008
Sample wt/vol:	990.0 (g/mL) ML	Lab File ID:	S7A2020
Level: (low/med)	LOW	Date Received:	01/17/05
% Moisture:	decanted: (Y/N)	Date Extracted	:01/19/05
Concentrated Extract	Volume: 1.00(mL)	Date Analyzed:	01/20/05
Injection Volume:	0.5(uL)	Dilution Factor	r: 1.0
GPC Cleanup: (Y/N)	N		

CONCEN	ITRA	ATION	UNITS:
(ug/L	or	ug/Kg	) UG/L

1-20-3Naphthalene	1.0 U	
1-57-62-Methylnaphthalene	1.0 0	
1-58-72-Chloronaphthalene	1.0 0	
08-96-8Acenaphthylene	1.0 0	
3-32-9Acenaphthene	1.0 0	
6-73-7Fluorene	1.0 U	
5-01-8Phenanthrene	1.0 U	
20-12-7Anthracene	1.0 U	
06-44-0Fluoranthene	1.0 U	
29-00-0Pyrene	1.0 U	
6-55-3Benzo(a) anthracene	1.0 U	
05-99-2Benzo(b) fluoranthene	1.0 0	
07-08-9Benzo(k) fluoranthene	1.0 0	
0-32-8Benzo(a)pyrene	1.0 0	
93-39-5Indeno (1, 2, 3-cd) pyrene	1.0 0	
3-70-3Dibenzo(a,h)anthracene	1.0 U	
.91-24-2Benzo(ghi)perylene	1.0 0	

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LA VOLATILE ORGANICS ANALYSI	EPA SAMPLE NO.
	BFE162
Lab Name: GEL, LLC.	Contract: N/A
Lab Code: N/A Case No.: N/A	SAS No.: N/A SDG No.: 129001
Matrix: (soil/water) WATER	Lab Sample ID: 129001009
Sample wt/vol: 5.000 (g/ml) ML	Lab File ID: 9U117
Level: (low/med) LOW	Date Received: 01/17/05
% Moisture: not dec	Date Analyzed: 01/25/05
GC Column: RTX-VOLATILES ID: 0.25 (m	nm) Dilution Factor: 1.0
Soil Extract Volume: (uL)	Soil Aliquot Volume:(uL)

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

 71-43-2-----Benzene
 1.0 U

 108-88-3-----Toluene
 1.0 U

 100-41-4-----Ethylbenzene
 1.0 U

 1330-20-7-----Xylenes (total)
 1.0 U

COMPOUND

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CAS NO.

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DATA VALIDATION

FORM I VOA

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EPA SAMPLE NO.

1

			BFE162
Lab Name: GEL, LLC.	Contract:	: N/A  .	
Lab Code: N/A Cas	e No.: N/A SAS No.:	N/A SDG N	No.: 129001
Matrix: (soil/water) WA	TER	Lab Sample ID:	129001009
Sample wt/vol: 10	00 (g/mL) ML	Lab File ID:	S7A2021
Level: (low/med) LO	Ŵ	Date Received:	01/17/05
% Moisture: de	canted: (Y/N)	Date Extracted	:01/19/05
Concentrated Extract Vo	lume: 1.00(mL)	Date Analyzed:	01/20/05
Injection Volume: 0	.5(uL)	Dilution Factor	r: 1.0
GPC Cleanup: (Y/N) N			

CAS NO. COMPOUND

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

91-20-3Naphthalene	1.0	U
91-57-62-Methylnaphthalene	1.0	U
91-58-72-Chloronaphthalene	1.0	U
208-96-8Acenaphthylene	1.0	U
33-32-9Acenaphthene	1.6	
36-73-7Fluorene	3.1	
35-01-8Phenanthrene	1.2	
120-12-7Anthracene	1.0	U
206-44-0Fluoranthene	1.0	U
129-00-0Pyrene	1.0	U
56-55-3Benzo(a) anthracene	1.0	U
205-99-2Benzo(b) fluoranthene	1.0	U
207-08-9Benzo(k) fluoranthene	1.0	U
50-32-8Benzo(a)pyrene	1.0	U
193-39-5Indeno (1, 2, 3-cd) pyrene	1.0	U
53-70-3Dibenzo(a,h)anthracene	1.0	U
191-24-2Benzo(ghi)perylene	1.0	U

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1A VOLATILE ORGANICS ANALYSIS DA	EPA SAMPLE NO.
Lab Name: GEL, LLC. Cont	BFE262
Lab Code: N/A Case No.: N/A SAS	
Matrix: (soil/water) WATER	Lab Sample ID: 129001002
Sample wt/vol: 5.000 (g/ml) ML	Lab File ID: 9U110
Level: (low/med) LOW	Date Received: 01/17/05
% Moisture: not dec	Date Analyzed: 01/25/05
GC Column: RTX-VOLATILES ID: 0.25 (mm)	Dilution Factor: 1.0
Soil Extract Volume:(uL)	Soil Aliquot Volume:(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-88-3 100-41-4	Benzene Toluene Ethylbenzene Xylenes (tota		1.0 U 1.0 U 1.0 U 1.0 U

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COMPOUND

CAS NO.

EPA SAMPLE NO. 1\_\_\_\_\_1

Q

			BFE262
Lab Name: GEL, LLC.	Contract	N/A	
Lab Code: N/A	Case No.: N/A SAS No.	N/A SDG N	No.: 129001
Matrix: (soil/water)	WATER	Lab Sample ID:	129001002
Sample wt/vol:	1010 (g/mL) ML	Lab File ID:	S7A2014
Level: (low/med)	LOW	Date Received:	01/17/05
% Moisture:	decanted: (Y/N)	Date Extracted:	01/19/05
Concentrated Extract	Volume: 1.00(mL)	Date Analyzed:	01/20/05
Injection Volume:	0.5(uL)	Dilution Factor	: 1.0
GPC Cleanup: (Y/N)	N		

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

91-20-3Naphthalene	0.99	U
91-57-62-Methylnaphthalene	0.99	U
91-58-72-Chloronaphthalene	0.99	U
208-96-8Acenaphthylene	0.99	U
83-32-9Acenaphthene	0.99	U
86-73-7Fluorene	0.99	U
85-01-8Phenanthrene	0.99	U
120-12-7Anthracene	0.99	U
206-44-0Fluoranthene	0.99	U
129-00-0Pyrene	0.99	U
56-55-3Benzo(a)anthracene	0.99	U
205-99-2Benzo(b) fluoranthene	0.99	U
207-08-9Benzo(k) fluoranthene	0.99	U
50-32-8Benzo (a) pyrene	0.99	U
193-39-5Indeno(1,2,3-cd)pyrene	0.99	U
53-70-3Dibenzo(a,h)anthracene	0.99	U
191-24-2Benzo(ghi)perylene	0.99	U

FORM I SV-1

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COPY

#### DUPLICATE

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET BFE264 Contract: N/A Lab Name: GEL, LLC. Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 129001 Lab Sample ID: 129001004 Matrix: (soil/water) WATER Lab File ID: 9U112 Sample wt/vol: 5.000 (g/ml) ML Date Received: 01/17/05 Level: (low/med) LOW Date Analyzed: 01/25/05 % Moisture: not dec. \_\_\_\_\_ Dilution Factor: 1.0 GC Column: RTX-VOLATILES ID: 0.25 (mm) Soil Extract Volume: \_\_\_\_\_(uL) Soil Aliquot Volume: \_\_\_\_\_(uL)

1A

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L		Q
71-43-2	Benzene		1.0	υ
	Toluene		1.0	100
	Xylenes (total	L)	1.0	U

#### FORM I VOA

OLM03.0

#### DUPLICATE

1B SVOA ORGANICS ANALYSIS DATA SHEET EPA SAMPLE NO.

Q

VALYSIS	DATA	SHEET	

LEA OF

	BFE264
Lab Name: GEL, LLC.	Contract: N/A
Lab Code: N/A Case No.: N/A	SAS No.: N/A SDG No.: 129001
Matrix: (soil/water) WATER	Lab Sample ID: 129001004
Sample wt/vol: 1000 (g/mL) ML	Lab File ID: S7A2016
Level: (low/med) LOW	Date Received: 01/17/05
<pre>% Moisture: decanted: (Y/N)</pre>	Date Extracted:01/19/05
Concentrated Extract Volume: 1.00	(mL) Date Analyzed: 01/20/05
Injection Volume: 0.5(uL)	Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO. COMPOUND

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

	1
91-20-3Naphthalene	1.0 U
91-57-62-Methylnaphthalene	1.0 U
91-58-72-Chloronaphthalene	1.0 U
208-96-8Acenaphthylene	1.0 U
83-32-9Acenaphthene	1.0 U
86-73-7Fluorene	1.0 0
85-01-8Phenanthrene	1.0 0
120-12-7Anthracene	1.0 U
206-44-0Fluoranthene	1.0 0
129-00-0Pyrene	1.0 0
56-55-3Benzo(a) anthracene	1.0 U
205-99-2Benzo(b) fluoranthene	1.0 U
207-08-9Benzo(k) fluoranthene	1.0 0
50-32-8Benzo(a) pyrene	1.0 U
193-39-5Indeno(1,2,3-cd)pyrene	1.0 U
53-70-3Dibenzo(a,h)anthracene	1.0 U
191-24-2Benzo(ghi)perylene	1.0 0



OLM03.0

CATA VALIDATION

1A VOLATILE ORGANICS ANALYSIS DATA S	EPA SAMPLE NO.
VOLATILE ORGANICS ANALISIS DATA S	BFE362
Lab Name: GEL, LLC. Contract	
Lab Code: N/A Case No.: N/A SAS No.	: N/A SDG No.: 129001
Matrix: (soil/water) WATER	Lab Sample ID: 129001005
Sample wt/vol: 5.000 (g/ml) ML	Lab File ID: 90113
Level: (low/med) LOW	Date Received: 01/17/05
% Moisture: not dec.	Date Analyzed: 01/25/05
GC Column: RTX-VOLATILES ID: 0.25 (mm)	Dilution Factor: 1.0
Soil Extract Volume:(uL)	Soil Aliquot Volume:(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L		Q
	Benzene		1.0	U U U
100-41-4	Ethylbenzene		1.0 1.0	UU

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FORM I VOA

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EPA SAMPLE NO.

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Lab Name: GEL, LLC.	Contract	BFE362
Dab Hame: ODD, DDC.		1
Lab Code: N/A	Case No.: N/A SAS No.	N/A SDG No.: 129001
Matrix: (soil/water)	WATER	Lab Sample ID: 129001005
Sample wt/vol:	1000 (g/mL) ML	Lab File ID: S7A2017
Level: (low/med)	LOW	Date Received: 01/17/05
% Moisture:	decanted: (Y/N)	Date Extracted:01/19/05
Concentrated Extract	Volume: 1.00(mL)	Date Analyzed: 01/20/05
Injection Volume:	0.5(uL)	Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

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

CAS NO.	COMPOUND	(ug/L d	or ug/Kg)	UG/L	Q
91-20-3	Naphthalene_			0.31	J
91-57-6	2-Methylnaph	thalene		1.4	
91-58-7	2-Chloronapht	thalene		1.0	U
208-96-8	Acenaphthyle	ne		1.0	U
83-32-9	Acenaphthene			1.0	U
86-73-7	Fluorene			1.0	U
85-01-8	Phenanthrene			1.0	U
120-12-7	Anthracene			1.0	U
206-44-0	Fluoranthene			1.0	U
129-00-0	Pyrene			1.0	U
56-55-3	Benzo(a) anthi	racene		1.0	U
205-99-2	Benzo(b) fluor	ranthene		1.0	U
207-08-9	Benzo(k) fluor	ranthene		1.0	U
	Benzo(a)pyrer			1.0	U
193-39-5	Indeno (1, 2, 3-	-cd)pyrene_		1.0	U
53-70-3	Dibenzo(a,h)a	anthracene_		1.0	U
	Benzo(ghi)per			1.0	U

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	1A ORGANICS ANALYSI		SAMPLE NO.
VOLATILE	ORGANICS ANALISI		BFE462
Lab Name: GEL, LLC.		Contract: N/A	
Lab Code: N/A	Case No.: N/A	SAS No.: N/A SDG No.:	129001
Matrix: (soil/water)	WATER	Lab Sample ID: 129	001014
Sample wt/vol:	5.000 (g/ml) ML	Lab File ID: 9U1	22
Level: (low/med)	LOW	Date Received: 01/	17/05
% Moisture: not dec.		Date Analyzed: 01/	25/05
GC Column: RTX-VOLAT	ILES ID: 0.25 (m	m) Dilution Facto	r: 1.0
Soil Extract Volume:	(uL)	Soil Aliquot Volum	e:(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L		Q
108-88-3	Benzene Toluene Ethylbenzene Xylenes (total)_		1.0 1.0 1.0 0.90	UU

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		18		
SVOA	ORGANICS	ANALYSIS	DATA	SHEET

EPA SAMPLE NO.

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SVOR OF	GANICS ANADIDID DAIA SHE	
Lab Name: GEL, LLC.	Contract	: N/ABFE462
Lab Code: N/A	Case No.: N/A SAS No.	: N/A SDG No.: 129001
Matrix: (soil/water)	WATER	Lab Sample ID: 129001014
Sample wt/vol:	990.0 (g/mL) ML	Lab File ID: S7A2026
Level: (low/med)	LOW	Date Received: 01/17/05
% Moisture:	decanted: (Y/N)	Date Extracted:01/19/05
Concentrated Extract	Volume: 1.00(mL)	Date Analyzed: 01/20/05
Injection Volume:	0.5(uL)	Dilution Factor: 1.0
GPC Cleanup: (Y/N)	N	03
CAS NO.		NTRATION UNITS: or ug/Kg) UG/L Q

91-20-3Naphthalene	0.61 J J
91-57-62-Methylnaphthalene	1.5
91-58-72-Chloronaphthalene	1.0 U US
208-96-8Acenaphthylene	1.0 0 1
83-32-9Acenaphthene	1.0 0
86-73-7Fluorene	1.0 0
85-01-8Phenanthrene	1.0 U
120-12-7Anthracene	1.0 0
206-44-0Fluoranthene	1.0 0
129-00-0Pyrene	1.0 0
56-55-3Benzo(a)anthracene	1.0 0
205-99-2Benzo(b) fluoranthene	1.0 0
207-08-9Benzo(k) fluoranthene	1.0 0
50-32-8Benzo(a)pyrene	1.0 0
193-39-5Indeno(1,2,3-cd)pyrene	1.0 U
53-70-3Dibenzo(a,h)anthracene	1.0 0
191-24-2Benzo(ghi)perylene	1.0 0

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1A VOLATILE ORGANICS ANALYSIS DATA	EPA SAMPLE NO.
	BFE562
Lab Name: GEL, LLC. Contrac	C: N/A
Lab Code: N/A Case No.: N/A SAS No	.: N/A SDG No.: 129001
Matrix: (soil/water) WATER	Lab Sample ID: 129001010
Sample wt/vol: 5.000 (g/ml) ML	Lab File ID: 9U118
Level: (low/med) LOW	Date Received: 01/17/05
% Moisture: not dec	Date Analyzed: 01/25/05
GC Column: RTX-VOLATILES ID: 0.25 (mm)	Dilution Factor: 1.0
Soil Extract Volume:(uL)	Soil Aliquot Volume:(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-88-3	Benzene Toluene Ethylbenzene_	0.4	
1330-20-7	Xylenes (tota	34.	9

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COMPOUND

CAS NO.

EPA SAMPLE NO.

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			BFE562
Lab Name: GEL, LLC.	Contract	: N/A	
Lab Code: N/A	Case No.: N/A SAS No.	: N/A SDG N	10.: 129001
Matrix: (soil/water)	WATER	Lab Sample ID:	129001010
Sample wt/vol:	990.0 (g/mL) ML	Lab File ID:	S7A2022
Level: (low/med)	LOW	Date Received:	01/17/05
% Moisture:	decanted: (Y/N)	Date Extracted:	01/19/05
Concentrated Extract	Volume: 1.00(mL)	Date Analyzed:	01/20/05
Injection Volume:	0.5(uL)	Dilution Factor	: 1.0
GPC Cleanup: (Y/N)	N		

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

91-20-3Naphthalene	32.9		=
91-57-62-Methylnaphthalene	43.2		=
91-58-72-Chloronaphthalene	1.0	-	4
208-96-8Acenaphthylene	1.0	U	12
33-32-9Acenaphthene	5.4		1
36-73-7Fluorene	10.3		
35-01-8Phenanthrene	10.7		14
120-12-7Anthracene	1.0	U	14
206-44-0Fluoranthene	1.0	U	14
L29-00-0Pyrene	2.4		1=
56-55-3Benzo(a)anthracene	1.0	U	14
205-99-2Benzo(b) fluoranthene	1.0	U	
207-08-9Benzo(k) fluoranthene	1.0	U	
50-32-8Benzo(a)pyrene	1.0	U	
193-39-5Indeno (1, 2, 3-cd) pyrene	1.0	U	11
53-70-3Dibenzo(a,h)anthracene	1.0	U	
191-24-2Benzo(ghi)perylene	1.0	U	1





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N. A VALIDATION  $\mathbb{C}(\mathbb{C}^{2}Y$ 

	1A ORGANICS ANALYSIS	DITL CUPPT	EPA SAMPLE NO.
VOLATILE	ORGANICS ANALISIS		BFE662
Lab Name: GEL, LLC.	с	ontract: N/A	
Lab Code: N/A	Case No.: N/A	SAS NO.: N/A SDG N	0.: 129001
Matrix: (soil/water)	WATER	Lab Sample ID:	129001013
Sample wt/vol:	5.000 (g/ml) ML	Lab File ID:	90121
Level: (low/med)	LOW	Date Received:	01/17/05
% Moisture: not dec.		Date Analyzed:	01/25/05
GC Column: RTX-VOLAT	ILES ID: 0.25 (mm	) Dilution Fa	ctor: 1.0
Soil Extract Volume:	(uL)	Soil Aliquot Vo	lume:(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L		Q
	Benzene		o u	
	Toluene		47 J	
	Ethylbenzene			
1330-20-7	Xylenes (tota	al)	o u	

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EPA SAMPLE NO.

	BFE662
Lab Name: GEL, LLC.	Contract: N/A
Lab Code: N/A Case No.: N/A	SAS No.: N/A SDG No.: 129001
Matrix: (soil/water) WATER	Lab Sample ID: 129001013
Sample wt/vol: 1000 (g/mL) ML	Lab File ID: S7A2025
Level: (low/med) LOW	Date Received: 01/17/05
% Moisture: decanted: (Y/N)_	Date Extracted:01/19/05
Concentrated Extract Volume: 1.00(	mL) Date Analyzed: 01/20/05
Injection Volume: 0.5(uL)	Dilution Factor: 1.0
GPC Cleanup: (Y/N) N	

CAS NO.		ONCENTRATION UN ug/L or ug/Kg)	GLOOP,	Q
91-20-3	Naphthalene		1.0	υ
	2-Methylnaphthalene		1.0	U
	2-Chloronaphthalene		1.0	U
	Acenaphthylene		1.0	U
	Acenaphthene		1.0	U
	Fluorene		1.0	U
	Phenanthrene		1.0	U
	Anthracene		1.0	U
206-44-0	Fluoranthene		1.0	U
	Pyrene		1.0	U
	Benzo(a) anthracene		1.0	U
	Benzo(b) fluoranther		1.0	U
	Benzo(k) fluoranther		1.0	U
50-32-8	Benzo(a)pyrene		1.0	U
193-39-5	Indeno (1, 2, 3-cd) py:	rene	1.0	U
53-70-3	Dibenzo(a,h)anthrac	cene	1.0	U
	Benzo(ghi)perylene		1.0	U

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# COCNO .: HLTMSI

PROJECT NAME: HAAF Long Term Monitoring, D.O. 44																							ABORATORY NAME:			
PROJECT NUMBER: (	01-1055-0	4-8991-2	00				-																	General Engine	ering Laborato	ry
	PROJECT MANAGER: Patty Stoll																						Viais:	LABORATORY 2040 Savage R Charleston, SC	aod	
Sampler (Signature)	Sampler (Signature) (Brinted Name) Fati OJUN PATRICIA A. STOLL																						Bottles/	PHONE NO: (8-	43) 556-8171	
Sample ID	1	ollacted	Time Co	_		atrix	BTEX	NOC	121														No. of	OVA SCREENING		NS, COMMENTS,
BF-2666	BF26666 1/13/05 0955 Walk					(c)	2		1.1	1		-							1	t	124		Z		12900/001	001
BFEZ62			150	5		Ī	2	122	N		Π		-					1	t		2.5		Z			032
BF2662			095	5			2	1	N				-			-		12	1	10.0	524	_	2			203
BFEZ64			150	5			2	11	V	4					1		12.5	1	T	Sec			2			203 254
BFE3621							2	in i	1.	34		$\{\xi\}_{k}$		.4.1	100				1	13	102		2			205
BF3682							2	1	14			24			13			14	T		Sector 1		2			15 2
BF3562			102	1	2	1		11		1			1.5	-		1	T		11.1		2			1947 1947		
BF3762		,	1100	2			2	100	2	1 - 17 2 - 21 2 - 21		12			- 104 - 104		200		1		112-243 112-24 11-3-14		2			103
BFE162	1/13	2/05	140	0			2	1	V						1	-				$\mathbf{T}$			Z			,0')
BFE562		,	165	2			Z	2	2			0819 8141			1						1		2			912
BF\$\$462.	1/12	105	155	5			Z	1	2	.8					1.2		See	1		.51	1	1	2			5.1
BF2562	1	1	164	15			2		Y			1					1	3	1		134		2			072 072
BFE662	1/13/	05	173	5	1	V	2	1	3	14				14	12		2.9	- G	1	1	12		2			5. <u>5</u>
RELINOUISHED BX	11.0	1	a/Time	RECEN	VED B						Date			то	TAL N	UMI	BER O	FCC	NTA	INER	s: Of	UI	12	Cooler Tempera		
COMPANY NAME:	700	115	/05 - 0	COMP							. 1 43			Cod	oler ID	1	1	77	0					FEDEX NUMBE	NA	
ECEIVED BY: Date/Time RELINQUISHE							:				Date	/Tim	10												<u></u>	
COMPANY NAME:	GEL																									
BELINQUISHED BY:	Ban Watters Pitat										Date	/Tim	18													
COMPANY NAME: 1455 COMPANY NAME						AME:				1																



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COC NO .: HLTM SI

PO Box 2501, 151 Lateyette D		CHAIN OF CUSTODY RECORD REQUESTED PARAMETERS														000	HLIMSI							
PROJECT NAME: HA	AF Long T	erm Mo	nitoring, D.O. 44	1	-	Т	Т	Т	Т	Т	RE	QUE	STED	PARA	AMET	ERS	-	Т	ТТ	Т	LABORA General		' NAME: sering Laboratory	
PROJECT NUMBER: 0			00																		2040 Sa	vage R		
PROJECT MARAGER:	Pally Sic	211																		Vials:	Charlest	on, SC	29407	
Sempler (Signature)																Bottles/ \	PHONE	NO: (8	143) 556-8171					
Sample ID	-	BTEX	voc	1.4.												No. of E	OV		OBSERVATIONS, CON SPECIAL INSTRUC	MENTS.				
Sample ID Date Collected Time Collected Matrix BFEALO2 1/13/05 1625 Wate							-	-		1	$\square$			1	-		1	-		2			12950/0/0	1
THØYØ7						2		1	1	12	-		1		1			1.4		2			12700200	
THØ4ØB	1/14/0		0800			2	5-	1		12		125.5	1.20		1+ (+-#	11.11 4.11		114	1.444 1.444 1.444	3			17511,000	
TH \$416	1/16/		0815				Z	1				100	591		32	12			54	Z			12500501	
THOUGH						2			10				1.12		徳	5.3				2			129003003	
AFØ2C6		4/13/05 1500											- 2.5		1	100		2	1	2			51-	
AFØZC2			1520			2	-						40			1.6		1	1.242.75	2				
AFØSCZ			1445			z	and the second			1.5			120		1	1.16		1	- 54.2	2	2		515	,
AFIZCZ			1325			z	41					:			4			1		Z			تدن ا	1
AF\$7C2	V		1415		1	2						12	1.1		(ar)				1975-946 1971-82 1985-9	Z	2		Self	i.
AN 2272	4141	05	1545			2	έ.									14		1	1.6	2			005	
AKØS72			1440		à	2	· #		1.00	1.18						100				2	2		010	
AKØSTY	V		1440	V	/ 2	2	as)	Ι.								14			12.1	12	4		0	
RELINQUISHED BY:	LII	1 1		HED BY	1					ate/Ti			TAL NU		ER O	FCON	TAI	VERS	DH	0112			ature: 4°c	
	-9	1	Vai Li	PANY NA	146.	-		$\neg$	1.1	7.	S	Co	oler ID:			<b></b> ,					FEDEX	NUMB	ERILA	
COMPANY NAME:		115	6	ET					14	1 S.	S				1	76						/	הן מ	
RECEIVED BY:		Date	e/Time RELIN	QUISHE	D BY:	-			Da	ate/Ti	me													
Den Wettin 1/17/05																								
COMPANY NAME: GEL //JC COMPANY NAME																								
RELINQUISHED BY: Date/Time RECEIVED BY:									D	ate/Ti	me													
COMPANY NAME: (45) COMPANY NAM								_																



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COC NO .: HLTM 51

PO Box 2501, 151 Lafayette D	-	0	IAI	in c		.03							-					LABORATORY NAME:						
PROJECT NAME: HA	AF Long Terr	n Moni	itoring, D.O. 44		-	Г		Т	Т	RE	EQUI	ESTE	DPA	RAN	AETE	RS	-	Т	T		-	General Enginee		
PROJECT NUMBER:																	Vials:	LABORATORY 2040 Savage Ra Charleston, SC	bod					
Sempler (Signature)	DE AU Printed Name)																				of Bottles/ Vi	PHONE NO: (84	3) 556-8171	
Sample ID	Date Colle		RICIA H. Time Collected	Matrix	BIEX	VOC	1.8.														No. of	OVA SCREENING	OBSERVATIONS, SPECIAL INST	
AS\$422	1/16/0		100	water	-	2		164 4-5		1	1.6		1		1	45			1		Z			
ASPBZZ	11010		1210		+	2	1	2.7			1.		1					• ]•	1		2			
AS1422	V		1020	V	1	2			-	3					-						2			
BF2762	413/05		1140	water	2	2	2			E.	1							-	-	E	2		12.9001	a
	11.010					1.1		24		11	1		in.	-	+	10.45		10	1.0					
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and the second secon					7	17	0		7	1	1			÷.,		N.		1	1					
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			/					1					*	3	1	1.1.1		1.	1.1					
			/					1			10		1.1	1				·	10					
		/				1.						T	: 1.	T		1	Γ		1.1	-				
RELINGUISHED BY	11.	Date	Time RECI	EIVED BY:				T	Date	Time	-	TOT	LNU	MB	ERO	FCO	NTA	INER	s: 13	40	TIZ	Cooler Temper	ature: 4°C	
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COMPANY NAME:	COMPANY NAME: COMPANY NAME					XI.				ś						17	24	>					NIT	
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**11** III-76



COC NO .: HLTM 52

PO Box 2501, 151 Lafayette Dr		CHAIN OF CUSTODY RECORD														COC NO.	HLIN	122											
PROJECT NAME: HAA	F Long Te	erm Mor	nitoring, D.O.	44			REQUESTED PARAMETERS														LABORATORY NAME: General Engineering Laboratory								
	PROJECT NUMBER: 01-1055-04-8991-200 PROJECT MANAGER: Patty Stoll																									Ľ	LABORATORY 2040 Savage Ra Charleston, SC	ADDRESS:	
Sampler (Signature) (Printed Name) Fata- Offol PATRICIA A. STOLL									HENS																	Bottles/ Vials	PHONE NO: (84		
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#### CHAIN OF CUSTODY RECORD

COC NO .: HLTM53

PROJECT NAME: HAA	F Long Te	rm Mon	itoring, D.	0. 44		T					F	EQU	ESTE	D P	ARA	MET	ERS			-				LABORATORY I General Enginee		
PROJECT NUMBER: 0	1-1055-04-	8991-20	0			1																	Ļ			
PROJECT MANAGER:	Patty Stoll	1																						LABORATORY / 2040 Savage Ra Charleston, SC	od	
Sampler (Signature)			nted Name)		BIL			5															2 1	PHONE NO: (84	3) 556-8171	
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#### CHAIN OF CUSTODY RECORD

COC NO .: HLTM54

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PROJECT NUMBER: 01		991-200							×													Vials:	LABORATORY 2040 Savage Ra Charleston, SC	aod
Sampler (Signature)	111	D	ted Name)	1	P				+ Grea	0/5												Bottles/ Vi	PHONE NO: (84	43) 556-8171
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**12** III-79

### **APPENDIX IV**

## SITE RANKING FORM

#### THIRD SEMIANNUAL SAMPLING EVENT

### **JULY 2004**

#### SITE RANKING FORM

Facility	Name:	Former UST	117, Bu	ildi	ing 7002		Rank	ed by:	S. Stoller		
County	r: Cha	tham Facil	ity ID #:	9-	025113* <u>2</u>		Date	Ranked:	9/20/04		
SOIL C	ONTAN	<u>IINATION</u>									
A.	(Assum	AHs – um Concentratio ne <0.660 mg/kg pred on-site.)				B.		Benzene - num Conce	entration found	d on	the site
	was sic					*	$\boxtimes$	≤0.005 m	ng/kg	=	0
		≤0.660 mg/kg		=	0			>0.005 -	.05 mg/kg	=	1
		>0.66 - 1 mg/k	g	=	10			>0.05 - 1	mg/kg	=	10
*	$\boxtimes$	>1 - 10 mg/kg		=	25			>1 - 10 m	ng/kg	=	25
		>10 mg/kg P-Part B sample fro	m Well M	=	50 5 (Release #2)			>10 - 50	mg/kg	=	40
C.	Depth t	to Groundwater below land surfa		vv-L.	( <i>Nelease</i> #2)		□ * CAP	>50 mg/k P-Part B samp	Kg ble from Well MW	= -E5 (	50 Release #2)
		>50' bls	= 1								
		>25' - 50' bls	= 2								
		>10' - 25' bls	= 5								
	$\bowtie$	≤10' bls	= 10	D							
Fill in t	he blan	ks: (A. <u>25</u>	) + (B	0	) = ( <u>25</u> ) :	x (C	10	_) = (D. <u>2</u>	<u>50</u> )		
GROU		ER CONTAMIN									
E.	liquid h	roduct (Nonaqu ydrocarbons; se nition of "sheen	e Guide			F.	Maxin (One		ene - entration at the be located at t		
		No free produc	ct = 0			*		≤5 μg/L			= 0
		Sheen - 1/8"	= 25	0				≥5 µg/L >5 - 100	ua/l		= 5
		>1/8" - 6"	= 50	0					μg/L 000 μg/L		= 50
		>6" - 1ft.	= 1,0	000					10,000 µg/L		= 500
*	* 1.23	For every addi 100 points = $\frac{1}{3}$ ft (14.76 in) obser	,000 + 3	<u>300</u>				>10,000		4)	= 1500
Fill in t	he blan	ks: (E. <u> </u>	1300	)+	(F. <u>0</u> ) = (G	i. <u>13</u>	<u>00</u> )				

Facility Name: Former UST 117, Building 7002 County: Chatham Facility ID #: 9-025113\*2

#### POTENTIAL RECEPTORS (MUST BE FIELD-VERIFIED)

Distance from nearest contaminant plume boundary to the nearest downgradient and hydraulically connected Point of Withdrawal for water supply. If the point of withdrawal is not hydraulically connected, evidence as outlined in the CAP-A guidance document MUST be presented to substantiate this claim.

Η. Public Water Supply I. Non-Public Water Supply Impacted = 2000Impacted 1000 = 500 <500' = 500 <100' = >500' - ¼ mi = 25 >100' - 500' 25 = ¼ mi - 1 mi >500' - ¼ mi = 10 = 5 >1 mi - 2 mi = 2 >¼ - ½ mi 2 = \*  $\boxtimes$ > 2 mi  $\boxtimes$ = 0 >1⁄2 mi 0 = For lower susceptibility areas only: For lower susceptibility areas only: >1 mi = 0>¼ mi 0 = Note: If site is in lower susceptibility area, do not use the shaded areas. For iustification that withdrawal point is not hydraulically connected, see attached text. J. Distance from nearest Contaminant Plume K. Distance from any Free Product boundary to downgradient Surface Waters to basements and crawl spaces **OR UTILITY TRENCHES & VAULTS** (A utility trench may be omitted from ranking if its invert elevation is more than 5 feet above the water table.) Impacted 500 = Impacted = 500 <500' = 50  $\boxtimes$ <500' = 50 >500' - 1.000' = 5 >500' - 1.000' = 5  $\square$ >1,000' or = 0 >1.000' = 2 no free product. Fill in the blanks: (H. 0) + (I. 0) + (J. 50) + (K. 0) =L. 50 (G.<u>1300</u>) x (L.<u>50</u>) = M. 65000 (M. 65000) + (D. 250) =N. 65250 Ρ. SUSCEPTIBILITY AREA MULTIPLIER  $\square$ If site is located in a Low Ground-Water Pollution Susceptibility Area = 0.5 $\boxtimes$ All other sites = 1Q. **EXPLOSION HAZARD** Have any explosive petroleum vapors, possibly originating from this release, been detected in any subsurface structure (e.g., utility trenches, basements, vaults, crawl spaces, etc.)? Yes = 200.000 $\boxtimes$ No = 0Fill in the blanks:  $(N. 65250) \times (P. 1) = (65250) + (Q. 0)$ = 65250 (July 2004 – Third Semiannual Monitoring Event: associated with the plume in the vicinity of BF-MW-E5, AST 7009) ENVIRONMENTAL SENSITIVITY SCORE

#### FOURTH SEMIANNUAL SAMPLING EVENT

### JANUARY 2005

#### SITE RANKING FORM

Facility	Name:	Former UST	117, B	uildi	ing 7002		Rank	ed by:	S. Stoller		
County	: Cha	tham Facil	ity ID #	t: 9-0	025113* <u>2</u>		Date	Ranked:	3/18/05		
<u>SOIL C</u>	ONTAM	<u>IINATION</u>									
A.	(Assum	AHs – um Concentratione <0.660 mg/kg pred on-site.)				B.		Benzene - num Conce	entration found	d on	the site
	was sic	neu on-site.)				*	$\boxtimes$	≤0.005 m	g/kg	=	0
		≤0.660 mg/kg		=	0			>0.005 -	.05 mg/kg	=	1
		>0.66 - 1 mg/k	g	=	10			>0.05 - 1	mg/kg	=	10
*	$\boxtimes$	>1 - 10 mg/kg		=	25			>1 - 10 m	ng/kg	=	25
		>10 mg/kg P-Part B sample fro	m Mall A	=	50 5 (Bolosso #2)			>10 - 50 ı	mg/kg	=	40
C.	Depth t	o Groundwater		100-23	D (Release #2)		□ * CAP	>50 mg/k Part B samp	.g le from Well MW-	= -E5 (l	50 Release #2)
		>50' bls	= 1								
	_										
		>25' - 50' bls									
		>10' - 25' bls									
	$\boxtimes$	≤10' bls	= 1	0							
Fill in t	he blan	ks: (A. <u>25</u>	5) + (E	3. <u>0</u>	<b>)</b> = ( <u>25</u> ) :	x (C	10	_) = (D. <u>2</u> ;	<u>50</u> )		
GROUM	NDWAT	ER CONTAMIN	NATION	l							
E.	liquid h	oduct (Nonaqu ydrocarbons; so nition of "sheen	ee Guic			F.	Maxin (One		ene - entration at the be located at t		
		No free produ	ct = 0			*		≤5 µg/L			= 0
*	$\boxtimes$	Sheen - 1/8"	= 25	50					ua/l		
		>1/8" - 6"	= 50	00				>5 - 100			= 5
		>6" - 1ft.	= 1,	000				>100 - 1,0			= 50
	□ * She	For every add 100 points = <u>1</u> en observed in BF	,000 +	300				>10,000	10,000 μg/L μg/L FE562 (January 2	2005)	= 500 = 1500
Fill in t	he blan	ks: (E	<u>250</u>	) + (I	F. <u>0</u> ) = (G	250	_)				

Facility Name: Former UST 117, Building 7002 County: Chatham Facility ID #: 9-025113\*2

#### POTENTIAL RECEPTORS (MUST BE FIELD-VERIFIED)

Distance from nearest contaminant plume boundary to the nearest downgradient and hydraulically connected Point of Withdrawal for water supply. If the point of withdrawal is not hydraulically connected, evidence as outlined in the CAP-A guidance document MUST be presented to substantiate this claim.

Η. Public Water Supply I. Non-Public Water Supply Impacted = 2000Impacted 1000 = = 500 500 <500' <100' = >500' - ¼ mi = 25 >100' - 500' 25 = ¼ mi - 1 mi >500' - ¼ mi = 10 = 5 >1 mi - 2 mi = 2 >¼ - ½ mi 2 = \*  $\boxtimes$  $\boxtimes$ > 2 mi = 0 >1⁄2 mi 0 = For lower susceptibility areas only: For lower susceptibility areas only: >1 mi = 0>¼ mi 0 = Note: If site is in lower susceptibility area, do not use the shaded areas. For iustification that withdrawal point is not hydraulically connected, see attached text. J. Distance from nearest Contaminant Plume K. Distance from any Free Product boundary to downgradient Surface Waters to basements and crawl spaces **OR UTILITY TRENCHES & VAULTS** (A utility trench may be omitted from ranking if its invert elevation is more than 5 feet above the water table.) Impacted 500 = Impacted = 500 <500' = 50  $\boxtimes$ <500' = 50 >500' - 1.000' = 5 >500' - 1.000' = 5  $\square$ >1,000' or = 0 >1.000' = 2 no free product. Fill in the blanks: (H. 0) + (I. 0) + (J. 50) + (K. 0) =L. 50 (G.<u>250</u>) x (L.<u>50</u>) = M. 12500 (M. <u>12500</u>) + (D. <u>250</u>) = N. 12750 Ρ. SUSCEPTIBILITY AREA MULTIPLIER  $\square$ If site is located in a Low Ground-Water Pollution Susceptibility Area = 0.5 $\boxtimes$ All other sites = 1Q. **EXPLOSION HAZARD** Have any explosive petroleum vapors, possibly originating from this release, been detected in any subsurface structure (e.g., utility trenches, basements, vaults, crawl spaces, etc.)? Yes = 200.000 $\boxtimes$ No = 0Fill in the blanks:  $(N. 12750) \times (P. 1) = (12750) + (Q. 0)$ = 12750 (January 2005 – Fourth Semiannual Monitoring Event; associated with the plume in the vicinity of BF-MW-E5, AST 7009) ENVIRONMENTAL SENSITIVITY SCORE

#### ADDITIONAL GEOLOGIC AND HYDROGEOLOGIC DATA

The following is presented to provide supplemental information to Item H of the Site Ranking Form and details relating to the geologic and hydrogeologic conditions at Hunter Army Airfield (HAAF), which support HAAF's determination that the water withdrawal points located at the airfield cannot be hydraulically connected to the surficial aquifer.

#### **1.0 REGIONAL GEOLOGY**

Southeast Georgia is located within the coastal plain physiographic province of the southeast United States (Clark and Zisa 1976). In this region, the thickness of the southeastward-dipping subsurface strata ranges from 0 ft at the fall line, located approximately 350 miles inland from the Atlantic coast, to approximately 4,200 ft below ground surface (BGS) at the coast. Herrick (1961) provides detailed lithologic descriptions of the stratigraphic units encountered during the installation of water and petroleum exploration wells in Chatham County. The well log of GGS Well 125, located on White Bluff Road, 700 ft west and 0.3 mile north of Buckhalter Road, Savannah, Georgia, provides one of the more complete lithologic descriptions of upper Eocene, Miocene, and Pliocene to Recent sedimentary strata in Chatham County.

The upper Eocene (Ocala Limestone) section of GGS Well 125 is approximately 225 ft thick and dominated by light gray to white fossiliferous limestone. The Miocene section is approximately 250 ft thick and consists of limestone, with a 160-ft-thick cap of dark green phosphatic clay. This clay is regionally extensive and is known to occupy the Coosawatchie Formation of the Hawthorn Group (Furlow 1969; Arora 1984; Huddlestun 1988). The interval from approximately 80 ft to the surface is Pliocene to Recent in age and composed primarily of sand interbedded with clay and silt. This section is occupied by the Satilla and Cypresshead Formations (Huddlestun 1988).

#### 2.0 LOCAL GEOLOGY

HAAF is located within the barrier island sequence district of the coastal plain physiographic province of the southeast United States (Clark and Zisa 1976). The barrier island sequence district in Chatham and Bryan Counties is characterized by the existence of several marine terraces (step-like topographic surfaces that decrease in elevation toward the coast). These marine terraces, and their associated deposits, are the result of sea-level fluctuations that occurred during the Pleistocene epoch. The surficial (Quaternary) deposits in Chatham and Bryan Counties, in decreasing elevation and age, are part of the Okefenokee, Wicomico, Penholoway, Pamlico, and Silver Bluff Terrace Complexes (Wilkes et al. 1974; GA DNR 1976; Huddlestun 1988).

HAAF, as well as most of Chatham County, is underlain by the Pleistocene Pamlico Terrace. The Pleistocene Satilla Formation (formerly known as the Pamlico Formation) consists of deposits of the Pamlico Terrace Complex and other terrace complexes in the region (Huddlestun 1988). The Satilla Formation is a lithologically heterogeneous unit that consists of variably bedded to nonbedded sand and variably bedded silty to sandy clay. During the Pleistocene epoch, these sand and clay deposits were formed in offshore and inner continental shelf, barrier island, and marsh/lagoonal-type environments (Huddlestun 1988). According to the *Geologic Map of Georgia* (GA DNR 1976), clay beds of marsh origin, which were deposited on the northwestern side of the former Pamlico Barrier Island Complex, exist in the western quarter of HAAF. Very fine- to coarse-grained sand deposits of barrier island origin are more common throughout the remaining areas of HAAF.

Based on the coring and sampling of unconsolidated strata at HAAF during the Corrective Action Plan– Part A investigations, it was concluded that all former underground storage tanks (USTs) were buried within the Satilla Formation, which is overlain by various soil types. Soil groups at HAAF include the Chipley, Leon, Ellabelle, Kershaw, Pelham, Albany, Wahee, and Ogeechee (Wilkes et al. 1974).

#### 3.0 REGIONAL AND LOCAL HYDROGEOLOGY

The hydrogeology in the vicinity of HAAF is mostly influenced by two aquifer systems. These are referred to as the Principal Artesian (Floridan) Aquifer and the surficial aquifer (Miller 1990). The Principal Artesian Aquifer is the lowermost hydrologic unit and is regionally extensive from South Carolina through Georgia, Alabama, and most of Florida. Known elsewhere as the Floridan, this aquifer, approximately 800 ft in total thickness, is composed primarily of Tertiary-age limestone, including the Bug Island Formation, Ocala Group, and Suwannee Limestone. Groundwater from the Floridan is used primarily for drinking water (Arora 1984). According to Miller (1990), one of the largest cones of depression produced in the Upper Floridan Aquifer exists directly beneath Savannah, Georgia. Net water-level decline in the Floridan system between the predevelopment period and 1980 exceeded 80 ft beneath Savannah. In addition, according to 1980 estimates, more than 500 million gal of water per day were withdrawn from the Floridan for public and industrial use in southeast Georgia, more than in any other region.

The confining layer for the Principal Artesian (Floridan) Aquifer is the phosphatic clay of the Hawthorn Group. There are minor occurrences of aquifer material within the Hawthorn Group; however, they have limited use (Miller 1990). The surficial aquifer overlies the Hawthorn confining unit.

The surficial aquifer consists of widely varying amounts of sand and clay, ranging from 55 to 150 ft in thickness, and is composed primarily of the Satilla and Cypresshead Formations in the Savannah vicinity (Arora 1984). This aquifer is primarily used for domestic lawn and agricultural irrigation. The top of the water table ranges from approximately 2 to 10 ft BGS (Miller 1990). Groundwater in the surficial aquifer system is under unconfined, or water table, conditions. Locally, however, thin clay beds create confined or semiconfined conditions, as is the case at HAAF where thin, surficial clay beds are present in the western quadrant (GA DNR 1976).

Groundwater encountered at all the UST investigation sites is part of the surficial aquifer system. Based on the fact that all public and nonpublic water supply wells draw water from the Principal Artesian (Floridan) Aquifer and that the Hawthorn confining unit separates the Principal Artesian Aquifer from the surficial aquifer, it is concluded that there is no hydraulic interconnection between the surficial aquifer (and associated groundwater plumes, if applicable) located beneath former UST sites and identified water-supply withdrawal points at HAAF.

#### 4.0 REFERENCES

- Arora, Ram 1984. *Hydrologic Evaluation for Underground Injection Control in the Coastal Plain of Georgia*, Department of Natural Resources, Environmental Protection Division, Georgia Geologic Survey.
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## APPENDIX V

### **REIMBURSEMENT APPLICATION**

Hunter Army Airfield is a federally owned facility and has funded the investigation for the former Underground Storage Tank (UST) 117 site, Facility ID #9-025113\*2, using U. S. Department of Defense Environmental Restoration Account Funds. Application for Georgia UST Trust Fund reimbursement is not being pursued at this time.

## ATTACHMENT A

## SUMMARY OF FATE AND TRANSPORT MODELING

#### A.1. FATE AND TRANSPORT MODELING

The Seasonal Soil Compartment Model was used to simulate the vertical transport of contaminants from the source area down through the vadose zone to the shallow groundwater table. The Analytical Transient 1-, 2-, 3-Dimensional Model was used to model contaminant migration to a potential downgradient receptor, an underground storm drain located approximately 120 ft southwest of the site. Benzene and naphthalene were the only two constituents to exceed their respective In-Stream Water Quality Standards (IWQSs) or risk-based screening levels during the Corrective Action Plan (CAP)–Parts A and B investigations. A steady-state source for each constituent was assumed for conservatism, and the source was shut off after a steady-state condition had been achieved.

#### A.1 SUMMARY OF THE CORRECTIVE ACTION PLAN-PART B REPORT FATE AND TRANSPORT MODELING RESULTS FOR BENZENE

The fate and transport modeling that was conducted as part of the CAP–Part B Report (SAIC 2001) was based on the analytical data collected during the CAP–Parts A and B investigations. The assumption of a continuous source of contamination of infinite duration at the site was based on the maximum observed benzene concentration in groundwater at Release #1 (i.e., 553  $\mu$ g/L in well BF-MW-22 in December 1999) during the CAP–Parts A and B investigations. The modeling was performed to develop alternate concentration limits (ACLs) for the site. Because benzene was the only volatile organic compound at the site that exceeded its IWQS, an ACL of 634  $\mu$ g/L was developed for benzene based on a dilution attenuation factor (DAF) of 8.9.

No fate and transport modeling of benzene was preformed with respect to Release #2 because it did not exist during the CAP-Parts A and Part B investigations.

#### A.2 SUMMARY OF THE CORRECTIVE ACTION PLAN-PART B REPORT FATE AND TRANSPORT MODELING RESULTS FOR NAPHTHALENE

The fate and transport modeling that was conducted as part of the CAP–Part B Report (SAIC 2001) was based on the analytical data collected during the CAP–Parts A and B investigations. The assumption of a continuous source of contamination of infinite duration at the site was based on the maximum observed naphthalene concentration in groundwater at Release #1 (i.e., 528  $\mu$ g/L in well BF-MW-22 in December 2000) during the CAP–Parts A and B investigations. The modeling was performed to develop ACLs for the site. Because naphthalene was the only polynuclear aromatic hydrocarbon at the site that exceeded its risk-based screening level, an ACL of 820  $\mu$ g/L was developed for naphthalene based on a DAF of 126.3.

No fate and transport modeling of benzene was preformed with respect to Release #2 because it did not exist during the CAP-Parts A and Part B investigations.

#### A.3 CONCLUSIONS BASED ON FATE AND TRANSPORT MODELING RESULTS

The conclusions below are based on fate and transport modeling of analytical data collected during the CAP–Parts A and B investigations and assuming a steady-state source at the site. The fate and transport modeling results associated with Release #1 are applicable to Release #2 because of the similar proximity of the closest receptor and the concentrations for Release #1 are much higher than Release #2.

- Benzene concentrations in groundwater associated with Release #2 did not exceed the benzene ACL of 624 μg/L or the IW
  QS of 71.28 μg/L in July 2004 or January 2005, respectively.
- Naphthalene concentrations in groundwater associated with Release #2 did not exceed the naphthalene ACL of 820  $\mu$ g/L in July 2004 or January 2005.
- Fate and transport modeling for Release #2 has not been performed due to the very low benzene and naphthalene concentrations.

#### A.4 REFERENCES

SAIC (Science Applications International Corporation) 2001. Corrective Action Plan–Part B Report for Former Underground Storage Tank 117, Building 7002, Facility ID 9-025113\*1, Bulk Fuel Facility (HAA-09), Hunter Army Airfield, Georgia, July.

### ATTACHMENT B

#### REFERENCES

#### REFERENCES

- Lewis, Lisa L. 2003. Letter Thomas C. Fry (Fort Stewart Directorate of Public Works Environmental Branch), October 6.
- SAIC (Science Applications International Corporation) 1999. Soil Gas Survey Report for the Bulk Fuel Facility (HAA-09) at Hunter Army Airfield, Georgia, November.
- SAIC 2000. Corrective Action Plan–Part A Report for Former Underground Storage Tank 117, Building 7002, Facility ID 9-025113\*1, Bulk Fuel Facility (HAA-09), Hunter Army Airfield, Georgia, June.
- SAIC 2001. Corrective Action Plan–Part B Report for Former Underground Storage Tank 117, Building 7002, Facility ID 9-025113\*1, Bulk Fuel Facility (HAA-09), Hunter Army Airfield, Georgia, July.
- SAIC 2003. First Annual Monitoring Only Report for Former Underground Storage Tank 117, Building 7002, Facility ID 9-025113\*1, Bulk Fuel Facility (HAA-09), Hunter Army Airfield, Georgia, July.

### ATTACHMENT C

## **CERTIFICATES OF ANALYSIS**

-	0.000								
Company									
Address :									
	Oak Ridge, Tenn	lessee 3783							
Contact:	Ms. Leslie Barbo	wr				Rep	oort Date: Aug	gust 30, 2004	
							D		2
Project:	Hunter Army A	arneld LIN					Pa	gc I of	2
	Client Sample Sample ID: Matrix: Collect Date: Receive Date: Collector:	1 V 1	BF0452 17167014 Vater 6-JUL-04 12:25 9-JUL-04 Client		Proie		SAIC05900 SAIC059		
Parameter	Qualifier	Result		DI	Thete	DE	1		
			DI	RL	Units	DF	AnalystDate	Time Batch	1 Metho
emi-volatile Mass spe									
3510/8270 PAH Exter	nd list Liquid								
2-Chloronaphthalene	U	ND	0.404	1.01	ug/L	1	JWF 07/21/0	4 2224 350446	1
2-Methylnaphthalene	U	ND	0.505	1.01	ug/L	1			
Acenaphthene	U	ND	0.505	1.01	ug/L	1			
Acenaphthylene	U	ND	0.505	1.01	ug/L	1			
Anthracene	U	ND	0.505	1.01	ug/L	1			
Benzo(a)anthracene	U	ND	0.505		ug/L	i			
Benzo(a)pyrene	U	ND	0.505		ug/L	i			
Benzo(b)fluoranthene	e U	ND	0.505		ug/L	1			
Benzo(ghi)perylene	U	ND	0.505		ug/L	1			
Benzo(k)fluoranthene		ND	0.505		ug/L	1			
Dibenzo(a,h)anthrace		ND	0.50		ug/L	1			
Fluoranthene	Ŭ	ND	0.505		ug/L				
Fluorene	Ŭ	ND	0.50			1			
Indeno(1,2,3-cd)pyres		ND	0.50		ug/L	1			
Naphthalene	U				ug/L	1			
Phenanthrene	Ŭ	ND	0.11		ug/L	1			
	U	ND	0.503		ug/L	1			
Pyrene		ND	0.503	1.01	ug/L	1			
olatile Organics Fed									
5035/8260B BTEX in	Liquid Federal								
Benzene	U	ND	0.330	1.00	ug/L	1	DLS 07/30/0	4 0341 353417	2
Ethylbenzene	U	ND	0.210	0.100	ug/L	1			
Toluene	J	0.642	0.390	1.00	ug/L	1			
Xylenes (total)	U	ND	0.250	1.00	ug/L	1			
The following Prep M	Aethods were perfor	med							
Method	Description	nicu		Analyst	Date	Time	Prep Batch	1	
SW846 3510C	3510C BNA Li	iq. Prep-8270	0C Analysis Fed	JPB	07/20/04	1457	350445		
			1.4 1.4						
The following Analyt	and the second	performed							
Method	Description				Analyst Comm	ents			
1	SW846 8270C								
2	SW846 8260B								
Surrogate/Tracer reco	overy Test				Recovery%	Ассер	table Limits		
2-Fluorobiphenyl		0 PAH Exte	nd list Liquid		a second and a second				
Nitrobenzene-d5		0 PAH Exte	·····································		70		%-97%) %-110%)		
suumenzene_d`					81				

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### **Certificate of Analysis**

Company :	SAIC							
Address :	151 Lafayette Drive							
	Oak Ridge, Tennessee 37831							
					Report Date: Aug	ust 30, 2	2004	
Contact:	Ms. Leslie Barbour				16			
Project:	Hunter Army Airfield LTM				Pag	ge 2	of	2
	Client Sample ID: BF04 Sample ID: 1171	452 67014		Proje	ect: SAIC05900 nt ID: SAIC059			
Parameter	Qualifier Result	DL	RL	Units	DF AnalystDate	Time	Batch	Method
p-Terphenyl-d14	3510/8270 PAH Extend li	st Liquid		69	(56%-133%)			
Bromofluorobenzene	5035/8260B BTEX in Liq	uid Federal		86	(76%-115%)			
Dibromofluoromethane	5035/8260B BTEX in Liq	uid Federal		102	(72%-136%)			
Toluene-d8	5035/8260B BTEX in Liq	uid Federal		90	(80%-116%)			

Notes:

The Qualifiers in this report are defined as follows :

- Target analyte was detected in the sample as well as the associated blank. В
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit. J
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- х Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

in Reviewed by

Company :	SAIC								
Address :	151 Lafayette Dr	ive							
(Iddress)	Oak Ridge, Tenn		31						
	out thege, rem					Rep	port Date: Augu	st 30, 2004	
Contact:	Ms. Leslie Barbo	ur							
Project:	Hunter Army A	irfield L1	"M				Page	l of	2
	Client Sample Sample ID: Matrix: Collect Date: Receive Date: Collector:	ID:	BF2552 117167013 Water 16-JUL-04 14:56 19-JUL-04 Client		Proie Clier		SAIC05900 SAIC059		
Parameter	Qualifier	Result		RL	Units	DF	AnalystDate	Time Batch	Metho
Semi-volatile Mass spec	Organics Federal							rine baten	memo
energy and the second second second second second									
3510/8270 PAH Extend	The second s		0.225	0.000					
2-Chloronaphthalene	U	ND	0.396		ug/L	1	JWF 07/21/04	2201 350446	1
2-Methylnaphthalene	1	0.597	0.495		ug/L	1			
Acenaphthene	U	ND	0.495		ug/L	1			
Acenaphthylene	U	ND	0.495		ug/L	1			
Anthracene	U	ND	0.495		ug/L	1			
Benzo(a)anthracene	U	ND	0.495		ug/L	1			
Benzo(a)pyrene	U	ND	0.495	(S. 00. 00. 00.	ug/L	1			
Benzo(b)fluoranthene	U	ND	0.495	0.990	ug/L	1			
Benzo(ghi)perylene	U	ND	0.495	1	ug/L	1			
Benzo(k)fluoranthene	U	ND	0.495	0.990	ug/L	1			
Dibenzo(a,h)anthracene	: U	ND	0.495	0.990	ug/L	1			
Fluoranthene	U	ND	0.495	0.990	ug/L	1			
Fluorene	U	ND	0.495	0.990	ug/L	1			
Indeno(1,2,3-cd)pyrene	U	ND	0.495	0.990	ug/L	1			
Naphthalene	J	0.557	0.109	0.990	ug/L	1			
Phenanthrene	U	ND	0.495	0.990	ug/L	1			
Pyrene	U	ND	0.495	0.990	ug/L	1			
Volatile Organics Feder	al				U				
5035/8260B BTEX in L	iquid Federal								
Benzene	U	ND	0.330	1.00	ug/L	1	DLS 07/30/04	0214 252412	
Ethylbenzene	Ŭ	ND	0.210		ug/L	1	DL3 0//30/04	0314 353417	2
Toluene	J	0.601	0.390		ug/L ug/L	1			
Xylenes (total)	Ŭ	ND	0.250		ug/L	i			
The following Prep Me	thods were perfor	mad			171				
Method	Description	meu		Analyst	Date	Time	Prep Batch		
SW846 3510C	3510C BNA Li	q. Prep-82	270C Analysis Fed	JPB	07/20/04	1457	350445		
The following Analytic	al Mathode ware w	erformer	1						
Method	Description	eriormee			Analyst Comm	ents			
1	SW846 8270C								
2	SW846 8260B								
Surrogate/Tracer recov	ery Test				Recovery%	Accen	table Limits		
	cher characterization of the								
2-Fluorobiphenyl			tend list Liquid		64	(46	6%-97%)		
Nitrobenzene-d5	3510/827	0 PAH Ex	tend list Liquid		71	(47	%-110%)		

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#### **Certificate of Analysis**

Company : SAIC Address : 151 Lafayette Drive Oak Ridge, Tennessee 37831 Report Date: August 30, 2004 Contact: Ms. Leslie Barbour Project: Hunter Army Airfield LTM Page 2 of 2 Client Sample ID: BF2552 Project: SAIC05900 Sample ID: 117167013 Client ID: SAIC059 Parameter Qualifier Result DL RL Units DF AnalystDate Time Batch Method 3510/8270 PAH Extend list Liquid p-Terphenyl-d14 69 (56%-133%)

87

101

94

(76%-115%)

(72%-136%)

(80%-116%)

Bromofluorobenzene 5035/8260B BTEX in Liquid Federal Dibromofluoromethane 5035/8260B BTEX in Liquid Federal Toluene-d8 5035/8260B BTEX in Liquid Federal

Notes:

The Qualifiers in this report are defined as follows :

- B Target analyte was detected in the sample as well as the associated blank.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit. I
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details. X
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by

Company :	SAIC								
Address :	151 Lafayette Dr	ive							
	Oak Ridge, Tenn		31						
	25.00					Rep	ort Date: Aug	ust 30, 2004	
Contact:	Ms. Leslie Barbo	our							
Project:	Hunter Army A	irfield LT	M				Pag	ge I of	2
	Client Sample Sample ID: Matrix: Collect Date: Receive Date:	ID:	BF2652 117167012 Water 16-JUL-04 14:10 19-JUL-04		Proie		SAIC05900 SAIC059		
	Collector:		Client						
Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time Batch	Metho
emi-volatile Mass spec	Organics Federal								
3510/8270 PAH Extend	list Liquid								
2-Chloronaphthalene	U	ND	0.426	1.06	ug/I		IWE 07/21/0	1 2120 250446	
2-Methylnaphthalene	Ĵ	0.658	0.532	1.06	ug/L	1	JWF 07/21/04	4 2139 350446	E.
Acenaphthene	Ú	0.038 ND	0.532	1.06	ug/L	1			
Acenaphthylene	U				ug/L	1			
		ND	0.532	1.06	ug/L	1			
Anthracene	U	ND	0.532	1.06	ug/L	1			
Benzo(a)anthracene	U	ND	0.532	1.06	ug/L	1			
Benzo(a)pyrene	U	ND	0.532	1.06	ug/L	1			
Benzo(b)fluoranthene	U	ND	0.532	1.06	ug/L	1			
Benzo(ghi)perylene	U	ND	0.532	1.06	ug/L	1			
Benzo(k)fluoranthene	U	ND	0.532	1.06	ug/L	1			
Dibenzo(a,h)anthracene	U	ND	0.532	1.06	ug/L	1			
Fluoranthene	U	ND	0.532	1.06	ug/L	Í.			
Fluorene	U	ND	0.532	1.06	ug/L	i.			
Indeno(1,2,3-cd)pyrene	U	ND	0.532	1.06	ug/L	i i			
Naphthalene	J	0.654	0.117	1.06	ug/L				
Phenanthrene	Ŭ	ND	0.532	1.06	ug/L	1			
Pyrene	Ŭ	ND	0.532	1.06		- C			
olatile Organics Federa		140	0.552	1.00	ug/L	1			
5035/8260B BTEX in Li									
		NID	0.000	1.00					
Benzene	U	ND	0.330	1.00	ug/L		DLS 07/30/04	4 0247 353417	2
Ethylbenzene	U	ND	0.210	1.00	ug/L	1			
Toluene	1	0.467	0.390	1.00	ug/L	1			
Xylenes (total)	U	ND	0.250	1.00	ug/L	1			
The following Prep Met	thods were perfor	med							
Method	Description			Analyst	Date	Time	Prep Batch	L,	
SW846 3510C	3510C BNA Li	q. Prep-82	70C Analysis Fed	JPB	07/20/04	1457	350445		
The following Analytic	Mathada wara r	arformed							
The following Analytica Method	Description	beriormea			Analyst Comm	ente			-
	SW846 8270C				anarya Comm	cints			
	SW846 8260B								
2									
	ery Test				Recovery%	Accept	able Limits		
2 Surrogate/Fracer recove 2-Fluorobiphenyl		0 PAH Ext	end list Liquid		Recovery%		able Limits		

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#### **Certificate of Analysis**

Company :	SAIC									
Address :	151 Lafayette Drive									
	Oak Ridge, Tennessee	37831								
2000 10 10						R	eport Date: Au	gust 30, 2	2004	
Contact:	Ms. Leslie Barbour									
Project:	Hunter Army Airfield	LTM					Pa	ge 2	of	2
	Client Sample ID: Sample ID:	BF2652 117167012			Proie	ect: nt ID:	SAIC05900 SAIC059			
Parameter	Qualifier Res	ult	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
p-Terphenyl-d14	3510/8270 PAH	Extend list Liquid			91	(50	5%-133%)			
Bromofluorobenzene	5035/8260B BTI	EX in Liquid Federal			84	(70	5%-115%)			
Dibromofluoromethane	5035/8260B BTH	EX in Liquid Federal			98	(7)	2%-136%)			
Toluene-d8	5035/8260B BTI	EX in Liquid Federal			91	(80	0%-116%)			

Notes:

The Qualifiers in this report are defined as follows :

- B Target analyte was detected in the sample as well as the associated blank.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard preating procedures. Please direct any questions to your Project Manager, Valerie Davis.

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Reviewed by

afayette Drive tidge, Tennes eslie Barbour er Army Airf nt Sample ID ple ID: ix: cct Date: ive Date: ive Date: cctor: ualifier ud U U U U U U U U U U U U U	see 37831 field LTM D: BF2 117. Wat 16-J 19-J Clie Result ND ND ND ND ND ND ND ND ND ND ND	167003 ter FUL-04 13:36 FUL-04 ent DL 0.388 0.485 0.485 0.485 0.485 0.485 0.485	RL 0.971 0.971 0.971 0.971 0.971	Projo Clien Units ug/L ug/L ug/L ug/L ug/L	ect: nt ID: DF	oort Date: Aug Paj SAIC05900 SAIC059 AnalystDate JWF 07/21/0		
tidge, Tennes eslie Barbour er Army Airl nt Sample ID ple ID: ix: ive Date: ive Date: ive Date: ctor: ualifier uid U U U U U U U U U U U U U U U U U U U	see 37831 field LTM D: BF2 117. Wat 16-J 19-J Clie Result ND ND ND ND ND ND ND ND ND ND ND	167003 ter FUL-04 13:36 FUL-04 ent DL 0.388 0.485 0.485 0.485 0.485 0.485 0.485	0.971 0.971 0.971 0.971	Clier Units ug/L ug/L ug/L	ect: nt ID: DF	Pa; SAIC05900 SAIC059 AnalystDate	ge I of Time Batch	Metho
eslie Barbour er Army Airl ot Sample ID ple ID: ix: ive Date: ive Date: cot Date: ive	field LTM 5: BF2 117. Wat 16-J 19-J Clie Result ND ND ND ND ND ND ND ND ND ND	167003 ter FUL-04 13:36 FUL-04 ent DL 0.388 0.485 0.485 0.485 0.485 0.485 0.485	0.971 0.971 0.971 0.971	Clier Units ug/L ug/L ug/L	ect: nt ID: DF	Pa; SAIC05900 SAIC059 AnalystDate	ge I of Time Batch	Metho
er Army Airl nt Sample ID ple ID: ix: cct Date: ive Date: cctor: ualifier uid U U U U U U U U U U U U U	field LTM D: BF2 117. Wat 16-J 19-J Clie Result ND ND ND ND ND ND ND ND ND	167003 ter FUL-04 13:36 FUL-04 ent DL 0.388 0.485 0.485 0.485 0.485 0.485 0.485	0.971 0.971 0.971 0.971	Clier Units ug/L ug/L ug/L	ect: nt ID: DF	Pa; SAIC05900 SAIC059 AnalystDate	ge I of Time Batch	Metho
nt Sample ID ple ID: ix: cet Date: ive Date: cetor: <b>ualifier</b> <b>cs Federal</b> <i>uid</i> U U U U U U U U U U U U U U U	D: BF2 117 Wat 16-J 19-J Clie Result ND ND ND ND ND ND ND ND ND ND	167003 ter FUL-04 13:36 FUL-04 ent DL 0.388 0.485 0.485 0.485 0.485 0.485 0.485	0.971 0.971 0.971 0.971	Clier Units ug/L ug/L ug/L	DF	SAIC05900 SAIC059 AnalystDate	Time Batch	Metho
ple ID: ix: cct Date: ive Date: ector: <b>ualifier</b> <b>cs Federal</b> U U U U U U U U U U U U U U	117 Wat 16-J 19-J Clie Result ND ND ND ND ND ND ND ND ND ND ND	167003 ter FUL-04 13:36 FUL-04 ent DL 0.388 0.485 0.485 0.485 0.485 0.485 0.485	0.971 0.971 0.971 0.971	Clier Units ug/L ug/L ug/L	DF	SAIC059 AnalystDate		
cs Federal uid U U U U U U U U U U U	ND ND ND ND ND ND ND	0.388 0.485 0.485 0.485 0.485 0.485 0.485	0.971 0.971 0.971 0.971	ug/L ug/L ug/L				
uid U U U U U U U U U	ND ND ND ND ND ND	0.485 0.485 0.485 0.485 0.485 0.485	0.971 0.971 0.971	ug/L ug/L				
uid U U U U U U U U U	ND ND ND ND ND ND	0.485 0.485 0.485 0.485 0.485 0.485	0.971 0.971 0.971	ug/L ug/L	1 1 1	JWF 07/21/0	4 1821 350446	Ĩ
U U U U U U U U U	ND ND ND ND ND ND	0.485 0.485 0.485 0.485 0.485 0.485	0.971 0.971 0.971	ug/L ug/L	1 1 1	JWF 07/21/0	4 1821 350446	1
บ บ บ บ บ บ	ND ND ND ND ND ND	0.485 0.485 0.485 0.485 0.485 0.485	0.971 0.971 0.971	ug/L ug/L	1	JWF 07/21/0	4 1821 350446	1
ม ม ม ม ม ม ม	ND ND ND ND ND	0.485 0.485 0.485 0.485	0.971 0.971	ug/L	1			
U U U U U U	ND ND ND ND	0.485 0.485 0.485	0.971		1			
U U U U U	ND ND ND	0.485 0.485		119/1				
U U U U	ND ND	0.485			4			
U U U	ND			ug/L	1			
U U		0 105	0.971	ug/L	1			
U		0.485	0.971	ug/L	1			
	ND	0.485	0.971	ug/L	1			
	ND	0.485	0.971	ug/L	1			
U	ND	0.485	0.971	ug/L	1			
U	ND	0.485	0.971	ug/L	1			
U	ND	0.485	0.971	ug/L	1			
U	ND	0.485	0.971	ug/L	1			
U	ND	0.485	0.971	ug/L	1			
U	ND	0.107	0.971	ug/L	1			
U	ND	0.485	0.971	ug/L	1			
U	ND	0.485	0.971	ug/L	1			
ederal								
U	ND	0.330	1.00	110/1	1	DIS 07/30/0	4 0153 353417	2
U						0113010	4 0155 555417	4
J								
U	ND	0.250	1.00		i			
ere nerform	od							
ription			Analyst	Date	Time	Prep Batch	n	
C BNA Liq.	Prep-8270C	Analysis Fed	JPB	07/20/04				
		5)-4			1207416	u zonosti UNSTU		
	formed							
ription			1	Analyst Comme	ents			
46 8270C								
46 8260B								
Test				Recovery%	Accept	able Limits		
3510/82701	PAH Extend 1	ist Liquid			17			
	U J U rere perform ription OC BNA Liq. Ods were per ription 46 8270C 46 8260B Test 3510/8270 I	U ND J 0.531 U ND rere performed ription DC BNA Liq. Prep-8270C / ods were performed ription 46 8270C 46 8260B Test 3510/8270 PAH Extend 1	U ND 0.210 J 0.531 0.390 U ND 0.250 Tere performed ription DC BNA Liq. Prep-8270C Analysis Fed ods were performed ription 46 8270C 46 8260B	U      ND      0.210      1.00        J      0.531      0.390      1.00        U      ND      0.250      1.00        vere performed	U      ND      0.210      1.00      ug/L        J      0.531      0.390      1.00      ug/L        U      ND      0.250      1.00      ug/L        vere performed      ntpition      Analyst      Date        DC BNA Liq. Prep-8270C Analysis Fed      JPB      07/20/04        ods were performed      ription      Analyst Commed        46 8270C      46 8260B      Recovery%        3510/8270 PAH Extend list Liquid      72	U      ND      0.210      1.00      ug/L      1        J      0.531      0.390      1.00      ug/L      1        U      ND      0.250      1.00      ug/L      1        vere performed      Image: Comparison of the state of t	U      ND      0.210      1.00      ug/L      1      D15      0.100        J      0.531      0.390      1.00      ug/L      1      1        V      ND      0.250      1.00      ug/L      1      1        vere performed      Analyst      Date      Time      Prep Batch        OC BNA Liq. Prep-8270C Analysis Fed      JPB      07/20/04      1457      350445        ods were performed      Analyst Comments      Analyst Comments      46 8270C      46 8260B      Acceptable Limits        Test      Recovery%      Acceptable Limits      72      (46%-97%)	U      ND      0.210      1.00      ug/L      1      1      1.01.5      0.75004      0155      555417        J      0.531      0.390      1.00      ug/L      1      1        V      ND      0.250      1.00      ug/L      1      1        vere performed      0.250      1.00      ug/L      1      1        V      ND      0.250      1.00      ug/L      1      1        vere performed      1      1      1      1      1      1        VC      BNA Liq. Prep-8270C Analysis Fed      JPB      07/20/04      1457      350445        ods were performed

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#### **Certificate of Analysis**

Company : Address :	SAIC 151 Lafayette Drive Oak Ridge, Tennessee 37831							
Contact:	Ms. Leslie Barbour				Report Date: Au	gust 30,	2004	
Project:	Hunter Army Airfield LTM				Pa	ge 2	of	2
	Client Sample ID: BF2656 Sample ID: 117167003			Proj Clie	ect: SAIC05900 nt ID: SAIC059			
Parameter	Qualifier Result	DL	RL	Units	DF AnalystDate	Time	Batch	Method
p-Terphenyl-d14	3510/8270 PAH Extend list Liquid			95	(56%-133%)			
Bromofluorobenzene	5035/8260B BTEX in Liquid Fede	ral		90	(76%-115%)			
Dibromofluoromethane	5035/8260B BTEX in Liquid Fede	ral		99	(72%-136%)			
Toluene-d8	5035/8260B BTEX in Liquid Fede	ral		94	(80%-116%)			

Notes:

The Qualifiers in this report are defined as follows :

- В Target analyte was detected in the sample as well as the associated blank.
- Concentration of the target analyte exceeds the instrument calibration range. Ε
- Н Analytical holding time exceeded.
- Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit. J
- The response between the confirmation column and the primary column is >40%D. P
- Indicates the target analyte was analyzed for but not detected above the detection limit. U
- Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details. Х
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

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Company :	SAIC									
Address :	151 Lafayette Dr	ive								
	Oak Ridge, Tenn		31							
Contact:	Ms. Leslie Barbo	our					Re	port Date: Aug	ust 30, 2004	
Project:	Hunter Army A	irfield LT	M					Pag	ge I of	2
	Client Sample Sample ID: Matrix: Collect Date:	ID:	BF2752 117167002 Water 16-JUL-04 10:05			Proje Clier		SAIC05900 SAIC059		
	Receive Date:		19-JUL-04							
	Collector:		Client							
Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time Batch	Metho
emi-volatile Mass spec (	<u> </u>									
3510/8270 PAH Extend	list Liquid									
2-Chloronaphthalene	U	ND	0.3	385	0.962	ug/L	1	JWF 07/21/04	4 1759 350446	1
2-Methylnaphthalene	U	ND		481	0.962	ug/L	i	0//21/0		
Acenaphthene	U	ND		481	0.962	ug/L	î			
Acenaphthylene	U	ND		481	0.962	ug/L	1			
Anthracene	U	ND		481	0.962	ug/L	i			
Benzo(a)anthracene	Ŭ	ND		481	0.962	ug/L	i			
Benzo(a)pyrene	U	ND		481	0.962	ug/L	÷			
Benzo(b)fluoranthene	Ŭ	ND		481	0.962	ug/L	1			
Benzo(ghi)perylene	Ŭ	ND		481	0.962	ug/L ug/L	1			
Benzo(k)fluoranthene	Ŭ	ND		481	0.962		1			
Dibenzo(a,h)anthracene	Ŭ	ND		481	0.962	ug/L				
Fluoranthene	Ŭ	ND		481	0.962	ug/L	1			
Fluorene	Ŭ	ND		481	0.962	ug/L	4			
Indeno(1,2,3-cd)pyrene	Ŭ	ND				ug/L	1			
Naphthalene	U			481	0.962	ug/L	1			
Phenanthrene	U	ND		106	0.962	ug/L	1			
Pyrene	U	ND		481	0.962	ug/L	1			
		ND	0.4	481	0.962	ug/L	1			
olatile Organics Federa										
5035/8260B BTEX in Lie	quid Federal									
Benzene	U	ND	0.3	330	1.00	ug/L	1	DLS 07/30/04	1 0126 353417	2
Ethylbenzene	U	ND	0.2	210	1.00	ug/L	1			
Toluene	J	0.439	0.3	390	1.00	ug/L	1			
Xylenes (total)	U	ND	0.3	250	1.00	ug/L	1			
The following Prep Met	hods were perfor	med								
Method	Description				Analyst	Date	Time	Prep Batch		
SW846 3510C	3510C BNA Li	q. Prep-82	70C Analysis Fed		JPB	07/20/04	1457	350445		
The following Analytica	l Methods were r	performed								
Method	Description	, critorinee				Analyst Comm	ents			
1	SW846 8270C									
2	SW846 8260B									
Surrogate/Tracer recove	ry Test					Recovery%	Ассер	table Limits		
2-Fluorobiphenyl	en al de la companya	OPAHE	tand list Liquid			in the second				
			tend list Liquid			63		5%-97%)		
Nitrobenzene-d5	3510/827	0 PAH Ex	tend list Liquid			72	(47	%-110%)		

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#### **Certificate of Analysis**

Company : Address :	SAIC 151 Lafayette Drive Oak Ridge, Tennessee 378	31									
Contact:	Ms. Leslie Barbour					R	eport Date:	August 3	30, 2	004	
Project:	Hunter Army Airfield LT	'M						Page	2	of	2
	Client Sample ID: Sample ID:	BF2752 117167002				iect: nt ID:	SAIC0590 SAIC059	0			
Parameter	Qualifier Result		DL	RL	Units	DF	AnalystDa	te Ti	me	Batch	Method
p-Terphenyl-d14	3510/8270 PAH Extend list Liquid				57	(56%-133%)					
Bromofluorobenzene	5035/8260B BTEX	in Liquid Federal			92	(7	6%-115%)				
Dibromofluoromethane	5035/8260B BTEX	in Liquid Federal			104	(7	2%-136%)				

95

(80%-116%)

Notes:

Toluene-d8

The Qualifiers in this report are defined as follows :

- R Target analyte was detected in the sample as well as the associated blank.
- E Concentration of the target analyte exceeds the instrument calibration range.
- Н Analytical holding time exceeded.
- Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit. J.
- Р The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.

5035/8260B BTEX in Liquid Federal

- Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details. Х
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

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This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

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Company :	SAIC								
Address :	151 Lafayette Dr Oak Ridge, Tenn		31						
. Contact:	Ms. Leslie Barbo					Rep	oort Date: Aug	gust 30, 2004	
		1000							
Project:	Hunter Army A	irfield LT	м				Pag	ge 1 of	2
	Client Sample Sample ID: Matrix: Collect Date: Receive Date: Collector:		BF3552 117167015 Water 17-JUL-04 09:31 19-JUL-04 Client		Proi Clier		SAIC05900 SAIC059	none - Inc.	
Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time Batch	Metho
Semi-volatile Mass spec	Organics Federal								
3510/8270 PAH Extend	list Liquid								
2-Chloronaphthalene	U	ND	0.404	1.01	ug/L	1	JWF 07/21/04	4 2246 350446	1
2-Methylnaphthalene	U	ND	0.505		ug/L	1	0//21/0	1 2210 3.30440	I.
Acenaphthene	U	ND	0.505		ug/L	î			
Acenaphthylene	U	ND	0.505		ug/L	i			
Anthracene	U	ND	0.505		ug/L	i			
Benzo(a)anthracene	U	ND	0.505		ug/L	i			
Benzo(a)pyrene	U	ND	0.505		ug/L	i			
Benzo(b)fluoranthene	U	ND	0.505		ug/L	i.			
Benzo(ghi)perylene	U	ND	0.505		ug/L	1			
Benzo(k)fluoranthene	U	ND	0.505		ug/L	1			
Dibenzo(a,h)anthracene	U	ND	0.505		ug/L	1			
Fluoranthene	Ŭ	ND	0.505		ug/L	1			
Fluorene	Ŭ	ND	0.505		ug/L	1			
Indeno(1,2,3-cd)pyrene	U	ND	0.505		ug/L	L.			
Naphthalene	Ŭ	ND	0.111		ug/L ug/L	1			
Phenanthrene	Ũ	ND	0.505		ug/L ug/L	1			
Pyrene	Ŭ	ND	0.505		ug/L ug/L	1			
Volatile Organics Federa		110	0.505	1.01	ugr	1			
5035/8260B BTEX in Li									
Benzene	A CONTRACTOR OF A CONTRACT OF	NID	0.220	1.00					
Ethylbenzene	U	ND	0.330		ug/L	1	DLS 07/30/04	4 0407 353417	2
Toluene	U J	ND 0.502	0.210		ug/L	1			
Xylenes (total)	J U	0.592 ND	0.390		ug/L	1			
Aylenes (total)	0	ND	0.250	1.00	ug/L	1			
The following Prep Met	hods were perfor	med							
Method	Description			Analyst	Date	Time	Prep Batch	1	
SW846 3510C	3510C BNA L	q. Prep-82	70C Analysis Fed	JPB	07/20/04	1457	350445		
The following And disting	Mathada								
The following Analytica Method	Description	beriormed			Analyst Comm	onte			
					Analyst Comm	ents			
1	SW846 8270C								
2	SW846 8260B								
Surrogate/Tracer recove	ry Test				Recovery%	Accept	table Limits		
2-Fluorobiphenyl	3510/827	0 PAH Ext	end list Liquid		73	(46	%-97%)		
Nitrobenzene-d5	3510/827				1.5	(+0	10-2110)		

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#### **Certificate of Analysis**

Company :	SAIC									
Address :	151 Lafayette Drive									
	Oak Ridge, Tennessee 37	831								
						Re	port Date: Aug	ust 30, 2	2004	
Contact:	Ms. Leslie Barbour									
Project:	Hunter Army Airfield L	TM					Pag	e 2	of	2
	Client Sample ID: Sample ID:	BF3552 117167015			Proie	ect: nt ID:	SAIC05900 SAIC059			
Parameter	Qualifier Resul	lt	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
p-Terphenyl-d14	3510/8270 PAH E	xtend list Liquid			69	(56	%-133%)			
Bromofluorobenzene	5035/8260B BTEX in Liquid Federal				83	(76%-115%)				
Dibromofluoromethane	5035/8260B BTE2	K in Liquid Federal			102	(72	(%-136%)			
Toluene-d8	5035/8260B BTEX	K in Liquid Federal			93	(80	%-116%)			

Notes:

The Qualifiers in this report are defined as follows :

- В Target analyte was detected in the sample as well as the associated blank.
- E Concentration of the target analyte exceeds the instrument calibration range.
- Η Analytical holding time exceeded.
- Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit. 1
- Ρ The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- Х Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- QC Samples were not spiked with this compound. Y
- Sample preparation or preservation holding time exceeded. h

The above sample is reported on an "as received" basis.

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This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard Aperating procedures. Please direct any questions to your Project Manager, Valerie Davis.

an 1 Reviewed by

Company :	SAIC								
Address :	151 Lafayette Dri	ve							
	Oak Ridge, Tenne		31						
Contact:	Ms. Leslie Barbo	ur -				Re	port Date: Aug	ust 30, 2004	8
Project:	Hunter Army Ai		м				Pag	e 1 of	2
	,,								
	Client Sample I Sample ID: Matrix: Collect Date: Receive Date: Collector:	D:	BF3652 117167001 Water 17-JUL-04 10:30 19-JUL-04 Client		Proje Clier	ect: nt ID:	SAIC05900 SAIC059		
Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time Ba	tch Metho
Semi-volatile Mass spec (	Organics Federal								
3510/8270 PAH Extend	list Liquid								
2-Chloronaphthalene	U	ND	0.392	0.980	ug/L	1	JWF 07/21/04	1652 3504	46 1
2-Methylnaphthalene	U	ND	0.490	0.980	ug/L	1			
Acenaphthene	U	ND	0.490	0.980	ug/L	1			
Acenaphthylene	U	ND	0.490	0.980	ug/L	1			
Anthracene	U	ND	0.490	0.980	ug/L	1			
Benzo(a)anthracene	U	ND	0.490		ug/L	1			
Benzo(a)pyrene	U	ND	0.490	0.980	ug/L	í.			
Benzo(b)fluoranthene	U	ND	0.490		ug/L	i			
Benzo(ghi)perylene	U	ND	0.490		ug/L	i			
Benzo(k)fluoranthene	U	ND	0.490		ug/L	î			
Dibenzo(a,h)anthracene	U	ND	0.490		ug/L	î			
Fluoranthene	U	ND	0.490	0.980	ug/L	i.			
Fluorene	U	ND	0.490	0.980	ug/L	1			
Indeno(1,2,3-cd)pyrene	U	ND	0.490	0.980	ug/L	1			
Naphthalene	U	ND	0.108	0.980	ug/L	1			
Phenanthrene	U	ND	0.490		ug/L	1			
Pyrene	U	ND	0.490		ug/L	i			
Volatile Organics Federa	1				49/1	÷.			
5035/8260B BTEX in Lie									
Benzene	U	ND	0.330	1.00	ug/L	1	DLS 07/30/04	0059 3534	17 2
Ethylbenzene	U	ND	0.210		ug/L	1	DL3 07/30/04	0039 3334	1/ 2
Toluene	J	0.487	0.390		ug/L	1			
Xylenes (total)	Ŭ	ND	0.250		ug/L	1			
The following Prep Met	hods were perfor	med							
Method	Description	lieu		Analyst	Date	Time	Prep Batch		
SW846 3510C		. Prep-82	70C Analysis Fed	JPB	07/20/04	1457			
		50 O	<i>6</i> 1	51.6	0//20/04	1457	330443		
The following Analytica	And and an and a second s	erformed							
Method	Description				Analyst Comm	ents			
1	SW846 8270C								
2	SW846 8260B								
Surrogate/Tracer recove	ry Test				Recovery%	Accep	table Limits		
2-Fluorobiphenyl	3510/8270	PAHEN	end list Liquid		76		n an		
	2010/02/0		and not Exquite		70	(40	6%-97%)		

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### **Certificate of Analysis**

Company :	SAIC							
Address :	151 Lafayette Drive							
	Oak Ridge, Tennessee 37831							
					Report Date: Au	gust 30, 2	2004	
Contact:	Ms. Leslie Barbour							
Project:	Hunter Army Airfield LTM				Pa	ge 2	of	2
	Client Sample ID: BF3652 Sample ID: 117167001			Proj Clie	ect: SAIC05900 nt ID: SAIC059			
Parameter	Qualifier Result	DL	RL	Units	DF AnalystDate	Time	Batch	Method
Nitrobenzene-d5	3510/8270 PAH Extend list Liquid			92	(47%-110%)			
p-Terphenyl-d14	3510/8270 PAH Extend list Liquid		74	(56%-133%)				
Bromofluorobenzene	5035/8260B BTEX in Liquid Fede	ral		89	(76%-115%)			
Dibromofluoromethane	5035/8260B BTEX in Liquid Fede	ral		104	(72%-136%)			

95

(80%-116%)

Notes:

Toluene-d8

The Qualifiers in this report are defined as follows :

B Target analyte was detected in the sample as well as the associated blank.

E Concentration of the target analyte exceeds the instrument calibration range.

H Analytical holding time exceeded.

J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.

P The response between the confirmation column and the primary column is >40%D.

U Indicates the target analyte was analyzed for but not detected above the detection limit.

5035/8260B BTEX in Liquid Federal

X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.

Y QC Samples were not spiked with this compound.

h Sample preparation or preservation holding time exceeded.

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Company :	SAIC								
Address :	151 Lafayette Dr	ive							
Address .	Oak Ridge, Tenn								
	Oak Ruge, Telli	57651				Ren	ort Date: Aug	rust 30, 2004	
Contact:	Ms. Leslie Barbo	ur				2.			
Project:	Hunter Army A	irfield LTM					Pag	ge I of	2
	Client Sample Sample ID: Matrix: Collect Date: Receive Date: Collector:	11716 Water	7004 L-04 10:00 L-04		Proie Clier		SAIC05900 SAIC059		
Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time Batch	Metho
Semi-volatile Mass spec (	Organics Federal						,	This Dutch	
3510/8270 PAH Extend									
	Second	NID	0.412	1.02					
2-Chloronaphthalene	U	ND	0.412	1.03	ug/L	1	JWF 07/21/04	4 1843 350446	1
2-Methylnaphthalene	U	ND	0.515	1.03	ug/L	1			
Acenaphthene	U	ND	0.515	1.03	ug/L	1			
Acenaphthylene	U	ND	0.515	1.03	ug/L	1			
Anthracene	U	ND	0.515	1.03	ug/L	1			
Benzo(a)anthracene	U	ND	0.515	1.03	ug/L	1			
Benzo(a)pyrene	U	ND	0.515	1.03	ug/L	1			
Benzo(b)fluoranthene	U	ND	0.515	1.03	ug/L	1			
Benzo(ghi)perylene	U	ND	0.515	1.03	ug/L	1			
Benzo(k)fluoranthene	U	ND	0.515	1.03	ug/L	1			
Dibenzo(a,h)anthracene	U	ND	0.515	1.03	ug/L	1			
Fluoranthene	U	ND	0.515	1.03	ug/L	1			
Fluorene	U	ND	0.515	1.03	ug/L	1			
Indeno(1,2,3-cd)pyrene	U	ND	0.515	1.03	ug/L	1			
Naphthalene	U	ND	0.113	1.03	ug/L	î.			
Phenanthrene	U	ND	0.515	1.03	ug/L	1			
Pyrene	U	ND	0.515	1.03	ug/L	î.			
volatile Organics Federa	1				-8	,			
5035/8260B BTEX in Lie	quid Federal								
Benzene	, U	ND	0.330	1.00	ug/L		DLS 07/30/04	4 0220 353417	2
Ethylbenzene	U	ND	0.210	1.00	ug/L		DLS 07/30/04	+ 0220 353417	2
Toluene	Ŭ	ND	0.390	1.00	ug/L	1			
Xylenes (total)	Ŭ	ND	0.250	1.00	ug/L	1			
The following Days Mad									
The following Prep Met Method	Description	mea		Analyst	Date	Time	Prep Batch		
SW846 3510C		q. Prep-8270C Ai	solucie Red	-		CHARMES .			
511040 5510C	55TOC BINA LI	q. FIEP-82/0C AI	larysis red	JPB	07/20/04	1457	350445		
The following Analytica		erformed							
Method	Description				Analyst Commo	ents			
1	SW846 8270C								
2	SW846 8260B								
Surrogate/Tracer recove	ry Test				Recovery%	Accept	able Limits		
2-Fluorobiphenyl		DAUE	Limit						
		0 PAH Extend lis			76		%-97%)		
Nitrobenzene-d5	3510/827	0 PAH Extend lis	Liquid		92	(475	%-110%)		

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### **Certificate of Analysis**

Company :	SAIC							
Address :	151 Lafayette Drive							
	Oak Ridge, Tennessee 37831							
					Report Date: Aug	ust 30,	2004	
Contact:	Ms. Leslie Barbour							
Project:	Hunter Army Airfield LTM				Pag	ge 2	of	2
	Client Sample ID: BF3752 Sample ID: 117167004			Proi Clie	ect: SAIC05900 nt ID: SAIC059			
Parameter	Qualifier Result	DL	RL	Units	DF AnalystDate	Time	Batch	Method
p-Terphenyl-d14	3510/8270 PAH Extend list Liquid			75	(56%-133%)			
Bromofluorobenzene	5035/8260B BTEX in Liquid Federal			91	(76%-115%)			
Dibromofluoromethane	5035/8260B BTEX in Liquid Feder	al		102	(72%-136%)			
Toluene-d8	5035/8260B BTEX in Liquid Feder	al		89	(80%-116%)			

Notes:

The Qualifiers in this report are defined as follows :

- B Target analyte was detected in the sample as well as the associated blank.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit. Т
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details. Х
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard/operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

an

Reviewed by
Company :							
Address :	151 Lafayette Dri		21				
	Oak Ridge, Tenn	essee 378	51			Rep	port Date: August 30, 2004
Contact:	Ms. Leslie Barbo	ur				10	
Project:	Hunter Army A	irfield L1	M				Page I of 2
	Client Sample   Sample ID: Matrix: Collect Date: Receive Date: Collector:	ID:	BFE152 117167011 Water 16-JUL-04 15:00 19-JUL-04 Client		Proj Clie		SAIC05900 SAIC059
Parameter	Qualifier	Result	DI	, RL	Units	DF	AnalystDate Time Batch Metho
Semi-volatile Mass spec	<b>Organics</b> Federal						
3510/8270 PAH Extend	list Liquid						
2-Chloronaphthalene	U	ND	0.408	3 1.02	1107	1	IWE 07/21/04 2117 250446
2-Methylnaphthalene	U	ND	0.408		ug/L	1	JWF 07/21/04 2117 350446 1
Acenaphthene	U	2.75	0.510		ug/L	1	
Acenaphthylene	U	ND			ug/L	1	
Anthracene	U	ND	0.510		ug/L	1	
Benzo(a)anthracene	U	ND	0.510		ug/L	1	
Benzo(a)pyrene	U		0.510		ug/L	1	
Benzo(b)fluoranthene		ND	0.510		ug/L	1	
	U	ND	0.510		ug/L	1	
Benzo(ghi)perylene	U	ND	0.510		ug/L	1	
Benzo(k)fluoranthene	U	ND	0.510		ug/L	1	
Dibenzo(a,h)anthracene		ND	0.510		ug/L	1	
Fluoranthene	U	ND	0.510		ug/L	1	
Fluorene		5.66	0.510		ug/L	1	
Indeno(1,2,3-cd)pyrene	U	ND	0.510		ug/L	1	
Naphthalene	U	ND	0.112		ug/L	1	
Phenanthrene		5.76	0.510	) 1.02	ug/L	1	
Pyrene	U	ND	0.510	) 1.02	ug/L	1	
Volatile Organics Federa	al						
5035/8260B BTEX in Li	quid Federal						
Benzene	U	ND	0.330	0 1.00	ug/L	1	SHJ 07/30/04 1859 353417 2
Ethylbenzene	U	ND	0.210		ug/L	i i	5113 01150/04 1859 555417 2
Toluene	J	0.617	0.390	201 201 201 201 201 201 201 201 201 201	ug/L	1	
Xylenes (total)	U	ND	0.250		ug/L	i	
The following Prep Me	hode were perfor	med					
Method	Description	inter a		Analyst	Date	Time	Prep Batch
SW846 3510C	3510C BNA Li	q. Prep-82	70C Analysis Fed	JPB	07/20/04	1457	350445
					and an an and the state		
The following Analytics Method	Description	erformed			Analyst Comm	anta	
ale az ertelet.					Analyst Comm	ents	
1	SW846 8270C						
2	SW846 8260B						
Surrogate/Tracer recove	ery Test				Recovery%	Accept	table Limits
2-Fluorobiphenyl	3510/8270	PAH Ex	end list Liquid		78	(16	%-97%)
Nitrobenzene-d5	3510/8270		and and and and		10	(40	10-71/0]

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#### **Certificate of Analysis**

Company :	SAIC									
Address :	151 Lafayette Drive									
	Oak Ridge, Tennessee	37831								
						R	eport Date: Aug	ust 30,	2004	
Contact:	Ms. Leslie Barbour						2502 27			
Project:	Hunter Army Airfiel	d LTM					Pa	ge 2	of	2
	Client Sample ID: Sample ID:	BFE152 117167011			Proj Clie	ect: nt ID:	SAIC05900 SAIC059			
Parameter	Qualifier R	esult	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
p-Terphenyl-d14	3510/8270 PA	H Extend list Liquid			74	(5	6%-133%)			
Bromofluorobenzene	5035/8260B B	TEX in Liquid Federal			100	(7	6%-115%)			
Dibromofluoromethane	5035/8260B B	TEX in Liquid Federal			98	(7	2%-136%)			
Toluene-d8	5035/8260B B	TEX in Liquid Federal			107	(8	0%-116%)			

Notes:

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- В Target analyte was detected in the sample as well as the associated blank.
- E Concentration of the target analyte exceeds the instrument calibration range.
- Analytical holding time exceeded. Н
- Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit. I
- Ρ The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details. Х
- Y QC Samples were not spiked with this compound.
- Sample preparation or preservation holding time exceeded. h

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Company :	SAIC								
Address :	151 Lafayette Dr	ive							
	Oak Ridge, Tenn		31						
Contact:	Ms. Leslie Barbo	ur				Re	port Date: Aug	ust 30, 2004	
Project:	Hunter Army A	irfield LT	м				Pag	ge I of	f 2
	Client Sample Sample ID: Matrix: Collect Date: Receive Date: Collector:		BFE252 117167010 Water 16-JUL-04 14:00 19-JUL-04 Client			ect: nt ID:	SAIC05900 SAIC059		
Parameter	Qualifier	Result	D	L RI	L Units	DF	AnalystDate	Time Ba	tch Meth
emi-volatile Mass spec									
3510/8270 PAH Extend	list Liquid								
2-Chloronaphthalene	U	ND	0.41	2 1.03	ug/L	1	JWF 07/21/04	4 2055 3504	446 1
2-Methylnaphthalene	U	ND	0.51			1		- and a second	8-5 <b>70</b> - 140
Acenaphthene	U	ND	0.51			1			
Acenaphthylene	U	ND	0.51	5 1.03		i.			
Anthracene	U	ND	0.51			i			
Benzo(a)anthracene	U	ND	0.51		· · · · · ·	i			
Benzo(a)pyrene	U	ND	0.51			î			
Benzo(b)fluoranthene	U	ND	0.51			i			
Benzo(ghi)perylene	Ŭ	ND	0.51			1			
Benzo(k)fluoranthene	Ŭ	ND	0.51			1			
Dibenzo(a,h)anthracene	Ŭ	ND	0.51		- C				
Fluoranthene	Ŭ	ND	0.51			1			
Fluorene	Ŭ	ND	0.51			1			
Indeno(1,2,3-cd)pyrene	Ŭ	ND	0.51		÷	1			
Naphthalene	Ŭ	ND				-			
Phenanthrene	U	ND	0.11		0	1			
Pyrene	U	ND	0.51			1			
olatile Organics Federa		ND	0.5	5 1.03	ug/L	1			
5035/8260B BTEX in Li									
					6 2				
Benzene	U	ND	0.33		<b>C</b>	1	DLS 07/29/04	4 2122 3534	417 2
Ethylbenzene	U	ND	0.21		0	1			
Toluene	J	0.551	0.39		-0	1			
Xylenes (total)	U	ND	0.25	50 1.00	ug/L	1			
The following Prep Met	hods were perfor	med							
Method	Description			Analyst	Date	Time	Prep Batch	L.	
SW846 3510C	3510C BNA Li	q. Prep-82	70C Analysis Fed	JPB	07/20/04	1457	350445		
The following Analytica	d Methods were r	performed							
Method	Description	ber tor meu			Analyst Comm	ients			
	SW846 8270C								
2	SW846 8260B								
Surrogate/Tracer recove	rv Test				Recovery%	Accen	table Limits		
•	19 <b>*</b>	ODATE							
-Fluorobiphenyl			end list Liquid		83		6%-97%)		
Nitrobenzene-d5	3510/827	0 PAH Ext	end list Liquid		96	(47	%-110%)		

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#### **Certificate of Analysis**

Company :	SAIC									
Address :	151 Lafayette Drive									
	Oak Ridge, Tennessee	37831								
						R	eport Date: A	ugust 30	2004	
Contact:	Ms. Leslie Barbour									
Project:	Hunter Army Airfield	I LTM					I	Page 2	of	2
	Client Sample ID: Sample ID:	BFE252 117167010				ect: nt ID:	SAIC05900 SAIC059			
Parameter	Qualifier Re	sult	DL	RL	Units	DF	AnalystDat	e Tim	Batch	Method
p-Terphenyl-d14	3510/8270 PAF	Extend list Liquid			85	(5	6%-133%)			
Bromofluorobenzene	5035/8260B BT	TEX in Liquid Federal			90	(7	6%-115%)			
Dibromofluoromethane	5035/8260B BT	TEX in Liquid Federal			101	(7	2%-136%)			

91

(80%-116%)

Notes:

Toluene-d8

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- B Target analyte was detected in the sample as well as the associated blank.
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- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.

5035/8260B BTEX in Liquid Federal

- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

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Company :	SAIC								
Address :	151 Lafayette Dr	ive							
	Oak Ridge, Tenn								
						Re	port Date: Aug	ust 30, 2004	
Contact:	Ms. Leslie Barbo	ur							
Project:	Hunter Army A	irfield LTN	t.				Pag	e I of	2
	Client Sample Sample ID: Matrix: Collect Date: Receive Date: Collector:	1 \ 1 1	FE254 17167009 Vater 6-JUL-04 14:00 9-JUL-04 2lient		Proi Clie		SAIC05900 SAIC059		
Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time Batch	Mathe
Semi-volatile Mass spec			DL	KL	Childs	Dr	AnalystDate	The Batch	Wietho
3510/8270 PAH Extend	1.000								
2-Chloronaphthalene	U	ND	0.404		ug/L	1	JWF 07/21/04	2033 350446	5 I
2-Methylnaphthalene	U	ND	0.505	1.2.5.5.5	ug/L	1			
Acenaphthene	U	ND	0.505		ug/L	1			
Acenaphthylene	U	ND	0.505		ug/L	1			
Anthracene	U	ND	0.505		ug/L	1			
Benzo(a)anthracene	U	ND	0.505		ug/L	1			
Benzo(a)pyrene	U	ND	0.505		ug/L	1			
Benzo(b)fluoranthene	U	ND	0.505		ug/L	1			
Benzo(ghi)perylene	U	ND	0.505		ug/L	1			
Benzo(k)fluoranthene	U	ND	0.505		ug/L	1			
Dibenzo(a,h)anthracene		ND	0.505		ug/L	1			
Fluoranthene	U	ND	0.505		ug/L	1			
Fluorene	U	ND	0.505		ug/L	1			
Indeno(1,2,3-cd)pyrene	U	ND	0.505		ug/L	1			
Naphthalene	U	ND	0.111		ug/L	1			
Phenanthrene	U	ND	0.505	10110307	ug/L	1			
Pyrene	U	ND	0.505	1.01	ug/L	1			
Volatile Organics Federa	al								
5035/8260B BTEX in Li	quid Federal								
Benzene	U	ND	0.330	1.00	ug/L	- T	DLS 07/29/04	2055 353417	2
Ethylbenzene	U	ND	0.210		ug/L	i	012/04	2000 000417	4
Toluene	J	0.496	0.390		ug/L	i			
Xylenes (total)	U	ND	0.250		ug/L	i			
The following Prep Me	hods were perfor	med							
Method	Description			Analyst	Date	Time	Prep Batch		
SW846 3510C	3510C BNA Li	q. Prep-8270	C Analysis Fed	JPB	07/20/04	1457	350445		
The following Analytics	Mathoda ware -	orformed							
Method	Description	Deriormed			Analyst Comm	ents			
1	SW846 8270C								
2	SW846 8260B								
Surrogate/Tracer recove	ery Test				Recovery%	Accep	table Limits		
2-Fluorobiphenyl	3510/827	0 PAH Exte	nd list Liquid		72	(46	5%-97%)		
Nitrobenzene-d5	3510/827								

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#### **Certificate of Analysis**

Company :	SAIC									
Address :	151 Lafayette Drive	5								
	Oak Ridge, Tenness	see 37831								
						R	eport Date: Aug	ust 30, 2	2004	
Contact:	Ms. Leslie Barbour									
Project:	Hunter Army Airf	field LTM					Pag	e 2	of	2
	Client Sample ID Sample ID:	D: BFE254 117167009			Proj	ect: nt ID:	SAIC05900 SAIC059			
Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
p-Terphenyl-d14	3510/8270 F	PAH Extend list Liquid			76	(5	6%-133%)			
Bromofluorobenzene	5035/8260B	BTEX in Liquid Federal			94	(7	6%-115%)			
Dibromofluoromethane	5035/8260B	BTEX in Liquid Federal			96	(7)	2%-136%)			
Toluene-d8	5035/8260B	BTEX in Liquid Federal			94	(8	0%-116%)			

Notes:

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- B Target analyte was detected in the sample as well as the associated blank.
- E Concentration of the target analyte exceeds the instrument calibration range.
- Н Analytical holding time exceeded.
- Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit. I
- Ρ The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- х Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

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au Reviewed by

Company :	SAIC									
Address :	151 Lafayette Dri	ve								
	Oak Ridge, Tenne		31							
	27.145 19.15						Re	port Date: Aug	ust 30, 2004	
Contact:	Ms. Leslie Barbou	ur								
Project:	Hunter Army Ai	rfield LT	м					Pag	ge I of	2
	Client Sample I Sample ID: Matrix: Collect Date: Receive Date: Collector:		BFE352 117167007 Water 16-JUL-04 13:10 19-JUL-04 Client			Proie Clier		SAIC05900 SAIC059		
Parameter	Qualifier	Result	D	DL	RL	Units	DF	AnalystDate	Time Batch	Metho
Semi-volatile Mass spec	<b>Organics</b> Federal									
3510/8270 PAH Extend	list Liquid									
2-Chloronaphthalene	U	ND	0.4	12	1.03	ug/L		JWF 07/21/04	1949 350446	1
2-Methylnaphthalene	Ŭ	ND	0.5		1.03	ug/L	1	JH1 0//21/04	1949 330440	1
Acenaphthene	Ŭ	ND	0.5		1.03	ug/L	i i			
Acenaphthylene	Ŭ	ND	0.5		1.03	ug/L	1			
Anthracene	Ŭ	ND	0.5		1.03	ug/L				
Benzo(a)anthracene	Ŭ	ND	0.5		1.03	ug/L	1			
Benzo(a)pyrene	Ŭ	ND	0.5		1.03		-			
Benzo(b)fluoranthene	Ŭ	ND	0.5		1.03	ug/L				
Benzo(ghi)perylene	U					ug/L	1			
Benzo(k)fluoranthene		ND	0.5		1.03	ug/L.	1			
	U	ND	0.5		1.03	ug/L	1			
Dibenzo(a,h)anthracene	U	ND	0.5		1.03	ug/L	1			
Fluoranthene	U	ND	0.5		1.03	ug/L	1			
Fluorene	U	ND	0.5		1.03	ug/L	1			
Indeno(1,2,3-cd)pyrene	U	ND	0.5		1.03	ug/L	1			
Naphthalene	U	ND	0.1		1.03	ug/L	1			
Phenanthrene	U	ND	0.5		1.03	ug/L	1			
Pyrene	U	ND	0.5	15	1.03	ug/L	1			
Volatile Organics Federa	վ									
5035/8260B BTEX in Li	quid Federal									
Benzene	U	ND	0.3	30	1.00	ug/L	1	SHJ 07/30/04	4 1831 353417	2
Ethylbenzene	U	ND	0.2	10	1.00	ug/L	i			
Toluene	J	0.596	0.3	90	1.00	ug/L	i			
Xylenes (total)	U	ND	0.2	50	1.00	ug/L	i			
The following Prep Met	hode were perfor	med								
Method	Description	alleu		A	nalyst	Date	Time	Prep Batch		
SW846 3510C		Prep-82	70C Analysis Fed		PB	07/20/04	1457		2	
	boroe brar br	4.1169-02	ve Analysis red			07/20/04	1437	550445		
The following Analytica		erformed								
Method	Description				1	Analyst Comme	ents			
1	SW846 8270C									
2	SW846 8260B									
Surrogate/Tracer recove	ry Test					Recovery%	Accer	table Limits		
	the second s	DALLE	and 15 at 1 (m) (4							
2-Fluorobiphenyl			end list Liquid			81		6%-97%)		
Nitrobenzene-d5	3510/8270	PAH Ext	end list Liquid			95	(47	1%-110%)		

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#### **Certificate of Analysis**

Company :	SAIC									
Address :	151 Lafayette Drive									
	Oak Ridge, Tennesse	ee 37831								
						R	eport Date: Au	gust 30, 1	2004	
Contact:	Ms. Leslie Barbour									
Project:	Hunter Army Airfi	eld LTM					Pa	ge 2	of	2
	Client Sample ID: Sample ID:	BFE352 117167007			Proj	ect: nt ID:	SAIC05900 SAIC059			
Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
p-Terphenyl-d14	3510/8270 P.	AH Extend list Liquid			95	(5	5%-133%)			
Bromofluorobenzene	5035/8260B	BTEX in Liquid Federal			96	(7)	5%-115%)			
Dibromofluoromethane	5035/8260B	BTEX in Liquid Federal			97	(7)	2%-136%)			
Toluene-d8	5035/8260B	BTEX in Liquid Federal			101	(8	0%-116%)			

Notes:

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- В Target analyte was detected in the sample as well as the associated blank.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit. J
- P The response between the confirmation column and the primary column is >40%D.
- Indicates the target analyte was analyzed for but not detected above the detection limit. U
- Х Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- Sample preparation or preservation holding time exceeded. h

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Company :	SAIC								
Address :	151 Lafayette Dri	ve							
/100/035 .	Oak Ridge, Tenne								
Contact:	Ms. Leslie Barbou	15				Rep	ort Date: Aug	ust 30, 2004	
		570					D		
Project:	Hunter Army Ai	rfield LTM					Pag	e I of	2
	Client Sample I Sample ID: Matrix: Collect Date: Receive Date: Collector:	D: BFE452 11716700 Water 16-JUL-0 19-JUL-0 Client	4 12:15		Proie Clier		SAIC05900 SAIC059		
Parameter	Oualifier	Result	DL	RL	Units	DF	AnalystDate	Time Batch	Matha
emi-volatile Mass spec (		, ites and	DL	KL	Onits	Dr	AnalystDate	Time Batch	Metho
3510/8270 PAH Extend									
2-Chloronaphthalene	U	ND	0.388	0.971			DVE 07/21/04	1005 250144	- 10 -
2-Methylnaphthalene	J	0.640	0.388	0.971	ug/L	1	JWF 07/21/04	1905 350446	1
Acenaphthene	U	0.040 ND	0.485	0.971	ug/L	1			
· · · · · · · · · · · · · · · · · · ·	Ŭ				ug/L	1			
Acenaphthylene		ND	0.485	0.971	ug/L	1			
Anthracene	U	ND	0.485	0.971	ug/L	1			
Benzo(a)anthracene	U	ND	0.485	0.971	ug/L	1			
Benzo(a)pyrene	U	ND	0.485	0.971	ug/L	1			
Benzo(b)fluoranthene	U	ND	0.485	0.971	ug/L	1			
Benzo(ghi)perylene	U	ND	0.485	0.971	ug/L	1			
Benzo(k)fluoranthene	U	ND	0.485	0.971	ug/L	1			
Dibenzo(a,h)anthracene	U	ND	0.485	0.971	ug/L	1			
Fluoranthene	U	ND	0.485	0.971	ug/L	1			
Fluorene	U	ND	0.485	0.971	ug/L	1			
Indeno(1,2,3-cd)pyrene	U	ND	0.485	0.971	ug/L	1			
Naphthalene	J	0.490	0.107	0.971	ug/L	1			
Phenanthrene	U	ND	0.485	0.971	ug/L	1			
Pyrene	U	ND	0.485	0.971	ug/L	1			
olatile Organics Federa	վ				000				
5035/8260B BTEX in Li	quid Federal								
Benzene	U	ND	0.330	1.00	ug/L	1	DLS 07/29/04	1908 353417	2
Ethylbenzene	U	ND	0.210	1.00	ug/L	1			
Toluene	J	0.480	0.390	1.00	ug/L	1			
Xylenes (total)	U	ND	0.250	1.00	ug/L	1			
The following Prep Met	hods were perform	ned							
Method	Description			Analyst	Date	Time	Prep Batch		
SW846 3510C	3510C BNA Lic	q. Prep-8270C Analys	sis Fed	JPB	07/20/04	1457	350445		
							550115		
The following Analytica	the standard desired being the standard for specific the standard standard to the standard standard standard st	erformed							
Method	Description				Analyst Comme	ents			
1	SW846 8270C								
2	SW846 8260B								
					121 N. 12140	000 C C C C C C C C C C C C C C C C C C			
Surrogate/Tracer recove	ry Test				Recovery%	Accept	able Limits		
Surrogate/Tracer recove 2-Fluorobiphenyl		PAH Extend list Lic	mid		Recovery% 71		%-97%)		

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#### **Certificate of Analysis**

Company :	SAIC									
Address :	151 Lafayette Dri	ive								
	Oak Ridge, Tenn	essee 37831								
						Re	eport Date: Aug	ust 30, 2	2004	
Contact:	Ms. Leslic Barbo	our								
Project:	Hunter Army A	irfield LTM					Pa	ge 2	of	2
	Client Sample Sample ID:	ID: BFE452 1171670	05		Proj	ect: nt ID:	SAIC05900 SAIC059			
Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
p-Terphenyl-d14	3510/827	0 PAH Extend list Li	quid		83	(50	5%-133%)			
Bromofluorobenzene	5035/826	OB BTEX in Liquid F	Federal		87	(70	5%-115%)			
Dibromofluoromethane	5035/826	OB BTEX in Liquid I	rederal		100	(7)	2%-136%)			
Toluene-d8	5035/826	0B BTEX in Liquid F	Federal		93	(8)	0%-116%)			

Notes:

The Qualifiers in this report are defined as follows :

- B Target analyte was detected in the sample as well as the associated blank.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

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SAIC 151 Lafayette Dri								
151 Lalayette Di	ve							
		31						
-					Rep	ort Date: Aug	gust 30, 2004	
Ms. Leslie Barbou	ur.							2
Hunter Army Ai	rfield LT	M				Pa	ge I of	2
Client Sample I Sample ID: Matrix: Collect Date: Receive Date: Collector:	D:	117167006 Water 16-JUL-04 15:40 19-JUL-04						
Qualifier	Result	DI	. RI	L Units	DF	AnalystDate	Time Batc	h Meth
Organics Federal								
	ND	0.40	8 1.02	110/1	1	JWE 07/21/0	4 1927 35044	6 1
0				· · · · · · · · · · · · · · · · · · ·	1	0//2//0	1 1 2 2 2 3 3 0 4 4	× 1
					1			
11					1			
					1			
					1			
U	ND	0.51			1			
U	ND	0.51	0 1.02	l ug/L	1			
U	ND	0.51	0 1.02	2 ug/L	1			
U	ND	0.51	0 1.02		1			
					1			
					i			
				0	1			
0					1			
				· · · · ·	1			
U					1			
0					1			
					1			
U	ND	0.51	0 1.02	2 ug/L	1			
al								
iquid Federal								
	1.98	0.33	0 1.00	) ug/L	1	DLS 07/29/0	4 1935 35341	7 2
U								
	42.7			· · · · · · · · · · · · · · · · · · ·	i			
thode were nerfor	med							
Description	incu		Analyst	Date	Time	Prep Batc	h	4. h. i
3510C BNA Li	q. Prep-82	270C Analysis Fed	JPB	07/20/04	1457			
						1999) - S		
	performed			Analyst Comm	nents			
				rina yat Collar				
SW846 8270C								
SW846 8260B								
ery Test				Recovery%	Accep	table Limits		
				and the second				
3510/827	0 PAH E	tend list Liquid		70	(4)	5%-97%)		
	Ms. Leslie Barbon Hunter Army Ai Client Sample ID: Matrix: Collect Date: Receive Date: Collector: Qualifier Organics Federal <i>list Liquid</i> U U U U U U U U U U U U U U U U U U U	Ms. Leslie Barbour Hunter Army Airfield LT Client Sample ID: Sample ID: Matrix: Collect Date: Receive Date: Collector: Qualifier Result Organics Federal list Liquid U ND U ND	Hunter Army Airfield LTMClient Sample ID:BFE552Sample ID:117167006Matrix:WaterCollect Date:16-JUL-04 15:40Receive Date:19-JUL-04Collector:ClientQualifierResultQualifierResultItst LiquidUUND0.4008.420.510UND0.510UND0.510UND0.510UND0.511UND0.510UND0.511UND0.510UND0.511UND0.512UND0.514UND0.515UND0.516UND0.517UND0.516UND0.517UND0.516UND0.51710ND0.516UND0.517117.30.111J0.5740.516UND0.5170.5170.5180.5160.5160.5170.5160.5160.5160.5170.5160.5160.5170.5160.516 </td <td>Ms. Leslie Barbour Hunter Army Airfield LTM Client Sample ID: BFE552 Sample ID: 117167006 Matrix: Water Collect Date: 16-JUL-04 15:40 Receive Date: 19-JUL-04 Collector: Client Qualifier Result DL RI Organics Federal list Liquid U ND 0.408 1.02 U ND 0.510 1.02 U ND</td> <td>Ms. Leslie Barbour Hunter Army Airfield LTM Client Sample ID: 117167006 Matrix: Water Collect Date: 19-JUL-04 15:40 Receive Date: 19-JUL-04 Collector: Client Quiffier Result DL RL Units Organics Federal Iist Liquid U ND 0.408 1.02 ug/L 1.64 0.510 1.02 ug/L U ND 0.510 1.02 ug/L Receive Jug/L U ND 0.510 1.02 ug/L U ND 0.510 1.02 ug/L U ND 0.510 1.02 ug/L U ND 0.510 1.02 ug/L U ND 0.510 1.02 ug/L A U ND 0.510 1.02 ug/L U ND 0.510 1.02 ug/L 0 ND 0.510 1.00 ug/L</td> <td>Rep           Ms. Leslie Barbour           Hunter Army Airfield LTM           Client Sample ID: BFE552 Sample ID: 117167006 Matrix: Water Collect Date: 16-JUL-04 15:40 Receive Date: 19-JUL-04           Qualifier Result DL RL Valts DF           Qualifier Result DL RL Valts DF           Organics Federal           U ND 0.408 1.02 ug/L 1           U ND 0.510 1.02 ug/L 1           I 0.574 0.510 1.02 ug/L 1           I 0.574</td> <td>Report Date: Aug Ms. Leslie Barbour           Project: SALCOS900 Sample ID: 117167006 Matrix: Water Collect Date: 19-JUL-04 15:40 Receive Date: 19-JUL-04 10.02 10-20 Receive Date: 19-JUL-04 10.02 10-20 Receive Date: 19-JUL-04 10-00 Receive Date: 19-Receive Date: 19-Rec</td> <td>Report Date: August 30, 2004         Matche Army Airfield LTM       Page 1 of         Client Sample ID: I17167006         SAIC05900         Client ID: SAIC05900         Client Date: 10-JUL-04 15:40         Result       DI         Qualifier       Result       DI         Qualifier       Result       DI         Qualifier       Result       DI         Qualifier       Result       DI       Result       DI         Qualifier       Result       DI       Result       SAIC05900         Client       DI         Qualifier       Result       DI         U       ND       O/721/04 1927 350440         U       ND       O/721/04 1927 350440         U       ND       O/721/04 1927 350440       U         U       ND       O/721/04 1927 350440       U</td>	Ms. Leslie Barbour Hunter Army Airfield LTM Client Sample ID: BFE552 Sample ID: 117167006 Matrix: Water Collect Date: 16-JUL-04 15:40 Receive Date: 19-JUL-04 Collector: Client Qualifier Result DL RI Organics Federal list Liquid U ND 0.408 1.02 U ND 0.510 1.02 U ND	Ms. Leslie Barbour Hunter Army Airfield LTM Client Sample ID: 117167006 Matrix: Water Collect Date: 19-JUL-04 15:40 Receive Date: 19-JUL-04 Collector: Client Quiffier Result DL RL Units Organics Federal Iist Liquid U ND 0.408 1.02 ug/L 1.64 0.510 1.02 ug/L U ND 0.510 1.02 ug/L Receive Jug/L U ND 0.510 1.02 ug/L U ND 0.510 1.02 ug/L U ND 0.510 1.02 ug/L U ND 0.510 1.02 ug/L U ND 0.510 1.02 ug/L A U ND 0.510 1.02 ug/L U ND 0.510 1.02 ug/L 0 ND 0.510 1.00 ug/L	Rep           Ms. Leslie Barbour           Hunter Army Airfield LTM           Client Sample ID: BFE552 Sample ID: 117167006 Matrix: Water Collect Date: 16-JUL-04 15:40 Receive Date: 19-JUL-04           Qualifier Result DL RL Valts DF           Qualifier Result DL RL Valts DF           Organics Federal           U ND 0.408 1.02 ug/L 1           U ND 0.510 1.02 ug/L 1           I 0.574 0.510 1.02 ug/L 1           I 0.574	Report Date: Aug Ms. Leslie Barbour           Project: SALCOS900 Sample ID: 117167006 Matrix: Water Collect Date: 19-JUL-04 15:40 Receive Date: 19-JUL-04 10.02 10-20 Receive Date: 19-JUL-04 10.02 10-20 Receive Date: 19-JUL-04 10-00 Receive Date: 19-Receive Date: 19-Rec	Report Date: August 30, 2004         Matche Army Airfield LTM       Page 1 of         Client Sample ID: I17167006         SAIC05900         Client ID: SAIC05900         Client Date: 10-JUL-04 15:40         Result       DI         Qualifier       Result       DI         Qualifier       Result       DI         Qualifier       Result       DI         Qualifier       Result       DI       Result       DI         Qualifier       Result       DI       Result       SAIC05900         Client       DI         Qualifier       Result       DI         U       ND       O/721/04 1927 350440         U       ND       O/721/04 1927 350440         U       ND       O/721/04 1927 350440       U         U       ND       O/721/04 1927 350440       U

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#### **Certificate of Analysis**

Company :	SAIC									
Address :	151 Lafayette Driv	ve								
	Oak Ridge, Tenne	ssee 37831								
						Re	eport Date: Aug	ust 30, 2	2004	
Contact:	Ms. Leslie Barbou	ır								
Project:	Hunter Army Air	rfield LTM					Pag	e 2	of	2
	Client Sample I Sample ID:	D: BFE552 11716700	6		Proj Clie	ect: nt ID:	SAIC05900 SAIC059			
Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
p-Terphenyl-d14	3510/8270	PAH Extend list Liqu	uid		67	(5	6%-133%)			
Bromofluorobenzene	5035/8260	B BTEX in Liquid Fe	ederal		83	(7)	6%-115%)			
Dibromofluoromethane	5035/8260	B BTEX in Liquid Fe	deral		105	(7	2%-136%)			
Toluene-d8	5035/8260	B BTEX in Liquid Fe	ederal		94	(8	0%-116%)			

Notes:

The Qualifiers in this report are defined as follows :

- Target analyte was detected in the sample as well as the associated blank. B
- Concentration of the target analyte exceeds the instrument calibration range. E
- Analytical holding time exceeded. Н
- Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit. J
- The response between the confirmation column and the primary column is >40%D. P
- Indicates the target analyte was analyzed for but not detected above the detection limit. U
- Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details. X
- QC Samples were not spiked with this compound. Y
- Sample preparation or preservation holding time exceeded. h

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This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

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Reviewed by

Company : S	SAIC									
Address :	51 Lafayette Dri	ve								
	Dak Ridge, Tenne									
						Repo	ort Date: Aug	ust 30, 2	2004	
Contact: N	Ms. Leslie Barbou	1r					-			_
Project:	Hunter Army Ai	rfield LTM					Pag	je l	of	2
	Client Sample I Sample ID: Matrix: Collect Date: Receive Date: Collector:	D: BFE652 1171670 Water 16-JUL- 19-JUL- Client	04 11:25		Proie Clien		AIC05900 AIC059			
Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Meth
emi-volatile Mass spec O	rganics Federal									
3510/8270 PAH Extend li	st Liauid									
2-Chloronaphthalene	U	ND	0.408	1.02	ug/L	1	WF 07/21/0	4 2011	350446	1
2-Methylnaphthalene	Ŭ	ND	0.510	1.02	ug/L	i				÷
Acenaphthene	Ŭ	ND	0.510	1.02	ug/L	1				
	U	ND	0.510	1.02	ug/L	1				
Acenaphthylene	U	ND	0.510	1.02		1				
Anthracene			0.510	1.02	ug/L	1				
Benzo(a)anthracene	U	ND	0.510	1.02	ug/L	1				
Benzo(a)pyrene	U	ND			ug/L	+				
Benzo(b)fluoranthene	U	ND	0.510	1.02	ug/L	1				
Benzo(ghi)perylene	U	ND	0.510	1.02	ug/L	1				
Benzo(k)fluoranthene	U	ND	0.510	1.02	ug/L	1				
Dibenzo(a,h)anthracene	U	ND	0.510	1.02	ug/L	1				
Fluoranthene	U	ND	0.510	1.02	ug/L	1				
Fluorene	U	ND	0.510	1.02	ug/L	1				
Indeno(1,2,3-cd)pyrene	U	ND	0.510	1.02	ug/L	1				
Naphthalene	U	ND	0.112	1.02	ug/L	1				
Phenanthrene	U	ND	0.510	1.02	ug/L	1				
Pyrene	U	ND	0.510	1.02	ug/L	1				
olatile Organics Federal	l'									
5035/8260B BTEX in Liq	uid Federal									
Benzene	U	ND	0.330	1.00	ug/L	1	DLS 07/29/0	4 2028	353417	2
Ethylbenzene	U	ND	0.210	1.00	ug/L	1				
Toluene	J	0.663	0.390	1.00	ug/L	1				
Xylenes (total)	U	ND	0.250	1.00	ug/L	1				
The following Prep Meth	oods were perfor	med								
Method	Description	incu		Analyst	Date	Time	Prep Bate	h		
SW846 3510C	3510C BNA Li	q. Prep-8270C Anal	ysis Fed	JPB	07/20/04	1457	350445			
The following Analytical Method	Description	berformed			Analyst Comm	ente				
	1974 - 1974 - 1974 - 1974 - 1974 - 1974 - 1974 - 1974 - 1974 - 1974 - 1974 - 1974 - 1974 - 1974 - 1974 - 1974 -				anatyse Collin	ents				
1	SW846 8270C									
2	SW846 8260B									
Surrogate/Tracer recover	ry Test				Recovery%	Accept	table Limits			
2-Fluorobiphenyl		0 PAH Extend list L	ionid		74	116	%-97%)			
6~1 100100101010101	5510/82/	o i All Extend list L	iquiu		14	(+0	10-9170)			
Nitrobenzene-d5	2510/022	0 PAH Extend list L			83	11	%-110%)			

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#### **Certificate of Analysis**

Company :	SAIC									
Address :	151 Lafayette Driv	ve								
	Oak Ridge, Tenne	ssee 37831								
						Ro	eport Date: Aug	ust 30, 1	2004	
Contact:	Ms. Leslie Barbou	ır								
Project:	Hunter Army Ai	rfield LTM					Pag	e 2	of	2
	Client Sample I Sample ID:	D: BFE652 11716700	8		Proj Clie	ect: nt ID:	SAIC05900 SAIC059			
Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
p-Terphenyl-d14	3510/8270	PAH Extend list Liq	uid		70	(5	5%-133%)			
Bromofluorobenzene	5035/8260	B BTEX in Liquid Fo	ederal		87	(7)	5%-115%)			
Dibromofluoromethane	5035/8260	B BTEX in Liquid Fe	ederal		102	(7	2%-136%)			
Toluene-d8	5035/8260	B BTEX in Liquid Fo	ederal		97	(8	0%-116%)			

Notes:

The Qualifiers in this report are defined as follows :

- Target analyte was detected in the sample as well as the associated blank. В
- Concentration of the target analyte exceeds the instrument calibration range. E
- Analytical holding time exceeded. н
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- The response between the confirmation column and the primary column is >40%D. P
- Indicates the target analyte was analyzed for but not detected above the detection limit. U
- Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details. Х
- QC Samples were not spiked with this compound. Y
- Sample preparation or preservation holding time exceeded. h

The above sample is reported on an "as received" basis.

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and

Reviewed by

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#### **Certificate of Analysis**

Company : 5	SAIC											
	151 Lafayette Driv		21									
	Oak Ridge, Tennes	ssee 378	51				Re	port Da	ite: Aug	ust 30, 7	2004	
Contact:	Ms. Leslie Barbou	r							5			
Project:	Hunter Army Aiı	field LT	M						Pag	e 1	of	2
	Client Sample II Sample ID: Matrix: Collect Date: Receive Date: Collector:	D:	TH0401 117169001 Water 16-JUL-04 07: 19-JUL-04 Client	45		Proi	ect: nt ID:	SAIC SAIC				
Parameter	Qualifier	Result		DL	RL	Units	DF	Analy	stDate	Time	Batch	Method
Volatile Organics Federal												
5035/8260B BTEX in Liq	uid Federal											
Benzene	U	ND		0.330	1.00	ug/L	1	DLS	07/30/04	0434	353426	1
Ethylbenzene	U	ND		0.210	1.00	ug/L	1					
Toluene	U	ND		0.390	1.00	ug/L	1					
Xylenes (total)	U	ND		0.250	1.00	ug/L	1					
The following Analytical	Methods were p	erformed	1									
Method	Description					Analyst Comm	nents					
1	SW846 8260B											
Surrogate/Tracer recover	ry Test					Recovery%	Acce	ptable	Limits			
Bromofluorobenzene	5035/8260	B BTEX	in Liquid Federa	1		91	(7	6%-115	5%)			
Dibromofluoromethane	5035/8260	B BTEX	in Liquid Federa	1		103	(7	2%-136	(%)			
Toluene-d8	5035/8260	B BTEX	in Liquid Federa	1		89	(8	0%-116	5%)			
Notes: The Qualifiers in this	report are define	d as foll	lows :									
B Target analyte was	detected in the s	ample a	s well as the ass	sociated	blank							

B Target analyte was detected in the sample as well as the associated blank.

E Concentration of the target analyte exceeds the instrument calibration range.

H Analytical holding time exceeded.

J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.

P The response between the confirmation column and the primary column is >40%D.

U Indicates the target analyte was analyzed for but not detected above the detection limit.

X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.

Y QC Samples were not spiked with this compound.

h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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#### **Certificate of Analysis**

Company : Address :	SAIC 151 Lafayette Drive							
	Oak Ridge, Tennessee 37831				Report Date:	August 30,	2004	
Contact:	Ms. Leslie Barbour							
Project:	Hunter Army Airfield LTM					Page 2	of	2
	Client Sample ID: TH04 Sample ID: 11710	01 59001		Proiect: Client ID:	SAIC059 SAIC059			
Parameter	Qualifier Result	DL	RL	Units DI	F AnalystD	ate Time	Batch	Method

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

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a Reviewed by

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#### **Certificate of Analysis**

Company :	SAIC											
Address :	151 Lafayette Driv	/e										
	Oak Ridge, Tenne	ssee 378	31									
							Re	eport Da	ate: Augu	ist 30, 2	2004	
Contact:	Ms. Leslie Barbou	r							20			
Project:	Hunter Army Ai	rfield L1	Ϋ́M						Page	e 1	of	2
	Client Sample I Sample ID: Matrix: Collect Date: Receive Date: Collector:	D:	TH0402 117169011 Water 17-JUL-04 07:4 19-JUL-04 Client	45		Proi Clie	ect: nt ID:	SAIC SAIC	05900 059			
Parameter	Qualifier	Result		DL	RL	Units	DF	Anal	ystDate	Time	Batch	Method
Volatile Organics Federa	d											
5035/8260B BTEX in Lie	quid Federal											
Benzene	U	ND		0.330	1.00	ug/L	1	DLS	07/31/04	1119	353426	1
Ethylbenzene	U	ND		0.210	1.00	ug/L	1					
Toluene	J	0.802		0.390	1.00	ug/L	1					
Xylenes (total)	U	ND		0.250	1.00	ug/L	1					
The following Analytica	d Methods were p	erforme	1									
Method	Description					Analyst Comn	nents					
1	SW846 8260B											
Surrogate/Tracer recove	ery Test					Recovery%	Acce	ptable	Limits			
Bromofluorobenzene	5035/8260	B BTEX	in Liquid Federal	l.		98	(7	6%-115	5%)			
Dibromofluoromethane	5035/8260	B BTEX	in Liquid Federal	£		98	(7	2%-130	6%)			
Toluene-d8	5035/8260	B BTEX	in Liquid Federal	ł.		101	(8	0%-110	6%)			
Notes:												

The Qualifiers in this report are defined as follows :

Target analyte was detected in the sample as well as the associated blank. B

Concentration of the target analyte exceeds the instrument calibration range. E

Analytical holding time exceeded. H

Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit. J

The response between the confirmation column and the primary column is >40%D. Ρ

Indicates the target analyte was analyzed for but not detected above the detection limit. U

X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.

QC Samples were not spiked with this compound. Y

Sample preparation or preservation holding time exceeded. h

The above sample is reported on an "as received" basis.

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#### **Certificate of Analysis**

Company :	SAIC							
Address :	151 Lafayette Drive							
	Oak Ridge, Tennessee 37831							
					Report Date:	August 30,	2004	
Contact:	Ms. Leslie Barbour							
Project:	Hunter Army Airfield LTM					Page 2	of	2
	Client Sample ID: TH040 Sample ID: 117169			Project Client I				
Parameter	Qualifier Result	DL	RL	Units	DF AnalystI	Date Time	Batch	Method

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard/operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

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Reviewed by



PO Box 2501, 151 Lafayette Dr., Tennessee 37830 (423) 481-4600

#### CHAIN OF CUSTODY RECORD

# COC NO .: HLTM4B

	PROJECT NAME: HAA	F Long Ter	m Monitori	ing, D.O. 44							F	REQ	JEST	ED P	ARA	METE	ERS						LABORATOR General Engi			
ł	PROJECT NUMBER: 0	1-1055-04-8	991-200																							
	PROJECT MANAGER: -			Spller																		Vials:	LABORATOF 2040 Savage Charleston, S	Raod		
	Sampler (Signature)	Holl .	(Printed	1 Name) A. A. JT	2.1																	Bottles/	PHONE NO:			
	Sample ID	Date Colle		ne Collected	Matrix	втех	voc	PAH														No. of	OVA SCREENING		OBSERVATIONS, COM SPECIAL INSTRUCT	MENTS, FIONS
	BFZ552	7/100		456	water		>	Z									6.51					Z				
	BFØ45Z	11101-	and the same of th	225	1		Sec. 1	2												10		Z				
	BF2652			410				Ζ											in the second se			Ζ				
	BFE252			400				2									-					Z				
	BFE 652	V	1	125				Z					1									2	X			
	BF3552	7/17/0	04 "	931	$\checkmark$			Z														Ζ				
C-36																				4	Ł					
													No	4		+	1									
							6	_	Ľ	4	_[	11	10	1												
						4	K	4	Ø		7		_			-					-	-				
						Ł	F	_					-				+			-	-	-		-		
				2		-							-		-			-			-	-				
	RELINQUISHED BY	<u></u>	Date/Tim	BECEI	VED BY:	L			T	Date	/Tim		TOT			ERO	F CO		INER	S:	12	1	Cooler Temp	peratur	e: 4°C	
	Patri-	]hu	7/19/00	4	hand	4			1	7/19				er ID:							14	-	FEDEX NUM			
	COMPANY NAME:		1140	COMP	ANY NAME:						30		000	0112.			3	03	3					NA		. A.
	RECEIVED BY:	/	Date/Tin 7/19/0		QUISHED BY:	:				Date																
	COMPANYNAME	/	114	COMP	ANY NAME:																					ŧ
	RECTIONISHED BY:	_	Date/Tip 7/19/0	4	VED BY:					Date	/Tim	e											×			
	COMPANY NAME:		1430	COMP	ANY NAME:																					



#### CHAIN OF CUSTODY RECORD

COC NO .: HLTM 41

	PO Box 2501, 151 Lafayette Dr.	, Tennessee 3783	0 (423) 481-4600				CI		NC		:05	10	זט	RE	CUI	RD								112/11/41	
	PROJECT NAME: HAA	F Long Term	Monitoring,	D.O. 44	G	-	Т			Т	RE		STE			ETEP	IS	Т	Т	П		_	LABORATORY I General Enginee		
	PROJECT NUMBER: 0																						LABORATORY 2040 Savage Ra	od	
	PROJECT MANAGER:	Patty Stoll 2	shoran St	oller																		/ Vials:	Charleston, SC	29407	
	Sampler (Signature)	1 Pa	(Printed Nam	A A	Sec.																	of Bottles	PHONE NO: (84	3) 556-8171 OBSERVATIONS, COM	MENTS
	Sample ID	Date Collect	ed Time C	ollected	Matrix	~	VOC	PAH														No.	SCREENING	SPECIAL INSTRUCT	
	BFE254	7/16/0	4 140	ව	water			Z				ре ст 1										Ζ			
	BFE352	7/16/0		0				2														Ζ			
	BF3752	7/17/0	4 100	0			No.	Z														Ζ			
	BFESSZ	7/16/0	4 154	40				2														2			
	BFE452	7/16/0	4 121	5				Z														Ζ			
0	BFE152	7/16/04	1 150	6	V			2				1942				$\square$						2			
C-37																		_	-	$\vdash$					
							4	4		110	2/6	4		+	+	$\square$									
						<u>D</u>	1/tz	JU		Щ	4	Τ_					_		_						
						4	4	-			_			4								_			
	and the second second			/				_		_	_								-		-				*
							-	_											_						- (
															/BER				EDC		17	L	Cooler Tempera	iture: 4°C	
	RELINQUISHED BY:		Date/Time H19/04	RECE	VED BY:	2	Λ,		4, 262	Date/					ABEH		CON	TAIN	ENG		12	•		t t	P
	COMPANY NAME:	· · · · · · · · · · · · · · · · · · ·	114109	Сомг	ANY NAM		a			19			ooler	ID:				27	2				FEDEX NUMBE	NA	
	RECEIVED BY:	5-	Date/Time	RELIN	QUISHED				_	Date/		Contract of the second													1
	COMPANY NAME:		1140	COMF	ANY NAM	ΛE:			14.																ł
	REPINCUISHED BY:		Date/Time	RECE	IVED BY:			-	-	Date/	Time												×		
	COMPANY NAME:	-	1430	COMP	PANY NAN	IE:																			

Employee-Owned Company Science Applications International Corporation

117167, 117169

Pg 10/2

PO Box 2501, 151 Lafayette Dr., Tennessee 37830 (423) 481-4600

### CHAIN OF CUSTODY RECORD

COC NO .: HLTM42

ſ	PROJECT NAME: HAAI	F Long Term Mo	Į				_	-	RE		STED	PAR	RAME	TEF	as I	1			Т	- 1 -	ABORATORY N General Engineer		itory		
	PROJECT NUMBER: 01 PROJECT MANAGER:				_															fiala:	2	ABORATORY A 2040 Savage Rad Charleston, SC 2	od		
	Sampler (Signature)		rinted Name) RICLA A-	(b)																) and the C	Bottles	PHONE NO: (843	<b>T</b>		
		Date Collected	Time Collected	Matrix	ВТЕХ	voc	HA														No. of	OVA SCREENING		LINSTRUCT	
	Sample ID	7/17/04	(030	water	2	BOILDING DO	Z						T								4				
001	BF3652 BF3652	7/14/04	1005	land	2	-	Z														4				
062	BF2752 BF2656	7/16/04	1336		Z		2													4	Z				
063	BF3752	7/17/04	1000	+	2	-															Ż				
004	BFE45Z	7/16/04	1215		2	-															z				
000	BFESSZ	7/16/04	1540		2		2														z				
-38	BFE352	7/10/04	1310		2	-	2														Z				
608	BFE652	7/16/04	1125		2	2														-	2				
009		7/16/04	1400		2	2	2													-	2				
0(0	BFE252	7/16/04	1400		Z	2															2				
011	BREISZ	7/16/04	1500		2	-	-													$\rightarrow$	2				
012	BF2652	7/16/04	1410		2	4	÷.													$\rightarrow$	2				
013	BF2552	7/16/04	1456	V	2	2	2														2				
	RELINGUISHED BY		te/Time RECI	EIVED BY:	0	0.0			Date/		Т	OTAL	NUM	<b>IBER</b>	OF	CONT	FAINE	ERS:	56	2		Cooler Tempera	ture:	foc	
	COMPANY NAME:		te/Time RECI	PANY NAME GUU		l			Uva 143		C	ooler	ID:			3						FEDEX NUMBE	NA		
	RECEIVED BY:	- 7/1	9/04	NQUISHED	BY:			_	Date/																
	RELINOVISHED BY		70	EIVED BY:				+	Date/	Time	-														
	COMPANY NAME:	- 7/1	9/04	IPANY NAMI	E:			-														ê 			

Pg 20f Z

Science Applications International Corporation

#### PO Box 2501, 151 Lafayette Dr., Tennessee 37830 (423) 481-4600

#### CHAIN OF CUSTODY RECORD

COC NO .: HLTM42

- 1	PROJECT NAME: HAA	F Long Term Mo	nitoring, D.O. 44		Τ				F	REQU	UEST	ED P	ARAN	NETE	RS						LABORATORY N		
								Π		Τ					Π						General Engineer	ing Laboratory	
	PROJECT NUMBER: 01	-1055-04-8991-2	00																		LABORATORY A	DDRESS:	
	PROJECT MANAGER: 1	Patty Stoll St	aron Stoller																		2040 Savage Rad Charleston, SC 2	bd	
	Sampler (Signature)		rinted Name)	Lau			с – У													Bottles/	PHONE NO: (843	3) 556-8171	
	Sample ID	Date Collected	Time Collected	Matrix	втех	Ş	AH													No. of	OVA SCREENING	OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS	
AUL	0		1225	Water	Z	~	•							+						Z			
014		7/16/04	and the second se	Marci	2		+			-							-			2			
015	BF3552	7/17/04	931		2	-	-				-									Z			117169
100	THØ4Ø1	7/16/04	6745		2						-						+			z			11 2101
	AN1864	7/17/04	1353		2		-						+						$\vdash$	2			1
003	ANØ262	7/17/04	1515		2					-	-			-			+			2			
언	AN2362	7/17/04	1435		2		+				-						+			z			
000		7/17/04	1400		2						-					-	-		$\left  \right $	-			
006		7/17/04	1330	-			- 20		0.02 612		-						+			z Z			
007	AK46662	7/17/04	1225	$\left  \right $	2				-	-	-		-	-			+		$\left  \right $	2			
	ANIBGZ	7/17/04	1350	+ + - + - + - + + - + + + + + + + + +	Z	-	-						-	-		-	-		$\vdash$	-			
009	ANØI62	7/17/04	1457		2						_		_	-			-		$\left  \right $	2			-
DID		7/17/04	1310		2								_	_		_	_			_			
011	marte	717/04	0745	V	2															2		// hc	
	RELINQUISHED BY			YED BY:	No				9/04	r F				ROF	CON	ITAIN	ERS	: .	5Ë	)	Cooler Temperat	ure: 4 ° c	
		104 /11	9/04	ANY NAME:	4		-	///	904		Cool	er ID:				2					FEDEX NUMBER	****/	
	COMPANY NAME:	110	to COMP	BEC				14	(30	,						3						/V/A	
	RECEIVED BY:	Dat	e/Time RELIN	QUISHED BY	<i>ı</i> .		+		/Time		-												1
	The las		9/05		•																		
	COMPANY NAME:		, COMF	ANY NAME:																		1	
	4EC	- 10	10																				
	RELINGUISHED BY		e/Time RECE	IVED BY:				Date	e/Time	e													
	COMPANY, NAME:	_ 14		ANY NAME:																			

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Company :	SAIC									
	151 Lafayette Dr	ive								
	Oak Ridge, Tenn		31							
	our ruge, rem	easee are					Rep	port Date: Mar	ch 8, 2005	
Contact:	Ms. Leslie Barbo	our								a
Project:	Hunter Army A	irfield L1	M					Pag	ge I of	2
	Client Sample Sample ID: Matrix: Collect Date: Receive Date: Collector:	ID:	BF0462 129001011 Water 12-JAN-05 15:55 17-JAN-05	5		Proje Clien		SAIC05900 SAIC059		
Parameter	Qualifier	Result	Client	DL	RL	Units	DF	AnalystDate	Time Batch	Metho
emi-volatile Mass spec (	and the second second	1								
	A second s									
3510/8270 PAH Extend I 2-Chloronaphthalene	isi Diquia	ND	1	0.400	1.00	ug/L	1	RMB 01/20/0	5 1803 395114	1
2-Methylnaphthalene		ND		0.500	1.00	ug/L ug/L	1	101/20/0	5 1005 555114	5.402
		ND		0.500	1.00	ug/L	1			
Acenaphthene		ND		0.500	1.00	ug/L ug/L	1			
Acenaphthylene					1.00	-	1			
Anthracene		ND		0.500		ug/L				
Benzo(a)anthracenc		ND		0.500	1.00	ug/L	1			
Benzo(a)pyrene		ND		0.500	1.00	ug/L				
Benzo(b)fluoranthene		ND		0.500	1.00	ug/L	1			
Benzo(ghi)perylene		ND		0.500	1.00	ug/L	1			
Benzo(k)fluoranthene		ND		0.500	1.00	ug/L	1			
Dibenzo(a,h)anthracene		ND		0.500	1.00	ug/L	1			
Fluoranthene		ND		0.500	1.00	ug/L	1			
Fluorene		ND		0.500	1.00	ug/L	1			
Indeno(1,2,3-cd)pyrene		ND		0.500	1.00	ug/L	1			
Naphthalene		ND		0.110	1.00	ug/L	1			
Phenanthrene		ND	1	0.500	1.00	ug/L	1			
Pyrene		ND		0.500	1.00	ug/L	1			
Volatile Organics Federa	վ									
5035/8260B BTEX in Lie	guid Federal									
Benzene	U	ND	3	0.330	1.00	ug/L	1	GRB2 01/25/0	5 0512 396607	2
Ethylbenzene	Ŭ	ND		0.210		ug/L	ĩ			
Toluene	Ü	ND		0.390		ug/L	1			
Xylenes (total)	Ŭ	ND		0.250		ug/L	i			
The following Prep Met	hods were perfo	rmed								
Method	Description				Analyst	Date	Time	Prep Batc	h	
SW846 3510C	3510C BNA L	.iq. Prep-8	270C Analysis Fed		RXM1	01/19/05	1609	395113		
The following Analytica Method	Description	performe	u			Analyst Comm	ients			
1	SW846 8270C									
2	SW846 8260B									
Surrogate/Tracer recove	ery Test					Recovery%	Accep	otable Limits		
	-		xtend list Liquid			74	(2	7%-97%)		
2-Fluorobiphenyl	3510/82	IN FAILE	Alena nsi Liquia			74	(3	170-9170)		

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#### **Certificate of Analysis**

Company : SAIC Address : 151 Lafayette Drive Oak Ridge, Tennessee 37831 Contact: Ms. Leslie Barbour Project: Hunter Army Airfield LTM

Report Date: March 8, 2005

Page 2 of 2

	Client Sample Sample ID:	ID: BF0462 129001011			Proj Clie	ect: nt ID:	SAIC05900 SAIC059		
Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch Metho
Nitrobenzene-d5	3510/827	0 PAH Extend list Liqui	d		71	(4	3%-101%)		
p-Terphenyl-d14	3510/827	0 PAH Extend list Liqui	id		99	(4	9%-126%)		
Bromofluorobenzene	5035/826	OB BTEX in Liquid Fed	leral		107	(7	6%-115%)		
Dibromofluoromethane	5035/826	0B BTEX in Liquid Fed	leral		96	(7	2%-136%)		
Tolucne-d8	5035/826	0B BTEX in Liquid Fed	leral		111	(8	0%-116%)		

Notes:

The Qualifiers in this report are defined as follows :

\* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

\*\* Indicates the analyte is a surrogate compound.

B Target analyte was detected in the sample as well as the associated blank.

E Concentration of the target analyte exceeds the instrument calibration range.

H Analytical holding time exceeded.

J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.

P The response between the confirmation column and the primary column is >40%D.

R Sample results are rejected due to sample preservation with HCl.

U Indicates the target analyte was analyzed for but not detected above the detection limit.

X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.

Y QC Samples were not spiked with this compound.

h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

111

Reviewed by

Company :	SAIC								
Address :	151 Lafayette Dr	ive							
	Oak Ridge, Tenn		331						
Contract	Ma Laslia Dash					Re	port Date: March 8, 200	)5	
Contact:	Ms. Leslie Barbo								
Project:	Hunter Army A	irfield L1	M				Page 1	of 2	
	Client Sample	ID:	BF2562		Proj	ect:	SAIC05900		
	Sample ID: Matrix: Collect Date: Receive Date:		129001012 Water 12-JAN-05 16:45		Clie	nt ID:	SAIC059		
	Collector:		17-JAN-05 Client						
Parameter	Qualifier	Result		RL	Units	DF	AnalystDate Time	Batch M	ethor
Semi-volatile Mass spec (	Organics Federal	1							
3510/8270 PAH Extend									
2-Chloronaphthalene		ND	0.400	0.1.00	ug/L	1	RMB 01/20/05 1822 3	95114 1	2
2-Methylnaphthalene		ND	0.500		ug/L	1	RIVID 01/20/05 1622 3	93114 1	2
Acenaphthene		ND	0.500		ug/L	i			
Acenaphthylene		ND	0.500		ug/L	i			
Anthracene		ND	0.500		ug/L	1			
Benzo(a)anthracene		ND	0.500		ug/L	î.			
Benzo(a)pyrene		ND	0.500	1	ug/L	i			
Benzo(b)fluoranthene		ND	0.500		ug/L	i			
Benzo(ghi)perylene		ND	0.500		ug/L	- î			
Benzo(k)fluoranthene		ND	0.500	0 1.00	ug/L	1			
Dibenzo(a,h)anthracene		ND	0.500	0 1.00	ug/L	1			
Fluoranthene		ND	0.500	0 1.00	ug/L	1			
Fluorene		ND	0.500	0 1.00	ug/L	1			
Indeno(1,2,3-cd)pyrene		ND	0.500	0 1.00	ug/L	1			
Naphthalene		ND	0.110	0 1.00	ug/L	1			
Phenanthrene		ND	0.500		ug/1,	1			
Pyrene		ND	0.500	0 1.00	ug/L	1			
Volatile Organics Federa	d.								
5035/8260B BTEX in Lie	guid Federal								
Benzene	U	ND	0.330	1.00	ug/L	1	GRB2 01/25/05 0540 3	96607 2	,
Ethylbenzene	U	ND	0.210		ug/L	i		10001 2	
Toluene	U	ND	0.390	0 1.00	ug/L	1			
Xylenes (total)	U	ND	0.250	0 1.00	ug/L	1			
The following Prep Met	hods were perfor	med							
Method	Description			Analyst	Date	Time	Prep Batch		
SW846 3510C	3510C BNA L	iq. Prep-82	270C Analysis Fed	RXM1	01/19/05	1609	395113		
The following Analytica		performed	I						
Method	Description				Analyst Comm	ents			
1	SW846 8270C								
2	SW846 8260B								
Surrogate/Tracer recove	ry Test				Recovery%	Accep	otable Limits		
2-Fluorobiphenyl	3510/827	0 PAH Ex	tend list Liquid		61		7%-97%)		
and the second se	22101021	5 T T T T LAA	action for Longuite		01	(3	170-9170)		

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#### **Certificate of Analysis**

Company : SAIC Address : 151 Lafayette Drive Oak Ridge, Tennessee 37831

Contact: Ms. Leslie Barbour Project: Hunter Army Airfield LTM Report Date: March 8, 2005

Page 2 of 2

	Client Sample Sample ID:	ID: BF2562 1290010			Proj Clie	ect: nt ID:	SAIC05900 SAIC059			
Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Nitrobenzene-d5	3510/827	0 PAH Extend list L	.iquid		64	(4)	3%-101%)			
p-Terphenyl-d14	3510/827	0 PAH Extend list L	iquid		76	(4	9%-126%)			
Bromofluorobenzene	5035/826	0B BTEX in Liquid	Federal		107	(7	6%-115%)			
Dibromofluoromethane	5035/826	OB BTEX in Liquid	Federal		96	(7)	2%-136%)			
Toluene-d8	5035/826	OB BTEX in Liquid	Federal		109	(8	0%-116%)			

Notes:

The Qualifiers in this report are defined as follows :

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\*\* Indicates the analyte is a surrogate compound.

B Target analyte was detected in the sample as well as the associated blank.

E Concentration of the target analyte exceeds the instrument calibration range.

H Analytical holding time exceeded.

J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.

P The response between the confirmation column and the primary column is >40%D.

- R Sample results are rejected due to sample preservation with HCl.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.

Y QC Samples were not spiked with this compound.

h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

2.

Reviewed by

Company :	SAIC										
Address :	151 Lafayette Dr		231								
	Oak Ridge, Tenn	lessee 378	31				Re	port Date: Mare	:h 8, 20	05	
Contact:	Ms. Leslie Barbo	ur					0.003			0.0	
Project:	Hunter Army A	irfield L1	M					Pag	e l	of	2
	Client Sample Sample ID: Matrix: Collect Date: Receive Date: Collector:	ID:	BF2662 129001003 Water 13-JAN-05 09:55 17-JAN-05 Client			Proje Clier		SAIC05900 SAIC059			
Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Metho
emi-volatile Mass spec (	Organics Federal										
3510/8270 PAH Extend	ist Liquid										
2-Chloronaphthalene	1	ND	0	402	1.01	ug/L	- i i	RMB 01/20/05	1525	305114	1
2-Methylnaphthalene		ND		503	1.01	ug/L	1	KinD 01/20/05	1525	595114	1
Acenaphthene		ND		503	1.01	ug/L	i.				
Acenaphthylene		ND		503	1.01	ug/L	i.				
Anthracene		ND		503	1.01	ug/L	î				
Benzo(a)anthracene		ND		503	1.01	ug/L	1				
Benzo(a)pyrene		ND		503	1.01	ug/L	î.				
Benzo(b)fluoranthene		ND		503	1.01	ug/L	i				
Benzo(ghi)perylene		ND		503	1.01	ug/L	i				
Benzo(k)fluoranthene		ND		503	1.01	ug/L	i				
Dibenzo(a,h)anthracene		ND		503	1.01	ug/L	i.				
Fluoranthene		ND		503	1.01	ug/L	i				
Fluorene		ND		503	1.01	ug/L	i				
Indeno(1,2,3-cd)pyrene		ND		503	1.01	ug/L	i				
Naphthalene		ND	0.	111	1.01	ug/L	1				
Phenanthrene		ND	0.	503	1.01	ug/L	1				
Pyrene		ND	0.	503	1.01	ug/L	1				
olatile Organics Federa	1					c					
5035/8260B BTEX in Lie	uid Federal										
Benzenc	U	ND	0	330	1.00	ug/L	11	GRB2 01/25/05	0121	206607	2
Ethylbenzene	Ŭ	ND		210	1.00	ug/L	1	UKD2 01/25/05	0151	590007	2
Toluene	Ũ	ND		390	1.00	ug/L	1				
Xylencs (total)	Ũ	ND		250	1.00	ug/L	i				
The following Prep Met	hods were perfor	med									
Method	Description	meu			Analyst	Date	Time	Prep Batch			
W846 3510C		Dron 8	70C Analysis Fed		RXMI	01/19/05					
1040 55100	55TOC DIA LI	iq. riep-o.	The Analysis red		KAMI	01/19/03	1609	395113			
The following Analytica		performed	l								
Method	Description				1	Analyst Comm	ents				
	SW846 8270C										
	SW846 8260B										
urrogate/Tracer recover	ry Test					Recovery%	Accep	table Limits			
-Fluorobiphenyl						· · · · · · · · · · · · · · · · · · ·					

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#### **Certificate of Analysis**

Company : SAIC Address : 151 Lafayette Drive Oak Ridge, Tennessee 37831 Contact: Ms. Leslie Barbour

Project: Hunter Army Airfield LTM

Report Date: March 8, 2005

Page 2 of 2

	Client Sample Sample ID:		F2662 9001003			Proj Clie	ect: nt ID:	SAIC05900 SAIC059			
Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Nitrobenzene-d5	3510/827	0 PAH Exten	d list Liquid			69	(4	3%-101%)			
p-Terphenyl-d14	3510/827	0 PAH Exten	d list Liquid			73	(4	9%-126%)			
Bromofluorobenzene	5035/826	0B BTEX in	Liquid Federal			107	(7	6%-115%)			
Dibromofluoromethane	5035/826	0B BTEX in	Liquid Federal			99	(7	2%-136%)			
Toluene-d8	5035/826	0B BTEX in	Liquid Federal			110	(8)	0%-116%)			

Notes:

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\* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

\*\* Indicates the analyte is a surrogate compound.

B Target analyte was detected in the sample as well as the associated blank.

E Concentration of the target analyte exceeds the instrument calibration range.

H Analytical holding time exceeded.

J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.

P The response between the confirmation column and the primary column is >40%D.

R Sample results are rejected due to sample preservation with HCl.

U Indicates the target analyte was analyzed for but not detected above the detection limit.

X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.

Y QC Samples were not spiked with this compound.

h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

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11. Q.

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Company :	SAIC							
Address :	151 Lafayette Dr	ive						
Address .	Oak Ridge, Tenn		331					
							Re	port Date: March 8, 2005
Contact:	Ms. Leslie Barbo	ur						
Project:	Hunter Army A	irfield L1	ſM					Page 1 of 2
	Client Sample Sample ID: Matrix: Collect Date: Receive Date: Collector:	ID:	BF2666 129001001 Water 13-JAN-05 09:5: 17-JAN-05 Client	5		Proj Clie		SAIC05900 SAIC059
Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate Time Batch Metho
emi-volatile Mass spec (	Organics Federal							
3510/8270 PAH Extend	list Liquid							
2-Chloronaphthalene		ND	(	).404	1.01	ug/L	1	RMB 01/20/05 1445 395114 1
2-Methylnaphthalene		ND		).505	1.01	ug/L	1	1411 01/20/05 1445 575114 1
Acenaphthene		ND		).505	1.01	ug/L	i	
Acenaphthylene		ND		).505	1.01	ug/L	î	
Anthracene		ND		0.505	1.01	ug/L	;	
Benzo(a)anthracene		ND		0.505	1.01	ug/L ug/L	1	
Benzo(a)pyrene		ND		0.505	1.01	ug/L ug/L	1	
Benzo(b)fluoranthene		ND		0.505	1.01		1	
Benzo(ghi)perylene		ND		0.505	1.01	ug/L	-	
Benzo(k)fluoranthene		ND		0.505	1.01	ug/L	1	
Dibenzo(a,h)anthracene		ND		0.505	1.01	ug/L	-	
Fluoranthene		ND		0.505	1.01	ug/L	1	
Fluorene		ND		).505	1.01	ug/L	1	
Indeno(1,2,3-cd)pyrene		ND				ug/L	1	
Naphthalene				).505	1.01	ug/L	1	
Phenanthrene		ND		).111	1.01	ug/L	1	
		ND		).505	1.01	ug/L	1	
Pyrene		ND	(	).505	1.01	ug/L	1	
Volatile Organics Federa								
5035/8260B BTEX in Lie	quid Federal							
Benzene	U	ND	(	).330	1.00	ug/L	1	GRB2 01/25/05 0036 396607 2
Ethylbenzene	U	ND	(	0.210	1.00	ug/L	1	
Toluene	U	ND	(	).390	1.00	ug/L	1	
Xylenes (total)	U	ND	(	).250	1.00	ug/L	1	
The following Prep Met	hods were perfor	med						
Method	Description				Analyst	Date	Time	Prep Batch
SW846 3510C	3510C BNA Li	q. Prep-82	270C Analysis Fed		RXM1	01/19/05	1609	395113
The following Analytica	Methods were r	erformer						
Method	Description	Jei ioi met				Analyst Comm	ents	
1	SW846 8270C							
2	SW846 8260B							
Surrogate/Tracer recove	ry Test					Recovery%	Accep	table Limits
2-Fluorobiphenyl		O DALLE-	tend list Liquid					
2-1 Idoroonpricity)	5510/827	O FAH EX	tenu list Liquid			72	(37	7%-97%)

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#### **Certificate of Analysis**

Company : SAIC Address : 151 Lafayette Drive Oak Ridge, Tennessee 37831

Contact: Ms. Leslie Barbour Project: Hunter Army Airfield LTM Report Date: March 8, 2005

Page 2 of 2

	Client Sample Sample ID:	ID: BF2666 1290010			Proj	ect: nt ID:	SAIC05900 SAIC059			
Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Nitrobenzene-d5	3510/827	0 PAH Extend list L	iquid		65	(4	3%-101%)			
p-Terphenyl-d14	3510/827	0 PAH Extend list L	iquid		103	(4	9%-126%)			
Bromofluorobenzene	5035/826	0B BTEX in Liquid	Federal		106	(7	6%-115%)			
Dibromofluoromethane	5035/826	0B BTEX in Liquid	Federal		100	(7	2%-136%)			
Toluene-d8	5035/826	0B BTEX in Liquid	Federal		113	(8	0%-116%)			

Notes:

The Qualifiers in this report are defined as follows :

\* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

\*\* Indicates the analyte is a surrogate compound.

B Target analyte was detected in the sample as well as the associated blank.

E Concentration of the target analyte exceeds the instrument calibration range.

H Analytical holding time exceeded.

J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.

P The response between the confirmation column and the primary column is >40%D.

R Sample results are rejected due to sample preservation with HCl.

U Indicates the target analyte was analyzed for but not detected above the detection limit.

X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.

Y QC Samples were not spiked with this compound.

h Sample preparation or preservation holding time exceeded.

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Company :	SAIC								
Address :	151 Lafayette Dr	ive							
	Oak Ridge, Tenn		31						
Contact:	Ms. Leslie Barbo	aur.				Re	port Date: Mar	ch 8, 2005	
Project:	Hunter Army A		м				Pag	te 1 of	2
									2
	Client Sample Sample ID: Matrix: Collect Date: Receive Date: Collector:	ID:	BF2762 129001015 Water 13-JAN-05 11:40 17-JAN-05 Client		Proi Clie		SAIC05900 SAIC059		
Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time Batch	Metho
emi-volatile Mass spec (	Organics Federal								
3510/8270 PAH Extend	list Liquid								
2-Chloronaphthalene		ND	0.400	1.00	ug/L	1	RMB 01/20/05	5 1022 205114	r.
2-Methylnaphthalene		ND	0.500		ug/L	1	KMB 01/20/0.	5 1922 595114	L.
Acenaphthene		ND	0.500		ug/L	1			
Acenaphthylene		ND	0.500			1			
Anthracene		ND	0.500		ug/L	1			
Benzo(a)anthracene		ND	0.500		ug/L	1			
Benzo(a)pyrene		ND	0.500		ug/L	1			
Benzo(b)fluoranthene					ug/L	1			
Benzo(ghi)pervlene		ND	0.500	C	ug/L	1			
Benzo(k)fluoranthene		ND	0.500		ug/L	1			
		ND	0.500		ug/L	1			
Dibenzo(a,h)anthracene Fluoranthene		ND	0.500		ug/L	1			
		ND	0.500		ug/L	1			
Fluorene		ND	0.500		ug/L	1			
Indeno(1,2,3-cd)pyrene		ND	0.500		ug/L	1			
Naphthalene		ND	0.110		ug/L	1			
Phenanthrene		ND	0.500		ug/L	1			
Pyrene		ND	0.500	1.00	ug/L	1			
olatile Organics Federa									
5035/8260B BTEX in Lie	5)								
Benzene	U	ND	0.330	1.00	ug/L	1	GRB2 01/25/05	5 0702 396607	2
Ethylbenzene	υ	ND	0.210		ug/L	1			
Toluene	U	ND	0.390		ug/L	1			
Xylenes (total)	U	ND	0.250	1.00	ug/L	1			
The following Prep Met	hods were perfor	med							
Method	Description			Analyst	Date	Time	Prep Batch		
SW846 3510C	3510C BNA Li	q. Prep-82	70C Analysis Fed	RXM1	01/19/05	1609	395113		
The following Analytica	l Methods were p	performed							
Method	Description				Analyst Comm	ents			
	SW846 8270C								
2	SW846 8260B								
Surrogate/Tracer recove	ry Test				Recovery%	Accep	table Limits		

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Company : SAIC Address : 151 Lafayette Drive Oak Ridge, Tennessee 37831 Contact: Ms. Leslie Barbour

Project: Hunter Army Airfield LTM

Report Date: March 8, 2005

Page 2 of 2

	Client Sample Sample ID:	ID: BF2762 129001015			Proj Clie	ect: nt ID:	SAIC05900 SAIC059			
Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Nitrobenzene-d5	3510/827	0 PAH Extend list Liquid			69	(4)	3%-101%)			
p-Terphenyl-d14	3510/827	0 PAH Extend list Liquid			85	(4	9%-126%)			
Bromofluorobenzene	5035/826	0B BTEX in Liquid Fede	ral		107	(7	5%-115%)			
Dibromofluoromethane	5035/826	0B BTEX in Liquid Fede	ral		95	(7)	2%-136%)			
Toluene-d8	5035/826	0B BTEX in Liquid Fede	ral		108		0%-116%)			

Notes:

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\* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

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B Target analyte was detected in the sample as well as the associated blank.

E Concentration of the target analyte exceeds the instrument calibration range.

- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- R Sample results are rejected due to sample preservation with HCl.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

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Reviewed by

Address:       Bar Midge, Tennessee 37831         Contac:       Ms. Leslie Barbour       Report Dat:       March 8, 2005         Project:       Mander Army Airfield LTM       Project:       SAIC05900         Client Sample ID:       BF3562       Project:       SAIC05900         Matrix:       Water       Client Client Date:       I-JAN-05       Client Date:       I-Mark       Mark	Company	: SAIC									
Contact:       Match Ridge, Tennessee 37831       Report Dat:       Match R, 2005         Contact:       Match R, 2001       Project:       Ratch R, 2005       Project:       Project:       Project:       Project:       Project:       Project:       Project:       SAIC05900       Project:       SAIC05900       Project:       SAIC05900       Project:       SAIC05900       Project:       SAIC05900       Project:       SAIC05900       Project:       Project:       SAIC05900       Project:       SAIC05900       Project:       Project:       Project:       SAIC05900       Project:       Proj			ive								
Repert Date: March 8, 2005         Project:       Immer Army Airfield LTM       Page       I       of       2         Client Sample ID:       129001007       Project:       SAIC05900       S       <	/todiciss :			I							
Profect       Hunter Army Airfield LTM       Project       SAIC05900       Client Sample ID:       BF3562       Source State       Project       SAIC05900       Client Sample ID:       SAIC05900       Client Sample ID:       SaiC0 S900								Re	port Date: March	h 8, 2005	
Client Sample ID:       BF3562       Project:       SAIC05900         Matrix:       Water       Client D::       SAIC059         Collect Date:       14 JAN.05 10:20       Receive Date:       Time Batch M         Receive Date:       17 JAN.05       Collector:       Client M         Collector:       Client       Matrix:       Water       Matrix:         Parameter       Qualifier       Result       D       RL       Units       DF       AnalystDate       Time Batch M         emi-volatile Mass spee Organics Federal       2       Starget M       U       ND       0.400       ug/L       1         Schuphabene       ND       0.500       1.00       ug/L       1       RMB       01/20/05       1643 395114       1         2-Methylnaphtabene       ND       0.500       1.00       ug/L       1       Antracene       ND       0.500       1.00       ug/L       1         Acemaphthene       ND       0.500       1.00       ug/L       1       Antracene       ND       0.500       1.00       ug/L       1         Benzo(shi)norathe       ND       0.500       1.00       ug/L       1       Benzo(shi)norathe       ND       0.500	Contact:	Ms. Leslie Barbo	our								
Sample ID: Matrix:         129001007         Client ID: SAIC059"         SAIC059"           Receive Date:         14-JAN-05 10:20 Receive Date:         17-JAN-05           Collecto::         Client         DL         RL         Units         DF         AnalystDate         Time         Batc         M           emi-volatile Mass spec Organics Federal 3510/8270 PAL Extend Itsi Liquid         ND         0.400         1.00         ug/L         1         RMB         01/20/05         1643         395114         1           2-Chloronaphthalene         ND         0.500         1.00         ug/L         1         Accmaphthylene         ND         0.500         1.00         ug/L         1           Accmaphthylene         ND         0.500         1.00         ug/L         1	Project:	Hunter Army A	irfield LTN	4					Page	l of	2
Image: Section of the function of the section of the secting of the secti		Sample ID: Matrix: Collect Date: Receive Date:		129001007 Water 14-JAN-05 10:20 17-JAN-05							
SHORE VERSIEND SUPPORT Strend list Liquid         351/08270 PAH Extend list Liquid       ND       0,400       1,00       ug/L       1       RMB       01/20/05       1643       395114       1         2-Chloronghhhalene       ND       0,500       1.00       ug/L       1       ACCanghthylan	Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time Batch	Metho
2-Chloronaphthalene       ND       0.400       1.00       ug/L       1       RMB 01/20/05 1643 395114       1         2-Methylnaphthalene       ND       0.500       1.00       ug/L       1         Acenaphthene       ND       0.500       1.00       ug/L       1         Acenaphthene       ND       0.500       1.00       ug/L       1         Acenaphthene       ND       0.500       1.00       ug/L       1         Anthracene       ND       0.500       1.00       ug/L       1         Benzo(a)anthracene       ND       0.500       1.00       ug/L       1         Benzo(b)fluoranthene       ND       0.500       1.00       ug/L       1         Benzo(b)fluoranthene       ND       0.500       1.00       ug/L       1         Benzo(b)fluoranthene       ND       0.500       1.00       ug/L       1         Fluoranthe       ND       0.500       1.00       ug/L       1         Indeno(1,2,3-cd)pyrene       ND       0.500       1.00       ug/L       1         Phenanthrene       ND       0.500       1.00       ug/L       1         So358/2608 BTEX in Ligu/J Federal <td< td=""><td>emi-volatile Mass spe</td><td>c Organics Federal</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	emi-volatile Mass spe	c Organics Federal									
2-Chloronaphthalene       ND       0.400       1.00       ug/L       1       RMB 01/20/05 1643 395114       1         2-Methylnaphthalene       ND       0.500       1.00       ug/L       1         Acenaphthene       ND       0.500       1.00       ug/L       1         Acenaphthene       ND       0.500       1.00       ug/L       1         Acenaphthene       ND       0.500       1.00       ug/L       1         Anthracene       ND       0.500       1.00       ug/L       1         Benzo(a)anthracene       ND       0.500       1.00       ug/L       1         Benzo(b)fluranthene       ND       0.500       1.00       ug/L       1         Benzo(b)fluranthene       ND       0.500       1.00       ug/L       1         Benzo(b)fluranthene       ND       0.500       1.00       ug/L       1         Fluoranthene       ND       0.500       1.00       ug/L       1         Indeno(1,2,3-cd)pyrene       ND       0.500       1.00       ug/L       1         Naphthalene       ND       0.500       1.00       ug/L       1         Pyrene       ND       0.500	3510/8270 PAH Exter	nd list Liquid									
2-Methylmaphthalene       ND       0.500       1.00       ug/L       1         Acenaphthene       ND       0.500       1.00       ug/L       1         Acenaphthylene       ND       0.500       1.00       ug/L       1         Anthracene       ND       0.500       1.00       ug/L       1         Benzo(a)pyrene       ND       0.500       1.00       ug/L       1         Benzo(a)pyrene       ND       0.500       1.00       ug/L       1         Benzo(a)pyrene       ND       0.500       1.00       ug/L       1         Benzo(b)fluoranthene       ND       0.500       1.00       ug/L       1         Benzo(b)fluoranthene       ND       0.500       1.00       ug/L       1         Fluoranthene       ND       0.500       1.00       ug/L       1		70	ND	0.	400	1.00	110/1	11	RMR 01/20/05	1643 305114	1
Acenaphthene       ND       0.500       1.00       ug/L       i         Acenaphthylene       ND       0.500       1.00       ug/L       i         Anthracene       ND       0.500       1.00       ug/L       i         Benzo(a)anthracene       ND       0.500       1.00       ug/L       i         Benzo(a)anthracene       ND       0.500       1.00       ug/L       i         Benzo(futuranthene       ND       0.500       1.00       ug/L       i         Benzo(k)fluoranthene       ND       0.500       1.00       ug/L       i         Benzo(k)fluoranthene       ND       0.500       1.00       ug/L       i         Fluoranthene       ND       0.500       1.00       ug/L       i         Fluoranthene       ND       0.500       1.00       ug/L       i         Fluorantene       ND       0.500       1.00       ug/L       i         Indeno(1,2,3-cd)pyrene       ND       0.500       1.00       ug/L       i         Naphtalene       ND       0.500       1.00       ug/L       i         Pyrene       ND       0.500       1.00       ug/L       i </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>· ·</td> <td>i</td> <td>10112 01120/05</td> <td>1045 535114</td> <td>1.4</td>							· ·	i	10112 01120/05	1045 535114	1.4
Accamphthylene       ND       0.500       1.00       ug/L       1         Anthracene       ND       0.500       1.00       ug/L       1         Benzo(a)anthracene       ND       0.500       1.00       ug/L       1         Benzo(a)anthracene       ND       0.500       1.00       ug/L       1         Benzo(a)pyrene       ND       0.500       1.00       ug/L       1         Benzo(a)piperylene       ND       0.500       1.00       ug/L       1         Benzo(k)fluoranthene       ND       0.500       1.00       ug/L       1         Benzo(k)fluoranthene       ND       0.500       1.00       ug/L       1         Fluoranthene       ND       0.500       1.00       ug/L       1         Fluoranthene       ND       0.500       1.00       ug/L       1         Indeno(1,2,3-cd)pyrne       ND       0.500       1.00       ug/L       1         Nphthalene       ND       0.500       1.00       ug/L       1         Pyrene       ND       0.500       1.00       ug/L       1         S035/8260B BTEX in Liquid Federal       Incoug/L       1       GRB2 01/25/05 0321 396607 <td></td> <td></td> <td>ND</td> <td></td> <td></td> <td></td> <td></td> <td>i</td> <td></td> <td></td> <td></td>			ND					i			
Anthracene       ND       0.500       1.00       ug/L       1         Benzo(a)anthracene       ND       0.500       1.00       ug/L       1         Benzo(a)pyrene       ND       0.500       1.00       ug/L       1         Benzo(b)fluoranthene       ND       0.500       1.00       ug/L       1         Benzo(b)fluoranthene       ND       0.500       1.00       ug/L       1         Benzo(b)fluoranthene       ND       0.500       1.00       ug/L       1         Benzo(b,fluoranthene       ND       0.500       1.00       ug/L       1         Pluoranthene       ND       0.500       1.00       ug/L       1         Fluorene       ND       0.500       1.00       ug/L       1         Indeno(1,2,3-cd)pyrene       ND       0.500       1.00       ug/L       1         Phonanthracene       ND       0.500       1.00       ug/L       1         Phonanthracene       ND       0.500       1.00       ug/L       1         Syst8260B BTEX in Lizur       I       Startine Ligur       Startine Ligur       Startine Ligur       1         Entyloenzene       U       ND       0.330	Acenaphthylene		ND	0.	500	1.00	~	i.			
Benzo(a)anthracene       ND       0.500       1.00       ug/L       1         Benzo(a)pyrene       ND       0.500       1.00       ug/L       1         Benzo(b)fluoranthene       ND       0.500       1.00       ug/L       1         Plooranthene       ND       0.500       1.00       ug/L       1         Fluoranthene       ND       0.500       1.00       ug/L       1         Indeno(1,2,3-cd)pyrene       ND       0.500       1.00       ug/L       1         Indeno(1,2,3-cd)pyrene       ND       0.500       1.00       ug/L       1         Pyrene       ND       0.500       1.00       ug/L       1         Volatile Organics Federal       ND       0.500       1.00       ug/L       1         So35/S260B BTEX in Liquid Federal       So35/S260B BTEX in Liquid Federal       I       I       I         Benzene       U       ND       0.330	Anthracene		ND	0.	500	1.00	-	i			
Benzo(a)pyrene       ND       0.500       1.00       ug/L       1         Benzo(b)fluoranthene       ND       0.500       1.00       ug/L       1         Benzo(k)fluoranthene       ND       0.500       1.00       ug/L       1         Benzo(k)fluoranthene       ND       0.500       1.00       ug/L       1         Dibenzo(a,h)anthracene       ND       0.500       1.00       ug/L       1         Fluoranthene       ND       0.500       1.00       ug/L       1         Fluoranthene       ND       0.500       1.00       ug/L       1         Indeno(1,2,3-cd)pyrene       ND       0.500       1.00       ug/L       1         Naphthalene       ND       0.500       1.00       ug/L       1         Pyrene       ND       0.500       1.00       ug/L       1         S035/8260B BTEX in Liquid Federal       5035/8260B BTEX in Liquid Federal       5035/8260B BTEX in Liquid Federal       5035/8260B BTEX in Liquid Federal       1         Benzene       U       ND       0.330       1.00       ug/L       1         Yolatile Organics Federal       U       ND       0.210       1.00       ug/L       1	Benzo(a)anthracene		ND	0.	500	1.00		1			
Benzo(ghi)perylene       ND       0.500       1.00       ug/L       1         Benzo(k)fluoranthene       ND       0.500       1.00       ug/L       1         Dibenzo(a,h)anthracene       ND       0.500       1.00       ug/L       1         Fluoranthene       ND       0.500       1.00       ug/L       1         Fluoranthene       ND       0.500       1.00       ug/L       1         Indeno(1,2,3-cd)pyrene       ND       0.500       1.00       ug/L       1         Naphthalene       ND       0.500       1.00       ug/L       1         Phenanthrene       ND       0.500       1.00       ug/L       1         Pyrene       ND       0.500       1.00       ug/L       1         Valatile Organics Federal       ND       0.500       1.00       ug/L       1         So358260B BTEX in Liquid Federal       ND       0.330       1.00       ug/L       1         Benzene       U       ND       0.330       1.00       ug/L       1         Toluene       U       ND       0.390       1.00       ug/L       1         Xylenes (total)       U       ND       0.390	Benzo(a)pyrene		ND	0.	500	1.00	· · · · · · · · · · · · · · · · · · ·	1			
Benzo(ghi)perylene       ND       0.500       1.00       ug/L       1         Benzo(k)fluoranthene       ND       0.500       1.00       ug/L       1         Dibenzo(a.h)anthracene       ND       0.500       1.00       ug/L       1         Fluoranthene       ND       0.500       1.00       ug/L       1         Fluorene       ND       0.500       1.00       ug/L       1         Indeno(1,2,3-cd)pyrene       ND       0.500       1.00       ug/L       1         Naphthalene       ND       0.500       1.00       ug/L       1         Phenanthrene       ND       0.500       1.00       ug/L       1         Pyrene       ND       0.500       1.00       ug/L       1         So358260B BTEX in Liquid Federal       ND       0.300       1.00       ug/L       1         Benzene       U       ND       0.330       1.00       ug/L       1         So358260B BTEX in Liquid Federal       ND       0.330       1.00       ug/L       1         Toluene       U       ND       0.390       1.00       ug/L       1         Xylenes (total)       U       ND       0.	Benzo(b)fluoranthene		ND	0.	500	1.00	-	1			
Dibenzo(a,h)anthracene         ND         0.500         1.00         ug/L         1           Fluoranthene         ND         0.500         1.00         ug/L         1           Fluorene         ND         0.500         1.00         ug/L         1           Indeno(1,2,3-cd)pyrene         ND         0.500         1.00         ug/L         1           Naphthalene         ND         0.500         1.00         ug/L         1           Phenanthrene         ND         0.500         1.00         ug/L         1           Pyrene         ND         0.500         1.00         ug/L         1           Volatile Organics Federal         ND         0.500         1.00         ug/L         1           S035/8260B BTEX in Liquid Federal         Benzene         U         ND         0.330         1.00         ug/L         1           S035/8260B BTEX in Liquid Federal         Benzene         U         ND         0.330         1.00         ug/L         1           Toluene         U         ND         0.330         1.00         ug/L         1           Xylenes (total)         U         ND         0.390         1.00         ug/L         1     <	Benzo(ghi)perylene		ND	0.	500	1.00		1			
Fluoranthene       ND       0.500       1.00       ug/L       1         Fluorene       ND       0.500       1.00       ug/L       1         Indeno(1,2,3-cd)pyrene       ND       0.500       1.00       ug/L       1         Naphthalene       ND       0.500       1.00       ug/L       1         Naphthalene       ND       0.500       1.00       ug/L       1         Phenanthrene       ND       0.500       1.00       ug/L       1         Pyrene       ND       0.500       1.00       ug/L       1         Volatile Organics Federal       Benzene       U       ND       0.330       1.00       ug/L       1         S035/8260B BTEX in Liquid Federal       Benzene       U       ND       0.330       1.00       ug/L       1         S035/8260B BTEX in Liquid Federal       U       ND       0.330       1.00       ug/L       1         Toluene       U       ND       0.330       1.00       ug/L       1         Xylenes (total)       U       ND       0.250       1.00       ug/L       1         SW846 3510C       3510C BNA Liq. Prep-8270C Analysis Fed       RXM1       01/19/05	Benzo(k)fluoranthene		ND	0.	500	1.00	ug/L	1			
Fluorene       ND       0.500       1.00       ug/L       1         Indeno(1,2,3-cd)pyrene       ND       0.500       1.00       ug/L       1         Naphthalene       ND       0.500       1.00       ug/L       1         Naphthalene       ND       0.500       1.00       ug/L       1         Phenanthrene       ND       0.500       1.00       ug/L       1         Pyrene       ND       0.500       1.00       ug/L       1         S035/8260B BTEX in Liquid Federal       ND       0.330       1.00       ug/L       1         Benzene       U       ND       0.330       1.00       ug/L       1       GRB2 01/25/05 0321 396607       2         Ethylbenzene       U       ND       0.330       1.00       ug/L       1       T         Toluene       U       ND       0.210       1.00       ug/L       1       Xylenes (total)       U       ND       0.250       1.00       ug/L       1         Xylenes (total)       U       ND       0.250       1.00       ug/L       1       1         SW846 3510C       3510C BNA Liq. Prep-8270C Analysis Fed       RXM1       01/19/05	Dibenzo(a,h)anthrace	ne	ND	0.	500	1.00		1			
Indeno(1,2,3-cd)pyrene       ND       0.500       1.00       ug/L       1         Naphthalene       ND       0.110       1.00       ug/L       1         Phenanthrene       ND       0.500       1.00       ug/L       1         Pyrene       ND       0.500       1.00       ug/L       1         Volatile Organics Federal       ND       0.500       1.00       ug/L       1         So35/8260B BTEX in Liquid Federal       State       1       GRB2 01/25/05 0321 396607       2         So35/8260B BTEX in Liquid Federal       ND       0.330       1.00       ug/L       1         Benzene       U       ND       0.210       1.00       ug/L       1         Toluene       U       ND       0.390       1.00       ug/L       1         Yylenes (total)       U       ND       0.250       1.00       ug/L       1         The following Prep Methods       were performed       RXM1       Date       Time       Prep Batch         SW846 3510C       3510C BNA Liq. Prep-8270C Analysis Fed       RXM1       01/19/05       1609       395113         The following Analytical Kethods were performed	Fluoranthene		ND	0.	500	1.00	ug/L	1			
Naphthalene       ND       0.110       1.00       ug/L       1         Phenanthrene       ND       0.500       1.00       ug/L       1         Pyrene       ND       0.500       1.00       ug/L       1         Volatile Organics Federal       ND       0.500       1.00       ug/L       1         5035/8260B BTEX in Liquid Federal       State       ND       0.330       1.00       ug/L       1       GRB2 01/25/05       0321 396607       2         So35/8260B BTEX in Liquid Federal       ND       0.330       1.00       ug/L       1       GRB2 01/25/05       0321 396607       2         Benzene       U       ND       0.210       1.00       ug/L       1       1         Toluene       U       ND       0.390       1.00       ug/L       1       1         Yulenes (total)       U       ND       0.250       1.00       ug/L       1       1         SW846 3510C       3510C BNA Liq. Prep-8270C Analysis Fed       RXM1       01/19/05       1609       395113         SW846 3510C       3510C BNA Liq. Prep-8270C Analysis Fed       RXM1       01/19/05       1609       395113          Description	Fluorene		ND	0.	500	1.00	ug/L	1			
Phenanthrene         ND         0.500         1.00         ug/L         1           Pyrene         ND         0.500         1.00         ug/L         1           Volatile Organics Federal         U         ND         0.330         1.00         ug/L         1           5035/8260B BTEX in Liquid Federal         Benzene         U         ND         0.330         1.00         ug/L         1         GRB2 01/25/05 0321 396607         2           Ethylbenzene         U         ND         0.330         1.00         ug/L         1         GRB2 01/25/05 0321 396607         2           Ethylbenzene         U         ND         0.210         1.00         ug/L         1         1           Toluene         U         ND         0.390         1.00         ug/L         1         1           Xylenes (total)         U         ND         0.250         1.00         ug/L         1           SW846 3510C         3510C BNA Liq. Prep-8270C Analysis Fed         RXM1         01/19/05         1609         395113           The following Analytical Methods were performed         Kethod         Description         Analyst Comments		ne	ND	0.	500	1.00	ug/L	1			
Phenanthrene       ND       0.500       1.00       ug/L       1         Pyrene       ND       0.500       1.00       ug/L       1         Volatile Organics Federal       Image: Comment of the state of			ND	0.	110	1.00	ug/L	1			
Open of the open of			ND	0.	500	1.00	ug/L	1			
5035/8260B BTEX in Liquid Federal         Benzene       U       ND       0.330       1.00       ug/L       1       GRB2       OI/25/05       0321       396607       2         Ethylbenzene       U       ND       0.210       1.00       ug/L       1	Pyrene		ND	0.	500	1.00		1			
Benzene         U         ND         0.330         1.00         ug/L         1         GRB2         01/25/05         0321         396607         2           Ethylbenzene         U         ND         0.210         1.00         ug/L         1	Volatile Organics Fede	eral									
Benzene         U         ND         0.330         1.00         ug/L         1         GRB2         01/25/05         0321         396607         2           Ethylbenzene         U         ND         0.210         1.00         ug/L         1	5035/8260B BTEX in	Liquid Federal									
Ethylbenzene         U         ND         0.210         1.00         ug/L         1           Toluene         U         ND         0.390         1.00         ug/L         1           Xylenes (total)         U         ND         0.250         1.00         ug/L         1           The following Prep Methods were performed         Method         Description         Analyst         Date         Time         Prep Batch           SW846 3510C         3510C BNA Liq. Prep-8270C Analysis Fed         RXM1         01/19/05         1609         395113           The following Analytical Methods were performed         Method         Description         Analyst Comments			ND	0.	330	1.00	110/1	1	GRB2 01/25/05	0321 306607	2
Toluene Xylenes (total)UND0.3901.00ug/L1The following Prep Methods were performedMethodDescriptionAnalystDateTimePrep BatchSW846 3510C3510C BNA Liq. Prep-8270C Analysis FedRXM101/19/051609395113The following Analytical Methods were performedMethodDescriptionAnalyst Comments	Ethylbenzene							ĩ	0102 01125/05	0521 570007	4
Xylenes (total)UND0.2501.00ug/L1The following Prep Methods were performedMethodDescriptionAnalystDateTimePrep BatchSW846 3510C3510C BNA Liq. Prep-8270C Analysis FedRXM101/19/051609395113The following Analytical Methods were performedMethodDescriptionAnalyst Comments	Toluene	U	ND					î			
MethodDescriptionAnalystDateTimePrep BatchSW846 3510C3510C BNA Liq. Prep-8270C Analysis FedRXM101/19/051609395113The following Analytical Methods were performedMethodAnalyst Comments	Xylenes (total)	U	ND					î.			
MethodDescriptionAnalystDateTimePrep BatchSW846 3510C3510C BNA Liq. Prep-8270C Analysis FedRXM101/19/051609395113The following Analytical Methods were performedMethodAnalyst Comments	The following Prep M	lethods were perfor	med								
SW846 3510C     3510C BNA Liq. Prep-8270C Analysis Fed     RXM1     01/19/05     1609     395113       The following Analytical Methods were performed     Description     Analyst Comments	THE OWNERS AND A REAL PROPERTY	and a stand of the				Analyst	Date	Time	Prep Batch		
The following Analytical Methods were performed Method Description Analyst Comments	SW846 3510C	3510C BNA L	a Prep 827	0C Analysis Ead							
Method Description Analyst Comments	511040 55100	5510C DIVA L	iq. 11cp-627	oc Analysis reu		KAMI	01/19/05	1609	395113		
A CARLEN AND A CARLENA	and particular in the property of the second s	and all a second off and a second of a provident of the	performed								
I SW846 8270C	Method	Description				Α	analyst Comm	ents			
		SW846 8270C									
2 SW846 8260B	2	SW846 8260B									
Surrogate/Tracer recovery Test Recovery% Acceptable Limits	Surrogate/Tracer reco	overy Test					Recovery%	Accep	table Limits		
2-Fluorobiphenyl 3510/8270 PAH Extend list Liquid 70 (37%-97%)	2-Fluorobiphenvl	3510/827	0 PAH Exte	nd list Liquid							

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#### **Certificate of Analysis**

Company : SAIC Address : 151 Lafayette Drive Oak Ridge, Tennessee 37831 Contact: Ms. Leslie Barbour

Project: Hunter Army Airfield LTM

Report Date: March 8, 2005

Page 2 of 2

	Client Sample Sample ID:	ID: BF3562 12900100	07		Proj	ect: nt ID:	SAIC05900 SAIC059			
Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Nitrobenzene-d5	3510/827	0 PAH Extend list Lie	quid		62	(4	3%-101%)			
p-Terphenyl-d14	3510/827	0 PAH Extend list Lie	quid		89	(4	9%-126%)			
Bromofluorobenzene	5035/826	OB BTEX in Liquid F	Federal		109	(7	6%-115%)			
Dibromofluoromethane	5035/826	OB BTEX in Liquid F	rederal		101	(7	2%-136%)			
Toluene-d8	5035/826	OB BTEX in Liquid F	ederal		109	(8	0%-116%)			

Notes:

The Qualifiers in this report are defined as follows :

\* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

\*\* Indicates the analyte is a surrogate compound.

B Target analyte was detected in the sample as well as the associated blank.

E Concentration of the target analyte exceeds the instrument calibration range.

H Analytical holding time exceeded.

J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.

P The response between the confirmation column and the primary column is >40%D.

R Sample results are rejected due to sample preservation with HCl.

U Indicates the target analyte was analyzed for but not detected above the detection limit.

X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.

Y QC Samples were not spiked with this compound.

h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

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Company :	SAIC								
Address :	151 Lafayette Dri	ve							
	Oak Ridge, Tenne	ssee 378	31						
Contact:	Ms. Leslie Barbou	II'				R	eport Date: Mar	ch 8, 2005	
Project:	Hunter Army Ai	field 1 T	'M				Pas	te l of	3
Toject	Hunter Army Ar	THEID L.I	M				1 42	C 1 01	2
	Client Sample I Sample ID: Matrix: Collect Date: Receive Date: Collector:	D:	BF3662 129001006 Water 14-JAN-05 11:20 17-JAN-05 Client		Pro Clie	iect: ent ID:	SAIC05900 SAIC059		
Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time Batch	Method
Semi-volatile Mass spec	Organics Federal								
3510/8270 PAH Extend	l list Liquid								
2-Chloronaphthalene		ND	0.404	1.01	ug/L	1	RMB 01/20/0:	5 1624 395114	1
2-Methylnaphthalene		ND	0.505	1.01	ug/L	1			5 161
Acenaphthene		ND	0.505	1.01	ug/L	1			
Acenaphthylene		ND	0.505	1.01	ug/L	1			
Anthracene		ND	0.505	1.01	ug/L	í			
Benzo(a)anthracene		ND	0.505	1.01	ug/L	î			
Benzo(a)pyrene		ND	0.505	1.01	ug/L	1			
Benzo(b)fluoranthene		ND	0.505	1.01	ug/L	1			
Benzo(ghi)perylene		ND	0.505	1.01		1			
Benzo(k)fluoranthene		ND	0.505	1.01	ug/L	-			
Dibenzo(a,h)anthracene	0	ND	0.505	1.01	ug/L				
Fluoranthene		ND	0.505	1.01	ug/L	1			
Fluorene					ug/L	1			
		ND	0.505	1.01	ug/L	1			
Indeno(1,2,3-cd)pyrene		ND	0.505	1.01	ug/L	1			
Naphthalene		ND	0.111	1.01	ug/L	1			
Phenanthrene		ND	0.505	1.01	ug/1.	1			
Pyrene		ND	0.505	1.01	ug/L	1			
2-Chloronaphthalene	Uh	ND	0.404	1.01	ug/L	1	RMB 01/25/05	5 1115 396095	2
2-Methylnaphthalene	Uh	ND	0.505	1.01	ug/L	1			
Acenaphthene	Uh	ND	0.505	1.01	ug/L	1			
Acenaphthylene	Uh	ND	0.505	1.01	ug/L	1			
Anthracene	Uh	ND	0.505	1.01	ug/L	1			
Benzo(a)anthracene	Uh	ND	0.505	1.01	ug/L	1			
Benzo(a)pyrene	Uh	ND	0.505	1.01	ug/L	1			
Benzo(b)fluoranthene	Uh	ND	0.505	1.01	ug/L	1			
Benzo(ghi)perylene	Uh	ND	0.505	1.01	ug/L	1			
Benzo(k)fluoranthene	Uh	ND	0.505	1.01	ug/L	1			
Dibenzo(a,h)anthracene	e Uh	ND	0.505	1.01	ug/L	1			
Fluoranthene	Uh	ND	0.505	1.01	ug/L	a			
Fluorene	Uh	ND	0.505	1.01	ug/L	i			
Indeno(1,2,3-cd)pyrene		ND	0.505	1.01	ug/L	i			
Naphthalene	Uh	ND	0.111	1.01	ug/L	1			
Phenanthrene	Uh	ND	0.505	1.01	ug/L	1			
Pyrene	Uh	ND	0.505	1.01	ug/L	i			
Volatile Organics Feder			0.000	1.01	ug/L	1			
5035/8260B BTEX in L									
Benzene	U	ND	0.220	1.00			CDD2 6LOS	0050 0000-	
Ethylbenzene	U		0.330	1.00	ug/L	1	GRB2 01/25/03	0253 396607	3
canyiocuzene	U	ND	0.210	1.00	ug/L	1			

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### **Certificate of Analysis**

A		151 Lafayette Dr Oak Ridge, Tenn		331								
C	ontact:	Ms. Leslie Barbo	ALLE.					Ro	eport Date: Mar	ch 8, 20	)05	
		Hunter Army A		ſM					Pag	ge 2	of	3
		Client Sample Sample ID:	ID:	BF3662 129001006				iect: nt ID:	SAIC05900 SAIC059			
Parameter		Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Metho
Volatile Organ	ics Federal							0.000			Dutth	memo
5035/8260B B												
Toluene		U	ND		0.390	1.00	ug/L	1				
Xylenes (total	1)	U	ND		0.250	1.00	ug/L	î.				
The following	Prep Meth	nods were perfor	med									
Method		Description				Analyst	Date	Time	Prep Batch			
SW846 3510C		3510C BNA Li	q. Prep-82	270C Analysis Fed	1	NSM	01/24/05	1000	396094			
SW846 3510C				270C Analysis Fee		RXMI	01/19/05	1609				
The following	Analytical	Methods were p	farma									
Method	Analytical	Description	bertormee				Analyst Comm	ents				
1		SW846 8270C										
2		SW846 8270C										
3		SW846 8260B										
Surrogate/Trac	cer recover	y Test					Recovery%	Accep	ptable Limits			
2-Fluorobiphen	yl	3510/827	0 PAH Ex	tend list Liquid			43	(3	7%-97%)			
Nitrobenzene-d	5	3510/827	0 PAH Ex	tend list Liquid			37 *		3%-101%)			
p-Terphenyl-d1	4	3510/827	0 PAH Ex	tend list Liquid			57	(49	9%-126%)			
2-Fluorobiphen	yl	3510/827	0 PAH Ex	tend list Liquid			78	(3	7%-97%)			
Nitrobenzene-d	5	3510/827	0 PAH Ex	tend list Liquid			77	(43	3%-101%)			
p-Terphenyl-d1		3510/827	0 PAH Ex	tend list Liquid			64	(49	9%-126%)			
Bromofluorober	nzene	5035/826	OB BTEX	in Liquid Federal			108	(70	5%-115%)			
Dibromofluoror	methane	5035/826	OB BTEX	in Liquid Federal			101	(72	2%-136%)			
Toluene-d8		5035/826	0B BTEX	in Liquid Federal			111	(80	0%-116%)			
Notes: The Qualific	ers in this	report are define	ed as foll	ows :								
						iad accord						
		te is a surrogate		ery is outside of	specif	ied acceptai	nce criteria.					
maneutes				nd. s well as the ass	opiotod	blank						
E Concentr	ation of th	e target analyte	exceeds	the instrument c	alibrati	on range						
H Analytic	al holding	time exceeded.	enceus	the institution of c	anorati	on range.						
	an estimat											

P The response between the confirmation column and the primary column is >40%D.

R Sample results are rejected due to sample preservation with HCl.

U Indicates the target analyte was analyzed for but not detected above the detection limit.
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Parameter	Qualifier Res	ult	DL	RL	Units	DF	AnalystDa	ite [	Гime	Batch	Method
	Client Sample ID: Sample ID:	BF3662 129001006			Proje Clien	ect: at ID:	SAIC0590 SAIC059	0			
Project:	Hunter Army Airfield	LTM						Page	3	of	3
Contact:	Ms. Leslie Barbour					R	eport Date:	March	8, 20	05	
	Oak Ridge, Tennessee 3	37831					_				
Address :	151 Lafayette Drive										
Company :	SAIC										

X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.

Y QC Samples were not spiked with this compound.

h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

21 un

Reviewed by

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Address :									
	151 Lafayette Dr	ive							
	Oak Ridge, Tenn	essee 378	31						
Contact:	Ms. Leslie Barbo	ur					Re	port Date: March 8, 2005	
Project:	Hunter Army A		м					Page 1 of	2
	Client Sample Sample ID: Matrix: Collect Date: Receive Date: Collector:	ID:	BF3762 129001008 Water 14-JAN-05 11:00 17-JAN-05 Client			Proj Clier		SAIC05900 SAIC059	
Parameter	Qualifier	Result	1	DL	RL	Units	DF	AnalystDate Time Batch	Metho
emi-volatile Mass spec	Organics Federal								
3510/8270 PAH Extend	list Liquid								
2-Chloronaphthalene	ē.	ND	0.4	04	1.01	ug/L	1	RMB 01/20/05 1703 395114	1
2-Methylnaphthalene		ND	0.5		1.01	ug/L	i	Child 0020/05 1705 555114	•
Acenaphthene		ND	0.5		1.01	ug/L	1		
Accnaphthylene		ND	0.5		1.01	ug/L	1		
Anthracene		ND	0.5		1.01	ug/L	1		
Benzo(a)anthracene		ND	0.5		1.01	ug/L	1		
Benzo(a)pyrene		ND	0.5		1.01	ug/L	1		
Benzo(b)fluoranthene		ND	0.5		1.01	ug/L			
Benzo(ghi)perylene		ND	0.5		1.01	1	1		
Benzo(k)fluoranthene		ND	0.5		1.01	ug/L			
Dibenzo(a,h)anthracene	0	ND	0.5		1.01	ug/L	1		
Fluoranthene		ND	0.5			ug/L			
Fluorene		ND			1.01	ug/L.	1		
Indeno(1,2,3-cd)pyrene			0.5		1.01	ug/L	1		
Naphthalene		ND	0.5		1.01	ug/L	1		
Phenanthrene		ND	0.1		1.01	ug/L	1		
		ND	0.5		1.01	ug/L	1		
Pyrene		ND	0.5	05	1.01	ug/L	1		
olatile Organics Feder									
5035/8260B BTEX in L	13.6								
Benzene	U	ND	0.3		1.00	ug/L	1	GRB2 01/25/05 0349 396607	2
Ethylbenzene	U	ND	0.2	210	1.00	ug/L	1		
Toluene	U	ND	0.3		1.00	ug/L	1		
Xylenes (total)	U	ND	0.2	250	1.00	ug/L	1		
The following Prep Me	thods were perfor	med							
Method	Description			1	Analyst	Date	Time	Prep Batch	
W846 3510C	3510C BNA Li	q. Prep-82	70C Analysis Fed	1	RXMI	01/19/05	1609	395113	
The following Analytic:	al Methods wara r	erformed							
Method	Description	errormeu			1	Analyst Comm	ents		
	SW846 8270C								
2	SW846 8260B								
urrogate/Tracer recove	ery Test					Recovery%	Accep	table Limits	
-Fluorobiphenyl		DALLE	end list Liquid			77		1%-97%)	

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## **Certificate of Analysis**

Company : SAIC Address : 151 Lafayette Drive Oak Ridge, Tennessee 37831 Contact: Ms. Leslie Barbour

Project: Hunter Army Airfield LTM

Report Date: March 8, 2005

Page 2 of 2

	Client Sample Sample ID:	ID: BF3762 12900100	08		Proi	ect: nt ID:	SAIC05900 SAIC059			
Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Nitrobenzene-d5	3510/827	0 PAH Extend list Lic	juid		68	(4	3%-101%)			
p-Terphenyl-d14		0 PAH Extend list Lic			90	65.5	9%-126%)			
Bromofluorobenzene	5035/826	0B BTEX in Liquid F	ederal		107	200	6%-115%)			
Dibromofluoromethane	5035/826	0B BTEX in Liquid F	ederal		100	(7	2%-136%)			
Toluene-d8	5035/826	0B BTEX in Liquid F	ederal		110	(8	0%-116%)			

Notes:

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\*\* Indicates the analyte is a surrogate compound.

B Target analyte was detected in the sample as well as the associated blank.

E Concentration of the target analyte exceeds the instrument calibration range.

H Analytical holding time exceeded.

J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.

P The response between the confirmation column and the primary column is >40%D.

R Sample results are rejected due to sample preservation with HCI.

U Indicates the target analyte was analyzed for but not detected above the detection limit.

X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.

Y QC Samples were not spiked with this compound.

h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

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# GENERAL ENGINEERING LABORATORIES, LLC 2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Company	: SAIC									
Address :	151 Lafayette Dri	ve								
	Oak Ridge, Tenno	essee 378	331							
6	N. L. P. D. I						Re	port Date: March 8, 2	2005	
Contact:	Ms. Leslie Barbo									
Project:	Hunter Army Ai	rfield L1	M					Page	of	2
	Client Sample I Sample ID: Matrix: Collect Date: Receive Date: Collector:	D:	BFE162 129001009 Water 13-JAN-05 14:20 17-JAN-05 Clinet			Proi Clie		SAIC05900 SAIC059		
Parameter	Qualifier	Result	Client	DL	RL	Unite	DE	A		
emi-volatile Mass spe	A	resur			KL	Units	DF	AnalystDate Tim	e Batch	Metho
3510/8270 PAH Exten										
2-Chloronaphthalene	a usi Liquia	ND	0./	00	1.00		121	DMD OLIDOWS 170		
2-MethyInaphthalene		ND		500	1.00	ug/L	1	RMB 01/20/05 1723	3 395114	1
Acenaphthene		1.63		500	1.00	ug/L	1			
Acenaphthylene		ND		500	1.00	ug/L				
Anthracene		ND		500	1.00	ug/L	1			
Benzo(a)anthracene		ND	0.5		1.00	ug/L	4			
Benzo(a)pyrene		ND				ug/L	1			
Benzo(b)fluoranthene		ND	0.5		1.00	ug/L	1			
Benzo(ghi)perylene				500	1.00	ug/L	1			
Benzo(k)fluoranthene		ND		600	1.00	ug/L	1			
		ND	0.5		1.00	ug/L	1			
Dibenzo(a,h)anthracer	1C g	ND	0.5		1.00	ug/L	1			
Fluoranthene		ND	0.5		1.00	ug/L	1			
Fluorene		3.14		500	1.00	ug/L	1			
Indeno(1,2,3-cd)pyren	e	ND		500	1.00	ug/L	1			
Naphthalene		ND	0.1		1.00	ug/L	1			
Phenanthrene		1.24	0.5		1.00	ug/L	1			
Pyrene	2	ND	0.5	500	1.00	ug/L	1			
olatile Organics Fede	ral									
5035/8260B BTEX in (	Liquid Federal									
Benzene	U	ND	0.3	30	1.00	ug/L	1	GRB2 01/25/05 0417	396607	2
Ethylbenzene	U	ND	0.2	210	1.00	ug/L	1			
Toluene	U	ND	0.3	90	1.00	ug/L	1			
Xylenes (total)	U	ND	0.2	250	1.00	ug/L	1			
The following Prep M	ethods were perform	ned								
Method	Description			A	nalyst	Date	Time	Prep Batch		
SW846 3510C	3510C BNA Lic	q. Prep-82	70C Analysis Fed	R	XMI	01/19/05	1609	395113		
The following Analyti	ool Mothed		r.							
Method	Description	erformed				Analyst Commo	ents			
	SW846 8270C									
2	SW846 8260B									
Surrogate/Tracer reco	verv Test					Recovery%	Accen	table Limits		
		Dille								
2-Fluorobiphenyl	3510/8270	PAHEX	tend list Liquid			82	(37	7%-97%)		

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### **Certificate of Analysis**

Company : SAIC Address : 151 Lafayette Drive Oak Ridge, Tennessee 37831 Contact: Ms. Leslie Barbour

Project: Hunter Army Airfield LTM

Report Date: March 8, 2005

Page 2 of 2

Client Sample Sample ID:						SAIC05900 SAIC059			
Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
3510/827	0 PAH Extend list 1	iquid		76	(4	3%-101%)			
3510/827	0 PAH Extend list L	iquid		82	(4	9%-126%)			
5035/826	0B BTEX in Liquid	Federal		106	(7	6%-115%)			
5035/826	OB BTEX in Liquid	Federal		99	(7	2%-136%)			
5035/826	0B BTEX in Liquid	Federal		112	(8	0%-116%)			
	Sample ID: Qualifier 3510/827 3510/827 5035/826 5035/826	Sample ID: 129001 Qualifier Result 3510/8270 PAH Extend list L 3510/8270 PAH Extend list L 5035/8260B BTEX in Liquid 5035/8260B BTEX in Liquid	Sample ID: 129001009	Sample ID:     129001009       Qualifier     Result     DL     RL       3510/8270 PAH Extend list Liquid     3510/8270 PAH Extend list Liquid     5035/8260B BTEX in Liquid Federal       5035/8260B BTEX in Liquid Federal     5035/8260B BTEX in Liquid Federal	Sample ID:129001009ClieQualifierResultDLRLUnits3510/8270PAH Extend list Liquid763510/8270PAH Extend list Liquid825035/8260BBTEX in Liquid Federal1065035/8260BBTEX in Liquid Federal99	Sample ID:129001009Client ID:QualifierResultDLRLUnitsDF3510/8270 PAH Extend list Liquid76(43510/8270 PAH Extend list Liquid82(45035/8260B BTEX in Liquid Federal106(7)5035/8260B BTEX in Liquid Federal99(7)	Sample ID:         129001009         Client ID:         SAIC059           Qualifier         Result         DL         RL         Units         DF         AnalystDate           3510/8270 PAH Extend list Liquid         76         (43%-101%)         3510/8270 PAH Extend list Liquid         82         (49%-126%)           5035/8260B BTEX in Liquid Federal         106         (76%-115%)         5035/8260B BTEX in Liquid Federal         99         (72%-136%)	Sample ID:         129001009         Client ID:         SAIC059           Qualifier         Result         DL         RL         Units         DF         AnalystDate         Time           3510/8270 PAH Extend list Liquid         76         (43%-101%)         3510/8270 PAH Extend list Liquid         82         (49%-126%)           5035/8260B BTEX in Liquid Federal         106         (76%-115%)         5035/8260B BTEX in Liquid Federal         99         (72%-136%)	Sample ID:         129001009         Client ID:         SAIC059           Qualifier         Result         DL         RL         Units         DF         AnalystDate         Time         Batch           3510/8270 PAH Extend list Liquid         76         (43%-101%)         3510/8270 PAH Extend list Liquid         82         (49%-126%)         5035/8260B BTEX in Liquid Federal         106         (76%-115%)         5035/8260B BTEX in Liquid Federal         99         (72%-136%)

Notes:

The Qualifiers in this report are defined as follows :

\* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

\*\* Indicates the analyte is a surrogate compound.

B Target analyte was detected in the sample as well as the associated blank.

E Concentration of the target analyte exceeds the instrument calibration range.

H Analytical holding time exceeded.

J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.

P The response between the confirmation column and the primary column is >40%D.

R Sample results are rejected due to sample preservation with HCl.

U Indicates the target analyte was analyzed for but not detected above the detection limit.

X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.

Y QC Samples were not spiked with this compound.

h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

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Company :											
Address :	151 Lafayette Dr Oak Ridge, Tenn		31								
	Oak Kluge, Tellin	CSSCC 576	51				Re	port Date: Ma	ch 8, 20	05	
Contact:	Ms. Leslie Barbo	ur						port blue. Thu	ch 0, 20		
Project:	Hunter Army A	irfield LT	'M					Pa	ge I	of	2
	Client Sample Sample ID: Matrix: Collect Date: Receive Date: Collector:	ID:	BFE262 129001002 Water 13-JAN-05 15:05 17-JAN-05 Client					SAIC05900 SAIC059			
Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Metho
Semi-volatile Mass spec	Organics Federal										
3510/8270 PAH Extend	list Liquid										
2-Chloronaphthalene		ND	0.3	396	0.990	ug/1.	1	RMB 01/20/0	5 1505	395114	1
2-Methylnaphthalene		ND		495	0.990	ug/L	1				
Acenaphthene		ND	0.4	495	0.990	ug/L	1				
Acenaphthylene		ND	0.4	495	0.990	ug/L	1				
Anthracene		ND	0.4	495	0.990	ug/L	1				
Benzo(a)anthracene		ND	0.4	495	0.990	ug/L	1				
Benzo(a)pyrene		ND	0.4	495	0.990	ug/L	1				
Benzo(b)fluoranthene		ND	0.4	495	0.990	ug/L	1				
Benzo(ghi)perylene		ND	0.4	495	0.990	ug/L	1				
Benzo(k)fluoranthene		ND	0.4	495	0.990	ug/L	1				
Dibenzo(a,h)anthracene		ND	0.4	495	0.990	ug/L	1				
Fluoranthene		ND	0.4	495	0.990	ug/L	1				
Fluorene		ND	0.4	495	0.990	ug/L	ĩ				
Indeno(1,2,3-cd)pyrene		ND	0.4	495	0.990	ug/L	- î				
Naphthalene		ND		109	0.990	ug/L	î				
Phenanthrene		ND		495	0.990	ug/L	i				
Pyrene		ND		495	0.990	ug/L	î				
Volatile Organics Federa	al					-6-5	÷.				
5035/8260B BTEX in Li											
Benzene	U	ND	0.1	330	1.00			CDD2 01/25/0	- 0102	20//07	
Ethylbenzene	U	ND				ug/L		GRB2 01/25/0	5 0103	396607	2
Toluene	Ŭ	ND		210 390	1.00	ug/L	1				
Xylenes (total)	Ŭ	ND		250	1.00	ug/L ug/L	1				
						L					
The following Prep Met	the second second of the second se	med									
Method	Description				Analyst	Date	Time	Prep Batch			
SW846 3510C	3510C BNA Li	q. Prep-82	70C Analysis Fed		RXM1	01/19/05	1609	395113			
The following Analytica	the section of the se	erformed									
Method	Description					Analyst Comn	nents				
1	SW846 8270C										
2	SW846 8260B										
Surrogate/Tracer recove	ry Test					Recovery%	Accep	table Limits			
2-Fluorobiphenyl	3510/8270	PAH Ex	tend list Liquid			76	(37	7%-97%)			

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#### **Certificate of Analysis**

 Company :
 SAIC

 Address :
 151 Lafayette Drive

 Oak Ridge, Tennessee 37831

 Contact:
 Ms. Leslie Barbour

 Project:
 Hunter Army Airfield LTM

Report Date: March 8, 2005

Page 2 of 2

Client Sample Sample ID:		02				SAIC05900 SAIC059			
Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
3510/827	0 PAH Extend list Li	quid		69	(4	3%-101%)			
3510/827	0 PAH Extend list Li	quid		83	(4	9%-126%)			
5035/826	0B BTEX in Liquid	Federal		107					
5035/826	OB BTEX in Liquid	Federal		98					
5035/826	0B BTEX in Liquid	Federal		111					
	Sample ID: Qualifier 3510/827 3510/827 5035/826 5035/826	Qualifier Result 3510/8270 PAH Extend list Li 3510/8270 PAH Extend list Li 5035/8260B BTEX in Liquid 1 5035/8260B BTEX in Liquid 1	Sample ID: 129001002	Sample ID:     129001002       Qualifier     Result     DL     RL       3510/8270 PAH Extend list Liquid     3510/8270 PAH Extend list Liquid     5035/8260B BTEX in Liquid Federal       5035/8260B BTEX in Liquid Federal     5035/8260B BTEX in Liquid Federal	Sample ID:129001002ClicQualifierResultDLRLUnits3510/8270 PAH Extend list Liquid693510/8270 PAH Extend list Liquid835035/8260B BTEX in Liquid Federal1075035/8260B BTEX in Liquid Federal98	Sample ID:129001002Client ID:QualifierResultDLRLUnitsDF3510/8270 PAH Extend list Liquid69(43510/8270 PAH Extend list Liquid83(45035/8260B BTEX in Liquid Federal107(75035/8260B BTEX in Liquid Federal98(7	Sample ID:         129001002         Client ID:         SAIC059           Qualifier         Result         DL         RL         Units         DF         AnalystDate           3510/8270 PAH Extend list Liquid         69         (43%-101%)         3510/8270 PAH Extend list Liquid         83         (49%-126%)           3510/8270 PAH Extend list Liquid Federal         107         (76%-115%)         5035/8260B BTEX in Liquid Federal         98         (72%-136%)	Sample ID:         129001002         Client ID:         SAIC059           Qualifier         Result         DL         RL         Units         DF         AnalystDate         Time           3510/8270 PAH Extend list Liquid         69         (43%-101%)         3510/8270 PAH Extend list Liquid         83         (49%-126%)           5035/8260B BTEX in Liquid Federal         107         (76%-115%)         5035/8260B BTEX in Liquid Federal         98         (72%-136%)	Sample ID:         129001002         Client ID:         SAIC059           Qualifier         Result         DL         RL         Units         DF         AnalystDate         Time         Batch           3510/8270 PAH Extend list Liquid         69         (43%-101%)         3510/8270 PAH Extend list Liquid         83         (49%-126%)         5035/8260B BTEX in Liquid Federal         107         (76%-115%)         5035/8260B BTEX in Liquid Federal         98         (72%-136%)

Notes:

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\*\* Indicates the analyte is a surrogate compound.

B Target analyte was detected in the sample as well as the associated blank.

E Concentration of the target analyte exceeds the instrument calibration range.

- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- R Sample results are rejected due to sample preservation with HCI.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

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Company :	SAIC									
Address :	151 Lafayette Dr	ive								
110010351	Oak Ridge, Tenn		31							
						Re	port Date: Ma	rch 8, 200	5	
Contact:	Ms. Leslie Barbo	our								
Project:	Hunter Army A	irfield LT	'M				Pa	ge l	of	2
	Client Sample Sample ID: Matrix: Collect Date: Receive Date: Collector:	ID:	BFE264 129001004 Water 13-JAN-05 15:05 17-JAN-05 Client		Proi Clie		SAIC05900 SAIC059			
Parameter	Qualifier	Result		RL	Units	DF	AnalystDate	Time 1	Batch	Metho
emi-volatile Mass spec (	<b>Organics</b> Federal	1								
3510/8270 PAH Extend	list Liquid									
2-Chloronaphthalene	<i>*</i>	ND	0.400	1.00	ug/L	1	RMB 01/20/0	5 1544 30	5114	1
2-Methylnaphthalene		ND	0.500		ug/L	1	10112 01720/0	5 1544 55	5114	4
Acenaphthene		ND	0.500		ug/L	1				
Acenaphthylene		ND	0.500		ug/L	1				
Anthracene		ND	0.500		ug/L	1				
Benzo(a)anthracene		ND	0.500		ug/L	1				
Benzo(a)pyrene		ND	0.500			1				
Benzo(b)fluoranthene		ND	0.500		ug/L	1				
Benzo(ghi)perylene		ND	0.500		ug/L	1				
Benzo(k)fluoranthene		ND	0.500		ug/L	4				
Dibenzo(a,h)anthracene		ND	0.500	3	ug/L	1				
Fluoranthene		ND	0.500	1	ug/L	1				
Fluorene		ND			ug/L	1				
Indeno(1,2,3-cd)pyrene		ND	0.500		ug/L	1				
Naphthalene		ND			ug/L	1				
Phenanthrene		ND	0.110		ug/L	1				
Pyrene			0.500	1 State 1	ug/L	1				
		ND	0.500	) 1.00	ug/L	1				
olatile Organics Federa										
5035/8260B BTEX in Lie										
Benzene	U	ND	0.330		ug/L	1	GRB2 01/25/0	5 0158 39	6607	2
Ethylbenzene	U	ND	0.210		ug/L	1				
Toluene	U	ND	0.390	) 1.00	ug/L	1				
Xylenes (total)	U	ND	0.250	) 1.00	ug/L	1				
The following Prep Met	hods were perfor	med								
Method	Description			Analyst	Date	Time	Prep Batch	1		
SW846 3510C	3510C BNA L	iq. Prep-82	70C Analysis Fed	RXM1	01/19/05	1609	395113			
The following Analytica	l Methods were j	performed	E.							
Method	Description				Analyst Comm	ients				
	SW846 8270C									
2	SW846 8260B									
urrogate/Tracer recover	ry Test				Recovery%	Accep	table Limits			
-Fluorobiphenyl	3510/827				and the second states of the second states and					

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### **Certificate of Analysis**

Company : SAIC Address : 151 Lafayette Drive Oak Ridge, Tennessee 37831

Contact: Ms. Leslie Barbour Project: Hunter Army Airfield LTM Report Date: March 8, 2005

Page 2 of 2

	Client Sample Sample ID:	ID: BFE264 129001004	1		Proj	ect: nt ID:	SAIC05900 SAIC059			
Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Nitrobenzene-d5	3510/827	0 PAH Extend list Liqu	uid		69	(4	3%-101%)			
p-Terphenyl-d14	3510/827	0 PAH Extend list Liqu	uid		92		9%-126%)			
Bromofluorobenzene	5035/826	OB BTEX in Liquid Fe	deral		105	(7	6%-115%)			
Dibromofluoromethane	5035/826	OB BTEX in Liquid Fe	deral		97	(7	2%-136%)			
Toluene-d8	5035/826	OB BTEX in Liquid Fe	deral		111		0%-116%)			

Notes:

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B Target analyte was detected in the sample as well as the associated blank.

E Concentration of the target analyte exceeds the instrument calibration range.

H Analytical holding time exceeded.

J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.

P The response between the confirmation column and the primary column is >40%D.

R Sample results are rejected due to sample preservation with HCl.

U Indicates the target analyte was analyzed for but not detected above the detection limit.

X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.

Y QC Samples were not spiked with this compound.

h Sample preparation or preservation holding time exceeded.

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# GENERAL ENGINEERING LABORATORIES, LLC 2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Company :	SAIC								
Address :	151 Lafayette Dr	ive							
	Oak Ridge, Tenn	essee 378	31						
Contact:	Ms. Leslie Barbo	nr :				Rej	port Date: March 8, 1	2005	
Project:	Hunter Army A		M				Page	of	2
	Client Sample Sample ID: Matrix: Collect Date: Receive Date: Collector:	ID:	BFE362 129001005 Water 13-JAN-05 15:50 17-JAN-05 Client		Proje Clier		SAIC05900 SAIC059		
Parameter	Qualifier	Result	DI	L RL	Units	DF	AnalystDate Tim	e Batch	Method
Semi-volatile Mass spec	<b>Organics</b> Federal								
3510/8270 PAH Extend	list Liquid								
2-Chloronaphthalene		ND	0.40	0 1.00	ug/L	1	RMB 01/20/05 160	4 395114	1
2-Methylnaphthalene		1.38	0.50		ug/L	Î.			
Acenaphthene		ND	0.50		ug/L	î			
Acenaphthylene		ND	0.50		ug/L	i			
Anthracene		ND	0.50		ug/L	i			
Benzo(a)anthracene		ND	0.50		ug/L	i i			
Benzo(a)pyrene		ND	0.50		ug/L	î			
Benzo(b)fluoranthene		ND	0.50		ug/L	i i			
Benzo(ghi)perylene		ND	0.50		ug/L	i i			
Benzo(k)fluoranthene		ND	0.50		ug/L	÷.			
Dibenzo(a,h)anthracene		ND	0.50		ug/L	1			
Fluoranthene		ND	0.50		-	1			
Fluorene		ND	0.50		ug/L	1			
Indeno(1,2,3-cd)pyrene					ug/L	1			
Naphthalene		ND 0.212	0.50		ug/L	1			
Phenanthrene		0.313	0.11		ug/L				
		ND	0.50		ug/L	1			
Pyrene		ND	0.50	0 1.00	ug/L	1			
Volatile Organics Federa									
5035/8260B BTEX in Li	quid Federal								
Benzene	U	ND	0.33	0 1.00	ug/L	1	GRB2 01/25/05 022	6 396607	2
Ethylbenzene	U	ND	0.21	0 1.00	ug/L	1			
Toluene	U	ND	0.39	0 1.00	ug/L	1			
Xylenes (total)	U	ND	0.25	0 1.00	ug/L	1			
The following Prep Met	thods were perfor	med							
Method	Description			Analyst	Date	Time	Prep Batch		
SW846 3510C	3510C BNA L	a. Prep-82	270C Analysis Fed	RXM1	01/19/05	1609	States Read and the second		
		-				1007			
The following Analytica Method	al Methods were p Description	performed	I		Analyst Comm	ents			
1	SW846 8270C								
2	SW846 8260B								
Surrogate/Tracer recove	ery Test				Recovery%	Accep	otable Limits		
2-Fluorobiphenyl		0 PAH E	tend list Liquid		57	1 	7%-97%)		
- indered pricity i	5010/02/	VI AII LA	aona nat Erquiu		.14	(3	170-9170)		

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#### **Certificate of Analysis**

Company : SAIC Address : 151 Lafayette Drive Oak Ridge, Tennessee 37831

Contact: Ms. Leslie Barbour Project: Hunter Army Airfield LTM Report Date: March 8, 2005

Page 2 of 2

	Client Sample Sample ID:	ID:	BFE362 129001005			Proj	ect: nt ID:	SAIC05900 SAIC059			
Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Nitrobenzene-d5	3510/827	0 PAH Ext	end list Liquid			56	(4	3%-101%)			
p-Terphenyl-d14	3510/827	0 PAH Ext	end list Liquid			61	(4	9%-126%)			
Bromofluorobenzene	5035/826	OB BTEX i	in Liquid Federal			106	(7	6%-115%)			
Dibromofluoromethane	5035/826	OB BTEX i	in Liquid Federal			97	(7	2%-136%)			
Toluene-d8	5035/826	OB BTEX i	in Liquid Federal			114	(8	0%-116%)			

Notes:

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\*\* Indicates the analyte is a surrogate compound.

B Target analyte was detected in the sample as well as the associated blank.

E Concentration of the target analyte exceeds the instrument calibration range.

H Analytical holding time exceeded.

J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.

P The response between the confirmation column and the primary column is >40%D.

R Sample results are rejected due to sample preservation with HCl.

U Indicates the target analyte was analyzed for but not detected above the detection limit.

X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.

Y QC Samples were not spiked with this compound.

h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

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Company :	SAIC								
Address :	151 Lafayette Dr	ive							
ruaress .	Oak Ridge, Tenn		I						
	our rouger rem		£2			R	eport Date: Ma	arch 8, 2005	
Contact:	Ms. Leslie Barbo	our							
Project:	Hunter Army A	irfield LTN	1				P	age I of	3
	Client Sample Sample ID: Matrix: Collect Date: Receive Date: Collector:		3FE462 129001014 Water 13-JAN-05 16:25 17-JAN-05 Client			ect: nt ID:	SAIC05900 SAIC059		
Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time Bat	ch Method
Semi-volatile Mass spec	Organics Federal	l .							
3510/8270 PAH Extend	list Liquid								
2-Chloronaphthalene	000000000000000000000000000000000000000	ND	0.404	1.01	ug/L	1	RMB 01/20/	05 1902 3951	4 1
2-Methylnaphthalene		1.47	0.505	1.01	ug/L	1			
Acenaphthene		ND	0.505	1.01	ug/L				
Acenaphthylene		ND	0.505	1.01	ug/L	1			
Anthracene		ND	0.505	1.01	ug/L				
Benzo(a)anthracene		ND	0.505	1.01	ug/L				
Benzo(a)pyrene		ND	0.505	1.01	ug/L				
Benzo(b)fluoranthene		ND	0.505	1.01	ug/L				
Benzo(ghi)perylene		ND	0.505	1.01	ug/L				
Benzo(k)fluoranthene		ND	0.505	1.01	ug/L				
Dibenzo(a,h)anthracene		ND	0.505	1.01	ug/L				
Fluoranthene		ND	0.505	1.01	ug/L				
Fluorene		ND	0.505	1.01	ug/L ug/L				
Indeno(1,2,3-cd)pyrene		ND	0.505	1.01	ug/L				
Naphthalene		0.607	0.111	1.01	ug/L				
Phenanthrene		0.607 ND	0.505	1.01	ug/L ug/L				
				1.01					
Pyrene	111	ND	0.505		ug/L			05 1125 20/0	ari al
2-Chloronaphthalene	Uh	ND	0.404	1.01	ug/L		I KMB 01/25/	05 1135 3960	95 2
2-Methylnaphthalene	h	4.85	0.505	1.01	ug/L				
Acenaphthene	Uh	ND	0.505	1.01	ug/L.				
Acenaphthylene	Uh	ND	0.505	1.01	ug/L.		1		
Anthracene	Uh	ND	0.505	1.01	ug/L				
Benzo(a)anthracene	Uh	ND	0.505	1.01	ug/L		1		
Benzo(a)pyrene	Uh	ND	0.505	1.01	ug/1.		1		
Benzo(b)fluoranthene	Uh	ND	0.505	1.01	ug/L.		1		
Benzo(ghi)perylene	Uh	ND	0.505	1.01	ug/L		1		
Benzo(k)fluoranthene	Uh	ND	0.505	1.01	ug/L		1		
Dibenzo(a,h)anthracene		ND	0.505	1.01	ug/L		1		
Fluoranthene	Uh	ND	0.505	1.01	ug/L		1		
Fluorene	Jh	0.669	0.505	1.01	ug/L		1		
Indeno(1,2,3-cd)pyrene		ND	0.505	1.01	ug/L		1		
Naphthalene	h	1.99	0.111	1.01	ug/L		1		
Phenanthrene	Jh	0.825	0.505	1.01	ug/L		1		
Pyrene	Uh	ND	0.505	1.01	ug/L		1		
Volatile Organics Feder									
5035/8260B BTEX in L	iquid Federal								
Benzene	U	ND	0.330	1.00	ug/L		I GRB2 01/25/	05 0635 3966	07 3
Ethylbenzene	U	ND	0.210	1.00	ug/L		1		

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#### **Certificate of Analysis**

Company :	SAIC										
Address :	151 Lafayette Dr										
	Oak Ridge, Tenn	iessee 378	31				D.	Data Ma		05	
Contact:	Ms. Leslie Barbo	our					RC	port Date: Mar	ch 8, 20	0.5	
Project:	Hunter Army A	irfield LT	M					Pag	ge 2	of	3
		ID	DEF			D	10.000 <b>1</b> .000	PATC05000			
	Client Sample Sample ID:	ID:	BFE462 129001014			Proj Clie	nt ID:	SAIC05900 SAIC059			
Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Metho
olatile Organics Feder	al										
5035/8260B BTEX in L	iquid Federal										
Toluene	U	ND		0.390	1.00	ug/L	1				
Xylenes (total)	J	0.897		0.250	1.00	ug/L	1				
The following Prep Me	thods were perfo	rmed									
Method	Description				Analyst	Date	Time	Prep Batch	1		
SW846 3510C	3510C BNA L	iq. Prep-82	70C Analysis F	ed	NSM	01/24/05	1000	396094			
SW846 3510C	3510C BNA L	iq. Prep-82	70C Analysis F	ed	RXM1	01/19/05	1609	395113			
The following Analytic	al Methods were	performed	1								
Method	Description					Analyst Comm	ents				
1	SW846 8270C							1			
2	SW846 8270C										
3	SW846 8260B										
Surrogate/Tracer recov	ery Test					Recovery%	Accep	ptable Limits			
2-Fluorobiphenyl	3510/827	0 PAH Ex	tend list Liquid			26 *	(3	7%-97%)			
Nitrobenzene-d5	3510/827	70 PAH Ex	tend list Liquid			44	(4)	3%-101%)			
p-Terphenyl-d14	3510/827	70 PAH Ex	tend list Liquid			28*	(49	9%-126%)			
2-Fluorobiphenyl	3510/827	70 PAH Ex	tend list Liquid			77	(3	7%-97%)			
Nitrobenzene-d5	3510/822	70 PAH Ex	tend list Liquid			75	(4)	3%-101%)			
p-Terphenyl-d14			tend list Liquid			68	(49	9%-126%)			
Bromofluorobenzene			in Liquid Feder	al		104	(70	6%-115%)			
Dibromofluoromethane			in Liquid Feder			95	(7:	2%-136%)			
Toluene-d8			in Liquid Feder			112	(80	0%-116%)			
Notes: The Qualifiers in thi	s report are defin	ad as fall	OWS								

The Qualifiers in this report are defined as follows :

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\*\* Indicates the analyte is a surrogate compound.

B Target analyte was detected in the sample as well as the associated blank.

E Concentration of the target analyte exceeds the instrument calibration range.

H Analytical holding time exceeded.

J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.

P The response between the confirmation column and the primary column is >40%D.

R Sample results are rejected due to sample preservation with HCl.

U Indicates the target analyte was analyzed for but not detected above the detection limit.

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### **Certificate of Analysis**

Parameter	Qualifier Resul	L	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
	Client Sample ID: Sample ID:	BFE462 129001014			Proie Clier	ect: nt ID:	SAIC05900 SAIC059			
Contact: Project:	Ms. Leslie Barbour Hunter Army Airfield L'	ГM					Pag	ge 3	of	3
Company : Address :	SAIC 151 Lafayette Drive Oak Ridge, Tennessee 370	831				R	eport Date: Mar	ch 8, 20	05	

X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.

Y QC Samples were not spiked with this compound.

h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

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Company :	SAIC									
	151 Lafayette Dr	ive								
	Oak Ridge, Tenn									
						Rep	port Date: Ma	rch 8, 2005		
Contact:	Ms. Leslie Barbo	our							2	
Project:	Hunter Army A	irfield LTM					Pa	ge l o	f 2	
	Client Sample Sample ID: Matrix: Collect Date: Receive Date:	12 W 13 17	E562 9001010 ater -JAN-05 16:55 -JAN-05		Proie Clier		SAIC05900 SAIC059			
Parameter	Collector: Qualifier	Cl	ient DL	RL	Units	DF	AnalystDate	Time B	atch Me	othe
			DL	KL	Cints	DI	AnalystDate	Thire D	aten Mie	·un
emi-volatile Mass spec O 3510/8270 PAH Extend 1										
2-Chloronaphthalene	isi Diquita	ND	0.404	1.01	ug/L	1	RMB 01/20/0	5 1743 205	5114 1	
2-Methylnaphthalene		43.2	0.404		ug/L ug/L	1	NNID 01/20/0	5 1145 393	1 190	
		5.42	0.505		ug/L	1				
Acenaphthene		ND	0.505		*					
Acenaphthylene			0.505		ug/L					
Anthracene		ND	0.505		ug/L					
Benzo(a)anthracene		ND			ug/L					
Benzo(a)pyrene		ND	0.505		ug/L					
Benzo(b)fluoranthene		ND	0.505		ug/L					
Benzo(ghi)perylene		ND	0.505		ug/L	1				
Benzo(k)fluoranthene		ND	0.505		ug/L.					
Dibenzo(a,h)anthracene		ND	0.505		ug/L	1				
Fluoranthene		ND	0.505		ug/L					
Fluorene		10.3	0.505		ug/L	1				
Indeno(1,2,3-cd)pyrene		ND	0.505		ug/L	1				
Naphthalene		32.9	0.111		ug/L	1				
Phenanthrene		10.7	0.505		ug/L	1				
Pyrene		2.37	0.505	1.01	ug/L	1				
olatile Organics Federa	1									
5035/8260B BTEX in Liq	quid Federal									
Benzene	U	ND	0.330		ug/L	1	GRB2 01/25/0	5 0444 396	6607 2	1
Ethylbenzene		10.4	0.210	1.00	ug/L	1				
Toluene	1	0.429	0.390	1.00	ug/L	1				
Xylenes (total)		34.9	0.250	1.00	ug/L	1				
The following Prep Met	hods were perfo	rmed								
Method	Description			Analyst	Date	Time	Prep Batc	h		
SW846 3510C	3510C BNA L	.iq. Prep-8270	C Analysis Fed	RXMI	01/19/05	1609	395113			
The following Analytica		performed			And of Comm					
Method	Description				Analyst Comm	ents				
1	SW846 8270C									
2	SW846 8260B									
Surrogate/Tracer recove	ry Test				Recovery%	Accep	otable Limits			
2-Fluorobiphenyl		70 PAH Exten								

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## **Certificate of Analysis**

Danamatan	Our life Day	.14	1.1	DI	Tiolin D	E Analast		Time	n	
	Client Sample ID: Sample ID:	BFE562 129001010			Project: Client ID:	SAIC059 SAIC059				
Project:	Hunter Army Airfield	LTM					Page	2	of	2
Contact:	Ms. Leslie Barbour					Report Date:	Marc	n 8, 20	05	
Address :	151 Lafayette Drive Oak Ridge, Tennessee 3	7831				Denset Deter	Manal	. 8 20	05	
Company :	SAIC									

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Nitrobenzene-d5	3510/827	0 PAH Extend list Liquid			75	(4	3%-101%)			
p-Terphenyl-d14	3510/827	0 PAH Extend list Liquid			95	(4	9%-126%)			
Bromofluorobenzene	5035/826	0B BTEX in Liquid Federal			103	(7	6%-115%)			
Dibromofluoromethane	5035/826	0B BTEX in Liquid Federal			96	(7	2%-136%)			
Toluene-d8	5035/826	0B BTEX in Liquid Federal			109	(8	0%-116%)			

Notes:

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B Target analyte was detected in the sample as well as the associated blank.

E Concentration of the target analyte exceeds the instrument calibration range.

- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- R Sample results are rejected due to sample preservation with HCl.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

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Company :	SAIC								
Address :	151 Lafayette Dri	ve							
Piddress is	Oak Ridge, Tenne								
						Rep	ort Date: Mar	ch 8, 2005	
Contact:	Ms. Leslie Barbou						D	. 1	2
Project:	Hunter Army Ai	rfield LTM					Pag	e l of	2
	Client Sample I Sample ID: Matrix: Collect Date:	12 W	FE662 29001013 7ater 3-JAN-05 17:35		Proje Clien		SAIC05900 SAIC059		
	Receive Date: Collector:	1	7-JAN-05 lient						
Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time Batch	n Metho
emi-volatile Mass spec	<b>Organics</b> Federal								
3510/8270 PAH Extend	and the second second								
	ansi Liquia	ND	0.400	1.00	ug/L	3	RMB 01/20/0	5 1842 305114	1
2-Chloronaphthalene		ND	0.400	1.00			KIVID 01/20/0	0 1042 090114	. 1
2-Methylnaphthalene		ND		1.00	ug/L				
Acenaphthene		ND	0.500		ug/L	1			
Acenaphthylene		ND	0.500	1.00	ug/L				
Anthracene		ND	0.500	1.00	ug/L				
Benzo(a)anthracene		ND	0.500	1.00	ug/L.	1			
Benzo(a)pyrene		ND	0.500	1.00	ug/L	1			
Benzo(b)fluoranthene		ND	0.500	1.00	ug/L	1			
Benzo(ghi)perylene		ND	0.500	1.00	ug/L	1			
Benzo(k)fluoranthene		ND	0.500	1.00	ug/L				
Dibenzo(a,h)anthracen	e	ND	0.500	1.00	ug/L	1			
Fluoranthene		ND	0.500	1.00	ug/L	1			
Fluorene		ND	0.500	1.00	ug/L	1			
Indeno(1,2,3-cd)pyrene	3	ND	0.500	1.00	ug/L	1			
Naphthalene		ND	0.110	1.00	ug/L	1			
Phenanthrene		ND	0.500	1.00	ug/L	1			
Pyrene		ND	0.500	1.00	ug/L	1			
Volatile Organics Feder	ral								
5035/8260B BTEX in 1	iquid Federal								
Benzene	U	ND	0.330	1.00	ug/L	1	GRB2 01/25/0	5 0607 396607	72
Ethylbenzene	U	ND	0.210	1.00	ug/L	1			
Toluene	J	0.470	0.390	1.00	ug/L	1			
Xylenes (total)	U	ND	0.250	1.00	ug/L	1			
The following Prep Me	ethods were perfor	med							
Method	Description			Analyst	Date	Time	Prep Batch	1	
SW846 3510C	3510C BNA Li	iq. Prep-8270	OC Analysis Fed	RXM1	01/19/05	1609	395113		
The following Analytic		performed							
Method	Description				Analyst Comm	ents			
1	SW846 8270C								
2	SW846 8260B								
Surrogate/Tracer recov	very Test				Recovery%	Accep	table Limits		

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## **Certificate of Analysis**

Company : SAIC Address : 151 Lafayette Drive Oak Ridge, Tennessee 37831 Contact: Ms. Leslie Barbour Project: Hunter Army Airfield LTM

Report Date: March 8, 2005

Page 2 of 2

	Client Sample I Sample ID:	D: BFE662 129001013			Proi Clie	ect: nt ID:	SAIC05900 SAIC059			
Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Nitrobenzene-d5	3510/8270	PAH Extend list Liquid			63	(4	3%-101%)			
p-Terphenyl-d14	3510/8270	PAH Extend list Liquid			73	(4	9%-126%)			
Bromofluorobenzene	5035/8260	B BTEX in Liquid Federa	al		106	(7	6%-115%)			
Dibromofluoromethane	5035/8260	B BTEX in Liquid Federa	al		99	(7	2%-136%)			
Toluene-d8	5035/8260	B BTEX in Liquid Federa	al		107	(8	0%-116%)			

Notes:

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E Concentration of the target analyte exceeds the instrument calibration range.

H Analytical holding time exceeded.

J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.

P The response between the confirmation column and the primary column is >40%D.

R Sample results are rejected due to sample preservation with HCl.

U Indicates the target analyte was analyzed for but not detected above the detection limit.

X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.

Y QC Samples were not spiked with this compound.

h Sample preparation or preservation holding time exceeded.

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Cu

Reviewed by



PO Box 2501, 151 Lafayette Dr., Tennessee 37830 (423) 481-4600

pagel of 5

#### **CHAIN OF CUSTODY RECORD**

# COC NO .: HLTMSI

PROJECT NAME: HAA	AF Long T	erm Mo	nitoring,	D.O. 44								RE		STED F	ARA	MET	ERS		Т			_	LABORATORY General Engine			
PROJECT NUMBER: 0			00																				LABORATORY 2040 Savage Ra		ESS:	
PROJECT MANAGER:	Patty Sto	bli					1																Charleston, SC			
Sampler (Signature)	1.11	11	rinted Nar		Som	,,			+													7 1	PHONE NO: (84	13) 556	-8171	
Sample ID	Date Co			ollected	1	trix	втех	voc	PAH													No. of	OVA SCREENING	OBS	ERVATIONS, COM PECIAL INSTRUC	IMENTS, TIONS
BF-2666	1/13/	05	095		Wat	/	2	>	1			-					a an	+			_	z Z		12	900/00/	6
BFEZ62			150				2		N			$\uparrow$										z			002	
BF2662			095	55			2		N												2	2			003	
BF5264			150	20			Z		V			T									_	Z			004	
BFE3621			155	0			2		V			T										Z		1	005	i.
BF3662	1/14	105	112	0			Ζ		v													Z			000	
BF3562			102				Z		N												_	2			007	
BF3762		/	1100	c			Z		v													2			008	
BFE162	1/13	105	142	70			2		V													2			007	
BFES62		,	165	5			Z		2													2			010	
BF\$462 1	412	105	155	5			Z		Y													2			011	
BF2562	1	1	16	15			Z		V												:	Z			012	
BFE66Z	1/13/	05	173	35		/	2		3													Z			013	
RELINOUISHED BY	(IM		e/Time	RECE							ate/T		то	TAL NU	MBE	RO	F CON	TAIN	ERS	: Of	DI	Z	Cooler Tempera	ture:	42	
COMPANY NAME:	foy	115	05-	COMP	ANYN					1	17: 15:		Cod	oler ID:		1	76						FEDEX NUMBE	R: N//	4	
Ben Wattu	5	Date 1/17/	e/Time /DT	RELIN	QUISHE	ED BY:				C	ate/T	ime													un i Certo de Carel de C	
COMPANY NAME:		115		COMP	ANY NA	ME:																				
BELINQUISHED BY:	5	Pate	e/Time	RECEI	VED BY	<b>/</b> :				C	ate/T	ime														
COMPANY NAME:		145	S	COMP	ANY NA	ME:																				

page Zof 5 cc COC NO .: HLTM SI

# Science Applications International Corporation

PO Box 2501, 151 Lafayette Dr., Tennessee 37830 (423) 481-4600

PROJECT NAME: H	IAAF Long T	erm Mor	nitoring, D.O.	44	_	T			-	R		TED P	ARAN	IETE	RS	-			- 1	_	LABORATORY I General Enginee	
PROJECT NUMBER	: 01-1055-04	-8991-20	00																		LABORATORY	ADDRESS:
PROJECT MANAGE	R: Patty Sto	)II																		Vials:	2040 Savage Ra Charleston, SC	
Sampler (Signature)	GI	1	inted Name)																	70	PHONE NO: (84	3) 556-8171
Sample ID	Date Co		Time Collect		¥	VOC	PAH													No. of	OVA SCREENING	OBSERVATIONS, COMME SPECIAL INSTRUCTION
BFE462	1/13		1625	Water	2	10000000	N							-					+	z Z		129061014
THOYOF	1/12/0	5	0800	wall	2	100000000	-			-			-							2		12900300)
THØ4Ø8	1/14/0		OBOU	+	Z					-										2		129003002
TH\$416	1/16/0		0815			Z	$\square$													Ż		129005012
TH0409	415/		0830		2	-	$\square$													2		129003003
AFØZCG	1/13/		1500		2															Z		004
AFØZC2	119		1520		2	_														Z		005
AFØSCZ			1445		2	2														Z		000
AFIZCZ			1325		2	2														Z		007
AF\$7C2	V		1415		2															Z		800
AN2272	4141	05	1545		2	2														Z		009
AK\$572	1		1440		Z	-														2		oro
AKØS74	V		1440	V	Z	-														2		011
RELINQUISHED BY	PIL	Date	e/Time RE	CEIVED BY:					Date/1		то	TAL NU	JMBEI	r of	CONT	TAIN	ERS	PH	101	12	Cooler Tempera	iture: 4°E
	)+y	1/17	a	Br			_	1.	17.	5	Co	oler ID:			• •						FEDEX NUMBE	R:
COMPANY NAME:	2	115	° (	MPANY NAN	IE:			1	45	2				17	46						/	V /A
RECEIVED BY: Ben Wett	Min	Date	a contraction of the contraction	LINQUISHED	BY:				Date/	Time												
COMPANY NAME:		1150	00	MPANY NAM	IE:																	
RELINQUISHED BY		Date		CEIVED BY:				C	Date/	Time												
COMPANY NAME:		145		MPANY NAM	IE:																	

page 5of 5

Address of the Addres	
	An Employee-Owned Company
Science Applications Internat	ional Corporation

PO Box 2501, 151 Lafayette Dr., Tennessee 37830 (423) 481-4600

COC NO .: HLTM 51

PROJECT NAME: HAAF	Long Term Mon	itoring, D.O. 44						1	RE	QUE	STED	PAR	AME	TER	S	-					ABORATORY N/ General Engineeri	
PROJECT NUMBER: 01	-1055-04-8991-20	D																		Ľ	General Engineen	ng Laboratory
PROJECT MANAGER: F	Patty Stoll																		Viele:	2	LABORATORY AI 2040 Savage Rao Charleston, SC 29	d
Sampler (Signature)		LICIA A.	Smi			T													V /action	3 [	PHONE NO: (843)	) 556-8171
Sample ID	Date Collected	Time Collected	Matrix	BTEX	ş	A													No of		OVA SCREENING	OBSERVATIONS, COMMENTS SPECIAL INSTRUCTIONS
AS\$422	116/05	1100	water	-	2														Z	_		
ASBBZZ		1210			2														2	2		
AS1422	V	1020	V		Z															2		
BF2762	413/05	1140	water	Z		8										-	$\square$	+	2	2		129001015
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				$\vdash$	1	44													+	$^{+}$		
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RELINDUISHED BY	Date/		VED BY:					te/Ti		то	TAL	IUMI	BER	OF C	ONT	AINE	RS:	34	9712	2 (	Cooler Temperatu	ire: 4°C
in a contra	////	of the	ANY NAME:				1.	17	5	Co	oler IC	D:		,-	7	,					FEDEX NUMBER	VIA
COMPANY NAME:	115		- AL				19	15	5					1	$t_{4}$	e					/	
RECEIVED BY:	Date/		QUISHED BY:				Da	te/Tir	me	T	0											
Ben Wattin		81																				
COMPANY NAME:	1/50	COMP	ANY NAME:																			
RELINQUISHED BY:	u Jin	Time RECEI	VED BY:				Da	te/Tir	me	1												
COMPANY NAME:	145		ANY NAME:																			

oloyee-Owned Company ations International Corporation



PO Box 2501, 151 Lafayette Di	., Tennessee 3	7830 (423)	481-4600					CI	HA	IN	0	F (	CU	ST	OD	Y	RE	C	OR	٢D										ALIMUZ	-
PROJECT NAME: HAA	F Long Ter	m Mon	itoring, D.O.	44				-	-	T	Т	1	F	REQ	UES	TEC	PA	RAI	MET	TEF	is I	_	_	_	_			LABORATORY General Engine			
PROJECT NUMBER: 0	1-1055-04-8	991-20	D																									LABORATORY	Y AD	DRESS:	
PROJECT MANAGER:	Patty Stoll								H																		Vials:	2040 Savage F Charleston, SC			
Sampler (Signature)	su ,	(Prin	nted Name)	ſ	Sar	,	24.5		e PAH																		Bottles/	PHONE NO: (8			
Sample ID	Date Colle		Time Collect	∎d	Ma	trix	BTEX	voc	SUDE												-					:	No. of	OVA SCREENING		OBSERVATIONS, COI SPECIAL INSTRUC	
BF2666 1	413/0		09.55		Wate	en l			Z																		2				
BF3662 -	1/17/0		1120						Z	1												$\square$					2		$ \rightarrow $		
BFE362	113/0		1550	_					2																		Z		$ \downarrow$		
BF3762	1/14/0		1100						2											$\square$		_					2		$\rightarrow$		
BF3562	1/14/0		1020						2											$\square$							Ζ		$\rightarrow$		
BFE264.	1/13/0	5	1505	_	١	r			2								_		4	$\dashv$							2		$\rightarrow$		
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RELINGUISHED BY		Date	Ţime RE	CEIN	ED B	I Y:		1.6		T	Da	a,te/	Time	•	тот	TAL		MBE	ERC	DF (		TAI	NEP	RS:	1	2	<u> </u>	Cooler Temper	ratur	re: 4°C	
RELINQUISHED BY	74	1/11	85	1.6	ALL	g				1			Time		Coc	ler l	D:											FEDEX NUMB	BER;		
COMPANY NAME:		145	co	MPA	NYNA	AME:					14	15.	S							l	D	9						Λ	v//	4	
RECEIVED BY:	ED BY: Date/Time RELINQUIS										Da	ate/	Time	•																	
COMPANY NAME:																															
RELINQUISHED BY:	5	Date/	/	CEIV	ED B	Y:					Da	ate/	Time	•																	
COMPANY NAME:		145		MPA	ANY NA	AME:																									

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PO Box 2501, 151 Lafayette Dr., Tennessee 37830 (423) 481-4600

COC NO .: HLTM53

	PROJECT NAME: HAAI	OJECT NAME: HAAF Long Term Monitoring, D.O. 44						REQUESTED PARAMETERS												LABORATORY NAME: General Engineering Laboratory					
ł	PROJECT NUMBER: 01-1055-04-8991-200 PROJECT MANAGER: Patty Stoll																								
																						Vials:	LABORATORY 2040 Savage Ra Charleston, SC	aod	a
	Sampler (Signature)	U PA	(Printed Nam)		1 TOLL			5														Bottles/	PHONE NO: (84	43) 556-8171	
ł	Sample ID	Date Collect			Matrix	BTEX	voc	4														No. of	OVA SCREENING	OBSERVATIONS, O SPECIAL INSTR	
Ì	BF2562 .	1/12/05	5 164	5	water			2														2			
	BF6562	1/13/05						Z														Z			
	BFE462 .	1/13/05						Z														2			
	BFE 262.	413/05	150	5				2														Z			
	BFE162 .	1/13/05		20				2														Z			
	BF2662 .	1/13/05	093	55	V			2														2			
C-76				6								1							_	+	$\downarrow$	Ľ			
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				-	<u> </u>				Ļ															100	and the state of the state of the state
	RELINQUISHED BY	RELINQUISHED BY Date/Time			HED BY:					Date	Time 7.5	5			MBEH	1 OF	CON	IAI	NERS	5:	12		Cooler Tempera		
	COMPANY NAME:	<u> </u>	1/50	COMP	ANY NAME:					145		0	Cooler	ID:		1	03	2					FEDEX NUMBE	NA	
				G	51				+		_	_				-								• • • • •	
	Ren Watt	Ben Wattins 1/17/05 MPANY NAME: 1/150 COMPANY NAME:		QUISHED B	Y:	Date/Tim					'														
	COMPANY NAME:						1																		
	RELINQUISHED BY: Ben Watth		Date/Time	RECE	IVED BY:				$\uparrow$	Date	/Time	,													
No. of Contraction	COMPANY NAME:	1	455	COMP	ANY NAME:																				



PO Box 2501, 151 Lafayette Dr., Tennessee 37830 (423) 481-4600

COC NO .: HLTM54

PROJECT NAME: HAAF Long Term Monitoring, D.O. 44						REQUESTED PARAMETERS													LABORATORY NAME:					
PROJECT NUMBER: 0	1-1055-04-8991-2	200		1													Γ					General Engine	ering Laborato	ry
PROJECT MANAGER:	Patty Stoll						ž														als:	LABORATORY 2040 Savage Ra Charleston, SC	aod	
Sampler (Signature)	(111 D)	rinted Name) TRICIA A.	Этон			H	+ Greo	Plego/s													Bottles/ Vials:	PHONE NO: (84	13) 556-8171	
Sample ID	Date Collected	Time Collected	Matrix	BTEX	voc	Ран	0:1	Ple	Ha												No. of	OVA SCREENING		S, COMMENTS
BFØ462.	1/12/05	1555	water	1		2	STOCKEDS.						17710000000								Z			
BFE662 .	1/13/05	1735				Z											1				Z			
IDWØ68 .	4/17/05	1045	× ×		Z		2	Ζ	1												7		129000	6
BFZ762 1	413/05	1140	water			2									ľ						2	-	10,000	[
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									4	1	1													
			n.S.	5		-	17	IN	5				_											
			HU	K	H	4	17				-		_								$\downarrow$			
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RELINQUISHED BY:	// Date	Time RECE	L VED BY:					Date	/Time	ə.	L TOT/	AL NU	IMBE	BO	E C			BS	BL	1		Cooler Temperat	ure: 4°C	
fets . W. Ch	9 1/17	Time RECEI	the	-			1	1	/Time 7. (2	4	Coole								<u></u>		-+	FEDEX NUMBER	<u> </u>	
COMPANY NAME:	115	COMP	ANY NAME:				14	is.	S		0000	. 10.		7	-9	3						FEDEX NUMBER	NA	
RECEIVED BY:			QUISHED BY:				ſ	Date	/Time	•														
Bon Watty	5 4/17/	5				_																		4
COMPANY NAME:	//	COMP/	ANY NAME:																					
RELINQUISHED BY:			VED BY:				0	Date	Time	,														
In Watter	1/1/6	/																						
COMPANY NAME:	1455	COMP	ANY NAME:																					

## ATTACHMENT D

## WELL CONSTRUCTION DIAGRAMS

MC PROJECT: Bulk Fuel Facility	DNITORING WELL DELIVERY ORDER NO: 0044				
WELL NUMBER: BF-MW-35	A .	122/04			
COORDINATES: N: 739834.57 E: 973604.28	REFERENCE POINT: ELEVATION:	DATUM/U	NITS		
DATUM/UNITS: NAD03/FT	TOC 14.94	NAND89/			
	TOP OF PVC FLUSH JOINT RISER WITH WATERTIGHT LOCKING CAP	DEPTH (BGS)	EL		
	GROUND SURFACE	 1.\$			
	HISER CASING DIA:(IN) Z-in. ID, 236-in. OD TYPE: Sched. 40 PVC	¢.5			
	ANNULAR SEAL TYPE: Pel-plug 1/4-in. TR-30 pellots. TOP OF FILTER PACK FILTER PACK TYPE: #Z Filter Sand,	1.5			
	TOP OF SCREEN SCREEN DIA: (IN) Z-in. TYPE: Slotted/PUP SLOT SIZE: CONFIGURATION: \$\overlightarrow Horizontal	7.4	i i		
	BOTTOM OF SCREEN     BOTTOM OF SUMP     BOTTOM OF HOLE	12.7 13.¢			

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PROJECT: Bulk	Fuel Facility	MONITORING WELL DELIVERY ORDE	R NO: 0044						
WELL NUMBER:	BF-MW-3		BEGIN: $c/z3/\phi4$ END: 6						
COORDINATES:	N: 739657.7 E: 973622.		T: ELEVATION:	DATUM/U					
DATUM/UNITS:	NAD 83/FT	TOC	16.07	NAUDER					
		WATERTI	PVC FLUSH JOINT RISER WITH IGHT LOCKING CAP	DEPTH (BGS)	E				
		T GROU	JND SURFACE	0					
		DIA: (IN) B-TH I TYPE: Steel BOTTOM OF SURFACE	flush-mount	] ].¢					
		TYPE: None	TERIAL						
		HISER CASIN DIA:(IN) Z-INIID, Z TYPE: Schedt, 40	36-in 00						
		TOP OF SEAL ANNULAR SE TYPE: Pol - plug; TR-30	eal 1/4 - in .	4.5	-				
				1.5	_				
	235.68	TYPE: #2 F, 1/fror-	ĸ						
		TOP OF SCREEN		7.3					
			= Slotter / PVC						
			Horizantal	17.3					
		BOTTOM OF SUMP	Р	17.7 13.¢					