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NAS CECIL FIELD, FL
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OPTION YEAR 1 SECOND QUARTER 2006 TO 2007 OPERATIONS AND MAINTENANCE
STATUS REPORT FOR AIR SPARGING SYSTEM AT BUILDING 271 NAS CECIL FIELD FL
11/28/2006
ESA ENVIRONMENTAL SPECIALISTS INC

**Option Year 1, Second Quarter 2006-2007
Operations and Maintenance Status Report**

**Air Sparging System
Building 271**

**Former Naval Air Station Cecil Field
Jacksonville, Florida**

Contract No. N62467-03-G-0016

Submitted to:

U.S. Naval Facilities
Engineering Command
Southern Division

Prepared by:



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Acronyms

ABB-ES	ABB Environmental Services, Inc.
AS	Air Sparging
AST	Aboveground Storage Tank
bls	Below Land Surface
BTEX	benzene, toluene, ethylbenzene, xylene
CA	Contamination Assessment
CAR	Contamination Assessment Report
cfm	cubic feet per minute
CTO	Contract Task Order
CSR	Confirmatory Sampling Report
DO	dissolved oxygen
EPA	U.S. Environmental Protection Agency
ESA	ESA Environmental Specialists, Inc
FAC	Florida Administration Code
FDEP	Florida Department of Environmental Protection
FID	Flame ionization detector
FL-PRO	Florida Petroleum Residual Organic
GAC	granular activated carbon
GCTLs	groundwater cleanup target levels
HLA	Harding Lawson Associates
JETC	Jet Engine Test Cell
LNAPL	Light Non-Aqueous Phase Liquids
LCAR	Limited Closure Assessment Reports
mg/ L	milligrams per liter
MTBE	methyl tert butyl ether
NADSC	Natural Attenuation Default Source Concentration
NAS	Naval Air Station
NAVFAC EDF	Naval Facilities Engineering Command, Engineering Field
SOUTH	Division, Southern Division
O&M	Operation and Maintenance
ORP	oxygen-reduction potential
OWSs	oil water separators

PAH	polynuclear aromatic hydrocarbon
ppm	parts per million
psi	pounds per square inch
RAP	Remedial Action Plan
RAPA	Remedial Action Plan Addendum
SA	Site Assessment
SARA	Site Assessment Report Addendum
SCTLs	Soil Cleanup Target Levels
TRPH	total recoverable petroleum hydrocarbon
TtNUS	Tetra Tech NUS
USACE	U.S. Army Corps of Engineers
UST	Underground Storage Tank
VOC	Volatile Organic Compound

1 Introduction

ESA Environmental Specialists, Inc. (ESA) has been contracted by the Department of the Navy, Naval Facilities Engineering Command Engineering Field Division South (NAVFAC EFD SOUTH), to provide active treatment operation and maintenance (O&M) services at two groundwater remediation sites (Jet Engine Test Cell and Building 271), plus annual natural attenuation monitoring services at one groundwater remediation site (Area 199), situated at the former Naval Air Station (NAS) Cecil Field, Jacksonville, Duval County, Florida.

The purpose of this Option Year 1, Second Quarter 2006-2007 Operations and Maintenance Status Report is to provide a summary of activities performed at the Building 271 site during the period from August 1, 2006 through October 31, 2006.

1.1 Site History

Building 271

Building 271 was a former retail gasoline facility that contained four Underground Storage Tanks (USTs) (designated 271-D, 271-R, 271-UL, and 271-SUL) and two oil water separators (OWSs). The USTs were grouped in a tank pit located on the west side of Building 271, while the OWSs were located on the east side of the building. USTs 271-UL, 271-R, and 271-SUL each had an approximate capacity of 10,000 gallons and UST 271-D had an approximate capacity of 6,000 gallons (TtNUS, 2002).

According to UST closure records, UST 271-D was removed on March 5, 1996, and no soil or groundwater contamination was detected. The report also indicates that the UST and associated piping were removed from the site (TtNUS, 2002).

In July 1999, Harding Lawson Associates (HLA) compiled a Confirmatory Sampling Report (CSR) for the USTs and the two OWSs that indicated petroleum-impacted soil was encountered at two locations relative to the USTs. The CSR concluded that soil or groundwater was not impacted as a result of past OWS operations. Based on the CSR finding of soil contamination, a Site Assessment (SA) was recommended for the UST site. An SA Plan for the assessment of soil and groundwater at the UST site was prepared by TtNUS (TtNUS, 2002).

Following completion of the planned investigation in the SA Plan, CH2M Hill removed the remaining three USTs, associated piping, and distribution systems. The UST and associated soil removals addressed the soil contamination issues; however, groundwater samples collected following UST and soil removal indicated the presence of volatile organic compounds (VOCs) in site groundwater. TtNUS proceeded to plan and execute a second investigation in a SA Plan Addendum (2001) to further define the extent of contamination in the groundwater (TtNUS, 2002).

CH2M Hill also removed both OWSs, and submitted separate Limited Closure Assessment Reports (LCAR) for each OWS site in April 2001 to the FDEP. Both LCARs for the OWSs indicated that no petroleum contamination of the soil or groundwater existed in the immediate areas surrounding the former OWSs. On May 23, 2001, the FDEP issued separate letters agreeing with CH2M Hill's findings (TtNUS, 2002).

A SA report prepared by TtNUS in May 2002 concluded that petroleum constituents had impacted groundwater in the vicinity of the former USTs and that all of the contaminated soil was removed by CH2M Hill during the UST removal. TtNUS recommended the preparation and implementation of a Remedial Action Plan (RAP) to remediate groundwater at the site (TtNUS, 2002).

TtNUS submitted to FDEP for approval a RAP in September 2002 and a RAP Addendum (RAPA) in January 2003 to select the remedial alternative to remediate the contaminated groundwater at the site. Air Sparge (AS) was selected as the remedial alternative. FDEP Approval on the RAP and RAPA was received in February 2003.

CH2M Hill installed an AS system in accordance with the RAP (TtNUS, 2002), RAPA (TtNUS, 2003), and Work Plan Addendum No. 18, Installation of Air Sparging Systems at the Jet Engine Test Cell (JETC) and Building 271 (CH2M Hill, 2003) from September to November 2003. The AS system commenced operation on November 17, 2003.

On May 24, 2005, management of on-going remedial activities at the Building 271 site was transferred from CH2M Hill to ESA.

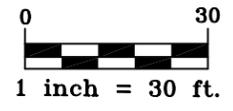
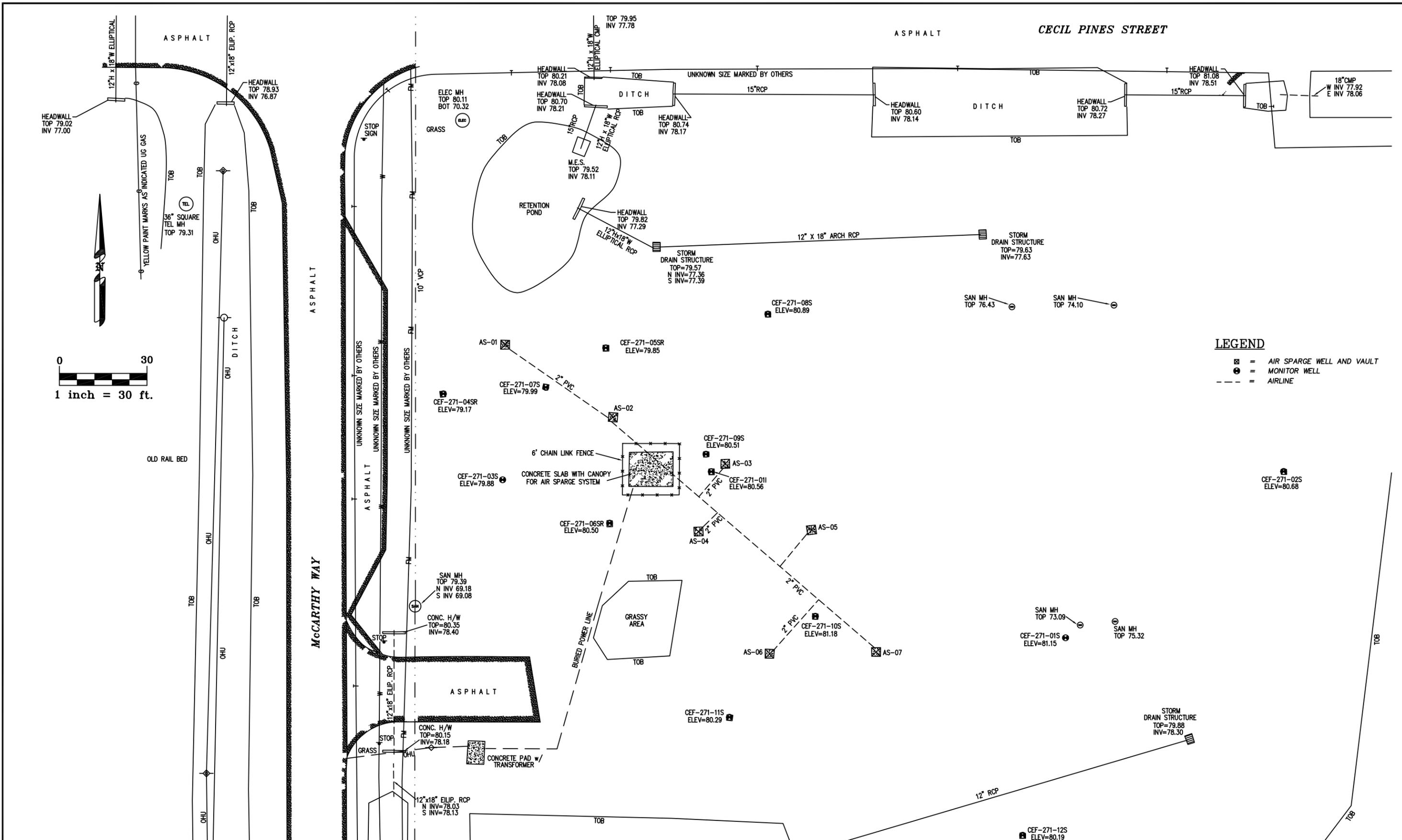
A site plan showing the site and the AS system layout is provided in Figure 1-1.

1.2 Remediation System/Technology Description

AS is a physical treatment method of expediting the transfer of VOCs from the soil and groundwater to the sparging air. Atmospheric air is injected into the air sparge wells, which are screened within the groundwater contaminant plume. As the injected air passes upward through the VOC laden groundwater and soil, VOCs are partitioned to the passing air and migrate to the vadose zone.

The Building 271 AS system consists of seven (7) AS wells (AS-01 through AS-07), a rotary vane-type compressor, a receiver tank, and associated piping and instrumentation. The AS wells are screened from approximately 28 to 30 feet below land surface (bls). The AS system is designed for each AS well to operate at an airflow rate of 10 cubic feet per minute (cfm) at an injection pressure of 15 pounds per square inch (psi). The locations of the AS wells are shown on Figure 1-1.

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- LEGEND**
- ☒ = AIR SPARGE WELL AND VAULT
 - ⊙ = MONITOR WELL
 - = AIRLINE

DRAWN: RC	REVISIONS	BY	DATE
CHECKED: AS			
DATE: FEB 2006			



**BUILDING 271
FORMER NAS CECIL FIELD
JACKSONVILLE, FLORIDA**

SITE MAP
AUGUST 24, 2006

FIGURE
1-1

2 System Performance Monitoring

O&M checks of the system were performed during the monitoring period. During an O&M check, a preventative maintenance checklist (based upon manufacturers' recommendations) is completed, and any required maintenance activity is performed. All meters and gauges at the system are read and recorded during the O&M check. Well vault gauges and meters are read and recorded on a monthly basis.

2.1 Operational Efficiencies

Option Year 1, Second Quarter 2006-2007

	Period (8/1/2006-10/23/06)	To Date (from 5/17/05)
Air Sparging System	Building 271	Building 271
Hours of Possible Operation	2016.00	12771.00
Hours of Actual Operation	225.96	2603.14
Percent Hours of Operation	11.21%	20.38%

2.2 AS System Summary of Maintenance and Downtime

During the period from August 1, 2006 through October 23, 2006 Building 271 AS system ran a total of 9.42 days out of 84 days resulting on 1790.04 hours of downtime. This is less overall hours of downtime from the previous First Quarterly Report 2006-2007, but the percent of operation is lower in overall performance.

The AS system downtime details are as follows:

■ Building 271 AS System

- On August 1, 2006, the AS system was up and running.
- On August 8, 2006, the AS system was down upon arrival. The technician was able to cycle power to the unit to allow for a reset of control circuits until the unit started, observe normal operation before departure. Time relay sets were set the same as the JETC AS system.
- On August 9, 2006 the system was up and running upon arrival and upon departure. This visit was to recheck the previous days visit in which cycled power had reset the system.
- On September 15, 2006 the AS system was down upon arrival for unknown reasons. Quarterly maintenance was completed and the power was again cycled and the system was reset and was operational upon departure.

- Note: The condensation drain retention element was broken, which in turn was preventing the valve from opening and allowing the cond't to drain. The retention element was replaced with a washer and wigbat assembly.
- Tanks were purged on October 13, 2006
- On October 23, 2006, the system was down upon arrival. The system was restarted and was operational upon departure.
 - Note: Attempted to reset the AS-02 psi flow rate, but it remained at 13.5 upon departure.

2.3 AS System Pressure/Flow Rate Monitoring

During the monitoring period, injection pressure was measured at each AS wellhead monthly. The wellhead pressures for the operating AS wells averaged 10.86 psi, compared to the design pressure of 15 psi. This low pressure is due to the system remaining shutdown for compressor maintenance and airline leaks detected. The AS wellhead pressure data is provided in Table 2-1.

**Table 2-1 Air Sparging Well Measurements
Building 271, Option Year 1, Second Quarter 2006-2007**

Location	Air Sparge Well	Date	Wellhead Pressure (psi)		Flow Rate (scfm)	
			Initial	Reset	Initial	Reset
Building 271	AS-01	8/9/2006	8	-	8	-
		9/15/2006	7.5	-	7.0	-
		10/23/2006	8	10	7.5	9.25
Building 271	AS-02	8/9/2006	15.0	-	14.0	-
		9/15/2006	14.0	-	14.0	-
		10/23/2006	13.5	-	14.5	-
Building 271	AS-03	9/15/2006	secured	-	-	-
Building 271	AS-04	9/15/2006	secured	-	-	-
Building 271	AS-05	9/15/2006	secured	-	-	-
Building 271	AS-06	9/15/2006	secured	-	-	-
Building 271	AS-07	9/15/2006	secured	-	-	-
Averages			10.86 psi		10.61 scfm	

psi – pounds per square inch
scfm – standard cubic feet per minute

2.4 Water Level Measurements

Depth to groundwater measurements are recorded quarterly from the 13 monitoring wells. The results from the groundwater level measurement surveys are provided in Table 2-2. Light non-aqueous phase liquid (LNAPL) was not detected on monitoring wells during the monitoring period.

**Table 2-2, Water Level Measurements
Building 271, Option Year 1, Second Quarter 2006-2007**

Monitoring Well	Date	TOC Elevation (feet)	Depth to Water (feet bTOC)	Water Level Elevation (feet NGVD)
CEF-271-02S	8/24/2006	80.68	10.44	70.24
CEF-271-01S	8/24/2006	81.15	11.12	70.03
CEF-271-12S	8/24/2006	80.19	10.29	69.90
CEF-271-11S	8/24/2006	80.29	10.26	70.03
CEF-271-10S	8/24/2006	81.18	11.16	70.02
CEF-271-08S	8/24/2006	80.89	10.72	70.17
CEF-271-09S	8/24/2006	80.51	10.41	70.10
CEF-271-1I	8/24/2006	80.56	10.50	70.06
CEF-271-06S	8/24/2006	80.50	10.39	70.11
CEF-271-03S	8/24/2006	79.88	9.66	70.22
CEF-271-04SR	8/24/2006	79.17	9.00	70.17
CEF-271-05SR	8/24/2006	79.85	9.72	70.13
CEF-271-07S	8/24/2006	79.99	9.79	70.20

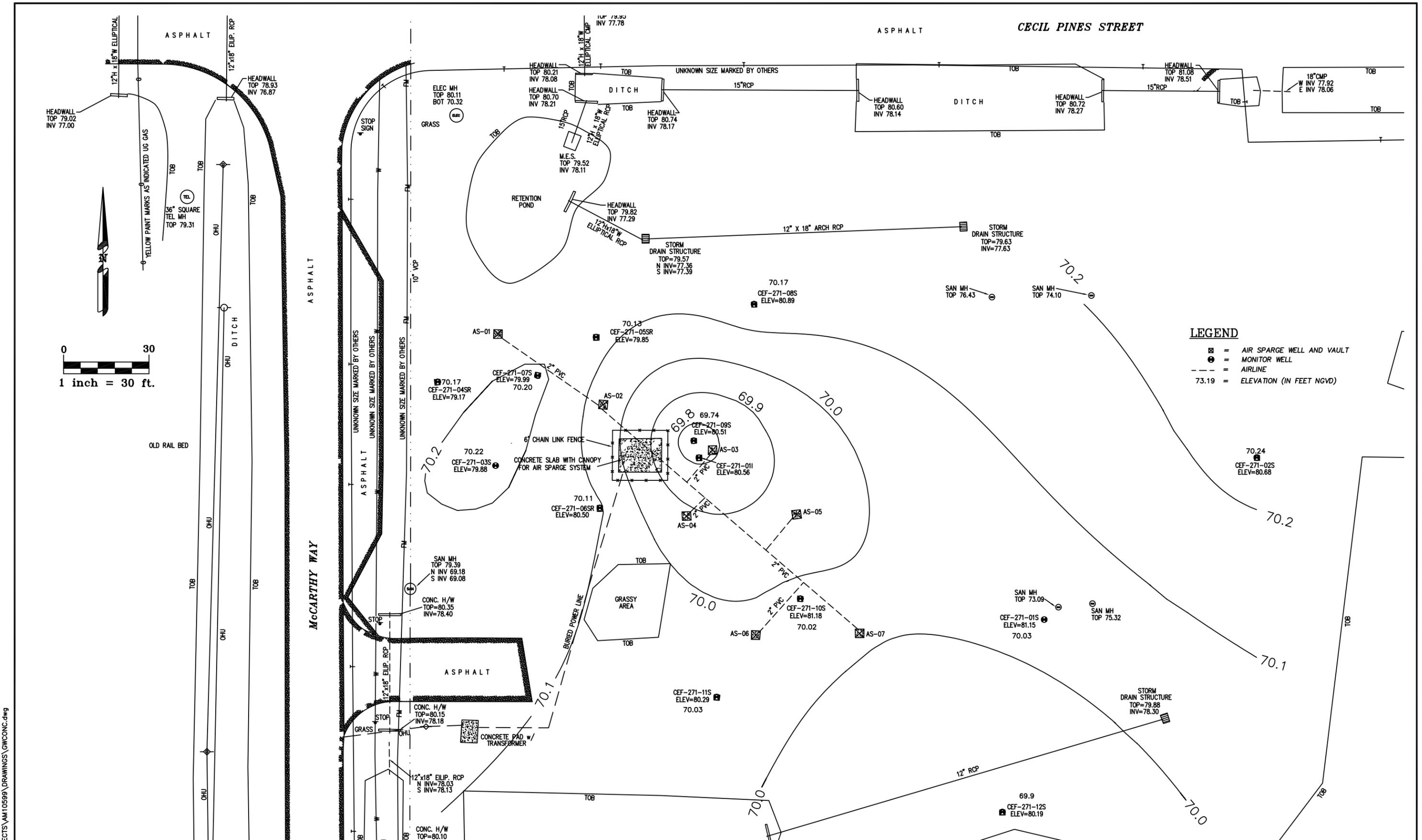
Top of Casing Elevations and data prior to 4/27/00 obtained from BEI

TOC – top of casing

bTOC – Below top of casing

Elevation is referenced to National Geodetic Vertical Datum 1929 (NGVD 1929)

Depth to water measured from top of casing



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DRAWN: RC	REVISIONS	BY	DATE
CHECKED: AS			
DATE: FEB 2006			



**BUILDING 271
FORMER NAS CECIL FIELD
JACKSONVILLE, FLORIDA**

**POTENIOMETRIC
SURFACE MAP
AUGUST 24, 2006**

3 Summary of Sampling and Laboratory Analytical Results

3.1 Groundwater Monitoring

ESA conducted Option Year 1, Second Quarter 2006-2007 groundwater monitoring events beginning in 8/1/2006. During the Option Year 1, Second Quarter 2006-2007 monitoring event monitoring wells CEF-271 were sampled. The groundwater samples were laboratory analyzed for benzene, toluene, ethylbenzene, xylenes (BTEX) and methyl tert butyl ether (MTBE) by EPA Method SW8021B, the 16-listed polynuclear aromatic hydrocarbons (PAHs) and 1- and 2-methylnaphthalene by AEL SOP SVOC-006: 2-25-03 and SW8270C-SIM, and Total Recoverable Petroleum Hydrocarbons (TRPH) were analyzed by the Florida Petroleum Organic (FL-PRO) Method. The laboratory analytical results for the detected parameters from the 2nd Contract Quarter groundwater monitoring events are summarized in Table 3-1. The locations of the monitoring wells are shown on Figure 1-1. Copies of the analytical laboratory reports from the groundwater monitoring events are provided in Appendix A.

Field parameters consisting of pH, temperature, dissolved oxygen (DO), and specific conductivity were measured during purging of the monitoring wells. The field parameters are summarized in Table 3-2. The aquifer at the site within the treatment area remains slightly aerobic with DO measurements above 1 milligram per liter (mg/ L) in only 2 of the monitoring wells as opposed to 31 of the monitoring wells in the previous 1st quarter reports 2006-2007 and all of the previously reported levels during the 3rd and 4th Quarter Reports 2005-2006. Oxidation-reduction potential (ORP) measurements greater than 50 millivolts were previously reported in 4 of the 13 monitoring wells and have increased from the last quarter report, but have decreased overall from the 4th Quarter Report 2005-2006 in which 7 of 13 reported monitoring wells above 50mV.

During the previous 4th quarter 2005-2006 report CEF-271-07S identified concentrations of Toluene that exceeded the NADSC, as well as levels of Total Xylenes and Naphthalene that exceeded the GCTLs. The 1st quarter 2006-2007 activities, Toluene had fallen to only exceeding GCTLs, but Naphthalene and Total Xylenes remained exceeding the GCTL levels that were similar to the readings recorded in the 4th Quarter report 2005-2006.

Currently, the same monitoring well, CEF-271-07S still identifies Xylenes and Toluene that exceed GCTLs, but Naphthalene levels increased to exceed both GCTLs and NASDSC levels.

It should be noted that the following table do show some bolding and shading where limits were exceeded, however, these are all followed by a U which defines that the compound was analyzed for but not detected. The duplicates and equipment blanks report the same undetected limits with a number higher than the GCTLs and NADSC allow.

Table 3-1 Groundwater Analytical Results, Option Year 1, Second Quarter 2006-2007

Parameter	Station ID		CEF-271-07S	CEF-271-09S	CEF-271-10S	CEF-271-12S	Equipment Blank
	Sample ID		J066192-01	J066192-02	J066192-03	J066192-04	J066192-05
	Sample Date		8/21/2006	8/24/2006	8/24/2006	8/24/2006	8/24/2006
	GCTL ¹	NADC ¹					
micrograms per liter (µg/L)							
Volatile Aromatic Hydrocarbons							
Benzene	1	10	0.21 U				
Ethylbenzene	30	300	15	0.17 U	0.17 U	0.17 U	0.17 U
Methyl-tert-butyl Ether	20	200	0.35 U				
Xylenes (total)	20	200	182	0.63 U	0.63 U	0.63 U	0.63 U
Toluene	1	10	8.3	0.23 U	0.23 U	0.23 U	0.23 U
Polynuclear Aromatic Hydrocarbons							
1-methylnaphthalene	28	280	14	0.12 U	0.12 U	0.12 U	0.12 U
2-methylnaphthalene	28	280	11	0.18 U	0.18 U	0.18 U	0.18 U
Acenaphthene	20	200	1.0	0.13 U	0.13 U	0.13 U	0.13 U
Acenaphthylene	210	2100	0.13 U				
Anthracene	2100	21000	0.13 i	0.080 U	0.080 U	0.080 U	0.080 U
Benzo(a)anthracene	0.05	0.5	0.046 i	0.041 i	0.029 U	0.029 U	0.029 U
Benzo(a)pyrene	0.2	2	0.023 U	0.026 i	0.023 U	0.023 U	0.023 U
Benzo(b)fluoranthene	0.05	0.5	0.028 i	0.029 i	0.025 U	0.025 U	0.025 U
Benzo(g,h,i)perylene	210	2100	0.092 U				
Benzo(k)fluoranthene	0.5	5	0.082 U				
Chrysene	4.8	48	0.060 U				
Dibenz(a,h)anthracene	0.005	0.05	0.047 U				
Fluoranthene	280	2800	0.20 i	0.084 U	0.084 U	0.084 U	0.084 U
Fluorene	280	2800	0.53	0.10 U	0.10 U	0.10 U	0.10 U
Indeno(1,2,3-cd)pyrene	0.05	0.5	0.039 U				
Naphthalene	14	140	150	0.18 i	0.15 U	0.15 U	0.15 U
Phenanthrene	210	2100	0.47	0.10 U	0.10 U	0.10 U	0.10 U
Pyrene	210	2100	0.22 i	0.12 U	0.12 U	0.12 U	0.12 U

Notes:

GCTL - Groundwater Cleanup Target Level, 1 = Chapter 62-777 FAC GCTLs reported in µg/L, Bold indicates concentration exceeds GCTL

NADC - Natural Attenuation Default Concentration, Shade indicates concentration exceeds NADC

U - the compound was analyzed for but not detected

i - the reported value is between the laboratory method detection limit and the laboratory practical quantitation limit

**Table 3-2
Field Parameter Measurements
Building 271 GW Field Monitoring
Option Year 1, Second Quarter 2006-2007**

Sample Date 8/24/2006	Groundwater					
Well	pH	Conductivity (μ S)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature ($^{\circ}$ C)	ORP (mV)
CEF-271-02S	5.75	127.80	33.20	0.48	25.0	90
CEF-271-01S	5.98	480.90	42.90	0.50	25.0	24
CEF-271-12S	6.38	252.70	14.14	0.59	25.2	84
CEF-271-11S	6.35	278.30	33.90	0.57	24.9	32
CEF-271-10S	6.83	307.80	33.00	0.17	29.5	-117
CEF-271-08S	6.26	574.00	46.60	0.41	25.3	-35
CEF-271-09S	6.67	233.33	56.30	0.29	29.9	51
CEF-271-1I	6.47	221.90	15.99	0.75	25.3	51
CEF-271-06S	6.63	332.00	8.32	1.27	25.3	38
CEF-271-03S	6.49	430.40	165.20	0.45	25.6	-26
CEF-271-04SR	6.48	192.10	28.30	0.48	26.1	42
CEF-271-05SR	6.51	144.80	39.30	1.19	25.7	45
CEF-271-07S	6.49	74.30	29.10	0.19	26.3	-132

Note: All measurements taken using direct reading instruments in the field.

μ S – micro Siemens

NTU – nephelomatic turbidity units

mg/L – milligrams per liter

$^{\circ}$ C – degrees Celsius

ORP – oxygen reducing potential

mV - millivolts

Shade indicates ORP values exceeding 50mV

Bold indicates DO values exceeding 1 mg/L

NM – Not Measured

4.0 Conclusions and Recommendations

The Building 271 AS systems operated with downtime during the monitoring period with a resulting operational efficiency of percent of 11.21%, which is decreased from the previous reported 21.00% operational efficiency reported during the 1st quarter, but yet not far off from historical efficiency levels. The majority of the downtime for the Building 271 AS System is due to the electrical operational difficulties that caused the need to cycle power to the unit for unknown reasons. The system enhancement for the installation of automatic timed resets for the Mattei compressors operating at Cecil Field need to be set to auto in order to operate effectively. The installation offers the AS Systems auto reset capabilities as compared to the previous configuration which only offered a manual reset method.

One of the wells during the previous quarterly reports identified concentrations that exceeded the GCTLs or the NADSCs at a detectable limit. During this quarter CEF-271-07S, the same well as previously reported, recorded Toluene and Total Xylene that exceeded GCTLs and Naphthalene levels that exceeded NADSC levels. Levels for Toluene in monitoring well CEF-271-07S had previously exceeded the NADSC levels but had fallen during the 3rd contract quarter 2005-2006 sampling as it has during the 1st Quarter Report 2006-2007. The DO measurements above 1 milligram per liter (mg/L) decreased and was reported in only 2 of the 13 monitoring well, which is decreased from both the previous 3 quarter reports and the 1st quarter 2006-2007 report which observed 3 of the 13 wells with higher than 1 mg/L levels. Similarly, the monitoring wells reported oxidation-reduction potential (ORP) measurements greater than 50 millivolts during the previous 1st quarter 2006-2007 levels exceeding 50 mV in 7 monitoring wells, this has also decreased and is currently only present in exceeding levels in 4 of the 13 wells. These levels are additionally significantly decreased from the 11 wells reported above 50mV during the 2nd Quarterly report 2005-2006. Consistent with previous conditions, based on these results, and due to previous recommendations, we have kept AS wells 03-07 turned off and focus sparging in the remaining impact area.

For the most part, as compared to the previous quarterly reports, the groundwater analytical concentrations have remained undetected or decreased. This indicates that the air sparge system is reducing the groundwater contamination at this site. Special attention should be taken to CEF-271-07S as it appears that levels are varying above and below detection limits for Naphthalene, Total Xylenes, and Toluene.

5.0 References

ESA Environmental Specialists, Inc. June 2005. Cecil Field Workplan. NAS Cecil Field, Jacksonville, Florida.

ESA Environmental Specialists, Inc. June 2005. Cecil Field Health and Safety Plan. NAS Cecil Field, Jacksonville, FL.

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TetraTech NUS, Inc. September 2002. Remedial Action Plan for Building 271 Tanks UL/R/SUL/D at Naval Air Station Cecil Field, Jacksonville, Florida.

TetraTech NUS, Inc. January 2003. Remedial Action Plan Addendum for Building 271 Tanks UL/R/SUL/D at Naval Air Station Cecil Field, Jacksonville, Florida.

APPENDIX A
Analytical Results



Client: URS
Project Name: Cecil Field-Bldg 271
Project Number:

Report No.: J066192
Date Sampled: 8/21/06
Date Received: 8/25/06 10:23
Date Reported: 8/31/06

Attention: William Kelly
Phone Number: 9046456233

Address: 8761 Perimeter Park Blvd.
Suite 201
Jacksonville, FL 32216

Project Description

The analytical results for the samples contained in this report were submitted for analysis as outlined by the Chain of Custody.

Project Name: Cecil Field-Bldg 271

Approved By: _____

Paul Gunsaulies, Project Manager

If there are any questions involving this report, the above named should be contacted.

**THIS REPORT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT
THE WRITTEN APPROVAL OF THE LABORATORY.**

Advanced Environmental Laboratories certifies that the test results in this report meet all requirements of the NELAC standards, unless notated otherwise in the body of the report.

Total Number of Pages = 10 + 2 COC

Advanced Environmental Laboratories, Inc.

Analytical Report

Client: URS

Report No.: J066192

Project Name: Cecil Field-Bldg 271

Date/Time Received: 8/25/06 10:23

Lab Code: J066192-01

Date/Time Sampled: 8/21/06 17:40

Client Sample ID: 1

Shipping Method: Client drop off

Site: CEF-271-07S

Sampled By: Robert Burns

Matrix: Water

Sampling Method: G

BTEX/MTBE

Analytes:	Dilution	Adjusted MDL	Adjusted PQL	Results	Units	Qualifier(s)	Method	Parameter Comment	Lab
Benzene	1	0.21	0.84	0.21	ug/L	U	SW8021B		J
Ethylbenzene	1	0.17	0.68	15	ug/L		SW8021B		J
m&p-Xylenes	1	0.40	1.6	140	ug/L		SW8021B		J
Methyl-tert-butyl Ether	1	0.35	1.4	0.35	ug/L	U	SW8021B		J
o-Xylene	1	0.23	0.92	62	ug/L		SW8021B		J
Toluene	1	0.23	0.92	8.3	ug/L		SW8021B		J

Polynuclear Aromatic Hydrocarbons

Analytes:	Dilution	Adjusted MDL	Adjusted PQL	Results	Units	Qualifier(s)	Method	Parameter Comment	Lab
1-Methylnaphthalene	10	1.2	4.9	14	ug/L		AEL SOP SVOC-006: 2-25-03		J
2-Methylnaphthalene	10	1.8	7.1	11	ug/L		SW8270C-SIM		J
Acenaphthene	1	0.13	0.51	1.0	ug/L		SW8270C-SIM		J
Acenaphthylene	1	0.13	0.51	0.13	ug/L	U	SW8270C-SIM		J
Anthracene	1	0.080	0.32	0.13	ug/L	i	SW8270C-SIM		J
Benzo(a)anthracene	1	0.029	0.12	0.046	ug/L	i	SW8270C-SIM		J
Benzo(a)pyrene	1	0.023	0.092	0.023	ug/L	U	SW8270C-SIM		J
Benzo(b)fluoranthene	1	0.025	0.098	0.028	ug/L	i	SW8270C-SIM		J
Benzo(g,h,i)perylene	1	0.092	0.37	0.092	ug/L	U	SW8270C-SIM		J
Benzo(k)fluoranthene	1	0.082	0.33	0.082	ug/L	U	SW8270C-SIM		J
Chrysene	1	0.060	0.24	0.060	ug/L	U	SW8270C-SIM		J
Dibenz(a,h)anthracene	1	0.047	0.19	0.047	ug/L	U	SW8270C-SIM		J
Fluoranthene	1	0.084	0.34	0.20	ug/L	i	SW8270C-SIM		J
Fluorene	1	0.10	0.42	0.53	ug/L		SW8270C-SIM		J
Indeno(1,2,3-cd)pyrene	1	0.039	0.16	0.039	ug/L	U	SW8270C-SIM		J
Naphthalene	10	1.5	6.1	150	ug/L		SW8270C-SIM		J
Phenanthrene	1	0.10	0.40	0.47	ug/L		SW8270C-SIM		J
Pyrene	1	0.12	0.48	0.22	ug/L	i	SW8270C-SIM		J

Surrogates:	Control Limits	% Recovery	Qual.	Method	Prep Method
1-Bromo-4-chlorobenzene	75 - 119	116		SW8021B	SW5030B
Decafluorobiphenyl	21 - 122	81		SW8270C-SIM	SW3510C

i The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

U The compound was analyzed for but not detected.

J DOH certification #E82574 (AEL-JAX) (FL NELAC certification)

Advanced Environmental Laboratories, Inc.

Analytical Report

Client: URS

Report No.: J066192

Project Name: Cecil Field-Bldg 271

Date/Time Received: 8/25/06 10:23

Lab Code: J066192-02

Date/Time Sampled: 8/24/06 14:42

Client Sample ID: 2

Shipping Method: Client drop off

Site: CEF-271-09S

Sampled By: Robert Burns

Matrix: Water

Sampling Method: G

BTEX/MTBE

Analytes:	Dilution	Adjusted MDL	Adjusted PQL	Results	Units	Qualifier(s)	Method	Parameter Comment	Lab
Benzene	1	0.21	0.84	0.21	ug/L	U	SW8021B		J
Ethylbenzene	1	0.17	0.68	0.17	ug/L	U	SW8021B		J
m&p-Xylenes	1	0.40	1.6	0.40	ug/L	U	SW8021B		J
Methyl-tert-butyl Ether	1	0.35	1.4	0.35	ug/L	U	SW8021B		J
o-Xylene	1	0.23	0.92	0.23	ug/L	U	SW8021B		J
Toluene	1	0.23	0.92	0.23	ug/L	U	SW8021B		J

Polynuclear Aromatic Hydrocarbons

Analytes:	Dilution	Adjusted MDL	Adjusted PQL	Results	Units	Qualifier(s)	Method	Parameter Comment	Lab
1-Methylnaphthalene	1	0.12	0.49	0.12	ug/L	U	AEL SOP SVOC-006: 2-25-03		J
2-Methylnaphthalene	1	0.18	0.71	0.18	ug/L	U	SW8270C-SIM		J
Acenaphthene	1	0.13	0.51	0.13	ug/L	U	SW8270C-SIM		J
Acenaphthylene	1	0.13	0.51	0.13	ug/L	U	SW8270C-SIM		J
Anthracene	1	0.080	0.32	0.080	ug/L	U	SW8270C-SIM		J
Benzo(a)anthracene	1	0.029	0.12	0.041	ug/L	i	SW8270C-SIM		J
Benzo(a)pyrene	1	0.023	0.092	0.026	ug/L	i	SW8270C-SIM		J
Benzo(b)fluoranthene	1	0.025	0.098	0.029	ug/L	i	SW8270C-SIM		J
Benzo(g,h,i)perylene	1	0.092	0.37	0.092	ug/L	U	SW8270C-SIM		J
Benzo(k)fluoranthene	1	0.082	0.33	0.082	ug/L	U	SW8270C-SIM		J
Chrysene	1	0.060	0.24	0.060	ug/L	U	SW8270C-SIM		J
Dibenz(a,h)anthracene	1	0.047	0.19	0.047	ug/L	U	SW8270C-SIM		J
Fluoranthene	1	0.084	0.34	0.084	ug/L	U	SW8270C-SIM		J
Fluorene	1	0.10	0.42	0.10	ug/L	U	SW8270C-SIM		J
Indeno(1,2,3-cd)pyrene	1	0.039	0.16	0.039	ug/L	U	SW8270C-SIM		J
Naphthalene	1	0.15	0.61	0.18	ug/L	i	SW8270C-SIM		J
Phenanthrene	1	0.10	0.40	0.10	ug/L	U	SW8270C-SIM		J
Pyrene	1	0.12	0.48	0.12	ug/L	U	SW8270C-SIM		J

Surrogates:	Control Limits	% Recovery	Qual.	Method	Prep Method
1-Bromo-4-chlorobenzene	75 - 119	106		SW8021B	SW5030B
Decafluorobiphenyl	21 - 122	76		SW8270C-SIM	SW3510C

i The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

U The compound was analyzed for but not detected.

J DOH certification #E82574 (AEL-JAX) (FL NELAC certification)

Advanced Environmental Laboratories, Inc.

Analytical Report

Client: URS

Report No.: J066192

Project Name: Cecil Field-Bldg 271

Date/Time Received: 8/25/06 10:23

Lab Code: J066192-03

Date/Time Sampled: 8/24/06 15:29

Client Sample ID: 3

Shipping Method: Client drop off

Site: CEF-271-10S

Sampled By: Robert Burns

Matrix: Water

Sampling Method: G

BTEX/MTBE

Analytes:	Dilution	Adjusted MDL	Adjusted PQL	Results	Units	Qualifier(s)	Method	Parameter Comment	Lab
Benzene	1	0.21	0.84	0.21	ug/L	U	SW8021B		J
Ethylbenzene	1	0.17	0.68	0.17	ug/L	U	SW8021B		J
m&p-Xylenes	1	0.40	1.6	0.40	ug/L	U	SW8021B		J
Methyl-tert-butyl Ether	1	0.35	1.4	0.35	ug/L	U	SW8021B		J
o-Xylene	1	0.23	0.92	0.23	ug/L	U	SW8021B		J
Toluene	1	0.23	0.92	0.23	ug/L	U	SW8021B		J

Polynuclear Aromatic Hydrocarbons

Analytes:	Dilution	Adjusted MDL	Adjusted PQL	Results	Units	Qualifier(s)	Method	Parameter Comment	Lab
1-Methylnaphthalene	1	0.12	0.49	0.12	ug/L	U	AEL SOP SVOC-006: 2-25-03		J
2-Methylnaphthalene	1	0.18	0.71	0.18	ug/L	U	SW8270C-SIM		J
Acenaphthene	1	0.13	0.51	0.13	ug/L	U	SW8270C-SIM		J
Acenaphthylene	1	0.13	0.51	0.13	ug/L	U	SW8270C-SIM		J
Anthracene	1	0.080	0.32	0.080	ug/L	U	SW8270C-SIM		J
Benzo(a)anthracene	1	0.029	0.12	0.029	ug/L	U	SW8270C-SIM		J
Benzo(a)pyrene	1	0.023	0.092	0.023	ug/L	U	SW8270C-SIM		J
Benzo(b)fluoranthene	1	0.025	0.098	0.025	ug/L	U	SW8270C-SIM		J
Benzo(g,h,i)perylene	1	0.092	0.37	0.092	ug/L	U	SW8270C-SIM		J
Benzo(k)fluoranthene	1	0.082	0.33	0.082	ug/L	U	SW8270C-SIM		J
Chrysene	1	0.060	0.24	0.060	ug/L	U	SW8270C-SIM		J
Dibenz(a,h)anthracene	1	0.047	0.19	0.047	ug/L	U	SW8270C-SIM		J
Fluoranthene	1	0.084	0.34	0.084	ug/L	U	SW8270C-SIM		J
Fluorene	1	0.10	0.42	0.10	ug/L	U	SW8270C-SIM		J
Indeno(1,2,3-cd)pyrene	1	0.039	0.16	0.039	ug/L	U	SW8270C-SIM		J
Naphthalene	1	0.15	0.61	0.15	ug/L	U	SW8270C-SIM		J
Phenanthrene	1	0.10	0.40	0.10	ug/L	U	SW8270C-SIM		J
Pyrene	1	0.12	0.48	0.12	ug/L	U	SW8270C-SIM		J

Surrogates:	Control Limits	% Recovery	Qual.	Method	Prep Method
1-Bromo-4-chlorobenzene	75 - 119	102		SW8021B	SW5030B
Decafluorobiphenyl	21 - 122	85		SW8270C-SIM	SW3510C

U The compound was analyzed for but not detected.
 J DOH certification #E82574 (AEL-JAX) (FL NELAC certification)

Advanced Environmental Laboratories, Inc.

Analytical Report

Client: URS

Report No.: J066192

Project Name: Cecil Field-Bldg 271

Date/Time Received: 8/25/06 10:23

Lab Code: J066192-04

Date/Time Sampled: 8/24/06 16:35

Client Sample ID: 4

Shipping Method: Client drop off

Site: CEF-271-12S

Sampled By: Robert Burns

Matrix: Water

Sampling Method: G

BTEX/MTBE

Analytes:	Dilution	Adjusted MDL	Adjusted PQL	Results	Units	Qualifier(s)	Method	Parameter Comment	Lab
Benzene	1	0.21	0.84	0.21	ug/L	U	SW8021B		J
Ethylbenzene	1	0.17	0.68	0.17	ug/L	U	SW8021B		J
m&p-Xylenes	1	0.40	1.6	0.40	ug/L	U	SW8021B		J
Methyl-tert-butyl Ether	1	0.35	1.4	0.35	ug/L	U	SW8021B		J
o-Xylene	1	0.23	0.92	0.23	ug/L	U	SW8021B		J
Toluene	1	0.23	0.92	0.23	ug/L	U	SW8021B		J

Polynuclear Aromatic Hydrocarbons

Analytes:	Dilution	Adjusted MDL	Adjusted PQL	Results	Units	Qualifier(s)	Method	Parameter Comment	Lab
1-Methylnaphthalene	1	0.12	0.49	0.12	ug/L	U	AEL SOP SVOC-006: 2-25-03		J
2-Methylnaphthalene	1	0.18	0.71	0.18	ug/L	U	SW8270C-SIM		J
Acenaphthene	1	0.13	0.51	0.13	ug/L	U	SW8270C-SIM		J
Acenaphthylene	1	0.13	0.51	0.13	ug/L	U	SW8270C-SIM		J
Anthracene	1	0.080	0.32	0.080	ug/L	U	SW8270C-SIM		J
Benzo(a)anthracene	1	0.029	0.12	0.029	ug/L	U	SW8270C-SIM		J
Benzo(a)pyrene	1	0.023	0.092	0.023	ug/L	U	SW8270C-SIM		J
Benzo(b)fluoranthene	1	0.025	0.098	0.025	ug/L	U	SW8270C-SIM		J
Benzo(g,h,i)perylene	1	0.092	0.37	0.092	ug/L	U	SW8270C-SIM		J
Benzo(k)fluoranthene	1	0.082	0.33	0.082	ug/L	U	SW8270C-SIM		J
Chrysene	1	0.060	0.24	0.060	ug/L	U	SW8270C-SIM		J
Dibenz(a,h)anthracene	1	0.047	0.19	0.047	ug/L	U	SW8270C-SIM		J
Fluoranthene	1	0.084	0.34	0.084	ug/L	U	SW8270C-SIM		J
Fluorene	1	0.10	0.42	0.10	ug/L	U	SW8270C-SIM		J
Indeno(1,2,3-cd)pyrene	1	0.039	0.16	0.039	ug/L	U	SW8270C-SIM		J
Naphthalene	1	0.15	0.61	0.15	ug/L	U	SW8270C-SIM		J
Phenanthrene	1	0.10	0.40	0.10	ug/L	U	SW8270C-SIM		J
Pyrene	1	0.12	0.48	0.12	ug/L	U	SW8270C-SIM		J

Surrogates:	Control Limits	% Recovery	Qual.	Method	Prep Method
1-Bromo-4-chlorobenzene	75 - 119	96		SW8021B	SW5030B
Decafluorobiphenyl	21 - 122	87		SW8270C-SIM	SW3510C

U The compound was analyzed for but not detected.

J DOH certification #E82574 (AEL-JAX) (FL NELAC certification)

Advanced Environmental Laboratories, Inc.

Analytical Report

Client: URS

Report No.: J066192

Project Name: Cecil Field-Bldg 271

Date/Time Received: 8/25/06 10:23

Lab Code: J066192-05

Date/Time Sampled: 8/24/06 16:11

Client Sample ID: 5

Shipping Method: Client drop off

Site: EQUIPMENT BLANK

Sampled By: Robert Burns

Matrix: Water

Sampling Method: G

BTEX/MTBE

Analytes:	Dilution	Adjusted MDL	Adjusted PQL	Results	Units	Qualifier(s)	Method	Parameter Comment	Lab
Benzene	1	0.21	0.84	0.21	ug/L	U	SW8021B		J
Ethylbenzene	1	0.17	0.68	0.17	ug/L	U	SW8021B		J
m&p-Xylenes	1	0.40	1.6	0.40	ug/L	U	SW8021B		J
Methyl-tert-butyl Ether	1	0.35	1.4	0.35	ug/L	U	SW8021B		J
o-Xylene	1	0.23	0.92	0.23	ug/L	U	SW8021B		J
Toluene	1	0.23	0.92	0.23	ug/L	U	SW8021B		J

Polynuclear Aromatic Hydrocarbons

Analytes:	Dilution	Adjusted MDL	Adjusted PQL	Results	Units	Qualifier(s)	Method	Parameter Comment	Lab
1-Methylnaphthalene	1	0.12	0.49	0.12	ug/L	U	AEL SOP SVOC-006: 2-25-03		J
2-Methylnaphthalene	1	0.18	0.71	0.18	ug/L	U	SW8270C-SIM		J
Acenaphthene	1	0.13	0.51	0.13	ug/L	U	SW8270C-SIM		J
Acenaphthylene	1	0.13	0.51	0.13	ug/L	U	SW8270C-SIM		J
Anthracene	1	0.080	0.32	0.080	ug/L	U	SW8270C-SIM		J
Benzo(a)anthracene	1	0.029	0.12	0.029	ug/L	U	SW8270C-SIM		J
Benzo(a)pyrene	1	0.023	0.092	0.023	ug/L	U	SW8270C-SIM		J
Benzo(b)fluoranthene	1	0.025	0.098	0.025	ug/L	U	SW8270C-SIM		J
Benzo(g,h,i)perylene	1	0.092	0.37	0.092	ug/L	U	SW8270C-SIM		J
Benzo(k)fluoranthene	1	0.082	0.33	0.082	ug/L	U	SW8270C-SIM		J
Chrysene	1	0.060	0.24	0.060	ug/L	U	SW8270C-SIM		J
Dibenz(a,h)anthracene	1	0.047	0.19	0.047	ug/L	U	SW8270C-SIM		J
Fluoranthene	1	0.084	0.34	0.084	ug/L	U	SW8270C-SIM		J
Fluorene	1	0.10	0.42	0.10	ug/L	U	SW8270C-SIM		J
Indeno(1,2,3-cd)pyrene	1	0.039	0.16	0.039	ug/L	U	SW8270C-SIM		J
Naphthalene	1	0.15	0.61	0.15	ug/L	U	SW8270C-SIM		J
Phenanthrene	1	0.10	0.40	0.10	ug/L	U	SW8270C-SIM		J
Pyrene	1	0.12	0.48	0.12	ug/L	U	SW8270C-SIM		J

Surrogates:	Control Limits	% Recovery	Qual.	Method	Prep Method
1-Bromo-4-chlorobenzene	75 - 119	98		SW8021B	SW5030B
Decafluorobiphenyl	21 - 122	83		SW8270C-SIM	SW3510C

U The compound was analyzed for but not detected.

J DOH certification #E82574 (AEL-JAX) (FL NELAC certification)

Advanced Environmental Laboratories, Inc.

Analytical Report

Client: URS

Report No.: J066192

Project Name: Cecil Field-Bldg 271

Date/Time Received: 8/25/06 10:23

Lab Code: J066192-06

Date/Time Sampled: 8/24/06

Client Sample ID: 6

Shipping Method: Client drop off

Site: TRIP BLANK

Sampled By: Robert Burns

Matrix: Water

Sampling Method:

BTEX/MTBE

Analytes:	Dilution	Adjusted MDL	Adjusted PQL	Results	Units	Qualifier(s)	Method	Parameter Comment	Lab
Benzene	1	0.21	0.84	0.21	ug/L	U	SW8021B		J
Ethylbenzene	1	0.17	0.68	0.17	ug/L	U	SW8021B		J
m&p-Xylenes	1	0.40	1.6	0.40	ug/L	U	SW8021B		J
Methyl-tert-butyl Ether	1	0.35	1.4	0.35	ug/L	U	SW8021B		J
o-Xylene	1	0.23	0.92	0.23	ug/L	U	SW8021B		J
Toluene	1	0.23	0.92	0.23	ug/L	U	SW8021B		J

Surrogates:	Control Limits	% Recovery	Qual.	Method	Prep Method
1-Bromo-4-chlorobenzene	75 - 119	96		SW8021B	SW5030B

U The compound was analyzed for but not detected.

J DOH certification #E82574 (AEL-JAX) (FL NELAC certification)

Advanced Environmental Laboratories, Inc.

Analytical Report

Client: URS

Report No.: J066192

Project Name: Cecil Field-Bldg 271

Date/Time Received: 8/25/06 10:23

Sample Cross Reference Information

Lab Code: J066192-01

Site: CEF-271-07S

Client Sample Number: 1

Matrix: Water

Test Description	Analysis Method	Prep Method	Analytical Batch ID	Analysis Date/Time	Analyst	Prep Batch ID	Prep Date/Time
BTEX/MTBE	SW8021B	SW5030B	v082506d	8/25/06 12:42	RMB	v082506d	8/25/06 12:42:00
Polynuclear Aromatic Hydrocarbons	SW8270C-SIM	SW3510C	sv082906N	8/29/06 11:40	TMH	OE082806-SIM	8/28/06 08:00:00
Polynuclear Aromatic Hydrocarbons	AEL SOP SVOC-006: 2-25-03	SW3510C	sv082906N	8/29/06 11:40	TMH	OE082806-SIM	8/28/06 08:00:00

If the Analytical Batch ID and Prep Batch ID is null, the analysis was not performed by AEL, and the original report from the subcontracted laboratory will be provided containing this information.

Lab Code: J066192-02

Site: CEF-271-09S

Client Sample Number: 2

Matrix: Water

Test Description	Analysis Method	Prep Method	Analytical Batch ID	Analysis Date/Time	Analyst	Prep Batch ID	Prep Date/Time
BTEX/MTBE	SW8021B	SW5030B	v082506d	8/25/06 12:42	RMB	v082506d	8/25/06 12:42:00
Polynuclear Aromatic Hydrocarbons	AEL SOP SVOC-006: 2-25-03	SW3510C	sv082906N	8/29/06 11:40	TMH	OE082806-SIM	8/28/06 08:00:00
Polynuclear Aromatic Hydrocarbons	SW8270C-SIM	SW3510C	sv082906N	8/29/06 11:40	TMH	OE082806-SIM	8/28/06 08:00:00

If the Analytical Batch ID and Prep Batch ID is null, the analysis was not performed by AEL, and the original report from the subcontracted laboratory will be provided containing this information.

Lab Code: J066192-03

Site: CEF-271-10S

Client Sample Number: 3

Matrix: Water

Test Description	Analysis Method	Prep Method	Analytical Batch ID	Analysis Date/Time	Analyst	Prep Batch ID	Prep Date/Time
BTEX/MTBE	SW8021B	SW5030B	v082506d	8/25/06 12:42	RMB	v082506d	8/25/06 12:42:00
Polynuclear Aromatic Hydrocarbons	SW8270C-SIM	SW3510C	sv082906N	8/29/06 11:40	TMH	OE082806-SIM	8/28/06 08:00:00
Polynuclear Aromatic Hydrocarbons	AEL SOP SVOC-006: 2-25-03	SW3510C	sv082906N	8/29/06 11:40	TMH	OE082806-SIM	8/28/06 08:00:00

If the Analytical Batch ID and Prep Batch ID is null, the analysis was not performed by AEL, and the original report from the subcontracted laboratory will be provided containing this information.

Lab Code: J066192-04

Site: CEF-271-12S

Client Sample Number: 4

Matrix: Water

Test Description	Analysis Method	Prep Method	Analytical Batch ID	Analysis Date/Time	Analyst	Prep Batch ID	Prep Date/Time
BTEX/MTBE	SW8021B	SW5030B	v082506d	8/25/06 12:42	RMB	v082506d	8/25/06 12:42:00
Polynuclear Aromatic Hydrocarbons	AEL SOP SVOC-006: 2-25-03	SW3510C	sv082906N	8/29/06 11:40	TMH	OE082806-SIM	8/28/06 08:00:00
Polynuclear Aromatic Hydrocarbons	SW8270C-SIM	SW3510C	sv082906N	8/29/06 11:40	TMH	OE082806-SIM	8/28/06 08:00:00

If the Analytical Batch ID and Prep Batch ID is null, the analysis was not performed by AEL, and the original report from the subcontracted laboratory will be provided containing this information.

Lab Code: J066192-05

Site: EQUIPMENT BLANK

Client Sample Number: 5

Matrix: Water

Test Description	Analysis Method	Prep Method	Analytical Batch ID	Analysis Date/Time	Analyst	Prep Batch ID	Prep Date/Time
BTEX/MTBE	SW8021B	SW5030B	v082506d	8/25/06 12:42	RMB	v082506d	8/25/06 12:42:00
Polynuclear Aromatic Hydrocarbons	SW8270C-SIM	SW3510C	sv082906N	8/29/06 11:40	TMH	OE082806-SIM	8/28/06 08:00:00
Polynuclear Aromatic Hydrocarbons	AEL SOP SVOC-006: 2-25-03	SW3510C	sv082906N	8/29/06 11:40	TMH	OE082806-SIM	8/28/06 08:00:00

If the Analytical Batch ID and Prep Batch ID is null, the analysis was not performed by AEL, and the original report from the subcontracted laboratory will be provided containing this information.

Advanced Environmental Laboratories, Inc.
Analytical Report

Client: URS

Report No.: J066192

Project Name: Cecil Field-Bldg 271

Date/Time Received: 8/25/06 10:23

Lab Code: J066192-06

Site: TRIP BLANK

Client Sample Number: 6

Matrix: Water

Test Description	Analysis Method	Prep Method	Analytical Batch ID	Analysis Date/Time	Analyst	Prep Batch ID	Prep Date/Time
BTEX/MTBE	SW8021B	SW5030B	v082506d	8/25/06 12:42	RMB	v082506d	8/25/06 12:42:00

If the Analytical Batch ID and Prep Batch ID is null, the analysis was not performed by AEL, and the original report from the subcontracted laboratory will be provided containing this information.

Advanced Environmental Laboratories, Inc.

Analytical Report

Client: URS

Report No.: J066192

Project Name: Cecil Field-Bldg 271

Date/Time Received: 8/25/06 10:23

Quality Assurance Report

Method Blanks

Polynuclear Aromatic Hydrocarbons							
QCBatchID	Analyte	QC Sample Type	Method	MDL	Result	Units	Qualifier
sv082906N	1-Methylnaphthalene	Method Blank	AEL SOP SVOC-006: 2-25-03	0.032	0.12	ug/L	U
sv082906N	2-Methylnaphthalene	Method Blank	SW8270C-SIM	0.036	0.18	ug/L	U
sv082906N	Acenaphthene	Method Blank	SW8270C-SIM	0.025	0.13	ug/L	U
sv082906N	Acenaphthylene	Method Blank	SW8270C-SIM	0.028	0.13	ug/L	U
sv082906N	Anthracene	Method Blank	SW8270C-SIM	0.032	0.080	ug/L	U
sv082906N	Benzo(a)anthracene	Method Blank	SW8270C-SIM	0.029	0.029	ug/L	U
sv082906N	Benzo(a)pyrene	Method Blank	SW8270C-SIM	0.023	0.023	ug/L	U
sv082906N	Benzo(b)fluoranthene	Method Blank	SW8270C-SIM	0.025	0.025	ug/L	U
sv082906N	Benzo(g,h,i)perylene	Method Blank	SW8270C-SIM	0.048	0.092	ug/L	U
sv082906N	Benzo(k)fluoranthene	Method Blank	SW8270C-SIM	0.029	0.082	ug/L	U
sv082906N	Chrysene	Method Blank	SW8270C-SIM	0.023	0.060	ug/L	U
sv082906N	Dibenz(a,h)anthracene	Method Blank	SW8270C-SIM	0.047	0.047	ug/L	U
sv082906N	Fluoranthene	Method Blank	SW8270C-SIM	0.028	0.084	ug/L	U
sv082906N	Fluorene	Method Blank	SW8270C-SIM	0.023	0.10	ug/L	U
sv082906N	Indeno(1,2,3-cd)pyrene	Method Blank	SW8270C-SIM	0.039	0.039	ug/L	U
sv082906N	Naphthalene	Method Blank	SW8270C-SIM	0.025	0.15	ug/L	U
sv082906N	Phenanthrene	Method Blank	SW8270C-SIM	0.022	0.10	ug/L	U
sv082906N	Pyrene	Method Blank	SW8270C-SIM	0.028	0.12	ug/L	U
Surrogate(s)	Result	Units	% Recovery	Qualifier	Acceptance Limits		
Decafluorobiphenyl	10	ug/L	100		21 - 122		

BTEX/MTBE

QCBatchID	Analyte	QC Sample Type	Method	MDL	Result	Units	Qualifier
v082506d	Benzene	Method Blank	SW8021B	0.21	0.21	ug/L	U
v082506d	Ethylbenzene	Method Blank	SW8021B	0.17	0.17	ug/L	U
v082506d	m&p-Xylenes	Method Blank	SW8021B	0.40	0.40	ug/L	U
v082506d	Methyl-tert-butyl Ether	Method Blank	SW8021B	0.35	0.35	ug/L	U
v082506d	o-Xylene	Method Blank	SW8021B	0.23	0.23	ug/L	U
v082506d	Toluene	Method Blank	SW8021B	0.23	0.23	ug/L	U
Surrogate(s)	Result	Units	% Recovery	Qualifier	Acceptance Limits		
1-Bromo-4-chlorobenzene	49	ug/L	98		75 - 119		

Quality Assurance Qualifiers:

U The compound was analyzed for but not detected.

Definitions:

Water matrix refers to all aqueous matrices except drinking water, including but not limited to, wastewater, ground water, surface water, aqueous wastes and leach

Soil matrix refers to all non-aqueous matrices, including soils, solids, sludges, semi-solids, and non-aqueous waste samples

All results in mg/kg or % are reported in dry weight basis, unless notated otherwise. All results in mg/L are reported in wet weight basis.

MDL Method Detection Limit, without correction for dilution or moisture content

Adjusted Reporting Limit is the MDL accounting for all dilutions and moisture content cacluations.

PQL is defined to be 4 times the MDL, for all results qualified with a 'i' qualifier.

Sampling Method; G=Grab, P=Pump, C=Composite

The estimated measurements of uncertainty can be provided upon request

This is the last page of the analytical report.



Client: URS Corp

Project name: Cecil Field - BLDG 271

Date/Time Rcvd: 8-25-06 10:23

Log-in request number: 7066192

Received by: CAT

Completed by: CAT

Cooler/Shipping Information:

Courier: AEL Client UPS Blue Streak FedEx Other (describe): _____

Type: Cooler Box Other (describe) _____

Cooler temperature: Identify the cooler and document the temperature blank or ice water measurement

Cooler ID					
Temp (°C)	0				
Temp taken from	<input type="checkbox"/> Temp blank <input checked="" type="checkbox"/> Sample bottle	<input type="checkbox"/> Temp blank <input type="checkbox"/> Sample bottle			
Temp measured with	<input checked="" type="checkbox"/> IR gun <input type="checkbox"/> Thermometer (enter ID):	<input type="checkbox"/> IR gun <input type="checkbox"/> Thermometer (enter ID):	<input type="checkbox"/> IR gun <input type="checkbox"/> Thermometer (enter ID):	<input type="checkbox"/> IR gun <input type="checkbox"/> Thermometer (enter ID):	<input type="checkbox"/> IR gun <input type="checkbox"/> Thermometer (enter ID):

Other Information:

Any "NO" responses or discrepancies should be explained in the "Comments" section below.

CHECKLIST

YES NO NA

1. Were custody seals on shipping container(s) intact?			<input checked="" type="checkbox"/>
2. Were custody papers properly included with samples?	///		
3. Were custody papers properly filled out (ink, signed, match labels)?	///		
4. Did all bottles arrive in good condition (unbroken)?	///		
5. Were all bottle labels complete (sample #, date, signed, analysis, preservatives)?	///		
6. Did the sample labels agree with the chain of custody?	///		
7. Were correct bottles used for the tests indicated?	///		
8. Were proper sample preservation techniques indicated on the label?	///		
9. Were samples received within holding times?	///		
10. Were all VOA vials checked for the presence of air bubbles?	///		
11. Were there air bubbles present in the VOA vials?		/	
12. Were samples in direct contact with wet ice? If "No," check one: <input type="checkbox"/> NO ICE <input type="checkbox"/> BLUE ICE	///		
13. Was the cooler temperature less than 6°C?	///		
14. Were sample pHs checked and recorded by Sample control? <i>NOTE: VOA samples are checked by laboratory analysts.</i>		/	
15. Were the sample containers provided by AEL?	///		
16. Were samples accepted into the laboratory?	///		

Comments:



Advanced Environmental Laboratories, Inc.

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- Tampa: 9610 Princess Palm Avenue, Tampa, FL 33619 • (813) 630-9616 Fax (813) 630-4327
- Gainesville: 2106 NW 67th Place, Suite 7, Gainesville, FL 32653 • (352) 367-1500 Fax (352) 367-0050
- Orlando: 528 S. North Lake Blvd., Suite 1016, Altamonte Springs, FL 32701 • (407) 937-1594 Fax (407) 937-1597

CHAIN OF CUSTODY RECORD

J066192

CLIENT NAME: UHS Corp	PROJECT NAME: Cecil Field - 3LD6271	BOTTLE SIZE & TYPE: 34ml C6				LAB NUMBER	
ADDRESS: 8761 Perimeter Park Blvd	P.O. NUMBER / PROJECT NUMBER:	ANALYZERS: 1008 EPA 8021	PRESERVED BY: MS 0228 EPA 8270 STW				
PHONE: 904.645.6233 FAX: 904.645.6243	PROJECT LOCATION: Site 201, JAX, FL 32216						
CONTACT: William Kelly	SAMPLED BY: Robert Burns						
TURN AROUND TIME: <input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> RUSH _____	REMARKS / SPECIAL INSTRUCTIONS:						

WW= waste water SW=surface water GW=ground water DW=drinking water OIL A=air SO=soil SL=sludge

SAMPLE ID	SAMPLE DESCRIPTION	Grab Composite	SAMPLING		MATRIX	NO. CONT.	Preserv								
			DATE	TIME											
CEF-271-07S		C	8-24-06	1740	GW	4	HC1								
CEF-271-09S		C	8-24-06	1412	GW	4									
CEF-271-10S		G	8-24-06	1529	GW	4									
CEF-271-12S		G	8-24-06	1635	GW	4									
Equipment Blank		G	8-24-06	1611	GW	4									

I = Ice H = (HCl) S = (H₂SO₄) N = (HNO₃) T = (Sodium Thiosulfate)

Shipment Out: / /	Method Via: _____	Sample Kit RB _____	Cooler # _____	1	Relinquished by: 	Date	Time	Received by:	Date	Time
				2						
				3						
				4						

Received on ice: yes no QC sent received

revised 8/01